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KANSAS FARMER

For the improvement of the Farm and Home

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COOPERATIVE MARKETNG

Methods by Which Farmers Sell and Distribute Products Economically

By R. C. GANO

THE one big idea which has resulted in the formation of practically all farmers' marketing associations has been that of securing more fair and efficient and economical distribution than was afforded under the old system of buying by speculators. If there has been any one man or group of men that the co-operative idea has been directed against it has been the speculator. Consequently, when we inquire, as at present, into the methods being followed by co-operative associations in distributing and selling, we are getting right at the heart of co-operative marketing. And by comparing these new methods with the old system still in vogue in many sections and for many agricultural products, we can begin to understand the "why" of co-operative marketing successes.

The difference between the old and the new is the usual difference—the difference between a system which, like Topsy, "jest growed," and a system plotted, mapped, laid out in advance, by a business genius. It is the difference between a Brooklyn bridge built by intuition and one built by science.

TYPICAL MARKETING ASSOCIATION

Let us take the case of a not very complex organization, that of the American Cranberry Exchange, a federation of three state organizations of cranberry growers and having in all about one thousand farmer members. The purpose of this federation was stated in its articles of incorporation to be that of "securing higher standards of grade and pack and direct shipments from the grower to the jobber; also, for the purpose of advertising, selling, and distributing, at actual expense, Cape Cod, New Jersey, and Wisconsin cranberries."

"Direct shipments from the grower to the jobber," was the primary aim. Here were a thousand growers who only a few years before they federated were blindly selling their cranberries to buyers who would come out to their farms in the buying season or consigning them to commission men whom they did not know personally. There were abuses on both sides, under that old arrangement. The growers did not put up a standard, absolutely quality pack in every instance. The speculator or commission man, with superior knowledge of market conditions, would take a bigger profit than was strictly fair for his services, and leave the farmer a very meager profit. Or sometimes, through poor management by these market functionaries, not only would the farmers' profit be next to zero, but the speculator or commission man would also lose money, thus bringing discouragement on the entire industry.

Under that regime the farmer was pretty much at the mercy of the speculator. He might have his opinion, from the farm papers, as to what a fair price might be, in view of the total supply and demand, but if he didn't meet the speculator's terms the next grower might. He was working in the dark.

And it was very plain to him that his crop was being made to support so large a group of middlemen that it naturally couldn't be expected to pay the farmer a very good profit.

How many speculators did it take to call on these thousand growers, in the buying season? That is a hard question to answer. But today they are not called on by any speculators. They have two general sales offices, one in New York and one in Chicago, and these two offices sell their entire crop direct to jobbers throughout the eastern and western territories. Most sales are made in carload lots to large jobbers. Shipments are direct from the growers' packing house to the purchasing jobber, his order having been secured by one of the two sales offices either by mail or through personal call of a sales representative.

When it is stated that these two offices in this way manage tthe distribution of 60 per cent of the entire cranberry crop of the United States, the significance of co-operative distribution will be grasped.

Incidentally it may be said of this organization that it is among the younger but highly efficient farmers' marketing associations of the United States, having had its beginning in about 1907.

SAME METHOD USED BY ALL

Strictly speaking, there is only one method for large scale selling of perishable products by farmers' associations. It was in use by private manufacturing concerns long before there were any big marketing associations, and when these made their appearance they adopted the time-tried methods of scientific distribution. Sunkist oranges are distributed by much the same kind of sales organization which distributes Meadow Gold butter—and, for that matter, there is little essential difference between these organizations and that which distributes a well known harvesting machine or breakfast food. The differences are in the details.

The primary necessity is that the association have personal representatives in each big central market to which it sells or wants to sell. The Cranberry Exchange has only two such offices at present, but as it develops its crop and its market it may appoint brokers to represent it in many other points, devoting only part of their time to its interests, and as these interests develop in various centers it may put these brokers, or substitutes, on a salary and open additional sales offices exclusively its own.

That, substantially, has been the method of the California Fruit Growers' Exchange, which today maintains the largest and most costly selling organization operated by any farmers' organization. At the start it had salaried representatives only in New York and Chicago. Today it is represented in every carload market in the United States and in the big central markets of a few foreign countries, having altogether seventy-seven distributing and sales offices. In the United States these are grouped into six sales divisions, a division sales manager being in charge of the work in each division. These many offices are in touch with every carload buyer of citrus fruits in the United States, i. e., about 2,500 fruit jobbers.

The office staff at Chicago, which is headquarters for the central sales division, consists of the division manager, assistant district manager, three inspectors, and four office employes.

Though this represents the largest and most costly organization of its kind in existence, it is from the standpoint of economy of operation one of the most economical sales organizations in the world, its entire maintenance cost together with all other costs in connection with the citrus fruit organization being only about 3 per cent of gross sales.

The Florida Citrus Exchange is following exactly the same method, but is not by any means so large. The California Walnut Growers' Association maintains one or two salaried agents, but does most of its business through carefully selected brokers in large markets, paying only 1½ per cent commission to them. Smaller organizations and individual growers outside of the association pay 2½ to 3 per cent commission to brokers.



MEETING OF COW TESTING ASSOCIATION, MONTGOMERY COUNTY, ON FARM OF T. W. EWING.—A FORM OF CO-OPERATION THAT SHOULD BE WIDELY EXTENDED

There is no mystery about these selling organizations. They are like all other selling organizations, and on short notice they could stop selling one thing and begin to sell another. Indeed, the Sunkist organization has for several years been also acting as market representative for a deciduous fruit organization in California, and during the coming season it has contracted to market the output of the California Vegetable Union, having an unusually light crop of citrus fruits to handle.

The "Skookum. Apples" which the nation is gradually coming to be familiar with through advertising, are not marketed through their own sales organization but through a firmly established national selling agency known as the North American Fruit Exchange and General Sales Agency, with which the Northwestern Fruit Exchange (owner of the Skookum brand) has affiliated.

In their early stages these sales organizations sometimes have to do very aggressive sales work in order to get a foothold in the big markets. But with time they become very firmly established. "Drumming up trade" becomes less and less necessary as reputation for square dealing, quality goods, and prompt deliveries becomes established. Customers once treated right come back again and bring others with them. When the sales organization is, in addition, backed with a strong advertising campaign to the consumer, the merchandizing plan becomes rounded out to the last detail and failure appears to be almost an impossibility.

Boys and Girls at State Meet

A special program of interest to boys and girls has been arranged for Farm and Home Week at the Kansas Agricultural College January 21 to 26.

The state winners in agricultural clubs will be announced in the course of the week. More than $700 will be distributed among club boys and girls. The prizes have been made possible by the bankers and the millers of the state.

County delegates representing club work will be sent by several counties. Jewell County has led in the number of representatives at the meeting for three consecutive years. Leavenworth County is planning to send a larger number of delegates to the coming meeting.

In addition to the regular program, special entertainment features will be provided, announces Otis E. Hall, state club leader. Games will be played each day in the physical training department of the college.

One of the interesting features of the program of the club department will be the mother-daughter canning clubs' exhibit. Each club competing for state honors will have 100 jars of canned products on display. An unusually large bread exhibit is expected as many bread club members have signified their intention of competing for state honors in bread making. More than 13,000 Kansas boys and girls have been enrolled in clubs this year.

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FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

WE FEEL that too much emphasis cannot be placed on the necessity for ordering all farm implement repairs at the earliest possible date. Efficient farm machinery is certain to be a vital factor in next year's crop production. There is little hope that conditions of transportation and steel supplies will be much better next spring. In fact as the war preparations go on even greater demands will be placed upon our railroads and transportation agencies.

We have just received a letter from F. A. Wirt, formerly with the agricultural engineering division of our Agricultural College, but now in the employ of one of the big farm implement companies, in which he points out the serious situation confronting us in the matter of getting repair parts for farm implements. We are all familiar with the congestion which has occurred in years past in the offices of the express companies and the post office in Kansas City and other implement distributing centers. Frequently repair parts would be delayed several days because of insufficient post office and express facilities. This would mean wasted time which should be employed in the field. Mail and express transportation is expected by all familiar with the situation to be worse as time goes on. There are reduced numbers of trains, fewer cars, and many of the experienced express and post office employes are in war service, and all this means a serious slowing up this year in postal and express service.

In addition to the above reasons for speeding up the getting of repair parts, Mr. Wirt suggests the following as further incentives to the adoption of a forehanded program in preparation for next year's work in the fields:

"First, implements can be repaired during the slack season, thus making better use of farm labor.

"Second, it means no tedious delay in waiting for parts nor time spent repairing machinery when weather permits working in the fields.

"Third, every minute of good weather in the spring can be utilized; there is little enough time at best.

"Fourth, fewer breakdowns in the field will occur if the implements are repaired now while their weaknesses and deficiencies are fresh in mind.

"Fifth, late ordering of repairs occasionally means that the jobber has to order the repair parts from the factory, the result being a loss of days or weeks of time."

These are sound suggestions and if followed will, to some extent at least, alleviate the serious situation which exists in the farm machinery business.

Starting Cold Motor

The easiest way to overcome starting difficulties with an automobile in cold weather is to apply heat to the intake manifold. This is the suggestion of E. V. Collins, instructor in steam and gas engines at the Agricultural College.

Trouble in starting a car in cold weather is generally due to the fact that the ordinary low grade of gasoline will not vaporize readily at low temperatures.

The intake pipe leading from the carburetor is usually vertical so that gasoline will not pass through unless it is vaporized. The velocity of air through the carburetor and intake pipe will hold the atomized gas in suspension when the motor is once started.

By applying heat to the intake manifold enough liquid will be vaporized so that the motor will start readily. In this case the entire mixture is warmed rather than just the gasoline. Better results will be obtained than where the motor is primed with heated gasoline and the air is allowed to enter the cylinders cold.

The simplest way to apply heat to the manifold is to pour hot water over it, care being taken not to get it into the carburetor. Putting hot water into the cooling system warms the cylinder walls but does not help to get the mixture from the carburetor to the cylinder and should not be necessary if the intake is warmed.

Building for Tractor Show

The tractor show to be held in Kansas City February 11 to 16 inclusive will be housed this year in a building on the tabernacle order, the contract for its construction having already been let. It will occupy the east plaza of the Union Station, where the previous shows have been held. This building will be steam heated and this will overcome many of the discomforts of previous shows which have been housed in tents.

The building will be erected at a cost of $10,000 and will be 80 x 400 feet, affording 32,000 square feet of space. It will be double-walled with building paper between the walls. The flooring will be of two-inch planks throughout.

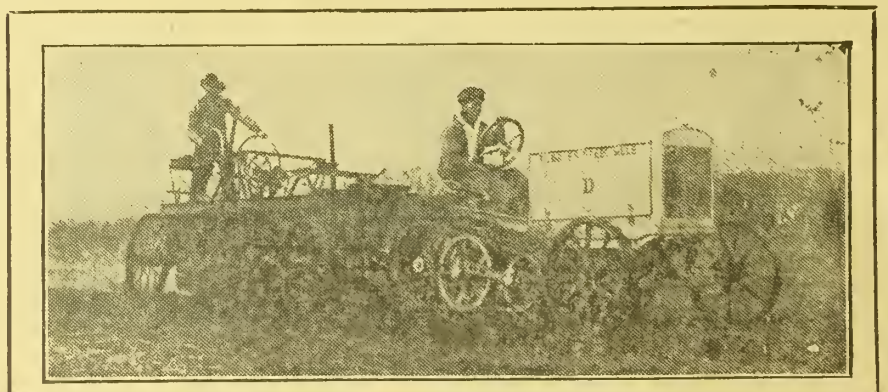
Requests for space indicate that the 1918 show will be far ahead of its predecessors as regards the number of exhibits. Last year eighty-five different companies exhibited and thus far this year there have been in the neighborhood of 150 applications.

Save Old Bolts

The use of a badly worn machine results in inferior work and is almost certain to cause a great loss of time due to breakdowns when there is the greatest need for the work to advance rapidly. The solution of this difficulty is: Order repairs early, anticipate the breakdown and order a repair for the weak part which will most certainly give way soon, or buy a new machine to replace the old one which is really unfit for further profitable use.

All old machinery should be sold as junk at the earliest opportunity. Before selling as junk, however, remove all bolts and screws of various sorts. Very frequently a bolt is lost on a machine in the field. No old bolts are at hand, the village hardware store is several miles distant, the machine is run without the bolt and a breakdown results. With an assortment of old bolts this could be prevented. Almost as serious is the use of a bolt of too small size. If all the bolts from several farm machines have been saved, the assortment will supply almost any ordinary need. In the replacement of a bolt the diameter should receive first consideration. A bolt of too small diameter breaks at the time when it is most needed. It never does its real duty, since it allows too much play of the parts. If a bolt is too long this can be remedied by bushing up with washers or old nuts of a larger size and the strength is only very slightly impaired.

There may be other parts of the old machine worth keeping for repair purposes.—E. R. GROSS, Colorado Agricultural College.



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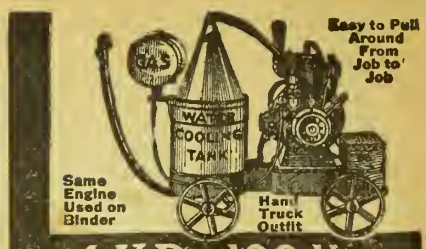

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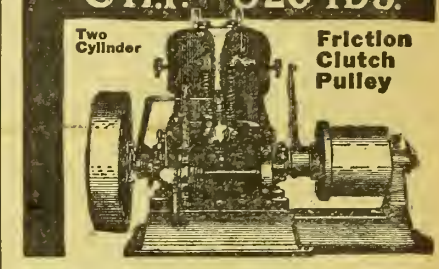

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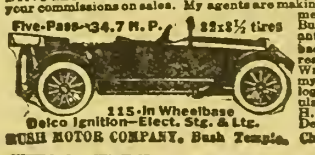

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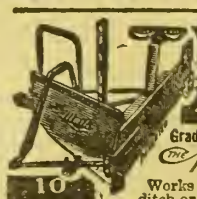

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KANSAS HOG STATISTICS

As a war measure Kansas has been asked to increase its pork production tbe coming season by 25 per cent. This means feeding out the present supply of stock hogs to good weights and the breeding of more sows for the coming crop of pigs. The breeding season for spring litters is practieally past, but the mere breeding of sows does not mean more pigs at weaning time unless intelligent measures have been followed in handling them during the gestation period, at farrowing time, and while tbe pigs are being suckled. There are many losses which occur during this period that tend to reduce the volume of pork production. The saving of one pig extra per litter as a result of more painstaking care is just as feasible a means of increasing pork production as breeding more sows and a surer way to increase the profit to the producer.

In connection with the hog situation in Kansas, some information reported by the correspondents of the State Board of Agriculture will be of interest. According to these estimates, the number of swine on hand December 1, 1917, shows a decrease of 17.3 per cent since March 1 of the same year. The total number on hand December 1 was 1,121,621. Only six counties report increases. Four of these are located in the southwestern part of the state. As is the case with cattle, the greatest reductions in numbers appear in the counties where dry weatber cut crops short. Two counties, Phillips and Graham, show less than half as many hogs on hand now as they had March 1.

As to the highly important matter of brood sows on the farms, reporters in all parts of the state suggest that there are fewer now than usual at this season of the year, based on the average for the past three years. High prices for hogs, curtailed crops, all combined, induced many farmers to sell, and in not a few cases breeding herds have been reduced to low levels if not wholly dispersed.

Not in a quarter of a century or more has the state's hog supply been so low as now. While the causes stated have been contributing factors in diminishing tbe state's hog population, the fact remains that the industry has been gradually declining for several years, beginning its slump at a period long before the outbreak of the war. Tbis falling off in hog production, while attributed in some extent to unsatisfactory marketing conditions and the ravages of cholera, is doubtless due principally to tbe comparatively poor corn erops of recent years, for corn is the mainstay of pork-making.

The state's average annual corn production in the past decade has been low. In six of the ten years the crop was decidedly short, and in two of the six practically a total failure. In 1915, when tbe acre yield was extra bigh, tbe total area planted was the smallest in more than thirty years. The average annual production of corn in Kansas in the past ten years, 1908 to 1917, both inclusive, was 112,000,000 bushels; in the ten years preceding, 155,000,000 bushels. The average annual hog population of Kansas in the past ten years, 1908 to 1917, both inclusive, was 1,839,000; in the ten years preceding, 2,174,000. This record suggests the influence of corn on the hog industry.

GOOD KAFIR SEED SCARCE

Unless a good many kafir growers in the southern and southeastern sections of Kansas save a liberal supply of seed, we are liable to have a great deal of difficulty in supplying seed to the central and more northern sections where almost none of the kafir matured sufficiently for seed. On another page of this issue appears a report of germination tests that have been made at the Hays Experiment Station. These tests show the extremely poor quality of the seed produced in that region the past season. Much of the kafir-growing area will have to depend largely on outside supply for next year's planting.

There is plenty of kafir suitable for seed in certain sections of tbe state, but the habit has been to feed tbe crop, sometimes not even saving enough seed for home use. Tbreshed kafir taken from a seed bin is not seed. There is a remarkable difference in the results obtained from using real seed selected in the head and properly stored and scooping some grain out of the bin when planting time comes. The kafir growers in sections where the grain matured could help out tbe less fortunate portions of the state in the matter of seed if they would pick out the ripest heads from the shocks of kafir before feeding it.

Kafir is one of our valuable crops and it seems too bad that on account of an unusual season farmers in the section where the seed failed to mature must lose out because unable to get good germinable seed. The amount of kafir planted the coming season in a considerable portion of the state will depend upon the response made to this plea for seed saving by the farmers in sections where kafir matured. Do your fellow farmer a good turn and help out in the program of increased grain production by saving from your shocked kafir a liberal supply of the heads ripe enough to make good seed.

BEE KEEPERS' MEETING

Bees harvest a product that can be gathered in no other way. The sugar shortage increases the need for conserving this product which can be used largely as a sugar substitute. For these reasons tbe fifteenth annual meeting of tbe Kansas State Bee Keepers' Association to be held in the Chamber of Commerce rooms, Topeka, January 7 and 8, should be of more than usual interest. Every colony of bees in the state should produce fifty pounds of honey the coming season, according to an experienced bee keeper. Many are keeping bees, but getting little or no honey because of ignorance of correct bee-keeping methods. The meeting of next week will be a school of instruction to the beginner or the bee-keeper who feels tbe nced of more knowledge on the subject. Some of the best bee men of the Middle West are on the program. E. W. Atkins, special field agent of the Federal Department of Entomology, will speak on "Spring Management of Bees."

FARM LABOR SITUATION

Tbe seriousness of the farm labor situation is a self-evident fact. In average seasons and under normal conditions fifty thousand to sixty thousand outside laborers are required to harvest the wheat crop of Kansas. The National Army has taken many of our active farmers and farm workers, and the floating labor population has been drawn into war industries to such an extent tbat this normal source of labor supply is practically closed. It is no wonder that the men on the farms are worried over the problem of harvesting the 1918 wheat crop and the planting and cultivating of spring crops.

While all these things are apparent to the intelligent observer of agricultural conditions, our State Board of Agriculture has recently obtained state-wide figures on the farm labor situation through inquiries addressed to its numerous correspondents. The replies verify the fact commonly observed that the state as a whole is short of farm labor, and much of that available is so high priced and so poorly trained in farm work as to be unprofitable. "How can production be maintained, let alone increased, with the help available?" is the question on the lips of farmers everywhere.

Railroads are reported to be seriously handicapped by the constant stream of inexperienced men being pressed into transportation service. Farming calls for skilled labor and at present even inexperienced help is not available. The farms, like the railroads, are under a most serious handicap, and unless some way is found to overcome the difficulty it does not seem possible that farm production can be fully maintained.

The Government has a plan to meet the situation. On page four of tbis issue we print an article giving some of tbe views of D. F. Houston, Secretary of Agriculture, on the farm labor problem. The Government has not as yet outlined its plan, but it will be presented next week to the farmers of Kansas at tbe annual convention held in Topeka under tbe management of the State Board of Agriculture. We would urge a large attendance of farmers and stockmen at this meeting. A practical solution of our farm labor problem is of vital importance. First hand information is needed and will be a great aid to the Government in perfecting any plan that may be proposed. Presence at this meeting in order to give all tbe help possible in solving this critical problem is a duty we owe not only to the Government but to ourselves and the cause of agriculture.

WAR TALKS AT FARM MEETING

The big farm convention to be held in Topeka next week will not be devoted entirely to shop talk, for on the evening programs there will be addresses of an entirely different nature, mostly relating to some aspect of the great war. Two of the most patriotic war workers and most eloquent orators in the country will address the convention, Henry J. Allen on Wednesday night, January 9, and Dr. E. J. Kulp on Thursday night. Mr. Allen has only recently returned from the battle front in Europe and he has a thrilling message. He is giving his entire time to government war work, and particularly with reference to the Red Cross. In the interests of the latter he will shortly return to France.

Doctor Kulp is a fiery Methodist minister, of the fighting type, who makes a remarkably stirring address, well worth traveling miles to hear.

Governor Capper will also appear on tbe evening of January 9.

Dr. J. Paul Goode, of the University of Chicago, one of the country's most noted war leeturers, will make an address, illustrated with lantern slides, on "The Sinews of War."

Mrs. Tom Tompson, of Howard, famous for her widely-read and sparkling "paragraffs" in the Howard Courant, is the women's representative on the program this year, and her address is looked forward to as a feature of the whole convention. Her subject is "The Side-Line—a Mitigator," wbich is suggestive of her characteristic originality.

Dr. E. V. Wilcox and C. J. Brand will represent the Department of Agriculture, the latter discussing the operation of the United States Grain Standards act. Doctor Wilcox will present the Government's plan for handling the farm labor situation. A dairyman of national reputation and a beef man of international fame are also expected to take part in the program.

WOMEN FARMERS TO ORGANIZE

There is a distinct difference between women farmers and farm women. In Kansas, as in every other agricultural state, there are a few women who from choice or for other good reasons have taken up the farming business as a calling or occupation. These women have demonstrated that it is feasible for a woman to successfully manage a farm business. It is probable that as the call of tbe nation takes more men into military service, the number of women farmers will increase.

A movement will be inaugurated next week to organize the women farmers of Kansas. A conference is called for Saturday forenoon, January 12, in the Chamber of Commerce rooms, Topeka. This meeting immediately follows the annual session of the State Board of Agriculture. J. C. Mohler, secretary of the State Board, extends a most hearty invitation to the women farmers and farm women generally to attend the meeting of the Board, including the banquet Friday evening, January 11.

Saturday afternoon there will be addresses by representative women who have had actual experience in raising grain and live stock and handling chickens and milking cows. The objects of the proposed organization as set forth by Mrs. Theodore Saxon, one of the prominent women farmers of the state, are:

To interchange ideas and promote cooperation among women engaged in farming or having the direct management of farms.

To increase the knowledge and use of existing educational institutions.

To help bring together supply and demand, or producer and consumer.

To help solve the agricultural problems before the nation.

To co-operate with organizations enlisting women for farm work.

To advise women who wish to make a profession of agriculture and horticulture.

To show how inexperienced women may become farmers and suggesting necessary education and apprenticeship.

To advise as to buying farms, capital necessary, selecting the farm, testing of soil, water supply, markets and rental contracts.

To organize a permanent association of women farmers of tbe state.

The National Farmers' Association will meet in its third annual session in Kansas City, Missouri, February 20, 21 and 22. This is a broad organization composed of farmers. The only qualification necessary for membership is that the applicants be farmers. The purposes of this annual meeting are to discuss all needs of a general nature relative to farm life and farm conditions for the betterment of agriculture. The delegates to this meeting are chosen by the various subordinate Granges and other farm organizations. The governors of the various states are asked to select from ten to fifteen farmer delegates. The association met at Kansas City last year. Governor Capper designated one hundred Kansas men as delegates to this meeting.

COUNTRY OF BEEF EATERS

Striking figures just announced by the U. S. Food Administration sbow tbat people in the United States consumed more than ten pounds more beef per capita in the fiscal year 1916-1917 than in tbe previous year. The average consumption of beef for each person was 65.04 pounds for tbe past fiscal year.

This condition was one cause for the slaughter of more than a fourth of the total cattle in the country last year instead of a little over one-fifth, the proportion previously prevailing. It has also been accompanied by a sbrinkage of more than 33,000,000 pounds in beef exports from the fiscal year 1915-1916. These facts help to emphasize the importance of reducing beef consumption during the coming year in order to better sustain our allies and troops in Europe.

A message received just as we go to press brings the information that Duncan Marshall, minister of agriculture, Alberta, Canada, will be present Thursday of next week at the big agricultural meeting to be held in Topeka. Mr. Marshall is one of the great live stock authorities of the country. He will speak on the subject, "Obligations and Opportunities of America in Live Stock Breeding." Probably no man on this continent is more competent to speak intelligently on this subject than Mr. Marshall. He should be given a wide hearing.

THE FARM LABOR PROBLEM

Systematic Survey of Situation now being made by Agricultural Department.



DRAFT HORSES PURCHASED AS WEANLINGS AND DEVELOPED AT AGRICULTURAL COLLEGE.—RECENTLY GRADE GELDINGS WEIGHING 1,700 POUNDS HAVE BEEN SOLD BY THE COLLEGE FOR $290 EACH, AND MARES FOR $300

FARMING bas been handicapped for some time by a shortage of efficient labor, but since we entered the war tbe situation has become more acute than ever. Because of the relation farm production bears to the successful prosecution of the war, the farmer's problem becomes a national problem in a peculiar sense.

Secretary D. F. Houston of the U. S. Department of Agriculture gave some attention to the subject of farm labor in his annual address and has written what follows as a result of his study of the question:

"The farm labor problem bas presented and continues to present many difficulties. It is sufficiently difficult without the added complications which arise from the unrest and apprehension created by the utterances and writings of misinformed and, in some instances, of mischievous persons. Not a few statements are being made which not only are not conducive to a satisfactory solution but which, on the contrary, are responsible for additional unrest and misdirection of effort.

"This is one of two or three subjects to whieb the Department has given more thought than to any others, not only since this country entered the war but for many months prior to that time. There has been before the farmers tbe question of retaining a sufficient number of year-round skilled laborers and also of meeting the urgent needs at the planting and harvesting periods. In very many sections of the Union difficulties in both directions have been experienced. This has been particularly true of communities where there has been great industrial activity incident to preparations for the army and navy. Farmers in the neighborhood of cities where there has been redirection of labor and capital, and also where the cantonments and otber special enterprises have been under way, have been greatly embarrassed. Obviously, a nation cannot engage in a struggle such as the one which this country is making in defense of its rights [illegible] the world without [illegible] kinds, especially [illegible] inconvenience, and without calling for sacrifices from every elass of society. Mere complaint will serve no useful purpose. Constructive thought and action alone will belp.

"In some respects the situation may not be quite so acute another year. Naturally, the disturbances are much more violent immediately after a great shock has been given the industrial system. This nation bas been organized on a peace basis. Wben it entered the war it was necessary not only to create vast additional facilities and machinery, but also to provide on an enormous scale for the operation of the new establishments and of those previously existing. Many shipyards bad to be expanded and others had to be created. Large cantonments had to be built, and built quickly. In every direction tbere were urgent demands for great expansions. Furthermore, it was necessary to have an army, and this necessarily caused additional labor drains and dislocations. In the haste of the first draft it was impossible to work out a satisfactory elassification of labor with reference to tbe national needs.

"However, it is well to recognize that the situation will continue to be difficult and that a satisfactory solution will require the best thought of the nation and the fullest and most complete co-operation of all agencies. To this end, all plans which give any promise of real results must be carefully examined and put into effect so far as they are feasible.

"That the Department and other agencies of the Government fully appreciate the seriousness of the situation is indicated by the action taken to attempt to furnish relief. Even under the pressure of the first draft, tbe War Department held definitely in mind the thought of lightening the burden so far as possible by not calling to the colors those essential for leadersbip and direction. With the fuller time at its disposal, that department, which has recognized from the beginning the necessity of not unduly disturbing any essential industry, has worked out a system of classification of the men subject to tbe draft which contemplates the placing of skilled farm labor engaged in necessary agricultural enterprises in Class 2, assistant or associate managers of necessary agricultural enterprises in Class 3, and heads of necessary agricultural enterprises in Class 4. Tbe operation of this new arrangement should remove many of the difficulties previously encountered, and, in reasonable measure, meet the demands of the situation.

"Several months before we entered the war, tbe Government was giving the farm labor situation definite attention. In former years the Department of Agriculture, in co-operation witb the Department of Labor, sought to render, and did render, assistance to farmers in a number of states in securing seasonal labor. In conjunction with state agencies, these departments have effected tbe transfer of considerable numbers of laborers from communities where tbe load had passed to otbers where the need was urgent. This was done especially in the years of large production and, in some cases, from 20,000 to 40,000 laborers were transferred to particular states.

"After the entry of the United States into the war, the thought of the Department of Agriculture, in connection with the Department of Labor, was very definitely directed to the problem of farm labor. The matter was thoroughly discussed at the conference held in St. Louis on April 9 and 10 with the agricultural representatives of the various states. It was also referred to in my letter to tbe Senate of April 18, 1917.

"One of the first steps taken by tbe Department of Agriculture was to select and station in each state, in touch with the state agencies, the best available man tbe department could sceure (1) to make surveys of farm and labor conditions; (2) to bring about fuller co-operation in the utilization of labor among farmers in tbe same community; (3) to assist in shifting labor from one community or one state to anotber; and (4) to bring into service kinds of labor not heretofore fully or regularly employed in farming operations, such as boys of higb school age who knew something about farming, and to do many other things. After the Food Production Bill was passed on August 10, an allotment of nearly $100,000 was made to extend and develop the work of the department in this direction. Only recently the department held a conference in St. Louis of its farm labor representatives and of state agencies cooperating with tbem to eonsider the work whicb bad been done up to that time and to formulate more efficient plans for tbe future. Some hint of the activities of the department along this line is given in my annual report for 1917.

"Some persons seem to be promoting the suggestion that farmers as a class should be exempted from military service and that no person from this elass sbould be permitted to serve in the army, and criticism has resulted because it bas not been acted upon. It would be unfair to the farmers of the nation even to entertain the thought that they would be willing to have the rest of the population do all the fighting in tbis struggle in the defense of our rigbts and for world freedom. The farmers themselves as a whole would resent the intimation. If farmers were exempted as a class, obviously others would feel the injustice of such action. It is unlikely that any responsible body of opinion would sanction tbe proposal.

"If we put our minds to the task and attempt to deal with it in a constructive way, there are many things which can be done to furnish relief. The Department of Agriculture, of course, will continue to do everything in its power to aid in tbe solution of the difficult problem. The most promising lines of effort seem to me to embrace tbe following:

"First: A systematic survey of the farm labor situation in order to ascertain tbe possible needs of farmers and to determine ways of meeting them. The department, before the beginning of the next crop season, tbrough its agents stationed in the various states and in co-operation with tbe Department of Labor and the State Councils of Defense, will make such a survey.

"Second: The promotion of fuller co-operation in the utilization of labor among farmers in the same community.

"Third: The further development of machinery for assisting in tbe transfer of labor from sections wbere the seasonal pressure has passed to regions wbere additional help is urgently needed.

"Fourtb: Making available labor which heretofore has not been fully or regularly utilized in farming operations, including boys of high school age wbo have had experience on the farm.

"The farm labor representatives of tbe department will continue to devote all their time and energies to these tasks and they will keep in close touch with appropriate state and other agencies.

"Fiftb: The releasing of men for agricultural purposes, so far as possible, by replacing them with women and by diverting labor from relatively nonessential enterprises are matters which demand serious consideration. Conscription of labor for industrial purposes, of course, necessarily would present many difficulties. Powerful influences are operating, however, to bring about the release of labor and capital from less essential enterprises and their diversion into more urgent undertakings. These will become increasingly compelling as tbe situation develops. They will be aided by the growing realization on the part of the people generally of curtailing expenditures on non-essentials and of redirecting labor and capital into vital industries.

"Sixth: Steps to see that any able-bodied men who are not now doing a full and useful day's work shall be fully and regularly employed. This, of course, is a matter primarily for consideration by state and municipal autborities.

"Seventh: The largest possible production and fullest use of farm labor-saving macbinery. The department has actively interested itself in securing priority for raw materials used in the manufacture of farm implements, and also in securing favorable consideration at the bands of transportation committees to provide facilities for moving the materials to tbe manufacturers and the completed products from the manufacturers to the distributors and also to the farmers. Both those dealing with priorities of materials and those dealing with priorities of transportation have evinced a complete willingness to assist. This is indicated by the fact tbat tbe priorities committee of the War Industries Board gave raw materials needed for farm implements a position of preference over all articles except those urgently required for military and naval purposes, and that the transportation committee took steps to secure the prompt movement of the raw materials and of the manufactured articles. Tbis matter is still receiving tbe earnest attention of the department with a view to see what further action can be taken to make certain tbat an adequate supply will be available at reasonable prices.

"If there are any other fruitful and practicable lines of effort whicb will aid in the solution of the problem, they should, of course, be followed. The department has been in constant touch not only with representative farmers and farmers' organizations but also has had frequent contact with the state commissioners of agriculture and the experts of the land-grant colleges. It receives many bundreds of letters daily containing all sorts of suggestions from many parts of the country. As has been indicated, it has special machinery throughout the Union for the purpose of receiving suggestions and furnishing assistance.

"Many plans are proposed which are utterly impraetieable, but any construetive suggestion always has reeeived and will continue to reeeive the most eareful consideration. The whole subject, involving industry as well as agriculture, is being given serious attention by tbe Council of National Defense tbrough its various agencies whieh are aetively at work along many lines to formulate constructive plans."

We trust our readers will consider carefully tbis presentation of tbe farm labor problem by Seeretary Houston and if you have any suggestions to offer, address tbem to him in Washington, D. C. Secretary Houston is naturally the champion of agriculture on the Council of National Defense, and as sucb should have all the help possible from the people most vitally concerned.

Merry Monarch, the pure-bred Shorthorn steer exhibited by Purdue University, which won the grand championsbip of the International, dressed 64.7 per cent, according to the figures made public by Armour & Company. The steer weighed 1,610 pounds and the dressed carcass 1,042 pounds. Ed P. Hall's yearling Angus cattle, which won the grand championship in the car lot division, dressed 62.9 per cent. Tbe steers averaged 1,090 pounds and the dressed carcass 686 pounds.

GENERAL FARM AND STOCK ITEMS

Something of Interest For All—Overflow From Other Departments

THE wool from twenty sheep is used to make the clothing and other equipment for one soldier. Six farms out of every seven in the United States have no sheep.

Sheep can be produced profitably on almost every farm.

What about your farm? If you keep twenty sheep you are outfitting a soldier who is risking his life for your freedom. If you have a flock of 200 sheep you will clothe ten men who are fighting in France. And if you have no sheep you are failing to do all that is in your power to help win the war.

Get some sheep.

They make both meat and wool—and both are badly needed. By proper management they can be produced on the average farm without entailing a reduction of other live stock, and without interfering with any other agricultural plans.

More than the entire wool production of the United States will be used for our armies. Where will we get the wool to make clothes for the civilians? Every ship is needed to transport men and supplies from America to Europe. Unless the necessity is extreme we can't spare ships for long voyages to Australia, South Africa and South America to get wool. Furthermore, those countries have not increased their production. The problem must be solved by the production of more sheep on farms throughout the United States. We must produce our wool at home instead of hauling it from the other side of the world. We can do that if the six farms out of seven that have not kept sheep will begin to build up flocks in proportion to the size of the farm—at the ratio of one sheep to each three acres. We can do it if you will put some sheep on your farm.

You will be helping produce clothing and meat for our soldiers and yourself. You will be helping win the war. You will be making more money from your farm.

Sheep, in proportion to the value of their products, are produced more economically on the farm than any other live stock; the feed and labor requirements are less. They fit in with practically every kind of farming; get much of their subsistence from forage, from grazing weeds and grass that would not support other stock. They eat almost no feed that has a value as human food, and need less grain than other animals. They add materially to the farm revenue but add very little, relatively, to the farm expense.

Since 1914 wool and mutton prices have doubled and some grades of wool have trebled. Those who are in close touch with the sheep industry believe that attractive prices will continue. During the war over-production seems impossible.

The United States now has 1,200,000 fewer sheep than in 1914. Our production of wool has steadily declined since 1910, when it was 321,362,750 pounds, to 290,192,000 pounds in 1914, 288,490,000 pounds in 1916 and 285,573,000 pounds in 1917. But while our production decreased our manufacturing consumption increased, from 550,356,525 pounds in 1914 to 737,679,924 pounds in 1916. In 1917 the amount manufactured will be even larger, and it seems certain that it will continue to increase during the war.

The difference between the amounts we produced and manufactured represents our wool importations from other countries. We have gotten into the habit of using a great deal more wool than we produced—we'd just send over to Australia or South Africa or perhaps somewhere in Asia and get what we needed. But the ship shortage now interferes with that uneconomic arrangement—which, in the long run will be a very valuable thing for America. Present war necessities will teach us the lesson we would have had to learn at some time—to establish sheep production permanently as a part of general American agriculture.

The need is immediate as a war measure. But war or no war, it would have been necessary for us to produce more sheep. A man cannot draw money out of a bank indefinitely unless he makes deposits. We were constantly consuming more wool and mutton, but raising fewer sheep. The principal sheep countries were not increasing their productions before the war and seemed to have reached their maximum. There was a discrepancy between consumption and production that was rapidly becoming critical. The war brought the problem to a crisis.

What about your farm?

Is it one of the six out of seven farms in the United States that have no sheep?

Get some sheep!

Remember that twenty sheep will clothe a boy who is risking his life "over there."—CLARENCE DUBOSE.



SHEEP SAVING THE WASTE AND CLEANING UP THE FIELD.—SIX OUT OF SEVEN FARMS IN UNITED STATES HAVE NO SHEEP

Building Operations

In answering an inquiry a few weeks ago we discussed the building question and suggested that those who are ready to build now or need additional buildings for storage or shelter would gain little by delay. We are glad to note that C. T. Baker, professor of architecture at the Agricultural College, has recently made some public utterances on this subject. Professor Baker has only recently come to the Agricultural College, and of course is not as yet known to our people. He is thoroughly trained along his line and what he has to say is from an authoritative standpoint.

"The question has frequently arisen as to whether the present is a good time to undertake the erection of new buildings," said Professor Baker. "The opinions of uninformed alarmists have tended to create the impression that the Government has commandeered all the available building material and labor. It is true that the Government in its preparation for putting a great army in the field has created abnormal conditions, but to imply that its operations have prevented the continuance of private building is neither true nor patriotic, and is a menace to the economic welfare of the country.

"The shortage of labor has affected chiefly those communities, such as Manhattan, which are adjacent to the large army cantonments, while in some sections of the country, owing to the unwarranted fears of private building operators, there is a surplus of building trades workmen.

"The most abnormal conditions have been created in the lumber market and in the problems of transportation, but the steel market has already taken its turn back toward normal conditions. The production of lumber, however, is being rapidly increased and the Government's demands will probably somewhat lessen. Already the transportation problems have been much improved by the various commissions considering the industrial and economic situation.

"The architect in advising his clients not only is justified by the conditions but should consider it his patriotic duty to urge them to proceed with their contemplated building operations. It then becomes equally the duty of the architect to make a careful study of conditions, and possibly to use his ingenuity and technical knowledge in employing those materials and classes of labor which are least in demand for the conduct of the war. He must acquaint himself with transportation problems and see that orders for his materials are promptly placed so that he can assure his clients of approximately normal progress in the work."

Zone System at Chicago

The two-day market at the Chicago stock yards has passed into history, for at least so long as the Food Administration is in charge. For twenty-five years shippers have protested in vain against the injustice of the old system of forcing all stock onto a two-day market.

Since December 10, shipments of live stock to the Chicago market have been handled on a plan that distributes receipts uniformly over the entire week. Under the system that prevailed before the Food Administration worked out the new plan, receipts of live stock varied widely from day to day, frequently causing severe fluctuations in prices.

Territory surrounding Chicago is now divided into shipping zones. The first zone extends approximately 300 miles in all directions from Chicago, the exact distance being varied somewhat as necessary for engine runs.

The second zone includes territory beyond 300 miles and up to the 36-hour limit for the shipment of stock. Federal regulations require stock in transit to be unloaded every thirty-six hours for rest. Within the first zone, live stock will be received for the Tuesday, Thursday, Friday and Saturday Chicago market. From the second zone, stock will be received for the Monday, Wednesday, Friday and Saturday market.

Beyond the 36-hour limit stock may be received for any day's market. The American Railway Association has rendered valuable assistance to the Food Administration in working out the plans and shipping schedules for the various railroads entering Chicago.

The entire plan is strikingly similar to the zone system now in effect at Kansas City and which has been eminently successful in giving uniformity to receipts at that market. This new development in live stock shipping is expected to be helpful in stabilizing prices and in preventing serious losses to farmers and stockmen, who in the past have suffered when the markets broke under heavy receipts.

Farmer Needs Business Ability

It takes more good business ability to be a successful farmer than to be the manager of any other business in the district where I work. Before a farmer gets discouraged with the farm business he should determine how much he would have to earn in some other kind of work in order to be no worse off financially at the end of each year than he is now.

We need proof. Have the farmers any figures to back up the assertion that the cost of producing wheat, pork or milk is greater than the price gotten for the product? Other kinds of business have backed up their appeal for certain prices with actual figures from which the costs were determined. Why not begin with records now so as to have the needed figures?

Mr. McAuliffe, state president of the Farmers' Union, has figured it cost $2.82 a bushel for each farmer producing wheat in 1917. The Topeka Capital estimated $1.87 a bushel as a fair price for the same crop. Which is more nearly the correct figures for your farm?

Each farmer should be studying some one or more enterprises of his farm. If you are interested in a set of simple record blanks either for the whole farm or for some particular enterprise, get in touch with the district agent. He has books and instructions for those who will use them and will be glad to assist anyone in starting these records.—W. A. BOYS, in December News Letter.

Did Not Federate

Some time ago there was an effort to "federate" the different farm organizations of the country. This might be a good thing and it might not. The Grange did not become a member of the federation. However, in all things of general legislative importance the Grange will probably co-operate with the organizations that did federate. The Grange has become a great national factor in progress and its leaders felt that it could do more good to agriculture in general by not losing its identity as an organization but by co-operating with the others at needed times. At a recent meeting of the National Grange when this was being discussed National Master Wilson evidently voiced the great sentiment of the Grange regarding this when he said, "I believe always in co-operation, never in federation." — The National Grange Monthly.

Only One Thing to Do

There is no politics in this war, only one issue before the American people. It is not a question of Democrats and Republicans, but a question of Americanism. It is the people of the Greatest Republic on Earth versus the Greatest Tyranny in the World. In order to win over this efficient tyranny, in order to save the heritage of the people, there is but one thing for every man to do, and that is to don his war garments. If he cannot go to the front to fight he must stay at home and fight for the things the men at the front need most. It is up to every man to dedicate himself to the good of his country.

An Important Message To Every Cow Owner

There was never a time in the history of the world when the saving of every ounce of butter-fat and every particle of effort and time was so important as now.

There was never a time when the use of a late improved De Laval Cream Separator meant so much to every cow owner.

This is true whether you are using no separator, some inferior separator, or even an old style De Laval machine.

Fortunately it happens to be not only a matter of patriotic duty but at the same time one of dollars-and-cents advantage as well.

A New Type De Laval Cream Separator skims cleaner and produces a better quality of cream than any other separator or skimming method.

Likewise, by reason of its easier turning, easier cleaning, greater capacity, simplicity and durability, it saves time and labor over any other machine or method.

Moreover, the use of a De Laval Cream Separator is better than any other way of utilizing milk because it keeps the valuable skim-milk on the farm.

Nor should the installation of an improved De Laval machine be delayed a single day. It begins saving the first day it is put in, and will likely have paid for itself by spring.

We guarantee all this to be true—but the better way is to demonstrate it in your own dairy to your own satisfaction.

That every De Laval agent is glad of the opportunity to do—without any obligation on your part unless satisfied that every claim made is fulfilled.

There are local De Laval agents almost everywhere. If you don't know the nearest one simply address either of the main De Laval offices as below.

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Large hay barn, concrete silo, 1,000 forest trees. Convenient market, good roads, two wells and wind mill. 160 acres. Price $8,000. Write

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Located in Lincoln Township, Pottawatomie County

Say what one may about the wholesome and nutritious properties of oleomargarine, it still lacks the vitamines. As a war substitute for butter it has its values, but the American people, unforgettably admonished by war strictures as to food values, will not generally turn to it as a foundation for their physical habitations. For such building there is nothing to take the place of Nature's great food, milk—and they know it.

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When Writing to Advertisers, Please Mention Kansas Farmer

KANSAS FARMER DAIRY CLUB

What Does Your Cow Test?

DID you ever hear a man boasting over the high test of a cow he owned? We have many times, and usually inquiry as to how much butter fat the cow produces in a year cannot be answered. Entirely too much importance is given to the richness of the milk. The amount of butter fat the cow produces in a year is the important point and that does not depend on test alone. The high-testing cow may give such a small quantity of milk that her actual production of fat is low. Prof. C. H. Eckles in his book on "Dairy Cattle and Milk Production" refers to some records of the Iowa Experiment Station herd to illustrate this point. These figures show that the best Jersey in the herd had an average test of 7 per cent covering a period of four years. The best Holstein in the herd had an average test of 3.81 per cent for the same period. In actual butter fat production per year there was a difference of less than ten pounds between these two cows. If test alone had been considered, the Jersey would have been given credit for being a great deal more profitable than the Holstein.

Remember there are two factors in figuring how much butter fat a cow gives in a year—the richness of the milk and the total quantity. The most valuable information you can have of a dairy cow is the amount of milk she gives in a year. This information is of a great deal more value than the test alone. We heard Prof. O. E. Reed of the Kansas Agricultural College once say that if he could have only one record of a cow he would take the total milk production as the one of greatest value in determining whether the cow was profitable or not. Too often the man who bases the value of his cow on the test has a sample tested when she is almost dry and the test at this time is much higher than the test when she is giving the greatest quantity of milk or when she is first fresh. Remember this when you hear someone boasting of a cow on the basis of her butter fat test. Try asking the question, "How much fat does she give in a whole year?"

There is another point that you should not overlook in connection with the value of your cow as a producer. You have some measure of control over how much milk your cow gives, for, no matter how great her capacity, she must have plenty of feed of the right kind. You have no control whatever over the richness of her milk. If you have a cow with a good test, be sure you are doing your part in getting all the milk from her that she is capable of producing.

Keep Calf Pails Clean

Using dirty pails is one of the commonest causes of sickness in young calves being raised on skim milk. To avoid this danger in feeding your calf, wash and scald every pail or utensil used for holding its milk as faithfully as you wash the pails and vessels used for holding the milk you drink yourself. If you keep your calf-feeding pails as clean as your milk pails, you will not have trouble from this cause. The danger is much greater in summer than in winter, for germs grow and increase in numbers very rapidly in warm weather.

When you feed grain put it in a separate dish or box—never mixed with the milk. Do not feed more than the calf will clean up. Grain left in the trough or box will become damp and moldy and may cause the same kind of trouble as dirty milk.

Amount of Milk to Feed

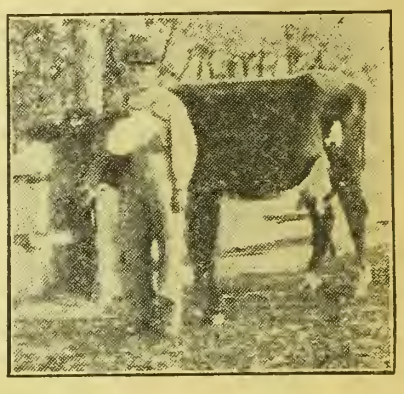
Learning to raise a calf successfully on skim milk is one of the important lessons in dairying. Until you can do this you cannot expect to be very successful in improving the dairy herd. Try to remember how the calf feeds under natural conditions, and imitate Nature as nearly as possible. When the calf runs with the cow and can get its milk in the natural way, it takes its milk in small quantities at a time and with short intervals between feedings. It does not have a very large stomach and if it gets ravenously hungry it will gorge itself and get indigestion as a result.

For the first two weeks five or six quarts of milk a day is enough for even a large calf, and it should be fed three times a day if possible. There is much less danger of getting indigestion if it is fed often and in small quantities. As the calf becomes older it can be given its full daily allowance in two feeds. Seldom is it advisable to feed more than eight or nine quarts a day. Follow Nature also in having the milk at the right temperature. Cold milk is apt to cause indigestion, especially if you have been feeding warm milk and then for some reason give a feed of cold milk.

It is a good safe rule to always keep the calf a little hungry. We happen to know of one Dairy Club member who lost a calf as a result of too much kindness. It was simply overfed and died from indigestion.

There are certain definite rules that must be followed if you would raise calves by hand successfully and we want every Dairy Club member to learn this important lesson in dairying. We want you to ask questions about any point that is puzzling you. Unless you do this you are not getting the fullest advantage of your club membership.

I am sending you my reports for November and a picture of "Martha" and myself. I sold my calf for $12.25, and paid it on my note with my milk money



GARY COOK AND "MARTHA"—LEAVENWORTH COUNTY

for last month, which was $6.61 after feed cost was taken out. That left $56.14 to be paid, and my milk this month brought $11.08 after her feed was taken out, which leaves my note $45.06. —GARY COOK, Easton.

State Dairy Association Meets

On Wednesday, January 23, Farm and Home Week at the Agricultural College, the Kansas State Dairy Association will hold its annual meeting. The auxiliary meetings held over the state have served to increase the interest, and this year's annual meeting should have a much larger attendance than usual.

A splendid program has been prepared. The morning session will open at 8 o'clock with an address by William Newlin of Hutchinson, president of the association. This will be followed by a report on some important experimental work with dairy cows. The morning's session will close with the business meeting.

In the afternoon at 2 o'clock E. E. Knoche, of Martin City, Missouri, will speak on "Producing Milk at a Profit." Mr. Knoche is one of the thoroughly practical dairymen of Missouri. For the past year he has been president of the Southwest Jersey Cattle Breeders' Association. Charles L. Hill, Rosendale, Wisconsin, ex-president of the American Guernsey Cattle Club, will speak at 2:45, on "Establishing a Pure-Bred Herd." At 3:30 "The Dairyman After the War" will be discussed by J. F. Haskell, Beatrice Creamery Company, Topeka. E. J. Macy, county agent of Montgomery County, Kansas, will tell of the development of dairying through the work of county agents.

The meeting will close with a tour of inspection of the college dairy herd. This is a part of the program that should not be missed.

Since its occupation of Northern France, Germany has seized about 2,700,000 French and Belgian cattle. By these depredations and by restrictive measures at home, Germany has maintained practically all her original share of cattle, according to information reaching the U. S. Food Administration from French sources.

War-Time Farm Prices

By CLARENCE OUSLEY, Assistant Secretary of Agriculture.

IT HAS been lightly asserted that the American farmer has no material interest at stake in the war with Germa. Let us see. Those who think that there is nothing in the American cause except the privilege of pleasure seekers to travel on passenger ships to Europe, must have forgotten the specific condition upon which Germany offered to permit American shipping. Without reviewing the tragic events which caused the death of 226 American citizens including women and children, without discussing the sinking of any particular ship, and without even considering the four separate and distinct promises of Germany in effect not to sink ships without safeguarding the lives of passengers and crews, let it be recalled that in her declaration of purpose of January 31, 1917, to extend the submarine zone to Great Britain, France and Italy and therein to sink all ships regardless of flag or cargo, she offered to this country as a special favor the privilege of sending one steamer a week each way to the port of Falmouth, England, upon condition that it should be striped with three stripes each a meter wide, white and red alternating, and upon the further condition that a guaranty be given that such ships should not carry contraband.

Perhaps one ship a week each way would accommodate the pleasure seekers, but how much of our export and import business would it accommodate?

In the fiscal year ending June 30, 1913, we exported to Europe farm products to the value of $1,123,651,985. Among these products are the following:

Animals, live	$ 7,080,122
Dairy products	3,220,893
Eggs	4,391,653
Packing house products	162,706,355
Cotton	547,357,195
Fruits	36,345,517
Grain and Grain Products	210,523,721
Oil cake and oil cake meal	29,444,252
Oil, vegetable	24,044,401
Tobacco	49,353,595

Let us consider the two items of cotton and wheat. The cotton consists of 4,562,295,675 pounds or 9,124,591 bales. The cotton alone would require at the rate of 10,000 bales to the ship, more than 900 ship cargoes. As there are only fifty-two weeks in the year, it will be seen how long it would take a ship a week to move the cotton alone. The wheat consisted of 91,602,974 bushels. It will be an interesting calculation for the children to figure out how many cargoes of 2,500 tons each would be required to move this wheat to Europe and how long it would take at the rate of one cargo a week.

As to these two main products and as to other farm products, not to speak of manufactured products, their commercial value depends upon the foreign market. Without a foreign market for cotton, for instance, even this year with the probable crop of only twelve million bales, we have for export something like five million bales above the American consumption of approximately seven million bales. If we could not export cotton, therefore, we would have a surplus of five million bales and that surplus would cause cotton to decline from the present high price of 26 or 27 cents a pound to a price far below the cost of production. As illustrative of this point it is necessary only to recall the conditions in 1914 when at the beginning of the war shipping was uncertain and as a consequence cotton sold at 6 or 7 cents a pound. Even with the short wheat crop this year we have something like 100 million bushels more than we need for consumption in the United States. It happens that Europe needs not only that 100 millions but very much more, but if we had accepted Germany's dictation and were to send only one ship a week to Europe, that 100 million bushels above our own needs would be a surplus which would carry the price of wheat below the cost of production.

The right to use the seas is the right to buy and sell in the markets of the world. To be denied that right is to be compelled to live upon our own resources. Of course we can do that in this wonderful country, but we can prosper as a nation and as individuals only by trading our surplus of products for the surplus of products which other people have to sell. If, for instance, our farmers could sell no more cotton or wheat than is needed in this country, many farmers would be compelled to quit raising cotton and wheat and would use their lands for other farm products. To have accepted Germany's dictation, therefore, would have been to put our agriculture in a state of complete suffocation by taking from every farmer the value of what he produced above what he needed for his own consumption.

The same power that would forbid our exports would also in self interest forbid our imports except in the interest of that power. Therefore to have yielded to Germany's dictation would have restricted us to imports from Germany alone and would have made us pay tribute for all time to her industries.

If we had acquiesced in the limitation of one ship a week, we would have conceded the right of Germany to regulate our exports and imports as she might see fit now or hereafter. We had the choice of submitting to that dictation or of fighting to maintain our right to sell and to buy wherever we might sell or buy to advantage. It is inconceivable that an American citizen, regardless of his material interests, could yield to such dictation by a foreign power, but on the low plane of material interests we had to fight Germany or cease to be a nation of prosperous producers and become a nation of peons to Prussian autocracy.

Sorghum Seed Scarce and Poor

An average germination of only 55 per cent was secured in a recent test of thirty-three lots of kafir, milo, feterita and sweet sorghums selected this fall for seed at the Fort Hays Experiment Station. This low average was due to the early severe killing frost, October 8, when only the early varieties were fully matured, explained R. E. Getty, the station's forage crop specialist, who selected and tested these seeds.

Six samples tested above 90 per cent. These consisted of Dakota Amber, Minnesota Amber, Dwarf Yellow Milo Feterita, and Freed Sorgo, all of which had been hand-selected from the field before the frost.

Ten samples of kafir tested from 0 to 44 per cent with an average of 21 per cent. These varieties were mostly in the soft dough at frost. The seed tested came from the nearest mature heads that could be saved after frost for planting.

Red Amber and Western Orange samples selected just after frost from fields that appeared fairly mature, tested only 38 per cent.

It is already well known that seed of the sorghum varieties is very scarce in Western Kansas. Since much of what is available is sure to prove weak in germination, all seed intended for 1918 planting should be tested at once. One very easy way to do this is to plant 100 seeds in a pan or box of moist soil and keep this warm in the house until the plants can come up and be counted.

Seeds of any kind suitable for spring planting are likely to become more expensive and harder to find, the longer one puts off purchasing. Last spring the Fort Hays Experiment Station helped in the seed emergency by getting lists of people who had seed to sell and by testing samples free for farmers. Supt. Charles R. Weeks intends to make the station of service in the same way for the coming season.

Care of Seed Corn

Seed corn will require special attention this season to preserve its vitality. Nearly all the corn in Kansas failed to mature properly, and most of it contains an abnormal amount of moisture. Corn that is not thoroughly dry is easily injured by freezing.

To insure good seed for 1918, those who failed to select their seed corn in the field should pick it out at once and store it in a dry, well ventilated place, preferably where it will not be subjected to low temperatures. A vacant room in the house, the attic, or any other place where artificial heat can be applied or freezing avoided, is an ideal place to store the corn for the drying process. The principal object is to dry the corn before it is subjected to freezes.

A day or two of work spent in selecting and properly caring for seed corn now may be the means of avoiding much extra work in securing a good stand of corn next season.

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Just think how much it means to your comfort when you are traveling to have a night's sleep in a clean, comfortable berth that you can really go to bed in.

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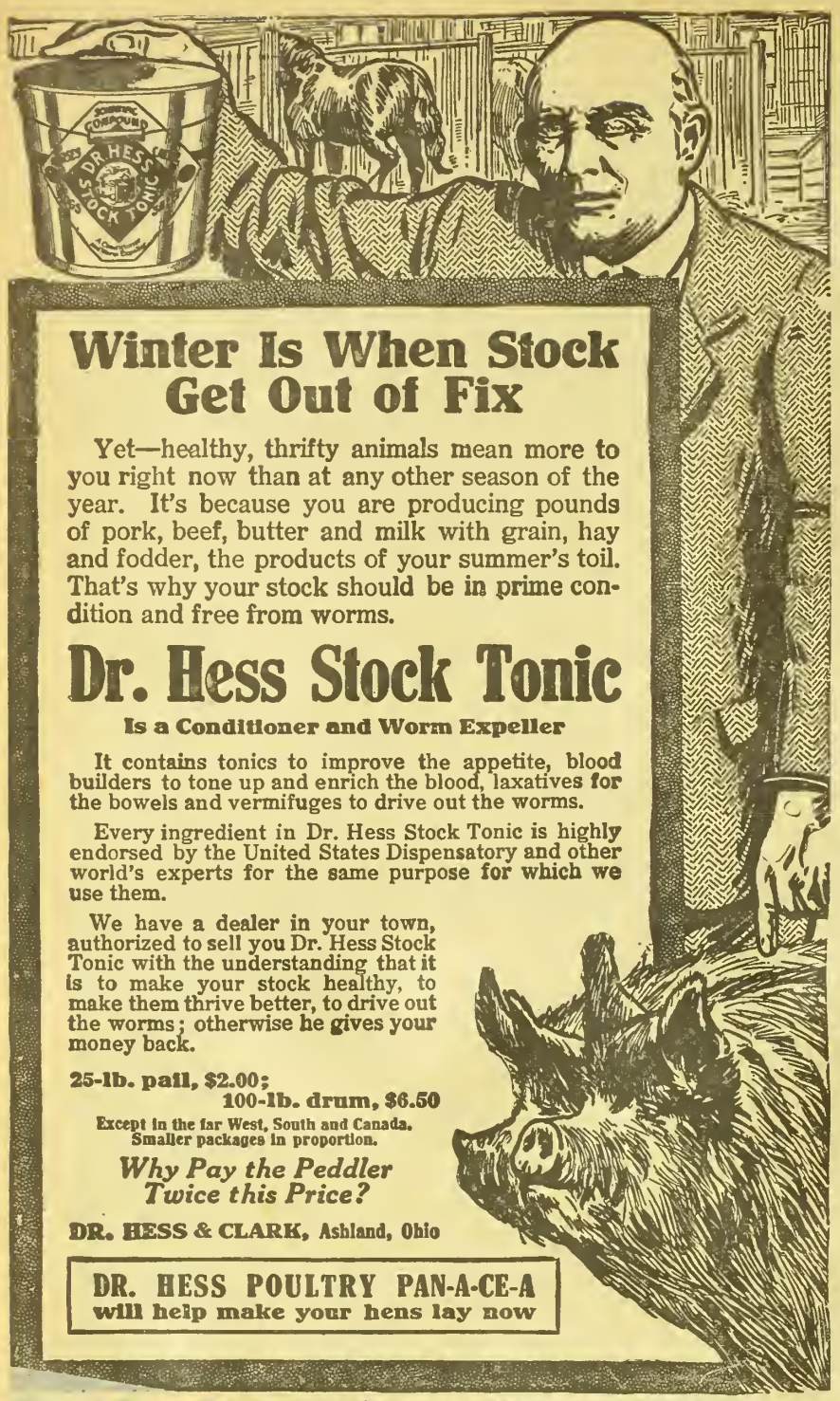

Winter Is When Stock Get Out of Fix

Yet—healthy, thrifty animals mean more to you right now than at any other season of the year. It's because you are producing pounds of pork, beef, butter and milk with grain, hay and fodder, the products of your summer's toil. That's why your stock should be in prime condition and free from worms.

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Agricultural Meeting a War Council

THE program of the big agricultural convention to be held in Topeka next week, January 9 to 11, indicates that it will be an agricultural war council. A foremost problem is that of farm labor. With 50,000 to 60,000 outside helpers necessary for wheat harvesting alone in average years, and the depletion of the normal labor supply because of the draft, the situation is extremely serious. Without adequate labor, planting and cultivation will be curtailed and crops that mature cannot be properly saved. First hand information as to conditions, needs and possible remedies will be had from the representatives of the fields and feed lots who will be present from all portions of the state. Also, the national government will have an official at the convention to submit the government's plan for meeting the situation.

While Kansans know pretty well what crops to grow and how to grow them, the crop production end of farming will be brought before the convention in its various phases. Breeding and feeding problems, however, because of the high prices of feedstuffs, will demand perhaps the greater part of the attention of the convention, as they are more complex and difficult. Two practical Kansas men of long experience will make addresses pertaining to live stock matters: Arnold Berns, of Peabody, on "Beef Making as a Business," and Fred B. Caldwell, of Howard, on "What Kansas Can Do to Increase Pork Production." W. M. Jardine, dean of agriculture of the Kansas Agricultural College, will tell how in the present emergency to use the knowledge of our agricultural educational institutions, and Dr. J. Paul Goode, of the University of Chicago, one of the country's most noted war lecturers, will make an address, illustrated with lantern slides, on "The Sinews of War." The board is fortunate in securing Doctor Goode, as his services are much sought. Kansans who have heard Doctor Goode, speak most highly of his ability to arouse popular interest amounting to genuine enthusiasm, and that he is one of the few men who can present science in a manner at the same time instructive and pleasing to a general audience.

The latest word received from Herbert Hoover is that he is still hoping to be present if he can possibly get away from Washington.

Farm management, the purchase and storage of seed now for next season's planting, contracts and leases, price-fixing, the manless land and landless man, the government farm loan work, and kindred questions pressing for attention, will enter into the discussions of the meeting.

No farmer or stockman can afford to miss this convention. Out of it will come information and plans that will aid in operating at a maximum with greatest efficiency. If food will win the war, then it is the duty of every producer to learn how he may best serve in this emergency. Participating in such conventions will help him do that.

Through the secretary of the board, J. C. Mohler, a cordial invitation is extended to the people of Kansas to attend.

Curing Beef

Any of the brine or dry mixtures which give good results in curing pork can be used satisfactorily for beef, but since beef is leaner than pork, it should not be allowed to remain in the brine or mixture quite so long or it will become hard and salty.

Dried beef should have the same cure as corned beef, but it should not be allowed to become too salty. It should then be washed to remove the excess of the cure, and smoked if the smoke flavor is desired. A very good country practice is to dry cure the beef with salt and brown sugar, using about a fifth as much sugar as salt, rubbing the meat very thoroughly with the cure every two or three days for about two weeks. It should then be washed, wiped, and hung up to dry in a warm place or transferred to the smoke house and given a light smoke.

Corned beef is at its very best when it has been in the cure about ten days. If kept in the cure more than a month, it needs considerable freshening before cooking. If the red color of the beef is to be preserved, use a small amount of salpeter, not more than two ounces to each hundred pounds of the meat. This improves the color of the meat but is detrimental in that it tends to harden the lean fibers.

Hints for Farmers' Clubs

Here are a few suggestions regarding farmers' clubs from a bulletin on that subject just issued by the Ohio College of Agriculture:

Do not form a club if there is an organization in the community that can do the necessary work. It will be far better to get the existing organization to take up the work.

It is not advisable to try to organize a club unless there is some demand for it.

Make provision in the constitution so that all classes may be reached. A community club is an agency for promoting human welfare and therefore all people must be considered.

A club will not succeed unless it has something to do. People soon tire of an organization that exists merely so that a few persons may hold offices and have opportunities in meetings to air their views on various questions.

The organization should be as simple in form as possible. The object of the organization should be kept in the foreground.

German War Practices

Some of the blackest pages in all history, comprising a documentary record of "deeds that make one despair of the future of the human race," are found in a book named "German War Practices," which has just been issued at the government printing office by the Committee on Public Information for free distribution. It is edited by Prof. D. C. Munro, of Princeton, and other scholars.

The dumbfounding evidence which this book presents to the jury of mankind is drawn mainly from German and American sources, and includes official proclamations and utterances of the responsible heads of the imperial German government, letters and diaries of German soldiers, quotations from German newspapers, and material drawn from the archives of the State Department which lay bare the story of inconceivable German atrocities.

The purpose of the book is to show that the system of frightfulness, itself the greatest atrocity, is the definite policy of the German government, so sinister that German soldiers have themselves at times revolted. Individual acts of wanton cruelty and barbaric destruction are cited only to illustrate the operation of the remorseless system.

The book supplements the Bryce report which was the first official survey of the path of horror, ruin, and death left by the German army on the lands of innocent and defenseless people. The book is supplemental also to the official reports by the Belgian Commission and the French Minister of Foreign Affairs, and it reveals more of the damning German war philosophy as expressed in the German White Book and various official utterances, extenuating revolting crimes on the grounds of expediency and the advancement of that "kultur" which now mocks its own name throughout the civilized world. The humanity of German soldiers was so torn by the system of brutality that they cried out in letters to Ambassador Gerard, one expressing his protest against the slaughter of the Russians in the Masurian lakes and swamps by saying, "There is no God, there is no morality, and no ethics any more; there are no human beings any more, but only beasts."

A free copy of this book can be obtained by addressing the Committee on Public Information, 10 Jackson Place, Washington, D. C.

How about pruning the orchard one of these days? More time is available now on most farms than at any other time of the year. Dead and diseased wood should also be removed when the orchard is renovated.



KEEP MILK COWS

MANY are considering the advisability of selling off the dairy cattle. In some instances reducing the herd to fit the labor available is the only course left open, for it is almost impossible to hire help to handle dairy cattle. It is almost certain, however, that the demand for dairy cows will be heavy when normal conditions return. It is a time to sell off poor producers, but the man who can manage to keep together a good dairy herd will make a good profit when the present period of abnormal feed prices is over.

The tendency to sell dairy cattle is not as yet so apparent in Kansas as in some of the states farther east. Prof. J. B. Fitch states in the Kansas Industrialist that there is always a tendency to reduce stock when feed is high in price. In his judgment, after normal conditions return there will be a great demand for dairy cattle. He urges that an effort be made to hold dairy stock so as to be ready for this demand when it comes. Now is the time, however, to sell the poor producer because of the high prices paid for meat animals.

With alfalfa selling at $25, people will hesitate to feed it to ordinary milk cows. Most cows in Kansas will be fed on corn silage and alfalfa hay, which form the cheapest balanced ration obtainable, although high-producing cows should receive some grain.

If you have silage but not alfalfa, use corn or kafir fodder and get the required protein from cottonseed meal or oil meal. If you have a high-producing cow, and have corn and oats available, two parts of corn, two parts of oats, two parts of bran, and one part of cottonseed meal or oil meal—each by weight—will provide a good ration. This grain mixture should be fed at the rate of one pound to four pounds of milk produced in addition to the silage and hay.

It is possible by feeding available rough feeds and some protein feeds to rough the cows through the winter. They may produce less, but the returns may be as much as in other years.

Keeping records is important, as it provides a way of knowing just what each cow is doing. Some way of weighing and testing will not only give specific knowledge of each individual but also assist in determining the ration. In this way the poor producer can be located. Keeping records pays better than ever before.

Any great reduction in the number of dairy cattle will mean higher priced dairy products later. The public should be willing to pay a reasonable price for dairy products at this time in order that the dairy herds may be kept together.

Wartime Live Stock Breeding

The shortage of animals and animal products in this country should be a stimulus to improved live stock production. There has not been such a great shortage in the live stock population in proportion to the human population in many years. It is doubtful if there has ever been so great a shortage of live stock in view of the needs of humanity. This is of peculiar significance to dairymen because of the universal need of dairy products in the diet of children. Many dairy cows have been slaughtered for beef.

It has been repeatedly said by men acquainted with conditions that the wise live stock man will not only continue in the business, but will increase his capital in breeding stock. A good many, however, have hesitated until recently to increase their live stock because of unusual conditions. High prices and the urgent need for increased production are now acting as compelling factors. This is a good time therefore for a step toward more profitable production.

The advantages of community live stock breeding which existed before the war still hold good, and present conditions emphasize the importance of community breeding more than ever before. Wonderful progress could be made in live stock improvement if the increase which undoubtedly will be made could be obtained from pure-bred sires. Thus, a relatively larger percentage of high grade animals could be produced than if the improvement were started when the live stock population of the country were normal. If better sires are used at this time the resulting increase in the total live stock production will contain a larger percentage of good blood than the live stock population of this country has ever had.

Communities can obtain sires to be used on the females they now have, which an individual could not afford. In many communities there is no one who is willing to make the necessary outlay for a good sire, and no person should be expected to bear the entire burden of live stock improvement for the community. If the community co-operates in live stock breeding they can obtain the services of a good sire at a comparatively low cost. Most successful community breeding involves organized and specialized production. Co-operation is therefore necessary to the successful outcome of the plan.

Co-operative breeding helps the small breeder, offers opportunity for the exchange of sires with other communities, affords co-operative marketing and buying. It also stimulates community spirit just as any other live working organization will do. It serves as an excellent advertisement for the community, as has been demonstrated in a number of localities.

National Dairy Show Record

Early Dawn Peep 2d, a pure-bred Holstein cow, afforded one of the sensations at the National Dairy Show at Columbus, Ohio, by making a typical Holstein



EARLY DAWN PEEP 2D

record of 33.52 pounds of butter in a week. While that is a good record, it is not an exceptional one. It is unusual, however, in view of the conditions under which it was made. The strain of traveling to the show, the strange barn, the crowds of the curious and the excitement incident to the show were all serious obstacles to the making of a record. It is a wonderful record in view of these trying conditions. Her record for seven days at the show was 634 pounds of milk of 4.22 per cent fat, yielding 33.52 pounds of butter.

Dairy Cows to Lyon County

Two cars of Holstein cows will be shipped into Lyon County by the farmers near Bushong and Americus, reports H. L. Popenoe, agricultural agent. A farmer, the banker at Bushong, and the county agricultural agent, will select the cattle, and the plan is to get them from Kansas breeders.

Mr. Popenoe reports also that the demand for stock hogs is in excess of the supply as the men who have soft corn are desirous of feeding or selling it before it spoils. For this reason a high price is being paid for brood sows or stock hogs at sales and many are being bought on the market.

I suppose not many fortunate by-products can come out of a war, but if the United States can learn something about saving out of this war it will be worth the cost of the war; I mean the literal cost of it in money and resources. I suppose we have several times over wasted what we are now about to spend. We have not known that there was any limit to our resources; we are now finding out that there may be if we are not careful.—PRESIDENT WILSON.

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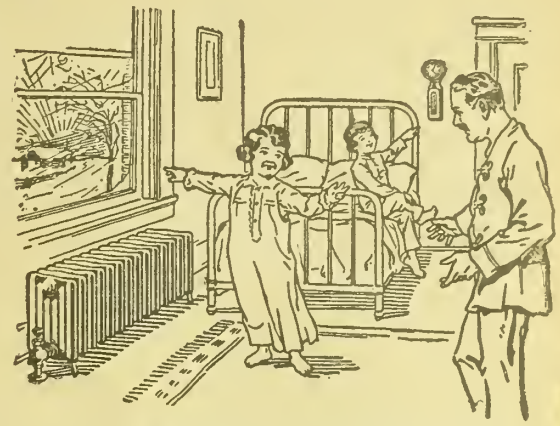

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Hot Water—Copper Tank—Double Walls of Fibre Board—Self Regulated. With $5.25 Hot Water 140-Chick Brooder—both only $12.95. Frt. Paid E. of Rockies. Satisfaction Guaranteed. Share in my $1000 in Prizes. Conditions easy. Order now or write today for my Free Book "Hatching Facts". —It tells all Jim Rohan, Pres.

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150 EGG INCUBATOR CHICK BROODER with Fr. $12.50

PAID East of the Rockies

Hot water copper tank, galvanized iron; has double walls, copper tank, nursery, egg tester, thermometer, ready to use. 80 DAYS' TRIAL—money back if not O.K. Write for FREE Catalog Now.

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Dry goods merchant owns 3,000 acres choice land in the wheat and corn belt of Eastern Colorado. An ideal location for cattle, sheep, or hog raising. Fine proposition for some hustling farmers who are tired of paying rent and sick of working for the other fellow. I own the land and will let the right fellows in on a good deal. Write me.

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Young men and women attend on credit. A practical school with railroad wires. Owned and operated by the A. T. & S. F. Ry. EARN FROM $55 TO $165 PER MONTH. Write for catalog.

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Business course prepares for government positions guaranteeing $900 annually. Expenses low. 814 students from 16 states. For catalog write

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Graduates guaranteed positions and furnished employment to defray expenses while attending.

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There is not room today in the United States for fighting a war like this one and at the same time supporting a business boom. We have neither the men, materials nor equipment for both.—U. S. Fuel Administration.



Farm Breeding Flock

ON THE average farm no distinction is ordinarily made between the laying flock and the breeding flock. Where this is the practice of course males enough for the whole flock must be provided, as all the eggs are subject to use for hatching purposes. The eggs of the pullets will likewise be used for hatching along with the eggs of the fully mature hens. It is really an expensive and unsatisfactory method of handling the hatching proposition, resulting in a lowered hatching power of the eggs, weakened chicks, and the necessity of keeping a larger number of males.

During nine months of the year there is no reason for making any distinction between the breeding flock and the laying flock. All the fowls will run together, having the freedom of the farm. One of the functions of the farm flock is to save waste. During the breeding season, however, the hens selected for breeders should be separated from the general flock and mated with suitable males. These hens ought to be stock hatched from the eggs of mature hens. Using the eggs of pullets or even eggs from hens hatched from pullet eggs tends to lower the vigor and vitality of the flock.

It is not such a difficult matter to maintain a breeding pen on the farm as some may think. Of course in the selection of the hens for this pen some system of toe-marking the baby chickens as soon as they are hatched, should be practiced. It is only by doing this that there can be any very intelligent selection of the hens for the breeding pen. If the chicks are marked each year the hens for breeders can be selected with some knowledge as to their parentage.

Keeping the breeding pen confined offers some difficulties. Fowls that are in the habit of running at large are more apt to worry under confinement and it requires higher fences to keep them. On some farms the general flock is confined during the breeding season and the breeders given the run of the farm. Unless a fairly roomy yard can be provided this is perhaps better than confining the breeding flock too closely. Close confinement may cause lessened vitality in the eggs as well as a falling off in egg production. Of course the same conditions will obtain with the general flock, but at the season of the year when hatching is being done the importance of hatching the new stock under the most favorable conditions possible will justify any small loss that might come from keeping the general flock confined during this season of the year.

By having a carefully selected breeding pen each year, some improvement can be made in the flock. Hatching promiscously from the whole flock almost invariably lowers the quality and standard of the flock as a whole. Applying the same methods of improvement to poultry as are so successful in producing better hogs and cattle is well worth while in the management of the farm flock.

Wartime Poultry Ration

How can poultry be fed without the use of wheat? What ration will produce winter eggs? These two questions are uppermost in the minds of poultry keepers at this time.

A report received by the Missouri College of Agriculture from one Missouri farmer who feeds nothing but corn to his chickens, shows that he received only six eggs from eighty-four hens and pullets during November. Another farmer in the state received 112 dozen eggs from 430 hens during the same period. This man feeds corn, oats, bran, shorts and meat scrap to his birds.

This difference in egg production is due to the difference in the method of feeding. The man who feeds only corn is not furnishing the proper materials for egg production and consequently his hens do not lay. To produce eggs the hen must have protein material to form the white portion, and when the supply of bugs and worms is shut off by cold weather this white building material must be furnished in the ration or but few eggs will be produced. Meat scrap and sour milk are the most satisfactory feeds for furnishing the needed protein and one or the other should be included in every winter laying ration.

The feeds recommended by the poultry department of the Missouri college for the present season are: Scratch Feed—Ten pounds whole or cracked corn, five pounds oats. Mash Feed—Three pounds bran, three pounds shorts, one and one-half pounds meat scrap.

Three gallons of milk will take the place of the meat scrap.

The corn and oats should be fed in a deep straw litter to give the birds plenty of exercise in scratching them out. The mash should be fed dry in a hopper or trough where the birds can eat at will. If milk is used it can take the place of water for drinking.

The foregoing ration not only contains the proper elements for egg production but it also avoids the use of wheat.

Town Man's Record

Fourteen-cent eggs sounds unreasonable, especially when the retail price of eggs has mounted gradually during the last two or three years. Perhaps it is not possible to produce eggs for that price during the present winter, but that is the record made by ten White Leghorn pullets last year. These pullets were purchased November 1, 1916, by H. L. Kempster of Columbia, Missouri. Only two were old enough to lay before January 1. At the end of seven months, May 31, the flock had produced 749 eggs at a feed cost of less than 14 cents a dozen. The average retail price of eggs in Columbia during this time was not less than 35 cents a dozen. Thus, on the basis of that price, the hens returned a labor income of $1.32 each.

The house in which the birds were kept had been made of packing boxes and was covered with roofing paper. The actual cost of the house not including packing boxes was $3.85. During the seven months the birds ate 225 pounds of cracked corn and 125 pounds of mash. The mash consisted of equal parts by weight of bran, shorts, corn meal, and beef scrap. Oyster shell was kept before the hens in a can attached to the wall. The total feed cost including one bale of straw was $8.66.

Owing to the high price of feeds it may not be possible to produce eggs so cheaply during the present winter. However, Mr. Kempster suggests that the record made by these hens was not exceptional. At any rate the back-yard poultry keeper will be able to make considerable saving by producing his own eggs.

Wonderful Egg Producer

Any poultry raiser can easily double his profits by doubling the egg production of his hens. A scientific tonic has been discovered that revitalizes the flock and makes hens work all the time. The tonic is called "More Eggs." Give your hens a few cents worth of "More Eggs" and you will be amazed and delighted with results. A dollar's worth of "More Eggs" will double this year's production of eggs, so if you wish to try this great profit maker, write E. J. Reefer, poultry expert, 4631 Reefer Bldg., Kansas City, Mo., who will send you a season's supply of "More Eggs" Tonic for $1 (prepaid). So confident is Mr. Reefer of the results that a million dollar bank guarantees if you are not absolutely satisfied your dollar will be returned on request and the "More Eggs" costs you nothing. Send a dollar today or ask Mr. Reefer for his free poultry book that tells the experience of a man who has made a fortune out of poultry.—(Adv.)

If you do not have skim milk, feed ground fresh bone or shoot some rabbits and give them to your hens. Be careful, however, about letting meat of any kind spoil where the hens can have access to it. If neither skim milk nor fresh meat of any kind can be supplied, commercial beef scraps must be depended on for the necessary protein. Laying hens must have animal food of some kind.

"Hooverize" Your Poultry

War rations for poultry must include the coarser, cheaper grains and by-products. It is economy to use them *if your birds are able to fully digest them* and convert them into eggs and meat. And *they can* if you regularly add to the ration

Pratts Poultry Regulator

America's Original Poultry Tonic and Conditioner

Pratts Poultry Regulator is not a food, but a scientifically compounded mixture of roots, herbs, spices, mineral substances, etc. Each ingredient performs a certain work in keeping the fowls in perfect health and highest vigor.

Its regular use cuts feed bills by preventing waste due to sluggish digestion, by enabling the fowls to thrive upon the coarser feeds. *And it makes hens lay.* It creates a keen appetite, improves digestion and circulation, regulates the bowels, makes the egg-producing organs "do their bit." We have backed these statements for 50 years with a broad money-back guarantee!

Pratts Poultry Regulator insures such vigorous health that the birds are practically immune from ordinary poultry diseases. For this reason alone it is worth its small cost—about 1c a month per bird. If ROUP—a germ disease—attacks your flock, Pratts Roup Remedy will quickly overcome this trouble. Use it in changeable weather as a preventive of roup and colds. It's guaranteed!

Our dealer in your town has instructions to supply you with Pratts Preparations under our square-deal guarantee—"*Your money back if YOU are not satisfied*"—the guarantee that has stood for nearly 50 years.

267 *Write for 48-page poultry book*

PRATT FOOD CO.
Philadelphia
Chicago
Toronto

Pratts

Warning!

Right Now is the Time to Save Your Wheat from "Winter Kill!"

Spread Your Straw at Once

Remember what happened last spring. Millions of acres of wheat lost from "winter kill," that could have been saved by spreading a mulch of straw during the winter.

Don't take any chances this season. Write at once to the Simplex Spreader Mfg. Co., 210 Traders Building, Kansas City, Mo., and get their big special wartime offer on a Simplex Straw Spreader. This is the machine that last year saved millions of dollars of wheat losses from "winter kill."

The manufacturers are making a patriotic offer to save the wheat, so badly needed. They will ship a Simplex Straw Spreader right direct from factory to farm, without a cent in advance, freight prepaid, for thirty days' free trial. If you decide to buy the machine, take a whole year to pay, if desired. If not, return it and you are out nothing.

Hides Tanned

Send us your hides or furs, and we'll tan and make Fur Coats, Robes, Mitts, etc., of them.
ALL WORK GUARANTEED.
All kinds of repair work and taxidermy. Also tanning harness and lace. The only Tannery in the Kansas Citys.
Cash Paid for Hides and Furs.
Write for Catalog 7 and price list.
KANSAS CITY ROBE & TANNING CO.
Kansas City, Mo. Wichita, Kan. Okla. City, Ok.

HEAVES Money Back If It Fails

A horse with heaves can't do its full share of work. Cure the heaves and you have a horse worth its full value in work or in money. Send today for
FLEMING'S TONIC HEAVE POWDERS
($1.00 per package). Satisfactory results or money back.
Fleming's Vest-Pocket Veterinary Adviser.
Helps you distinguish heaves from other ailments. Write for the Adviser. It is FREE.
FLEMING BROS., Chemists,
251 Union Stock Yards, Chicago, Ill.

The most convenient way to feed a mash to hens is in a self-feeding hopper, allowing them to satisfy their own needs. Ordinarily a hen should eat about twice as much grain as mash. The feed hopper for Leghorn or other light breeds or pullets of heavier breeds may be left open all the time, but hens of the heavier breeds should be allowed access to the mash only during the afternoon. Otherwise they will not exercise enough.



Hog Feeding Methods

WILLIAM KNABBE of Washington County gave us some figures last fall on the cost of wheat in that county, but made the statement that he was a corn and hog farmer, marketing his hogs at about six months of age, weighing 200 pounds.

He writes as follows in explaining his methods: "I like to get my hogs to market in six months from the time they are farrowed because my March pigs go on a September market at a good price. I also avoid considerable risk from disease, which is more apt to be prevalent later in the fall, and then by selling early they are out of the way about the time my fall pigs are being farrowed, so that I can give the fall pigs much better care.

"I like to use old sows. Any breed will do if you have the right kind of individuals. I raise pure-bred Durocs and always breed my sows to good boars. I feed my sows six pounds of corn a day in winter, and alfalfa hay, and in summer two to three pounds of corn and good pasture. In the spring two weeks before farrowing I give each sow about one-half pound of tankage daily. About two weeks after farrowing I feed sows and pigs all they will eat of the following mixture: Eight parts tankage, four parts oil meal, and eighty-eight parts corn, by weight, feeding the tankage and oil meal in a slop.

"I wean the pigs in from six to eight weeks and continue feeding them all they will clean up of the above ration twice a day. I keep them free from worms and lice. Handled in this way they will weigh about 200 pounds in five and one-half to six months from farrowing."

Grinding Corn for Hogs

Experiments at the Kansas Experiment Station show that with corn at the present high price, it will pay to grind it for hogs if the grain does not have to be hauled too far and the expense of grinding is small.

It is advisable to grind the corn when it is to be mixed with other feeds such as shorts, tankage, or oil meal, and fed in a self-feeder. If the corn is not ground and is mixed with the feeds named, it will tend to drip first in the feeder and leave the finer feeds behind and thus the hog will eat more corn and less of the other feeds.

Soft Corn and Hog Cholera

Will the feeding of soft corn cause cholera or other diseases among hogs? This is a question which is being raised this winter as never before, due to the large amount of immature corn that must be fed. It is a question that cannot be answered in a word; there is more than that to be said.

The feeding of soft corn will require, as everything else, the exercise of judgment and common sense. Common sense demands that the spoiled, rotting ears be thrown away—preferably, not picked. Their feeding value will be found less than nothing for such feed tends to run down the hog's constitution. Ordinary soft corn, however, has its feeding value, but common sense tells one that it does not contain the same feeding value as hard corn which should, therefore, be fed with soft corn. Steers seem to thrive on soft corn without hard corn and with no injurious results. Summed up in a nutshell, soft corn should be mixed with common sense—the former to be utilized, the latter exercised.

Percheron Breeders Increase

The Percheron business of this country is today in the hands of the farmer who is raising a few Percherons as a side line on the general farm. The number of Percheron breeders has increased rapidly.

In 1900, seventy-two farmers were breeding pure-bred Percherons in Kansas, while now 547 farmers are producing this breed. In former years the pure-bred Percheron business was largely in the hands of importers, dealers, and large breeders. Under such conditions the advertising and sales department of such firms was an important one. The business gradually has drifted over to small farmers.

In order to assist such breeders in selling their surplus Percherons at prices which the quality of their live stock justifies, the animal husbandry department of the agricultural college holds annual consignment sales to which the various breeders may consign from one to four head of Percherons. This is under the management of Dr. C. W. McCampbell.

When these Percherons are brought together at some centrally located place, properly advertised, the breeder gets from 25 to 50 per cent more for his surplus Percherons than he is able to get at home. In order that a high standard may be maintained for these sales so that the best buyers will be attracted, all Percherons accepted must be inspected by a member of the animal husbandry department and none are accepted unless sound, and good individuals of the right type.

The next annual sale will be held in the college pavilion January 25, at which forty head of Kansas-raised Percherons will be sold at public auction.

The Denver Stock Show

Preparations for the annual National Western Stock Show at Denver are being pushed vigorously and there are indications that it will be the most important event held in the West this winter. That it will have an important bearing upon the war food situation is evidenced by the interest being taken by the Government. The United States Experiment Station and the agricultural college at Fort Collins are planning a big educational exhibit, and there will be a large attendance of government experts to take up various live stock problems directly with the farmers and stockmen.

The date of the show is the week of January 19 to 26, inclusive. The show will start on Saturday with a students' judging contest in which the principal agricultural colleges of the West will take part.

The railroads are planning the usual low rates from all parts of the West and a very large attendance is expected. Plans are being made for a big live stock conferenee during Stock Show week, at which representative stockmen from all parts of the West will meet and confer with Mr. Hoover.

New Experiment Station Barn

A strictly up-to-date barn to be used in feeding experiments by the animal husbandry department of the Kansas State Agricultural College is nearing completion. The building will take the place of the barn destroyed by fire last spring.

The main building is 43 by 50 feet. It has a self supporting gambrel roof, which does away with all supports in the loft. As the top of the loft is 30 feet from the floor, the barn will have an unusually large storage capacity.

Outside the main section there are two partly inclosed wings, each 75 feet in length, which make a total length for the building of 195 feet. These wings will have floors of cement. A cement runway outside will be a feature. The wings will be used for sheltering the cattle in experiments, while the barn proper will be devoted almost entirely to storage for hay and grain.

The back part of the barn is being especially constructed to inclose two silos. All the storage space in the loft is in the center of the barn, the opening through which the hay is to be lifted being on one side. This makes possible a greater storage capacity.

The normal pulse beats per minute in the domestic animals are as follows: Horses, 36 to 42; cattle, 38 to 50; sheep, goats and hogs, 70 to 80, and dogs, 80 to 100. The pulse beats faster in young than in old animals. Excitement and a nervous temperament may cause a more rapid pulse. When exercising and immediately after, the rate is higher than when the animal is at rest.

All Farm Animals Need And Crave CAREY-IZED Stock Tonic Brick



Your hogs, cows, sheep and horses "take their medicine" voluntarily, eagerly, regularly, when you place it before them in the form of Carey-ized Stock Tonic Brick. You do not have to force it down their throats, or starve them to make them take it in their feed. They will absolutely take care of their own health with no bother to you whatever. Just place Carey-ized Stock Tonic Brick in the feed lot or troughs where animals can have access to it all the time—they do the rest.

Eight Different Health Promoting Medicines Which Animals Need All the Time

Carey-ized Stock Tonic Brick is made up according to a formula scientifically worked out by chemists of highest standing. It is more than a specific for some particular ills. Its purpose is To Prevent All Disease—to keep the animal system in such vigorous health that it repels all attacks of disease germs of every description.

Carey-ized Stock Tonic Brick is a combination of powdered gentian root, sulphate of iron, bi-carbonate of soda, sulphur, carbonized peet, quassia, charcoal and pure dairy salt. Contains absolutely no harmful substance—animals can't eat too much of it.

These ingredients, properly proportioned, constitute an unfailing worm destroyer and conditioner, keep stomach and bowels in order, aid digestion, promote healthy activity of kidneys and liver, purify and invigorate the blood.

Carey-ized Stock Tonic Brick has stood the severest feeding tests by leading stock raisers, and has the unqualified endorsement of high veterinary authorities. Let us give you the names of enthusiastic stock feeders whose hogs and other animals have been saved from disease and death by this great health medicine.

Solid Brick Form makes it economical to feed — preserves its medicinal value till the last particle is eaten. Animals eat only when they need it and as much as they need—there's no waste. Supplies them regularly with salt, as well as other needed medicines.

Our 30-Day Trial Offer the Most Liberal Ever Made

We positively guarantee Carey-ized Stock Tonic Brick to be and do all we claim for it and we want you to verify our guarantee by your own experience and entirely at our risk. Order a dozen or more Carey-ized Stock Tonic Brick from your dealer; let your live stock have free access to it for 30 days. If you are not satisfied with the result, return what you have left and get all your money—no charge for what you have used. We stand behind our dealers with our guarantee.

If your dealer does not handle Carey-ized Stock Tonic Brick write us his name and we will see that you are supplied.

Fill out and mail us the coupon or write us a postal, and we'll send you full information and valuable booklet "Making Live Stock Pay."

CAREY SALT COMPANY

Department 256
Hutchinson, Kansas



Animals given Carey-ized Stock Tonic Brick thrive better on less feed—saves feed money. It aids digestion.

CAREY SALT CO.
Dept. 256, Hutchinson, Kansas

Please send me full information on Carey-ized Stock Tonic Brick; also Free Book "Making Live Stock Pay."

My dealer's name.....

P.O......*State*.....

My Name.....

P. O......*State*.....

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 60,000 farmers for 5 cents a word per week. No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. Terms, always cash with order.

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted free of charge for two weeks, for bona fide seekers of employment on farms.

HELP WANTED.

THOUSANDS U. S. GOVERNMENT WAR jobs open to farmers, men-women 18 or over. $75 to $150 month. Pleasant work. Write for list positions open. Franklin Institute, Dept. L-82, Rochester, N. Y.

REAL ESTATE.

FOR SALE — HATCHERY AND WHITE Leghorn farm worth $10,000. Price now $8,500. Colwell, Smith Center, Kansas.

WANTED—TO HEAR FROM OWNER OF good farm for sale. State cash price, full description. D. F. Bush, Minneapolis, Minn.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 15 St., Chippewa Falls, Wis.

EXCHANGE BOOK, 1,000 FARMS, ETC. Trades everywhere. Graham Bros., El Dorado, Kansas.

SELL YOUR PROPERTY QUICKLY FOR cash, no matter where located. Particulars free. Real Estates Salesman Co., Dept. 77, Lincoln, Neb.

BARGAINS — BARGAINS. SEND FOR free magazine of farms, businesses, wild lands, exchanges, any kind anywhere. Western Sales Agency, Minneapolis, Minn.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

"THE WILLOWS" OFFERS CARLOAD of springing grade Holstein cows, $115 head. S. D. Shambeau, Scandinavia, Wis.

FOR SALE — REGISTERED HOLSTEIN bull, large and finely bred. Sand Springs Home, Drawer D, Sand Springs, Okla.

AYRSHIRES FOR SALE — PURE-BRED, registered bull calves, up to twelve months old. Best of breeding. Call or write. Geo. A. Nelson, Militown, Wis.

HIGH-GRADE HOLSTEIN CALVES, either sex, 15-16ths pure, beautifully marked and from high producing dams, four to seven weeks old, $25 crated. Express paid to any station. Reliance Stock Farm, Whitewater, Wisconsin.

BABY CALVES, HOLSTEIN, PURE-bred, either sex, priced right. Also a few choice grade heifer calves, practically pure-bred. Crated and express prepaid to you at $25 each. Sunnyside Farm, Route 1, Jefferson, Wisconsin.

FOR SALE—THREE REGISTERED JERsey cows, bred to Owl's Pogis Tomo. His dam's year record 764 pounds butter. His sire's dam 816 pounds. Also one bull calf by this bull. R. O. McKee, Marysville, [illegible].

[illegible] BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

DOUBLE STANDARD YOUNG POLLED Durham bulls, $100 to $150. Heifers, $100 to $125. Good grade bulls, $75. Crown Prince at head of herd. Also good coming yearling jack and one extra good coming three-year-old, at reasonable price. W. C. Baumgartner, Halstead, Kansas.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

MERRY CHRISTMAS COLLIE PUPPIES, $5. One grown, $10. Frank Barrington, Sedan, Kansas.

AIREDALES AND COLLIES—GREATEST of all pups. Grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

THE STRAY LIST.

TAKEN UP—BY WALTER FRENCH, OF Manning, Keystone Township, Scott County, Kansas, on the 18th day of December, 1917, one white face steer, brand on left ear. Appraised at $30. John L. Whitson, County Clerk.

NOTICE IS HEREBY GIVEN THAT I have taken up one stray steer, coming two years old, on my farm three miles north and seven miles west of Yates Center, Kansas. Said steer is red with white face, branded "J.O." on left side and with a "V" and "I" on left hip, left ear split and right ear clipped. Dated at Yates Center, Kansas, November 23, 1917. Henry Weide. C. V. Orendorff, County Clerk.

TAKEN UP—BY E. D. BIRD, OF MONtezuma, Gray Co., Kansas, on the first day of September, 1917, one 2-year-old red white-face heifer, H T connected on left hip, also one 1-year-old black white-face steer, no brands, value $75. W. W. Preesly, County Clerk.

MISCELLANEOUS.

THIRTY DIFFERENT MAGAZINES, late issues, value $3, yours for 25c prepaid. Eastern Bureau, New Egypt, N. J.

The wealth of a man is the number of things he loves and blesses, which he is loved and blessed by.—THOMAS CARLYLE.

TANNING.

LET US TAN YOUR HIDE: COW, HORSE or calf skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

HORSES AND MULES.

SHETLAND PONIES. CHARLES CLEMmons, Coffeyville, Kansas.

SEEDS

WHITE SWEET CLOVER AT FARMERS' prices. John Lewis, Madison, Kansas.

SUDAN SEED, MY OWN RAISING. Guaranteed no sorghum or Johnson mixture. 25c per pound. M. H. Loy, Milo, Kan.

RED AND WHITE KAFIR, 5 CENTS per pound. Sudan, 30 cents, sacks extra. M. T. Hunt, Route 5, Parsons, Kansas.

SITUATION WANTED.

YOUNG MARRIED MAN, SMALL FAMily, raised on farm, wants job running farm on shares, everything furnished, or would consider working on salary. G. I. Lane, Stamford, Neb.

MARRIED MAN, SMALL FAMILY, wants job on farm. Experienced farmer. Good references. Or would run farm on shares with everything furnished. R. B. McGinnis, Dillon, Kansas.

FARM LANDS.

YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements, or ready made farms. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

Bargains in Land

160-ACRE UPLAND FARM, 11 miles of Topeka, 4 mi. two railroad towns; 90% tillable; 60 a. cult., 15 a. alfalfa, balance fine grass land. Five-room house, barn 28 x 56. Fine old shade. Fine water and fruit with $800 corn and hay. Priced for quick sale, $12,000. For particulars write

F. M. BUCHHEIM
521 West Street Topeka

80-ACRE IMPROVED FARM

IN OSAGE COUNTY, KANSAS. ONLY $3,200. TERMS.

Seventy acres in cultivation, 10 acres pasture, 5-room house, barn 32 x 36, plenty of water, close to school, five miles from town, good road, R. F. D. and telephone line. $800 cash, balance long time at 6 per cent.

THE EASTERN KANSAS LAND COMPANY
Quenemo, Kansas.

Stale Bread and Cake

Stale bread and cake, thoroughly dried, put through the food chopper and reduced to fine crumbs, may be successfully used as a substitute for flour in many recipes in the proportion of one part crumbs to two parts flour, suggests Miss Flora Monroe, manager of the cafeteria at the Kansas Agricultural College.

Bread crumbs work in nicely in muffins and other warm breads in which baking powder and soda are the leavening agents. They should not be used in yeast breads.

Cake crumbs may be used in spice, caramel and devil's food cakes, but should not be used in white cakes. If crumbs of heavy, rich cake are used, it is not necessary to use as much sugar. Cake crumbs make a good foundation for spice puddings, and are an excellent foundation for making steamed brown breads.

Meat and Bread-Crumb Cakes

Left-over meat and dry bread may be utilized to make appetizing cakes in the following manner: To four parts of chopped or ground meat, add one part soaked bread crumbs, a small quantity of chopped onion, and salt and pepper to taste. Mix and form into small round cakes. Brown the cakes in butter or other fat, turning them.

Raw ground meat may be used. If so, the pan should be covered so that greater heat will be applied. A left-over vegetable may be used instead of the meat. In that case a greater food value is given by dipping the cakes in egg and then in dried crumbs before frying.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

Resolve

To keep my health! To do my work! To live!
To see to it I grow and gain and give!
Never to look behind me for an hour!
To wait in weakness, and to walk in power;
But always fronting onward toward the light,
Always and always facing toward the right,
Robbed, starved, defeated, fallen, wide astray—
On with what strength I have! Back to the way!

—Charlotte Perkins Stetson.

Birthday Celebrations

One good practice for the mother to start this year if she has not hitherto followed it, is that of celebrating the birthdays of the different members of the family. No other holiday is so particularly one's own as the day of his birth, and remembering and observing this in some way is an expression of personal interest that is always appreciated. It is not necessary to go to much trouble or expense. It takes very little to please a child. An inexpensive present or some simple pleasure with the feeling that it is given for his own especial benefit will make the day one to be grataefully remembered. This might take the form of a picnic lunch, at an appropriate time of the year, or perhaps simply a favorite dish or a birthday cake served in his honor. It the present or treat is in the nature of a surprise it will be all the more appreciated. Let the other children enter into your plans and help you in carrying them out. They will enjoy it and there is no better way to teach them to be unselfish. Encourage them to be thoughtful of you, also, and let them see that you appreciate it.

Make a Home Calendar

An idea which the Sunday School has already borrowed from the kindergarten and which the home may well appropriate also is that of an appropriate monthly calendar made by the children themselves under the direction of an older person. A sheet of white cardboard is ruled off into a sufficient number of blank squares for the days of the month, leaving room outside of the ruled portion for the mounting of a suitable picture, which can be clipped from the current issue of almost any magazine.

The children mark the calendar each day with a suitable emblem. Yellow circles should be provided for sunny days and gray for cloudy. Tiny umbrellas cut from black paper denote rain, and a gray circle partly covered with white indicates snow. Advertisements furnish pictures for special occasions — a little church, a toy, a birthday cake, a Christmas tree, etc. Birthdays of noted people may be indicated in some way. This will open the way for character building stories concerning them. Each child should be made to feel the importance of his own birthday to the family.

The children will enjoy hunting for and cutting out appropriate pictures. Make suggestions when they seem to be needed, but let them do the work themselves. They will take pleasure in attending to the calendar regularly, and are unconsciously being helped to a realization of divisions of time.

Individual Responsibility

Are you observing that wheatless day and that meatless day each week? Poppycock, one man says. No one else is doing it, why should I? As a matter of fact many others are already doing it and more soon will. Further, the fact that others are not acting in accordance with America's best interests does not absolve my remissions. The situation is this: We are short of both wheat and meat. It is essential to the winning of the war that we increase the supply of both. Only by individual responsibility can this be done. The Government has laid the matter before us as a moral responsibility—as merely the act of abstaining from a thing that we are legally entitled to do. How different and how much more in accordance with our principles than was the Prussian edict upon the declaration of war that every individual in the empire should be limited to a certain weight of meat each week. Such a course may be necessary if individual inclinations continue to rule in the full bloom of their short-sightedness. At the bottom of the problem lies not so much disloyalty as lack of appreciation of certain fundamental considerations — short-sightedness in an understanding of that thing known as the common weal.

The canning of vegetables and meats on the farm is becoming an important factor in reducing the cost of living. The winter time is perhaps the most desirable time to can meats. It is at this time that the farmer kills a beef and frequently has a surplus and some may even be wasted. This surplus should be canned for summer use. Canned fruit and vegetables are being used during the winter and these empty cans might well be filled with surplus meats. The housewife then has part of her summer work done and is well prepared for an emergency.

Wheat Bread Substitutes

Corn bread, brown bread, oat cakes, buckwheat cakes, hominy, potato biscuit, rye bread, potatoes, rice.

Fish Chowder

Rabbit, fowl, or any meat may be used instead of the fish, or tomatoes instead of milk. Carrots may be omitted.

1½ pounds fish (fresh, salt, or canned)
9 potatoes peeled and cut in small pieces
1 onion
2 cups carrots cut in pieces
3 cups milk
Pepper
3 tablespoons flour
1 tablespoon fat

Fry chopped onion in fat for five minutes. Put fat, onions, carrots and potatoes in kettle and cover with boiling water. Cook until vegetables are tender. Mix flour with one-half cupful cold milk and stir in liquid in pot to thicken. Add the rest of the milk and the fish which has been removed from the bone and cut in small pieces. Cook until the fish is tender, about ten minutes. Serve hot.

Meat Substitutes

Poultry, rabbit, fish, eggs, cheese, baked beans, bean loaf, nut loaf, bean soup, milk soup, chowders, milk.

He who has conferred a kindness should be silent, he who has received one should speak of it.—SENECA.

Twilight Animal Stories

Bumper The White Rabbit

By George Ethelbert Walsh

(Copyright, 1917, by George E. Walsh)

STORY IX.—BUMPER ESCAPES AN A RAFT.

BUMPER took a long time to rest and get back some of his breath before he ventured to the very mouth of the open sewer. As soon as he was sure that the bats had abandoned the chase, he threw himself down and closed his eyes from sheer weariness and exhaustion. Then, with returning strength and hope, he raised himself on his two hind legs, and looked around him.

There was water at the mouth of the sewer, and he hopped toward it eagerly. After lapping enough to satisfy his thirst, he began bathing himself. He had never been so dirty before in all his life. He was thankful the red-haired girl wasn't there to see him. She would perhaps disown him.

This thought soothed his feelings a little, and he splashed around in the water until most of the dust and dirt was washed off. Then finding a sunny spot near the entrance, he hopped to it, and sprawled himself out to dry.

Meanwhile, he began examining his surroundings very carefully, and a little anxiously. The sewer dipped down into the river and disappeared from view, and on either side of it, and above it, were very steep walls. No rabbit could climb them. The only possible way out of the sewer was by swimming.

Now Bumper had never learned to swim. Perhaps he could do it without learning, but he felt afraid. None of his family had been

swimmers, and the river was certainly deep. From his place in the sun he could not see bottom.

Once more the thought of returning to the garden by the way he had come occurred to him; but memory of the fierce bats and the Sewer Rat immediately banished all ideas of this kind from his mind. "I'd never go through that dark sewer again for anything," he said, shuddering. "I must go on until I find another way back to the little girl."

Bumper's one desire was to return to Edith. He was sorry now that he had ever jumped out of his pen. If he had been contented and stayed where the red-haired girl had put him, he would be eating delicious grass and vegetables now instead of lying there alone, hungry and afraid to go on or go back.

His hunger came back to him, and gave him a sharp pain in the stomach. "I must have something to eat," he said. "I'm nearly famished."

But there was really nothing in sight that he could eat—not a spear of grass nor a leaf. Then, just as if to prove to him that manna sometimes falls from heaven to feed even poor, destitute rabbits, a big leaf came floating down on the wind and fell almost at his feet. Bumper grabbed it, and began chewing it greedily.

"Oh, you mean, horrid thing!" chirped a voice. "That leaf belonged to me. It was for my nest, and the wind blew it out of my bill."

Bumper looked up, and saw a small sparrow perched on the top of the embankment over his head.

"I didn't know it was yours, Mrs. Sparrow," Bumper replied. "I thought the wind just blew it to me."

Bumper held the leaf in his mouth, with half of it already chewed up. It tasted so good that the thought of abandoning it was more than he could stand.

"If you need it more than I do, Mrs. Sparrow," he said, "I'll give it you. But you must prove it."

"Why, of course I do. I need it for my nest."

"And I need it to keep me from starving."

Mrs. Sparrow cocked her head sideways and looked queerly at him. "You don't look as if you were starving," she observed. "You're as plump and sleek as any rabbit I ever saw."

"Maybe. But I haven't had any breakfast, and I'm not used to it. This leaf tastes so good I wish I had a hundred more of them."

"Then why don't you go and get them? There are plenty in the park and woods."

"But how am I going to get them?" asked Bumper. "Don't you see I'm caught here in the mouth of the sewer? I can't get out without swimming."

Mrs. Sparrow looked surprised at this information, and flew from her perch on the embankment to a stone below. She cocked her head sideways, and looked all around her.

"What puzzles me," she said finally, "is how you ever got in there without swimming. You can't fly."

Bumper smiled, and shook his head. "No, but I wish I could. I wouldn't stay here arguing with you about this leaf, but fly away and get a good breakfast of a lot of them."

"Are you really so hungry, Mr. White Rabbit?"

"Indeed, I am nearly famished."

And then he told Mrs. Sparrow of his adventures in the drain-pipe of the garden and the big abandoned sewer. Mrs. Sparrow was evidently affected by his recital, for she immediately flew away and soon returned with another green leaf.

"Now eat that, and I'll get you another," she said. "I know what it is to go without breakfast and dinner. I've had to do it many times. Now eat your fill."

Bumper devoured the leaf so quickly that it seemed as if he must have swallowed it without chewing it. "You see, Mrs. Sparrow," he remarked, "you couldn't feed me enough. I have a very big appetite. Why, I could eat leaves much faster than you could bring them to me."

"So it seems," murmured the sparrow in a little surprised voice. "I never realized how much some animals can eat at once. I don't think I can do more than just take the edge of your appetite off."

"That's very kind of you. And I shall be grateful to you! If you'll bring me just a few more leaves, I will then ask you to direct me back to the little girl's garden."

"I'm sure I'd like to, but there are so many gardens around, and they all look alike."

"But there's only one with a red-haired girl in it," replied Bumper. "Can't you fly away, and find her?"

"I'll try," said Mrs. Sparrow.

So after feeding Bumper a few more green leaves, she flew away to find the garden. She was gone so long that Bumper got very restless and discouraged. The few leaves hadn't satisfied his hunger; they had merely stimulated his desire for more. It was past noon when Mrs. Sparrow finally reappeared at the entrance to the sewer.

"What news?" asked Bumper, eagerly.

"Nothing that's good, Mr. White Rabbit. I flew into garden after garden—and all of them pretty, and full of fruits and vegetables—but there was no red-headed girl in any of them. I saw dogs, too—many of them—but I couldn't tell whether any of them answered to the name of Carlo."

"Then it looks to me," remarked Bumper, "that I'm in for a long swim. Where does this river go to?"

"Way out into the country through beautiful fields and woods," replied Mrs. Sparrow.

"Could I reach them, I wonder! I might drown before I could get ashore."

"Wait!" exclaimed Mrs. Sparrow. "Why not escape on a raft? Here comes a big board down the river. You could hop on it, and not even get wet. Yes, you could do it. It's floating close to the shore."

"Where is it?" exclaimed Bumper, eagerly.

"Right here! Now get ready for a long jump."

Bumper was not only ready, but very anxious, and when the floating board appeared a yard or more from the mouth of the sewer he crouched for a spring. It was a long jump, and Bumper had some doubts about making it; but he put all his strength in it, and hopped high in the air, and landed safely on the raft.

"Hi! How was that for a jump!" he exclaimed, when he stood upright on the board.

"Fine!" said Mrs. Sparrow. "I wish you a good voyage! Good-bye!"

Bumper wagged his ears in reply, and shouted back a hearty farewell. Then he turned to look down the river. He had escaped from the sewer, but evidently he had adventures still ahead, for the river was broad and long, and very swift in places.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

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CLAIM SALE DATES.

Percheron Horses.

Jan. 25—Kansas Percheron Breeders at Kansas Agricultural College, Manhattan. Under management of C. W. McCampbell.

Jacks and Jennets.

March 26—H. T. Hineman & Sons, Dighton, Kansas.

Holsteins.

Jan. 17—J. A. Engle, Talmage, Kan.
Feb. 27—W. O. Morrill, Summerfield, Kan.
March 26—Kansas Holstein Breeders' sale, Topeka, Kan.
March 27-28—Iowa Holstein-Friesian Breeders' Association. Sale at the State Fair Grounds, Des Moines. F. C. Barney, Secretary, Chapin, Iowa.

Herefords.

Jan. 25-26—Carl Miller, Belvue, Kan. Sale at Alma, Kan.

Shorthorns.

Feb. 15—J. R. Young, Marion, Kan.

Miscellaneous.

Feb. 25-28.—Kansas National Live Stock Show, Wichita, Kan. Draft, coach, standard-bred horses and jacks; Shorthorn, Hereford and Holstein cattle; Poland and Duroc hogs. F. S. Kirk, sales manager, Wichita.

Poland Chinas.

Feb. 6—H. B. Walter, Effingham, Kan.
Feb. 7, 1918—W. H. Charter, Butler, Mo.
Feb. 8, 1918—W. B. Wallace, Bunceton, Mo.
Feb. 9, 1918—Will J. Lockridge, Fayette, Mo.
Feb. 9—John L. Naiman & Sons, Alexandria, Neb. Sale at Fairbury, Neb.
Jan. 29—Head & Moore, St. Joseph, Mo.
Feb. 18—Deming Ranch, Oswego, Kansas.
Feb. 13—H. L. Faulkner, Jamesport, Mo.
Feb. 19—Fred B. Caldwell, Howard, Kansas.
Feb. 20—B. E. Hodson, Ashland, Kansas; sale at Wichita.
Feb. 21—E. J. Erhart & Son, Ness City, Kansas; sale at Hutchinson.
Feb. 22—F. Olivier & Son, Danville, Kansas.

Poland Chinas.

Feb. 23—V. O. Johnson, Aulne, Kan.
Feb. 28—Clarence Dean. Sale at Dearborn, Mo.

Chester White Hogs.

Feb. 2—Arthur Mosse and Henry Murr, Leavenworth, Kansas.

Durocs.

Feb. 14—B. R. Anderson, McPherson, Kan.
Feb. 20—W. T. McBride, Parker, Kan.
Feb. 27—R. W. Murphy, Dearborn, Mo.
March 7—W. W. Otey, Winfield, Kansas.
March 8—R. L. Hurst, Bolckow, Mo.

Charles L. Jarboe, of Quinter, Kansas, owner of the Twentieth Century Stock Farm and one of the good herds of Red Polled cattle now assembled, reports his herd doing fine. Mr. Jarboe has found Red Polled cattle very profitable on his farm and has built up one of the richly-bred producing herds of that breed. A feature of his herd at this time is the choice lot of young stock.

Carl Miller, of Belvue, Kansas, is claiming January 25 and 26 for his second annual Hereford sale at Alma, Kansas. The offering comprises a useful lot of 200 head—100 bulls and 100 cows, a number of the cows with calves at foot and bred again. Thirty choice cows in the offering will be bred to Gay Lad 9th. Gay Lad 9th was the sire of more prize winners at the American Royal and also the International at Chicago than any other bull of this breed. His daughter, Woodford Lady 5th,, by Gay Lad 9th, was senior and grand champion at the International this year. Gay Lad 9th is probably one of the outstanding Hereford sires of the breed and cows bred to him will be in great demand in this sale.

T. R. Maurer, proprietor of Maurer's Holstein Farm, Emporia, Kansas, reports their pure-bred and high-grade Holsteins doing well and also report that the heavy demand for high-class Holsteins continues. During the year just closed a very large number of good Holsteins have been sent out from Mr. Maurer's herd as foundation stock for new herds.

The Kansas Agricultural College recently sold grade geldings weighing approximately 1,700 pounds at an average of $290 each, and grade mares of the same kind at $300 each. A recent exportation of big geldings was sold to European farmers at an average of $500 each. These figures emphasize the present strong demand and high prices paid for high class heavy draft horses in both Europe and America, and when normal conditions again prevail demand and prices will be very much higher. Never was there a better time to invest in high class heavy draft horse seed stock and never was there a better opportunity to secure good sound Percherons than at the Kansas Percheron Breeders' Sale to be held at the Kansas Agricultural College, Manhattan, January 25, 1918. The success of last year's sale has made it possible to sccure for this year's sale one of the most useful lots of high class Percherons ever offered at public auction. The mares listed for this sale are all big quality mares of unusual excellence, and every stallion is an outstanding individual. Each horse offered for this sale was carefully inspected and only good, sound individuals were accepted. Dr. C. W. McCampbell will manage the sale again this year.

John L. Naiman & Sons, of Alexandria, Neb., owners of the famous Oak Grove herd of big-type Polands, have announced February 9 as the date of their annual bred sow sale. The sale will be held in the sale pavilion at Fairbury, Neb. Naiman & Son own one of Nebraska's greatest herds and this year will catalog a sensational offering of fifty head of big high quality fall yearling sows. hey are daughters of grand champion sows and are sired by grand champion boars. They will be bred to such boars as Long Shot by Big Bone's Son by Big Bone and out of Big Queen Ann 3d and Long Hadley by Expansion Long by Extra Long, a Mouw bred boar and a winner in the futurity litter at Topeka.

PUBLIC SALE

70 Head High Grade Holstein, Jersey 70 Guernsey, and Shorthorn Milk Cows

To Be Held at Bock's Dairy, Wichita, Kansas,

Beginning 10 A. M.

Thursday, Jan. 10, 1918



This offering consists of the entire dairy herd of I. Custer and complete dispersion sale of Frisbie & Bock, consisting of fresh cows and heavy springer cows and large heifers.

Take West Riverside car to end of line, then walk two blocks west, then two blocks north across big river bridge.

I. Custer
G. M. Frisbie } Wichita, Kansas
F. H. Bock

Auctioneers—
Boyd Newcomb
William Arnold

PURE BRED POULTRY

PLYMOUTH ROCKS.

BARRED ROCK COCKERELS, $2 AND $3. Good laying strain. E. M. Wayde, Burlington, Kansas.

CHOICE BARRED ROCK COCKERELS and pullets from my prize winners, $2, $3 and $5 each. H. F. Hicks, Cambridge, Kan.

BARRED ROCKS, BOTH LINES—LARGE cockerels from extra laying strains, $4 and $5 each. C. C. Lindamood, Walton, Kan.

SWAIM'S BLUE RIBBON BARRED Rocks. Big utility cockerels. $3 each; six, $15. C. D. Swaim, Geuda Springs, Kansas.

BARRED PLYMOUTH ROCK COCKERels. Parks' 200-egg strain, direct from prize winning layers. $2 to $5 each. Eggs in season. Gem Poultry Farm, Haven, Kansas.

MASSENGILL'S BARRED PLYMOUTH Rocks. Cockerels and yearling cocks, $2.50. Satisfaction guaranteed or purchase price refunded. Leonard Massengill, Box 221, Caldwell, Kansas.

ORPINGTONS.

CHOICE BUFF ORPINGTON COCKERels, $2.50, $3, $4, $5 each. Cock birds, $4 each. Myrtle Howard, Byron, Okla.

FINE BUFF ORPINGTON COCKERELS, $2 and $3. Mary E. Price, Route 7, Manhattan, Kansas.

BUFF ROCKS AND BUFF ORPINGTONS. Closing out sale, half price. Laying strain. Winners Texas and Kansas state shows. Eggs for hatching, fancy show pens. Write me. John A. Cragan, Kingman, Kansas.

WYANDOTTES.

SILVER AND GOLDEN LACED WYANdotte cockerels at $2 and $3 each. They are good ones. W. I. Lowrey, Stafford, Kan.

CHOICE COLUMBIAN WYANDOTTE cockerels, prize winners, and all kinds of fancy pigeons. J. J. Pauls, Hillsboro, Kan.

EXTRA CHOICE ROSE COMB SILVER Wyandotte cockerels, $3 each; six for $15. Eggs in season. Mrs. Philip Schuppert, Arrington, Kansas.

SILVER WYANDOTTES—HENS, $1.50, $2; cockerels, $2 to $3. Mrs. Edwin Shuff, Plevna, Kansas.

LEGHORNS.

TWENTY-FIVE EXTRA QUALITY S. C. Brown Leghorn cockerels, $2 each while they last. Mrs. L. H. Hastings, Thayer, Kan.

S. C. W. LEGHORN COCKERELS (Young's strain). Elsie Thompson, Mankato, Kansas.

SINGLE COMB BUFF LEGHORN COCKerels from egg-bred matings, $1.50 up; $15 dozen. Chester Hines, Emporia, Kansas.

SINGLE COMB WHITE LEGHORN COCKerels, $2 to $5 each. Mrs. Howard Rodecape, Grove, Okla.

TURKEYS.

PURE-BRED WHITE HOLLAND TURkeys. Winnie Litton, Peabody, Kansas.

NARRAGANSETT TOMS, PURE-BRED. Foster strain. V. L. Turner, Frankford, Mo.

CHOICE MAMMOTH BRONZE TURKEYS—Sadie Litton, Peabody, Kansas.

FINE PURE-BRED M. B. TURKEY toms, May hatched from high scoring stock. Oak Hill Farm, Route 3, Lawson, Missouri.

MAMMOTH BRONZE TURKEYS—FINE markings. Heavy bone. Susie Oliver, Hickman Mills, Mo.

FAMOUS NARRAGANSETT TURKEY toms, large healthy birds. Andrew Kosar, Delphos, Kansas.

CHAMPION BRONZE TURKEYS, SIRED by sons of my 52-pound champion tom. Winners America's largest shows. Have pleased customers in thirty states. $7.50 up to $25 each. Ike Hudnald, Milan, Mo.

DUCKS AND GEESE.

FINE TOULOUSE GEESE AND PEARL Guineas for sale. Emma Ahlstedt, Roxbury, Kansas.

400 DUCKS—ROUEN, MOSCOVY, ORPington, Runners. Silver-laced Wyandotte and Rhode Island Red cockerels. Fred Kucera, Clarkson, Neb.

LANGSHANS.

BIG BLACK LANGSHANS. UTILITY AND show stock. H. Osterfoss, Hedrick, Iowa.

RHODE ISLAND REDS.

GOOD SCORING AND UTILITY R. C. R. I. Reds, heavy boned, long back, low tail, guaranteed. Highland Farm, Hedrick, Iowa.

POULTRY WANTED.

PAYING 25c POUND NO. 1. TURKEYS, 20c heavy hens; guineas, 40c each. Coops loaned free. The Copes, Topeka.

SECOND ANNUAL

Kansas Percheron Breeders' Sale

COLLEGE PAVILION, MANHATTAN, KANSAS

JANUARY 25, 1918

50 Percheron Stallions and Mares 50

Carefully selected by a representative of the Kansas Agricultural College from eighteen of the best studs in Kansas, and only good, sound individuals accepted.

These Are Big, Heavy Boned, Rugged Percherons That Will Please the Best Breeders

Consigned by:

Earl Hepworth, Burlingame
O. S. R. Mings, Burlingame
C. F. Molzen, Newton
J. C. Robison, Towanda
Bishop Brothers, Towanda
J. T. Axtell, Newton
Ralph Snyder, Oskaloosa
J. A. Swenson, Marquette
K. S. A. C., Manhattan
J. F. Rhodes, Tampa
C. S. Dustin, Topeka
W. E. Dustin, Topeka
William Branson, Overbrook
John Schmitt, Tipton
A. F. Myers, Ozawkie
Ed Nichelson, Leonardville
D. F. McAlister, Topeka
J. F. True, Perry

Prospects were never brighter for the breeder of high class draft horses and this sale offers the best opportunity of recent years to secure the right kind of seed stock.

Write for catalog today.

C. W. McCampbell, Mgr., Manhattan, Kans.

J. A. Engle's Holstein Sale

AT TALMAGE, KANSAS, JANUARY 17, 1918

40 Head Extra High Grade Tested and Working Holsteins

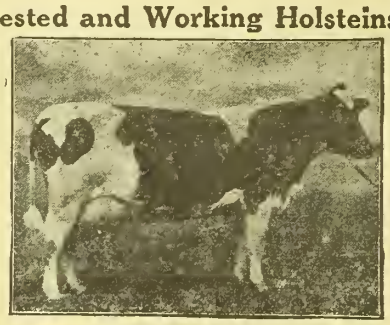
Our offering consists of a very choice selection of cows and heifers, some recently fresh, others to freshen soon. This lot will be a creditable addition to any herd and anyone wanting high class foundation stock will find what they want in this offering.

Herd Bull—Sir Butter Boy King

A good individual, sired by Canary Butter Boy King 70508, a bull of the best record breeding and backed by unusually good records.

All stock in a healthy, vigorous condition. Send for catalog.

Sale commences at 1 p. m.



J. A. ENGLE - - - - - TALMAGE, KANSAS

AUCTIONEERS:
Jas. T. McCullough, J. G. Engle, E. L. Hoffman.

Talmage on Superior Branch of Santa Fe Railroad, nine miles north of Abilene. On Blue Line Highway, 25 miles west of Junction City.

FARM AND HERD.

J. A. Engle, of Talmage, Kansas, owner of one of the best herds of Holsteins in this state, has announced a public sale of Holsteins to be held January 17 at Talmage. His offering will consist of forty head of extra high grade cows and heifers. This is a lot of tested and working Holsteins, some of them recently fresh and others to freshen soon. Shady Nook Holstein Herd has long had a high reputation as a heavy producing herd. The blood lines of the herd are the best of the Holstein breed and every animal that will be catalogued for this sale will be backed by record breeding. The herd bull, Sir Butter Boy King, is by Canary Butter Boy King 70508 and he is noted for the good records of his ancestry.

Henry Koch, of Edina, Missouri, owner of the famous White Oak Park herd of big-type Polands, reports his herd doing well. Mr. Koch has one of the great herds of big-type Polands now assembled. The herd boars, Long Big Joe 227387 and Missouri Jumbo 210461, that have been in use in this herd, are two of the really great sires of the breed. This year Mr. Koch has bred a very select lot of tried sows, fall yearling gilts and spring gilts for early spring farrow. He keeps his herd immune at all times and always has a very healthy growthy lot of hogs.

John R. Young, of Marion, Kansas, has announced February 15 for a closing out sale of Shorthorn cattle. The offering comprises forty head of Scotch-topped cows and heifers, several with calves at foot and re-bred to a pure Scotch bull, Roan Victor. Mr. Young is leaving the farm and will also sell sixty high-grade Shorthorns. They are pure-bred but cannot be registered. The sixty head are mostly cows and heifers. They are the best strains of milking Shorthorns and are the kind that are profitable to the farmer.

T. M. Etherington, of Hamilton, Kansas, has built up a great herd of double standard Polled Durham cattle. The herd is headed by Roan Acacia 9021 out of Golden Acacia Victor, a double standard bull of the famous hornless Shorthorn families. Roan Acacia is assisted by Sultan Victor 14098 by True Sultan out of Violet Barmpton by Fancy Victor. Mr. Etherington has found Polled Durhams profitable. They paid the best returns of any live stock kept on the farm. A feature of the herd at this time is a fine lot of young bulls sired by Roan Acacia.

H. O. Shelden, manager of the swine department at the Deming Ranch, Oswego, Kansas, is fitting up one of the real choice sale offerings of sixty head of large Poland China sows that promise to be one of the real attractions on February 18 at the Deming Ranch. The Deming Ranch herd is fast gaining in popularity and is recognized among hog men as one of the good herds in the Southwest. This herd is the largest in the state. More than 700 head of registered Poland China hogs are raised each year on these farms.

Bock's Dairy, Wichita, Kansas, has announced a sale of dairy cows to be held at Wichita, Kansas, January 10. Seventy head of high-grade Holsteins, Guernseys, Jerseys and Shorthorn milk cows will be sold.

HOLSTEIN CATTLE.

SAND SPRING HERD



We consider the judgment of the buying public superior to our own. Do you care to know the verdict of our sixth public sale?

Our unbred high grade yearling heifers averaged $79.50. Our high grade cows and springing heifers averaged $163; and our pure-breds averaged $328.

THERE MUST BE A REASON

The long time test. Well grown and healthy cattle. Positive records and definite data on everything we milk.

WE HAVE NO FEMALES FOR SALE NOW

We have 175 nice ones lined up in our stables, but we have plenty of feed and plenty of nerve to let them have it. We have lots of faith in the black and whites. Come and visit us.

E. S. ENGLE & SON - - - - ABILENE, KANSAS

HIGH-GRADE AND REGISTERED HOLSTEINS FOR SALE

Owing to the shortage of barn room I offer for private sale **Thirty extra fancy grade yearlings** from 12 to 20 months old, $65; **ten high-grade two-year-old heifers** due to calve in the spring, $80; **fifteen high-grade cows,** close springers due in ten to forty days with second calf, $100; **four large registered Holstein cows,** well bred, $175 to $250; **one prize-winning registered bull,** 3 years old December 1, 1917, from a highly bred A. R. O. cow with 17-pound butter record at 28 months of age. He is a real show bull, seven-eighths white, and can be made to weigh 2,000 pounds. Sure and gentle. $300. All stock regularly tuberculin tested by the state. Are exceptionally well marked and in healthy condition.

JAS. W. MAGEE - - - - - - CHANUTE, KANSAS

FAIR FIELDS FARM

Offers Registered Holstein Bulls, Ready for Service. Fine toppy fellows, with straight backs, more white than black; in fact real bulls. The sire of most of these bulls was grand champion bull at the International Wheat Show at Wichita in 1916. Their dams led the Mulvane Cow Testing Association this year with records up to 85 pounds milk per day and 111 pounds butter for thirty days. Prices reasonable.

B. R. GOSNEY - - - - - - MULVANE, KANSAS

CLYDE GIROD, At the Farm — F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd.

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.
GEO. F. DERBY, CAMERON, MISSOURI

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.
W. E. BENTLEY, MANHATTAN, KANSAS

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.
H. B. COWLES, 608 Kan. Av., Topeka, Kan.

HOLSTEIN CALVES

We offer for sale choice, beautifully-marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated f.o.b. cars: One to two weeks old, $15 each; two to three weeks old, $17 each; five to six weeks old, $20 each. First check takes them. Write
W. C. KENYON & SONS, ELGIN, ILLINOIS

REGISTERED HOLSTEIN BULLS

From A. R. O. cows. All our own breeding. Bred for milk and fat production.
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R. F. D. 2 — Topeka, Kansas

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.
J. P. MAST - - SCRANTON, KANSAS

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. **Clover Valley Holstein Farm, Whitewater, Wisconsin.**

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.
FERNWOOD FARM, Wauwatosa, Wisconsin

The Cedarlane Holstein Herd

For Sale — Registered cows, bred heifers, serviceable bulls, bull calves. Also my 3-year-old herd bull.
T. M. EWING, INDEPENDENCE, KANSAS

Oak Hill Farm's

Registered Holstein Cattle

For Sale—Yearling and bred heifers, also young bull calves, mostly out of A. R. O. cows. Perfect satisfaction guaranteed.
BEN SCHNEIDER, NORTONVILLE, KAN.

Regier's Holstein-Friesians

For Sale—Bulls from A. R. O. dams, sired by the great bull, Sir Rag Apple Korndyke De Kol. Also fresh cows and bred heifers.
G. REGIER & SONS, WHITEWATER, KAN.

BONNIE BRAE HOLSTEINS

Young bulls from high producing dams and a splendid son of King Segis Pontiac for sale.
Ira Romig, Sta. B, Topeka, Kas.

Segrist & Stephenson, Holton, Kan. Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment. **Edgewood Farms, Whitewater, Wisconsin.**

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HALCYON HERD HAMPSHIRE HOGS
Best breeding, best type. Stock for sale.
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OLSON HAMPSHIRES.



For Sale—One spring yearling and one fall yearling boar, 8 spring boars, 40 head spring gilts, either bred or open. All immuned and registered to purchaser. Write or come and see our herd. Farm 12 mi. S. of Salina.
OLSON BROS - - ASSARIA, KANSAS

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Husky, growthy fellows of the best breeding. Cholera immune. Priced right.
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Twenty-five Extra Good Yearlings
Extra breeding and quality. Priced to sell.
J. M. HILL, SEDGWICK, KANSAS
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30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.
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RED POLLED BULLS

For Sale—Thirty head coming yearling bulls. Come early and get the best. Our experience has been those that come late found us sold out. Write or come at once.

E. E. FRIZELL

FRIZELL, (Pawnee County), KANSAS

A. R. Bred Red Polled Bulls

Am offering Oscar 30433, calved May 12, 1916; 20th Century Chief, calved April 20, 1917. His grand dam produced 12,000 lbs. milk and over 500 lbs. butter with second calf. His grand sire is half brother to the champion Red Polled cow of the world with record of over 1,000 lbs. butter in 12 months. If interested in a choice bull and want to increase the production of your herd, write us.
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Thirty Head from Which to Select

Ton mares, big handsome fillies either by or bred to Algarve by Samson. Algarve's colts have great bone and size. His weight is over 2,200 pounds and his get proves beyond doubt his great ability as a sire. A nice lot of young stallions, several coming three-year-olds. Priced for quick sale. Farm four miles east of town. Call on or write

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100 FALL PIGS : HEATED BUILDING : SEND FOR CATALOG

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15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.

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Percherons, Belgians, Shires 2, 3, 4 and 5-year stallions, ton and heavier; also yearlings. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.
Fred Chandler, R.7, Charlton, Ia.
Above Kansas City.

Choice Young Belgians, English Shires, Percherons, also Coach stallions, also mares. Many first prizes. Long time 6% notes.
Illinois Horse Co., Good Blk., Des Moines, Ia.

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BIG-TYPE POLAND CHINA BRED sows, also open sows. Herman Schmale, Dewitt, Nebraska.

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Big-Type Poland China Hogs.

Fifty March boars for sale. All immuned. Bred sow sale February 18. Send for catalog.

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OSWEGO, KANSAS.

OLD ORIGINAL SPOTTED POLANDS

Stock of all ages, also bred gilts and tried sows, bred, ready to ship. Priced right. Write your wants to
CEDAR ROW STOCK FARM
A. S. Alexander, Prop. Burlington, Kansas

BIG WONDER 281929

The outstanding spring yearling son of the noted Big Bob Wonder now at the head of my herd. This young sire was first in junior yearling class at Topeka; second at the National Swine Show in competition against the world.

I will sell fifty sows and gilts **Saturday, February 23, 1918,** and a number of the best sows will be bred to Big Wonder. Send name early for catalog.

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Spotted Poland Herd Boar

For Sale or Exchange—Big bone Spotted Poland China herd boar, McKee's Giant No. 63987. Can't use him longer. Will exchange him for bred sow or sell worth the money. Pigs for sale.

R. L. Mount - Polo, Missouri
G. T. Hudson, Herdsman.

Poland China Boars

For Sale—Ten head large growthy spring boars, sired by A Wonderful King, a state fair winner. Ready for service. Price, $35 to $75. Satisfaction guaranteed. First check gets choice. Write at once or come and see our herd.

OLIVIER & SONS, DANVILLE, KANSAS

FAIRVIEW POLAND CHINAS.
Heavy-boned March pigs, either sex. Eighty to select from. Prices reasonable. Write us your wants.
P. L. WARE & SON - PAOLA, KANSAS

POLAND CHINA BOARS
FOR SALE—Twelve head extra good spring boars, ready for service. Few choice gilts, bred for March litters. Fall pigs, either sex, sired by Big Tecumseh, Orange Wonder, and out of my best herd sows. The best crop of boars I ever raised. Write or come and see me. **E. M. WAYDE, BURLINGTON, KANSAS**

SPOTTED POLANDS
Sept. pigs, either sex, $20. One tried brood sow, $70. **Chas. H. Redfield, Bucklin, Kan.**

The Lone Cedar Polands

Last Lot of Meyers' Orange Pigs. I will have either sex, some extra fine gilts. Cholera immune for life.

A. A. MEYER - McLOUTH, KANSAS

FALL PIGS, ready to ship. Select Spotted breeding. Express paid on pigs.
T. T. Langford & Sons, Jamesport, Mo.

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Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene, Peabody, Kan.**

GRAND VIEW POLANDS

Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.

ANDREW KOSAR - DELPHOS, KANSAS

White Oak Park Polands

Have decided not to hold a bred sow sale this year. Will sell a choice lot of tried sows at private sale. This lot will include 600-pound sows and good show prospects. Big high quality fall yearling gilts and choice spring gilts. All bred to Long Big Joe, Missouri Jumbo, Jumbo Giant and Surprise Wonder. Also have some choice September boars. All immune. Write for prices.

Henry Koch - Edina, Mo.

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TAYLOR'S DUROCS

For Sale—One Missouri State Fair prize winning boar. Seven yearling boars sired by champion boars that are real herd headers. Fifty spring boars that are fine prospects. Write for prices or come and see my herd.

Chas. L. Taylor - Olean, Mo.

THIRTY DUROC JERSEY BOARS
Cholera immuned. Sired by Taylor's Model Chief 126455, winner at Missouri State Fair and American Royal. Extra good breeding boars at prices to close them out. Also choice bred gilts. Dams well bred for years.
W. R. HUSTON - AMERICUS, KANSAS

WOOD'S DUROCS

For Sale—Choice bred gilts, bred to a son of Great Wonder. Spring boars ready for service. Fall pigs of both sexes at right prices. Come and see my herd.

W. A. Wood - Elmdale, Kan.

DUROC BOARS

Thirty-five spring boars by G. M.'s Crimson Wonder, Crimson Wonder Again Jr., Critic D. and Great Wonder, out of my best herd sows. Priced to sell. Come and see my herd.

G. M. Shepherd, Lyons, Kansas

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on spring boars from champions Defender, Illustrator, Crimson Wonder, Golden Model and Critic breeding.
JOHN A. REED & SONS, LYONS, KANSAS

PURE-BRED DUROC GILTS
Bred to Invader of Idlewild.
W. J. HARRISON - AXTELL, KANSAS

SHORTHORN CATTLE.

Shorthorn Bulls

FOR SALE—One herd bull and thirteen Scotch-topped bulls, 8 to 12 months old, reds and roans, sired by Pride of Aulne, he by Silver Knight, a pure Scotch bull. Come and see me.

J. R. ELY - - AULNE, KANSAS

MARKS' LODGE

Home of Shorthorn Cattle. Reds Exclusively.
A few choice young bulls for sale, from my best milking cows. All registered. Come and see me.

DR. M. F. MARKS, VALLEY FALLS, KAN.

ALYSDALE HERD SCOTCH SHORTHORNS
Viscount Stamp 2d, Clipper Brawith and Count Valentine in service. Orange Blossoms, Butterflys, Queen of Beautys and Violets. Choice young stock for sale.
H. H. HOLMES, Route 28, Topeka, Kansas

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Valiant 346162 and Marengo's Pearl 391-962 in service. Young bulls up to 10 months old for sale. Reds and roans, in good thrifty condition and the making of good useful animals. Inspection invited.

Can ship on Rock Island, Union Pacific or Santa Fe Railway.

C. W. TAYLOR - ABILENE, KANSAS

CLOVERDALE SHORTHORNS—For Sale, two roan yearling Scotch Shorthorn bulls. Exceptional quality and breeding. Also a few heifers. **Wesley Jewell, Humboldt, Kansas.**

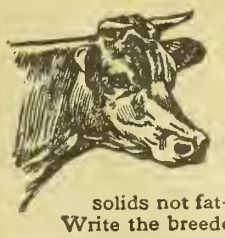
Cedar Heights Shorthorns

For Sale—Three red bulls, 12 months old. A few cows and heifers. Priced reasonable. Come and see my herd.

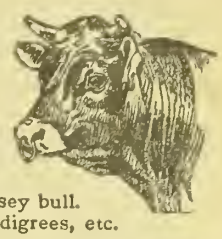
HARRY T. FORBES
Route 8 Topeka, Kansas

SHORTHORN BULLS
Two registered Shorthorn bulls, one fifteen months old.
F. G. HOUGHTON - DUNLAP, KANSAS

Jerseys for Net Profits



You're in the dairy business for profit—the *net* profit that your herd has made you at the end of the year will determine the size of your bank account. Jerseys yield the largest returns from every ounce of feed—proved by tests at two great expositions. Jersey milk averages 5.3% butter fat, 9.1% solids not fat—highest of all breeds. Buy a Jersey bull. Write the breeders advertised below for prices, pedigrees, etc.



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120 JERSEY COWS AND HEIFERS

Pure-bred and high-grade. Forty bred yearlings, superior individuals, all from profitable dams, now for sale.

J. W. Berry & Son
JEWELL CITY - - - - KANSAS

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REGISTERED JERSEYS OF BOTH SEXES FOR SALE

C. F. Blake, Glasco, Kan.

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(Register of Merit Herd)

Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.

Longview Farm
LEE'S SUMMIT - - - MISSOURI

BROOKSIDE JERSEYS
Registered Jersey Bulls, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.
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Dr. J. H. Lomax
STATION B - - ST. JOSEPH, MO.

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Write for catalogs.

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ROUTE 2 TOPEKA, KANSAS

Fine Young Jersey Bulls

From Register of Merit and tested cows; Register of Merit sire.

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MAYETTA, KANSAS
BREEDERS OF HIGH-CLASS JERSEYS. STOCK FOR SALE AT ALL TIMES.
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Jersey Male Calf, dropped Dec. 14; solid color; sire Nigretta's Fern Lad, dam Winnie's Golden Baby 248077. Heavy persistent milker and noted show stock. Price, $25.

F. J. SCHERMAN, R. 8, Topeka, Kan.



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The World's Greatest Pork Hog, Sells

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In My Annual Bred Sow Sale.

Ask for catalog. Nothing bred sold at private sale. I am still pricing a few good fall pigs.

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AYRSHIRE BULLS transmit health and vigor and increase milk produetion. Hundreds of milk produeers everywhere are turning to the Ayrshire now that quantity and quality production is essential. Let us send you interesting information and list of breeders. Please address the

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KNOX KNOLL STOCK FARM

Mulefoot Hogs. Shorthorn Cattle.
Sold out of spring gilts. Now taking orders for fall pigs. Three registered bulls ready for service. Write for prices.
S. M. KNOX, Humboldt, Allen Co., Kansas

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ANGUS BULL, Mabel's Invincible 19645. Also two Queen Mother bull calves.
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Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to twelve months old. **ADAMS FARM, Gashland, Mo.,** 12 miles from K. C.

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STRAIGHT CREEK - - - KANSAS

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For Sale—Ten bulls of serviceable age, sired by Roan Acacia 9021. Dam, Golden Acacia by Acacia Victor, a double standard bull from D. C. Van Nice herd. Write at once. These bulls will sell.
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Write for date. CLAY CENTER, KANSAS

Live Stock and Real Estate Auctioneer.
Fifteen years experience. Write for terms.
Thos. Darcey, Hutchinson, Kansas.

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D. J. White, Clements, Kan.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.

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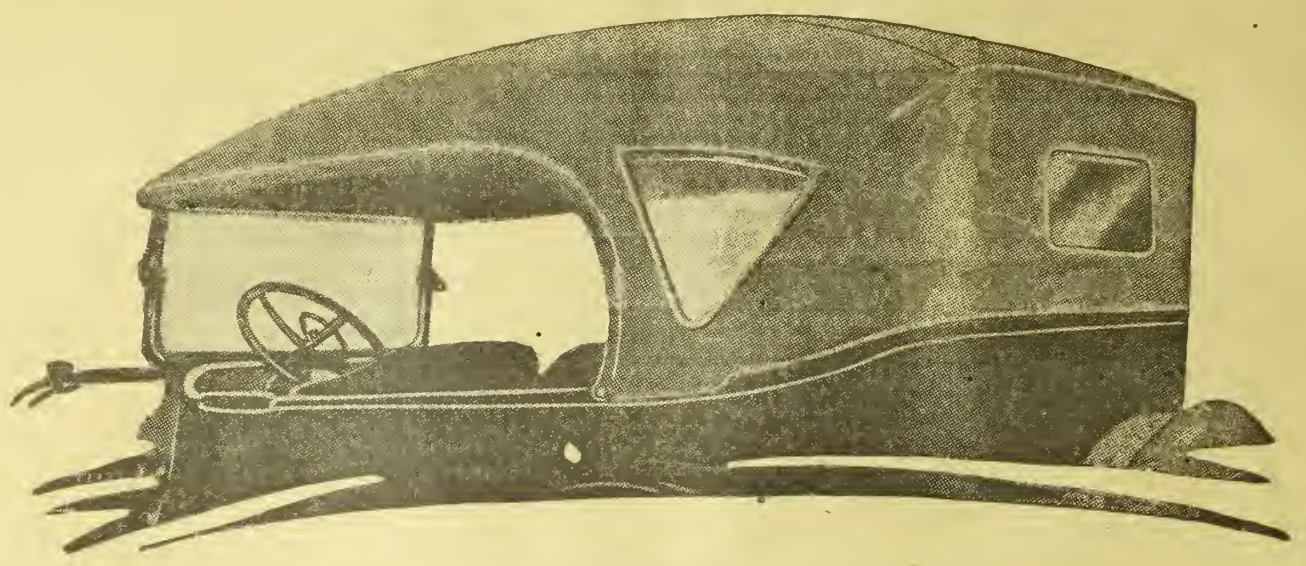

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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 2. TOPEKA, KANSAS, JANUARY 12, 1918. Established 1863. $1 a Year

GRAIN GRADING HEARING

Growers Insist Rules Are Wrongfully Used by Millers and Elevator Companies

THE conference between the grain producers and representatives of the Federal Department of Agriculture was held at Hutchinson, December 17, according to schedule. Several weeks ago we devoted some space to the announcement of this hearing and gave some of the subjects which would come up for discussion.

We wish to again commend the attitude of the Department in coming out into the field for the purpose of studying at first hand the actual workings of the Federal Grain Standards Act, which has met with so much adverse criticism from the grain producers. It is evident that the Secretary of Agriculture is anxious to have any difficulties cleared up. A representative of the Department was present at the annual meeting of the Kansas State Board of Agriculture which has just closed.

Since only a limited number of our readers could be present at the Hutchinson hearing, we are glad to be able to furnish a statement giving the observations of one who took part in this conference. By way of introduction we give below the statement adopted by the organized wheat growers of Reno County and presented at the hearing:

"The farmers of Southern Kansas, producers of wheat of a quality unexcelled in the world markets, desire to express our full allegiance to our Government in its passage through this extraordinary crisis, and we would assist rather than hinder the distribution of the staple foodstuffs from the producer to the tables of the consumer.

"We appreciate the efforts of our government to place a price on our grain, thus delivering us from the domination of boards of trade. Such a radical departure from established usages could hardly be expected in the first instance to establish equitable relations between the producer and the consumer, but the announced intention of the Government to hold another series of hearings in the wheat belt to give those who feel aggrieved a hearing, convinces us of the good intentions of the Government.

"The large attendance of consumers and speculators at the former series of hearings and the interest by them shown would indicate that the producers were unconcerned and were willing to accept, as has been their custom, whatever price was offered them.

"In the new plan of marketing, abuses have crept in which, if unchecked, will place the producer more completely in the hands of speculators than heretofore. Therefore we suggest the following changes in the national rules for grading grain:

"The only inseparable other grain contained in appreciable quantity in Kansas wheat is rye, which is found in the greater part of our wheat. Wheat containing a small percentage of rye has always been readily bought by the millers under the old system of marketing. Therefore we recommend the following change in the new grading rules:

"A maximum of 5 per cent rye in No. 1 instead of ½ per cent.

"A maximum of 10 per cent rye in No. 2 instead of 2 per cent.

"A maximum of 12½ per cent in No. 3 instead of 2 per cent.

"A maximum of 15 per cent in No. 4 instead of 4 per cent.

"A maximum of 20 per cent in No. 5 instead of 6 per cent.

"The following recommendations are urged regarding moisture:

"A maximum of 15 per cent for No. 1 instead of 13 per cent.

"A maximum of 16 per cent for No. 2 instead of 13 per cent.

"A maximum of 18 per cent for No. 3 instead of 14 per cent.

"A maximum of 19 per cent for No. 4 instead of 14 per cent.

"A maximum of 20 per cent for No. 5 instead of 10 per cent.

"Dockage. — We earnestly recommend the following regulation regarding dockage. That when the official inspectors have determined the proportion of screenings in a given quantity of wheat, and they are deducted from the grain sold, the purchaser of the wheat shall be required to pay the seller the market value of the screenings. At present as the grading system works in this section these screenings, which have a good market value as sheep and chicken feed, the purchaser of the farmers' wheat gets them free of all payment. We hold that screenings are as much the product of the farmers' fields as the wheat itself, and the farmer should be paid for this valuable animal feed now taken from hi mwithout any compensation whatever."

Rodney A. Elward, chairman of the Wheat Growers' Association of Reno County, was their official representative at the conference. In writing of the results of the hearing he made the following statements:

"One thing developed which is certainly of great interest, and to my mind of overwhelming importance, but the representatives of the Department who were there said they were powerless to do anything about it. What developed in this point was this:

"A man from Byers, Kansas, told of what occurred at his town, as an illustration of the situation. The town has two elevators, one a farmers' elevator company and one belonging to a large milling company. The farmers' grain company is held regidly to the grades and scale of prices fixed by the Department and the Food Administration, but the mill company is able to buy wheat without regard to the Government grades and Government prices, as long as they do not exceed the maximum price fixed by the Food Administration. This resulted, he explained, in the mill company elevator, which has declared war on the farmers' company, doing all the business. The mill company elevators apparently are free from any regulations, but their competitors, the farmers' companies, are held to the Government rules and prices.

"This man illustrated by showing a sample of wheat of a very inferior grade, which, under the Food Administration rules, could only be bought at something like $1.75 (I am stating the figures from memory only). But the mill company, wanting wheat badly, and apparently being free from restrictions and anxious to kill off the farmers' company, paid something like $1.98 for it. There being no control of the price of flour, they seem able to do this and still make money.

"This kind of thing is going on all over the state. One miller confessed to me in private conversation that the mill companies were, as he put it, 'out to kill off the farmers' co-operative companies, and the Government wheat regulations were helping them to do it.'

"As a matter of fact the Government, partly through the Department of Agriculture's grain grading rules and partly through the Food Administration's rules regarding prices, has handed the millers' organization a club that can be most effectively used in carrying out the above avowed purpose.

"At the hearing the representatives of the various boards of trade, such as Kansas City, and the millers' organization, through its secretary, expressed perfect satisfaction with the system of grading. Every wheat producer present made vehement protest against the severity of the rules. Our county organization submitted a set of specific suggestions for proposed changes, which we believe are in the interest of the producers of wheat. The millers and some of the Government representatives present objected to them on the ground that they would lower the reputation of our wheat. Our reply was that we were more interested in our bank accounts than in the bubble reputation.

"The present rules operate, we tried to point out, entirely to the advantage of the miller, and entirely to the disadvantage of the producer. The millers are buying the same kind of wheat from us they have bought in the past, and they are making the same kind of high-class flour out of it. But we contended that under these new Government rules for grading wheat, the mills were able to get this same old wheat branded as inferior grades and thereby buy the wheat cheaper than in the past, although it makes just as good flour as before and is sold as just the same high-class flour as in the past.

"That in substance was our contention. The situation is simply this: Wheat that last year and all former years they bought as No. 2, and paid a No. 2 price for, the Government now helps them to buy as No. 3 and No. 4, at a correspondingly lower price. But, we pointed out this: That the flour was just as good as in the past, and commanded just as high a market price as ever. The only difference is that wheat which last year and in all the past was No. 2 is now No. 3 to No. 5, and the millers get their raw material cheaper. They have not, however, abated their claims of quality for their flour, nor their prices.

"This we claim to be an injustice. If we must pay the very highest price for the flour from our own wheat, then we should receive the price of the highest-priced wheat. If our wheat makes premium flour it is good wheat, whatever arbitrary brand the Government puts on it. To call KANSAS FARMER a religious or socialistic paper would not make it so. It would still be an agricultural paper. Is my argument sound? These arguments were put up to the Government at the hearing."



KANSAS IS NOTED FOR ITS WHEAT PRODUCTION.—WHEAT GROWERS HAVE RESPONDED TO GOVERNMENT CALL WITH BIG ACREAGE, FULLY EXPECTING A SQUARE DEAL AT MARKETING TIME

Friends

Make friends, and see that they speak well of you, says The American Boy. You have no idea how many fellows have found themselves in good jobs because they have friends who have boosted them with a good word. We don't mean that you should ask a friend to boost you. Not much! That's bad business. Just go along about your business in such a way that your friends can't help boosting. Make them do it. Be the sort of fellow that nothing can be said about unless it is a boost.

FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

WE ARE confronted with the almost absolute necessity for putting more power into the hands of a single man in doing farm work. It is becoming increasingly urgent to get out of the four horsepower class and into the forty horsepower class.

"Today instead of handling four horses, the farmer should use a tractor which will give him the unit energy of forty horses, with less work," says W. H. Sanders, of the Agricultural College. "A traction engine of twelve draft horsepower with an engine gang of three plows may be used to do the plowing for winter fallowing.

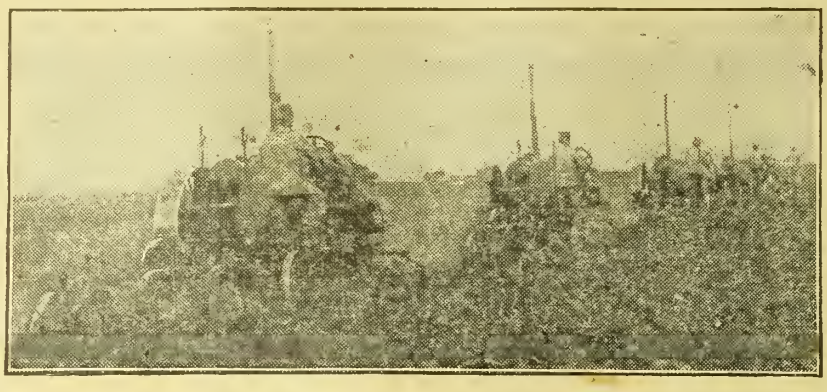
"This outfit requires but one man to operate it. This man is the tractioneer and the plowboy combined. He handles the equivalent power of twelve good horses, which would require three drivers if driven in teams of four horses each. It would require four drivers if there were three horses in a team. The twelve draft horsepower tractor belongs to the small size class. The larger machines and the accompanying plows are so arranged that they also can be handled by one man."

Farm Tractors in Italy

Food is playing a much larger part in the present world war than in any previous war. This is probably due to the fact that more men are in the field under arms and more countries are engaged in combat than in any previous time. Europe is calling on us to feed the defenders of liberty and democracy.

But they are also doing everything in their own power to meet this great food problem. Since all of the young and able-bodied men are at the front it leaves the farm without much help. They have solved their labor shortage problem exactly as many in America are doing it today—namely, by the use of tractors.

But Europe at the present is in no condition to manufacture these very necessary farm tractors, the implements behind the implements of war. So again they are falling back upon the wonderful resources of America and are now using hundreds of farm tractors built in the United States.



AMERICAN-MADE TRACTORS PLOWING IN ITALY

The illustration shows a fleet of tractors pulling three-bottom plows in Italy. Since the introduction of these tractors, which by the way are all purchased by the Italian government, the Italians are learning that they now can plow more, better and deeper. They have learned that by power plowing they can raise larger and better crops. The wonderful amount of labor and time that they can save by the use of the tractor is enabling them to cultivate greater acreage, on which to produce food for their fighting men at the front.

The tractors illustrated here are proving, in Italy as in America, the soil tilling capacity of a practical one-man rig. Everything is so designed that the operator can conveniently manage both the tractor and the plow. The Italian government is most enthusiastic over the work of the American tractor and it is only an indication of the popularity of American-made products in foreign lands that will invade the foreign markets after the war.

Storage Battery in Winter

Winter brings many problems to the automobile user. Among others is that of guarding the storage battery from freezing. The storage battery should be kept fully charged during the winter, advises E. V. Collins, instructor in steam and gas engineering in the Agricultural College.

"The charged battery," said Mr. Collins, "will stand very low temperatures, while a discharged battery will freeze at 20 degrees above zero. Freezing will burst jars, and as a result the battery must be rebuilt.

"In cold weather the starting battery is especially likely to become discharged. The engine is difficult to crank because the oil is cold. It must also be cranked longer each time it is started because the gasoline does not vaporize readily in cold weather. Long trips are few and the charging periods are shorter. The lights which are needed earlier in the evening help in discharging the battery.

"The battery should be tested with a hydrometer at intervals of two weeks or less. If it is found to be discharged, it should be charged as soon as possible either by driving the car or from an outside source.

"The conditions under which cars operate vary, and there are so many starting systems, that no set rules can be given for the care of the storage battery. If the starter turns the engine with difficulty, the motor should be cranked by hand when starting on a cold morning. The engine may be made to start more easily by priming it through the priming cups or by pulling the choker when it is stopped. The lights should be turned on only when necessary and in many cases the dimmers may be used to save the current."

A leading French farm publication places great importance on increased mechanical culture of the soil as an economic benefit to the country. Plowing and harvesting have been accomplished in one French canton at the rate of 72½ acres in a total of 75 hours. Then tractors with twenty workmen are said to replace from 104 to 150 teams and as many workmen.

MAKE GALLOWAY ENGINES HELP YOU!



"If my engines were sold in any other way than direct-to-you from my factory, they would cost you 20% to 30% more."
Wm. Galloway.

They Will Make You Big Money!

Let a Galloway Engine do your hard work. It works without pay any hour of the day. The only feed it needs is a little fuel and oil. It will make you money because it saves it for you. I make engines for any farm work, from the small stationary 1¾ horse power to run your separator and pump your water, to the great, big 16 horse power, horse-drawn portable engine for filling your silo or running you thresher.

Before You Buy Your Engine Consult Me!

Engine buying is a big, important step. If you are not posted, you may not get the best engine for your work. You might not get full value for your money—or you might pay to much or too little. So, I say: Consult me before you buy any engine. Hear what I have to tell you about engines. I will give you facts and figures about engine making and engine selling that will open your eyes. I will give you some startling information on engine prices that will put you right on the engine question and show you how to make every dollar of your engine money count.



Complete PUMPING OUTFIT $65.40

A Galloway Pumping Outfit will give you as much water as you want just when you want it. Equipment consists of 2¼ H. P. Galloway Engine, double-geared pump jack and drive belt. A frost-proof, fool-proof little giant that will pump water from the deepest well on your farm. Instantly detachable when wanted for other work. Sold under my iron-clad, money-back guarantee of satisfaction. Write today for my big, new 1918 Book describing Pumping Outfits, Saw Rigs, and Heavy Duty Engines.



Pumping Outfit Complete with Engine, Pump Jack and Belt

GET THIS FREE BOOK NOW

IT TELLS EVERYTHING YOU WANT TO KNOW ABOUT ENGINES

My big free book goes right to the bottom of the engine problem. It covers everything about engines from A to Z. It explains engines so you can understand them and know what horse power, bore and stroke mean. In this book you will find some remarkable engine truths—conditions in the engine business just as they exist today.

This big free book of mine is a real guide to engine buying. It points out the big, important things about engines, so you cannot possibly go wrong. It tells the facts about light weight engines, heavy weight engines, about four cycle engines and two cycle engines, about high speed engines, and engines built to sell for a price.

You will also find in this remarkable engine book the whole story of Galloway Engines—how I design them and build them complete in my immense factories in Waterloo—and how I sell them direct to you on my famous **factory-to-farm money-saving** plan. Don't think of investing in any engine until you read this wonderful Galloway Engine Book. **Send for it today—sure!**

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Choice of five liberal selling plans: cash—bank deposit—part cash, part note—all note—installment no interest. Buy now, when your need is greatest, at present low prices. Pay after next harvest.

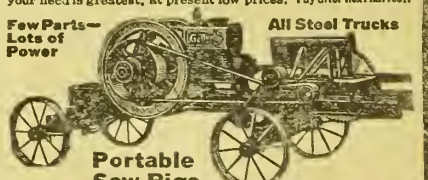
MY NEW 1918 PRICES KEEP ENGINE COSTS DOWN

At the time when labor is scarce and an engine fills an important place on the farm—when the late of the war and of the nations rests upon you farmers—I come to you with aid by my daring offer of Patriotic Prices. Here and now is the time and place to get your much needed engine and get it quick. Never before have you had such a need for Galloway Power and never again will you be offered such rock bottom engine prices. Prices of materials are climbing up fast—but if you act—at once—I can save you a third—yes, almost a half—on the best engine ever built.

Big Saving Guaranteed! Yes, sir, I guarantee you the greatest saving you ever got. This means the biggest and best engine value. You can give it any test and comparison you want. The more severe you make the test, the more easily you will be convinced. The higher priced the engine you use to make the comparison, the more firmly will you realize that Galloway actually does offer the greatest engine bargain in the world. Compare—test—now. That's all I ask. That's what I want you to do before you make up your mind to buy.

New Galloway Improvements Superior material, skilled workmanship, every part standardized, interchangeable and alike, make it the peer of all engines on the market. Develops way above rated horse power. Big bore, long stroke, valves-in-head like fine auto engines—no lost energy. Uses any fuel and saves fuel cost. Large, heavy, counterbalanced flywheels; Webster oscillating magneto supplies blue, hot spark, needs no batteries. Make and break ignition, never misses fire, easily started, no cranking. Cylinder and water pot frost proof. Galloway engines are honestly rated, scientifically, accurately, handsomely built.

Few Parts—Lots of Power **All Steel Trucks**

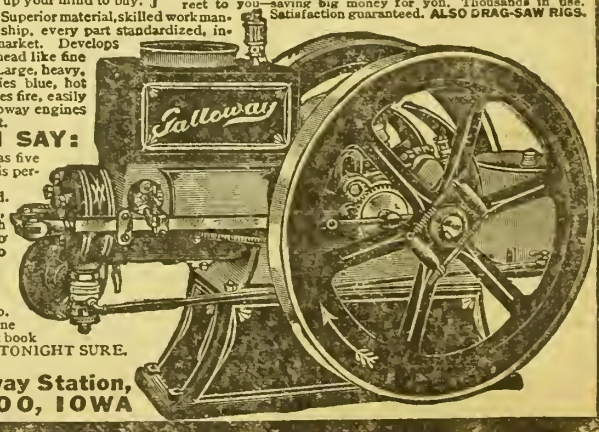


Portable Saw Rigs
—6 H. P., 9 H. P., 12 H. P.

Have many practical, labor-saving features. Equipped with my famous Galloway Masterpiece Engine. You can remove the saw rig in a few moments. Made in my big factory—sold direct to you—saving big money for you. Thousands in use. Satisfaction guaranteed. **ALSO DRAG-SAW RIGS.**



Chester S. Burns, Thorp, Wash. Galloway Engine helps saw 116 cords of wood for him in five days



READ WHAT THESE MEN SAY:

Gentlemen: My 6 H. P. Galloway Engine was five years old this fall. It has been perfect and is perfectly good for fifteen years yet.
—Harold W. Barnes, Delphi, Ind.

Walter L. Anderson, Newman Grove, Nebr., running Grain Separator with 12 h. p. Galloway, says: "I put it to hard work and it did fine. I had two other kinds, but yours beat them."

Write for My Book No. 5

Right now, drop me a line—a postal will do. Just say—"Send me your big, free Engine Book No. 5" and I'll send you the greatest book on engines at lowest prices ever. WRITE TONIGHT SURE.

HEAVY DUTY PORTABLE or STATIONARY 4 to 16 H. P At Lowest Prices

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GOVERNMENT RAILROAD CONTROL

All the great transportation systems of this country passed under Government control December 28. It has been evident for some time that Government control of railroads was inevitable as a war measure. Adequate transportation is one of the most vital needs of our war program. The action of the President in taking control of the railroads for the period of the war is a step of great moment in co-ordinating the energy and resources of this great and prosperous country.

The manner in which this revolutionary procedure has been accepted by the people of the United States is indicative of the profound effect the great war is having upon this country. In the Railroad Control proclamation issued December 27, President Wilson quoted from the resolutions of Congress declaring war on Germany and Austria, which gave him authority to "employ the entire naval and military forces of the United States and the resources of the Government to carry on war." He also quoted from the Army Appropriation Act of August, 1916, in which it was stated, "The President in time of war is empowered, through the Secretary of War, to take possession and assume control of any system or systems of transportation, or any part thereof, and to utilize the same to the exclusion, as far as may be necessary, of all other traffic thereon, for the transfer or transportation of troops, war material and equipment, or for such other purposes, connected with the emergency, as may be needful or desirable. This act was passed seven months before we entered the war, but it was clearly a product of war conditions. In taking possession of the transportation business of this country, provision has been made for protecting railroad stockholders against loss. Our constitution and the whole spirit of the country is opposed to Government seizure of private property without compensation.

There is considerable speculation as to what measures will be applied by the Government to the problem of increasing railroad efficiency. The President has appointed Secretary of the Treasury William McAdoo, Director General of Railroads. The actual work of operation will be the same as under private management. The principle difference will be that a central power will have absolute authority over all transportation systems. The immediate measures which we may expect as a result of Government control may be summed up as follows:

The elimination of all competing trains on the various railroads.

The closing of city ticket offices, with the consequent release of many hundreds of men for military service.

The cutting of big salaries of many railroad executives and the possible compliance of the Government to renewed demands from the unions for increased pay for their members.

Ultimate dictation by the Government to travelers as to what routes they may take.

Elimination from passenger trains of all equipment which may come in the luxury class.

Suspension of all railroad building not necessary to the rehabilitation of the lines—such as new stations, etc.

A pooling of all equipment in the country—not only engines and freight and passenger cars, but terminal facilities, with the possible enlargement of the latter.

The movement of freight by the shortest route, regardless of red tape or tradition.

Securities to be issued while the Government is in control of the railways, to bear interest not less than 4 per cent.

The Government to spend at once an enormous sum for the rehabilitation of the roads. Prediction has been made that $200,000,000 will be provided for rolling stock alone.

Lines to be extended when needed for more efficient prosecution of the war.

All excess earnings to revert to the Government.

There is perhaps even more speculation as to what will be the status of the railroads after the war. Railroads are public highways. No one now dares to question that fact. It is also self-evident that the public has a right to own and operate public utilities. It is inconceivable to think of our great transportation systems going back to the present form of private ownership and control after the great changes have taken place which are certain under Government control. The question after the war will be, How can the public most efficiently use its transportation facilities? It should be settled absolutely in the interests of the public. We finally came to the stage of Government regulation, and following the necessity of Government control as an emergency war measure we probably can look for the next step, which will be to give the public more fully its rights in the use of our great transportation systems.

VACCINATE AGAINST BLACKLEG

It has been reported that in a Kansas county where cattle raising is an important business, blackleg has claimed from one to six animals in each of forty or fifty herds during a period of less than two months. These losses alone would have paid the cost of vaccinating every animal in the county.

A germ-free serum is now available which gives immediate immunity and when used in herds where the disease is present even saves many animals already infected. In healthy herds the immunity produced is not permanent, protecting from natural infection for about ten days. Permanent immunity is obtained, however, by using vaccine before the effects of the serum are lost. This treatment costs about 50 cents an animal. It is a cheap insurance against this disease which has long taken its annual toll from the cattlemen.

Now that we have this new and improved method of vaccination, there is not the risk that was attached to the old method. Cattle represent too much money value at the present time to neglect the use of such sure means of immunization against blackleg. A single treatment method has also been worked out which is more in demand under range conditions. This is as yet considerably more expensive because of the greater cost of preparing the material.

If you have a county agent, consult with him about blackleg vaccination. The new serum and vaccine is now being sold commercially and can also be obtained from the veterinary department of the Kansas Experiment Station at Manhattan.

MOBILIZING LOCAL RESOURCES

A complete mobilization of every resource of this nation is essential to the speedy and successful termination of the war. We are in this war to win. As a means of co-ordinating local forces, the Kansas Council of Defense is undertaking to perfect a "Community Council" in every community of the state. This is not a new organization, but rather an executive committee, or clearing house, for the purpose of making effective the organizations that already exist. The plan is to develop such councils in four centers in each county. These local councils will receive regular courses of study on war questions from the War Information Bureau of the State Council of Defense, and in addition certain public war lectures free of charge.

There are now county councils of defense in every county of the state. These were formed soon after war was declared. The next logical step is to reach out and to obtain the fullest co-operation of the various local communities and direct their activities toward the one common cause. This was contemplated in a resolution passed by the State Council on April 25, 1917. "Township presidents should see that local committees or community clubs to represent communities be appointed or selected. . . . The community organization should proceed at once to select a permanent secretary and organize into such committees as seem desirable and applicable to local conditions." In creating such a council in the average Kansas agricultural community the following membership is suggested: Local captain of the county council, chairman of the local Red Cross, principal of school, pastors, editors, township vice-president of the farm bureau, township trustee, chairman of the school board, president or secretary of the farmers' institute, master or lecturer of subordinate Grange, president or secretary of local Farmers' Union, president or secretary of the commercial club, a banker. The following committees are suggested: Agricultural and labor, finance, education, home economics.

The central state agency for directing this work is the organization committee and speakers' bureau of the State Council of Defense, of which Edward C. Johnson of Manhattan is chairman and Walter Burr secretary.

If such action has not already been begun in your community, make it your business to start something. Any local leader can get all the details necessary by communicating with the county chairman or by a request to Walter Burr, secretary of the organization committee at Manhattan. This committee is also ready on receipt of an application for local help to send a speaker, who will meet the local leaders in conference and address a public meeting on Community Action in a Government at War.

SHALL LAND BANK SURVIVE?

During its short existence the Federal Land Bank has rendered a great service to the farmers of the undeveloped section of our country. Interest rates have been more satisfactory and long-time loans with amortization provisions for payment have been made. As time goes on, the Federal land banks should become more useful in financing the farming business. The more business they do, the greater will be their resources.

There is now before Congress a bill providing for an amendment to the Federal Loan Act, which would undouhtedly greatly restrict its usefulness. This hill provides that in the future nothing hut new loans can he negotiated through a Federal land hank. As we understand it, this would prevent a man having a loan with a private company from renewing through the Federal land bank when the private loan became due. If this is to be the effect of the amendment, local loan associations now operating under the Federal loan system should lose no time in wiring or writing their congressmen insisting that they use their influence to defeat such legislation as would prohibit the paying off of a private loan and renewing it through the Federal land bank.

The best way to use straw is as a bedding in stables, sheds or yards where it gives comfort to live stock and helps to hold and conserve the fertility of the manure, but in case of crop farming without live stock, the straw may be used with good results by spreading it on fields of winter wheat or winter rye. Straw spread on winter grain helps to conserve soil moisture, catches snow, gives winter protection for the crop and is also valuable as a fertilizer when finally mixed with the soil by disking or plowing. The plant-food value of straw is given as $2.50 to $3 per ton.

What right has a dairyman to kick on the cost of milk production if he has no silo and does not regularly test his cows?

WAR CONFERENCE IN TOPEKA

Fully a thousand representative Kansans are expected to attend a war conference in Topeka January 17 and 18. These will include men and women engaged in Council of Defense work, Red Cross, food and fuel administration, educational and other forms of national service.

The National Council of Defense has selected six strategic points in various parts of the country for such conferences. The Topeka conference should have a large attendance. It is an open meeting, anyone being privileged to attend, whether specifically engaged in any of the lines of war work mentioned or not. We hope many KANSAS FARMER readers will plan to be present. We need a clearer understanding of war issues and war measures, and in such a meeting these ends will be furthered.

Franklin K. Lane, secretary of the interior, and Sir Frederick E. Smith, attorney general of England, are the most distinguished speakers on the program. The latter came to this country to address the American Bar Association, and comes to the Kansas conference through special arrangement with the British War Mission. Another prominent speaker is Dr. Thomas N. Carver, professor of rural economics in Harvard University and advisor for the Bureau of Markets of the United States Department of Agriculture. Doctor Carver is a recognized authority in all problems of rural economics. He will take up in some detail various matters relating to price fixing. He is thoroughly familiar with agricultural conditions in the Middle West, being a native of Iowa and living a considerable portion of his life in the West. Henry Allen, who recently returned from Europe, will tell of the Red Cross work. P. W. Goebel, a well known banker of Kansas City, Kansas, will also speak.

BOURBON COUNTY DAIRYING

Increased interest is being taken in dairying in Bourbon County, writes George H. Livingston. This county is well adapted to increased dairy production. A fine condensery is being built by the Borden Company at Fort Scott. It will be one of the largest of this company's plants, and will contain all the modern improvements. It will be ready for operation by spring.

Several carloads of dairy-bred cattle have been shipped into the county during the past few months and sold for good prices. This is an indication that the farmers of that section recognize the importance of the dairy cow as a revenue producer and as a means of building up the farms.

There is also an increased interest in pure-bred hogs. This is a class of live stock production that is always associated with dairying. At one of the pure-bred hog sales held the latter part of December, a pure-bred gilt was sold under rather unique circumstances, the proceeds going to the Red Cross. According to the terms of the sale, this sow was sold at the intersection of the two main streets of the city. G. W. Marble and J. I. Shepherd, both prominent men in the community, were to act as auctioneers. Mr. Marble began the sale, selling the gilt for $160, Mr. Shepherd being the high bidder. He immediately wrote a check for the amount and put the sow up for sale again. This time the high bid, $80, was made by James Ellar. This also went to the Red Cross. The gilt was easily worth the price Mr. Eller paid, and this somewhat spectacular method of raising money for the Red Cross not only resulted in a good contribution for a most worthy cause, but served to increase the interest of people generally in high-class breeding stock.

Fermentation and firing of manure in loose piles results in the decomposition of organic matter and the loss of nitrogen and ammonia.

HOG CHOLERA PREVENTION

Co-Operative Erforts Essential in Employment of Sanitary Control Measures

SANITARY measures in controlling cholera can be most effectively employed only by a group of farmers in a community organized for the mutual protection of all engaged in raising hogs. Indeed the effectiveness of sanitary measures employed on one farm might be greatly impaired if similar measures were not employed on adjoining premises.

Farmers' organizations involving the active membership of all farmers and other persons in the locality interested in safeguarding the live stock industry can by local co-operative efforts make known the presence of the disease and thus permit an intelligent and combined fight against its spreading to healthy herds. Excellent progress is being made in Kansas in the employment of such co-operative effort. A number of counties have hog cholera control organizations at work. In every instance the disease has been less prevalent and losses reduced in amount. The time is coming when it will not necessarily be regarded as a disgrace to have hog cholera, but will be a disgrace to permit it to continue long on a farm.

In connection with the co-operative practice of control measures a recent circular from the Illinois Experiment Station will be of interest. In this it is pointed out that hog cholera virus (causative agent of hog cholera) may be carried from farm to farm by numerous agencies, such as streams, natural surface drainage, dogs, newly purchased stock, chickens, crows, buzzards, pigeons, and other birds; on the hoofs of horses, cattle, sheep, and other animals; on the shoes of persons; and on the wheels of wagons, trucks, buggies, automobiles, and other vehicles.

Hog-cholera infection, after once being carried to a premise, gains entrance to the animal body by way of the digestive tract. The body excretions of animals suffering from the disease continue to reinfect the premises and thus increase the danger of exposure to the remainder of the herd. From the carcasses of cholera hogs and from infected premises, the agencies enumerated above serve to spread the disease to other farms. Successful preventive measures are therefore based upon a knowledge of the natural methods by which hog-cholera virus gains entrance to the animal body, the channel by which the virus is eliminated from the sick animal, the resistance of the virus to natural agencies outside the animal body, and the agencies by which it is carried from farm to farm. Effective sanitary measures involve such preventive methods as will tend to keep herds free from cholera and to avoid or ultimately destroy hog-cholera virus existing in nature.

It is not possible to definitely trace the source of the infection in all outbreaks, but an understanding of the various methods by which the disease may gain entrance to a herd suggests fundamental measures which, if properly employed, will increase the vitality of the herd, reduce the danger of exposure to hog cholera, and thus serve to curtail the losses from this and other preventable diseases of swine. The following suggestions may therefore prove helpful:

GENERAL CARE OF HOGS

Hogs should be provided with an abundance of pure, clean water to drink. This can best be accomplished by the use of sanitary drinking fountains. Filthy hog wallows or stagnant pools should be drained, as eggs of intestinal worms and various disease-producing germs, including hog-cholera virus, may harbor in such places and infect the herd. A shallow concrete basin which can be cleaned and disinfected provides a sanitary wallow.

Hog houses should be so constructed as to afford airy, roomy, well-ventilated quarters, with windows so arranged as to permit the direct sunlight access to the interior of the house. The bedding should be dry and free from dust. Hogs should not be allowed to sleep in old straw stacks or in houses constructed partly of straw. Proper ventilation and plenty of room so that the hogs will not pile upon each other will tend to prevent diseases of the respiratory tract. In large herds it is advisable to quarter animals in small groups.

It is important to feed wholesome feed in proper amounts in a balanced ration, and to avoid a sudden change from one feed to another, in order to prevent intestinal disturbances and thus lower the vitality of the animal.

Feeding buckets, barrels, troughs, and feeding places should be kept scrupulously clean. Platforms made of concrete, which can be cleaned and disinfected, prevent waste of feed and insure a clean feeding place, thereby reducing the danger of internal parasites, malnutrition, and other digestive disturbances. Concrete feeding floors properly drained, that will provide ample feeding space for fattening hogs, can be constructed at a moderate expense. The feeding places and houses should be cleaned systematically in order to prevent accumulation of cobs and manure.

Hog pastures should not be watered by a common stream nor be located adjoining public highways. Public thoroughfares are frequently contaminated with hog-cholera virus as a result of the driving or hauling of cholera hogs or other animals from infected premises to market, and in this way the health of herds in fields adjoining the road is endangered. Hog cholera is carried from infected farms to healthy herds by streams of water. Often cholera carcasses or parts thereof are carelessly cast into a stream, thus contaminating the water and infecting hogs on other farms through which the stream runs.

Persons should not be allowed to enter hog lots on business, exchange of labor, or friendly visitation unless the shoes are disinfected in a 3 per cent compound cresol solution (U. S. P.), a 5 per cent carbolic acid solution, or a recognized equivalent. Stock buyers, threshing crews, or venders passing from farm to farm in rural communities should not be allowed to enter the hog lots. Owners and caretakers should not visit public stock yards, loading chutes, or hog lots on other farms because of the danger of carrying the infection on the shoes. Farm visitation should be carefully guarded if cholera is present in the community. Cattle and sheep from public markets, on arrival at the farm, should not be allowed to pasture with the hogs. The newly purchased animals may carry on their hoofs infection acquired in public markets or stock cars en route. Birds and dogs should likewise not be allowed to enter hog lots and hog houses.

DISINFECTION OF PREMISES

Count the animals in the herd each day. Isolate suspicious animals immediately regardless of the cause of sickness. Ascertain the nature of the ailment of isolated animals, and if it resembles cholera obtain the services of a qualified person to hold a post-mortem examination. It is possible to destroy hog-cholera virus and prevent the spread of cholera, at least to a degree, by a thorough cleaning of the premises followed by the application of a chemical disinfectant.

Large pastures are not efficiently nor economically disinfected by chemicals; the most practical and satisfactory method of destroying hog-cholera infection in large areas is by the application of lime, followed by plowing and cultivation. An important factor in ridding hog pastures of cholera infection is the direct action of sunlight. Fresh, partially air-slaked lime should be scattered freely about the feeding places and hog lots after all refuse, such as cobs, straw, dirt, and manure, has been raked and burned or mixed with lime and spread thinly on fields which are not to be used for hogs.

The hog houses, floors, side-walls and feeding troughs should be thoroughly swept and cleaned of all dirt and refuse before the chemical disinfectant is applied. A 3 per cent solution of compound cresol (U. S. P.), a 5 per cent solution of carbolic acid, or an equivalent is recommended. Crude carbolic acid varies so in strength that the pure crystals are to be preferred. Various coal-tar preparations similar to compound cresol, sold under different trade names, are effective germicides when used in proper strength. The floors and feeding places should be thoroughly saturated with the disinfectant and scrubbed with a broom or a stiff brush. The solution can best be applied to side-walls and ceiling with a spray pump. It is necessary that the disinfectant come into direct contact with every available space in order to destroy disease-producing bacteria, and care should be taken to force the solution into every crack and crevice. Following the application of the chemical disinfectant, the interior of the hog houses should be whitewashed. The germicidal property of whitewash may be increased by adding four ounces of chlorid of lime to every gallon of whitewash. On premises free from cholera infection, systematic cleaning and disinfection should be practiced.

Carcasses of hogs or other animals should be burned, regardless of the cause of death. Prompt action in thus destroying carcasses eliminates the danger of further infection through such agencies as buzzards, dogs, chickens, and other carriers. Burying cholera hogs frequently results in new outbreaks of the disease. If not properly done, it is a dangerous procedure, and should be discouraged. When resorted to, the carcass should be placed four feet beneath the surface of the ground and covered with six inches of lime.

PURCHASE OF NEW STOCK

New stock should be purchased only from healthy herds and from premises free from cholera. Dip or spray all newly purchased hogs in a 1 per cent solution of compound cresol and hold in quarantine for thirty days. The danger of newly purchased animals carrying infection to the farm from public stock yards, stock cars, and highways may thus be guarded against. Insist that newly purchased breeding animals be shipped in crates built of new lumber. The animals and crates should be thoroughly disinfected in a 1 per cent solution of compound cresol before shipment and on arrival at destination.

While exhibition hogs are frequently immunized against hog cholera, the danger encountered at fairs and other swine shows where animals are congregated from various localities should not be overlooked. Immune animals may not show indications of the disease subsequent to exposure, but they may carry the infection on their hoofs and they should therefore be held in quarantine the usual time on their return to the farm and should be dipped in a 1 per cent solution of cresol compound or its equivalent before being returned to the herd.

INTERCHANGE OF BREEDING ANIMALS

The practice of allowing a boar to go from herd to herd for breeding purposes has been a source of spreading cholera in some communities. Sows sent to other farms for breeding have likewise carried the disease and created new centers of infection. If breeding animals are exchanged from distant points, the danger of exposure en route must also be guarded against. In each case isolation and dipping of all animals returning to the premises should be carried out the same as with newly purchased stock.

Parasites lower the vitality of hogs and render them more susceptible to other diseases. Rotation or change of hog pastures is an effective method of preventing parasites. Intestinal worms develop from eggs of adult worms which pass out with the feces and are ingested with the feed and drinking water from contaminated pastures or feeding places. Sanitary measures which insure proper drainage of pastures, a clean water supply, feeding floors—preferably of concrete—that can be thoroughly cleaned, will reduce the prevalence of internal parasites.

Hog lice can be destroyed by dipping the hogs in a 1 per cent solution of compound cresol or by the application of crude oil or kerosene emulsion. It is advisable to repeat the treatment in eight or ten days in order to destroy any eggs which may develop subsequently to the first treatment. Sleeping quarters must be cleaned and disinfected to prevent reinfestation of the animals. By pouring crude oil in a sanitary wallow, the frequent application of the oil may be assured.

Lung worms must be combated by preventive methods, as it is difficult to effect their expulsion by remedial agents. Intestinal round worms can be expelled by starving the animals for twenty-four to thirty-six hours and feeding a combination of five grains santonin, five grains calomel, and one dram of areca nut, for each fifty to seventy-five pounds of live weight; or by administering four drams of turpentine followed by two ounces of magnesium sulphate in ground feed. These remedies are conveniently given in thin slop. All animals to be treated should be divided according to size in small groups to insure an equal consumption of the remedy. In small herds better results can be obtained by dosing each animal separately.

HOG CHOLERA "CURES"

There is no cure for hog cholera. Remedies so advertised may be classed as tonics and conditioners designed to regulate and correct the digestive system. The government formula and slight variations of it are efficient conditioners and can be purchased as compounded by local pharmacists at a reasonable price. The following mixture has been found satisfactory:

Common salt	15 pounds
Wood charcoal	5 pounds
Wood ashes	5 pounds
Copperas	5 pounds
Sodium sulphate	1 pound
Antimony sulphide	1 pound
Sulphur	1 pound
Sodium hyposulphite	1 pound
Lime	1 pound

These ingredients are pulverized and thoroughly mixed. The mixture should be fed at intervals in the proportion of one heaping teaspoonful for every 200 pounds of live weight.

A mineral mixture which will aid in expelling worms and which will stimulate digestion if kept before hogs at all times, consists of—

Sal soda	3 pounds
Epsom salts	3 pounds
Common salt	3 pounds
Sulphur	1 pound
Charcoal	4 pounds
Copperas	3 pounds

This can be conveniently supplied in a self-feeder.

The only known agent for preventing cholera is anti-hog cholera serum. Intelligent practice of vaccination and neighborhood co-operation in all preventable measures will stamp out this disease.



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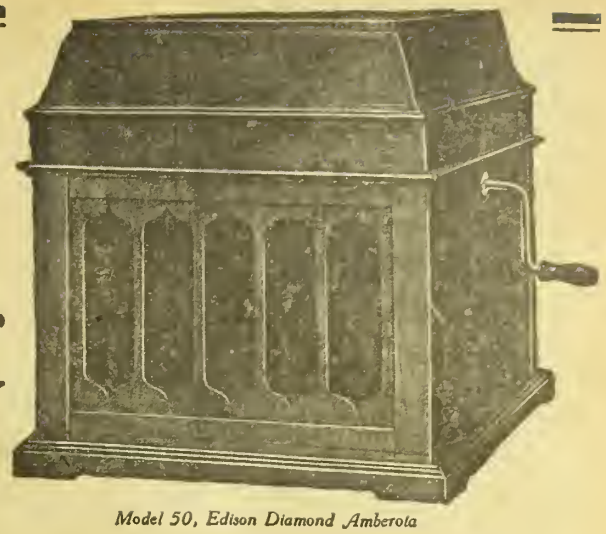

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Unless you are already the owner of a New Edison Diamond Amberola, there is no reason in the world why you should not take advantage of this offer. You will at least have three days of delightful music in your home, and the dealer will consider his time and money well spent, because he knows that, once you hear it, you will have nothing but praise for the Amberola. The sooner you send the coupon, the better chance you will have of getting the model Amberola and the records you prefer.

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The records listed below will give you a good idea of the kind of music you can have with the Amberola. Look over the list. We are sure you will find many of your favorites.

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Hark! Hark! My Soul
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I Surrender All
I Will Sing of My Redeemer
Looking This Way
Lord, I'm Coming Home
O Come, All Ye Faithful
The Palms
Softly and Tenderly

NEGRO MELODIES
Dinah
Kentucky Babe
My Little Cotton Dolly
Ma Pickaninny Babe
Old Folks at Home

VOCAL QUARTETS
Call to Arms
Lorena
Old Black Joe
Owl in the Old Oak Tree
Perfect Day
Quartet from Rigoletto
When the Corn is Waving

ORCHESTRA
Blue Danube Waltz
Somewhere a Voice is Calling
Teddy Bears' Picnic
Whispering Flowers

RECITATIONS
An Old Sweetheart of Mine
Finch's The Blue and the Gray
Lasca
Out to Old-Aunt Mary's
Sheridan's Ride

BANDS
Gladiator March
Laughing Love
Night of Gladness Waltz
Old Comrades' March
Rienzi Overture
Skaters' Waltz
Spirit of Independence March
Tambour der Garde Overture

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The Rosary (Cornet)

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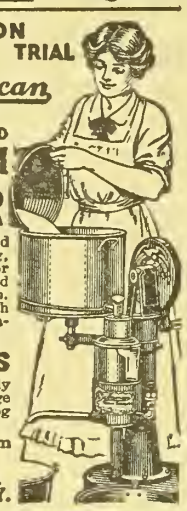

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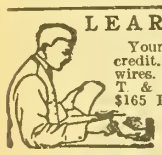

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KANSAS FARMER DAIRY CLUB

Kind of Feed Required

THE digestible portions of feed can be grouped into two general classes, the protein and the energy-producing material. The cow giving milk must have these two kinds of nutrients in the right proportion to meet the requirements of milk production. The protein is sometimes spoken of as growth-making material, because without it no animal can make any growth. Since milk is meant to furnish the young calf a balanced feed so it can grow and develop, it must contain a liberal amount of this protein, or growing material. Milk is made from the feed the cow eats, so it is easy to understand why the feed must contain plenty of protein. Nothing else can take its place.

By far the larger part of the feed consists of energy-producing material. We have spoken of the carbohydrates and the fats, both of which are to be classed in this group. No growth can be made from this part of the feed. When you cut open a corn kernel you find that it seems to contain a great deal of material that looks like starch. The same is true of other grains. This starchy material can make fat, produce energy or work, or serve to keep the animal warm, but no lean tissue or anything that adds to the actual size of the animal can come from starch. They will get fat and therefore weigh more when fed liberally on starchy feeds, but the bones and framework of the body cannot be increased in size without protein. The fat or oil which is found in small quantities in all feeds can do the same things as starch. It is more concentrated and it takes a smaller amount to produce a certain amount of heat or energy.

In the illustration there are three diagrams or charts, the first of which illustrates a combination of feeds properly balanced for milk. That means that it contains just enough and not too much of these two kinds of things found in all feeds. All the starch, sugar, and fat is represented by the portion marked "energy." The balance represents the protein in the mixture. The second chart represents a combination of feeds that contains too much protein. If you feed a good deal of cottonseed meal or linseed meal, you might get too much protein in the ration. This would of course be wasteful, since all protein feeds are usually higher in price than those having small amounts of protein. This excess of protein is more likely to happen when you feed a good deal of alfalfa hay and in addition some of the purchased feeds like cottonseed meal which are especially rich in protein. Alfalfa contains more digestible protein than any other hay commonly fed. Clover hay and hay made from cowpeas or soy beans also contain more protein than ordinary hay. When you feed alfalfa or one of the other kinds of hay rich in protein, you do not need to feed much cottonseed meal or oil meal to ordinary cows.

The chart at the bottom of the cut illustrates a kind of feed mixture which is much more common. The white part represents the protein lacking, and the part at the right marked "surplus energy" is really waste, since it cannot be used to take the place of the protein and can only be stored in the body as fat unless there is some more protein to go with it. The amount of milk the cow will give will be limited by the amount of protein in the ration. She cannot change her milk from day to day to fit the kind of feed she is getting. If there is not enough protein she simply gives less milk. Perhaps your cow is giving about thirty pounds of milk a day when fed the right kind of feed. You may run out of alfalfa or bran, oil meal, or such other protein feed as you may be using, and give her a mixture which has only enough protein for twenty pounds of milk. No matter how much of the energy-producing material there may be in this feed, she will fall off in milk to correspond with the protein, even though you give her all the feed she will eat.

Experiment stations have found that the feeding of a properly balanced ration is necessary to the most profitable milk production. There is little advantage in having a cow with large capacity for giving milk unless she has enough of the material for making milk in her feed. The Illinois Experiment Station found that cows getting a balanced ration produce approximately one-third more milk than those receiving a ration considerably lacking in protein. Six and a half cows on balanced rations gave as much milk as nine cows on the unbalanced.

In balancing a ration it is always best to begin with the roughage—the hay, fodder, and silage. There is no other market for some of this kind of feed, and as a rule roughage of any kind supplies the necessary nutrients cheaper than you can buy them in mill feeds or grain. The first point, then, is to give the cow all the hay, fodder, or silage she will eat. A cow will in practically every case get enough for maintaining her own body and have some left for milk. If the hay is alfalfa and a fairly liberal amount of it can be fed, the rough feed will be balanced about right for milk. That is, it will have enough protein so the cow can give a fairly good flow. If the hay and rough feed is of a kind that makes the things it contains figure out as illustrated by the last chart of the cut, it will be necessary to give the cow some concentrated feed rich in protein to balance this roughage, or, again referring to the chart, to fill up the white space marked "protein lacking."

If your cow is not of more than average capacity or has been fresh for some

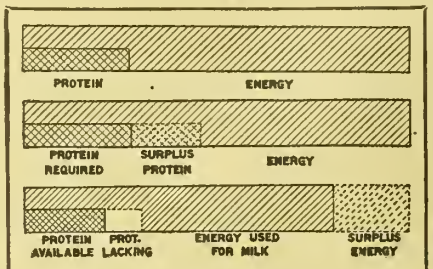

ILLUSTRATION OF "BALANCED RATION" —ONE CONTAINING TOO MUCH PROTEIN AND ONE LACKING IN PROTEIN

time, a heavy grain ration will not be necessary if you have plenty of the right kind of roughage. It must be of a kind that she likes and a considerable portion of it must be a hay like alfalfa that contains considerable protein. You must not expect heavy milk production on rough feed alone. Such feed is so bulky that the cow cannot eat enough to give her all the nutrients necessary to make a large quantity of milk. Since the Food Administration has limited the price millers can charge for bran, you will not have to pay as much for this feed as you did for a time. Most club members will find it profitable to feed some grain and concentrated feeds. You have cows good enough to pay for these feeds if you have a good market for your milk or cream.

We hope you are beginning to understand something about the different kinds of nutrients found in our feeds and what is meant by balancing the ration. If you are in doubt about how to feed, write to us telling just what you have on the farm and what you will have to pay for the different kinds of grains and mill feeds and we will try to help you figure out the most profitable combination of feeds to use.

Care of Calves

Calf raising is a fundamental part of the dairy industry. Our present-day problem of raising calves is a much more complicated one than formerly because very little whole milk is fed. In this circular we will discuss briefly some of the most important points to be borne in mind in caring for calves.

Immediately after birth the navel of the calf should be washed with an antiseptic solution and tied with a silk thread in order to prevent infection. For the first feed the calf should have the first milk from the cow after calving and should have its mother's milk for several feeds thereafter. The sooner the weaning takes place, the better, but ordinarily it should not be postponed later than the fourth day. The sooner the calf is weaned the more easily it is taught to drink. When first fed from the pail, eight or ten pounds of milk a day, fresh and warm from the cow and divided into two feeds, are sufficient. The feeding times should be as nearly regular as possible, and at first it is advisable to feed more than twice a day. The quantity fed should be constant, to insure which scales should be used, as variation tends to get the digestive organs out of order. At all times the ut-

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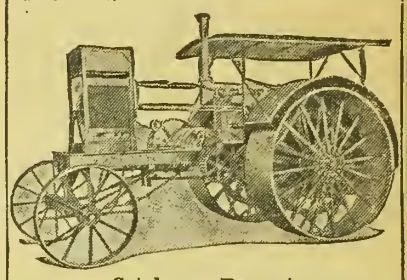

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WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

Women as Cream Testers

As a means of increasing the nation's supply of labor, George E. Haskell, dairy specialist of the Food Administration staff, has suggested the more general employment of women as cream testers.

There are at least 10,000 cream receiving stations in the United States, according to Mr. Haskell, at which cream is purchased, sampled, tested and then shipped to churning centers for manufacture into butter. Women have, to some extent, assisted their husbands as cream station operators, and in states requiring such operators to be licensed, a small percentage of women have successfully passed the technical tests and been granted licenses. When convenient platforms are arranged for loading and unloading cans of cream with a minimum of lifting, the work is not physically difficult.

"Women are well qualified for the painstaking work of sampling and testing," declares Mr. Haskell, "and only a short training is necessary to make them proficient. The substitution of women as cream station operators, especially in the smaller stations, seems in harmony with the nation's need, as it will release several thousand men for farming and war industries."

most care should be taken to prevent any digestive disorder, as all such trouble hinders the growth and development of the animal. Calf scours is a most common indication of this condition.

The following named precautions, to a great extent, tend to prevent scours:

Feed regularly.

Be sure that the milk is always sweet and warm.

In feeding use only clean pails.

Feed the calf a little less than it wants.

Reduce the quantity of milk one-half if the animal becomes sick.

The quantity of milk fed can be gradually increased until at the end of the second week the calf receives from fourteen to sixteen pounds of milk a day. At this time the gradual substitution of skim milk for whole milk may commence. Hay and grain should be placed before the calf at this period and it will be found to nibble at them a little. At the end of the third week the substitution of the skim milk will be complete. By slow changes the milk can be increased thereafter until twenty pounds a day are fed, which will be found sufficient when fed with the grain and hay. If skim milk is plentiful more may be fed, but the addition will not give proportionately better results.

Corn meal, bran, and oil meal, mixed in the proportion of three, two, and one, make an excellent grain mixture. This grain, when fed with plenty of fine clover hay, makes an ideal supplement to skim milk in balancing the ration. Calves should be allowed all the grain that they will eat until they consume three pounds a day; from this point the feeder should use his judgment as to whether an increase is justified.

The calf, from the time it is two weeks of age, should always have access to plenty of clean, pure water.

The general practice is to feed calves skim milk for from two to six months. In the latter case, with fall calves, the time of final weaning from milk comes in the spring when pastures are ready. Under this system the calves usually make excellent growth during the entire period without any break in gains.

Careful attention during the first two weeks often means the difference between a sickly, undersized, stunted animal, and a large, well-developed one when it enters the herd as a milking cow. —United States Dairy Division.

Dehorn the Dairy Heifer

There are two methods of dehorning dairy animals. One of these which is widely practiced is to allow the horns to grow until the animal is fairly mature and then cut them off with special dehorning clippers. This method removes the horn, but it is a painful and bloody operation. The other method is to prevent he horns from developing.

The calves should be treated when they are from five to ten days old or when the horns are just beginning to show as small buttons and before they break through the skin. The hair should be clipped away from this part of the head with a pair of shears. As soon as the skin is thus made visible it should be broken with a sharp instrument, directly over the center of the appearing horn. A deep cut should not be made. As soon as the skin is broken, a stick of caustic potash should be rubbed on the horn until the skin is removed over an area slightly less than the size of a dime. The caustic can be purchased in small white sticks about the size of a pencil. One end should be wrapped with paper or cloth to protect the fingers. Rubbing should continue over the surface until it begins to turn white. Too much rubbing may give bad results. As soon as this is complete it is well to grease around the treated area with vaseline.

It is usually better to use the caustic in a dry form rather than to use it wet, because when too much moisture is present it may run down into the calf's eyes and cause injury.

The caustic should be kept in an air-tight bottle because in the presence of air it becomes wet and sticky and is difficult to handle. With a little experience one can perform this operation in about five minutes and horns will never develop if it is properly done. In case short spurs or stubs grow, they can be clipped off after a year or two with but little injury to the animal.

Food in the mouths of our allies is ammunition no less important than the shells in their siege guns.

Deliver Milk Like Mail

More than forty years ago a Wisconsin man suggested a "Deliver-Milk-Like-Mail" plan, which is again being offered as a solution of some of our present-day milk marketing problems.

"In each city every company or individual engaged in the milk business supplies people in every part of the city, and the streets of each city are traversed by a large number of milk wagons. The distribution of milk in the city may be contrasted with the delivery of mail. The delivery of the mail is so organized that each mail carrier has a given district assigned to him, and he carries the mail to all persons in his own district. The delivery of milk might be compared to a delivery of letters and newspapers without any system. Let us suppose, in a city like Topeka, all the mail, on arrival, was simply put in a heap, and each mail carrier should take up an armful for distribution; it is manifest that it would take very many times the force which it now requires to distribute the mail, because each mail carrier would have to run all over the city, and a dozen mail carriers would traverse each street."

This was written more than twenty years ago by Richard T. Ely, of the University of Wisconsin, but it is not improbable that the suggestion may soon be accepted. In fact, this idea may be one of the main recommendations made by the committees which are now struggling with this very engaging problem.

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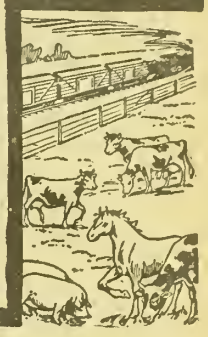

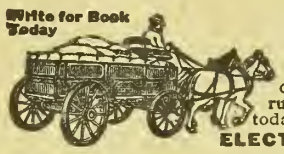

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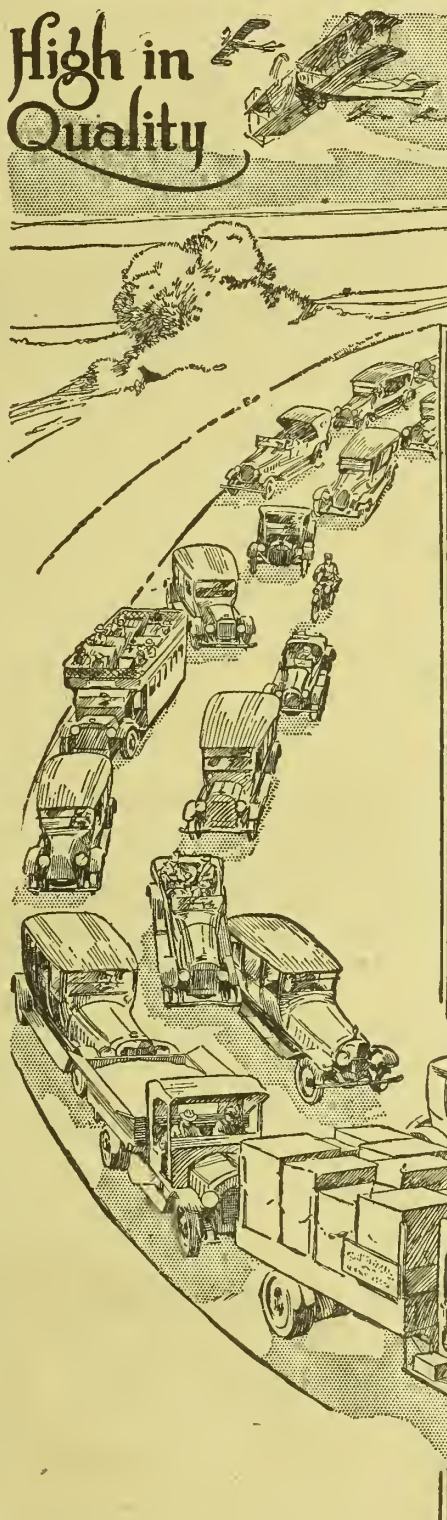

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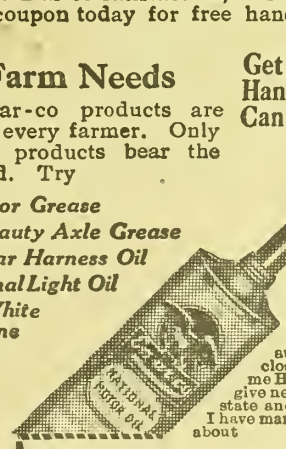

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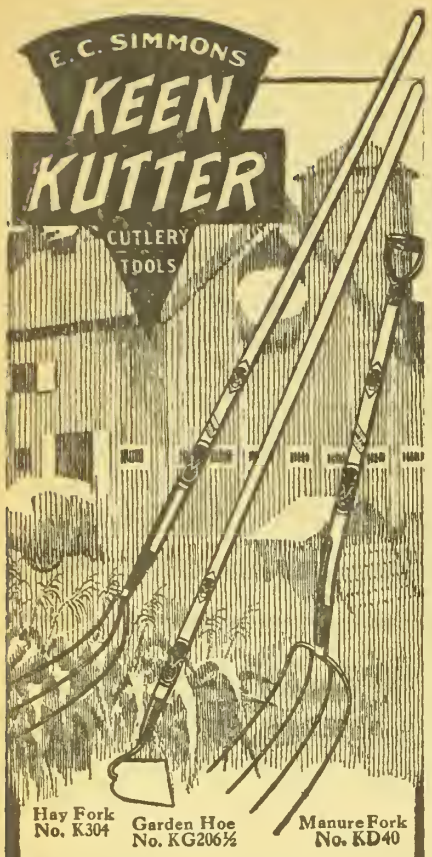

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Loyal Live Stock Farmer

WE recently received the following letter from S. M. Knox, an Allen County live stock farmer and breeder: "I have just finished reading the article by William Hirth in your December 1 number with much interest, and agree with same. But, like all farmers' talk, we "cuss" and "discuss" and get no nearer the solution of the problem. Kindly let me know what plans are being made to help along the line indicated in this article. The Grange has accomplished wonders in the purchasing of feed, twine, etc., but when we have anything to sell either in cattle or grain, the same old conditions confront us.

"I try to be patriotic and help contribute to feed the armies, but it looks like too much to ask the live stock farmer to increase his herds when he now is not getting as much for his stock on the market as he could get by selling his grain and hay. I am now keeping more stock than I raise grain for. I bought every bit of corn and mill feeds for my brood sows the winter of 1916-1917, and even with the aid of alfalfa pasture, unless I sold most of my females at pure-bred prices could not buy corn and feed out surplus barrows and cull females without loss.

"Mr. Hoover has set a minimum price on wheat, but bran and shorts are going up every day. The farmer can get only two dollars for wheat, but no limit has been placed on by-products to the best of my knowledge. Feeding live stock at the present high prices is too big a gamble. Corn, hay, and mill feeds are constantly rising in price. Hogs fluctuate daily. It takes two or three times as much capital as formerly with interest rates as high as ever. To this add the risk of something dying and there seems to be no incentive to raise and feed more stock.

"At harvest time the grain farmer knows how he stands; the stock farmer continues the gamble—as is all farming, contending with insects, the season, and the speculator—and must continue it even after he markets his stock because he must keep his breeding stock.

"There is a proverb, 'It is an ill wind that blows no one good,' and it seems that the war with all its horrors has already accomplished some good by placing Mr. Hoover in a position where he can adjust prices as they should be. He has made a good start; let him continue. The packers have been limited to a certain per cent of profit, but the farmer, aside from wheat, is—as he always has been—taking what he can get with no certainty of making a living, to say nothing of a profit.

"I have been—as are the majority of farmers—waiting for Mr. Hoover, satisfied that he will do the right thing."

Since the above was written, restrictions have been placed on feeding by-products of milling. This act, if vigorously enforced, will serve to increase the faith of such men as Mr. Knox in the good intentions of the Food Administration. Constructive measures are also now in operation which will tend to stabilize pork prices and insure the producer against loss.

The concluding articles by Mr. Hirth in the issues of December 8 and December 15 tell more definitely the plans of the Missouri Farm Clubs and the actual results of their organized efforts. We hope many of our readers will be moved to write us as has Mr. Knox.

Crop Improvement Association

On Tuesday, January 22, during Farm and Home Week, the Kansas Crop Improvement Association will hold its annual meeting. A feature of the meeting will be the two addresses by Prof. Alfred Vivian of the Ohio Agricultural College, "The Fertility of the Soil," and "Barnyard Manure." "Federal Grades of Wheat" will be discussed by E. L. Morris, grain supervisor, United States Department of Agriculture. Reference was made in last week's issue to the addresses to be given by Dean W. M. Jardine and C. C. Cunningham of the Kansas Agricultural College.

A most instructive and interesting feature of Farm and Home Week is the apple show at the horticultural building. Boxes and plates of apples will be shown. All boxes should be sent by express and apples for plates by parcels post. Six apples should be sent for each plate so that the best five may be used. All exhibits should be sent to the Department of Horticulture, Agricultural College, Manhattan, Kansas, so as to arrive not later than Tuesday, January 24. All exhibits will be left on display until 10 o'clock Friday morning, when they may be claimed by the exhibitors.

Advice Wanted

Persistent rumors to the effect that the Food Administration contemplates activities which will be detrimental to farmers have been afloat from time to time. To those who will pause to reflect upon the purposes of the Food Administration, these rumors are clearly the propaganda of enemies of this country. The food administration was conceived as a national defense measure. In the fact of this fact, therefore, it is unreasonable to believe that anything would be done which would result in loss to farmers. The fundamental purpose of the Food Administration, of the farmers, and of all loyal persons, is the same—national safety. The Food Administration intends to conserve food and encourage food production. It is important, therefore, that farmers understand definitely that the Food Administration has their interests at heart. The attitude of the administration toward the farmer is aptly put by Dean F. B. Mumford of the Missouri College of Agriculture:

"If one fact more than any other has developed in connection with this great war, and particularly so far as the Food Administration has any relation to it, it is the sincere effort on the part of the Food Administration to bring into its counsel every interest, and to secure information from every source that might help in the solution of the great problems that are before us; and at the very beginning I want to assure the farmer that so far as I know anything about the policies of the Food Administration, they are conceived to give him more than a fair chance to bring before the Administration all the facts in connection with his business and all his ideas as to how the present situation should be handled so far as it relates to his activities.

"The Food Administration will not knowingly encourage any policy which will result in decreased production. The food problem is fundamentally one of production. Every effort will therefore be made to encourage the farmer to increase production."

It is evident from reports in different sections that some farmers are laboring under misunderstandings. Instead of accepting reports which are current, they should investigate. Such investigation will invariably prove that the Food Administration has the welfare of farmers and of the entire nation at heart and it to give aid to the enemies of this country.

Live Stock Meetings at College

The Kansas Swine Breeders' Association will hold its annual program meeting Tuesday, January 22, during Farm and Home Week at Manhattan The following numbers appear on the program, which will begin at 3 o'clock Tuesday afternoon: "Meeting the War Program by Promoting Swine Production Through the Farm Bureau," I. N. Chapman, county agricultural agent, Leavenworth County; "The Importance of Individuality, Type, and Pedigree in Swine Breeding," W. W. Smith, associate professor of animal husbandry, Purdue University; "The Management of the Sow and Litter," E. C. Carp, Wichita; "Feeding and Breeding for Market," J. I. Thompson, associate professor of animal husbandry, Kansas Agricultural College.

Wednesday forenoon the sheepmen gather for their annual meeting. Interest in sheep is on the increase. A. L. Stockwell, president of the association, will speak on "Handling Range Lambs." Addresses will also be given by F. R. Hedrick, sheep specialist representing the Kansas City Stock Yards Company; Prof. W. C. Coffey, of the Illinois Agricultural College, and H. L. Popenoe,



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county agricultural agent of Lyon County.

The Kansas Horse Breeders' Association, one of the strongest of the live stock associations of Kansas, holds an all-day meeting Friday, part of the general program being in charge of this organization. Some strong speakers appear on this program, among them being Wayne Dinsmore, secretary of the Percheron Society of America. In the afternoon the Kansas Breeders' Percheron sale will be held.

Canadian to Speak at College

"Canada's Part in the War" will be the subject of the address Farm and Home Week by Dr. G. C. Creelman, president of Guelph Agricultural College.

Doctor Creelman is a very vigorous speaker. He is thoroughly familiar with what Canada has done, and in his lecture shows how Canada has maintained and ı increased the production of its ners in spite of the voluntary enlist- t of over four hundred thousand men. This is the equivalent of more than six million volunteer enlistments in the United States, or over two hundred and fifty thousand in Kansas, whereas Kansas has contributed about twenty-five thousand men. The doctor brings a gripping message, which will be given January 22.

Saving Grain Sorghum Seed

Last week on our editorial page we urged the saving of seed kafir in sections where the crop matured. L. C. Christie, emergency agent at Loberal, Kansas, has the following to say on this subject:

"Help win the war by saving seed to sell to those who need it.

"On account of the dry weather and early frost last fall there will be a great shortage of good seed for spring planting. This part of the state has more good mature seed than any other part of Western Kansas, and yet even here many people will have to buy seed between now and planting time.

"Every farmer who has a good, clean, mature seed should keep it for sale in the spring and not feed it up. It will pay every person who has not raised seed suitable for planting to look it up before it is threshed.

"In the case of sorghums it would be best to select the good mature heads and store them in a dry place where mice cannot get to them. If threshed too early and kept in a large bulk, the seed may heat and thus injure the germination. I shall be glad to list anyone having a surplus of seed. I wish to make out a seed list for the county as soon as possible to send to all who wish to purchase seed. It will greatly help in these matters if the farmer will report the following facts to me promptly: Name, address, variety of seed, amount, price, and whether you will hold until planting time."

Brine Cure of Meat

In the curing of pork, the care of the meat immediately after killing is equal in importance to the curing itself. If salted before the animal heat is out, the shrinkage of the muscles causes the retention of injurious gases, giving an offensive odor to the meat. If salted while the meat is frozen, the frost prevents thorough penetration of the salt and uneven curing results. The safest rule to follow is to salt pork as soon as the animal heat is out, and before it freezes or begins to decay. Ordinarily twenty-four to thirty-six hours after slaughtering will allow sufficient time for cooling.

Brine-cured pork may be either plain or sugar-cured, and is best for farm use because a suitable place for dry curing is not usually obtainable. The plain salt method consists in rubbing each piece of pork with fine common salt and packing it closely in a barrel. Let it stand over night. The next day weigh out ten pounds of salt and two ounces of saltpeter to each hundred pounds of meat and dissolve these ingredients in four gallons of boiling water. When the solution is cold, pour it over the meat, and then cover and place a weight on it so that the meat will stay under the brine. The pork should be kept in the brine until used.

In sugar-curing, each piece of meat is rubbed with salt after it is cool and allowed to drain over night. It should then be packed in a barrel with the hams and shoulders at the bottom and the strips of bacon at the top. Meat will pack best if cut into small pieces about six inches square. Weigh out for each hundred pounds of meat, eight ounces of salt, two pounds of brown sugar, and two ounces of saltpeter. Dissolve the salt, the sugar, and the saltpeter in four gallons of water, and pour the solution over the pork.

Bacon strips should remain in brine from four to six weeks, and hams from six to eight weeks before they are smoked. Pork cured in this way not only keeps all summer, but will be sweet, palatable, and of good flavor.—A. M. PATERSON.

War Savings Stamps

In offering "War-Savings Stamps" to the public the United States Government has made immediately available for every man, woman, and child in the country a profitable, simple, and secure investment.

What They Are.—War-Savings Stamps are the answer of a great democracy to the demand for a democratic form of government security. They are "little baby bonds." Like Liberty Bonds, they have behind them the entire resources of the government and people of the United States. They have the additional advantage that they steadily increase in value from the date of purchase until the date of maturity, and this increase is guaranteed by the government. These stamps are issued in two denominations, the 25-cent stamp and the $5 stamp.

For the convenience of investors a "Thrift Card" is furnished to all purchasers of 25-cent stamps. This card has spaces for sixteen stamps. When all the spaces have been filled the Thrift Card may be exchanged for a $5 stamp at post offices, banks, or other authorized agencies by adding 12 cents in cash prior to February 1, 1918, and one cent additional each month thereafter.

Those who prefer may buy a $5 stamp outright. These will be on sale until January 31, 1918, for $4.12. They automatically increase in value a cent a month every month thereafter until January 1, 1923, when the United States will pay $5 at any post office or at the Treasury in Washington for each stamp affixed to a War-Savings Certificate.

When you purchase a $5 stamp, you must attach it to an engraved folder known as a "War Savings Certificate," which bears the name of the purchaser and can be cashed only by the person whose name appears upon the certificate, except in case of death or disability. This certificate contains twenty spaces. If these are all filled with War-Savings Stamps between December 3, 1917, and January 31, 1918, the cost to the purchaser will be $82.40, and on January 1, 1923, the government will pay the owner of the certificate $100—a net profit to the holder of $17.60. This is based on an interest rate of 4 per cent compounded quarterly from January 2, 1918. The amount of War-Savings Stamps sold to any one person at any one time shall not exceed $100 (maturity value), and no person may hold such stamps or War-Savings Certificates to an aggregate amount exceeding $1,000 (maturity value).

If the holder of a War-Savings Certificate finds it necessary to realize cash on it before maturity, he may at any time after January 2, 1918, upon giving ten days' written notice to any money order post office, receive for each stamp affixed to his certificate the amount paid therefor plus one cent for each calendar month after the month of purchase of each stamp. A registered certificate may be redeemed, however, only at the post office where registered.

In other words, the plan is simple, straightforward, and certain. The holder of the certificates cannot lose and is certain to gain. He is buying the safest security in the world in the most convenient form in which the security of a great government has ever been offered to its people.

Why You Should Buy Them.—The main reason for the purchase of the War-Savings Stamps is because your country is at war. Your country needs every penny which every man, woman and child can save and lend, in order to feed, clothe, arm, and equip the soldiers and sailors of America and to win this righteous war in defense of American honor and the cause of democracy throughout the world.

If we are to win the war, we must win it as a united people. The savings of every man, woman, and child are necessary if we are to hasten the victorious ending of the war. War savers are life savers.

A single strand in the cables which uphold the great Brooklyn suspension bridge is not very strong, but thousands of these strands bound together uphold one of the great thoroughfares of the world.

When our fathers and sons and brothers were called by our country to take up arms in her defense, you did not hear an individual soldier refuse to serve because his service alone would not win the war. Each man was ready to do his part. The great army thus formed is going forward to face the fire of battle and to risk everything for the safety and security of our homes and our families, and for the very existence of our country.

These are the men for whom you are asked to save and lend your dollars.

A country worth fighting for is a country worth saving for.

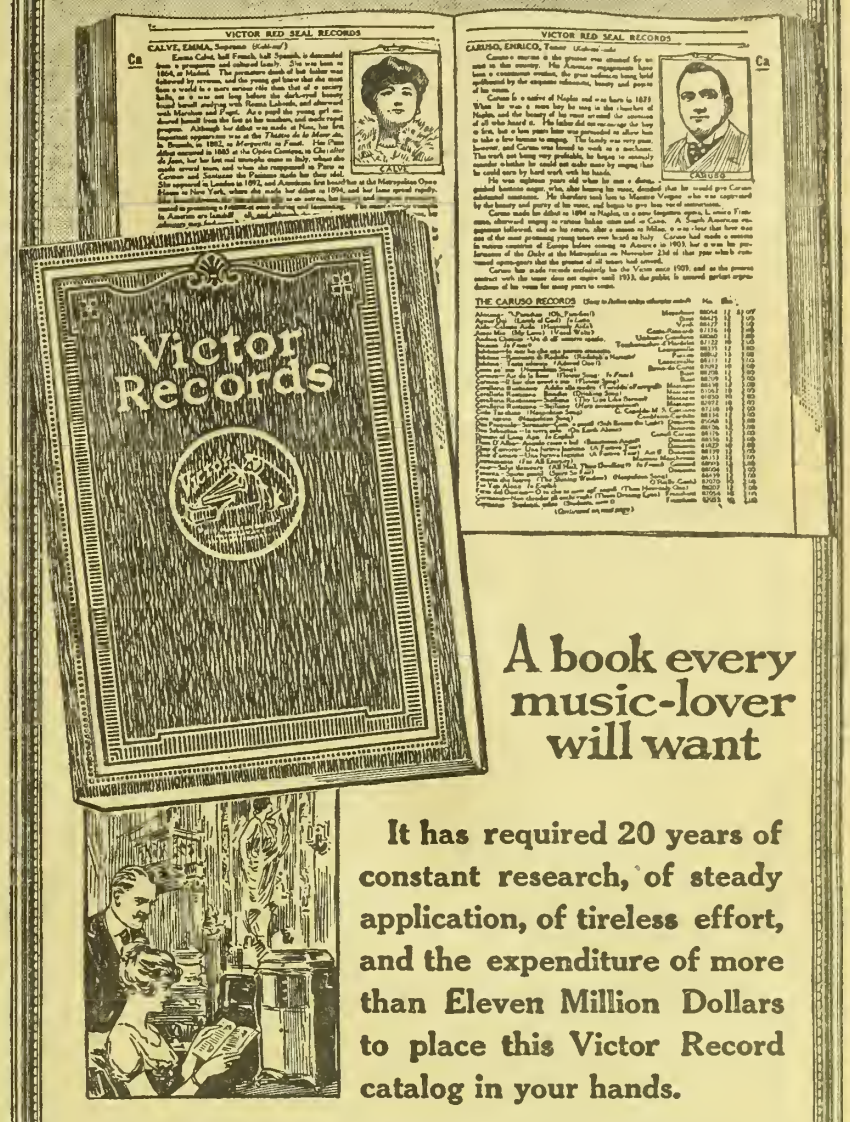
To save money is to save life.

Buy War-Savings Stamps at post offices, banks, trust companies, or other authorized agencies, and strike a blow for our county.

Further information can be obtained regarding War-Savings Certificates and Thrift Stamps at post offices, banks, or other agencies, or by addressing the National War-Savings Committee, Washington, D. C.

F. S. Merrill, assistant professor of horticulture in the Kansas Agricultural College, will leave the first of the year to take a position as orchard manager of the Central States Orchard Corporation, which operates throughout Kansas, Missouri and Iowa. His headquarters will be in the Produce Exchange building, Kansas City, Missouri. Professor Merrill has been with the college four years.

The world's greatest catalog of music



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Every music-lover will want a copy of this great Victor catalog of music. Everybody should have this book, whether or not they have a Victrola. All will appreciate it because of the information about artists, opera and composers, and the numerous portraits and illustrations it contains. Any Victor dealer will gladly give you a copy of this great catalog of music, or we will mail you a copy free, postage paid.

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To insure Victor quality, always look for the famous trade-mark, "His Master's Voice." It is on all genuine products of the Victor Talking Machine Company.

Victor Supremacy

$8.95 Champion buys 140-Egg Belle City Incubator

The Prize Winning Model with Double Walls of Fibre Board – Hot Water – Copper Tank – Self Regulator–Thermometer Holder–Deep Nursery —same as used by Uncle Sam and America's most successful Poultry Raisers–that has led the field for over 12 years—Over 650,000 sales to date. When ordered with my $5.25 Double Walled—Hot Water — Roomy 140-Chick Brooder— Both cost only $12.95.



Freight Prepaid East of Rockies

Satisfaction Guaranteed—Handiest machines — Easy to run — Big in results. Start early — Order Now on 1, 2, 3, Months' Home Test Plan — and share in my

$1000 Cash Prizes



Conditions easy to get biggest prize. Or write today for my big Free Book "Hatching Facts"—it tells all. With this wonderful hatching outfit and my complete guide book for setting up and operating, you can make a big income. Jim Rohan, Pres.

Belle City Incubator Co., Box 18 Racine, Wis.



Everbearing Raspberry

Raspberries for 4 months with this wonderful new Everbearing St. Regis, of the highest grade. It's the first to bear and continues until late October. Very hardy, yields first season, 8c each; 10 for 50c.

Beebe's Early Prolific Tomato

Two weeks earlier than any other. Bears until frost Fruit large, smooth, superb quality, splendid keeper. Stands hot dry weather. You will never regret planting it. Seed cannot be obtained elsewhere.



Fruit trees, vegetable and farm seeds. Catalog free.

Sonderegger Nurseries & Seed House
66 Court Street BEATRICE, NEB.

Trees and Seeds That Grow



150 EGG INCUBATOR CHICK BROODER

Both are made of Calif. Redwood. Incubator is covered with asbestos and galvanized iron; has triple walls, copper tank, nursery, egg teeter, thermometer, ready to use. 60 DAYS' TRIAL—money back if not O.K. Write for FREE Catalog Now.

FREIGHT PAID East of the Rockies

Both For $12.50



Ironclad Incubator Co. Box 147 Racine, Wis.

PURE BRED POULTRY

ORPINGTONS.

FINE BUFF ORPINGTON COCKERELS, $2 and $3. Mary E. Price, Route 7, Manhattan, Kansas.

BUFF ROCKS AND BUFF ORPINGTONS. Closing out sale, half price. Laying strain. Winners Texas and Kansas state shows. Eggs for hatching, fancy show pens. Write me. John A. Cragan, Kingman, Kansas.

DUCKS AND GEESE.

BUFF DUCKS, $1.50 EACH. PAIR NARragansett turkeys, $9.50. Mrs. Frank Neel, Beverly, Kansas.

400 DUCKS—ROUEN, MOSCOVY, ORPington, Runners. Sliver-laced Wyandotte and Rhode Island Red cockerels. Fred Kucera, Clarkson, Neb.

FAWN AND WHITE INDIAN RUNNER drakes, Federation winners, and White Rocks, cockerels. Mrs. J. F. Romary, Olivet, Missouri.

WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

FARM AND HERD.

H. W. Mollhagen, of Bushton, Kansas, reports his fine herd of Holsteins doing well. Mr. Mollhagen owns one of the heavy producing herds. His entire herd is of record breeding and is noted for its large per cent of high testing cows. A feature of the herd at this time is the choice lot of young stock of record breeding.

John L. Naiman & Sons, of Alexandria, Neb., owners of the noted Oak Grove herd of big-type Polands, report their draft of bred sows for their February 9 sale doing well. Some of the fall yearling gilts weigh nearly 600 pounds at this time and the spring gilts around 300. Naiman & Sons are among Nebraska's progressive breeders. They have one of the best equipped hog farms in the country. They have a strictly modern hog house and are prepared in every way to raise breeding stock that will be profitable. Their offering for this coming sale was sired by such boars as Great Wonder, Mammoth Orange, McBluc Valley, Maple Grove Orange, Maple Grove Timm, Mc's Big Joe, Combinatalon Hadley, Long Shot, and Superba Again. They are bred to Long Shot, Long Hadley and Long Wonder, a trio of great sires.

C. W. Taylor, of Abilene, Kansas, owner of the famous Pearl herds of Shorthorns, reports the herd doing well. A feature of the herd at this time is the choice lot of young stock sired by the two good bulls, Valiant 346162 and Marengo's Pearl 391962.



Types of Incubators

TO RAISE poultry most profitably a good incubator is almost a necessary piece of equipment. At the present time when there is need for conserving all the beef, mutton and pork possible, poultry raising becomes an act of patriotism.

The question of what kind of an incubator to use is one which puzzles many and a helpful explanation of the various types and kinds of incubators will probably be welcome.

For convenience incubators are generally classed as "mammoth" machines and small machines. The mammoth incubators run in sizes from 1,200 eggs upward as high as 10,000 or 20,000 egg capacity and sometimes higher. They are usually sectional in construction, heated by hot water and using one coal-burning heater for the source of fuel. Gas or oil is used as fuel in some types and there are various distinctive features peculiar to the kind or make of incubator in question. The use of mammoth incubators is practically confined to the larger poultry-breeding plants and those making a specialty of hatching in very large quantities.

The so-called small incubators range in size from thirty or forty eggs capacity up to 200, 300, 400 and even 600 or 800-egg capacity. The machines holding over 400 eggs or thereabouts are frequently called semi- or baby-mammoth sizes because of their relative size. The small machines are commonly classed as "hot water" or "hot air" types, which refers to the manner in which the egg chamber is heated. The "hot water" incubators depend upon the principle of radiation to distribute the heat, somewhat on the order of the hot water heating systems in homes. A metal tank or pipe system, usually made of copper, is built in fixed position into the incubator and is filled with water heated by a lamp attached to the machine. The heat radiates to the eggs on the tray in the egg chamber, keeping them at the required temperature during the hatch.

In the "hot air" type of incubator there are some variations in the exact principle of heating. In some makes warm air is introduced into the egg chamber and diffuses over the eggs, in others the heated air does not enter directly into the egg chamber but is confined first to a metal tank from which heat radiates to the eggs, and in still others a combination is employed.

There are several modifications of these heating principles in the different kinds of dependable incubators sold on the market. The advantages claimed by each manufacturer are carefully described in their catalogs and it is always best to thoroughly study the literature to be familiar with them and make an intelligent choice.

The source of heat is commonly an oil-burning lamp. Some electric incubators are on the market and giving good satisfaction, but they are less common and can be used only where electricity is available.

Various manufacturers locate the lamp differently in their incubators. Some attach the lamp and heater on the side of the machine, some locate it under the machine near one end, and others place it in the center beneath the egg chamber. There are reasons for doing so in each case according to the distinctive type of incubator.

You will find both round and rectangular shapes in different incubators sold today, each distinctive in design and obtainable in various sizes. Some machines are all metal, some are metal covered over wood, and others are all wood in construction. Some also are made of material similar to the pulp wall board used as a substitute for lath and plaster in building construction.

The big majority of incubators are completely assembled before leaving the factory, with the exception of the legs, the lamp bracket and lamp, and the regulator. These are carefully placed inside the machine and the whole carefully crated for shipment. It is possible, on the other hand, for one to buy the plans and separate parts and build his own incubator if he chooses. Such opportunities are offered, and appeal to many who like to do such work. In addition, some incubators are assembled only in part, shipped crated to the customer knocked-down flat, and have to be put together before they can be used.

Incubators are sold everywhere in the country through local dealers or direct by mail according to the selling plan of the manufacturer. Inquiry with any of the responsible advertisers will give you explicit information on their product and their methods.

Next to your choice of a good hatcher, the decision as to the best size suitable for your needs is of greatest importance. Do not make the mistake of buying too large an incubator for your needs. It is generally conceded that two smaller machines, for instance of 150-egg capacity each, are more preferable than one 300-egg size, unless the larger one can be filled with eggs not more than a week to ten days old when put into the machine. The fresher the eggs the more even and satisfactory will be the hatch. Determine the egg capacity you need by the egg supply you will have and equip yourself accordingly.

Keep Poultry Records

Every poultry keeper should make an inventory of his stock, houses and equipment at some convenient time during the year. Aat least two records should be kept—a single entry credit and debit ledger and a monthly pen record.

Items such as eggs sold, breeding stock sold and market poultry sold should be written in the credit column. The debit side should include feed purchased, stock purchased, necessary repairs to equipment or any miscellaneous expenditures. Such a system will enable the poultryman to tell at a glance whether the flock is paying for itself or is being kept at a loss. At the end of the year a second inventory may be taken. If the inventory decreases during the year, the amount should be added to the debit column. If it increases, the sum should be added to the credit side. By dividing the year's profit by the original inventory, the per cent profit for the year may be obtained.

Treating Chicken Pox

Chicken pox—commonly known as sore head—is recognized by warty excrescences which appear on the face and headgear of the fowls. These protrusions later become scabby. If removed promptly upon their appearance, and creolin or any stock dip is applied full strength, the trouble usually disappears.

It is an infectious disease, and as in most diseases of that nature, the infected fowls should be promptly isolated and not returned to the flock until the trouble has entirely disappeared.

Investigators are not certain whether chicken pox is caused by one or more organisms or a virus. Uncertainty also exists as to whether it is one form of roup or an entirely different disease. Chicken pox in fowls, so far as is known, has no connection with the chicken pox common to human beings.

Wonderful Egg Producer

Any poultry raiser can easily double his profits by doubling the egg production of his hens. A scientific tonic has been discovered that revitalizes the flock and makes hens work all the time. The tonic is called "More Eggs." Give your hens a few cents worth of "More Eggs" and you will be amazed and delighted with results. A dollar's worth of "More Eggs" will double this year's production of eggs, so if you wish to try this great profit maker, write E. J. Reefer, poultry expert, 4631 Reefer Bldg., Kansas City, Mo., who will send you a season's supply of "More Eggs" Tonic for $1 (prepaid). So confident is Mr. Reefer of the results that a million dollar bank guarantees if you are not absolutely satisfied your dollar will be returned on request and the "More Eggs" costs you nothing. Send a dollar today or ask Mr. Reefer for his free poultry book that tells the experience of a man who has made a fortune out of poultry.—(Adv.)

PURE BRED POULTRY

PLYMOUTH ROCKS.

CHOICE BARRED ROCK COCKERELS and pullets from my prize winners, $2, $3 and $5 each. H. F. Hicks, Cambridge, Kan.

EXTRA GOOD WHITE ROCK COCKERels, $3 to $5. Mrs. J. Ramsey, Fort Scott, Kansas.

BARRED ROCKS, BOTH LINES—LARGE cockerels from extra laying strains, $4 and $5 each. C. C. Lindamood, Walton, Kan.

SWAIM'S BLUE RIBBON BARRED Rocks. Big utility cockerels. $3 each; six, $15. C. D. Swaim, Geuda Springs, Kansas.

BARRED ROCK COCKERELS, EARLY hatched, large fellows. Jno. Immenschuh, St. George, Kansas.

FOR FANCY BARRED ROCK COCKERels, two dollars and up. Inquire of Wm. C. Mueller, Route 4, Hanover, Kansas.

BARRED PLYMOUTH ROCK COCKERels. Parks' 200-egg strain, direct from prize winning layers. $2 to $5 each. Eggs in season. Gem Poultry Farm, Haven, Kansas.

WHITE PLYMOUTH ROCKS, BIG FANCY snow white cockerels, hens and pullets for sale. (Originator of White Ivory strain.) Chas. C. Fair, Sharon, Kansas.

WYANDOTTES.

SILVER WYANDOTTE COCKERELS from a laying strain. Henry L. Brunner, Newton, Kansas.

SILVER LACED WYANDOTTES — FINE choice cockerels, $2 each. Mrs. Henry Drenguis, Scribner, Neb.

CHOICE COLUMBIAN WYANDOTTE cockerels, prize winners, and all kinds of fancy pigeons. J. J. Pauls, Hillsboro, Kan.

SILVER AND GOLDEN LACED WYANdotte cockerels at $2 and $3 each. They are good ones. W. I. Lowrey, Stafford, Kan.

EXTRA CHOICE ROSE COMB SILVER Wyandotte cockerels, $3 each; six for $15. Eggs in season. Mrs. Philip Schuppert, Arrington, Kansas.

SILVER WYANDOTTES — HENS, $1.50, $2; cockerels, $2 to $3. Mrs. Edwin Shuff, Plevna, Kansas.

LEGHORNS.

TWENTY-FIVE EXTRA QUALITY S. C. Brown Leghorn cockerels, $2 each while they last. Mrs. L. H. Hastings, Thayer, Kan.

YOUNG FRANZ S. C. W. LEGHORN cockerels, $3 each, two for $5, five for $10. Ben Johnson, Route 1, Belton, Missouri.

S. C. W. LEGHORN COCKERELS (Young's strain). Elsie Thompson, Mankato, Kansas.

SINGLE COMB BUFF LEGHORN COCKerels from egg-bred matings, $1.50 up; $15 dozen. Chester Hines, Emporia, Kansas.

SINGLE COMB WHITE LEGHORN COCKerels, $2 to $5 each. Mrs. Howard Rodecape, Grove, Okla.

FEW CHOICE S. C. WHITE LEGHORN cockerels from my combined eggs. Contest and show room winners. Reasonable. C. G. Cook, Lyons, Kansas.

TURKEYS.

PURE-BRED WHITE HOLLAND TURkeys. Winnie Litton, Peabody, Kansas.

M. B. TURKEY TOMS AT $10 EACH. Mrs. Fred Klahr, Route 2, Netawaka, Kan.

NARRAGANSETT TOMS, PURE-BRED. Foster strain. V. L. Turner, Frankford, Mo.

CHOICE MAMMOTH BRONZE TURKEYS —Sadie Litton, Peabody, Kansas.

FOR SALE—BOURBON RED TOMS, $6 each. Mrs. Frank O'Connor, Hartford, Kan.

BOURBON RED TURKEYS, BEST MARKings. Mrs. L. E. Thompson, Wellington, Kansas.

MAMMOTH BOURBON RED TURKEYS—Stock not related. C. K. Thompson, Letts, Indiana.

BOURBON RED TOMS FOR SALE—Prize winning stock. No hens. W. H. Oliver, Reger, Missouri.

QUALITY BOURBON RED TURKEYS. Write for prices. Mrs. Elmer Nicholson, Route 5, Wellington, Kansas.

FINE PURE-BRED M. B. TURKEY toms, May hatched from high scoring stock. Oak Hill Farm, Route 3, Lawson, Missouri.

FAMOUS NARRAGANSETT TURKEY toms, large healthy birds. Andrew Kosar, Delphos, Kansas.

CHAMPION BRONZE TURKEYS, SIRED by sons of my 52-pound champion tom. Winners America's largest shows. Have pleased customers in thirty states. $7.50 up to $25 each. Ike Hudnall, Milan, Mo.

SEVERAL BREEDS

ALL LEADING BREEDS OF POULTRY. Write me your wants. Emma Ahlstedt, Roxbury, Kansas.

RHODE ISLAND REDS.

ROSE COMB RHODE ISLAND RED cockerels, $2, $3 and $5 each. Mrs. C. H. Jordan, Wakarusa, Kansas.

ROSE COMB RED COCKERELS, $2.50 up, on approval. Pullets, $2, $2.50. Chicks, 15c each. Eggs, 100, $5. Fred Leck, Yates Center, Kansas.

POULTRY WANTED.

PAYING 25c POUND NO. 1. TURKEYS. 20c heavy hens; guineas, 40c each. Coops loaned free. The Copes, Topeka.



Hog Shipping Rules

PROBABLY no class of men are more conscientious in their efforts to prevent the dissemination of hog cholera than breeders of pure-bred hogs. Breeders of pure-bred animals are men of high ideals. The whole system of pedigreed live stock registration is dependent upon the honor and integrity of the men engaged in the business of breeding pure-bred stock. The universal acceptance of this fact is borne out by the methods employed by record associations in administering the most drastic punishment to the occasional individual who attempts to do crooked work in pedigrees. Such a man is practically ostracised by all breeders and forever barred from recognition by the record associations. The occasional crook who might be tempted to send out breeding hogs carrying the germs of cholera could be just as effectually suppressed through association action.

The present rules are such as to be a serious drawback to the free exchange of breeding stock between states. In a statement just received from E. Z. Russell, secretary of the National Swine Growers' Association, it was pointed out that every hog breeder shipping pure-bred hogs knows that in almost every instance he must have a veterinarian's certificate for interstate shipment. At the last annual meeting of the association this matter was quite fully discussed, with the result that a committee was appointed to go before the United States Live Stock Sanitary Association and ask them to pass a resolution asking all states to abolish this requirement and instead accept the affidavit of the owner of the animals to be shipped.

The matter was presented to the Sanitary Association and they appointed a committee to prepare and present to the Swine Growers' Association a resolution covering the subject. The special committee presented the following report, which was adopted:

"In view of the handicaps and delays incident to the methods of inspection and issuing of health certificates to cover the interstate shipment of swine, your committee begs to submit as follows:

"That the interstate shipment of pure-bred swine by express in crates be permitted when accompanied by an affidavit of the owner to the effect that said swine, to the best of his knowledge and belief, are not affected with cholera and that cholera has not existed upon the premises from which said swine have been removed for a period of not less than three months immediately prior to date of shipment. Also that said swine have not been subjected to the serum and virus treatment within thirty days immediately prior to date of shipment."

It must be remembered that the United States Sanitary Association is not an authoritive body, but one whose membership includes the sanitary officials of practically every state in the Union. To make this rule effective it must be adopted by each individual state. We want to ask swine breeders to see their sanitary authority having this matter in charge and ask them to adopt the rule. We feel certain that breeders of pure-bred hogs can be depended on to be as efficient and honorable in preventing the spread of cholera as they are in protecting the integrity of the pedigree.

Stock Breeders' Program

Last year the Kansas Improved Stock Breeders' Association tried the experiment of holding its annual meeting in Manhattan during Farm and Home Week. It met with the approval of Kansas breeders and this year's program will also be given at the Agricultural College during the general round-up of the year, the date being Thursday, January 24. In addition to the subjects and speakers given in last week's issue, there will be the following. "Business Methods of the Breeder," C. A. Stannard, Emporia, Kansas; "With Regard to the New Breeder," W. C. Lookabaugh, Watonga, Oklahoma; "The Development of a Breeding Herd of Shorthorns," C. O. Bellows, Marysville, Missouri; "Trend of Type Toward Greater Pork Production," A. J. Erhart, Ness City, Kansas; "The Horse in War and in Peace," Dr. J. T. Axtell, Newton, Kansas; "Breeding Live Stock on the Range," Dwight L. Heard.

Room 10 in the basement of the Agricultural Building will be headquarters for stockmen during the week.

National Shorthorn Congress

An impression of the responsive attitude of the American Shorthorn breeders toward the announcement of the forthcoming National Shorthorn congress, show and sale, February 18-23, at Chicago, is gained in the scope of territory represented by those who have made entries for this event. From the Atlantic Coast to the Rocky Mountains and from Canada to the Gulf and the states between there have come requests for entries such as have never before responded to the call of any event of a kindred nature. In all, eighty-one breeding establishments from twenty different states have made entries and applications from many others have come too late for acceptance.

The prize list is an alluring one with from fifteen to twenty prizes in each class and with a maximum of $50 and a minimum of $20 to any prize winner, not including trophies offered as special awards. It is the intention to arrange the various divisions so that practically the same number of contestants will be included in each section—a plan most equitable to the exhibitors—and the awards will be placed by judges of international reputation.

The largest aggregation of Shorthorns ever assembled in the breeding classes at a show on American soil will be gathered at this event and no animal will be offered in the auction ring that has not been entered in the prize contests.

This occasion will be the greatest opportunity for extending Shorthorn acquaintance and for students of Shorthorns and Shorthorn affairs. It will be a rare opportunity for the prospective breeder, for the man who is in the market for females or a herd bull. In short, it will be the breed's greatest day and from everywhere will come those interested in Shorthorn progress. The man who contemplates engaging in bovine husbandry should not fail to be in attendance in order that he may study the characteristics of the breed and the character of the men engaged in its development.

It will be an affair of broad significance and will have a constructive bearing upon the future course of live stock improvement.

The carload of lambs exhibited at the International by the Kansas Agricultural College was raised at the Fort Hays Experiment Station. They were sired by a pure-bred Shropshire ram and had grade Shropshire ewes for dams. They had run on a rape pasture all summer and when fall set in they were yarded for fattening. The excellent finish obtained on the stock was secured by a feed comprising 50 per cent of corn, 40 per cent of oats and 10 per cent of oil meal fed twice a day at the rate of 1¾ pounds per head daily. In addition to the grain, they had all the alfalfa they would eat. They sold for $17 a hundred, averaging 89 pounds.

The more fats we can send to the Allies, the slipperier will be the skids placed under German autocracy.

Cream-Saving Machines



IF you are still setting your milk and skimming by hand, you are losing anywhere from one-fourth to one-third of your cream. If you are using a separator, and it is not one of the best, you are still losing an amount of cream that would surprise you if you knew it. Every farm loss or leak that can be stopped this year should be stopped. Buy a **Lily** or **Primrose** cream separator and stop the cream loss.

Don't imagine that cream left in the skim milk will fatten pigs and calves faster. It has been proved scores of times that stock thrives as fast on warm separator skim milk, when a little meal or flax replaces the fat. Cream in the skim milk is dead-loss cream!

Lily and **Primrose** separators get that cream. We can prove to you that they get it all, except about one drop in each gallon.

Besides that, they are well-known as simple, easy-running, easily-cleaned machines that last and do the same good work year after year. Buy a **Lily** or **Primrose**—it will pay back its cost in cream you may now be losing. See the local dealers who handle these separators, or, write us for catalogues.

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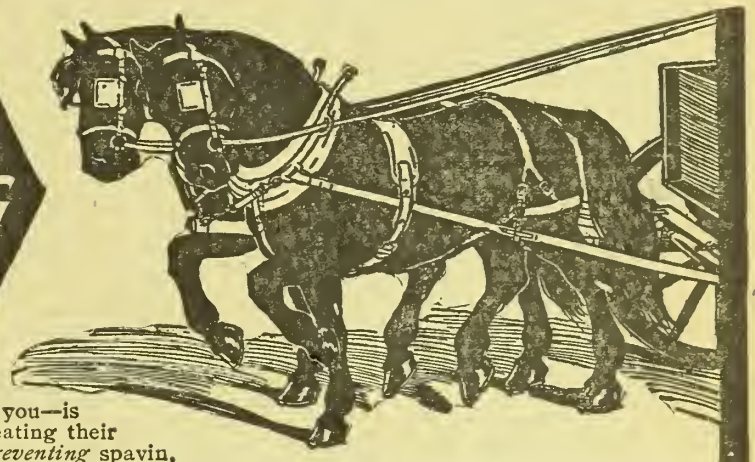
(Incorporated)
CHICAGO U S A
Champion Deering McCormick Milwaukee Osborne



KEEP YOUR HORSES IN PRIME WORKING CONDITION

A HORSE in the field—working for you—is worth two in the barn—simply eating their heads off. There is no way of *preventing* spavin, ringbone, splint or curb from suddenly laming and laying up your horses—but there *is* a way of *safely* and *easily treating all these ailments* and preventing them from *keeping* your horses laid up. For over 40 years there has been a reliable remedy that horsemen everywhere have *depended* on to save them money, time and worry.

KENDALL'S SPAVIN TREATMENT

Known For 40 Years as Kendall's Spavin Cure

has been the trusted remedy of horsemen everywhere. It has not only been saving untold time, work and worry but thousands of dollars' worth of valuable horseflesh and has many times saved horses from death.

Here's a man—Mr. W. T. Campbell, Macadonia, Ky., who not only saves money but actually makes money by using Kendall's Spavin Treatment. He writes: "I have used 2½ bottles of your Spavin Treatment, and have relieved two mules of Bog Spavin. I bought the mules for $80.00 and can now cash them for $400.00. Shall never be without your great remedy."

Here's another man who has used Kendall's Spavin Treatment with remarkable success. Mr. Floyd Nelson, Kings Ferry, N. Y., writes: "I have used your Spavin Treatment for the past six years and have made in the neighborhood of $700.00 buying Spavined horses and treating them. I consider there is nothing equal to it if it is used according to directions."

Never be without a bottle of Kendall's Spavin Treatment. You can never tell when accidents will happen—when this remedy may be worth the price of your best horse. It is better to be *prepared.*

Don't call your case "hopeless" in the face of above testimony.

Next time you go to town get a couple of bottles from your druggist. The price is uniform, only $1.10 per bottle, 6 bottles for $5.50. At the same time ask for our invaluable "Treatise on the Horse," or write to

Dr. B. J. Kendall Co., Enosburg Falls, Vt., U.S.A.



Are You Hoarding Fat?

A man who is forty pounds overweight is carrying on his body the equivalent in fuel value of 135-pound loaves of bread. We hear a good deal about food speculators and food hoarders—but how about the fat hoarders?

The two ways of surrendering fat are by exercise and by regulation of the diet. It so happens that fuel foods which contribute to overweight are the very foods which are so greatly needed in the present crisis—grains, cereals, and flours; fats and sugars to a lesser degree.—Bulletin of Kansas State Board of Health.

Meat Substitutes

The following comparison of the amount of protein—the tissue building constituent—and fat in certain foods with the amount of these nutrients in round beefsteak is given by the agricultural extension department of the North Dakota Agricultural College. Salmon, either fresh or canned, almost the same; cream cheese, one-fourth more protein and three times as much fat; dried beans, a little more protein and one-half more fat; one dozen eggs, about the same in protein and one-half more fat.

Eggs, cheese, and milk should be cooked at a moderate or low temperature, as heat hardens the protein, making it less digestible.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

"No vain regrets for days gone by,
No vain resolves for days to be,
But with willing heart and hand I'll do
The task today shall bring to me."

The Child's Deeper Nature

The other day I was reciting to my little five-year-old son the old nursery rhyme:

"Here am I, little Jumping Joan.
When nobody's with me, I'm always alone."

"What does that mean?" asked the child.

"Why, when nobody's with you, aren't you always alone?" I questioned.

"No," he replied, "because God is always with me."

How shall we measure the significance of this early realization of our Father's presence everywhere? For with the knowledge that God is present to help at all times, our children lose the sense of fear—and there is no greater lesson that we can impart to them. From earliest infancy we can begin to awaken in our children the sense of the all-presence of God.

Let us teach the child to look from the things which are seen and temporal to the things which are unseen and eternal. The love and patience of the earthly parent toward the little ones should make the transition of idea from the early to the heavenly Father simple and natural. Christ himself could find no better way to help us understand the love of God than to teach us to think of him as "Our Father." The child is to be trained to look upon himself as a necessary and responsible part of a great whole, and to be taught that the whole can only be as strong as the weakest link. And from his earliest infancy he is to be taught to show gratitude to all who aid in ministering to his needs.

In these days, when so much is written about sense testimony, and so much is done to meet the physical and mental needs of our children both in the home and at school, there is a tendency to give our children only a partial education, an education which stops short of their spiritual needs.

A momentous question, and one which all parents must answer individually, is, "Do we want our children to be merely healthy little animals with a certain amount of superficial learning, or do we wish to develop their deeper natures so that one day they may be able to take their place in the world, and through their spiritual insight into things, become powers for good in their own community?" For parents cannot turn over their own responsibilities to the teachers and expect them to lay the foundations of character. The home is the place where this must be done and it is for us to prove to our children that it is only as we are good ourselves that we help those around us. Then, imitation being one of the earliest and strongest instincts of childhood, our little ones, taking knowledge of us, begin practicing in their own lives what they see in ours. And living in an atmosphere of love and harmony, they come early to understand that love is the greatest power in the world. — Mrs. John Henry Hammond: Training Little Children.

Washing Wool

Before washing wool garments which are to be remodeled, they should be ripped, the threads removed, and the pieces shaken and well brushed to remove all loose dust.

For the darker wools the soap tree bark is an excellent substitute for soap. This can be obtained at the drug store in one-ounce packages for 10 cents. Put an ounce of soap tree bark into one quart of water, boil down to one pint and strain. Use one cup of this solution for each gallon of water.

When washing white or light colored wools, use one of the milder soaps containing no free alkali. The soap should be shaved and dissolved in boiling water, using about one-eighth of a cake to each gallon of water, or if Lux is used, three tablespoonfuls to each gallon. If the material is much soiled, one tablespoonful of household ammonia or alcohol added to the water will help to loosen the dirt. Have a good suds of body temperature before putting in the material.

Wash thoroughly, using a squeezing motion and avoid rubbing if possible. Rinse in three relays of water of the same temperature as the first and expel the water by squeezing instead of by twisting. Hang the pieces out smooth and allow to dry slowly. Press while still quite damp. Place the material under a cloth with the wrong side up and press until dry. The iron must not be too hot, but considerable pressure should be used. When moving the iron from place to place, lift slightly so the material will not be shoved and stretched. — Charlotte E. Carpenter, Colorado Agricultural College.

Tamale Pie

2 cupfuls corn meal
2½ teaspoonfuls salt
6 cupfuls boiling water
1 onion
1 tablespoonful fat
1 pound Hamburger steak
2 cupfuls tomatoes
½ teaspoonful cayenne pepper, or
1 small chopped sweet pepper

Make a mush by stirring the corn meal and 1½ teaspoonfuls salt into boiling water. Cook in a double boiler or over water for forty-five minutes. Brown the onion in fat, add the Hamburger steak and stir until the red color disappears. Add the tomato, pepper and one teaspoonful salt. Grease a baking dish, put in a layer of corn meal mush, add the seasoned meat, and cover with mush. Bake thirty minutes.

Shepherd's Pie

2 cupfuls cooked meat
1 cupful stock
1 tablespoonful fat
1 tablespoonful flour
¼ teaspoonful salt
Pepper
2 cupfuls mashed potatoes

Put diced meat into a baking dish. Add brown sauce made of fat, flour, seasonings and stock. Cover top with mashed potatoes, brush with fat and brown in oven.

Boiling potatoes with the skins on adds greatly to their food value, as the richest part of the potato is in the layer just beneath the skin, a part of which is removed in peeling. Select potatoes of uniform size, wash with a brush, and plunge them into boiling salted water, using one teaspoonful of salt to a quart of water. Cook with the cover of the kettle ajar until tender, from twenty to thirty minutes. Drain, remove the skins, dress potatoes with butter if desired, and serve immediately. If it is necessary for them to stand a few minutes after being served, cover with a cloth, not a lid, in order that the steam as it condenses may be absorbed by the cloth and not returned to the potatoes to make them soggy. This is the reason for serving potatoes in an uncovered dish. The potatoes may be sprinkled with chopped parsley.

Sweet Potatoes a Good Mixer

Sweet potatoes mix well with flour in bread making, and offer the housekeeper another opportunity to cut wheat consumption 25 per cent. Try out the sweet potato breads. In making yeast bread the sweet potato is just as good a mixer as the white potato. The recipe given below calls for milk and eggs and so is not cheap, but may be used for company meals or Sunday morning breakfast:

4 boiled sweet potatoes
2 eggs
2 cupfuls milk
2 cupfuls flour
2 teaspoonfuls baking powder
1 teaspoonful salt

Boil and put through a potato press four boiled sweet potatoes. Add milk and beaten eggs. Mix the dry ingredients and add to the batter. If necessary add more flour, enough to make soft dough. Roll out on board, cut out with biscuit cutter, and bake in quick oven.



Here's the place to buy Good Coffee

WHY send your money out of town? Deal with your grocer. From him you get goods of known value, known weight—fresh, full strength, full value. Such goods are more economical, and the money you pay your grocer stays in town—to help make it a better place to live. Your grocer sells

Golden Sun Coffee

because it is a full-value coffee—full-strength, full-flavor and made free from dust and chaff by our special process. It keeps customers satisfied. So economical, too. Try a pound.



The Woolson Spice Co.
Toledo, Ohio

Real Estate For Sale

228 ACRES

Eight miles from Osage City; highly improved. Six-room house, barn for ten head with loft, double granary. Ten acres alfalfa, forty acres corn, twenty acres in wheat, balance pasture with running water. Price, $45.00 per acre.

Renstrom's Agency
Osage City - - - Kansas

THE STRAY LIST.

TAKEN UP—ON THE 2D DAY OF December, 1917, by R. F. Hodgins, in Silver Lake Township, Shawnee County, Kansas, three brown mules, one-year-olds, valued at $100 each. Kenneth Raub, County Clerk.

TAKEN UP—BY WALTER FRENCH, OF Manning, Keystone Township, Scott County, Kansas, on the 18th day of December, 1917, one white face steer, brand on left ear. Appraised at $30. John L. Whitson, County Clerk.

TAKEN UP — BY H. C. ALLEGER, OF Garden Township, Cherokee County, Kansas, January 2, 1918, one brown mare mule, three years old. Brand O F. Appraised at $50. Ed Masterson, County Clerk, Columbus, Kan.

TAKEN UP—BY RACHEL McDONALD, Lewis Township, Gove County, Kansas, on the first day of December, 1917, one bay horse, branded with triangle on left shoulder; also one calf, color red, with white face. Appraised at $37.00. E. E. Baker, County Clerk.

TAKEN UP—BY A. L. JOY, OF LIBERTY Township, Cowley County, Kansas, on the first day of December, 1917, one heifer calf about four months old, color light red, motley face, white on belly and legs, no brands. Also one heifer calf about four months old, color solid red, muley, no brands. Frank V. Brown, County Clerk.

NOTICE IS HEREBY GIVEN THAT I have taken up one stray steer, coming two years old, on my farm three miles north and seven miles west of Yates Center, Kansas. Said steer is red with white face, branded "J.O." on left side and with a "V" and "I" on left hip, left ear split and right ear clipped. Dated at Yates Center, Kansas, November 23, 1917. Henry Welde. C. V. Orendorff, County Clerk.

Fruit and Honey Jelly

A good jelly may be made from winter apples and honey, using a cupful of honey to each cupful of apple juice and proceeding as in ordinary jelly making. Honey could probably be used with other fruits suitable for jelly, but no definite directions have been worked out. The more delicately flavored honeys are probably best for this purpose, the alfalfa taste in the honey being especially spicy.

It takes a man of push to propel even a wheelbarrow.—The Advertising Age.

Holstein Cattle Sale

AT PROSPECT FARM

Two Miles West of Topeka, on Sixth Street Road

Tuesday, January 17, 1918

55 Head Holstein Cows and Heifers 55



Six head are registered. Twenty grade heifers one to six months old. Nine yearling heifers. Four cows four years old. Six cows, heavy springers. Ten cows giving milk.

A credit of nine months' time with 8 per cent interest, or 2 per cent discount for cash on all time sales.

If you want good, useful family or dairy cows, come to this sale.

H. W. & L. N. McAfee, Topeka, Kan.

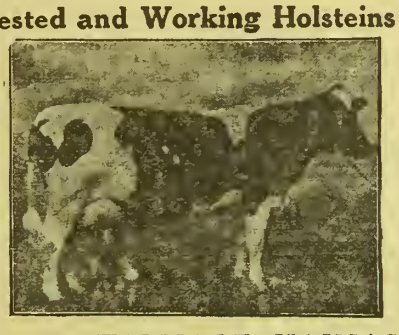
Auctioneer, C. M. Crews

J. A. Engle's Holstein Sale

AT TALMAGE, KANSAS, JANUARY 17, 1918

40 Head Extra High Grade Tested and Working Holsteins

Our offering consists of a very choice selection of cows and heifers, some recently fresh, others to freshen soon. This lot will be a creditable addition to any herd and anyone wanting high class foundation stock will find what they want in this offering.



Herd Bull—Sir Butter Boy King

A good individual, sired by Canary Butter Boy King 70508, a bull of the best record breeding and backed by unusually good records.

All stock in a healthy, vigorous condition. Send for catalog.

Sale commences at 1 p. m.

J. A. ENGLE - - - - - TALMAGE, KANSAS

AUCTIONEERS:

Jas. T. McCullough, J. G. Engle, E. L. Hoffman.

Talmage on Superior Branch of Santa Fe Railroad, nine miles north of Abilene. On Blue Line Highway, 25 miles west of Junction City.

Bargain, For Sale on Terms

Eighty-Eight Acre Dairy Farm, Implements, Horses and Cattle

A fine dairy barn 28 x 55 with engine room, cemented all through. Barn 40 x 40 for horses and cattle. Auto house 18 x 10, cemented. Calf house with paddock. Two outside cattle sheds. Two-story house with three porches, shade. Farm well fenced and cross-fenced with hog-tight woven wire. Dapple gray five-year-old team, large and fat. Wagon, harness, spreader, mower, harrow, auto truck, Fairbanks engine, U. S. Separator, Success milking machine, oil tanks. All new. List of registered Holstein cattle: Prince Calamity Colantha, No. 214761, bull, April 25, 1917; Akkremmer Korndyke, No. 189749, September 25, 1912; Princess Stoffard Feldspard, No. 243902, December 19, 1913; Phroney Jane Korndyke, No. 246908, June 11, 1914; Savannah Twiskcelanths No. 276450, March 1, 1914; Princess Molly Spoffard 2d, No. 279731, February 28, 1915; Lady De Kol Howard Colantha, No. 331833, September 25, 1916; Whuttaker Colam 4th Omary, No. 318135, October 24, 1915; Pletertje Plum Pontiac, No. 306941, November 14, 1915; Paria Parthena, No. 321391, November 6, 1915; Lady Bergsma Pietertje 2d, No. 315155, January 15; Lepkje Mutual Korndyke, No. 315237, October 28, 1915; Molly Spoffard Ormsby, No. 381611, March 18, 1917; Cliffden Bean Sindt Lady, No. 391882, January 20, 1917; Bean's Korndyke Lady, No. 405489, November 6, 1917; one grade cow three years old, one grade cow coming four years old, one grade cow four years old. The above are all she stuff, except one, and this stuff is bred in the purple and is fat and straight in every way and all heavy milkers and well marked. The farm has everlasting water. There is 70 acres of fine alfalfa land on it. It is all in clover, alfalfa and pasture. Everything listed, farm and all, goes for the price of $12,545. Terms, $4,500 cash, balance for five years at 6½ per cent.

BEAN & STILES LOAN COMPANY - GARNETT, KANSAS

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

HELP WANTED.

WANTED — MARRIED MAN TO WORK on farm. House, garden and cow furnished. T. T. Baker, Elbing, Kansas.

THOUSANDS U. S. GOVERNMENT WAR jobs open to farmers, men-women 18 or over. $75 to $150 month. Pleasant work. Write for list positions open. Franklin Institute, Dept. L-82, Rochester, N. Y.

REAL ESTATE.

FOR SALE — HATCHERY AND WHITE Leghorn farm worth $10,000. Price now $8,500. Colwell, Smith Center, Kansas.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 15 St., Chippewa Falls, Wis.

SELL YOUR PROPERTY QUICKLY FOR cash, no matter where located. Particulars free. Real Estates Salesman Co., Dept. 77, Lincoln, Neb.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

AIREDALES AND COLLIES—GREATEST of all pups. Grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

TANNING.

LET US TAN YOUR HIDE: COW, HORSE or calf skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

HORSES AND MULES.

SHETLAND PONIES. CHARLES CLEMmons, Coffeyville, Kansas.

MUST SELL QUICK, REGISTERED GRAY Percheron stallion, eight years old, ton horse; black jack, nine years old, welght 1,000, good breeder. A. B. Harms, Princeton, Kansas.

SEEDS

SUDAN SEED, MY OWN RAISING. Guaranteed no sorghum or Johnson mixture. 25c per pound. M. H. Loy, Milo, Kan.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE — REGISTERED HOLSTEIN bull, large and finely bred. Sand Springs Home, Drawer D, Sand Springs, Okla.

REGISTERED HOLSTEIN BULLS FROM good milking strain. Wm. C. Mueller, Route 4, Hanover, Kan.

AYRSHIRES FOR SALE — PURE-BRED, registered bull calves, up to twelve months old. Best of breeding. Call or write. Geo. A. Nelson, Milltown, Wis.

HIGH-GRADE HOLSTEIN CALVES, either sex, 15-16ths pure, beautifully marked and from high producing dams, four to seven weeks old, $25 crated. Express paid to any station. Reliance Stock Farm, Whitewater, Wisconsin.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

WANTED

WANTED—KAW CHIEF, BOONE County, Reid's Yellow Dent and other varieties of seed corn. Send us samples. The Barteldes Seed Co., Lawrence, Kan.

AUTO TIRES.

TIRES — FORD, $6.50. LARGER SIZES equally low. "Wear like iron." Booklet free. Economy Tire Co., Kansas City, Mo.

SITUATION WANTED.

MAN WITH FAMILY WANTS JOB ON farm. Experienced. Or would run farm with everything furnished on shares or by month. W. C. Meyer, 415 Broadway St., Augusta, Kansas.

YOUNG MARRIED MAN, SMALL FAMily, raised on farm, wants job running farm on shares, everything furnished, or would consider working on salary. G. I. Lane, Stamford, Neb.

FARM LANDS.

YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements, or ready made farms. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

PATENTS.

PATENT BOOK SENT FREE TELLING how we protect and help market your invention. Also bulletins listing hundreds inventions wanted. Send sketches for free opinion. Lancaster & Allwine, 463 Ouray Bldg., Washington, D. C.

INCUBATORS.

RAYO INCUBATORS. REASONABLE. Mrs. Walter Robb, Neal, Kansas.

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS
Best breeding, best type. Stock for sale.
GEO. W. ELA, Valley Falls, Kansas

OLSON HAMPSHIRES.



For Sale—One spring yearling and one fall yearling boar, 8 spring boars, 40 head spring gilts, either bred or open. All immuned and registered to purchaser. Write or come and see our herd. Farm 12 mi. S. of Salina.
OLSON BROS - - ASSARIA, KANSAS

GALLOWAY CATTLE.

GOOD GALLOWAY BULLS
Twenty-five Extra Good Yearlings
Extra breeding and quality. Priced to sell.
J. M. HILL, SEDGWICK, KANSAS
Route 4, Box 65A

GALLOWAY CATTLE
30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.
E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

GUERNSEY CATTLE.

GUERNSEY BULLS.
Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to twelve months old. **ADAMS FARM, Gashland, Mo.,** 12 miles from K. C.

FARM AND HERD.

Charles H. Thompson, of Letts, Indiana, owner of one of the large herds of Mulefoot hogs now assembled, reports his herd doing well. Mr. Thompson has built up one of the noted herds of Mulefoot hogs and his herd is drawn upon heavily for herd material. He also makes a specialty of pure-bred poultry. His flock of Bourbon Red turkeys is one of the finest in his home state.

Olivier & Sons, of Danville, Kansas, owners of the famous Pioneer herd of Poland Chinas, report their herd doing fine. Their bred sow sale to be held February 22 will be one of the big sale events in Poland circles this season. They will catalog twenty-five head of choice tried sows and twenty-five head of extra fall yearling and spring gilts, all bred to their great prize winning boar. An extra feature of their herd at this time is the fine lot of young stuff, including outstanding spring boars.

H. A. and Paul Mattox, of Burlington, Kansas, report their pure-bred Spotted Poland China hogs doing well. The Mattox herds of Spotted Polands are among the best in the Southwest and during the past year they have sold a lot of herd material as foundation stock for new herds. They have bred a large number of sows for spring farrow to some of the best sires of the Spotted breed.

The Standard Dairy Company, Wichita, Kansas, owners of one of the heavy producing herds of Holsteins in this state, report their herd starting the new year in fine shape and they expect to make some high records in 1918. A feature of this herd at this time is the choice lot of young stock closely related to Segis Fayne Johanna.

The Galloway-Messer Farms, Waterloo, Iowa, announce a dispersal sale of their big herd of Holsteins to be held January 29 and 30. Their entire herd of ninety-two head of A. R. O. cows and heifers, including their list of prize winners, will be catalogued for this sale. The offering will also include the undefeated grand champion Holstein bull, King Segis Johanna Ormsby 163801.

Ewing Bros., of Pawnee Rock, Kansas, are among the up-to-date breeders of pure-bred stock in Kansas. Their herds of Percheron horses, Shorthorn cattle and Poland China hogs are conceded to be among the best in the Southwest. Their Percheron herd is headed by imported Meknes, one of the splendid sires of the breed. Their Shorthorn herd is headed by Village Knight and Choice Echo, two great Shorthorn sires. Their herds have furnished foundation stock for a number of the best Percheron and Shorthorn herds in the country. A feature of their herds at this time is the choice lot of young breeding stock.

B. E. Arbuckle & Son, of Brownsburg, Indiana, owners of one of Indiana's most famous herds of old original Spotted Poland China hogs, announce January 21 as the date of their annual bred sow sale. They will catalog one of the best offerings ever sold at public auction. It will consist of their great lot of prize winners at Indiana, Ohio, Illinois, Missouri, Kansas, Nebraska and Oklahoma state fairs and the National Swine Show, 1917.

Miller Herefords

200 Head — Two Days Sale

at

Alma, Kansas
January 25, 26

50 Real Herd Bulls 50

Of show yard quality and richest pedigrees. Selected especially to please particular breeders. Also

Fifty Choice Bull Calves

Selling in Lots of Five

SPECIAL OFFER—For anyone buying ten or more bulls in this sale we agree to care for same until April 1 without extra charge.

One Hundred Cows and Heifers

Twenty Calves Free

Send for catalog today. It is worth reading if you are interested in good cattle.

O. W. Devine, Kansas Farmer Representative.
Please mention Kansas Farmer.

Carl Miller, Belvue, Kansas

Ayrshire Herd Dispersed Jan. 23

Nothing Reserved! Every Winner and A. R. O. Animal Goes!

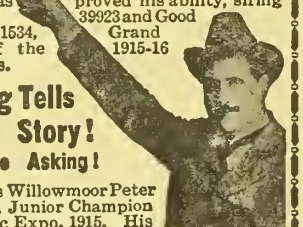
On account of having to spend a large portion of my time in Winnipeg taking care of our growing Canadian business I will discontinue farming and cattle breeding operations.

On January 23d, 1918, I disperse my entire herd of prize winning Ayrshires. Every show ring winner—every A. R. O. animal—will be sold at auction without reserve. This sale will be an opportunity for Ayrshire breeders and buyers! Royally bred, heavy in milk production, and combined with top-notch individuality, true Ayrshire quality and characteristics, this sale affords wonderful buying opportunities. The foundation was built of the best Ayrshires that money and brains would buy. The herd has produced many individuals, raised on my own farm, that have gone into the show ring against imported competition and carried away the blue and purple ribbons. My breeder's young herd and calf herds have always won more than their share in the show ring, being outstanding for uniformity of type, straight backs and superb quality.

47 Head! My Breeding Herd of Famous Ayrshires

Every animal goes under the auctioneer's hammer without reserve! I extend special invitation to Eastern and far Western buyers to come and inspect this cream herd of Ayrshires. I have started many young herds in Iowa. Without exception every one of my customers are friends and boosters, because my starting them in business has founded their herds right and made them money. It has helped them earn big profits on high priced land, which is not possible with grades! What they have done you can do!

I never owned or bought a cheap herd bull. Auchenbrain Good Gift 15487, included in this sale, has proved his ability, siring Nona Spencer 39923 and Good Gift's Nona 41534, Grand Champions of the 1915-16 and '17 seasons.



Wm. Galloway

My Catalog Tells the Whole Story!

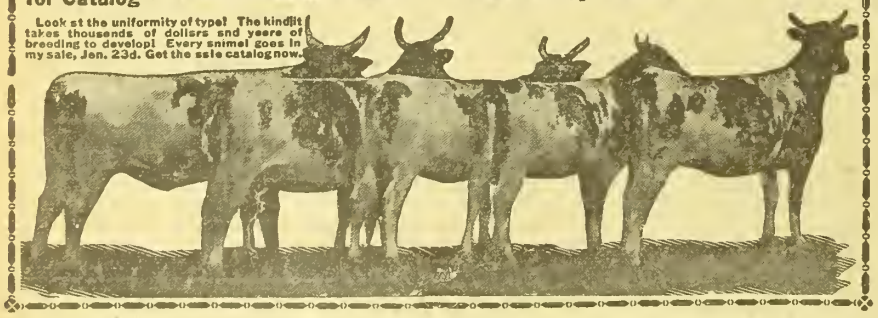
Free For the Asking!

Also included is Willowmoor Peter Pan 26th 16048, Junior Champion Panama-Pacific Expo. 1915. His sons and daughters will be sold. Positively nothing reserved. You must see these cattle to appreciate them! I have not bred a large herd—never more than fifty head—but they are all selects—the kind that are easy to keep and that respond profitably at the milk pail with moderate care and feed. This is largely a sale of Ayrshire females—only half a dozen bulls offered. Ask for the catalog now, and if interested in Ayrshires plan to attend the sale January 23d, 1918.

—Wm. Galloway.

This sale presents Ayrshire buying opportunities unequalled in years. Add a few grand animals to your herd, or break into the Ayrshire business at your own price with rightly bred, high class individuals. Remember the date, January 23d. Sale will be held at farm one mile from Waterloo in heated pavilion. Come without fail.

Address for Catalog WM. GALLOWAY FARMS, WATERLOO, IA.



The William Galloway Farms, Waterloo, Iowa, have announced a dispersal sale of their great herd of Ayrshire cattle for January 23. This dispersal sale includes one of the greatest breeding herds of Ayrshires now assembled. It will also include every show ring winner and A. R. O. animal and will be one of the biggest sale events of the season in dairy cattle circles.

R. C. Watson, of Altoona, Kansas, owner of Walnut Grove and Ellendale breeding farms and choice herds of Shorthorn cattle and Duroc hogs, reports his herds doing well at this time. Mr. Watson has a very fine lot of young stock in both his Shorthorn and Duroc herds. He has bred a choice lot of sows for early spring farrow, among them granddaughters of Defender.

HOLSTEIN CATTLE.

FOR SALE

THE BEST HOLSTEIN BULL CALF IN THE SOUTHWEST

A four-months-old son of Marie De Kol Lyons. This cow stood sixteenth on the roll of honor the past year on semi-official test in the United States. Production, 13,286 pounds milk, 555 pounds of butter, with first calf. Her dam made 707 pounds of butter, milked 94 pounds per day, three milkings per day. Her full sister made 730 pounds on yearly test—$3,000 having been refused for these three animals. The sire of calf is Korndyke Butter Boy Johanna De Kol. All are splendid show animals. The dam of this calf milked at the end of the year within nine pounds of her maximum production.

J. E. JONES - - - - - - - - LIBERTY, MISSOURI

HIGH-GRADE AND REGISTERED HOLSTEINS FOR SALE

Owing to the shortage of barn room I offer for private sale **Thirty extra fancy grade yearlings** from 12 to 20 months old, $65; **ten high-grade two-year-old heifers** due to calve in the spring, $80; **fifteen high-grade cows,** close springers due in ten to forty days with second calf, $100; **four large registered Holstein cows,** well bred, $175 to $250; **one prize-winning registered bull,** 3 years old December 1, 1917, from a highly bred A. R. O. cow with 17-pound butter record at 28 months of age. He is a real show bull, seven-eighths white, and can be made to weigh 2,000 pounds. Sure and gentle. $300. All stock regularly tuberculin tested by the state. Are exceptionally well marked and in healthy condition.

JAS. W. MAGEE - - - - - CHANUTE, KANSAS

CLYDE GIROD, At the Farm — F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd.

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.
GEO. F. DERBY, CAMERON, MISSOURI

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.
W. E. BENTLEY, MANHATTAN, KANSAS

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.
H. B. COWLES, 608 Kan. Av., Topeka, Kan.

Here Is Your Opportunity

On account of hired help difficulties, we are forced to cut our herd down. We are offering **twenty-five head of registered Holstein-Friesian cattle,** closely related to SEGIS FAYNE JOHANNA, the world record cow. Ages from 10 months to mature cows. Some will freshen soon. Also one bull about 16 months old. Our prices are very reasonable and we can satisfy your wants. We urge you to investigate our cattle before you make your purchase.

STANDARD DAIRY COMPANY
Walnut Grove — Wichita, Kansas

HOLSTEIN CALVES

We offer for sale choice, beautifully-marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated f.o.b. cars: One to two weeks old, $15 each; two to three weeks old, $17 each; five to six weeks old, $20 each. First check takes them. Write
W. C. KENYON & SONS, ELGIN, ILLINOIS

REGISTERED HOLSTEIN BULLS

From A. R. O. cows. All our own breeding. Bred for milk and fat production.

LILAC DAIRY FARM
R. F. D. 2 — Topeka, Kansas

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.
J. P. MAST - - SCRANTON, KANSAS

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. **Clover Valley Holstein Farm, Whitewater, Wisconsin.**

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.
FERNWOOD FARM, Wauwatosa, Wisconsin

Oak Hill Farm's

Registered Holstein Cattle

For Sale—Yearling and bred heifers, also young bull calves, mostly out of A. R. O. cows. Perfect satisfaction guaranteed.
BEN SCHNEIDER, NORTONVILLE, KAN.

BONNIE BRAE HOLSTEINS

Young bulls from high producing dams from a splendid son of King Segis Pontiac for sale.

Ira Romig, Sta. B, Topeka, Kas.

Segrist & Stephenson, Holton, Kan. Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment.
Edgewood Farms, Whitewater, Wisconsin.

CEDARLANE HOLSTEIN HERD

Four-year-old grandson of Pontiac Korndyke. Guaranteed free from tuberculosis. Dam's record, 27.79; sire's dam, 31.01. Also a 14-months-old son of above bull. A few good cows and bull calves.
T. M. EWING, INDEPENDENCE, KANSAS

Registered Holstein-Friesians

Write for information about the herd bull I am offering for sale. Also two young service bulls, several bull calves and a few females for sale. A. R. O. records up to 26 pounds. Write your wants.
HARRY W. MOLLHAGEN, Bushton, Kansas

SHORTHORN CATTLE.

Shorthorn Bulls

FOR SALE—One herd bull and thirteen Scotch-topped bulls, 8 to 12 months old, reds and roans, sired by Pride of Aulne, he by Silver Knight, a pure Scotch bull. Come and see me.
J. R. ELY - - AULNE, KANSAS

MARKS' LODGE

Home of Shorthorn Cattle. Reds Exclusively.
A few choice young bulls for sale, from my best milking cows. All registered. Come and see me.
DR. M. F. MARKS, VALLEY FALLS, KAN.

ALYSDALE HERD SCOTCH SHORTHORNS

Viscount Stamp 2d, Clipper Brawith and Count Valentine in service. Orange Blossoms, Butterflys, Queen of Beautys and Violets. Choice young stock for sale.
H. H. HOLMES, Route 28, Topeka, Kansas

Pearl Herd Shorthorns

Valiant 346162 and Marengo's Pearl 391962 in service. For sale—Fifteen young bulls from 8 to 14 months old, reds, whites and roans. Scotch and Scotch-topped. Inspection invited. Can ship on Rock Island, Union Pacific or Santa Fe Railway.

C. W. Taylor, Abilene, Kansas

CLOVERDALE SHORTHORNS—For Sale, two roan yearling Scotch Shorthorn bulls. Exceptional quality and breeding. Also a few heifers. **Wesley Jewell, Humboldt, Kansas.**

Cedar Heights Shorthorns

For Sale—Three red bulls, 12 months old. A few cows and heifers. Priced reasonable. Come and see my herd.
HARRY T. FORBES
Route 8 — Topeka, Kansas

RED POLLED CATTLE.

RED POLLED BULLS

For Sale—Thirty head coming yearling bulls. Come early and get the best. Our experience has been those that come late found us sold out. Write or come at once.

E. E. FRIZELL

FRIZELL, (Pawnee County), KANSAS

A. R. Bred Red Polled Bulls

Am offering Oscar 30433, calved May 12, 1916; 20th Century Chief, calved April 20, 1917. His grand dam produced 12,000 lbs. milk and over 500 lbs. butter with second calf. His grand sire is half brother to the champion Red Polled cow of the world with record of over 1,000 lbs. butter in 12 months. If interested in a choice bull and want to increase the production of your herd, write us.

Chas. L. Jarboe, Quinter, Kan.

CHESTER WHITE HOGS

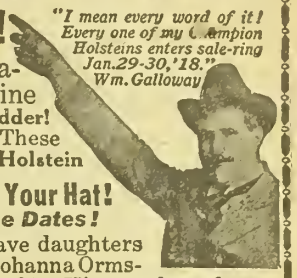
CHESTER WHITE SPRING BOARS

Husky, growthy fellows of the best breeding. Cholera immune. Priced right.
HENRY MURR - TONGANOXIE, KAN.

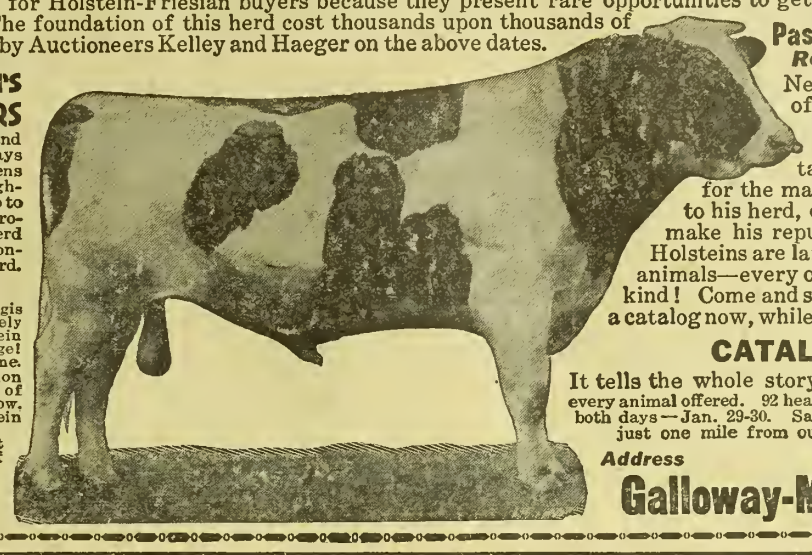
TWO DAYS Dispersion of Galloway's Famous Holstein Herd—Jan. 29 & 30

A BREEDERS' AND BUYERS' OPPORTUNITY!—EVERY ANIMAL GOES!—NOTHING RESERVED!

On account of having to spend a large portion of my time in Winnipeg in order to take care of our growing Canadian business I will discontinue my Holstein breeding and farm operations. This sale of Holsteins is a genuine breeders' and buyers' opportunity! Every animal on the Galloway-Messer Farms goes without reserve—**will be sold to the highest bidder!** Positively nothing reserved, as I am forced to go out of the Holstein breeding business. Resolve now to attend this grand dispersion. These dates, **Jan. 29th and 30th,** will be lucky ones for Holstein-Friesian buyers because they present rare opportunities to get the **kind of Holstein cattle that breeders ordinarily will not sell.** The foundation of this herd cost thousands upon thousands of dollars, but they will be sold at your own price by Auctioneers Kelley and Haeger on the above dates.



"I mean every word of it! Every one of my Champion Holsteins enters sale-ring Jan.29-30,'18." Wm. Galloway



92 HEAD A.R.O. Cows & Heifers SHOW RING WINNERS

This sale presents the greatest Holstein values in milk and butter production and show ring individuality. I have always bought the best and bred them better. The "Stevens Bros.-bred," King Segis Pontiac Combination 94710, highest priced bull calf sold west of the Mississippi River up to 1912, has been bred to carefully selected dams, and produced a herd of heavy milkers and an outstanding show herd that is the marvel of the Holstein breeding fraternity! Consult show ring records for yourself. They prove every word.

NOTE THESE FAMOUS CATTLE:

At the right is my undefeated Grand Champion King Segis Johanna Ormsby 163801. He goes in this sale and positively will be sold—a wonderful Holstein individual—a Holstein standard for type—straight, square, well marked, extra large! This bull will be the foundation of some lucky buyer's fortune. Jewel Walker Gerben of Cedarside 214099, Grand Champion at many fairs and dairy shows; holds the rare combination of being a heavy producer as well as an outstanding show cow. The right kind to own if you want to succeed in the Holstein business and make big dividends.
Nellie Segis Pontiac 281918, Junior and Grand Champion at many fairs and dairy shows, including Junior Champion of the National Dairy Show 1916.
These and others as important, all given in the free catalog.

Auctioneers { B. V. KELLEY, R. E. HAEGER — In Box S. T. WOOD

Paste this Ad in Your Hat!
Reserve These Dates!

Never before have daughters of King Segis Johanna Ormsby been offered! His sons have been sold as fast as born. This sale contains some wonderful quality in females for the man who wants to add superb specimens to his herd, or establish a breeding herd that will make his reputation as a Holstein breeder. These Holsteins are large, wide, loose-hided, straight-backed animals—every one of them worth three of the ordinary kind! Come and see for yourself, and by all means ask for a catalog now, while you think of it. **A post card gets one by return mail.**

CATALOGS NOW READY!

It tells the whole story, describes and gives the breeding of every animal offered. 92 head in all! Plan to be at this great dispersion sale both days—Jan. 29-30. Sale held in warm pavilion, right on the farm, just one mile from outskirts of Waterloo. Get your catalog now!

Address

Galloway-Messer Farms WATERLOO, IOWA



FAULKNER'S FAMOUS SPOTTED POLANDS
The World's Greatest Pork Hog,, Sells
Wednesday, February 13, 1918, Jamesport, Mo.
In My Annual Bred Sow Sale.
Ask for catalog. Nothing bred sold at private sale. I am still pricing a few good fall pigs.
H. L. FAULKNER, Box K, Jamesport, Missouri

PERCHERON MARES AND STALLIONS

Thirty Head from Which to Select

Ton mares, big handsome fillies either by or bred to Algarve by Samson. Algarve's colts have great bone and size. His weight is over 2,200 pounds and his get proves beyond doubt his great ability as a sire. A nice lot of young stallions, several coming three-year-olds. Priced for quick sale. Farm four miles east of town. Call on or write

D. A. HARRIS - Route 6 - GREAT BEND, KANSAS

EWING BROS.' PERCHERON HORSES, SHORTHORN CATTLE, SHETLAND PONIES AND POLAND CHINA HOGS

FIFTY MARES—Weanlings to mature mares, weighing a ton or more, in foal. Herd headed by Imp. Meknes (106084) 106640, weighing 2,200 pounds.
SEVERAL MATCHED TEAMS—Fifteen head of stallions, from weanlings to six years old. The best lot of two-year-olds we have ever had. The kind to mature into ton horses or better—grays and blacks.
SHORTHORN CATTLE—A few cows for sale. Ten young bulls out of pure Scotch sire ready for service. Herd headed by Village Knight No. 398231 weighing 2,250 pounds and Choice Echo 393419, weighing 2,300 pounds, for sale.
SHETLAND PONIES at very low prices if taken soon—weanlings to broken fillies.
Phone to Ewing Bros., 903A5 or 903A12, Great Bend, or write us at R. F. D. No. 1, Pawnee Rock, Kansas. EWING BROTHERS.

POLAND CHINAS.

BIG-TYPE POLAND CHINA BRED sows, also open sows. Herman Schmale, Dewitt, Nebraska.

DEMING RANCH QUALITY
Big-Type Poland China Hogs.
Fifty March boars for sale. All immuned. Bred sow sale February 18. Send for catalog.
H. O. Sheldon, Herd Manager
OSWEGO, KANSAS.

OLD ORIGINAL SPOTTED POLANDS

Stock of all ages, also bred gilts and tried sows, bred, ready to ship. Priced right. Write your wants to
CEDAR ROW STOCK FARM
A. S. Alexander, Prop. Burlington, Kansas

BIG WONDER 281929

The outstanding spring yearling son of the noted Big Bob Wonder now at the head of my herd. This young sire was first in junior yearling class at Topeka; second at the National Swine Show in competition against the world.
I will sell fifty sows and gilts **Saturday, February 23, 1918,** and a number of the best sows will be bred to Big Wonder. Send name early for catalog.
V. O. JOHNSON - AULNE, KANSAS

Spotted Poland Herd Boar

For Sale or Exchange—Big bone Spotted Poland China herd boar, McKee's Glant No. 63987. Can't use him longer. Will exchange him for bred sow or sell worth the money. Pigs for sale.
R. L. Mount - Polo, Missouri
G. T. Hudson, Herdsman.

Poland China Boars

For Sale—Ten head large growthy spring boars, sired by A Wonderful King, a state fair winner. Ready for service. Price, $35 to $75. Satisfaction guaranteed. First check gets choice. Write at once or come and see our herd.
OLIVIER & SONS, DANVILLE, KANSAS

GRAND VIEW POLANDS

Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.
ANDREW KOSAR - DELPHOS, KANSAS

POLAND CHINA BOARS

FOR SALE—Twelve head extra good spring boars, ready for service. Few choice gilts, bred for March litters. Fall pigs, either sex, sired by Big Tecumseh, Orange Wonder, and out of my best herd sows. The best crop of boars I ever raised. Write or come and see me. E. M. WAYOE, BURLINGTON, KANSAS

The Lone Cedar Polands

Last Lot of Meyers' Orange Pigs. I will have either sex, some extra fine gilts. Cholera immune for life.
A. A. MEYER - McLOUTH, KANSAS

FALL PIGS, ready to ship. Select Spotted breeding. Express paid on pigs.
T. T. Langford & Sons, Jamesport, Mo.

WALNUT GROVE DUROCS

Three 2-year-old sows, bred. Two granddaughters of Defender, four spring gilts bred. One yearling herd boar, extra good. Fifty fall pigs, good ones. One roan six-months-old Shorthorn bull calf.
R. C. WATSON - ALTOONA, KANSAS

Spotted Poland China
BRED SOW SALE
JANUARY 21, 1918
Brownsburg, Indiana

Consisting of winners at Indiana, Ohio, Illinois, Missouri, Kansas, Oklahoma, and Omaha, Neb. Best offering ever in our sale ring, prize winners. Will also sell two great herd boars, Duke of England, winner every time shown and ready to win this year. A sure winner. Send for catalog and attend this great sale of bred sows.
B. E. ARBUCKLE & SON
Brownsburg - - - Indiana

MATTOX'S SPOTTED POLANDS—Bred sows, serviceable boars, baby pigs, for quick sale. H. A. or Paul H. Mattox, Route 2, Burlington, Kansas.

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene, Peabody, Kan.**

FAIRVIEW POLAND CHINAS.

Heavy-boned March pigs, either sex. Eighty to select from. Prices reasonable. Write us your wants.
P. L. WARE & SON - PAOLA, KANSAS

White Oak Park Polands

Have decided not to hold a bred sow sale this year. Will sell a choice lot of tried sows at private sale. This lot will include 600-pound sows and good show prospects. Big high quality fall yearling gilts and choice spring gilts. All bred to Long Big Joe, Missouri Jumbo, Jumbo Giant and Surprise Wonder. Also have some choice September boars. All immune. Write for prices.
Henry Koch - Edina, Mo.

DUROC JERSEYS.

TAYLOR'S DUROCS

For Sale—One Missouri State Fair prize winning boar. Seven yearling boars sired by champion boars that are real herd headers. Fifty spring boars that are fine prospects. Write for prices or come and see my herd.
Chas. L. Taylor - Olean, Mo.

DUROC BOARS

Thirty-five spring boars by G. M.'s Crimson Wonder, Crimson Wonder Again Jr., Critic D. and Great Wonder, out of my best herd sows. Priced to sell. Come and see my herd.
G. M. Shepherd, Lyons, Kansas

THIRTY DUROC JERSEY BOARS

Cholera immuned. Sired by Taylor's Model Chief 126455, winner at Missouri State Fair and American Royal. Extra good breeding boars at prices to close them out. Also choice bred gilts. Dams well bred for years.
W. R. HUSTON - AMERICUS, KANSAS

WOOD'S DUROCS

For Sale—Choice bred gilts, bred to a son of Great Wonder. Spring boars ready for service. Fall pigs of both sexes at right prices. Come and see my herd.
W. A. Wood - Elmdale, Kan.

Kansas Herd Chester Whites

BRED SOW SALE — FIFTY HEAD
FEBRUARY 2, LEAVENWORTH, KANSAS
100 FALL PIGS : HEATED BUILDING : SEND FOR CATALOG
ARTHUR MOSSE, MGR., Route 10, Leavenworth, Kansas

DUROC JERSEYS

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on spring boars from champions Defender, Illustrator, Crimson Wonder, Golden Model and Critic breeding.
JOHN A. REED & SONS, LYONS, KANSAS

PURE-BRED DUROC GILTS
Bred to Invader of Idlewild.
W. J. HARRISON - AXTELL, KANSAS

MULEFOOT HOGS.

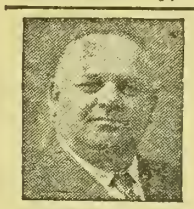
KNOX KNOLL STOCK FARM
Mulefoot Hogs. Shorthorn Cattle.
Sold out of spring gilts. Now taking orders for fall pigs. Three registered bulls ready for service. Write for prices.
S. M. KNOX, Humboldt, Allen Co., Kansas

GROWTHY MULEFOOT HOGS from my State Fair prize winning herd. Stock of all ages for sale. Prices low. C. K. THOMPSON, LETTS, INDIANA.

AUCTIONEERS.

Jas. T. McCulloch — Live Stock Auctioneer. I make sales anywhere. Write for date. CLAY CENTER, KANSAS

Live Stock and Real Estate Auctioneer.
Fifteen years experience. Write for terms.
Thos. Darcey, Hutchinson, Kansas.



P. M. GROSS
Live Stock Auctioneer
Twelve years on the block.
Pure-bred sales a specialty. Sales made anywhere.
4230 Paseo
Kansas City, Mo.

Breeders' Directory

ANGUS CATTLE.
D. J. White, Clements, Kan.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.

HORSES AND MULES.



JACKS AND JENNETS

15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.
PHIL WALKER
Moline, Elk County, Kansas



Percherons, Belgians, Shires
2, 3, 4 and 5-year stallions, ton and heavier; also yearlings. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.
Fred Chandler, R.7, Charlton, Ia.
Above Kansas City.

Choice Young Belgians, English Shires, Percherons, also Coach stallions, also mares. Many first prizes. Long time 6% notes.
Illinois Horse Co., Good Blk., Des Moines, Ia.

JERSEY CATTLE.

120 Jersey Cows and Heifers

Pure-bred and high grade. Forty bred yearlings, superior individuals, all from profitable dams, now for sale.
J. W. BERRY & SON, Jewell City, Kansas

POLLED DURHAM CATTLE

TRUE SULTAN POLLED DURHAMS

A few heifers bred or open are offered. Some by or bred to the champion $2,200 True Sultan and Sultan's Challenger.
ED STEGELIN
STRAIGHT CREEK - - - KANSAS

WILD WOOD STOCK FARM
POLLED DURHAM CATTLE
For Sale—Ten bulls of serviceable age, sired by Roan Acacia 9021. Dam, Golden Acacia by Acacia Victor, a double standard bull from D. C. Van Nice herd. Write at once. These bulls will sell.
T. M. ETHERINGTON, Hamilton, Kansas

ANGUS CATTLE

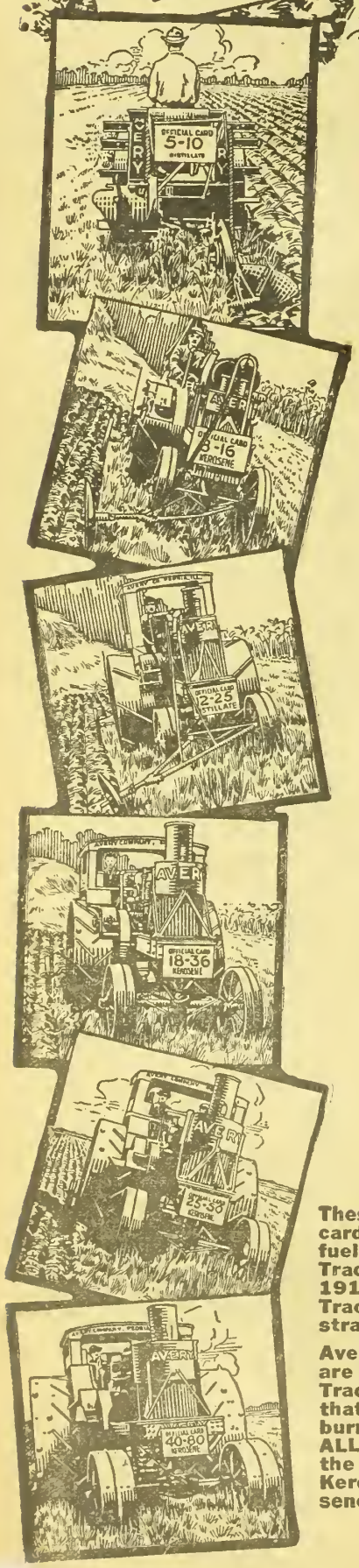
ANGUS BULL, Mabel's Invincible 19645. Also two Queen Mother bull calves.
G. F. WAGNER, Route 4, Manhattan, Kan.



Officially Inspected Sealed and Passed as **KEROSENE BURNERS**

Cross Section of Avery Kerosene Gasifier

A—Fuel mixture coming from carburetor and entering gasifier.
B—Fuel mixture thoroughly gasified and entering cylinder.
C—Exhaust coming from cylinder and heating intake wall.
D—Exhaust exit.
E—Fuel heater.



A Wonderful Invention

Avery Gasifier-Turns Kerosene Into Gas

WE have discovered the way to burn kerosene more successfully than it has ever been done before in a tractor. Avery Tractors burn *all* of the kerosene instead of wasting part of it on account of it not being fully vaporized. Avery Tractors burn kerosene so successfully that we are able to use the lubricating oil over and over again instead of using it only once and then wasting it. Avery Tractors don't just run on kerosene—they burn *all* of the kerosene.

The Reason Avery Tractors Burn All the Kerosene

Avery Tractors are equipped with double carburetors. The motor is started on gasoline and when it warms up you pull the lever and instantaneously switch over to kerosene without having to make a single adjustment of any kind.

But while a carburetor will mix gasoline with air and form a gas which burns readily in the cylinder, no carburetor has as yet been designed which will successfully handle kerosene. We accordingly place on each cylinder head of an Avery Tractor our Duplex Gasifier, which takes the mixture of kerosene and air as it comes from the carburetor and so reduces the particles of kerosene and mixes them with the air as to form a gas that burns more successfully than kerosene has ever been burned before.

Avery Tractors are the only make of tractors with a double carburetor and duplex gasifier fuel system which burns all the kerosene.

The 1917 National Tractor Demonstration Proved Avery Tractors to be Real Kerosene Burners

The rules of the demonstration were that a tractor which burned kerosene was allowed only 5% as much gasoline as kerosene for starting. All tanks were drained, filled and sealed under the supervision of a fuel inspector. Avery Tractors not only met every condition of this rule but did much more.

—They burned kerosene without calling for any more gasoline for starting during the entire week than the 5% allowed for the first day's filling of kerosene.

—They burned kerosene without a lot of black smoke coming out of the exhaust—showing that they burned all of it.

—They burned kerosene without part of it passing the pistons and cutting the lubrication—the oil in the crankcase did not have to be changed.

—And to show that Avery Tractors would do even more than burn kerosene, a couple of sizes burned distillate.

Get all the Facts about the Avery Motor Farming Line

There is a size Avery Kerosene Tractor to fit every size farm—there are six sizes of Avery Tractors, from a small 5-10 to a large 40-80 H. P. There is also a size Avery Tractor Plow and a size Avery Thresher to fit every size tractor.. With an Avery Two-Row Motor Cultivator you can also plant and cultivate corn, cotton and other row crops with motor power and double the number of acres you can handle. The new 1918 Avery Catalog is a most interesting 80-page book, telling all about Avery Motor Farming Machines and showing them in natural colors. Write for a free copy and get *all* the facts. Address

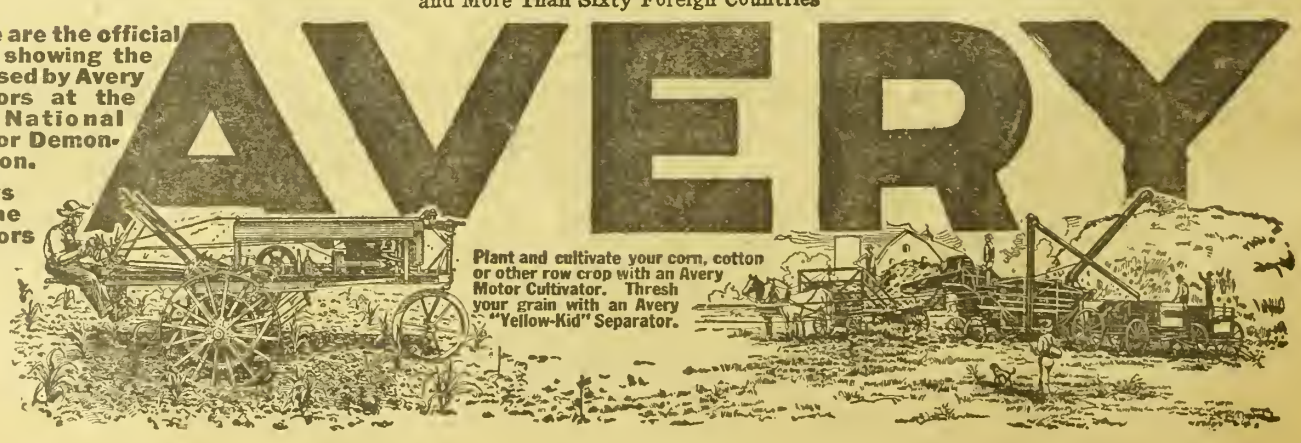
AVERY COMPANY, 5303 IOWA STREET, PEORIA, ILLINOIS

"Branch Houses and Distributors Covering Every State In the Union"

and More Than Sixty Foreign Countries

These are the official cards showing the fuel used by Avery Tractors at the 1917 National Tractor Demonstration.

Averys are the Tractors that burn ALL the Kerosene



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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 3. TOPEKA, KANSAS, JANUARY 19, 1918. Established 1863. $1 a Year

BREEDING FOR EGG PRODUCTION

Carefully Bred Farm Flock Produces Over Thirty Thonsand Eggs Annually

FEEDING, housing and management have a profound influence on egg production, but inheritance and natural vigor are also involved. The extent to which high egg production is transmitted from parent to offspring is a most important question. Various experiment stations are trying to learn how inheritance works in this respect. The problem is not so simple as it appears at first thought.

After studying over the voluminous reports of experiment station records it is refreshing to turn to what an individual farmer has done in building up a high-producing flock. The "Hardscrabble Leghorns" first came to our attention during a visit in Montgomery County a few years ago. In driving hy this farm we noted the flock and saw evidences of more than the usual amount of attention heing given to poultry production. We have kept this farm in mind and have learned from time to time of the progress that was being made in huilding up a profitable egg business. A few weeks ago we asked the owner and proprietor, E. M. Wheeler, to write of their work, for the benefit of KANSAS FARMER readers. In response he sends us "a brief historical sketch of the Hardscrahhle strain of White Leghorns." His story is as follows:

"We had been looking the field over for some small husiness as a side line that would pay the ordinary expenses of a farm and leave the main crops untouched, that would be adapted to a prairie country, and that one member of the family could learn and handle; that would leave a profit over cost each year, and that would satisfy a long-felt want in farm circles. After considerable study we could find no line so suited to the case as some breed of fowls that would keep up a supply of eggs. That was in the year 1904, at which time we could not learn of a single poultry plant that filled the bill. Fancy points, and not egg production, was the chief aim; high-scoring hirds, and not layers, was what brought the income. All breeds were declared good layers, but after attending many shows and asking exhibitors for their yearly egg records, and finding none, I rightly concluded that, taking the lot together, they would not pay as an investment for egg production alone.

"After mature deliberation I concluded to invest in some White Leghorns as foundation stock, and bought twelve pullets and a cockerel of White & Rice, New York breeders. These birds were bred for several years for egg production. Noticing some color on the cockerel, I wrote several prominent Leghorn breeders, including Henry Van Dresser, Blanchard, and Wychoff, asking their opinion of color on a cockerel, and each wrote that it was no reflection on the vigor of the bird, but would not he allowed at a show. This was ahout the time fanciers were breeding color from cockerels to conform to the 'Standard.' Now, as a matter of fact, a hen might score 95 and not be a layer. I could see no way to increase egg production by breeding fancy points, and concluded I would he a 'heretic,' inasmuch as I would breed from the best layers, no matter what the shape or color. As a good layer must be a vigorous bird, and vigor we must have, and if, left to themselves the cockerels showed some color on one-half of them, I would not reject a fine cockerel because he was not pure white. It is natural for the male of most land birds to show color, and breeding for a chalk-white male was simply a fad of fanciers.

"Since starting on this course we have adhered strictly to the idea outlined above till the present time. In support of the soundness of our theories we have our egg records for this period. We have never tried to force egg production. We have always given our flock such attention as anyone on a farm could give. Some of the years were very unfavorable. Long dry spells, heavy rains, food scarcity, and other hindrances incident to this locality had to be endured, but even in these years our flock paid a good profit from eggs sold. We have sold only on the regular market.

"We have never gotten a fancy price for anything sold, relying on the egg trade that has been easily built up. We have sold infertile eggs only.

"During this time buildings and fence and other necessary equipment has cost about $600. We have kept from 100 to 300 hens each year. Our sales account and entire record is open to anyone interested. A few items from our records will be of interest.

"January 1, 1905, we had 100 pullets for a start and I give below several years from our egg record:

1905—Eggs gathered	13,079
1906—Eggs gathered	25,624
1907—Eggs gathered	28,291
1908—Eggs gathered	19,867
1909—Eggs gathered	25,435
1910—Eggs gathered	31,999
1913—Eggs gathered	38,930
1914—Eggs gathered	30,087
1916—Eggs gathered	28,547
1917—To December 5	28,608

"The years not quoted were equally as good. The sales for 1917 will exceed $850 and extra stock raised for 1918 has a value of $400.

"Some may ask what we have that is different from other strains of Leghorns. That is a fair question. We have extra size, probably owing in part to our feeding just about the same the year round. An egg-type of hen which can only be maintained by breeding from the best layers. We do not know what our stock would score. We care nothing for that, since egg production is our aim. Cut the comb off a cockerel and pull his tail out and few judges would hazard an opinion as to his worth in a breeding pen. Our cockerels are very plain as regards the fancy plumage sought hy fanciers. They are simply good-sized, husky, scrappy 'crowers' that are grown by themselves until put into the breeding pen next season.

"Our stock has heen remarkably healthy. We use no poultry "remedies" whatever, except permanganate of potash as a disinfectant in drinking water occasionally. We wage unremitting warfare against lice and mites and our flock is free from these pests. We make our hens roost outside after the weather warms up.

"We have accomplished what we set out to do. Our egg trade pays all the farm bills. Not to exceed one-half hour each day does the necessary labor, except when the houses are thoroughly cleaned.

"This, leaving out minor details, is the history of 'Hardscrabble' Leghorns.



MONTGOMERY COUNTY GIRLS ON FARM TOUR CONDUCTED BY AGRICULTURAL AGENT VISITED E. M. WHEELER FARM AND INSPECTED POULTRY YARDS AND EQUIPMENT.—SIX CARS AND THIRTY-FIVE VISITORS MADE THE TRIP



HARDSCRABBLE LEGHORNS IN WINTER QUARTERS.—EGG PRODUCTION HAS BEEN A MOST PROFITABLE SIDE LINE ON THIS FARM

Hints on Dairy Feeding

There is no better guide to proper feeding methods for milk production than a study of Nature.

The average cow does her best in the spring, when she has suculent feed and a palatable ration, which is a well balanced food containing proper nutrients for milk production. In winter, with alfalfa hay, silage, and grain, a ration can be furnished that will produce just as much milk as can be obtained in early summer when the cow is on grass. Silage provides in winter the suculence which is furnished in summer by the green grass.

To supply the cow with all the nutrients that she requires for milk production, feed, for each pound of milk produced, one pound of grain in addition to all the alfalfa and silage she will eat. The grain ration may be made up of three parts of corn chop, two parts of wheat bran, and one part of linseed or cottonseed oil meal. These should be mixed by weight. This combination has almost become a fixed standard in feeding the dairy herd at the Kansas Agricultural College. The average cow producing fifteen pounds of milk a day will get sufficient nutriment from the alfalfa hay and silage and will seldom need grain.

In addition to good feed the cows should have a clean warm place in which to stay during the cold weather. It pays to build barns or sheds for milk cows, as it requires more feed to produce a given quantity of milk when the cow is allowed to stay outside during the winter months.

It is important also that the cow should have access to fresh warm water at all times. Cows will not produce their best if they are forced to drink ice water or water near the freezing point. Water should either be drawn fresh from the well each day or be warmed by a tank heater.

If the cows are forced to drink cold water they must warm the water in their bodies. A portion of the feed they consume will be used to furnish the heat to warm the ice cold water. It is much cheaper to warm the water with wood or coal than to allow the cow to burn high-priced fuel in her body for this purpose.

The Food Administration has sent out a statement that seed grain may be sold by one farmer to another at any price they agree upon regardless of the established maximum price, but the dealer must sell at the maximum price plus 15 per cent.



Spare your batteries

How winter starting is often made easier by a lower-cold-test oil.

YOU press on your starter button in summer. Whr-r-r The engine is under way.

But winter comes. Whr-r-r! Whr-r-r-r-r! Whr-r-r-r-r-r—. Now starting is difficult.

Why?

True, the engine *is* colder. And gasoline vaporizes less readily. Starting is helped if you prime the cylinders, flood the carburetor or heat the intake manifold.

But there is one factor in overcoming this trouble that many car owners overlook. This is—correct lubrication. The lubricating requirements of your car may demand a different grade of oil in winter.

Winter lubrication requires special study. There are many factors to reckon with. The type of feed system is one. The size of the oil drillings is another. Exposed oil piping is a possible third. Other factors also enter in.

All these facts are carefully considered by the Vacuum Oil Company engineers in making up the Chart of Recommendations.

Of the 1917 cars, 112 require a different grade of oil to meet winter conditions.

The correct winter oil is listed for each make of car in our Complete Chart of Automobile Recommendations shown in part below.

Where no change is indicated you may be sure that the grade of Gargoyle Mobiloils specified is correct for both summer and winter. Where a change is recommended, it is wise to follow the Chart's advice.

Write for new 56-page booklet containing complete discussion of your lubrication problems, list of troubles with remedies and complete Charts of Recommendations for Automobiles, Motorcycles, Tractors and Motor-boat Engines.

GARGOYLE **Mobiloils**

A grade for each type of motor

CORRECT AUTOMOBILE LUBRICATION

Explanation: The four grades of Gargoyle Mobiloils, for gasoline engine lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "E"
Gargoyle Mobiloil "Arctic"

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A," "Arc" means Gargoyle Mobiloil "Arctic," etc. The recommendations cover all models of both pleasure and commercial vehicles unless otherwise noted.

This Chart is compiled by the Vacuum Oil Company's Board of Engineers and represents our professional advice on Correct Automobile Lubrication.

Model of CARS	1917 Summer	1917 Winter	1916 Summer	1916 Winter	1915 Summer	1915 Winter	1914 Summer	1914 Winter	1913 Summer	1913 Winter
Abbott-Detroit	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (6 cyl)			A	A	A	A				
Allan	A	Arc	A	Arc	A	Arc	A	A	A	A
" (Mod. 33-34-35)				A		Arc				
Apperson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A						
Auburn (4 cyl)			A	Arc			A	A	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Briscoe	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (6 cyl)			A	A						
Buick	Arc	Arc	Arc	Arc	Arc	A	Arc	A	A	Arc
Cadillac					Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	Arc	Arc					
Case	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Chalmers			Arc	Arc	Arc	Arc	A	A	Arc	Arc
" (Mod. 6-40)			A	Arc						
" (Mod. 6-30)	A	A	A	A						
Chandler Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	A
Colt			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A					
Dart	A	Arc	A	Arc	Arc	Arc	A	A	A	Arc
" (Mod. C)	A	Arc	A	Arc	A	Arc	A	A		
Detroiter	Arc	Arc	Arc	Arc	A	Arc	A	A	A	Arc
" (8 cyl)					Arc	Arc				
Dodge	A	Arc	A	Arc	E	E				
Dort	A	Arc	A	Arc	A	Arc				
Empire (4 cyl)	A	Arc	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc						
Federal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	A	A	A	A	A	A	A	A	A	Arc
Grant	A	Arc	A	Arc	Arc	Arc	Arc	Arc	A	A
Haynes	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (12 cyl)	A	A	A	A						
Hudson			Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (Super Six)	A	Arc	A	A						
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
I.H.C. (air)				B	A	B	A	B	A	
I.H.C. (water) (2 cycle)			A	A	A	A	A	A	A	
I.H.C. (water) (4 cycle)			A	Arc						
Interstate	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Jeffery	A	Arc	A	Arc	A	A				
" (6 cyl)	A	A								
" Com'l	A	Arc	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc
King				A	Arc	A	A	A	E	
" (8 cyl)	A	A	A	Arc	Arc					
" Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc			
Kissel Kar	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" " Com'l	A	Arc	A	Arc	A	Arc	A	Arc	Arc	Arc
" " (Mod. 48)			A	A	A	A	A	A		

Model of CARS	1917 Summer	1917 Winter	1916 Summer	1916 Winter	1915 Summer	1915 Winter	1914 Summer	1914 Winter	1913 Summer	1913 Winter
Kissel Kar (12 cyl)	A	A								
Lexington	Arc	Arc	Arc	Arc	Arc	Arc				
Locomobile	E	E	E	E	E	E	E	E	Arc	Arc
McFarlan	A	Arc	A	A	A	Arc	A	A	A	Arc
Marmon	A	A	A	A	A	Arc	A	Arc	A	Arc
Maxwell	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Mitchell	A	Arc	A	Arc	A	A	Arc	A	Arc	A
Mitchell (8 cyl)			A	A						
Moline									A	Arc
" Knight	A	A	A	A	A	A	A	A		
Monroe	A	Arc	E	E	A	Arc				
Moon (4 cyl)					Arc	Arc	Arc	Arc		
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
National	Arc	Arc	A	Arc	A	Arc	A	A	A	A
" (12 cyl)	A	A	A	A						
Oakland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (8 cyl)			A	A						
Oldsmobile			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A						
Overland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Packard					A	Arc	A	Arc	Arc	Arc
" (12 cyl)	A	A	A	A						
" Com'l	A	A	A	A	A	A	Arc	Arc	Arc	Arc
Paige					A	Arc	A	A	A	E
" (6-46)	Arc	Arc	Arc	Arc	Arc	Arc				
" (6-36 & 38)	A	Arc	A	Arc	A	Arc				
Pathfinder	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (12 cyl)	A	A	A	A						
Peerless	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A						
Pierce Arrow	A	A	A	A	Arc	Arc	Arc	Arc	Arc	Arc
" " Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Premier	A	A	A	A	Arc	A	Arc	A	A	Arc
Regal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)			A	A	Arc	Arc				
Reo	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Saxon	E	E	E	E	E	E	E	E		
Stearns-Knight	A	A	B	A	B	A	B	A	A	A
" (8 cyl)	A	A	B	A						
Stephens	Arc	Arc	Arc	Arc						
Studebaker	A	Arc	A	Arc	Arc	Arc	Arc	Arc	A	Arc
Stutz	A	A	A	A	A	A	A	A	Arc	Arc
Velie (4 cyl)					A	Arc	A	Arc	A	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Westcott	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
White	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (16 valve)	A	A								
Willys-Knight	A	A	B	A	B	A	A	A		
Willys-Six	Arc	Arc								
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc

YOUR TRACTOR

also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

VACUUM OIL COMPANY, Rochester, N.Y., U.S.A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world

Domestic Branches: Boston, Detroit, Kansas City, Kan., New York, Philadelphia, Chicago, Minneapolis, Indianapolis, Pittsburgh, Des Moines

FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

THE United States Food Administration has undertaken to ship 1,500 tractors to France to relieve the labor situation and help increase agricultural production. The first hundred are already on the way, and the whole number will be in France by March, in time for the spring plowing. They are expected not only to be of immense service to France, but to release added tonnage for the Allies and American troops by increasing the amount of food produced there, thus decreasing the amount of food that must be shipped from America.

The idea originated with former American Ambassador to Turkey Henry Morgenthau and his son, Henry Morgenthau, Jr. The Food Administration approved the idea. Deck space was provided for the first shipment of tractors aboard a naval transport through the efforts of Assistant Secretary of the Navy Franklin Roosevelt and Paymaster General McGowan. The Food Administrator designated Henry Morgenthau, Jr., to follow the machines to France and put them in operation. He will organize schools of instruction for French operators and will assist the French Minister of Agriculture in distributing the tractors and operating them economically.

French High Commissioner M. Tardieu approved the idea on behalf of the French government and a committee of the National Implement and Vehicle Association assured Mr. Morgenthau that the tractors can be furnished and that with the shipment made now, the manufacturers will not be embarrassed in taking care of the American farmer, since they will have time to manufacture an additional number to meet the home demand when it comes. The need for these tractors is shown by this comparison of the present and pre-war acreage of crops in France:

The acreage sown to crops in the uninvaded portion of France in 1917 was 30,742,157 acres, compared with 40,657,293 acres in 1913. This is a decrease of 9,915,136 acres, or 24.4 per cent.

The total crop production in France this year is officially given as 22,200,000 metric tons (24,581,290 short tons), compared with 35,800,000 metric tons (29,462,340 short tons) in 1913, a decrease of 13,600,000 metric tons (14,881,050 short tons) or 61.3 per cent, or a decrease of 38.7 per cent.

The following figures give an idea of why it is good tactics to send tractors to France now and tractors can plow 500,000 acres this spring, and another million acres for planting fall wheat. Half a million acres in potatoes would produce 1,500,000 tons of potatoes. One million acres in fall wheat would produce 1,450,000 tons of wheat. This increased production in France would greatly relieve the food situation in that country. Leaving, moreover, 1,950,000 tons of shipping in 1918 available for other purposes.

Instruction in Running Tractor

Running a tractor is far from being a job for a small boy. To operate it at its highest possible efficiency is not only a man's job, but a job for a man who knows how and why it operates just as it does, and also who knows how to give it the proper care at all times.

This coming season the shortage of labor will, according to present indications, be more serious than last, and to increase the volume of farm production above that of previous years, even with the handicap of a labor shortage, will mean that every farmer will have to make greater use of improved labor-saving farm implements than ever before. And, of course, the most effective implement at the present time for saving labor is the tractor.

Now to make the tractor most effective as a means of saving labor, that is, to operate it most efficiently and adapt it to as wide a variety of farm operations as possible, requires more than ordinary intelligence. In fact, it requires a great deal of study on the part of the man who uses it.

If we were buying a new tractor or if we thought that we needed to know more about the one we already owned to be most successful, we would arrange to get this instruction some time this winter at one of the schools giving a short course in tractor operation. There are several agricultural colleges, commercial schools, and tractor manufacturers that are conducting service schools or short courses in this line of work this winter, and these institutions are fairly well distributed, thus making it possible for most tractor users to attend.

The charge for instruction varies considerably at the different places, but it is usually very reasonable compared with the amount of practical knowledge that one gets.

The owner of a tractor should remember that he is fulfilling an important patriotic duty to his country when he fits himself to operate his tractor and other power farming equipment more efficiently and economically. — Power Farming.

Neighborhood Threshing Ring

Eleven neighbors living along the same pike south of Grove City in Franklin County, Ohio, have been able to realize 8 per cent dividends upon the money which they have invested in a threshing outfit. This is a statement in an article by Volney G. Applegate, appearing in National Farmer and Stockman.

"This enterprise was begun twelve years ago by some of the present members and their fathers," says this writer. "The machine which was used during the first eleven years was traded for a new one last year but was used by its new owner in threshing over 20,000 bushels of grain this year, thus proving that it was far from being worn out. On this basis it is thought that the new machine would be good for fifteen years of service.

"The new machine cost about $3,000. It was used to thresh 18,000 bushels of wheat and 2,000 bushels of oats this year. At 6 cents a bushel for wheat and 4 cents for oats, this amounted to $1,160. Each man paid his own threshing bill and the moncy was in the hands of the treasurer, who paid the expenses. All accounts were settled at a meeting of the members just after the threshing season was over.

"A member of the company was hired to run the engine through the entire season and another cared for the separator. Each bought the oil, grease and repairs as they were needed. These two items constitute the main part of the expense.

"It has been found necessary to establish some system for threshing so the machine starts at one end of the road one year and at the other end the next. Thus each one knows just when the machine will get to him. Since most of the farms are large and each farmer has some hired help, there is no difficulty in securing teams and hands.

"A shed was built for storing the machine on a farm of one of the members. As soon as the work is done every one in the company takes a day off to help repair the machine and place it under cover.

The members feel that this method is advantageous as well as being profitable. They are able to thresh their grain when it is ready without waiting on a thresher to come to them. This has saved them many dollars in the past twelve years, as times have been times when the grain would have rotted before a thresher could have got to them. Now each one knows just when his turn is coming so that there is no dependency upon the whims of others. When one job is done the machine moves immediately to the next place so that the threshing is soon done without the loss of any time. There are always plenty of hands. The price is determined among themselves, and it is the foundation of a neighborly co-operative spirit that is showing its influence in other lines of work as well as in the improvement of social life of the community."

Difficulty in starting a gasoline engine in cold weather may be relieved by one of the following means: Fill the water jacket or radiator with hot water. Heat the gasoline by putting a bottle of it in hot water, being careful to keep the cork off the bottle and the gasoline away from fire. Place a few drops of ether in the priming cup or spark plug hole.

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KANSAS FARMER

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DR. WILLARD ACTING PRESIDENT

Dr. J. T. Willard has been chosen acting president of the Agricultural College by the Board of Administration. He assumed the duties of this office January 1, following the retirement of Dr. H. J. Waters, who became managing editor of the Kansas City Weekly Star on that date. Probably no man connected with the Manhattan institution is so thoroughly familiar with its administrative details. Few people appreciate or realize the faithfulness and efficiency with which Doctor Willard has served the state through the years since his graduation in 1883. He received his master's degree in 1886, and in 1908 the honorary degree Doctor of Science was conferred in recognition of his distinguished services to the college and to scientific investigation and teaching.

Except for time spent in graduate study elsewhere, Doctor Willard has been a member of the staff of the institution since his graduation, and has an intimate knowledge of college matters. Starting as assistant in chemistry, his ability and efficiency caused him to be advanced steadily. For twenty years he has held a full professorship and has been chemist in the agricultural experiment station. For a number of years he was director of the station, and is now vice director. He is also chemist in the engineering experiment station.

Since 1909 he has been dean of the division of general science, where his administration has been marked by a steady increase in enrollment and decided progress in standards of instruction. He is prominent in alumni councils. He is well known in state and national scientific circles.

On a number of previous occasions Dean Willard has acted as president of the college.

SUCCESSFUL FARM CONVENTION

The annual agricultural convention of the State Board of Agriculture held in Topeka last week was the most memorable in its history. As we stated in Kansas Farmer a year ago in making a plea for increasing the delegate attendance at the meeting, "the greatness of agriculture in this state certainly justifies magnifying the work of the State Board of Agriculture." The attendance at the present meeting was a most gratifying response to the new plan.

The law passed at the last session by the Legislature authorized, in addition to the delegates from county and district agricultural societies, an official delegate from each county farmers' institute, each county farm bureau, each live stock association of state-wide character, and each state-wide association for the promotion of farm crops. All delegates except those from the agricultural societies, which are really the fair associations, are required to be bona fide farmers or breeders of live stock.

We have never seen a more representative gathering of the men standing in the front ranks of agricultural progress in this state than that assembled in Topeka last week. It marks an epoch in the long and helpful career of the State Board of Agriculture. Practically every section of the state was represented, and we recognized in these men, most of them personally known to the editor, the solid, substantial leaders in agricultural progress in their respective communities.

The program was of exceptional character, and the responsiveness of the audience undoubtedly brought out the best that was in the different men who addressed the convention. The questions and the discussions evidenced the genuineness of their interest in the various topics presented. The war entered into practically every subject presented. As in previous crises in the history of this nation and in the steps taken toward greater democracy in government the world over, the men of the soil are to be counted on the right side. There could be no doubting the patriotism of the farmers of Kansas. There may be some little skepticism in their minds as to the value of the high school boys or women in taking the place of skilled agricultural labor, but the spirit in which the address by Doctor Wilcox, of the Department of Agriculture, was received indicates that those who are left will make the best of the labor resources remaining. The same spirit was manifest in connection with other war problems. The example of Canada, which has furnished soldiers in such numbers as would mean on the basis of population 250,000 instead of 25,000 from Kansas, was an inspiration. With that heavy drain on its agricultural labor, Canada has actually increased production. Serious as the question may seem, it is by no means insurmountable. The appointment of a farm labor administrator for the state, which was made at the suggestion of the Government, is announced on this page.

The election of new officers to the Board under the amended law necessitated some changes. Each congressional district of the state is allowed two members, and the delegates from each district met in caucus, selected their two candidates, and recommended them to the whole delegate body, which proceeded to formally elect the men selected in caucus. This plan gives the Board a membership of sixteen, one-third of the number retiring each year.

Before adjournment the new Board voted to hold quarterly meetings. We believe this is a move of the greatest importance. The efficiency of the county farm bureau depends largely upon the systematic planning of the various activities by the members of the executive board representing the different sections of the county. In like manner this Board of Agriculture, by meeting in quarterly session, can study and outline plans and policies for the whole state.

The new members and officers and the resolutions passed are given on another page of this issue.

SEED FOR THIS YEAR'S CROPS

The scarcity and poor quality of the seed available for this year's planting creates a serious situation in connection with the growing of maximum crops. Dean W. M. Jardine, of the Agricultural College, in his address before the Board of Agriculture on "Wartime Farming," said that the seed situation was the foremost problem involved, the scarcity of trained labor being secondary to this vital need. His address appears on another page of this issue. He pointed out the necessity of mobilizing all the good seed in the state.

A statement on the seed situation has just been sent out from the agronomy department of the Agricultural College. Such information as we have from other sources is in line with what the college reports. It has been many years since Kansas has faced such a shortage of good seed of corn, kafir, and others of the sorghums, as exists at the present time.

In a large part of the state practically no seed was produced this season and in other parts where seed was produced the amount is small and the quality not of the best. Usually good seed of kafir and cane can be obtained in Oklahoma or Texas, but this season it is as scarce in these states as in Kansas. In fact, seedsmen from Oklahoma and Texas are locating the good seed that they can obtain in Kansas for shipping to their states for spring planting.

The seriousness of the situation is increased by the fact that there is very little old seed available this year. Good seed was scarce last year and in many localities, especially in North Central Kansas, practically all the good old seed was used for planting the 1917 crop.

Because of the general scarcity of seed steps should be taken at once to conserve all grain suitable for seed purposes. We would urge that those who have produced good seed of corn, kafir, milo, etc., select at once and save not only enough for their own use but as much as possible to be sold to their neighbors and others in need of seed.

Those who have seed of the 1915 or 1916 crops that has been stored and is now in good condition might well draw on this reserve for seed to plant this year's crops. Farmers who do not have sufficient seed for spring planting should make haste to secure it at once. If this is not done, the seed that is now on hand in certain sections may be sold for use in other states or fed to stock and it may be very difficult to get the seed needed at planting time next spring.

FARM LABOR ADMINISTRATOR

We are to have a farm labor administrator in Kansas. The suggestion was made by the Government and Edward C. Johnson, dean of agricultural extension, was asked to nominate a man for the position. It has just been announced that E. E. Frizell, of Larned, farmer, business man and ranch owner in Western Kansas for forty years, has been drafted for war service in accordance with this suggestion of the Government. He will work in connection with the Kansas State Council of Defense, the Extension Service of the Agricultural College, the Kansas State Labor Bureau, farmer organizations, and the United States Department of Agriculture in their effort to organize every community so that every possible source of farm labor can be utilized in producing crops the coming year. His headquarters will be at the Agricultural College, and he will enter on his new duties February 1.

Mr. Frizell is now handling three ranches in Pawnee, Hodgeman and Ness counties, with a total of 12,200 acres, and has 5,000 acres in wheat, 600 acres of alfalfa, and 1,000 acres under irrigation. In addition he has over a thousand head of cattle, 220 head of horses, together with many hogs and sheep. In providing labor for this large business he has become thoroughly familiar with the farm labor situation and farm labor requirements. As mayor of Larned for seventeen years he has conducted a farm labor bureau to supply labor to Pawnee County and counties to the west. He has been a member of the Kansas State Board of Agriculture for five years and was re-elected as a member at its recent session.

CATTLE IN KANSAS

The number of beef cattle on Kansas farms December 1, 1917, was less by 9.8 cent than the number March 1 of the same year, according to estimates made by correspondents of the State Board of Agriculture. The state's cattle population on March 1 was 2,337,592, and on December 1 it was 2,152,945.

The decline in cattle numbers is due in large measure, if not wholly, to crop failures in certain sections of the state. The heaviest percentages of decrease are reported from certain counties of the northwest where losses from dry weather were most severe. Graham, Osborne, Phillips, Rooks, Norton and neighboring counties report less cattle by more than 39 per cent.

The outlook is somewhat better, however, in other sections. Thirty of the state's 105 counties report as many or more cattle than were on hand in the spring. The southwestern counties of Stanton, Wallace and Haskell lead in percentage increases, reporting 23, 23 and 30 per cent, respectively. Seventeen of the thirty counties having normal or increased numbers are located in the eastern half of Kansas, where better crops of hay, corn, and sorghum were raised.

The danger of plowing under a heavy coat of manure is that the manure tends to break the capillary connection of the soil with the subsoil, causing the surface to dry out, resulting in the "burning out" of the crop in a dry season.

SAVE SEED CORN

Kansas is experiencing an unusual condition in the matter of seed corn. In ordinary years we do not have to worry very much about seed corn being injured by freezing. In Iowa, Nebraska, and Illinois, the germinating power of corn is destroyed by freezing practically every year, and it is necessary to select seed corn early and guard against this damage from freezing. The reason for this injury is the immature condition of the grain when the hard freezes come. Corn containing a large amount of moisture is certain to be injured in vitality by freezing. In the states mentioned it is always important that seed corn be selected early and its drying hastened by the use of artificial means or simply by storing it in a well ventilated room which will not be likely to reach a freezing temperature until late in the winter.

This year, owing to the abnormal season, a great deal of Kansas corn came to the freezing weather in a condition such as prevails almost every year in the more northern states. We are so unaccustomed to being compelled to dry out our seed corn and keep it from freezing that we can look for an unusually low percentage of germination in the seed that will be used next year. In many instances the harm has already been done, and there is danger that those who feel that they have seed in abundance will find when the planting season arrives that the germination is so low that much of the seed saved will not be safe to plant.

This condition means that there is certain to be a big demand for seed of good germinating qualities next season. There are corn growers who cribbed well-matured corn, but who do not make a practice of selecting more seed than is needed for home use. To such we would suggest the picking out of two or three times as much as is needed for the home planting. There is considerable work attached to picking out the seed corn from the crib in this way, but it is certain to be in demand next spring and at a price that will justify the labor expense.

We were talking with C. C. Cunningham of the Agricultural College recently and he reported that the seed corn situation is showing up much worse than had been anticipated earlier in the season. In connection with his direction of the co-operative experimental work over the state, Mr. Cunningham has had opportunity to observe widely the condition of stored corn. Those who have corn that was matured fairly well and dried out before the hard freezes came can get a substantial advance in price by picking out seed corn and, what is more, will be rendering a real service in the interests of next year's crop production. There is probably no one factor outside of lack of rain at a critical time that has a greater tendency to cut the yield of corn than the poor stands resulting from the planting of inferior seed.

LAST CALL FOR MANHATTAN

Farm and Home Week at Manhattan, January 21 to 26, should be the most inspiring and instructive event of its kind ever held in Kansas. The program is probably the strongest ever presented. Many speakers of national reputation are included in the list of those who will deliver addresses. You cannot afford to miss the lectures and addresses of this week at our Agricultural College.

A sheep club has been organized at Linn by the Linn State Bank and R. W. Schafer, county agricultural agent. The banker agreed to take the boys' notes for two to five sheep each. Upon completion of the club organization the boys, accompanied by their fathers, the banker, and the agricultural agent, drove to a farm on which there is a flock of grade western ewes, and twenty-one were selected for the club work.

DOES COW TESTING PAY?

Without Individual Production Records Dairyman is Groping in the Dark

UNLESS you are keeping some sort of individual herd records, you are almost sure to be milking some cows that are not profitable. You may think you have no poor cows, but you do not know until you have had the milk weighed and tested.

In a recent circular from the Wisconsin College of Agriculture by Noel Negley and R. T. Harris, an instance is related of a farmer who was milking eleven cows and getting a monthly cream check of from $35 to $40. Of course he was dissatisfied. He was induced to join a cow testing association and this resulted in his weeding out several and replacing them with tested cows. He also learned better methods of feeding. The final outcome was that he increased his monthly cream check to from $95 to $100 and milked only ten cows. This was a most striking result. He was feeding and milking one cow less, but getting more than twice as much for cream, and of course increasing his net profit correspondingly.

Wisconsin now leads all other states in the number of its cow testing associations, having fifty-nine with a membership of 1,800 farmers owning 28,000 cows under test. Wisconsin also claims to lead the United States in the number of dairy cows and in the value of its dairy products.

While we have only a few cow testing associations in Kansas, the results achieved prove that they will do as much for a dairy community here as they have in Wisconsin. The Dickinson County Pioneer Cow Testing Association has had a profound influence on the agricultural development of that county. It is hard to understand why the idea has been so slow in spreading. The evidence as to results from a business standpoint are absolutely indisputable.

A cow testing association, as described in the circular mentioned, is simply a small group of farmers, usually twenty-six, who unite in hiring a man to weigh and test the milk, and keep the feed costs and production records of their herds. This man, called the tester, spends a day every month on each farm, where he weighs and tests milk from each cow and from this data figures the amount of milk and fat produced during the month and its value at the market price.

The tester also weighs the feed given to each cow, computes its value, and charges it against her production record. This enables the owner to know the profit or loss on each cow, the amount returned for each dollar expended for feed, and the cost of producing a pound of fat or 100 pounds of milk. The tester, usually having his own "rig," comes to the farm in the afternoon with his complete outfit, and weighs and samples the evening milk from each cow. The next morning he does the same with the morning milk, and then tests the milk for fat, makes his calculations, records them in the member's herd book and goes on to the next place.

In addition to these duties the tester is often able to offer assistance in the selection of the feed, the selection of breeding stock, and in many other ways help to promote the interests of the dairy farmer.

The things an association does are enumerated as follows, quoting from this Wisconsin pamphlet on cow testing:

It will detect the unprofitable cow—An accurate record of the production and the feed cost of each cow will enable you to weed out the unprofitable cows. There is no other way to detect them. "The cow that I thought was my best cow turned out to be one of the poorest," is a common remark from men who have had a year's record on their cows. The experience of a farmer near Vesper is of interest. He writes: "One little brown cow I priced to him—a prospective purchaser—at $50, but he would not pay it, saying it was too much. I also had one nice looking black and white cow. He offered me $75 for this one, but I would not sell her at $75. But the weighing and testing brought something to light as follows:

"Little Brown Cow, 6,383 pounds milk, 5.2 per cent test, 333 pounds fat, $48.01 net profit.

"Black and White Cow, 4,366 pounds milk, 3.4 per cent test, 146.9 pounds fat, $0.38 net profit.

"The nice black and white cow is now for sale at $50, while the little brown cow does not leave the barn for less than $100. This one instance will pay my dues for three or four years."

The owner and the stock buyer favored the black and white cow, but the actual production proved that it would take twenty-one like the black and white cow to make as much profit as the one little brown cow. The secretary of one association says: "During the first year of our association twenty-eight cows which were unprofitable were located and sold. During the second year ninety-two were sold, making a total of 120 boarders disposed of in two years."

It will increase your net profits.—Net profit is our chief interest. It is the poor cow that cuts the net profit. What is the profit to a man when he gets $100 for his milk and pays $100 for feed? The manure is not enough. Give the good cow a chance to make a profit by relieving her of the burden of making up the loss of the poor cow. The records of some herds remind one of a tug of war—the good cow pulling and straining and working to make a profit, the poor cow holding, holding, holding for a loss.

Records of 453 cows, including the best cow from each herd, show a net profit of $64.48 per animal. Records of 453 cows embracing the poorest cow from each of the same herds only show a net profit of $19.24. Why not get interested in your net profit per cow?

It will enable you to raise a high-producing herd.—The fellow who was going to buy a high-producing herd was either very wealthy to start with or else he never got that kind of a herd. The only way for an ordinary dairyman to get a high producing herd is to raise it. By retaining the heifer calves from cows that have proved their merit and been bred to a good bull, a high producing herd can be built. Here is what one farmer writes about his experience in keeping records: "I have been testing and keeping records for six years, but the one year I have been in the cow testing association has been more beneficial than the past five years. This is the average of my herd: 16,480 pounds milk; 564 pounds fat; $118.31 profit; $2.30 for each dollar spent for feed."

It will help you to feed your cows more economically.—You may know that bran costs you $22 per ton, but you do not know whether the cow pays you $18 or $40 for it unless you know what it costs to feed her and what she produces from it. The cow testing association record will show you the returns for each dollar expended for feed. The records for the best cow in each of 453 herds show that the average return for a dollar expended for feed was $2.79. The records for the poorest cow in each of the same herds show the average return for a dollar expended for feed to be $1.60. Feed is the greatest expense item in producing milk. Why raise feed or buy it to feed to cows when you do not know what it brings you?

It takes money to buy feed, but it takes feed to make milk. The heavy producer needs more feed than the low producer and they both need it properly and economically balanced. By weighing the feed and milk it is possible to feed the herd according to production. With the training and experience of the tester and the knowledge he gets of the results of feeding certain rations to the twenty-five other herds of the association, it is easy for him to help you figure out an economically balanced ration for your herd. A number of farmers have found it profitable to use balanced rations suggested by the tester. One of them says: "Herds containing 120 cows were fed balanced rations beginning February 1. For February the records show that these cows produced 270 pounds more fat and made $138.04 more net profit than they did during the month of January. In other words it meant an average saving of $15.33 every month for each of the nine owners. The saving in feed alone for one month more than paid the association dues of each member for the year."

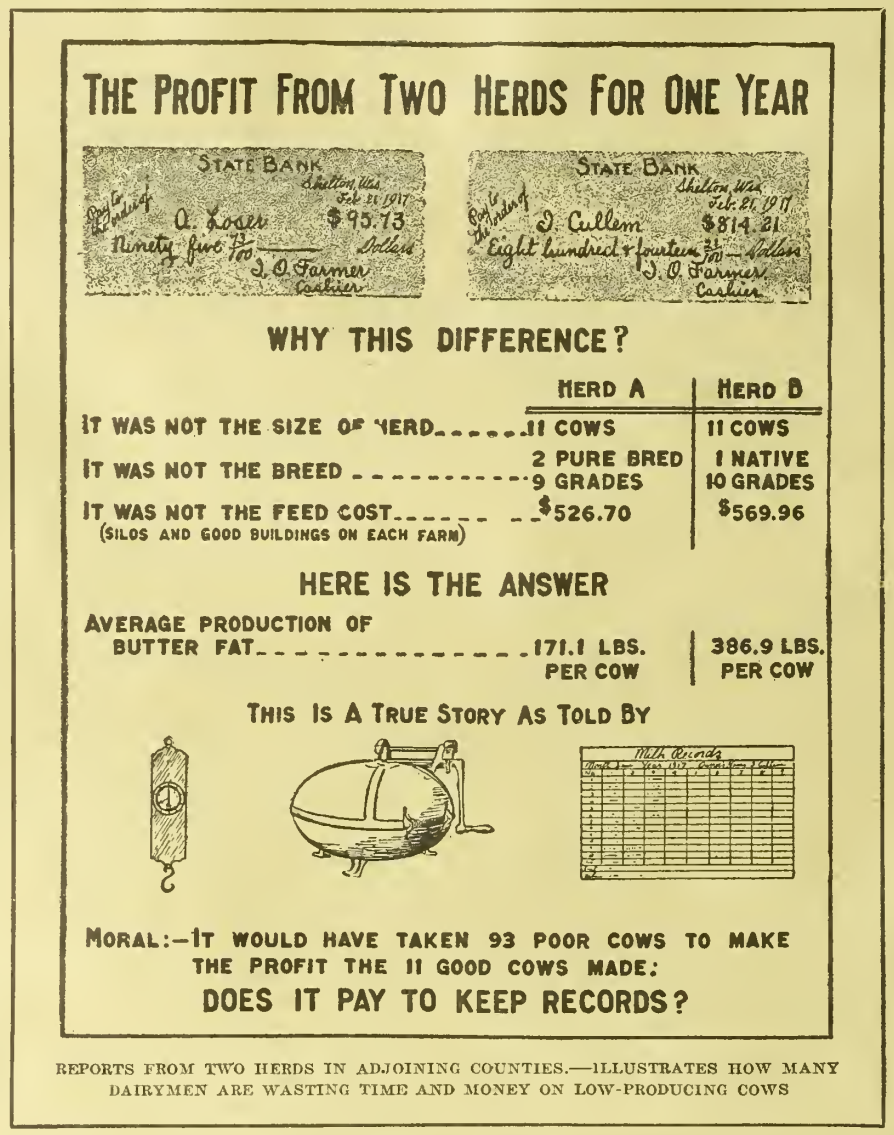
It will enable you to know something of the value of your bull.—Test the bull, too! He is half the herd, and you pay a good price for him, but you do not know whether he is increasing or decreasing the production of the herd. If he can increase the production of the daughters over the dams, he should be kept in the community, and the neighbors will be anxious to buy him. If he can not, he is worth beef prices, and the quicker he is found out, the better. A complete record of the herd will soon show what the bull is worth. For your herd's sake, join a cow testing association.

It promotes co-operation in purchase of feed, purchase and sale of cattle, and develops community spirit.—Lack of co-operation among farmers robs them of many of the social and financial benefits of farm life. The cow testing association is a simple means of starting the co-operative spirit in a neighborhood, for it involves but a small outlay of money and yields a large return. If the community can be taught to work together in a small way, it will not be difficult for it to later enter into wider activities. The meetings of the associations at their picnics or monthly winter meetings give opportunities to discuss various topics of interest and to secure outside speakers. By paying cash and purchasing feed in carlots, members have been able to materially reduce their feed bills. A member of an association at Neenah says of buying in bulk: "By buying feed in carload lots, the association saved $200 over the local price at that time. If we had ordered earlier, we could have saved $300 more."

It creates more interest and pleasure in dairy work.—The routine of dairy work, with its lack of business interest and too often with its many poor cows, is what makes it monotonous and slavish to the man and wife and repulsive to the children.

When the cow testing association takes dairying out of the rut and puts it on a business basis, when it weeds out the unprofitable cows and helps to build up a high producing herd, when it demands the thought and care and creates interest and enthusiasm, then dairying becomes a life work of which one can be proud, and as interesting as it is profitable. The boys and girls and the hired men all take a new interest in the dairy work. The cow testing association with its ability to make dairying an interesting and profitable business is one of the most effective means of lessening the sale to the cities of our best crop—the boys and girls. Many old men join cow testing associations because "I'm too old to get any good out of it, but I'll join for the sake of Johnny and Thaddeus yonder."

To have a cow testing association, only two things are necessary: First, enough men with the co-operative spirit; and, second, the necessary number of cows. Prof. O. E. Reed of the dairy division of our agricultural college is encouraging in every way possible the organization of testing associations in Kansas communities. A request to him will bring all the details as to organization. In fact he will probably go to the community or send someone and actively help in canvassing the dairymen who should be interested. There is no one thing that means more to real dairy progress in a community than a cow testing association. We hope to see several more organized in Kansas in the near future.



REPORTS FROM TWO HERDS IN ADJOINING COUNTIES.—ILLUSTRATES HOW MANY DAIRYMEN ARE WASTING TIME AND MONEY ON LOW-PRODUCING COWS

Trust No Rumor

No day passes on which we do not hear a rumor discreditable to our country, discreditable to some of our country's officials, says The American Boy. No true American boy will credit such rumors. When he hears them repeated it is his duty to say he does not believe them. It is his duty not to believe them. Be sure that if officials turn traitors; if mistakes are made; if transports are sunk; if any of the matters rumor tells of become facts, we shall be informed of it frankly by our government. Until we have facts we can trust, let us trust no rumor. Remember that Germany has won more battles by spreading lies than by fighting man to man.

If cream contains 15 per cent of butter fat, it requires 5.71 pounds of cream to make a pound of butter. If cream contains 20 per cent of butter fat, 4.28 pounds of cream will be needed; if 25 per cent butter fat, 3.42 pounds; 30 per cent butter fat, 2.85 pounds; 40 per cent butter fat, 2.14 pounds.



Labor Suggestions From Farmer

IN writing of agricultural conditions in his section, Fred R. Eastman, of Chase County, states that the farmers are awake to the situation in regard to the shortage of wheat, as shown in the greatly increased acreage sown in that county last fall. The acreage this year is probably twice that sown a year ago. There would have been much more if there had been two inches more of rain at the right time.

"This brings up the very important question of farm labor," says Mr. Eastman, "and especially that of where the help is coming from to harvest this wheat. That is perhaps too far away to need much discussion just now; however, it is interesting to discuss some of the things we have heard along this line. Not long ago I read on the editorial page of a good daily paper a few comments that seem worthy of notice. The question was asked, 'Where is our labor coming from to take the place of the boys who have enlisted?' The answer was, 'Partly from the ranks of middle-aged men who have been to a considerable extent excluded from many kinds of industrial labor, apparently for the reason that younger men have crowded them out; partly from the displacement of some able-bodied men by competent women who are coming to be employed more generally in offices and light factory work, etc.' Now I should like to add one more thought on the subject of farm labor for the future. A means of relieving the situation which must be employed soon is co-operation along various lines of industrial activity, among farmers as well as among railroads. Farmers are in many ways inclined to be too independent, but when this feeling of prejudice is once overcome they will unite in various ways that will be of mutual benefit and at the same time will help to solve the problem of scarcity of labor.

"I am now thinking of one particular item—that of co-operation in buying and operating a traction engine for plowing, for hauling grain to market, and bringing necessary supplies back to the farm. This engine might be owned jointly by half a dozen men, and if good management is used the entire six could be accommodated a part of the time. When the season is such as to prevent its use by some of the men, let them practice unselfishness. If each man cannot use the engine every week, he can at least take his turn. Unselfishness in our dealings nearly always prompts someone else to follow our example. I have no doubt that one engine could replace two hired men if good management was used.

"Another idea—why not allow the farmer boys attending schools and colleges a week or two more time both in the fall and in the spring to go out and help on the farm and carry on their work by correspondence or by taking a special examination? This was done last spring, but it is not done often enough. Moreover, the courses might be altered in some way or the school year shortened to allow farmer boys to help care for crops before entering school in the fall."

Notice to Stallion Owners

Kansas laws require that all stallions for which patronage is accepted during the coming season must have a license issued by the State Live Stock Registry Board. Application blanks were mailed to stallion owners during the last week of December. If you failed to receive an application blank, you should write for one immediately. There are a large number of licenses to be issued and for this reason you are most earnestly urged to send in your application at once and thus avoid the delay that usually results because so many wait until near the opening of the breeding season before sending in their applications for licenses. Address C. W. McCampbell, Secretary State Live Stock Registry Board, Manhattan, Kansas.

Winter Care of Brood Sows

The sows that will farrow in March and April have already been bred. If these sows produce good, strong, vigorous litters and get these pigs through successfully to weaning time they must be properly cared for from now until the day of farrowing. One of the biggest hindrances to the sows' farrowing good, strong, vigorous litters is lack of exercise. During cold and stormy weather hogs like to lie around the sleeping quarters and be comfortable. That, however, is just what they should not be allowed to do all the time.

The proper exercise for a brood sow is that which she will take voluntarily and not through force. They should get their corn ration by hustling for it in the stalk fields and not by getting it fed around the sleeping quarters on feeding floors or in troughs. Feed them ear corn during the winter months and scatter it out in the stalk fields. The manure spreader is a good implement to use in scattering this corn if large numbers of hows are being fed. Don't be afraid it will be wasted, for it won't. You can readily regulate the amount fed so that it will be picked up clean, and you will find next spring that there is not a bit of the corn lying around to go to waste.

Protein feeds in the form of shorts, tankage, oil meal, or alfalfa hay should be supplied. Self-feeders can be used for these feeds, and it is quite successful to grind or chop the alfalfa hay. Sows will eat a larger percentage of alfalfa hay fed in the ground form than when fed in racks unground. This alfalfa is generally cheaper on the corn belt farms than any of the other protein feeds and is a good balance to the corn ration.

By following a few of these simple methods the sows will be brought to farrowing time capable of producing good strong pigs. Every hog grower knows that if he is going to have pigs that do their best from the start, they must be strong and vigorous at farrowing time. The proper care of the brood sow is not difficult and should be carefully looked after by every hog grower.

Stock Yards Pig Club

Another boys' pig club is to be conducted by the Wichita Stock Yards Company the coming year in co-operation with the State Club Leader, Otis E. Hall, Assistant P. R. Imel having special charge of the calf and pig clubs. In connection with the feeding demonstration sixty-five gilts are bred and ready for the boys to take out in January and February. The results of last year's pig club will be announced after Farm and Home Week at Manhattan, January 26. The boys in the pig club last year all made money and can hardly wait to start their new year's work. Almost all single pigs netted $10 profit, and one boy made $147 on five pigs. The gilts on hand at the feeding demonstration yards are Durocs, Polands, Berkshires, and Hampshires, and will be sold to the boys who apply first at cost.

The Stock Yards Company will loan the hogs to the boys who haven't any money, at a set cost price to be paid as soon as they sell any of the hogs or enough to pay it back. These gilts are a nice lot of well-bred hogs, but not registered, and will cost from $18 to $21 per hundredweight. They were bought at private sale and on the market, and are immune to cholera and will be insured at selling price until after farrowing for $1.50 per head, and if there is any of this money left it will be divided back to the boys. Boys wanting pigs will be able to secure them in the above mentioned way the last week in January. They will probably weigh around seventy pounds. Any boy who has waste feed and pasture cannot lose by getting one or two of these gilts even under the most adverse conditions, as stock pigs will be in demand somewhere and pay him out. The present hog shortage insures this. In writing for information, address Cattle and Hog Feeding Demonstration, Live Stock Exchange, Wichita, Kansas. J. C. Holmes is in direct charge of this work.



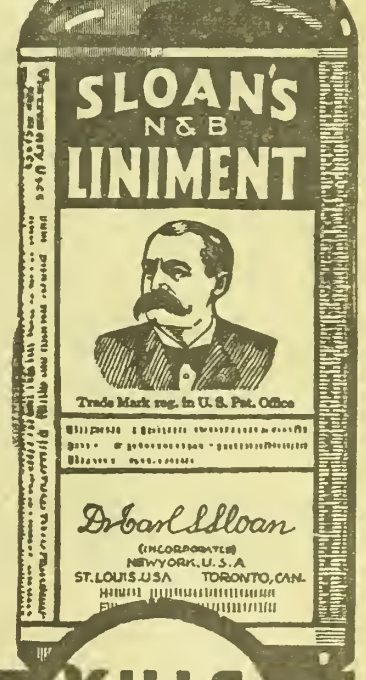
Jim, We Got To Do Our Bit!

WE farmers can't work for Uncle Sam if we're laid up with stiff joints, rheumatic twinges, sore muscles, lame back, and such things.

I don't take chances. The first sign of soreness is a signal for me to get busy with this Sloan's Liniment. I *don't rub it in* because it *penetrates*. Its counter-irritant action scatters the congestion and brings instant, soothing relief. My whole family swears by it.

And I use it on the live stock, too, Jim. It sends bruises, lameness, sprains, and all external ailments kitin' sky-high.

I save money by always buying the large size. Six times as much as you get in the small bottle, and I've got a supply on hand when I got to have it. Get a big bottle today, Jim, and keep on doing your bit faithfully and regularly.



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Sloan's
The World's
Liniment



A PRIZE WINNING CREAM SEPARATOR

THE
DE LAVAL
CREAM
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Is a Winner!

Why don't you let it win for you?

AT the great national and international expositions, the juries have invariably acknowledged the superiority of the De Laval. They awarded the Grand Prize, the highest possible award, to the De Laval at the Panama-Pacific Exposition at San Francisco in 1915, as also at Buffalo, Chicago, St. Louis, Paris, Brussels, and all the great world expositions for more than 35 years.

What the world's greatest dairy experts, the men who operate the creameries and the big milk plants and dairies, think of the De Laval is best evidenced by the fact that 98% of the cream separators in use in such plants the world over are of De Laval make.

De Laval Produced Cream
Makes the Best Butter

Since 1892 the National Buttermakers' Association has held butter-scoring contests each year in connection with its Annual Convention, and at every such Convention butter made from cream separated by a De Laval Separator has scored highest. This is a 100% record for the De Laval. No room for chance there. Only unusual merit made such a record possible.

Proof of the superiority of De Laval Separators and of De Laval produced cream has been piled up and multiplied so many times that it is no longer questioned. It is an accepted fact.

If you are without a cream separator, or in need of a better one, let the De Laval start winning a bigger cream profit for you NOW.

See your De Laval agent immediately, or if you don't know him, address the nearest De Laval main office as below for any desired particulars.

THE DE LAVAL SEPARATOR COMPANY
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EVERY NEW DE LAVAL SEPARATOR HAS A BELL SPEED-INDICATOR



A PRIZE WINNING PRODUCT

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KANSAS FARMER DAIRY CLUB

Stories of Club Work

THE members of the present Dairy Club can get a great deal of encouragement from reading the stories written by last year's club members. The boys and girls who persisted in the work, sticking to the task until the year was ended, have reason to feel proud of their accomplishments. A quitter never amounts to much in anything. The Kansas Farmer Dairy Club requires work every day in the year. It has a great deal more to it than the temporary enthusiasm which goes with enrollment and getting started. That is the reason the club is not large in membership. You who stick have been tested out and not found wanting. The story which follows is the one written by Cary Burton, a twelve-year-old boy of Douglass, Kansas:

"Along in April or early May of 1916 my papa, who takes KANSAS FARMER, saw something about the proposed Kansas Farmer Dairy Club and got me interested by suggesting that it would be a good thing for me to write and get particulars. After getting these I thought that I would be able to comply with all the rules of the Dairy Club. My papa and I went to see the banker, Mr. Middlekauff, who had been notified by KANSAS FARMER that I was interested in the Dairy Club. Mr. Middlekauff told us that he would be willing to advance the purchase price of a cow.

"So I began to look about for a cow I could buy. I wrote to Girod & Robison, of Towanda, and learned that they always had Holstein cows and heifers on hand. So my papa and I went to El Dorado by train and had an auto take us out to the Girod farm. After looking the cattle over and getting prices on the ones that looked good to us, we decided to buy a grade heifer just fresh. She had a good looking bull calf. We bought both for $85. Mr. Girod was to deliver her at Augusta for us by noon next day, and we took the wagon and were at the meeting place when he came. We transferred the cow to our wagon and got her home without mishap, though she was pretty tired after being hauled about thirty miles in a wagon.

"When we got home I began thinking of a name for my cow and decided that it should be Buttercup. Buttercup is a nice looking cow built on dairy cow lines and more white than black. She was fresh the twenty-fifth of May and I started keeping my records June 1. I was a very much disappointed boy when I found that Buttercup did not give as much milk as some heifers my papa was milking, but papa said I must not give up, that she might do better if I fed her the right feed. I read in KANSAS FARMER about a ration of four parts corn chop, two parts bran, and one part cottonseed meal—by weight—being good, so I got some. Well, she did quite a little better after this, but still did not give much milk. Papa said that it did not all depend on the amount of milk she gave, but the way I kept my records and stuck to it would count a great deal, too. When I got the report of the test of the first sample I was better pleased, as her milk tested as high as 5.4 per cent, which is pretty good for Holstein milk. I got the request to send the milk to Manhattan to be tested for quality. When I received my score card I found my sample had scored 88.5 per cent.

"I have always sold the butter fat to the cream station, except for one month when papa's cows were dry and he bought all the milk mine gave at five cents a quart. I fed my calf until it was about eight months old and sold it to papa for $30. Then I fed my skim milk to a pig I bought, until I sold the pig for $19.25. I read all the Dairy Club departments in KANSAS FARMER and keep them in a scrap book. Buttercup will soon be fresh again and I am looking for her to be a better milk cow this winter.

"At the end of my year's work I had Buttercup all paid for except $1.82, which she paid before I dried her up. I am very glad I entered the contest and stuck to it, as I now have Buttercup and she is paid for.

"Mr. Middlekauff encouraged me when I delivered my reports to him, and I was pretty proud when I paid off the note and Mr. Middlekauff complimented me for my perseverance and the neatness of my records. I wish the boys and girls of the present Dairy Club success in their work."

* * *

Away out in Western Kansas in Rawlins County a fourteen-year-old girl became interested in the Dairy Club. What she accomplished should be an inspiration not only to boys and girls of that section, but to the grown-up farmers as well. She has demonstrated positively that a milk cow is a conserver of feed and an important means of bringing in some ready money under Western Kansas conditions. Lela May Haynes, of McDonald, writes as follows of her year's work:

"After reading in KANSAS FARMER about the Dairy Club, I decided to join and buy myself a good cow. I sent in my application and after receiving the letter stating that I could join I went down to Atwood April 3 and saw Mr. Hensley, of the Rawlins County Bank, and told him all about the Dairy Club. He told me that the bank would loan me any amount needed to buy a good cow. The next day papa and I started out to find a good cow. We learned that the cow I decided on was to be fresh in two weeks. She was a dark red grade Red Poll. I gave $80 for her. We went the next day to get her. I led her home, about five miles. In two weeks from the time I bought her she freshened and I named her calf 'Dale.' He sure was nice. For the first few days she did not give very much milk and I was afraid of milk fever, but she did not have it.

"I sold cream in Beardsley, as that is nearer than McDonald. Her cream always tested from 42 to 48 per cent and sometimes more. I fed Dale all of Martha's milk and he sure grew fine. I sold him in the fall for $30. I paid for Martha in eight months, with 10 per cent interest, and from Thanksgiving, when I paid the note, to January 1, I made $10 over all expenses. I then let her go dry, as she had not really been dry for two years. April 17, 1917, she freshened again. This time she had a fine heifer calf that would weigh nearly a hundred pounds. She gave more milk this time.

"I found the Dairy Club work pleasant as well as profitable, and the banker has offered to loan me enough money to buy another good cow. I am glad I joined the Dairy Club."

* * *

Down in Southeast Kansas, almost as far as it is possible to get from Rawlins County, another girl completed a year of work in the Dairy Club, which showed how easy it was to get a start in dairying. This girl, Dora Brader, of Oswego, was also fourteen years old, and as the result of her dairy venture has her original cow paid for and two heifers in addition, the older of which is already a producer. Dora's own story of her year's work follows.

"I first saw your announcement of a dairy club in KANSAS FARMER, and at once wrote that I would like to join the club and sent Mr. Marley's name, as he was cashier of the Oswego State Bank, which my father always patronized. It was not long until I received a nice letter from Mr. Marley saying he would be glad to loan me money to buy a cow and would try to help me in any way he could to get a good cow.

"I at first thought I would like to have a registered Jersey, and my father bought two registered cows, but, as I did not think them what I wanted to enter the Dairy Club with, I asked him if I could not buy one of his grade Jerseys. Creamy was my pick of the herd. She was just fresh and had a nice heifer calf. My father said I could have her, so I got two of our neighbors to appraise her. They appraised her at $85, and I bought her at that price. I gave Mr. Marley my note, and then I went to work to pay it off. I kept a record of the milk every day and also milked her every time except once during the year. I had a little bad luck; she got her udder hurt some way out in the pasture, and this caused her to fail in her milk for a while.

"April 24, 1917, she had another heifer calf. I still have my calves. I fed them milk until they were about two weeks old, then separated milk and oil for two months, then just skim milk until they were six months old. They had all the alfalfa hay or grass they wanted from the time they were old enough to eat it.

"I have learned to do business with the bank and think my banker has treated me fine. I am very well pleased with my profit. Creamy gave 5,924½ pounds of milk, which made 254.777 pounds of butter fat, in one year. Her feed cost me $34.30, with a profit left of $36.68. By using what money I had worked for at different times, I paid my note off without having to sell my calves.

"I certainly thank the Kansas Farmer people for starting this dairy club. I tried to get several of my girl friends to join it, but they said there was no use, they wouldn't get any prize. I told them if I paid for my cow I would be pleased. But I have my two heifers, my cow free from any debt, and have learned some things that nothing but experience would teach me."

Ayrshire Breeders Meet

The Ayrshire Breeders' Association of Kansas organized last year at Manhattan, announces its program for January 22, during Farm and Home Week, as follows: An address by President L. E. Johnson, Waldron; "Some Ayrshires I Have Known," Prof. O. E. Reed of the Agricultural College; and "Ayrshire Cattle," by J. G. Watson, extension service of Ayrshire Record Association, Brandon, Vermont. Following the program a business meeting will be held. The Kansas State Dairy Association meets the day following this meeting. Ayrshire breeders are proud of the fact that at the present time the highest official year's record in the state is held by an Ayrshire cow, Canary Belle, owned by the Agricultural College.

Winter Care of Cows

An abundance of feed of the right kind is a prime requisite if cows are expected to continue to produce milk after freezing weather has killed pastures. Corn stover and oat straw will hardly supply sufficient nutrients to maintain average production.

Sleet and freezing rains cause insecure footing, and care should be used in turning cows out of the barn. Ice at the doorway should be covered with cinders to prevent slipping. Do not hurry the animals and cause undue crowding. A slip and fall on the ice can readily result in injury to or loss of a valuable cow.

These things have been said often, but they bear repetition when cold weather comes with accompanying discomforts. A high-producing dairy animal is a delicate and well balanced piece of machinery, and consequently she can not continue normal production if she is exposed to severe winter weather. It is therefore essential that the discomforts incident to cold weather be eliminated if possible. The comfortable cow will repay in milk the necessary labor for her protection. Dairymen as a rule are more careful with their cows than those who merely produce the milk for family use.

Cows frequently refuse to drink the water in an icy trough. A cow must be thirsty, indeed, before she will fill herself with freezing water. It is necessary, in view of the fact that milk contains about 87 per cent water, to warm the drinking water for dairy cows if highest possible production is to be maintained. Unless the cow drinks a sufficient quantity of water her milk production will diminish, and she will not drink enough unless it is warm. Suitable shelter from cold rains and raw winds is another comfort which the cow will repay in milk.

Need Testing Association

With the increased cost of production this seems to be the time to weed out the boarder cows in the herd. The meat value of the dairy animal now is closer to the dairy value than ever before, and consequently it is possible to weed out the poor cows and replace them with profitable producers with less cash outlay than ever before.

One of the milk stations in Emporia is buying whole milk on a butter fat basis, paying at the rate of 70 cents a pound. For 4 per cent milk this would mean $2.80 per hundred, and at the government standard of 8.6 pounds would mean a price of 24 cents per gallon.

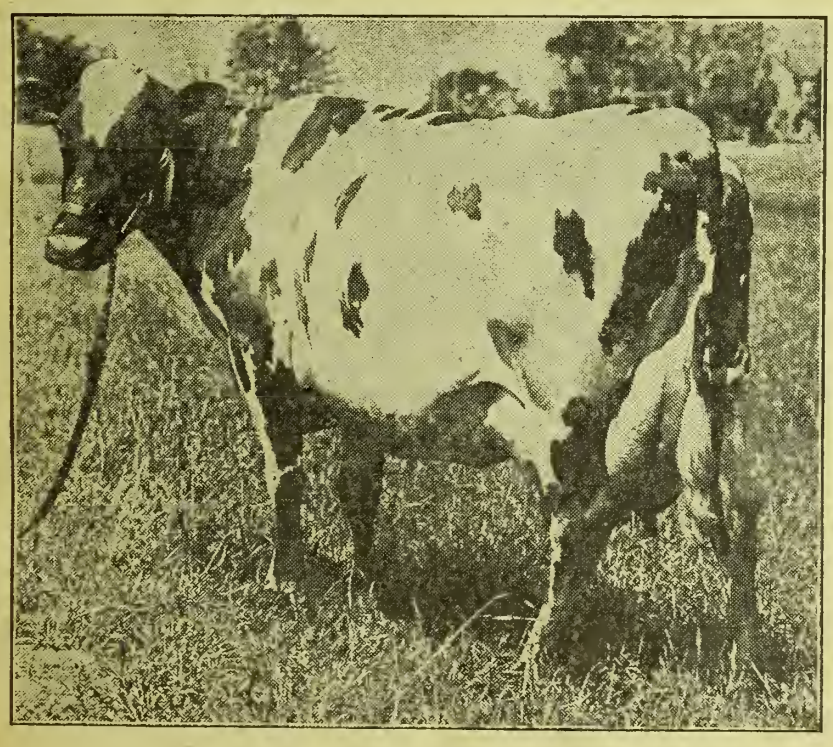
The unusual conditions brought about by the war bring to us more strongly than ever the need of a cow testing association in this county. We cannot afford to sink profits in unprofitable cows. Feeds are too high. Let us get our association started so that we may have cost figures. It will come in handy some day from the standpoint of dollars and cents. Remember, we need results.—H. L. POPENOE, Lyon County.

Another Ayrshire Champion

Willowmoor Lily 5th has just finished her year's test for the French prize cup in the junior three-year-old class with a record of 14,577 pounds milk and 662.53 pounds fat, average test 4.55.

She is the daughter of the famous Lily of Willowmoor, holder of the Ayrshire world's champion record for butter fat, bred and owned by J. W. Clise, Washington, and sired by Willowmoor Sentinel, whose dam is the champion cow, Gerranton Dora 2d Imp. Willowmoor Lily 5th seems to inherit both the milk producing tendency of her dam as well as the high quality.

To spread manure evenly and finely is very important. The well pulverized and evenly distributed manure as spread by a good manure spreader is more readily incorporated with the soil and gives quicker and greater returns than can be secured from hand-spread manure. A number of comparative tests indicate that two tons of manure applied with a manure spreader will have the efficiency of three tons spread with a fork.



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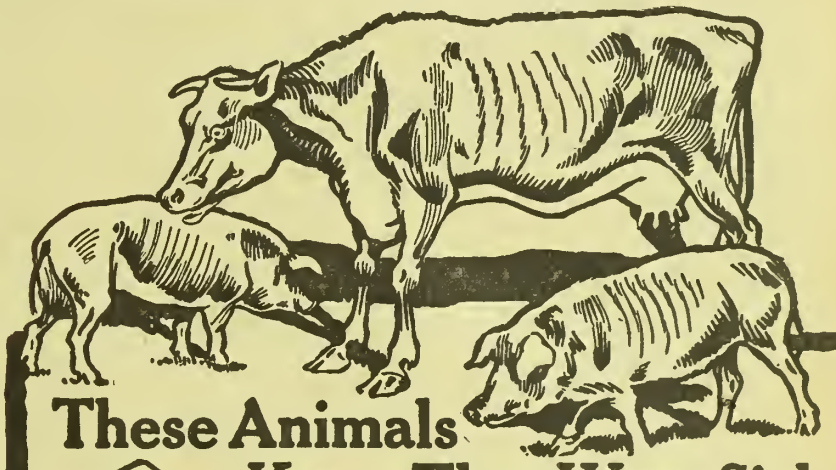

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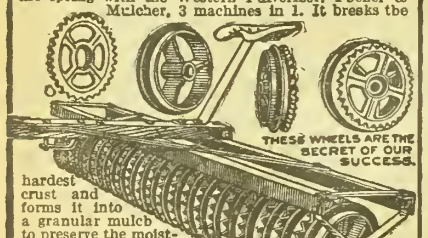

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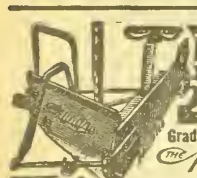

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WAR TIME FARMING

By W. M. JARDINE, Before State Board of Agriculture

WAR-TIME farming began in the United States when Germany invaded Belgium in her drive towards Paris and instantly disturbed the economic balance of the world. The United States advanced to first place in production, while the European nations bent every energy in preparing for the work of destruction. The demand for foodstuffs, munitions, and other supplies initiated a period of great activity and prosperity in the United States. Kansas, an agricultural state, felt the effect immediately in the greater demand for her products, rising prices, aroused interest in agriculture, and increased prosperity. Kansas soon found, however, that her new activity and prosperity were not unmixed. The unprecedented demands for guns, munitions, motor trucks, boots and shoes, medical supplies, and other manufactured articles had set the manufacturing plants going full blast in the United States; also in Canada, and in addition Canada was shipping out as rapidly as possible her most able-bodied men, 33,000 of them within six weeks after war was declared and between 350,000 and 400,000 men by April, 1917. Canadian authorities were forced into aggressive action to secure men to keep their industries in operation and many men, answering to the lure of high wages, crossed over from the States to fill the ranks of workers in Canada. The period of abundant labor in the United States was at an end, and the 50,000 to 60,000 transient laborers upon whom Kansas had relied for help in harvesting her big wheat crops were no longer available.

SPRING DRIVE ON KANSAS FARMS

When the United States entered the war on April 6, 1917, war-time farming in this country took on a new note. Food was needed urgently and must be kept moving in a continuous stream from this country to the allies and allied armies. The conflict became a battle in food production between American farmers and German farmers. The agricultural situation in this country was already serious. A curtailed production of wheat in 1916 and the constant European drain had left us with a dangerously small carry-over of this breadstuff. In Kansas a record-breaking area of 9,587,000 acres was planted to wheat in the fall of 1916, only to encounter the most adverse weather conditions. Only a little more than 3½ million acres were harvested, with a total production of not quite 41½ million bushels. Drouth, winter killing, and soil blowing were responsible for the loss.

The State Council of Defense recognized at once that the first job before Kansas farmers was that of getting the maximum amount of the abandoned wheat land into spring crops. With a larger acreage than ever to be planted, good seed and labor were scarce. To meet the situation a preliminary survey was made of the state's agricultural resources and information obtained on the amount of idle land in the state, the best crops to plant, the labor situation—including man, horse, and machine power—and the available seed supply, including names and addresses of farmers having seed for sale, the counties lacking seed, and the kinds needed. A seed list containing this information was issued and given wide distribution.

ACCOMPLISHMENTS IN PRODUCTION

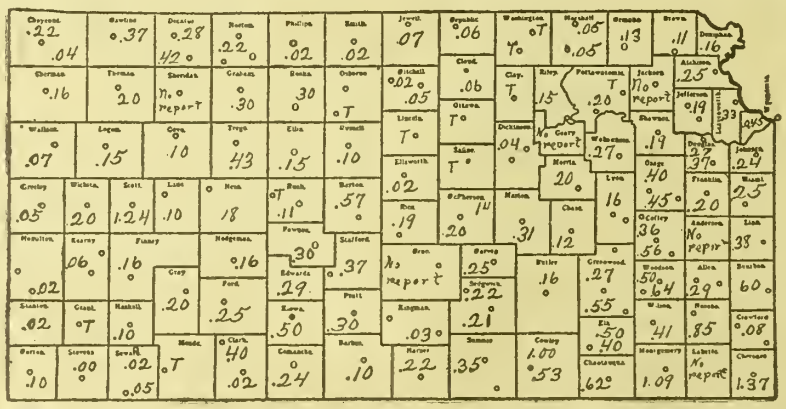
As a result of the great effort made by farmers and all agencies co-operating, approximately 5,000,000 acres of abandoned wheat land were planted to spring crops, 2,800,000 acres to corn and the remainder to oats, the sorghums, and other crops. More than 128,000,000 bushels of corn were produced, being more than twice the production of 1916 and exceeding the five-year average by nearly 8,000,000 bushels. At the end of the season the farm value of the agricultural products of Kansas was $507,225,000, exceeding the next best record—that of 1914—by $131,000,000. This value resulted not entirely from increased production, but partly from increased prices which farmers received for farm products. The price of wheat in 1917, given as $2.06 a bushel, is an increase of 71 cents over the price of 1916. The price of corn given as $1.13 a bushel is an increase of 30 cents over that of 1916. These prices for wheat and corn have been equalled only once—in 1864, when wheat sold for $2.01 and corn for $1.37 a bushel.

SHORTAGE OF SEED WHEAT

The next problem confronting Kansas farmers was the seed wheat supply for fall planting. Enough wheat was being produced in the state to supply our own needs and Nebraska's also, as far as quantity was concerned, but only a limited amount of this was hard winter wheat, the kind raised in the great wheat belt of Kansas and the kind upon which Kansas has established her reputation as a wheat-producing state. There was also a question about the quality of much of the wheat produced, some fields containing rye and some being mixtures of hard and soft wheats. Kansas wheat has come to be regarded as second to none in purity and high milling quality. To safeguard this prestige it was necessary that an adequate supply of seed of pure, hard red winter wheat be made available to farmers. The State Council of Defense detailed to the State Board of Agriculture and the Agricultural College the task of conducting a personal inspection of fields of wheat over the state. Practically all of the fields of good wheat in twenty-six counties in the

Rainfall Over Kansas for December

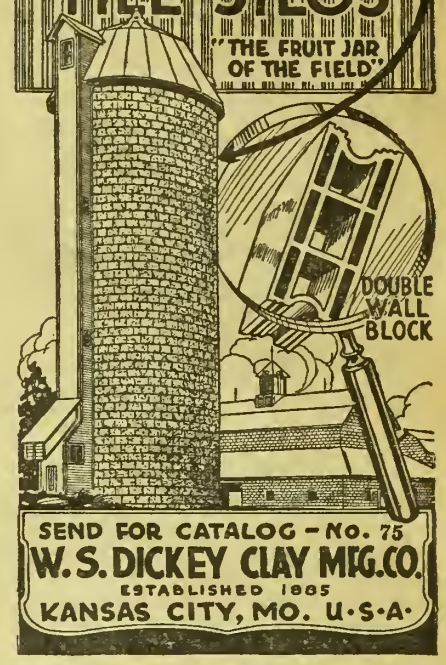
Reports Furnished by S. D. Flora, Meteorologist, Weather Bureau, Topeka



THIS was one of the driest Decembers on record in Kansas and closed the driest three-months period ever recorded at this time of the year and the driest year in the history of the state since the general weather was begun in 1887. Most of the month's moisture occurred as snow, which fell from the seventh to the eleventh and protected the wheat during some of the severely cold weather, but it disappeared within ten days and hardly furnished moisture enough to wet the surface of the ground when it melted. Wheat is badly in need of moisture in all parts. It greened up a little in some counties after the snow melted, but, as a whole, it has deteriorated since November. Corn dried out considerably in the eastern counties and the greater part of it is now cribbed.

DICKEY GLAZED TILE SILOS

"THE FRUIT JAR OF THE FIELD"



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south central part of the state were visited by trained men. The results of the inspection were tabulated and published in the form of a circular giving the names and addresses of the farmers having seed for sale, and the variety, quantity, and purity of the same. The list included a total of more than 4½ million bushels of seed of hard red winter wheat suitable for planting. This list was of great aid to farmers in securing seed wheat, many ordering direct from other farmers whose names and addresses were listed and effecting thereby a saving of from 50 to 75 cents over the cost through other sources.

INCREASED WHEAT ACREAGE

The program of the U. S. Department of Agriculture called for the planting of 47,337,000 acres of winter wheat in the United States in the fall of 1917, an increase of more than 7,000,000 acres above the record acreage planted in 1916. Kansas was one of six states asked to furnish one-half of this increase. The quota assigned to Kansas was 10,000,000 acres. Indications are that 9,480,000 acres were seeded, which is within 5.1 per cent of the desired acreage and within 1 per cent of the acreage planted in the state in 1916. Kansas farmers evidently did their best to come up to the ten million mark set for them and they deserve special credit for the accomplishment in view of the obstacles encountered. In the best part of the Kansas wheat belt, several million acres of wheat land were planted to corn or the sorghums last spring. The difficulty of seeding wheat on land that has been in corn or the sorghums during the summer was increased by the slowness of the corn in maturing. Persistent drouth was present throughout a large part of the state. In some sections the shortage of labor was keenly felt. Seed wheat of good grade was scarce or had to be obtained from a distance at a high price. It was a combination calculated to test the mettle of the most patriotic optimist. Kansas is proud of the fact that her farmers, in the face of mutual obstacles, planted almost as large an acreage as in 1916 and within 5.1 per cent of the amount asked of the state. It is evident that the farmers are wholeheartedly assuming their responsibilities in the present food crisis and the nation's need.

PLANS FOR COMING YEAR

The task occupying our attention now is the planting of the maximum acreage of spring crops. What is the situation? What problems are involved? The foremost problem is undoubtedly that of the seed supply.

Killing frosts and abnormally low temperatures early in October put a premature end to the growing season and checked the normal maturing of corn and the sorghums. Reports from different counties where personal inquiry has been made are to the effect that the shortage of good seed is twice as great as last year. While a large corn crop was produced, 45 per cent of it was soft and fit only for feeding live stock. All of it contained an unusually large percentage of water and the severe freezes in December undoubtedly ruined much that had been selected for seed. Not in thirty years has the seed corn situation in Kansas been so desperate. From twenty to thirty-six Central and Western Kansas counties will have to import seed corn, a treacherous practice in normal times and doubly so this year because the eastern counties may not be able to supply all that is needed.

The scarcity of sorghum seed is even more acute than that of corn, as the early October frosts damaged 50 to 75 per cent of the crop. The sorghums are the mainstay of Western Kansas. They always produce forage and will produce grain under conditions impossible for corn. They are necessary for the maintenance of the live stock industry in Western Kansas. No land adapted to the sorghums should lie idle.

SEED MUST BE MOBILIZED

The seed situation is accentuated because of the fact that the states about us are in even worse plight as regards seeds than we are. Seed is now being shipped from Kansas into other states and unless we proceed at once to mobilize our seed supply, what we have will be taken away from us. Farmers having good seed of corn or the sorghums should not feed it to live stock, but reserve it for seed. The State Council of Defense is preparing to make an inventory of the state's seed supplies and desires the earnest co-operation of everyone. Anyone knowing of the existence of good seed should communicate at once with Secretary Mohler at Topeka, or the Agricultural College at Manhattan.

Much of the seed is low in germinating power and practically all of it should be tested before planting. The Agricultural College will make germination tests for farmers who will send in samples of their seed. The county, district, and emergency agricultural agents are also glad to perform this service. The school children of the state will be asked to co-operate in this work. Circular 1 of the Council of Defense tells how to test seed and can be had upon request. The price of farm crops will be high. Food is needed in increasing quantities by a world facing want. We cannot afford to plant seed that we do not know will grow.

LABOR SITUATION SERIOUS

The second pressing problem entering into the crop campaign of 1918 is labor. Approximately 25,000 young Kansans have entered military service and this number will be increased when the next quota is called. The floating labor population upon which we have depended in the past for help in critical seasons, especially in wheat harvest, is no longer available. The farm labor situation is serious and affects the nation as a whole. Food production must not be curtailed. Crops must be planted and harvested. How is it to be done?

We are fortunate in having for our encouragement an example in Canada of a nation, compared with whose accomplishments under the most adverse conditions we have not yet made a beginning. Canada has a population of less than 7½ million people, yet has given a half million men, or 6.66 per cent of her population, to the army. When Kansas has given 6.66 per cent of her population to the military service, the number will be more than 115,000 instead of the 25,000 at present. With such a labor shortage, Canada has suffered no curtailment in agricultural production; in fact they produced more foodstuffs last year than ever before. They have been able to do this because of the unstinted co-operation received from all classes, especially from women. Compared with Canada we are well supplied with labor at present. Our job is to organize our forces, employ system and good management, eliminate nonessential activities, and direct the available man, horse and machine power in such manner as to achieve maximum production per unit of labor. The goal we seek must be maximum production from the fewest acres possible, rather than expansion of acreage, thereby reducing the required labor to the minimum. We must use the best farming methods and stick to the staple crops—those we are familiar with and have the facilities to plant, harvest, and handle. We must do no experimenting in this critical time.

TRACTOR WILL HELP

Doubtless a large factor in meeting changed labor conditions will be the tractor. Tractors can be used to good advantage for July and August plowing when heat and drouth frequently make it difficult to use horses. Early plowing increases subsequent yields materially, as has been proved by tests at the Experiment Station as well as by the practical experience of farmers. Tractors can be used to do job plowing as job threshing, silage cutting, and hay baling are done, and thus render aid to the small farmer who cannot afford to own a tractor.

Another important available source of farm labor is the boys in cities of first and second class between the ages of sixteen and twenty-one. There are between 15,000 and 20,000 of these, more than half of whom are enrolled in high schools and will be open for summer employment. This source of relief should be utilized to the utmost. I am glad to say that a plan is now under way whereby it is expected to give the boys preliminary training to fit them to enter farm service readily and develop into useful farm help. They will be taught how to bridle, harness, and care for a horse, how to milk a cow without drying her up, to do chores, and be generally useful on the farm.

Breed for Some May Pigs

Sows bred at this time of the year and for the next three weeks will farrow in May. In many sections this is not a bad time for market hogs to be farrowed. Generally the grass is good, there is plenty of sunshine in warm weather and the pigs get an excellent start, something very essential to a good outcome. By the time the pig is weaned new grains that have been raised this year will have been harvested. Barley, rye and oats all make splendid feed for growing pigs. They can be carried along with these feeds, plus pasture, until the new crop of corn becomes available, and in looking at the matter from many viewpoints May pigs are among the most profitable that can be raised. Every hog grower knows that hogs that have been properly grown during the summer time put on flesh rapidly when they have access to new corn.

In this connection it is a good plan to arrange for a small patch of ninety-day corn. This is good feed in August, and if the field is large enough will carry the pigs along until the main corn crop is ready for feeding.

If the hog grower has not permanent pastures of alfalfa, clover or other grasses he can make temporary pasture by the heavy seeding of rye, oats, barley or wheat. These various grains can be sown in rich soils, very often in the hog lots, at the rate of anywhere from two or three to five or six bushels per acre. Dwarf Essex rape can be grown quite successfully and makes mighty good hog pasture. If you have not already arranged to increase your number of hogs this year, why not try breeding a few sows for May farrowing?

Join with your neighbors in buying spraying materials, and thus get the benefit of wholesale prices.

Stock Owners—Here's Your Answer

What is Pratts Animal Regulator?

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Medicinal herbs, roots, etc. Natural tonics, appetizers, digestives, blood-purifiers, worm-expellers. A scientific, perfectly-balanced combination needed by working, producing and growing animals.

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Pratts Animal Regulator improves and preserves health and, *in a natural way*, increases strength, growth and production. Prevents most diseases. Saves feed by aiding digestion. Makes rich, red blood and improves circulation. Regulates the bowels. Expels irritating worms. Makes livestock more profitable.

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Daily, in small quantities, mixed with the feed. Full directions with each package.

What does it cost?

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Where can I get it?

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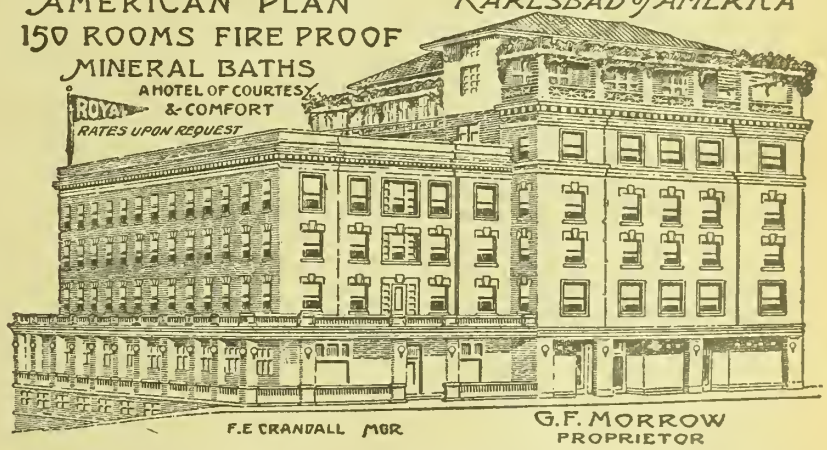

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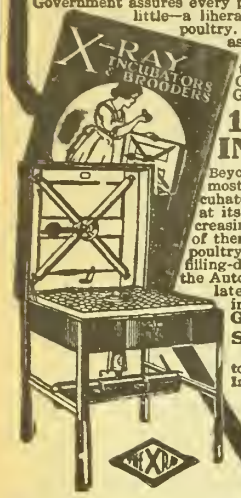
Inside Facts About Good Poultry Profits

THE U.S. Government declares we must raise One Hundred Million pounds of poultry in 1918. The world stands ready to buy twice as much eggs and poultry as all America produced in 1917. The Government assures every poultry raiser—big or little—a liberal price for eggs and poultry. You *can* raise twice as many chickens this year, and make 4 times the profit! Get busy! Cash in big this year. Get the best batcher—a



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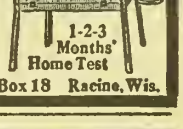

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Eight miles from Osage City; highly improved. Six-room house, barn for ten head with loft, double granary. Ten acres alfalfa, forty acres corn, twenty acres in wheat, balance pasture with running water. Price, $45.00 per acre.

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Or will trade all or part for live stock.
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A serious problem that confronts the cattle producer is the cost of maintaining a breeding herd. With the judicious use of straw, silage, and cottonseed meal the problem becomes less perplexing. In periods of normal prices, cows at the Kansas Experiment Station that were receiving silage and cottonseed with other roughages such as straw and kafir butts, were maintained during the winter months at a cost slightly less than 4 cents a day and were in thrifty condition when turned to pasture in the spring. Maintaining a cow herd when properly managed is profitable. The greatest difficulty at present is getting the cottonseed meal.



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BREEDING AND FEEDING

WHY is it that we hear so much talk of balanced rations, different kinds of feed, and the different methods of feeding? Feeding has considerable bearing on the number of eggs laid, but more real progress can be made through improved methods of breeding and selection than through feeding. Did you ever stop to think that it is really impossible to balance a ration for the entire flock of fowls? You can feed a ration that is properly balanced if eaten in the right proportion, but if your birds will not eat the food in this proportion they are not getting a balanced ration. Suppose, for instance, we feed a dry mash in hoppers that will balance with a scratch feed of equal parts of wheat and corn if they eat an equal amount of dry mash and scratch feed. Some birds will not touch the wheat and eat nothing but the corn, with the result that they get too fat to lay. Others will eat both wheat and corn but will not touch the dry mash. Regardless of what we hear about the absolute necessity of feeding a balanced ration, the best that we can do is to supply the necessary foods and let the hen balance the ration herself.

Dairymen have made great progress in feeding balanced rations because they do not feed their cows as a herd but feed each one separately. The dairyman soon learns just what proportions of different foods are required for the maximum production, but the poultryman is up against a different proposition because he cannot feed each hen separately. Advocates of the absolute necessity of feeding a balanced ration point to the dairy industry as an example of what can be accomplished by feeding certain mixtures, but feeding cows and feeding hens is an entirely different proposition and cannot be considered in discussing the merits of balanced rations.

So much has been written concerning balanced rations that many poultry keepers get the idea that it makes no difference what is fed or how it is fed so long as it is a balanced ration. It is just as important to know how to feed as it is to know what to feed. In cold weather when all grain is fed in a deep litter, the average poultryman will throw the grain on the litter, not realizing that within three days after fresh straw is put into a house it is cut up so fine that the grain will lay on top of the litter and the birds simply pick it up and then sit around and wait until the next meal. The proper way would be to throw the litter onto the feed, then the fowls could not get the grain until they had worked for it, thus securing the necessary exercise for good health and heavy egg production. The litter should be eight or ten inches deep, the grain should be thrown over the whole floor and the litter stirred up so that the grain will all go to the bottom. If this is done at every feeding, it will only be necessary for the feeder to drag his feet through the litter as he scatters it around, thus turning the straw over completely.

While it is very important to know what and how to feed, more real progress can be made through selection and breeding than through feeding. The best of care and food will not make a bird with big thick pelvic bones a good layer any more than heavy feeding will make a draft horse out of one bred for racing. Select birds with thin pelvic bones and large space between the rear of the breast bone and the two pelvic bones. Male birds should be selected the same way, always being careful that only the most vigorous and healthy specimens are used in the breeding yards. In the egg laying contests we often find in a house containing two strains of birds that one pen will win the blue for the greatest egg production while the other will not have a single egg to its credit. Why is it? Both pens were fed in the same way, ate of the same food and drank out of the same fountain. The answer is simply, Breeding. Some poultrymen feed for eggs, others breed for eggs, but the successful man is the one that does both. A poorly bred bird will not lay regardless of feeding any more than a poorly fed one will lay even though it may have the best of breeding back of it. Feeding and breeding go hand in hand and one is indispensable to the other.—MELVIN P. UPHOFF, Leavenworth.

Mites and Lice on Poultry

Lousy hens won't lay. Uncle Sam will tell you how to rid your hens of lice in an easy and cheap manner. Write L. W. Burby, Extension Poultry Husbandman, Manhattan, Kansas, for a copy of the Government's free bulletin, "Farmers' Bulletin No. 801, Mites and Lice on Poultry." It explains the different varieties of mites and lice and what to use to kill them. It has been found that sodium fluorid is the best and cheapest method of killing poultry lice. It is cheap and can be applied in pinches over the fowl's body in ten places and will be effective. If your local druggist doesn't carry sodium fluoride in stock, he will procure it for you.

It will pay you to keep pure-bred poultry. If you will settle on a popular breed and a good laying strain, you will have an outlet for stock at good prices other than market poultry and eggs for food. There is a demand for good poultry. Eggs for hatching may be sold from one dollar per thirteen up, depending on the grade of stock; also good developed stock brings high prices as breeders. The males are thus disposed of for breeding purposes instead of going to the pot. Standard-bred poultry are more interesting to work with than mongrels. They are all of a color and size and bring better prices and their eggs are more nearly alike and look much better than those from mongrel flocks.

Every poultry keeper, old or new, should own and operate at least one good incubator. Buy an incubator and use it! It will be the most patriotic and profitable investment you have made. Hatch all the chicks you can possibly care for yourself and enough extra to sell to your neighbors. And when you buy, be sure to order early. The manufacturers of good incubators are preparing for a big demand. You may rightly expect prompt attention to your order, but delays by freight or by express cannot be helped in many cases. Do your part and start the New Year right by ordering the incubator in plenty of time.

Good news comes from Washington to the effect that the manufacturers of poultry and live stock commercial feeds have agreed to come under the control of the U. S. Food Administration. With regulated operations we may expect that an important step has been taken to assure the poultry keeper that his feed bill is right. When the speculator and gambler in straight grains, such as corn and oats, are brought under control, the feed manufacturer can buy right and the poultryman will be relieved of his present greatest burden—excessive feed prices.

The partial open-front poultry house is conceded to be the best type for most sections.

Wonderful Egg Producer

Any poultry raiser can easily double his profits by doubling the egg production of his hens. A scientific tonic has been discovered that revitalizes the flock and makes hens work all the time. The tonic is called "More Eggs." Give your hens a few cents worth of "More Eggs" and you will be amazed and delighted with results. A dollar's worth of "More Eggs" will double this year's production of eggs, so if you wish to try this great profit maker, write E. J. Reefer, poultry expert, 4631 Reefer Bldg., Kansas City, Mo., who will send you a season's supply of "More Eggs" Tonic for $1 (prepaid). So confident is Mr. Reefer of the results that a million dollar bank guarantees if you are not absolutely satisfied your dollar will be returned on request and the "More Eggs" costs you nothing. Send a dollar today or ask Mr. Reefer for his free poultry book that tells the experience of a man who has made a fortune out of poultry.—(Adv.)

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S. C. W. LEGHORN COCKERELS (Young's strain). Elsie Thompson, Mankato, Kansas.

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FOR SALE—BOURBON RED TOMS, $6 each. Mrs. Frank O'Connor, Hartford, Kan.

MAMMOTH WHITE HOLLAND TOMS, $6.50; hens, $5. Not related. Mrs. Frank Wilson, Peabody, Kansas.

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CHAMPION BRONZE TURKEYS, SIRED by sons of my 52-pound champion tom. Winners America's largest shows. Have pleased customers in thirty states. $7.50 up to $25 each. Ike Hudnall, Milan, Mo.

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Over 700 illustrations of vegetables and flowers. Send yonrs and your neighbors' addresses.

R. H. SHUMWAY, Rockford, Ill.

PURE BRED POULTRY

DUCKS AND GEESE.

BUFF DUCKS, $1.50 EACH. PAIR NARragansett turkeys, $9.50. Mrs. Frank Neel, Beverly, Kansas.

PURE-BRED WHITE INDIAN RUNNER ducks, $5 per trio. Mrs. Keating, Spalding, Nebraska.

TOULOUSE GEESE—BIRDS FROM prize winning stock. Mary O'Mara, Colony, Kansas.

400 DUCKS—ROUEN, MOSCOVY, ORPington, Runners. Silver-laced Wyandotte and Rhode Island Red cockerels. Fred Kucera, Clarkson, Neb.

FAWN AND WHITE INDIAN RUNNER drakes, Federation winners, and White Rocks, cockerels. Mrs. J. F. Romary, Olivet, Kansas.

ORPINGTONS.

FINE BUFF ORPINGTON COCKERELS, $2 to $4. Chas. F. Hoferer, Wamego, Kan.

BUFF ORPINGTON COCKERELS, $2-$5 each. Mrs. Wm. Glen Davis, Route 5, Clay Center, Kansas.

FINE BUFF ORPINGTON COCKERELS, $2 and $3. Mary E. Price, Route 7, Manhattan, Kansas.

WHITE ORPINGTONS — WON AT SEdalia and St. Joseph. Eggs ready now. Cape Poultry Farm, Cape Girardeau, Mo.

BUFF ROCKS AND BUFF ORPINGTONS. Closing out sale, half price. Laying strain. Winners Texas and Kansas state shows. Eggs for hatching, fancy show pens. Write me. John A. Cragan, Kingman, Kansas.

FOR SALE — GOOD PURE-BRED S. C. Buff Orpington cockerels, early hatch, good vigorous birds that will please, $2 to $3 each. Thos. D. Marshall, Sylvia, Reno Co., Kansas.

WYANDOTTES.

CHOICE WYANDOTTE HENS, $2. MRS. Edwin Shuff, Plevna, Kansas.

SILVER WYANDOTTE COCKERELS from a laying strain. Henry L. Brunner, Newton, Kansas.

FINE WHITE WYANDOTTE COCKERels, $2 each. Mrs. C. C. Kagarice, Darlow, Kansas.

ROSE COMB BUFF WYANDOTTE COCKerels, extra fine, $5. Rachel Hind, Madison, Kansas.

EXTRA CHOICE ROSE COMB SILVER Wyandotte cockerels, $3 each; six for $15. Eggs in season. Mrs. Philip Schuppert, Arrington, Kansas.

POULTRY WANTED.

POULTRY PRICES NEVER HIGHER IN Kansas. Advise your offerings. Will make cash bid, furnish coops, daily remittance. All kinds wanted. Pigeons, $1 dozen. The Copes, Topeka.

Prayer at Morning

The day returns and brings us the petty round of irritating concerns and duties. Help us to play the man, help us to perform them with laughter and kind faces, let cheerfulness abound with industry. Give us to go blithely on our business all this day, bring us to our resting beds weary and content and undishonored, and grant us in the end the gift of sleep.—ROBERT LOUIS STEVENSON.

The Low Cost of Health

Fresh air, exercise, simple diet, proper mastication, clean teeth, clean thoughts, a cheerful disposition.

Anyone can afford these.—Bulletin Kansas State Board of Health.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

When the Birds Go North Again.

Oh, every year hath its winter,
And every year hath its rain—
But a day is always coming
When the birds go north again.

Oh, every heart hath its sorrow,
And every heart hath its pain—
But a day is always coming
When the birds go north again.

'Tis the sweetest thing to remember
If courage be on the wane,
When the cold, dark days are over—
Why the birds go north again.
—Ella Higginson.

Hygienic Sinners

The cook who tastes from the pot and stirs with the tasting spoon.

The restaurant toothpick and the cigar cutter.

The roller towel.

The milkman who takes the temperature of the milk with his finger.

The grocer who moistens his finger to lift the tissue paper he puts over your butter.

The housewife or janitor who dry-sweeps the floor.

The great common public who spits, coughs, and sneezes, "at large."—Bulletin Kansas State Board of Health.

Rice Combined with Meat

Rice combines well with any sort of fish, flesh, or fowl, and the mixture furnishes the nourishment of both bread and meat. Nothing more is needed for a properly balanced dinner but a dessert of stewed fruit or a green salad. Wash a cup of rice in several waters. Drop slowly into a quart of boiling water, salt to taste, boil for fifteen minutes, then cover and place on the back of the stove where it will finish swelling without burning. Cook until tender, without stirring. Arrange rice in a ring on a hot dish and place in the center any meat hash, stew, creamed fish, or chicken.

For many of these dishes a cream sauce may be used. To make this, stir two tablespoonfuls flour and one-half teaspoonful salt into two tablespoonfuls bubbling hot fat, add a small amount of milk, mix well, then add remainder of two cupfuls of milk, and cook, stirring constantly until it thickens; boil one minute; add seasonings to suit the dish prepared. Tomato juice may be used instead of milk.

Chicken Curry.—Add two cupfuls cold chopped chicken to two cupfuls cooked white sauce; season with one teaspoonful curry powder, heat thoroughly and dish into the rice. Mushrooms and a little celery top, chopped fine, may be used instead of curry powder.

Stock in which the chicken has been cooked may be used instead of white sauce in preparing this dish. Thicken the stock as for chicken gravy; season to taste, and add chopped chicken.

Creamed Oysters.—Drain liquor from a pint of oysters and add to it enough water to make a pint of liquid; follow directions for white sauce, using this liquid instead of milk; season with pepper, salt and bits of celery top; add oysters, and cook until the thin edges wrinkle; remove from fire and serve at once with rice.

Creamed Fish.—Wash one-half pound fish and soak several hours; flake, cover with boiling water and cook fifteen minutes; drain and cook a few minutes in two cupfuls white sauce. In preparing white sauce for fish, cook a chopped onion in fat before adding flour; dish into the hollow of rice, sprinkle top with paprika or red pepper and chopped parsley, and serve very hot.

Follow same directions for cooked fresh fish or canned salmon, allowing two cupfuls cream sauce to a cupful of fish.

Left-Overs.—Any meat or chicken that can be converted into a hash or stew can be used with this dish of rice. Cook meat thoroughly, season well, provide plenty of gravy and dish into the hot rice.

It is more scientific as well as more blessed to prevent than to cure.

A stiff upper lip doesn't amount to much if the lower jaw is too limber.—The Advertising Age.

I Am the Baby

I am the baby.

I am the youngest institution in the world—and the oldest.

The earth is my heritage when I come into being, and when I go I leave it to the next generation of babies.

My mission is to leave the earth a better place than I found it.

With my million little brothers and sisters I can do this, if the world does not impose too many handicaps.

I need pure milk and fresh air and play.

I want to live, laugh, love, work, play.

I want to hear good music, read good books, see beautiful pictures.

I want to walk in the woods, bathe in the waters, and play in the snow.

If you will make my way easy now, I will help you when I grow up.

I am your hope—I am the baby.—New Haven Bulletin.

War Pastry—Tarts

The following wheatless and part wheat pastries are offered to patriotic housewives. Line tart tins or muffin tins with one of these, rolled thin. Bake before filling.

No. 1—Combine as for other pastry the following ingredients, adding enough water for a stiff dough:

2 cupfuls barley flour
¼ teaspoonful salt
⅓ cupful vegetable fat
½ teaspoonful baking powder

No. 2—Combine ingredients as usual, using enough liquid to make a dough that can be rolled thin. Bake in quick oven:

½ cupful corn meal
½ cupful wheat flour
½ teaspoonful salt
1 tablespoonful fat
3 tablespoonfuls milk

No. 3—Scald two cupfuls finely ground oatmeal with one cupful boiling water; add one teaspoonful vegetable fat; roll very thin and bake in quick oven.

For filling the tart shells use cranberries cooked with a cupful of white corn syrup into which a teaspoonful of cornstarch has been stirred, or a mixture of raisins and cranberries prepared in the same way. Apple sauce sweetened with white syrup instead of sugar and with chopped nuts sprinkled over the top and a square of jelly placed in the center makes a tart which tastes as good as it looks. A mixture of raisins and apples is also good. For special occasions try one of the following:

Orange Filling—

1 cupful boiling water
4 tablespoonfuls cornstarch
1 large juicy orange
⅔ cupful white corn syrup
1 teaspoonful lemon juice
3 eggs

Rub cornstarch smooth with a little cold water, add the boiling water, and cook for five minutes. Add the pulp and part of the grated rind of the orange, the syrup and the lemon juice; heat thoroughly and pour slowly on the beaten yolks of the eggs; beat well; pour into tart shells; cover with meringue made from the whites of the eggs and flavored with lemon juice; sprinkle with grated lemon peel and brown in oven. Serve cold.

Daisy Tarts—These will please the children. Seed and mix one-half cupful each of raisins and dates; put fruit through food chopper; fill tart shells. Form a daisy with center of yellow preserves or candied orange peel, using almonds cut lengthwise for the petals.

The only way to make money is to render a service for humanity—to supply something that people want. He who confers the greatest service at the least expense is the man whom we will crown with honor and clothe with riches. —ELBERT HUBBARD.

Buy a Liberty health bond at the cost of a clean, sane life; it will pay you compound interest in the joy of living.

HOTEL KUPPER

Eleventh and McGee Streets

KANSAS CITY, U. S. A.



Located in center of shopping district, convenient to car lines, stores, and all points of interest. Direct car line to stock yards. The hotel of quality, comfort and refinement.

European Plan, $1.00 to $2.50 per Day.

Cafe in Connection.

KUPPER-BENSON HOTEL COMPANY

Walter S. Mars, Manager

SCHOOLS AND COLLEGES



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119 East Eighth St., Topeka

"Sneezing at large" is a sanitary misdemeanor.

FASHION DEPARTMENT.

This department is prepared especially in New York City, for Kansas Farmer. We can supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10 cents each, postage prepaid. Full directions for making, as well as the amount of material required, accompanies each pattern. When ordering, all you have to do is to write your name and address plainly, give the correct number and size of each pattern you want, and enclose 10 cents for each number. We agree to fill all orders promptly and guarantee safe delivery. Special offer: To anyone ordering a pattern we will send the latest issue of our fashion book, "Every Woman Her Own Dressmaker," for only 2 cents; send 12 cents for pattern and book. Price of book if ordered without pattern, 5 cents. Address all orders for patterns or books to Kansas Farmer, Topeka, Kansas.



No. 8361—Ladies' Dress: Cut in sizes 34 to 42 inches bust measure. Long or short sleeves may be used and the gathered skirt is cut in two gores. **No. 8360—Boys' Suit.** Cut in sizes 2, 4 and 6 years. The suit consists of a middy and straight trousers. **No. 8365—Ladies' Skirt:** Cut in sizes 24 to 32 inches waist measure. The skirt is cut in four pieces and may be made with or without the pockets and belt.

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

HELP WANTED.

THOUSANDS U. S. GOVERNMENT WAR jobs open to farmers, men-women 18 or over. $75 to $150 month. Pleasant work. Write for list positions open. Franklin Institute, Dept. L-82, Rochester, N. Y.

WANTED—ACTIVE MEN WITH FARMer acquaintances to sell pipeless furnaces. Splendid line. Good proposition to offer. Richardson & Boynton Co., 171 W. Lake St., Chicago, Ill.

WANTED—RELIABLE AND EFFICIENT married couple to help on farm. Man to be regular month hand, woman to give part of her time to domestic service. New five-room residence, garden and wood free. State qualifications when writing. George L. Clothier, Florence, Kansas.

REAL ESTATE.

FOR SALE — HATCHERY AND WHITE Leghorn farm worth $10,000. Price now $8,500. Colwell, Smith Center, Kansas.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 15 St., Chippewa Falls, Wis.

SELL YOUR PROPERTY QUICKLY FOR cash, no matter where located. Particulars free. Real Estates Salesman Co., Dept. 77, Lincoln, Neb.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

COLLIE PUPS OF BEST BREEDING.—E. L. Dolan, Route 2, Platte City, Missouri.

AIREDALES AND COLLIES—GREATEST of all pups. Grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

HORSES AND MULES.

MUST SELL QUICK, REGISTERED GRAY Percheron stallion, eight years old, ton horse; black jack, nine years old, weight 1,000, good breeder. A. B. Harms, Princeton, Kansas.

FOR SALE OR TRADE — GERMAN Coach stallion, nine years old, weighs 1,500, extra good individual. Also five-year-old jack, a dandy, and a coming two French Draft black stallion. Geo. Molby, Barnes, Kansas.

CATTLE.

REGISTERED GUERNSEY BULL CALVES —R. C. Krueger, Burlington, Kansas.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE — REGISTERED HOLSTEIN bull, large and finely bred. Sand Springs Home, Drawer D, Sand Springs, Okla.

REGISTERED HOLSTEIN BULLS FROM good milking strain. Wm. C. Mueller, Route 4, Hanover, Kan.

AYRSHIRES FOR SALE — PURE-BRED, registered bull calves, up to twelve months old. Best of breeding. Call or write. Geo. A. Nelson, Milltown, Wis.

HIGH-GRADE HOLSTEIN CALVES, either sex, 15-16ths pure, beautifully marked and from high producing dams, four to seven weeks old, $25 crated. Express paid to any station. Reliance Stock Farm, Whitewater, Wisconsin.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

SEEDS

WHITE SWEET CLOVER AND ALFALFA at farmers' prices. John Lewis, Madison, Kansas.

SEED CORN—BOONE COUNTY WHITE, Gold Mine, Big Calico, $3 per bushel. Alfalfa seed, $11. Red Texas seed oats, $1. J. F. Feigley, Enterprise, Kansas.

TANNING.

LET US TAN YOUR HIDE: COW, HORSE or calf skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

VIOLINS.

VIOLIN FOR SALE—HAS SWEET TONE. Free trial. Easy payments if wanted. Write Miss Bertha Mardiss, Route 5, Rosedale, Kansas.

INCUBATORS.

RAYO INCUBATORS, REASONABLE. Mrs. Walter Robb, Neal, Kansas.

MISCELLANEOUS.

NEW ZEALAND RED RABBITS, $1.50 each. Harold Fagan, Minneapolis, Kansas.

THIRTY DIFFERENT MAGAZINES, late issues, value $3, yours for 25c prepaid. Eastern Bureau, New Egypt, N. J.

PRINTED ENVELOPES AND LETTERheads, postpaid, 100 of each, $1.25; 500 of each, $3.75. Agents wanted. Samples free. Dunagan Printing Co., Bartlett, Tenn.

SITUATION WANTED.

MAN WITH FAMILY WANTS JOB ON farm. Experienced. Or would run farm with everything furnished on shares or by month. W. C. Meyer, 415 Broadway St., Augusta, Kansas.

THE STRAY LIST.

TAKEN UP—BY J. J. MURRAY, ROUTE 3, Galena, Kansas, one yearling heifer, color red and white, no marks or brands. Appraised at $30. Ed Masterson, County Clerk, Columbus, Kansas.

TAKEN UP—ON THE 2D DAY OF DEcember, 1917, by R. F. Hodgins, in Silver Lake Township, Shawnee County, Kansas, three brown mules, one-year-olds, valued at $100 each. Kenneth Raub, County Clerk.

TAKEN UP—BY WALTER FRENCH, OF Manning, Keystone Township, Scott County, Kansas, on the 18th day of December, 1917, one white face steer, brand on left ear. Appraised at $30. John L. Whitson, County Clerk.

TAKEN UP — BY H. C. ALLEGER, OF Garden Township, Cherokee County, Kansas, January 2, 1918, one brown mare mule, three years old. Brand O F. Appraised at $50. Ed Masterson, County Clerk, Columbus, Kan.

TAKEN UP—BY RACHEL McDONALD, Lewis Township, Gove County, Kansas, on the first day of December, 1917, one bay horse, branded with triangle on left shoulder; also one calf, color red, with white face. Appraised at $37.00. E. E. Baker, County Clerk.

TAKEN UP—BY J. P. PATTERSON, OF Richland Township, Pratt County, Kansas, on the 16th day of October, 1917, one small yearling steer, color red and white spotted, brand that resembles D or J on right hip. Appraised at $35. Mrs. Stella B. Sizelove, County Clerk, Pratt, Kansas.

TAKEN UP—BY A. L. JOY, OF LIBERTY Township, Cowley County, Kansas, on the first day of December, 1917, one heifer calf about four months old, color light red, motley face, white on belly and legs, no brands. Also one heifer calf about four months old, color solid red, muley, no brands. Frank V. Brown, County Clerk.

WANTED

WANTED—CANE, MILO MAIZE, KAFIR, millet, feterita, Sudan grass, seed corn and other seeds. The Barteldes Seed Co., Lawrence, Kansas.

WANTED—KAW CHIEF, BOONE County, Reid's Yellow Dent and other varieties of seed corn. Send us samples. The Barteldes Seed Co., Lawrence, Kan.

FARM LANDS.

YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements, or ready made farms. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

A. A. Meyer, McLouth, Kansas, owner of Lone Cedar herd of big-type Polands, reports his bred gilts doing fine. This year Mr. Meyer bred a choice lot of spring gilts sired by Meyer's Orange to his great boar, Big Chimes, one of the best sons of Big Hadley Jr.

We have just received Volume 52 of the American Berkshire Record. The volume contains 5,000 pedigrees from Number 220001 to Number 225000, and other information of interest to Berkshire breeders.

A. J. Erhart & Son, Ness City, Kansas, have catalogued fifty head of exceptionally high class big-type Poland China bred sows for their sale to be held at the Kansas State Fair Grounds, Hutchinson, on February 21. They have at the head of their herd one of the nargest boars in service. He is Big Wonder. He was first in class as aged boar at the Oklahoma State Fair in 1917 and was shown weighing over 1,100 pounds. Not properly fitted for a show ring, he can be made to weigh 1,200 pounds. He is a four-year-old son of King of Wonders, out of a Big Giantess sow. A large part of the sale offering will be bred to him.

Vail & Scott, of Hartford, Kansas, report their Shorthorn cattle doing well. At this time a feature of their herd is the young stock, including some outstanding Scotch-topped bulls by The Clansman, one of the good Scotch sires and a son of Lavender Viceroy by Lavender Viscount, his dam Rose Campbell by Gold Dust 2d 125435.

Board of Agriculture Resolutions

THE following is the official report of the Resolutions Committee of the State Board of Agriculture, the report being adopted unanimously by the delegates present:

The forty-seventh annual meeting of the Kansas State Board of Agriculture assembled under the shadow of a world's crisis. For more than three years the volcano of war has been deluging Europe with its bloody lava, carrying death and unparalelled ruin in its trail until the civilized world is appalled at the awful sacrifice of human life and destruction of property and of resources. In the interests of humanity our nation sought to carry the dove of peace to our warring brethren across the sea. Mediation was suggested and refused, diplomacy failed and friendship of long standing was of no avail. International law was violated and treaties were treated as scraps of paper. Our flag was fired upon, our vessels sunk, American lives were lost, redress was refused until we were reluctantly forced to sever our diplomatic relations with Germany, and today we are at war with the most barbarous and arrogant military autocracy that the world has ever known. Our young manhood has been called from the peaceful pursuits of life to the colors in defense of liberty, justice and humanity. Many thousands of our active producers have been called from the vocations of production to that of consumers. Recognizing the fact that agriculture is the most important industry of the nation and upon its success depends the winning of the great principles involved in this world's war, it must be apparent to everyone that never in all history was such a momentous responsibility resting upon the agriculturists of this nation. Therefore,

Be it resolved, that we, the representatives of the farmers of Kansas, pledge ourselves to consecrate our efforts and our energies to the conservation of our resources and a more intense effort to increase our agricultural production. We dedicate ourselves to an unequivocal and patriotic devotion to our country, to our flag and to our soldiers, whether in cantonments in our own land or upon the battlefields of France; realizing that no sacrifice is too great, we pledge ourselves to devote every energy in our power to the winning of this great war with an honorable and lasting peace. Be it further

Resolved, that the farmer who devotes his time and best efforts to increasing the production of the staples of life at this time is rendering his country an indispensable service.

We heartily endorse the action of our Congress in submitting to the legislatures of the several states of the Union an opportunity to ratify national prohibition and allowing all states to follow Kansas in a fight, the winning of which means as much or more to the generations yet to come than some issues of this war.

We affirm our belief in the equality of the sexes and like our forefathers condemn taxation without representation, which has been practiced heretofore in the treatment of the women of the land, and earnestly urge upon the law-makers of the nation the submission of the Susan B. Anthony amendment to the Constitution granting suffrage to women, and pledge for our state the ratification of said amendment at the first opportunity.

We note with amazement that at a time when this great nation or ours is engaged in a world-wide war and needs the assistance and co-operation of every American, certain citizens are profiteering and speculating in the necessities of life with a view to making immense profits out of the nation's needs. Representing as we do the farmers of the great wheat-producing state of Kansas, we wish to protest against the action of the mills in keeping up the prices of flour and the by-products of our wheat at the same time that the farmer has patriotically accepted a reduction in the price of his product. We are not here to condemn the fixing of a price upon wheat, or to say that it is unreasonable or unjust, but we point to the fact that up to the present time the reduction in the price of the farmer's wheat has brought no reduction in the price of flour or the by-products of the mill, or the loaf of bread. Instead of the consumer benefiting by the reduction, the benefit has been appropriated by the mills and the bakers. Relief along this line under the law fixing prices has not been obtained, and we believe cannot be unless the law is amended. Therefore, we respectfully ask and demand that the Federal Trades Commission at once proceed to investigate this matter in order to give the public a square deal, not alone for our sake as consumers and producers but for the good name of the nation.

We are in sympathy with the Food Administration and recognize the fact that Mr. Hoover has one of the largest undertakings any man in the nation has ever taken on. We are willing and anxious to do our part in conservation, and if needs be to deny ourselves in every manner possible that our soldiers and the allies may be well fed.

The production of live stock is an important part of agriculture. Especially is this true in Kansas, where the sum invested amounts to millions. Under orders from those in control of the Federal Land Banks, a discrimination has been made against pasture lands, which are absolutely necessary in the production of live stock. Money cannot be borrowed from the Federal Land Banks on them as security. We feel that this restriction should be removed and that the land used for stock raising should have the same recognition as land in cultivation.

We believe a mistake has been made in appointing as heads of the departments for food regulation, men who have large financial interests in the industry regulated. We feel that all such men should be removed from the heads of those departments and their places filled by business men who have no financial interests in the industry regulated.

We recommend that an amendment to the constitution be submitted by the next session of the Legislature, to a vote of the people, allowing the state to engage in internal improvements.

We heartily endorse the action of the Government in the thorough investigation and overhauling now being given of packing houses, stock yards and other things connected with the marketing and feeding of live stock. We have been fully aware of these conditions for years, and this investigation develops that our contention was correct and our demands just.

With pride we point to the meeting just closed as the most successful in the history of the State Board of Agriculture, not in program alone, but attendance as well. In recognition of the great success of our meeting we wish to thank the Kansas legislature of 1917 for a law making provision for increasing our membership and representation, securing more efficiency thereby. We also wish to thank the press, the people of Topeka, the speakers, glee clubs and others who have contributed to our entertainment in this memorable year.

To our worthy president, J. T. Tredway, we offer our thanks and appreciation for his untiring work, fairness and usefulness. He carries with him the best wishes of all the people of our Commonwealth.

We heartily endorse the hard and effective work of our secretary, J. C. Mohler, and his faithful, efficient employes, in the vast good accomplished for agriculture in the year just passed. Their work has not only benefited the people of Kansas, but has been a model for other states.

We recognize that in the upbuilding of this Board to the position it now occupies there have been sacrifices of time and energy made by men who now after the many years devoted to the work retire from their activities. Among these we especially mention A. W. Smith, T. M. Potter, Charles E. Sutton, I. L. Diesem and E. L. Barrier. We wish to assure them that all their efforts have been appreciated and that in the years to come the builders will not be forgotten by those interested in the affairs of this Board, as well as the friends of agriculture.

The delegates in attendance at the meeting, under the provisions of the new law passed by our last Legislature, elected the following men to membership on the Board: First District, C. H. Taylor, Atchison County, and Perry H. Lambert, Hiawatha; Second District, O. O. Wolf, Ottawa, and Paul Klein, Iola; Third District, E. I. Burton, Coffeyville, and E. A. Millard, Burden; Fourth District, W. J. Tod, Maple Hill, and F. H. Manning, Council Grove; Fifth District, H. W. Avery, Wakefield, and R. B. Ward, Belleville; Sixth District, H. M. Laing, Russell, and O. A. Edwards, Goodland; Seventh District, H. S. Thompson, Sylvia, and E. E. Frizell, Larned; Eighth District, T. A. Hubbard, Wellington, and W. J. Young, McPherson.

The Board organized by electing the following officers: Dr. O. O. Wolfe, Ottawa, president; H. S. Thompson, Sylvia, vice president; H. W. Avery, Wakefield, treasurer; J. C. Mohler, Topeka, secretary. Before adjourning the Board voted to hold quarterly meetings for the purpose of discussing and planning agricultural policies for the Board to carry out.

Cost of Wintering Bred Gilts

Every hogman is interested in the maintenance cost of bred sows and gilts. Owing to the shortage of older breeding stock a large number of gilts have been bred this season. In anticipating the probable demand for information on wintering such animals, the Missouri Experiment Station conducted a feeding experiment last winter which indicates the probable cost of holding the animals.

Forty-two head of pure-bred Poland China gilts, farrowed in late March and April of the previous spring, were selected in December, 1916, for the test. These gilts had been rather liberally fed on forage during the summer and fall. They were divided into six lots of seven each, and each lot was handled in exactly the same manner except that a different ration was fed. The rations they received were: Lot 2, corn ten parts, tankage one part, clover hay; Lot 3, corn ten parts, tankage one part; Lot 4, corn five parts, old process linseed oil meal one part; Lot 5, corn eight parts, shorts two parts, tankage one part; Lot 6, corn eight parts, shorts four parts, bran one part, tankage one part.

The clover and alfalfa were fed once daily in racks. The corn was ground, and all feed except hay was mixed with water at feeding time and was fed morning and evening. All lots were fed so that they were kept in good growing and breeding condition. An effort was made to keep all lots at a uniform weight. The condition of the sows fixed the standard of feeding and thus determined the amount of each ration fed.

The animals were continued on the experiment until April 1, 1917. The average cost of maintaining the different lots for 105 days was: Lot 1, $13.47; Lot 2, $12.93; Lot 3, $12.58; Lot 4, $11.84; Lot 5, $12.38; Lot 6, $11.85. The average weight of the gilts at the beginning of the trial was 186 to 188 pounds, and at the close of the winter period the average weight was 265 to 270 pounds. The cost of keeping the animals is based on feed prices quoted November 1, 1917.

Bradley Bros., of Warrensburg, Mo., owners of one of Missouri's great prize winning herds of jacks and jennets, claim March 4 as the date of their annual jack and jennet sale. They will catalog one of the best offerings in history of their herd for this sale.

Galloway's Dispersion Sale of Champion Holsteins Jan. 29 & 30!



Be There!

Don't Forget These Dates! They mean two profitable days for Holstein breeders and buyers! They mean quality Holsteins will be dispersed at your own prices! They mean Holstein Sale History, because one of the really great butter and milk producing herds, almost every animal a superb show ring individual rich in the popular blood of famous producing Holstein families, will go over the auction block, constituting a

Great Two Days' Holstein Event!

Where will you go to find the equivalent of the Holstein offering I will put under the hammer Jan. 29 and 30? Who else this winter will sell the fruits of years of Holstein selection and painstaking breeding? When will such an opportunity to secure almost priceless foundation animals again be presented? Seriously reason this out for yourself! And remember that, **unless I was dispersing my herd in its entirety,** one-half of these Holsteins would not be offered at any price. But they all go in the sale ring Tuesday, Jan. 29 and Wednesday, Jan. 30!



Auctioneers: R. E. HAEGER, B. V. KELLEY S. T. WOOD, In Box

Quality Breeders Keep—I Positively Sell! Make up your mind now to attend this sale both days! If you need a show animal to complete your 1918 string, now the opportunity is presented! If you want to found a butter and milk producing herd, come and select from among the splendid young cows and heifers I unreservedly offer, enough to start you right in popular blood lines—for a right beginning means profit as well as pleasure! Again I say that

Every Winner and Record Animal Goes!

Do not miss this sale! Wire for catalog if you have not asked for it before; then pick the animals you want and wire bids to either Auctioneer. Read my big ads run in this paper last week! Remember, I must sell owing to business demanding my entire time! Our dispersal is your opportunity! Spend these two days sure with Wm. Galloway at the heated sale pavilion on the



Be There!

GALLOWAY-MESSER FARMS, WATERLOO, IA.

PERCHERON MARES AND STALLIONS

Thirty Head from Which to Select

Ton mares, big handsome fillies either by or bred to Algarve by Samson. Algarve's colts have great bone and size. His weight is over 2,200 pounds and his get proves beyond doubt his great ability as a sire. A nice lot of young stallions, several coming three-year-olds. Priced for quick sale. Farm four miles east of town. Call on or write

D. A. HARRIS - Route 6 - GREAT BEND, KANSAS

EWING BROS.' PERCHERON HORSES, SHORTHORN CATTLE, SHETLAND PONIES AND POLAND CHINA HOGS

FIFTY MARES—Weanlings to mature mares, weighing a ton or more, in foal. Herd headed by Imp. Meknes (106084) 106640, weighing 2,200 pounds.
SEVERAL MATCHED TEAMS—Fifteen head of stallions, from weanlings to six years old. The best lot of two-year-olds we have ever had. The kind to mature into ton horses or better—grays and blacks.
SHORTHORN CATTLE—A few cows for sale. Ten young bulls out of pure Scotch sire ready for service. Herd headed by Village Knight No. 398231 weighing 2,250 pounds and Choice Echo 393419, weighing 2,300 pounds, for sale.
SHETLAND PONIES at very low prices if taken soon—weanlings to broken fillies.
Phone to Ewing Bros., 903A5 or 903A12, Great Bend, or write us at R. F. D. No. 1, Pawnee Rock, Kansas. EWING BROTHERS.



FAULKNER'S FAMOUS SPOTTED POLANDS

The World's Greatest Pork Hog, Sells

Wednesday, February 13, 1918, Jamesport, Mo.

In My Annual Bred Sow Sale.

Ask for catalog. Nothing bred sold at private sale. I am still pricing a few good fall pigs.

H. L. FAULKNER, Box K, Jamesport, Missouri

POLAND CHINAS.

DEMING RANCH QUALITY

Big-Type Poland China Hogs.

Fifty March boars for sale. All immuned. Bred sow sale February 18. Send for catalog.

H. O. Sheldon, Herd Manager
OSWEGO, KANSAS.

OLD ORIGINAL SPOTTED POLANDS

Stock of all ages, also bred gilts and tried sows, bred, ready to ship. Priced right. Write your wants to

CEDAR ROW STOCK FARM
A. S. Alexander, Prop. Burlington, Kansas

BIG WONDER 281929

The outstanding spring yearling son of the noted Big Bob Wonder now at the head of my herd. This young sire was first in junior yearling class at Topeka; second at the National Swine Show in competition against the world.

I will sell fifty sows and gilts **Saturday, February 23, 1918,** and a number of the best sows will be bred to Big Wonder. Send name early for catalog.

V. O. JOHNSON - AULNE, KANSAS

Spotted Poland Herd Boar

For Sale or Exchange—Big bone Spotted Poland China herd boar, McKee's Giant No. 63987. Can't use him longer. Will exchange him for bred sow or sell worth the money. Pigs for sale.

R. L. Mount - Polo, Missouri
G. T. Hudson, Herdsman.

Poland China Boars

For Sale—Ten head large growthy spring boars, sired by A Wonderful King, a state fair winner. Ready for service. Price, $35 to $75. Satisfaction guaranteed. First check gets choice. Write at once or come and see our herd.

OLIVIER & SONS, DANVILLE, KANSAS

GRAND VIEW POLANDS

Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.

ANDREW KOSAR - DELPHOS, KANSAS

POLAND CHINA BOARS

FOR SALE—Twelve head extra good spring boars, ready for service. Few choice gilts, bred for March litters. Fall pigs, either sex, sired by Big Tecumseh, Orange Wonder, and out of my best herd sows. The best crop of boars I ever raised. Write or come and see me. **E. M. WAYDE, BURLINGTON, KANSAS**

FALL PIGS, ready to ship. Select Spotted breeding. Express paid on pigs.
T. T. Langford & Sons, Jamesport, Mo.

TOWNVIEW HERD

Boars ready for service, sired by **King Wonders Giant 77326.** A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene. Peabody, Kan.**

FAIRVIEW POLAND CHINAS.

Heavy-boned March pigs, either sex. Eighty to select from. Prices reasonable. Write us your wants.

P. L. WARE & SON - PAOLA, KANSAS

MATTOX'S SPOTTED POLANDS—Bred sows, serviceable boars, baby pigs, for quick sale. **H. A. or Paul H. Mattox, Route 2, Burlington, Kansas.**

White Oak Park Polands

Have decided not to hold a bred sow sale this year. Will sell a choice lot of tried sows at private sale. This lot will include 600-pound sows and good show prospects. Big high quality fall yearling gilts and choice spring gilts. All bred to Long Big Joe, Missouri Jumbo, Jumbo Giant and Surprise Wonder Also have some choice September boars. All immune. Write for prices.

Henry Koch - Edina, Mo.

LONE CEDAR POLANDS

A splendid lot of bred gilts sired by Meyer's Orange and bred to Big Chimes, a fine son of Big Hadley Jr. Also two extra good spring boars left.

A. A. MEYER - - McLOUTH, KANSAS

HORSES AND MULES.



JACKS AND JENNETS

15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.

PHIL WALKER
Moline, Elk County, Kansas



Percherons, Belgians, Shires
2, 3, 4 and 5-year stallions, ton and heavier; also yearlings. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.
Fred Chandler, R.7, Chariton, Ia.
Above Kansas City.

Choice Young Belgians, English Shires, Percherons, also Coach stallions, also mares. Many first prizes. Long time 6% notes. Illinois Horse Co., Good Blk., Des Moines, Ia.

AUCTIONEERS.

Jas. T. McCulloch Live Stock Auctioneer. I make sales anywhere. Write for date. CLAY CENTER, KANSAS

Live Stock and Real Estate Auctioneer.
Fifteen years experience. Write for terms.
Thos. Darcey, Hutchinson, Kansas.

POLLED DURHAM CATTLE

TRUE SULTAN POLLED DURHAMS

A few heifers bred or open are offered. Some by or bred to the champion $2,200 True Sultan and Sultan's Challenger.

ED STEGELIN
STRAIGHT CREEK - - - KANSAS

WILD WOOD STOCK FARM

POLLED DURHAM CATTLE

For Sale—Ten bulls of serviceable age, sired by Roan Acacia 9021. Dam, Golden Acacia by Acacia Victor, a double standard bull from D. C. Van Nice herd. Write at once. These bulls will sell.

T. M. ETHERINGTON, Hamilton, Kansas

Polled Durham Bulls

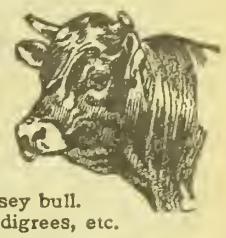
One double standard Polled Durham bull and three Shorthorn bulls 8 to 15 months old. They are real herd headers. All pure Scotch. Priced reasonable. Come and see my herd.

C. J. Wood, Rte. 5, Paola, Kan.

Jerseys for Net Profits



You're in the dairy business for profit—the *net* profit that your herd has made you at the end of the year will determine the size of your bank account. Jerseys yield the largest returns from every ounce of feed—proved by tests at two great expositions. Jersey milk averages 5.3% butter fat, 9.1% solids not fat—highest of all breeds. Buy a Jersey bull. Write the breeders advertised below for prices, pedigrees, etc.



The American Jersey Cattle Club, 375 West 23rd Street, New York City

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120 JERSEY COWS AND HEIFERS

Pure-bred and high-grade. Forty bred yearlings, superior individuals, all from profitable dams, now for sale.

J. W. Berry & Son
JEWELL CITY - - - - KANSAS

IDYLWILD STOCK FARM

REGISTERED JERSEYS OF BOTH SEXES FOR SALE

C. F. Blake, Glasco, Kan.

LONGVIEW JERSEYS

(Register of Merit Herd)

Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.

Longview Farm
LEE'S SUMMIT - - - MISSOURI

BROOKSIDE JERSEYS

Registered Jersey Bulls, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.

THOS. D. MARSHALL, Sylvia, Kan.

LOMAX JERSEYS

A Herd of Producers. Backed by Records. Popular blood lines. Choice individuals. We invite inspection of our herd at all times. Write us your wants.

Dr. J. H. Lomax
STATION B - - ST. JOSEPH, MO.

B. C. SETTLES

MAKES A SPECIALTY OF MANAGING JERSEY SALES.

Write for catalogs.

Palmyra, Missouri

REGISTERED JERSEY BULLS

BUTTER-BRED, FROM HIGH-PRODUCING COWS.
Photo furnished.

Maxwell's Jersey Dairy
ROUTE 2 TOPEKA, KANSAS

Fine Young Jersey Bulls

From Register of Merit and tested cows; Register of Merit sire.

Dornwood Farm, Topeka

J. B. PORTER & SON

MAYETTA, KANSAS
BREEDERS OF HIGH-CLASS JERSEYS. STOCK FOR SALE AT ALL TIMES.
WRITE US YOUR WANTS.

Allen Center Stock Farm

Sale or exchange for bull or heifers.
TREDWAY & SON, LA HARPE, KAS.

Registered Bull Calves — Some Ready for Service.

RED POLLED CATTLE.

RED POLLED BULLS

For Sale—Thirty head coming yearling bulls. Come early and get the best. Our experience has been those that come late found us sold out. Write or come at once.

E. E. FRIZELL
FRIZELL, (Pawnee County), KANSAS

A. R. Bred Red Polled Bulls

Am offering Oscar 30433, calved May 12, 1916; 20th Century Chief, calved April 20, 1917. His grand dam produced 12,000 lbs. milk and over 500 lbs. butter with second calf. His grand sire is half brother to the champion Red Polled cow of the world with record of over 1,000 lbs. butter in 12 months. If interested in a choice bull and want to increase the production of your herd, write us.

Chas. L. Jarboe, Quinter, Kan.

GUERNSEY CATTLE.

GUERNSEY BULLS.

Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to twelve months old. **ADAMS FARM, Gashland, Mo.,** 12 miles from K. C.

CHESTER WHITE HOGS

CHESTER WHITE SPRING BOARS

Husky, growthy fellows of the best breeding. Cholera Immune. Priced right.

HENRY MURR - TONGANOXIE, KAN.

AYRSHIRE CATTLE.



You can produce more milk with less cows within a very few years if you grade up your herd with an

Ayrshire Bull

The AYRSHIRE is hardy, active, healthy—suited to any climate. A big producer of 3.96 per cent grade MILK. It will pay you well to investigate the merits of this breed. Write for information and list of breeders.

AYRSHIRE BREEDERS' ASSOCIATION
C. M. WINSLOW, Sec'y. • 33 Park St., Brandon, Vt.

ANGUS CATTLE

ANGUS BULL, Mabel's Invincible 19645. Also two Queen Mother bull calves.
G. F. WAGNER, Route 4, Manhattan, Kan.

HOLSTEIN CATTLE.

HOLSTEIN CATTLE.

OUR INVITATION

Come to Manhattan, Kansas, the Week of January 21 to 25

for Kansas State Agricultural College "Farm and Home Week." Attend the meeting of the State Dairymen's Association on Wednesday, January 23. While there be sure to see my herd of registered Holstein Cattle—cattle of breeding, production, individuality and health. A few choicely bred heifers and young bulls for sale. Barns ten minutes' walk from Union Pacific depot. Phone 855. If you cannot come, write

A. S. NEALE, 1462 Fairchild Avenue, Manhattan, Kansas

CLYDE GIROD, At the Farm — F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, botb from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your berd.

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Comc and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.
H. B. COWLES, 608 Kan. Av., Topeka, Kan.

Here Is Your Opportunity

On account of hired help difficulties, we are forced to cut our herd down. We are offering **twenty-five head of registered Holstein-Friesian cattle,** closely related to SEGIS FAYNE JOHANNA, the world record cow. Ages from 10 months to mature cows. Some will freshen soon. Also one bull about 16 months old. Our prices are very reasonable and we can satisfy your wants. We urge you to investigate our cattle before you make your purchase.

STANDARD DAIRY COMPANY
Walnut Grove — Wichita, Kansas

HOLSTEIN CALVES

We offer for sale choice, beautifully-marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated f.o.b. cars: One to two weeks old, $15 each; two to three weeks old, $17 each; five to six weeks old, $20 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

REGISTERED HOLSTEIN BULLS

From A. R. O. cows. All our own breeding. Bred for milk and fat production.

LILAC DAIRY FARM
R. F. D. 2 — Topeka, Kansas

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON, KANSAS

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. **Clover Valley Holstein Farm, Whitewater, Wisconsin.**

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wauwatosa, Wisconsin

Oak Hill Farm's

Registered Holstein Cattle

For Sale—Yearling and bred heifers, also young bull calves, mostly out of A. R. O. cows. Perfect satisfaction guaranteed.

BEN SCHNEIDER, NORTONVILLE, KAN.

BONNIE BRAE HOLSTEINS

Young bulls from high producing dams from a splendid son of King Segis Pontiac for sale.

Ira Romig, Sta. B, Topeka, Kas.

Segrist & Stephenson, Holton, Kan. Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment. **Edgewood Farms, Whitewater, Wisconsin.**

CEDARLANE HOLSTEIN HERD

Four-year-old grandson of Pontiac Korndyke. Guaranteed free from tuberculosis. Dam's record, 27.79; sire's dam, 31.01. Also a 14-months-old son of above bull. A few good cows and bull calves.

T. M. EWING, INDEPENDENCE, KANSAS

Registered Holstein-Friesians

Write for information about the herd bull I am offering for sale. Also two young service bulls, several bull calves and a few females for sale. A. R. O. records up to 26 pounds. Write your wants.

HARRY W. MOLLHAGEN, Bushton, Kansas

WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

SHORTHORN CATTLE.

Shorthorn Bulls

FOR SALE—One herd bull and thirteen Scotch-topped bulls, 8 to 12 months old, reds and roans, sired by Pride of Aulne, he by Silver Knight, a pure Scotch bull. Come and see me.

J. R. ELY - - AULNE, KANSAS

MARKS' LODGE

Home of Shorthorn Cattle. Reds Exclusively. A few choice young bulls for sale, from my best milking cows. All registered. Come and see me.

DR. M. F. MARKS, VALLEY FALLS, KAN.

ALYSDALE HERD SCOTCH SHORTHORNS

Viscount Stamp 2d, Clipper Brawith and Count Valentine in service. Orange Blossoms, Butterflys, Queen of Beautys and Violets. Choice young stock for sale.

H. H. HOLMES, Route 28, Topeka, Kansas

Pearl Herd Shorthorns

Valiant 346162 and Marengo's Pearl 391962 in service. For sale—Fifteen young bulls from 8 to 14 months old, reds, whites and roans. Scotch and Scotch-topped. Inspection invited. Can ship on Rock Island, Union Pacific or Santa Fe Railway.

C. W. Taylor, Abilene, Kansas

Scotch-Topped Shorthorns

For Sale—Red yearling Scotch-topped bull sired by Clansman by Lavender Viceroy by Lavender Viscount, dam Rose Campbell by Baron Gold Dust 2d 125435.

VAIL & SCOTT - HARTFORD, KANSAS

CLOVERDALE SHORTHORNS—For Sale, two roan yearling Scotch Shorthorn bulls. Exceptional quality and breeding. **Also a few heifers. Wesley Jewell, Humboldt, Kansas.**

Cedar Heights Shorthorns

For Sale—Three red bulls, 12 months old. A few cows and heifers. Priced reasonable. Come and see my herd.

HARRY T. FORBES
Route 8 — Topeka, Kansas

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS

Best breeding, best type. Stock for sale.

GEO. W. ELA, Valley Falls, Kansas

OLSON HAMPSHIRES.



For Sale—One spring yearling and one fall yearling boar, 8 spring boars, 40 head spring gilts, either bred or open. All immuned and registered to purchaser. Write or come and see our herd. Farm 12 mi. S. of Salina.

OLSON BROS - - ASSARIA, KANSAS

Breeders' Directory

ANGUS CATTLE.
D. J. White, Clements, Kan.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.

GALLOWAY CATTLE.

GOOD GALLOWAY BULLS

Twenty-five Extra Good Yearlings

Extra breeding and quality. Priced to sell.

J. M. HILL, SEDGWICK, KANSAS
Route 4, Box 65A

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

DUROC JERSEYS.

TAYLOR'S DUROCS

For Sale—One Missouri State Fair prize winning boar. Seven yearling boars sired by champion boars that are real herd headers. Fifty spring boars that are fine prospects. Write for prices or come and see my herd.

Chas. L. Taylor - Olean, Mo.

DUROC BOARS

Thirty-five spring boars by G. M.'s Crimson Wonder, Crimson Wonder Again Jr., Critic D. and Great Wonder, out of my best herd sows. Priced to sell. Come and see my herd.

G. M. Shepherd, Lyons, Kansas

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on spring boars from champions Defender, Illustrator, Crimson Wonder, Golden Model and Critic breeding.

JOHN A. REED & SONS, LYONS, KANSAS

PURE-BRED DUROC GILTS

Bred to Invader of Idlewild.

W. J. HARRISON - AXTELL, KANSAS

WALNUT GROVE DUROCS

Three 2-year-old sows, bred. Two granddaughters of Defender, four spring gilts bred. One yearling herd boar, extra good. Fifty fall pigs, good ones. One roan six-months-old Shorthorn bull calf.

R. C. WATSON - - ALTOONA, KANSAS

Guaranteed Duroc Gilts

Immune, recorded Duroc gilts with size, bone and length. Guaranteed to farrow. Shipped to you before you pay for them.

F. C. CROCKER, BOX K, FILLEY, NEB.

HAGUE'S DUROCS

Fifteen choice fall boars and gilts for sale, sired by Kansas Pathfinder by Pathfinder. All immune. **K. Hague, R. 6, Newton, Kan.**

THIRTY DUROC JERSEY BOARS

Cholera immuned. Sired by Taylor's Model Chief 126455, winner at Missouri State Fair and American Royal. Extra good breeding boars at prices to close them out. Also choice bred gilts. Dams well bred for years.

W. R. HUSTON - AMERICUS, KANSAS

WOOD'S DUROCS

For Sale—Choice bred gilts, bred to a son of Great Wonder. Spring boars ready for service. Fall pigs of both sexes at right prices. Come and see my herd.

W. A. Wood - Elmdale, Kan.

MULEFOOT HOGS.

KNOX KNOLL STOCK FARM

Mulefoot Hogs. Shorthorn Cattle.

Sold out of spring gilts. Now taking orders for fall pigs. Three registered bulls ready for service. Write for prices.

S. M. KNOX, Humboldt, Allen Co., Kansas

GROWTHY MULEFOOT HOGS from my State Fair prize winning herd. Stock of all ages for sale. Prices low. **C. K. THOMPSON, LETTS, INDIANA.**

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

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Personal mail may have to be held for several days, or be delayed in forwarding, and Kansas Farmer cannot assume any responsibility for mistakes occurring thereby

CLAIM SALE DATES.
Percheron Horses.

Jan. 25—Kansas Percheron Breeders at Kansas Agricultural College, Manhattan. Under management of C. W. McCampbell.

Jacks and Jennets.

March 4—Bradley Bros., Warrensburg, Mo.
March 26—H. T. Hineman & Sons, Dighton, Kansas.

Holsteins.

Jan. 29-30—Galloway-Messer Farms, Waterloo, Iowa. Dispersal sale.
Feb. 13—J. W. Myers, Nortonville, Kan.
Feb. 27—W. O. Morrill, Summerfield, Kan.
March 26—Kansas Holstein Breeders' sale, Topeka, Kan.
March 27-28—Iowa Holstein-Friesian Breeders' Association. Sale at the State Fair Grounds, Des Moines. F. C. Barney, Secretary, Chapin, Iowa.

Herefords.

Jan. 25-26—Carl Miller, Belvue, Kan. Sale at Alma, Kan.

Shorthorns.

Feb. 15—J. R. Young, Marion, Kan.
Feb. 26—H. E. Huber, Meriden, Kan.

Ayrshire Cattle.

Jan. 23—William Galloway Farms, Waterloo, Iowa. Dispersal sale.

Miscellaneous.

Feb. 25-28. — Kansas National Live Stock Show, Wichita, Kan. Draft, coach, standard-bred horses and jacks; Shorthorn, Hereford and Holstein cattle; Poland and Duroc hogs. F. S. Kirk, sales manager, Wichita.

Poland Chinas.

Feb. 6—H. B. Walter, Effingham, Kan.
Feb. 7, 1918—W. H. Charter, Butler, Mo.
Feb. 8, 1918—W. B. Wallace, Bunceton, Mo.
Feb. 9, 1918—Will J. Lockridge, Fayette, Mo.
Feb. 9—John L. Naiman & Sons, Alexandria, Neb. Sale at Fairbury, Neb.
Jan. 29—Head & Moore, St. Joseph, Mo.
Feb. 18—Deming Ranch, Oswego, Kansas.
Feb. 13—H. L. Faulkner, Jamesport, Mo.
Feb. 19—Fred B. Caldwell, Howard, Kansas.
Feb. 20—B. E. Hodson, Ashland, Kansas; sale at Wichita.
Feb. 21—E. J. Erhart & Son, Ness City, Kansas; sale at Hutchinson.
Feb. 22—F. Olivier & Son, Danville, Kansas.

Poland Chinas.

Feb. 23—V. O. Johnson, Aulne, Kan.
Feb. 28—Clarence Dean. Sale at Dearborn, Mo.
March 15—H. E. Myers. Gardner, Kan.
April 24—Fred G. Laptad, Lawrence, Kan.

Spotted Polands.

Jan. 21—B. E. Arbuckle & Son, Brownsburg, Ind.

Chester White Hogs.

Feb. 2—Arthur Mosse and Henry Murr, Leavenworth, Kansas.

Durocs.

Feb. 14—B. R. Anderson, McPherson, Kan.
Feb. 20—W. T. McBride, Parker, Kan.
Feb. 27—R. W. Murphy, Dearborn, Mo.
March 7—W. W. Otey, Winfield, Kansas.
March 8—R. L. Hurst, Bolckow, Mo.
April 24—Fred G. Laptad, Lawrence, Kan.

K. Hague, of Newton, Kansas, owner of one of the good Duroc herds, reports his herd doing well. A feature of his herd just now is the choice lot of young stock by Kansas Pathfinder, a son of Pathfinder and one of the good sires of the breed.

W. H. Charters, of Butler, Missouri, will have a treat for farmers and breeders at his farm adjoining the town of Butler, on February 7. He has selected fifty head of big mellow fall yearling gilts and fifty head of tried brood sows. They will be bred to Charter's Giant, Gerstdale Major, Big Mastodon, Charter's Grand Master, and Chartier.

F. C. Crocker, of Filley, Neb., owner of Maple Lane herd, Nebraska's famous herd of pure-bred Durocs, reports his herd doing well. This herd is famous for the great sires of the breed that have been used, including such boars as Top Notcher Again, Hogate's Model, Kruger Lad, Vanquisher, Bell's Valley Chief, Top Notcher Chief, Buck Boy, Crocker's Ohio Chief, Our Choice, LaFollett's Last, Dusty Critic 2d and Bayne's Critic. This year Mr. Crocker has bred a large number of choice gilts to such boars as Big Lincoln, Valley Chief, Freiday's Jumbo Critic, Valley Chief Co., Bader's Golden Model 2d, and Gano's Masterpiece.

A. S. Neale, of Manhattan, Kansas, owner of one of the record bred herds of Holsteins in this state, reports his herd making a good record. Mr. Neale extends a cordial invitation to everyone interested in Holsteins to visit his barns and inspect his herd while in Manhattan during Farm and Home week. His barns are near the Union Pacific depot and an inspection of this herd will be well worth the time and trouble to anyone interested in heavy producing dairy cows.

Tredway & Son, of LaHarpe, Kansas, owners of Allen Center Stock Farm, are among the progressive workers for improved stock on Kansas farms. Their farm is the home of choice herds of registered Jersey cattle and Duroc hogs. The breeding of their herds is the best of the respective breeds and their Jersey herd is of record breeding and as a result are the heavy producing kind. The herd is headed by Owl's Jolly King 138451. He is a butter-bred bull and his dam, Owl's Design, holds the Jersey butter record of the state. She produced 14,606 pounds of milk and 765 pounds of butter in one year, and 2,200 pounds butter in three consecutive years. This record was made at the State Agricultural College and is one that is seldom equalled.

Olivier & Sons, of Danville, Kansas, owners of the famous pioneer herd of Poland China hogs, have catalogued fifty head of choice sows and gilts for their annual bred sow sale February 22. This herd is one of the oldest herds of Poland China hogs in Kansas and has furnished foundation stock to start herds in several states. Olivier & Sons grow their hogs in a way that they always make good in the herd of farmers and breeders. They grow big and raise large litters of thrifty hogs.

Fred B. Caldwell, of Howard, Kansas, has catalogued fifty head of choice brood sows for his February 19 sale. They are an exceptional lot of real big-type Poland Chinas and most all the offering will be bred for early litters to the champion, Caldwell's Big Bob. This hog is widely known among farmers and breeders and sows bred to him are in great demand for foundation herd stock.

B. R. Anderson, of McPherson, Kansas, has announced February 14 for a Duroc Jersey bred sow sale. He will catalog fifty head of choice gilts that are splendid specimens of the breed. This herd was established in 1899 and has always had for a motto, "Quality, size, prepotency." Mr. Anderson showed the first prize junior yearling Duroc Jersey boar, Royal Grand Wonder, at the Kansas State Fair in 1917 with a class of strong competition for this honor. Most all of the sale offering will be bred and safe in pig to Royal Grand Wonder.

The Deming Ranch, Oswego, Kansas, will open the great Southwest Poland China sale circuit Monday, February 18, 1918. They have catalogued fifty head of large Poland China sows that will be mated with champion boars of the real big-type Poland China. This offering will be one of the most attractive lots of the sale circuit. Mr. H. O. Sheldon, herd manager, has made a careful selection for this offering and from a herd of over 700 hogs on the farms he has picked fifty of the tops and mated them with the prize-winning herd boars used on the farm.

H. E. Huber, of Meriden, Kansas, has announced February 26 for a Shorthorn cattle sale at his farm six miles from Meriden and six miles from Grantville, Kansas. He will sell thirty-five head of cattle, comprising ten cows, mostly with calves at foot, and twelve yearling heifers by old Silk Goods, he by Choice Goods, and thirteen head of young bulls, several pure Scotch.

Bert E. Hodson, of Ashland, Kansas, will catalog and offer to the public fifty large Poland China bred sows safe to McGath's Big Orphan. This hog was the sensation at the Topeka Free Fair and the Kansas State Fair, 1917. This hog weighed in his show form almost 1,200 pounds. The sale will be held at Wichita, February 20, owing to the convenience of the railroad accommodations. This will be the third sale of the big Southwest Poland China Sale Circuit.

Miller Herefords

200 Head **Two Days Sale**

at

Alma, Kansas
January 25, 26

50 Real Herd Bulls 50

Of show yard quality and richest pedigrees. Selected especially to please particular breeders. Also

Fifty Choice Bull Calves

Selling in Lots of Five

SPECIAL OFFER—For anyone buying ten or more bulls in this sale we agree to care for same until April 1 without extra charge.

One Hundred Cows and Heifers

Twenty Calves Free

Send for catalog today. It is worth reading if you are interested in good cattle.

O. W. Devine, Kansas Farmer Representative.
Please mention Kansas Farmer.

Carl Miller, Belvue, Kansas

Holstein Cattle Sale

AT FARM NEAR NORTONVILLE, KANSAS

FEBRUARY 13, 1918

ONE HUNDRED HEAD COWS AND HEIFERS AND TWO HERD BULLS



Fifty Young Cows, several with calves at foot. None over six years old.

Twenty-five Yearling Heifers, large and well grown out, splendid specimens of the breed.

Twenty-five Head Summer Heifer Calves.

Five Registered Cows and Two Registered Herd Bulls.

If you want good, useful working cattle, come to this sale. I am selling my entire dairy herd. Nothing will be reserved or bid in. Every animal will sell at the last bid. My cattle are in good condition and will make money for anyone who will give them proper care.

J. W. MYERS, Owner, - Nortonville, Kansas

Ben Schneider, Sale Manager. Chas. W. Crews, Auct.

Royal Grand Wonder Durocs

DUROC BRED SOW SALE

48 Head Immune and Registered 48 Head

McPHERSON, KANSAS, FEBRUARY 14

Ten Tried Sows sired by B. & C.'s Col.'s Son.
Three Gilts sired by Pathfinder.
Three Gilts sired by King's Col. Jr.
Nine Gilts sired by Kansas Cherry Chief.
Twenty-three Gilts sired by Proud Chief.

Thirty-nine head are bred to Royal Grand Wonder, first prize junior yearling boar at Kansas State Fair.

Nine head are bred to Royal Pathfinder, a son of Pathfinder, the most noted Duroc boar living.

Send for catalog at once. O. W. Devine will represent Kansas Farmer at the sale.

B. R. ANDERSON, - - McPherson, Kansas

SALE TO BE HELD AT FAIR GROUNDS AT 1 O'CLOCK

Galloway's Ayrshire Dispersion Jan. 23



A Breeders' and Buyers' Opportunity

Positively nothing will be reserved from my high class, selected herd of Cattle Congress, National Dairy Show and State Fair winners—every one will enter the sale ring! What Ayrshire breeders usually retain to improve their herds goes into the sale ring at my dispersion sale January 23, 1918.

Champion Prize Winners Sold Without Reserve

Wire or phone for catalog and reserve this date to attend. See sale advertising of last week for particulars! This dispersal means the cream of years of Ayrshire breeding and selection goes at your prices! Don't miss this sale! **Don't forget the Date, Jan. 23!**



WILLIAM GALLOWAY FARMS, WATERLOO, IA.

Will G. Lockridge, of Fayette, Mo., owner of the famous Giant herd of Poland Chinas, has catalogued sixty-five head of sows and gilts for his bred sow sale, February 9. The sows in the herd are sired by such boars as Chief Price 2d, Hercules, Big Orange, A Big Orange, Big Bob, Long King's Model, A Wonder, Long Wonder, Great Wonder, Colossal, Old Success, Erpansion Wonder and Big Joe. A number of the gilts in the sale are out of these sows and will be bred to the Giant and Joe Junior, a straight Mouw bred boar.

The annual bred sow sale at Wilver Dell Farms, St. Joseph, Missouri, January 29, will be one of the events in Poland China circles during the present season. W. H. Bridges, formerly of Bridges Bros., Slater, Mo., has purchased the interest of Harry H. Moore in the Wilver Dell herd and is now in charge of the herd. The policy of maintaining a strictly high-class herd of Polands will be continued under the new management. The tops of over 300 head bred to the famous Wilver Dell herd boars will be catalogued for the coming sale.

BUSTER OVER

Indiana Grand Champion of 1917

And Son of Giant Buster, 1916 Champion at Same Show, Now at Wilver Dell Farms.

POLAND CHINA SALE

BIG-TYPE BRED SOWS - CHOLERA IMMUNE

JANUARY 29, 1918 AT ST. JOSEPH, MISSOURI

TEN BIG SENSATIONS

Will be included in the fifty head that sell. They will be exceptional spring gilts that have been reserved especially for this sale and every one a "killer." Also twenty-five "corking" tried sows, all young and all real attractions, and fifteen dandy fall yearlings that are bigger and better than any ever offered in one sale. Bred to Buster Over and

STOREY'S A WONDER, KING OF ALL 2D AND WILVER DELL JONES BY GERSTDALE JONES

The greatest quartet of boars to be found in any herd. Offering bred in the "purple," sired by the noted

Big Bob Wonder	Big Bob	Giant Ben
Model Big Bob	Hercules	Smooth Big Bone
Fesenmeyer's A Wonder	Wedd's Long King	
Giant Joe	Gerstdale Jones	King Joe
King of Wonders	Fessy's Timm	Mouw's Smooth Wonder

EVERY SOW A BIG ATTRACTION

The catalog will tell all about them and is a book that should be preserved for reference by every farmer and breeder. Be sure you get one. Sent on application only.

WILVER DELL FARMS, ST. JOSEPH, MO.

Walter W. Head and W. H. Bridges, Proprietors

O. W. Devine, Kansas Farmer Representative. Col. H. S. Duncan, Auctioneer.

Chester White Bred Sow Sale

Leavenworth, Kansas, Feb. 2 1918

SIXTY HEAD AT THE COLISEUM, HEATED BUILDING,

KANSAS HERD
Arthur Mosse

EDGEWOOD HERD
Henry Murr

Bred To Champion Boars



Veto, the grand champion boar at the Topeka Free Fair and the Kan. State Fair, 1917, and conceded by competent judges to be one of the outstanding boars of the Chester White breed. Most of the sows and gilts trace to Kerr Garnett, a grand champion boar at the American Royal, and his sire was the great Kerr Dick, the grand champion at the World's Fair, at St. Louis, Missouri. Send for catalog today and come to sale.

Auctioneers: Col. Thos. E. Deem and Col. Harry Strouse

O. W. Devine Will Represent Kansas Farmer at Sale.

Arthur Mosse, Mgr. Leavenworth, Kan.

CHARTER OAK'S POLAND CHINAS

100 Head - Mammoth Bred Sow Sale - 100 Head

Butler, Missouri, Thursday, February 7, 1918

100 Head of Mammoth Sows and Gilts

Of as good big-type breeding as can be found in America, consisting of twenty tried sows, fifty fall yearlings, thirty toppy spring gilts. All bred for February, March and April litters.

THE OPPORTUNITY SALE OF THE YEAR to buy high-class sows and gilts at the right prices.

O. W. Devine Will Represent Kansas Farmer at Sale.

Catalogs ready early in January. Write for one at once.

W. H. CHARTERS, BUTLER, MISSOURI

BIG BOB WONDER

In Our Annual Bred Sow Sale at

THE BREED'S GREATEST SIRE

This sensational breeding boar and sire of ribbon winners is assisted in the H. B. Walter & Son's Herd by two illustrious sons, KANSAS WONDER, out of Giantess H, a daughter of Moore's Halvor; BIG LONG WONDER, out of Bessie by Long King's Best; and WALTER'S JUMBO TIMM, an outstanding grandson of Big Jumbo and the champion Big Timm.

Effingham, Kansas, Wednesday, February 6, 1918

Fifteen of the Greatest Sows That Ever Went Through a Sale Ring Will Be Sold. All Bred to Big Bob Wonder

We are also listing three of our sows sired by him that we had reserved for our next year's show herd.

Other great attractions are included in the fifty head that make up this sale offering.

Our herd was the heaviest winner in the round-up futurity at the National Swine Show, and a consistent winner in the open show.

Our entire show herd was sired by Big Bob Wonder. Caldwell's Big Bob, the world's grand champion, is a son of Big Bob Wonder. Remember our sale is made up of animals bred along the same lines. Send in your name for the catalog early.

O. W. Devine Will Represent Kansas Farmer at Sale.

H. B. Walter & Son, Effingham, Kansas

Caldwell's Big Bob

The 1,122-Lb. Grand Champion, National Swine Show, 1917
The World's Most Sensational Boar Will Be on Dress Parade Sale Day. Come and See Him

Tuesday, February 19, 1918

At Howard, Kansas

50 HEAD 50

This offering will be the equal of anything to sell this winter. Every animal that sells will be an attraction in itself. There will be size and quality enough to suit everybody and class enough to win in the best shows and make money for the farmer and breeder. The winner in every class shown this year was related to Caldwell's Big Bob. He was a sensational pig and is siring that kind. Every animal to sell is a brood sow. They are all tried sows and yearlings and not one that I would not be glad to keep in my own herd. They sell bred to

Caldwell's Big Bob and King Bob By Big Bob

If you are looking for sows that will put your herd in the front rank of popular big-type herds, you will make no mistake buying here. The catalog gives all the particulars and a copy of it should be on every hogman's desk. Write today.

Fred B. Caldwell, Howard, Kansas

Cols. R. L. Harriman and J. C. Price, Auctioneers. O. W. Devine will Represent Kansas Farmer.

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KAF

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 4. TOPEKA, KANSAS, JANUARY 26, 1918. Established 1863. $1 a Year

PLAN NOW FOR THE GARDEN

Use of Vegetables Reduces Living Expenses and Releases Food For Soldiers

THE garden subject may seem inopportune at this season of the year when the ground is frozen solid and wintry blasts are howling about the house. Yet time goes rapidly and spring will be here before we are ready for it unless some time and thought are given to the work of the coming season. If we are to have good gardens this year, we must make definite plans for them and do it now.

It is a great advantage to the family to have a good garden so planned as to furnish a continuous supply of vegetables of all kinds through the season. A good garden will save many a dollar in the living expenses of the family. In addition to these personal or individual considerations, good gardens are of great importance to our nation. Substituting fresh vegetables in season for more concentrated foods in the diet of the folks that stay at home releases quantities of grain, meats, and other food supplies that can be easily transported long distances because of their concentrated form. The production of an abundant supply of vegetables in the home gardens also helps out in reducing the strain on our transportation facilities by meeting the demands for vegetables loyally. This will assist in relieving the car shortage and serve the interests of the whole country.

It thus becomes a patriotic duty to plant a garden this year in addition to the benefits coming to the family. Getting the seed and planting a garden, however, is but the initial step. There was a great garden planting propaganda last year, and many a garden planted with the greatest enthusiasm resulted in utter failure. Gardens require intelligent care and a sustained interest throughout the season. We must understand the soil and cultural requirements of the different vegetables and the varieties best adapted to our locality. It is easy to be filled with enthusiasm during the balmy days of spring and plant seeds of all kinds with little thought of the tasks of latter days when the blistering heat of the summer sun is beating down upon the various crops. There can be no falling off in interest as the days lengthen and the weeds crowd the crops and insect pests innumerable begin their attacks. All these things must be met and conquered or our garden efforts will be failures.

What we are urging now is the making of a difinite decision to have a better garden than ever and give it the most intelligent care possible throughout the season. It calls for a study of varieties, soil and cultural requirements, a study of the insects and plant diseases that are sure to come and methods of combating them. The more we can learn of these things now in advance of the actual garden season, the better we can meet them when the time comes.

There are several things that can be done now, even though winter is still with us. Our Agricultural College can supply circulars and pamphlets on many of the garden crops based on results of careful experimental study, and, what is perhaps of the greatest importance of all, technical information on the insects and plant diseases and methods of controlling them.

Present reports indicate a probable shortage of garden seeds. Successful commercial gardeners would never think of waiting until the time for planting for buying their seeds. Most of them have already arranged for their seed. Seedsmen are expecting another rush for packeted seed at planting time, and are making plans to sell large quantities of seed in that way. For the garden plans should be so matured that seeds can be ordered now. Send for your seed catalogues. Decide upon varieties you expect to plant, and get your order in for seed at once.

Before seeds can be ordered it is almost necessary to have a fairly definite plan of your garden for the year worked out and down on paper. This plan need not be a work of art, but it should indicate the location of the di....erent vegetables, the distance between rows, the approximate time of seeding, and the amount of seed required. No two gardens will be planned alike, for the home garden must conform to a certain extent to the individual tastes of the family.

In all garden plans the arrangement should provide for using the land to the best advautage possible and minimizing the labor required in preparation and care. Do not fail to give consideration to the fact that the women will do much of the garden work, and for that reason locate the garden near the house. Some put the garden at a distance from the house to avoid damage from the chickens, but the advantage in having it handy for the housewife is sufficient to warrant the cost of fencing the garden from the poultry.

If the ground intended for garden was plowed last fall, all that will be necessary to do will be to work it sufficiently to fine and firm it before planting to seed. If not sufficiently rich, and most ground is not, an application of well rotted barnyard manure is recommended. When manure fresh from the stable or barn lot must be used, it should be thoroughly shaken out and piled in a heap and handled over in order to make it as fine as possible so that it may be thoroughly incorporated with the soil. It should be handled as soon as the heat begins to be noticable and after one or two handlings and repilings it may be satisfactorily worked into the soil. Course manure does not decompose readily and is likely to make the soil too open and porous for best success with garden crops. The gardener can afford to be extravagant with manures because the soil must be in good condition if any degree of success is to be obtained. Ground that is well manured in the fall and well plowed may receive another application of manure in the spring. Many gardens fail because sufficient time has not been given to the preparation of the soil. The soil should never be worked when wet. An experienced gardener knows that ground plowed in the fall may be worked much more quickly and easily in the spring than ground that has not been so handled. If the plowing must be done in the spring it should be done as early as possible to get the ground in good condition. It must be made firm and fine before planting.

Crops like lettuce, spinach and peppergrass that are grown for their leaves and stems will do best in soil that is very rich but for peas, beans and tomatoes, and crops that are grown for their seed or fruit there is some danger of an excess of nitrogen if fresh manures have been heavily applied. If sufficient manure cannot be secured and commercial fertilizer must be used, a complete fertilizer is usually preferable and may be used with a lavish hand—1,000 pounds to the acre composed of 200 pounds nitrate of soda, 200 pounds acid phosphate, 200 pounds ground bone and 400 pounds muriate of potash, or a special complete fertilizer manufactured by the packing houses composed largely of blood, bone and other animal tissues, may be used. Most of these have a composition of approximately 1 to 4 per cent nitrogen, 5 to 10 per cent phosphorus, and 5 to 10 per cent potash. One thousand pounds to the acre of such fertilizer is frequently a very good investment.



BOYS AND GIRLS UNDER PROPER LEADERSHIP AND DIRECTION CAN BECOME SUCCESSFUL GARDENERS.—IT IS A FORM OF WAR SERVICE IN WHICH THEY CAN ALL ENROLL

Lettuce, radishes, peppergrass, turnips, beets, onions and smooth seeded peas may be sown as early as the ground may be worked. The loose leaf varieties of lettuce are most grown in western gardens but the superior quality of the head lettuce should prompt many growers to make a trial of one or more varieties. The old standard Boston Market is a good head lettuce, as is Tennis Ball. Of the loose varieties, Hanson and Black Seeded Simpson are standard sorts, and of the radishes, the little round Red Forcings and French Breakfast are the earlier, and medium varieties are Crimson Giant and later White Strassburg.

For Spinach, Victoria and Prickly Seeded are early varieties, Peppergrass or upland cress is a welcome substitute for water cress where water cress is not grown. If early onions are wanted the sets should be planted, the color being a matters of choice. The main crop of onions is grown chiefly from seed and the standard varieties are Globe Danvers, Red Weatherfield, Yellow Prizetaker and Silver King. In home gardens the top set onions have the advantage o producing sets alternate seasons but the quality is somewhat inferior to the best seed onions.

The smooth-seeded peas will stand considerable frost and it is well to plant them liberally. Alaska and Earliest-of-All are some of the best of the smooth-seeded varieties. For a later crop, the wrinkled peas produce more heavily and are better quality. Of these, Gradus, American Wonder, Abundance and Fillbasket are the best medium, and the later varieties, Telephone and Strategem. Beets should be planted early and better quality will be secured by planting in succession. Early Egyptian and Eclipse are among the earliest and for later use Crimson Globe and Bastian's Halg-Long are good varieties. For turnips for the garden the Extra Early White Milan is one of the earliest, and White Egg is fine quality although somewhat later. For the root crops a short row of carrots will furnish an abundance for the family, but any surplus can be readily disposed of to the horses and cows and it is worth while to plant a considerable quantity. The Shorthorn and Danvers Half Long are standard varietiec. Of the parsnips, Guernsey and Hollow Crown are best known. Salsify or vegetable oyster may well have a place in every garden. While not so productive as carrots and parsnips, it is of higher quality and a yield of a pound to a foot of row is easily secured. Two good varieties are Long White and Sandwich Island.

Seed for the plants of early cabbage should be sown as early as the hot bed can be gotten ready. The Early Jersey Wakefield is one of the earliest, the earliest, and Early Winnigstadt, which is pointed in form, is not quite so early but of good quality. For later stock Danish Ball Head has been one of the best. For anyone wishing red cabbage, Red Rock has been generally successful. Cauliflower may be planted at the same

(Continued on Page Nine)

SAVED! FOR SEPARATOR BUYERS



My direct factory prices prove that a high price for a Separator is all wrong—Read my book and see!

Don't buy any separator — no matter what price—until you get Galloway's brand new separator proposition. Look around all you please — examine all the best separators you know—get posted thoroughly but don't decide — don't order until you hear what a wonderful separator I can give you and how much I can save you on the price. Send Coupon for my Free Book and read every word of Galloway's great new separator offer. It will mean money in your pocket.

My FREE Book Exposes the Secrets of Separator Selling

I have laid bare the truth on separators. I have gone straight to the heart of the separator business. I can give you the whole story from the raw materials to the finished product because I know. Remember, I don't just sell separators. I design them and make them right here in my immense factories at Waterloo (one entire building is devoted to separator making alone) so I understand separators from every angle and am ready to give you—without cost or obligation—all this separator knowledge—facts you ought to know about separators before you invest your good money. Get the book now—send the coupon.

Buying Direct from Galloway Saves You a Third to Half

This wonderful free book tells about the various methods of separator selling. It proves in figures how buying direct from Galloway—the actual maker—saves you a third to a half in real money. My book tells you in a clear, logical way how buying a separator by any other method means you pay 25% to 40% more than you should. There is a whole lot to this big separator question and to get the most value for every dollar you spend you should know what I know about separators.

Test My New Sanitary Model Side by Side With Any Separator Made — Then Decide

Separators have a certain work to do. True—they must be substantially made, easily cleaned, sanitary and give lasting service — but they must skim—and skim close — a certain amount in a definite time. Separator service is the big important thing to look for. So I say before you decide on my new Sanitary Model, test it—compare it with any. The bigber the price or the better the grade separator you compare it with, the better I'll like it. The more severe and critical you make the comparison, the more certain you will be that Galloway does really give you the greatest and best separator value in the world.

$46.90
375 lbs. Capacity

Larger sizes in proportion. My 950 lbs. size costs no more than other high grade small sizes cost. I guarantee satisfaction or money back. I take all the risk.

Milking Test for 90 Days

You can take that long if you want to convince yourself. I say—"Use my new Sanitary Model for 180 milkings on your own farm." That will show you and that will prove to you beyond any doubt that your separator money goes farthest when you buy your separator from me. My offer is fair and square.

Send Coupon for FREE Book

So—now then, get the whole story as told in my free book. Get Galloway's first-hand information on separators. Whether you buy from me or not the facts I tell you in this book will save you many a dollar on your separator and will show you how you can make every penny you invest in a separator bring back definite returns. Send the coupon tonight and get this valuable book.

Take These Farmers' Word — They Know

Galloway separator has given the best of satisfaction. I get all the cream and uniform test. There hasn't been more than two points variation in cream test all summer.
M. B. HICKOX, Miller, S. Dak.

Have given Galloway separator a good trial and am well pleased with it. It certainly is worth the money. I don't understand why some people pay $90 to $120 for a separator when you sell a separator just as good for about half.
F. J. HUREN, Cheyenne Wells, Col.

NEW 1918 PRICE COUPON—MAIL IT!

Wm. Galloway, Pres. Wm. Galloway Co.,
213 Galloway Station, Waterloo, Iowa

I am interested. Please send me low prices — full information about your new Galloway Sanitary Separator and big money saving book on Separator secrets.

Name.....
R. F. D.....
Town.....
State.....

Don't Hesitate but Act Now
—Cut Out and Mail Coupon—Read My Book

Clip out this coupon — and send for my great big money-saving book that solves your separator problem. It also describes the great Galloway Spreader, Tractor, Engine and other implements. I even save you money on freight because I ship from St. Paul, Kansas City, Council Bluffs, Chicago as well as Waterloo. Write tonight.

Wm. Galloway, President
The Wm. Galloway Co.
213 Galloway Station WATERLOO, IOWA

Kirstin One-Man Stump Puller

Cheapest Way to Clear Land

No horses needed—no extra help required—one man alone pulls all kinds of stumps quick and easy. The Kirstin holds record for lowest land clearing cost. New patented features gives enormous strength and power. Shipped on actual 30-day Free Trial—3-Year Guarantee and 6 months to pay proposition. Get Big Free Book and very Special Offer on One-Man and Horse Pullers—all sizes.

Send for FREE Book

A. J. KIRSTIN CO.
3151 Ludington St., Escanaba, Mich.

FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

THE opening of the spring season will see a large number of tractors at work on Kansas farms. Many of these tractors will he in the hands of new and inexperienced men. Some will give the hest of service while with others difficulties may arise. A careful study of the handling of a tractor is essential to success.

Proper luhrication of the tractor is a factor that the inexperienced operator is very apt to overlook. The tractor motor is expected to do continuous heavy duty, and if it is to deliver the requisite amount of power, and render efficient and durable service, the lubrication must he of the best. The l st oils obtainahle are none to good. Owing to the great demand for luhricating oils, the quality has heen reduced and there seems to be a tendency among some manufacturers to put the tractor user off with a lower grade of oil than that supplied to automobile men. It is of great importance that the tractor be supplied with the highest grade oil of the proper grade to enahle the machine to do the best work with the least wear. Changing the oil at short intervals of two of three days as recommended by the manufacturers is highly advisable. The saving of a few dollars on oil will not overcome the loss resulting from the excessive wear due to faulty luhrication. Many tractor motors have heen ruined by neglect of lubrication. It will pay to study the problem with great care.

Renewing the Auto

The utilization of the used automobile has always been a matter of serious thought on the part of the owner. Too often machines in perfect mechanical condition have been sold or exchanged at a sacrifice on account of appearance. Tops become torn or misshapen, and the finish—no matter how good in the heginning—is destroyed by careless washing or prolonged exposure to the weather.

The unkempt appearance of such cars robs them of interest to the owners, no matter how good the motor and other mechanical parts.

The manufacturing conditions, brought on by the war, make it imperative that better use be made of these cars and that fewer cars he junked. The plants must reduce the output of new cars on account of turning their attention to the more important work of making parts for military aeroplanes, trucks, munitions, and other equipment needed by the Army and Navy.

This change of condition from maximum to minimum production of new pleasure cars, calls the refinishing of the old car most forcibly to mind, and raises the question of how it is to he done.

Looked at in the light of dollars and cents, the $2,000 car has its exchange value reduced by not less than $600 to $1,000 after a year of service. Its actual value from the standpoint of utility is not reduced to any such extent. The actual worth may not be reduced hy more than 10 to 20 per cent. Cheaper cars depreciate in somewhat the same proportion. The big apparent loss in value is due most largely to the appearance of the top and finish.

Depending on the size and condition of the car, this refinishing can be accomplished at from $30 to $100, and will result in bringing the car back to its real utility worth, instead of its exchange value, thereby effecting a considerahle saving in money, and restoring the pride of the owner in his machine. It makes him feel that he has accomplished something worth while.

The top question is the easiest. A dilapidated or torn top can be replaced quickly and cheaply by the repair man, and for many types of cars new top covers can be purchased ready-made, and can he put on hy the owner in little time. These new fabrikoid tops, put on by the shop or hy the owner, will in most eases be even hetter and more attractive than the originals.

Refinishing the chassis and hody is about as feasible, and, if done with high-grade materials and workmanship, will restore the orginal beauty. Here, again, the owner has the option of having the job done by the expert in the paint shop or attacking it himself. The new auto enamels especially designed for refinishing used cars will, where properly applied, produce finishes equal to new cars.

Broken windows in the side and back curtains are easily replaced with pyralin sheeting, which is the material most used by the curtain manufacturer, and scratched and discolored windows can he brightened hy using solutions especially prepared or the purpose.

Varieties of colors in the tops and enamels make it possihle to satisfy any desire in this connection. The old car is rejuvenated or renewed to such an extent that there is no desire to exchange, and the old personal attachment to the car is continued; and the manufacturing plant is relieved of the necessity of building a new one, so the raw materials required for building the new car are left for more important uses.

Conservation is now the keynote of our national life. Produce more—save what we have—those are the two essentials to winning the war. The fact that we can personally afford an unnecessary expense does not justify our incurring it. The whole nation—and that includes the most prosperous one of us—must save.—Dupont Magazine.

Automobile in Transportation

While we are all endeavoring to do what is hest to help America win in the war, it is not amiss to give some thought to the relationship of the automohile to the war problem.

The automohile has a hig responsibility shared alike by every owner. You should use your car more—more for utility purposes—more than ever to relieve the transportation congestion due to the demands made upon the railways.

Every time you and your family ride in your car from one place to another, you relieve the railways just to that extent. Don't be disturhed about the railroads not having enough passenger business. The continued movement of troops more than offsets the substitution generally of the automobile for railway travel over short distances. You are, therefore, actually performing a patriotic duty in making your automobile a real transportation vehicle. By carrying merchandise in your motor car to distances of fifty miles or less, you will relieve the congestion on freight and mail trains throughout the country.

The recent reports from Washington show that our railroads have carried this year 15 per cent more than they did in 1916, which broke all records for freight deliveries. Admission is made at the same time that the railroads are now swamped hy commercial activities, the transportation of farm products, the delivery of mail and parcel post and the business of the Government in the transportation of troops and munitions.

The automobile, therefore, should constitute a secondary line of national transportation. It is estimated that there are 4,200,000 automohiles in service in the United States, of which approximately 1,750,000 are in the hands of the farmers. It is safe to say that practically all of these automohiles on the farm are used the greater part of the time for utility purposes. In cities and towns it is safe to say that at least 70 per cent are used for transportation uses, conveying people from one place to another on business errands, etc. The automobile has enabled the doctor to considerably extend his practice and very materially increase his own efficiency as a human factor in city and country.

It is unfortunate that the automobile has been referred to as a pleasure car. This is really a misnomer, and so far as farm use is concerned, a positive libel. The farmer, after all, devotes his automohile to utility purposes, all of
are essentially transportation.

The automobile on the farm ha
than earned its fee, while the horse that preceded it required a substantial amount of acreage for self support. At the exceedingly high price of farm produce it has been said by the keen observer that the raising of horses to drive around the city or country was nothing short of unpatriotic.

The automobile, however, has come so firmly into its own that its use on the farm is well nigh indispensable.

Disease is the nation's greatest burden.

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FARMERS AND THE WAR

"War service on the farm" was the subject of an address at the War Conference in Topeka hy Howard M. Hill of Lafontaine, Kansas. Mr. Hill made one of the keynote speeches of the convention, which was attended hy representative men and women from every part of the state. He told of what they have done on their own farm in their endeavor to follow the war program laid down by the administration. They have cut down the eonsumption of white flour and sugar. Although potatoes were an ahsolute failure in that section, they listened to the Food Administration when it announced that over the eountry as a whole there was a hig potato erop and potatoes should he caten in large quantities by our people in this country. It is obvious that potatoes cannot be shipped to feed our allies in Europe. It would take four times as many ships to take a given amount of food value in potatoes as in wheat. Therefore the patriotic thing to do is to use up all our potatoes here at home, using them as substitutes for other food as far as possible.

When the dealer called Mr. Hill up and announced that a shipment of coal was in town, and suggested that he send in his teams for his usual winter supply, they held a family council and decided they would draw on the resources of the farm for their fuel and eanceled the coal order. Wood has been worked up and used to the present time and Mr. Hill says they have not suffered and feel that by making this effort, they have released coal for other purposes. It is a comhination of such acts carried out voluntarily hy millions of people all over the country that makes possible the great savings in food and fuel demanded hy our war program.

Mr. Hill denounces in no uncertain terms the policy heing followed by many papers and puhlic men of playing politics. He pointed out that this practice of putting in hig type in the headlines, statements tending to array class against class and stir up opposition to the administration policies, was one great cause of the slowness with which many of us are falling into line and backing the war program. He called attention to the fact that while these misleading headlines were appearing, the real facts would he hidden away in some ohscure corner of the paper. For example, on the day he was speaking, the papers were featuring in big type the howl that was going up all over the country and the opposition in Congress to Mr. Garfield's fuel order shutting down industries for five days, while hid away in the back part of the paper would appear such statements as that telling of the 116 ships in New York harbor all ready to sail for Europe and only lacking supplies of coal. "We are in this war to win," said Mr. Hill, "and this sort of thing is serving to give comfort and aid to our enemies." He also referred to the capital that is heing made of exempting farmers from military service. While recognizing the tremendous difficulties under which farmers are laboring in getting their work done, he made it clear that he was not in favor of depriving any man of the privilege of offering himself for service in fighting for the great cause of humanity.

This speech was not exactly the kind of a speech that might have been expected of a farmer if we based our opinion of him on the way in which he has been depicted in many of our papers. We have a feeling from our own observations that Mr. Hill was voicing the real sentiment of farmers generally more truly than the demagogues who are constantly appealing to their lower motives in the public utterances they make. This was not the only speech in which the injection of polities into the war was deplored. Chaneellor Strong of the University of Kansas, who appeared on the last program of the session, also made an appeal for backing our administration irrespective of politics. As Dr. Thomas N. Carver of Harvard University said in closing his address on Price Fixing, "this is no time to talk about rights or wrongs or grievances. Our one inquiry should he, 'What ought we to do in this crisis?' not 'How much ought we to get out of it?' Our demoeratic Government will not eommand you to do everything which you ought to do. It expects you to do it of your own free will."

CARVER MAY COME TO KANSAS

Dr. Thomas N. Carver, professor of political economy at Harvard University, who spoke at the war conference in Topeka last week and gave two addresses in Manhattan this week, is being considered for the presidency of the Kansas Agricultural College. Doctor Carver would be a worthy successor to former President H. J. Waters. He is an Iowa man hy birth and has been through all the hardships of pioneer life on the farm. Like many a farm boy, he worked hard for his early education. He is widely known as an authority on agricultural economics and has had a distinguished career as an educator.

If the Board of Administration succeeds in getting Doctor Carver to accept the presidency of the Kansas Agricultural College, the members will have justified the confidence placed in them by the people of the state, who hold the Governor and Board responsihle for the proper management of state institutions. Doctor Carver is a man who would have the undivided, enthusiastic support of all those now eonnected with the institution. He gave a series of lectures at a summer session in Manhattan a few years ago and won all who heard him by his thorough grasp of the subject and his simple, unassuming manner.

AGRICULTURAL AGENTS INCREASE

It seems hut yesterday that it was hailed as a most unusual event when a county of this state raised the necessary funds and employed a county agricultural agent. New agents are being employed so rapidly now that we can hardly keep our list up to date. In the heginning of this movement in Kansas we took considerable satisfaction in the fact that we were personally acquainted with the agricultural agents in the various counties and knew of their fine qualifications for the work. While we have not been able to maintain this personal touch in general we now feel more sure than ever that this new development in agricultural extension is based on a most progressive idea. No matter how much useful information on agrieultural subjects is furnished through publications, correspondence, or lectures, the personal work of a man on the ground is most fruitful of results.

The county agricultural agent can help the people of his community in ways open to no one else. One of his greatest opportunities for service is the organizing of people to help themselves. Like a speetator on the side line in a game of baseball or foothall, he often sees more of the game than the players in the thick of the fight. He passes on the good features he observes from one farm to another, and from his relationship with outside forces he can bring to the doors of the people in his county on short notice the best knowledge and information available on technical problems of the farm.

A letter from a Chase County Farm Bureau member, where an agent has been at work for the past year, illustrates the service rendered far better than we can tell it.

"Chase County appreciates her agricultural agent and our farmers will in the future make still more use of him than they have in the past year. Many farmers, however, still have an idea that it is an imposition on the tax payers and a foolish waste of money. How often have we heard the remark: 'Well, I don't need his help in my business. He'll never get a chance to give me any advice.' And yet that same man will hasten to the county agent in a pinch when the eholera gets into his herd of hogs and ask for help to get his stock vaccinated.

"The county agent's services are free, and he is in one sense of the word a specialist on the suhject of farming, and while his knowledge is to a considerable extent 'hook learning,' as some people contemptuously express it, yet a very large part of his service has to do with practicle farm work, such as vaccinating hogs against cholera, calves against hlackleg, securing seed for planting and replanting, or if not securing the seed, at least notifying the farmers where it can be secured, making arrangements with the Agricultural College to secure the services of a professional orchardist for demonstrational spraying of orchards, and many such things that are of almost incalculahle benefit to the farmers throughout his territory.

"Let me illustrate hy citing one case. Last summer a very severe hail storm passed through a section of our county and completely destroyed all crops. So severe was the storm that there was not the least trace of a crop on ground where corn had stood nearly two feet in height, except an occasional stub. Forage erops were eompletely cut up and beaten into the ground. The farmers had to replant as soon as possihle. This was ahout July 15, if I remember eorrectly. One of the first men to reach the area of destroyed crops was our eounty agent who offered his services in helping to obtain seed for replanting. Douhtless his aid enahled some farmers to secure seed nearly a week before they would have been ahle to do otherwise. This meant a great deal for the growing season for the replanted crop was short, it also meant much to the farmer in saving him the trouhle of driving around over the eountry to find seed when he should be in the field preparing his ground. Thus at these crucial moments when a man is sorely in need of ready help, the agent drops in with a cheery greeting and the needed assistance.

"Another instance of the practical value of the county agent is shown in the aid he has given in the organization of eanning clubs, the suggestions he has made to them, and the arrangements he has made in getting help from the Agrieultural College to demonstrate new canning methods. That this phase of agricultural work has been of great value is shown in the housewife's store of canned goods, most stores being mueh larger than would have heen possible without the introduction of this new method of canning. This, too, means much to everyone who is affected by the high cost of living, for the more eanned goods there are in store, the less danger of high prices.

"The opposition to the county agricultural agent is slowly dwindling away and will in a few years he entirely overwhelmed in the desire for advanced methods and a broader, comprehension of farm life in general."

The county agent thus becomes in large measure the leader of organized movements through which the forces of the community seeking agricultural advancement operate. He is their paid executive, and that county which does not have a good agriculeural agent is losing a big opportunity to promote agricultural progress.

STUBBS FOR SENATE

A fourth candidate has just announced for the Repuhlican nomination for the senatorship from Kansas—Ex-Governor W. R. Stubbs of Lawrence. This annouueement is of considerable signifieanee beeause, in addition to a strong following in all vocations, many of the leading stockmen of the state urged Mr. Stubbs most strongly to take this step. Live stock is one of the big industries of Kansas, in fact must he the basis of our permanent prosperity in agriculture. Many prohlems of vital concern as affecting live-stock interests are certain to come up in Congress in the near future. An investigation of the packing industry is now under way. There will he other movements of similar import. Ex-Governor Stubbs is himself one of the largest live-stock producers in the Southwest, and has been in the thick of the fight with the packers and other vested interests. He has already made several trips to Washington in the interests of this great industry.

KANSAS FARMER has no party politics, but we are interested in having our farming interests properly and forcefully represented in the halls of our national Congress. Too many of the men sent to represent great agricultural states like Kansas come from occupations remote from the soil. Mr. Stuhbs is generally known as a man who is absolutely fearless, hewing to the line without a thought as to where the ehips may fall. Many of our KANSAS FARMER folks will be interested in reading the statement made by friends of ex-Governor Stubbs in urging him to enter the race.

"We, believing there is a wide-spread sentiment in the state for strong and able men, urge former Governor W. R. Stuhhs to become a candidate for the Repuhlican nomination for United States senator at the August primaries. We recognize in W. R. Stubhs one of the ablest men in this state. His various business activities, his sterling, rugged character, his broad vision of public service, his eminently patriotic and constructive administration as governor testify to his high class personal qualifications.

"The great issue in America is winning the war. Victory depends very much upon the production of foods, on inland transportation service, upon intelligent conservation of our resources, and upon the vision of our citizenship of the high moral purpose for which to fight and sacrifice. We believe no man in Kansas embodies a wider experience in the activities which constitute material support of the war nor higher conception of state and national duty in the war than does W. R. Stubbs. In railroading, in farming and dairying, in stock raising, in hanking and finance, W. R. Stubbs has had wide experience and has been an undisputed leader. The period of reeonstruction after the war no less than its progress, demands the ability of our strongest men. We have no hesitancy in indorsing W. R. Stuhhs for the highest responsihility the state ean give him in these matters, and we feel a duty devolves upon him to accept this candidacy."

There is yet no indication that anyone in the ranks of the Democrats will enter the contest in the primaries against Senator Thompson. The final race for senate will thus be between the present Demoeratie senator and whoever wins out in the primaries on the Republican ticket.

Kansas is waking up rapidly to the war situation. The Grange, through its state officers, has just pledged the Food Administration of Kansas the fullest co-operation of all subordinate granges. It is in connection with bulk buying and distrihution of supplies that the Food Administration desires this co-operation. According to press reports the State Farmers' Union, which has just held its annual meeting in Wichita, passed, among other important resolutions, one endorsing the Government's price-fixing policy. The agricultural interests of Kansas have enlisted for the war and are not counting the cost.

Husband your physical resources by keeping well. "Getting well" after the submarines of disease have done their work is both difficult and uncertain.

GETTING FARM LABOR

Farm Help Specialists Assigned to Four Groups of States

THE war has interfered with the supply of farm labor and necessitated entirely different methods of getting the needed help to handle the peak load which is sure to come at various periods of the year. The Federal Department of Agriculture insists that there is enough labor in the country providing it can be used efficiently and so mobilized as to be at the right place at the right time. As a result of the careful study farm specialists have made, they point out that it is a mistake to send out a despairing cry that the problem cannot be solved and therefore we must go down to defeat in the matter of keeping up crop production.

Those who would help solve the farm labor situation must have a real knowledge of farm conditions. The ordinary labor bureau, such as has been handling the problem of floating labor, has in the past given no consideration to the special requirements of men sent out for farm service. The Department of Agriculture is to be commended for its action in taking up this question and furnishing as they have done farm labor specialists to assist the Department of Labor in handling the situation.

Under war conditions all precedents are worthless. The man who has been accustomed to wait until he needed some extra help in haying or harvesting and then go to the corner grocery store or other lounging place in the small town where formerly idle men congregated waiting for the call to help, will be disappointed. The men will not be there as of old. A much more comprehensive and far-reaching plan must be worked out in which numerous agencies co-operate with the farmer needing the help. The real solution of the problem is largely a matter of co-operation.

The plan which has been worked out by the Department of Agriculture and is already being put into operation was explained to probably 150 representative farmers from all parts of Kansas by E. V. Wilcox of the Department of Agriculture, who gave an address on Farm labor at the agricultural convention held in Topeka recently by the State Board of Agriculture. There are two main features or phases of the Department's program for handling the farm labor situation as outlined by Mr. Wilcox, namely, to learn the labor needs of every farmer and to develop all possible sources of labor. In order to meet this problem satisfactorily a suitable organization was the first requirement to be met. The present plan of organization includes the Office of Farm Management in general charge of the program, four supervising farm help specialists in charge of the northeastern, north-central, southern and western divisions of the United States, thirty-seven state farm help specialists for the most part one man in charge of the work in each state but in some instances in charge of a group of two or more states; county agents or other county men and community leaders or committees. This organization is in active co-operation with the United States Department of Labor, the extension service of the agricultural colleges, state councils of defense, state commissioners of agriculture and labor and other organizations officially interested in the farm labor problem.

In general the work of the farm help specialists of the department of agriculture is concerned with the farm side of the problem. These men must devise means of securing accurate and authoritative information regarding the farm labor needs of every farmer in their territory. They must also learn what readjustments of farm labor are possible so as to handle the work in hand. They make surveys of rural communities and small towns to ascertain the prospects of securing for farm work labor not now fully employed for that purpose. The work of the department of labor in this connection consists in the extension and even more efficient handling of their system of employment offices in the cities. At these employment offices thousands of men apply for positions. Many of these men have had previous farm experience and are therefore especially desirable for use in farm operations. In this year's experience in New York State it was found that about ten percent of the laborers applying at employment offices had had previous farm experience. It is especially desirable that all such men be sent back to the farm and an effort is being made to accomplish this result through the active and cordial co-operation of the department of labor. In order to bring this result about more methodically an arrangement has recently been made whereby one of the members of the staff of the Office of Farm Management has been assigned to service in the Department of Labor in order to present the viewpoint of the Department of Agriculture and of the farmer to the men in charge of employment offices and to make arrangements for selecting for assignment to farm work all experienced men and at the same time to prevent sending to the farmers men who are out of sympathy with farm work, without experience on farms and therefore unlikely to give satisfactory service.

Thus far the only serious phase of the farm labor problem is concerned with securing a sufficient supply of experienced men. Some of these men have been drawn away from the farm by the economic attraction of higher wages in city industries and the problem before us is how to get some of them back to the farm. Among the miscellaneous applicants in employment offices, for example, are experienced milkers, farm teamsters, and handlers of farm machinery. It is of large importance to sift these men out of the general supply of migratory labor and return them to satisfactory positions on farms where they are urgently needed.

There are several sources of labor not already fully utilized for farm work. A computation of data obtained in making farm surveys and in studying the problem of tenancy shows that there are about 700,000 retired farmers in the United States not now occupied with any gainful occupation. The very fact of their being retired farmers indicates that they have been successful in their occupation. They are therefore men with just the qualifications required for directing farm operations and for handling complicated machinery not requiring great physical exertion. Many of these men are of course past middle life but the majority of them are still capable of doing efficient service on farms and many of them have returned to the farm under the present emergency to add the weight of their experience, counsel and expert service to the solution of the problem.

There are about five million boys in the United States between the ages of 16 and 21 years. Many of these boys naturally return to the farm for the summer vacation, some being farmers' sons and others having had more or less experience with farm work. Not all of them of course, should be expected to take part in farm operations and not all of them will be needed for such work, but there are large numbers of city boys without previous farm experience who, with a little patience on the part of the farmer, may be trained into valuable farm hands. They are naturally alert, quick to learn and full of energy, and under proper guidance may render a good account of themselves on the farm. In fact the experience of the past year, while varied in the different states, has shown that these boys are a great asset which cannot be overlooked in the consideration of the farm labor problem. Then there is a great crowd of city dwellers who take an annual vacation preferably at out-of-door work. Many of these men have taken vacations on farms year after year and are therefore sufficiently expert to be entrusted with nearly all kinds of farm work. Again we have to consider the large number of men now engaged in city industries of various sorts who can be spared for work on the farm during slack periods of business.

"The problem of farm labor is not a new one," said Mr. Wilcox. "It has always existed. The farmer has always complained of the inefficiency of the farm labor and the laborer in turn has always complained of poor housing conditions, poor food and bad treatment on farms. The laborer has complained most bitterly perhaps of irregularity in hours rather than the length of the day's work on the farm. He has also resented the fact that in many instances his social status is wholly anomalous and indefinable since he appears to be neither a member of the family nor of any other recognized status. In fact he seems to feel that from the viewpoint of the farmer he is neither flesh, fowl nor good red herring. It is plainly necessary that both parties should get together and reach an understanding. Each must meet the other's reasonable requirements."

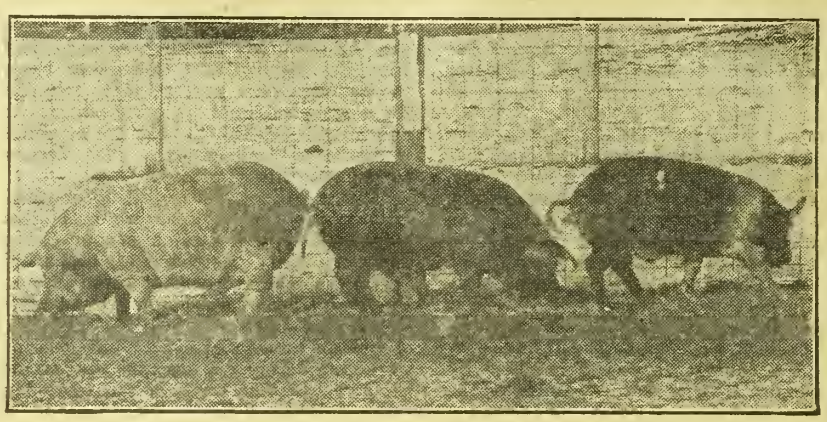
The farm labor problem is a community function, requiring the hearty co-operation of urban and rural populations. The farmer's business cannot be so arranged that he can employ the same number of men continuously the year around. At harvest time, at fruit picking time, and on other occasions there is a demand for a number of extra laborers. It is unreasonable to maintain an economic system in which a number of men lie idle for a large portion of the year merely for the purpose of performing this emergency labor at harvest time. It is far better that the city population recognize their duty as members of the community and that they adjust their business affairs so that they can go out on the farms and do the emergency work of harvest and of other occasions requiring extra help.

This is already being done in many parts of Kansas. There are towns in the state where a good share of the business firms closed up during emergency periods and went out on the farms and helped take care of the crops. A Jewell County man told us during the Board of Agriculture meeting that the managers of some lumber yards in which he was interested had standing orders to close up the yards and send all the men employed out to the farms when an emergency arose making it necessary for the farmers to have extra help in order to save crops.

Kansas has been especially fortunate in getting E. E. Frizell of Larned to accept the job of farm labor specialist for this state. With his knowledge of farm conditions and experience in handling the farm labor problem, we can rest assured that everything possible will be done to secure the utmost efficiency. The individual farmer must do his part to make this plan a success. In the first place he should report his needs to his county agent or to a member of the community farm help committee as early in the season as possible. It may be possible to supply his needs from lists of the men available within the county. If local labor is inadequate, the county agent or the committee will report to the state farm labor specialist, who in co-operation with the state officials will draw on the nearest available labor in the state. If you do not know the name of your county agent or the names of your community committee on labor, make your wants known direct to the farm help specialist, who will establish his office at Manhattan. It is apparent to everyone that this man has a very important and difficult function to perform. He must be a source of inspiration to bring all the state and federal agencies into harmony within the state. It is obviously hard to define or limit his exact duties, since they must be flexible and variable in nature, depending on the conditions which may develop from time to time.

Mr. Wilcox does not take a pessimistic view of the situation. In closing his address he made the following statements, which are indicative of his optimistic views:

"The results obtained in our farm labor work of the past crop season indicate that there is labor enough in the country if it is properly distributed and efficiently employed. There appears to be, in other words, no absolute shortage of labor. There are many local disturbances due to the unusual competition for labor at high wages and in certain localities farmers have suffered for want of labor and have found it difficult to secure help in the places where they had usually found it. This, however, is no time either for pessimism or for overconfidence. The situation requires patience and above all genuinely productive work on the part of all citizens. There is no place in the present economic system for loafers or slackers. The situation which has developed as a result of the European war is new to all of us and many annoying local disturbances have occurred requiring much patience. Readjustments, however, are rapidly taking place. The farmer is gradually realizing that with the present prices of farm products he can pay higher wages and in fact the country as a whole is awakening to a realization of the duty of every citizen to find a niche where he can be of most service and to perform his share of fundamental productive work. The necessity for a higher efficiency of labor and for more extensive use of labor-saving devices and cropping systems designed for the better utilization of farm labor has been too largely considered as an academic proposition. This necessity is now a condition, not a theory. The real problem before us is therefore not to find laborers in China or Timbuctoo to do our work but to do it ourselves. We are going at this problem with open eyes and open minds and with the co-operation of all classes of population we shall surely succeed."



HE fed himself—the big, "strapping, husky, well-conditioned, contented pig on the left—and that according to the free-choice system. But his mates across the fence did not fare so well, the somewhat upstanding one in the middle, fed according to the Dietrich or Illinois system, being much ligher and less well finished. The roving pig on the right was always hungry while being carried on the German feeding standards—the Wolff-Lehman. Even now he is looking for a hole big enough to escape. After six months' feeding free-choice style we have a bouncing 316-pound finished, thickly-covered fat hog; Dietrich or Illinois system, 281 pounds, not so fat nor high dressing; and Wolff-Lehman, 218 pounds of abundant frame but thin covering. And there is only one among the three that has a real good inspiring curl of happiness in his tail, namely, the one that had whatever of corn and whatever of tankige he wished whenever he wished it. The Dietrich-fed pig's tail stands out like a bean pole, and the Wolff-Lehman's like a twisted stove poker. Verily the pig's tail tells the tale of feeding efficiency.—JOHN M. EVVARD.

MUST SAVE MORE WHEAT

THE Federal Food Administration insists that we must save more wheat. Our allies are in actual need of seventy-five million bushels to carry them from the present time until their next harvest. We are being asked to still further restrict our food habits, for from no other source than the United States can come the wheat which they must have. According to announcement recently made, Monday and Wednesday are both to be wheat-saving days. Walter P. Innes, food administrator for Kansas, in his address before the Kansas War Council last week stated that in the near future, purchasers of wheat flour would be required to buy a certain per cent of wheat substitutes. Those of us who have already adopted the Government program for saving wheat will welcome such rules as will force food slackers into line.

Mr. Innes was fresh from a conference of all state food officials with Mr. Hoover and the Canadian food administrator. Mr. Innes was one of six state food administrators named by Mr. Hoover to formulate new food conservation plans that will serve to relieve the desperate needs of our allies. He said in part:

"The strain of war is slowly weakening Germany. Short rations, short coal supplies, break down of transportation and reductions in munitions manufacture are resulting in a loss of morale.

"Among our co-belligerents conditions are far from perfect. The French food supply from crops is only half of the normal supply. The submarines have cut down food in England. Italy's reverse has united the country. States which did not formerly co-operate with each other in supplying food are working together now. On the whole the morale among the Allies is good. France looks to the coming of America into the war like the coming of the Messiah.

"Those countries now need food if they are to hold that line, and the United States must supply it. The next six or eight months are the most critical. From now until September the only way we can feed them is by saving, and we must save 75,000,000 bushels of wheat. Mr. Hoover will start at once to ship the needed wheat to Europe, so it is not a case of what we want to do. We must save. When I spoke for Kansas at the conference I said this state would do her part and I know she will, because Kansas wants that line in Europe to hold until our boys come up.

"In some parts of the world, as in Finland, the people are starving, and we cannot help because we must hold that line in France. We are not asked to starve, but to do our part. Cuba already is doing hers. Her people are on from 60 to 70 per cent rations. We are not asked to do even that.

"Our plan to save wheat includes:

"Limiting manufacturers of cream of wheat, shredded wheat and similar products by cutting down the supply to 70 per cent of their present receipts; limiting bakeries by requiring them to use 20 per cent substitute in all bread and 30 per cent substitute in pastries; cutting off supplies of wheat to linoleum factories, casting plants and other industrial plants; and limiting supplies to wholesalers, and grocers, who will in turn limit the trade.

"Later a rule shall be issued which will require all householders to purchase an equal supply of wheat substitute with every pound of wheat. Those substitutes are corn meal, rice, barley, grits, oats, oatmeal and hominy. The buyer can use all or any of the substitutes to balance his purchase of wheat.

"There will be a larger supply of sugar soon but we still have to curtail our consumption 10 per cent of normal.

"Farmers must work together where possible to put out more crops and harvest them. Labor will be freer notwithstanding the draft because workmen at the cantonments will he at home and the large industrial extensions of the last two years are complete or nearing completion. If needed for the harvest Secretary of War Baker will give enlisted men furloughs so they can come home and help. High school boys must be organized to help harvest.

"There is plenty of food in the United States if we eat the right sort. There are 90,000,000 bushels of potatoes more than the normal supply. There is a surplus of 1,500,000 packets of rice.

"We should eat corn meal. One pound of corn meal equals in nutritive value ninety-one cents' worth of eggs at fifty cents a dozen. A cent's worth of corn bread equals two loaves of wheat bread in value.

"We should eat our surplus of rice, potatoes, corn and vegetables. We should increase the consumption of perishables 50 to 150 per cent. Corn meal still is high, due to difficulty of transportation, but it is still an economical substitute for bread.

"In a few weeks a new home card will be ready for distribution. They will help explain how to assist the country and we want one in every kitchen in Kansas. To that end we want every county organization to so perfect itself that it can do its part in placing these cards in the homes. Since conditions are constantly changing, I would urge all to watch the papers so as to keep advised on the food supply and as to the best foods to use largely."

Wintering Mature Brood Sows

"Wintering Mature Brood Sows" is the title of a new bulletin just issued by the Nebraska Experiment Station. The results of seven years' work at the North Platte Substation are given with special emphasis on the work of the past three years. "Experiments indicate that old sows may be wintered on alfalfa alone with fair success altho this may not be a profitable practice under usual conditions," says the bulletin. "These results also indicate that the cheapest ration, when credit is given for the gains made, is a light ration of corn and alfalfa hay in a rack. The most recent test indicates that old sows may he wintered satisfactorily using self-chopped corn."

To make milk, cows must have water just as they must have feed.

Farm machinery is the artillery of agriculture. In what condition will your "field pieces" he for the spring drive?

Age Affects Gains in Hogs

That pigs on a ration which approximately supplies their needs can profitably be carried to a heavier weight than that at which many hogs are marketed is shown by two experiments recently completed at the Ohio Experiment Station to determine the effect of age on the rate and economy of gains. Shortly after weaning time in the first test the pigs were placed on a ration of ten parts of corn, four parts of middlings, and one part of tankage. In the second test a ration of corn and tankage was fed. Beginning with the ration of eight parts of corn to one part of tankage the proportion of corn was increased one-fourth part weekly for the first twenty-four weeks and remained constant thereafter. The plan followed in the second test seemed more efficient. Even less supplemental feed than was used might give as good results. The table shows by 100-pound intervals the average results of the two experiments.

In the first experiment the rate of gain was greater for each successive interval until a weight of 300 pounds was reached. For the last two intervals it decreased each time. In the second test from 100 to 200 pounds in weight the pigs gained more rapidly than from 200 to 300 pounds but not as rapidly as from 300 to 400 pounds.

With one exception the feed required per unit of gain increased as the pigs increased in weight. This is to be expected when the character of increase in live weight is taken into account. Fat is costly to produce and is now high in value. Even the comparatively high feed requirements for gains produced by the hogs between 400 and 500 pounds would, in many localities, permit a fair profit. Far more hogs should be carried to at least 300 pounds.

If heavy hogs sell at the premium the higher value of their carcass justifies, they can profitably be carried to a heavier weight than that of the average hog marketed today. Particularly is this true when the feed supply is above normal and the number of hogs below normal.

EFFECT OF AGE ON THE RATE AND ECONOMY OF GAINS

	Birth to 100 lbs.	100 to 200 lbs.	200 to 300 lbs.	300 to 400 lbs.	400 to 500 lbs.
Number of pigs	25	20	15	10	5
Average daily gain ....pounds..	0.705	1.745	1.720	1.816	1.694
Average time required ....days..	137.72	57.05	58.33	53.2	60.8
Feed per 100 pounds gain....pounds..	318.231	361.831	434.734	450.142	497.233



Think of Planting and Cultivating with Motor Power



Avery Tractor and Plow

6 sizes. A size for every size farm.



Avery "Yellow Kid" Thresher

8 sizes. A size for every size run.

THE Avery Motor Planter Cultivator makes it possible now for you to plant and cultivate a corn bean or other crop planted in rows without horses or mules.

With this machine one man can handle a hundred acres alone—more than double what one man ordinarily handles with animal power.

The Avery Motor Cultivator is a two-row machine. You operate the gangs like a horse cultivator and simply guide with a steering wheel instead of lines. It handles easily and turns short at the ends so that you can go back on the next two rows. It has a low speed for use the first time over and faster speeds for later plowings.

Besides cultivating, you can also do many other kinds of work with this machine. You can get a planting attachment and plant your crops. You can use it for pulling a hay rake, binder, harrow, drill and other machines. It is equipped with a belt pulley for feed grinding, sawing, pumping, grain elevating, etc.

Averyize All Your Farm Work

The most efficient and economical farm power combination you can use today is an Avery Tractor in the size you need for doing your plowing and other heavy traction and belt work, and an Avery Two-Row Motor Cultivator for your cultivating and other light work. You can also get an Avery Plow and an Avery Thresher in any one of eight sizes to fit the size tractor you buy.

Write for new 1918 free catalog of Avery Motor Farming, Threshing and Road Making Machinery and ask for special information about the machinery you are particularly interested in.

AVERY COMPANY, 5304 Iowa St., Peoria, Ill.

Branch Houses and Distributers Covering Every State in the Union and More Than Sixty Foreign Countries



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Banks And Railroads

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Graduates guaranteed positions and furnished employment to defray expenses while attending.

119 East Eighth St., Topeka

THE STRAY LIST.

TAKEN UP—BY J. J. MURRAY, ROUTE 3, Galena, Kansas, one yearling heifer, color red and white, no marks or brands. Appraised at $30. Ed Masterson, County Clerk, Columbus, Kansas.

TAKEN UP—ON NOVEMBER 1, 1917, BY John Holstein, Whitewoman Township, Wichita County, one red steer, four white legs, white tail, horns, about three years old, no marks or brands. Dean Trueblood, County Clerk, Leoti, Kansas.

TAKEN UP—BY A. L. JOY, OF LIBERTY Township, Cowley County, Kansas, on the first day of December, 1917, one heifer calf about four months old, color light red, motley face, white on belly and legs, no brands. Also one heifer calf about months old, color solid red, muley, no Frank V. Brown, County Clerk.

TAKEN UP—BY RACHEL McDONALD, Lewis Township, Gove County, Kansas, on the first day of December, 1917, one bay horse, branded with triangle on left shoulder; also one calf, color red, with white face. Appraised at $37.00. E. E. Baker, County Clerk.

TAKEN UP — BY H. C. ALLEGER, OF Garden Township, Cherokee County, Kansas, January 2, 1918, one brown mare mule, three years old. Brand O F. Appraised at $50. Ed Masterson, County Clerk, Columbus, Kan.

TAKEN UP—BY SAMUEL MINGER, OF Washington Township, Nemaha County, Kansas, one red calf, six months old, no marks or brands. Appraised at $20. W. L. Kauffman, County Clerk, Seneca, Kan.

TAKEN UP—BY J. P. PATTERSON, OF Richland Township, Pratt County, Kansas, on the 16th day of October, 1917, one small yearling steer, color red and white spotted, brand that resembles D or J on right hip. Appraised at $35. Mrs. Stella B. Sizelove, County Clerk, Pratt, Kansas.

TAKEN UP—ON THE 2D DAY OF DEcember, 1917, by R. F. Hodgins, in Silver Lake Township, Shawnee County, Kansas, three brown mules, one-year-olds, valued at $100 each. Kenneth Raub, County Clerk.

TAKEN UP, JANUARY 4, 1918, BY C. Hannaman, Edwards Township, Wichita County, red whiteface steer about two years old, brand looks like a 4 on right hip. Left ear split. Dean Trueblood, County Clerk, Leoti, Kansas.

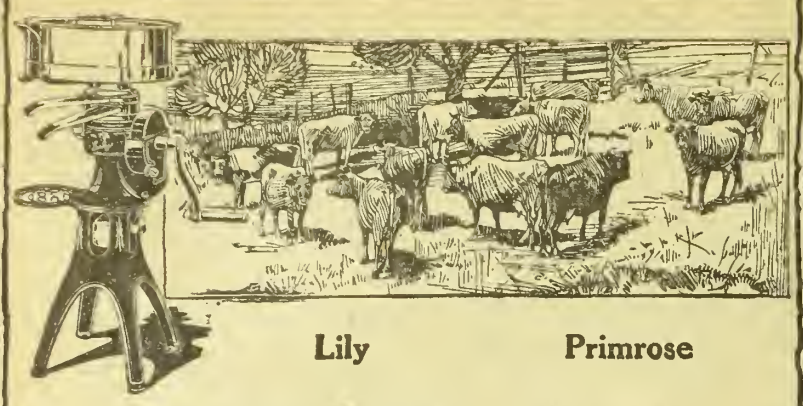
SITUATION WANTED.

EXPERIENCED MAN WITH FAMILY wants a job on farm. Prefer to run farm with everything furnished on shares or by month. A. B. Cummings, 179 Norton St., Topeka, Kansas.

When Writing to Advertisers, Please Mention Kansas Farmer

A bath a day keeps the doctor away.

There are 160 different sizes and designs of farm tractors now being sold.



Lily Primrose

Take Your Time

NEVER buy a cream separator in a hurry. Your reason for buying is not so much to get a cream separator, as *to get all the cream from your milk, all the time.* It takes time to pick that kind of a machine out of the many on the market.

Send to reputable firms for catalogues, and study them carefully. See which machine requires the fewest and simplest adjustments; which has the best oiling system; which is most sanitary and most easily cleaned; which is so well made that it will undoubtedly do good work for a long time. Go into details, and pick the best two or three of the lot.

Then ask for skimming demonstrations to determine how little cream is left in the skim milk. This is important, because the wrong machine can waste more cream than it is worth, while the right one will put money in your pocket every time you use it.

When you are through you will find that you have bought a **Lily** or a **Primrose Cream Separator** because the **Lily** and **Primrose** will prove to be first on all these counts. We will send catalogues on request, leaving the final decision to your judgment.

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THINK of it! For only $2 down you can now get any size of the New Butterfly Cream Separator direct from our factory on a plan whereby it will earn its own cost and more **before you pay.** You won't feel the cost. For only $29 you can buy the No. 2 Junior—a light running, easy cleaning, close skimming, durable, guaranteed separator. Skims 95 quarts per hour. We also make five other sizes of the

NEW BUTTERFLY

up to our big 800 pound capacity machine shown here—all sold at similar low prices and on our liberal terms of **only $2 down and a year to pay.** Every machine guaranteed a lifetime against defects in material and workmanship.

Easy To Clean
Easy To Turn



30 DAYS' FREE TRIAL

You can have 30 days' FREE trial and see for yourself how easily one of these splendid machines will earn its own cost and more before you pay. Try it alongside of any separator you wish. Keep it if pleased. If not you can return it at our expense and we will refund your $2 deposit and pay the freight charges both ways. You won't be out one penny. You take no risk. Postal brings Free Catalog Folder and direct-from-factory offer. Buy direct and save money. Write today.

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coming to farmers from the rich wheat fields of **Western Canada.** Where you can **buy good farm land at $15. to $30. per acre** and raise from **20 to 45 bushels of $2. wheat to the acre** it's easy to make money. Canada offers in her provinces of Manitoba, Saskatchewan and Alberta

160 Acre Homesteads Free to Settlers

and other land at very low prices. Thousands of farmers from the U.S. or their sons are yearly taking advantage of this great opportunity. Wonderful yields also of **Oats, Barley and Flax.**

Mixed Farming is fully as profitable an industry as grain raising. Good schools, markets convenient, climate excellent. Write for literature and particulars as to reduced railway rates to Supt. Immigration, Ottawa, Canada, or to

GEO. A. COOK
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KANSAS FARMER DAIRY CLUB

Doings of Club Members

THE severe weather of the past few weeks has been very hard on dairy cows. Probably many of the club members will find their cows have fallen off in milk production during the month. Even on dairy farms where they have the most comfortable modern barns, milk production falls off during a period of weather like that of a week or so ago. It is very hard to overcome this influence of bad, stormy weather.

The milk the cow gives depends very largely on her comfort. Even with an abundance of good feed of the right kind, the heavy milkers are almost sure to fall off during a spell of zero weather. The only thing you can do is to try to make your cow as comfortable as possible. I am sure our club members will all do this. Be sure your cow has a chance to drink plenty of water of the right temperature. There is nothing that will cut down the flow of milk more quickly than lack of water. You might even carry some hot water from the kitchen stove and add it to the water your cow has at the barn in order to warm it up enough so that she will drink all she wants. We have at various times warmed water for cows in this way during zero weather and have been surprised to see them drink such quantities. We hope you have a real affection for your cows and will always think of their comfort. Judging from the way in which you write about your cows, we believe you do have this affection for them. We want to tell you a secret about success with live stock, and it is not so much of a secret after all. It is simply this: No great success in live stock breeding has ever been made by a person who did not have a genuine love for his animals. When you become older and learn more about the great men in live stock production and breeding, you will find this to be true in every instance. The dairyman who uses the milk stool as a club on the slightest provocation has missed his calling. He can never hope to make any great success in getting cows to do their best in milk production.

Probably nothing interests you more than to read of what other members of the club are doing. It would have been a great experience if you could have all spent a few days at Manhattan during Farm and Home Week and got acquainted with each other and seen all the fine live stock they have at the college. Since you could not all do this, the next best thing is to get acquainted as well as you can through the letters you write. If you have not written a letter recently, try to send one in next week. All the boys and girls are anxious to know how you are getting on with your work.

Boy Sells Cow

Ernest A. Worthington, who has been living in Stanton County, Kansas, almost forty miles from a railroad, is going to Iberia, Missouri, where his father has bought a farm. Ernest is not yet quite twelve years old, but he became very enthusiastic about the Dairy Club, and after considerable trouble bought a cow for $100 and started his record October 1. Being so far from the railroad, it has been almost impossible for him to get feed regularly, so his cow has necessarily been fed part of the time on fodder and Buffalo grass pasture, with no grain. Early in December he wrote as follows:

"My father has bought a farm in Missouri and we will have a sale and sell all our stock here. Can I sell my cow, then go to Missouri and get another and keep on in the club, or will it close my record when I sell? I would like to take this cow along, but the express is too high. Can I still belong to the club after moving to Missouri?"

We wrote Ernest that, while it was a little out of the ordinary to change cows during the year's work, we were so anxious to have him continue in the club that we would allow him to get another cow and continue his record. We felt sure no club member could object. He will necessarily lose two or three weeks' record before he could possibly get started again.

The stock sale came off December 31, and Ernest wrote us that his cow sold for $99. He had already sold cream and butter amounting to $40, which is not a bad record, considering the difficulties he had in getting feed. We hope he will soon be able to get another cow and go on with his club work.

Keeps Cow in Town

We happen to know some boys who have taken dairy cows to college with them to help pay expenses, but the Kansas Farmer Dairy Club has a girl member—Hazel Shriver, of Lyndon—who has taken her cow to town, where she is attending high school. Hazel milks her cow and takes care of her before and after school. She also has the distinetion of having the only Ayrshire cow in the club. She is a pure-bred cow and her registered name is Highland Jane, which is a very appropriate name for an Ayrshire, since the breed had its origin in the hills country of Scotland. Here are just a few lines from Hazel, telling of her work:

"I am sending my milk and feed record blanks.

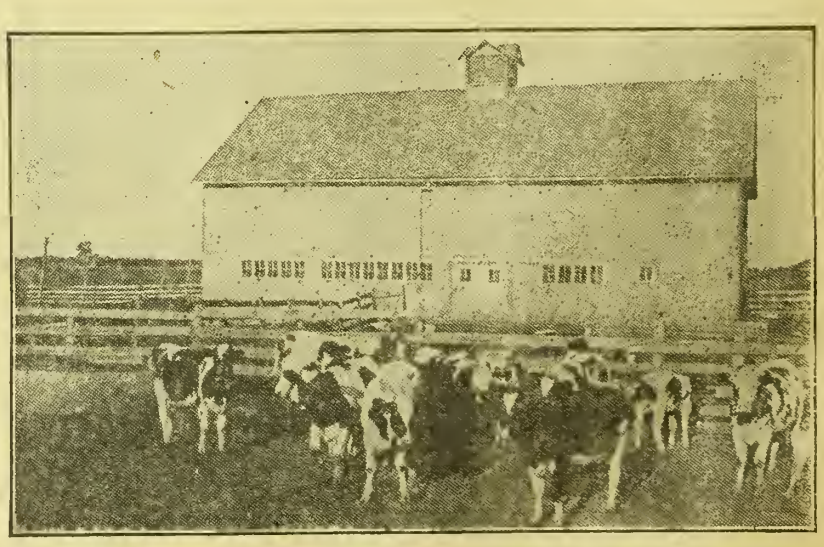
"My cow has not been giving so very much milk for about two weeks. She has been having sore eyes. They are better now. I got some medicine from a veterinarian.

"I am going to put the calf on skim milk in about a week. It is growing fine. I have no pictures, but am still trying to get some.

"I thought for a while that the dairy club work would be interesting, and now I know it is. I enjoy doing the work."

Girl Gets New Cow

Emma Mae Lenhart, of Hope, Kansas, who lost her cow last summer after she had started the year's record, could not give up the idea of continuing the club work. She had some insurance money and immediately began to search for another cow. She recently bought a pure-bred Holstein at a sale. In her letter which tells about this one she signs herself "A Returned Club Member." "I have good news to tell you," she says;



ELISE REGIER, OF WHITEWATER, FED AND CARED FOR THESE FIFTEEN CALVES IN ADDITION TO HANDLING HER DAIRY CLUB COW

"On December 6, E. S. Engle & Son, proprietors of the Sand Springs Dairy Herd, had a public sale of dairy cows, both high grades and pure-breds. We had rather a hard time getting there, but we finally got there. Some of the grades were already sold, and all of the pure-bred cows but three. The last one of the pure-breds sold, I got for $290. Everyone says I got a bargain. My uncle, who has some pure-bred cows, said I would never get her for $300—at least he said he did not think I would. The Engles put her on a semi-official test last May and in 180 days she produced 8,060 pounds of milk and 369 pounds of butter. Her name is Alexina Jewel De Kol 2d. I think I shall call her 'Jewel' for short. E. S. Engle & Son are going to bring her down on a truck, so the trip will not be hard on her."

Member Has Dairy Herd

Probably no member of the club has accomplished more than Harvey Russell, of Scott County. Harvey's first club experience was in a poultry club, but after visiting Manhattan during Farm and Home Week two years ago he became greatly enthused over dairying and was one of the first members to get started in the Kansas Farmer Dairy Club. At the rate he is going he bids fair to be a full-fledged dairyman before he gets through high school. A Scott County man wrote us that all the roads out there were blocked with snow and no trains had come in for several days. It was 25 degrees below zero the night of January 10, so you see what kind of weather Harvey has been up against. He wrote as follows under date of January 14:

"My Jersey cow had a heifer calf December 12. The mother and sire are both registered. Please tell me how to go about it to have the calf registered.

"I now have a herd consisting of five head—the original cow, Daisy, that I bought from Mr. Romig to enter the first contest, her two heifer calves, Bonnie and Tish, and my Jersey cow, Mary Frances W., and her heifer calf, Dorothy. As you know, I borrowed money to buy Daisy, and have at this time my herd entirely clear, with alfalfa and cane enough to carry them through the winter. My two cows are bringing me in a net income at this time of about $45 a month. I am inclosing a picture of Daisy and her calves and also a picture of my whole herd. They are not very clear pictures, but will give you an idea of the herd."

We are very sorry these pictures are not good enough to use for cuts. We hope Harvey will try again and get us some pictures that we can print in KANSAS FARMER so all can see what a start he has toward a dairy herd.

Twenty-six breeders from eleven counties in Missouri had cows on official test during 1916 and 1917. Tests were made on 413 cows, as compared with 336 cows tested in the previous year. Altogether 2,072 two-day tests were conducted, and forty-seven seven-day tests were made. during the year one cow produced 33.776 pounds of butter in seven days. This is the first record to equal or exceed thirty pounds in seven days made in this state. All the records made during the year show a gradual tendency on the part of breeders to increase their previous record. It required the equivalent of all the time of two men to do the work required by the breeders.

Whatever ration you are feeding, feed each cow according to the amount of milk she is producing. Don't waste feed worth 2½ cents or more per pound by feeding more than a cow really needs. One pound of grain for each 3½ to 4 pounds of milk should be sufficient. If you are not a member of a record association secure scales and weigh each cow's milk at least one day each month. Your agricultural college will supply record sheets. Feed according to production, not appetite.

New World Butter Record

The world's record for butter production has again been broken. Aagie Acme of Riverside 2d, a pure-bred Holstein cow, produced 1,065.42 pounds of butter fat in 365 days on strictly official test. This record takes the championship to the Pacific Coast.

Aaggie Acme was not content to merely break a record—she smashed three world's records, two of them strictly official, the other was semi-official one-half the time and strictly official the other half. Her test was completed November 10. The new records are, 305 days, 22,092.8 pounds of milk and 934.37 pounds of butter fat; 365 days, 24,690 pounds of milk and 1,065.42 pounds of butter fat. Both are strictly official records. Her semi-official butter record for two years is 1,941.21 pounds of butter fat.



NEW WORLD'S CHAMPION, AAGGIE ACME OF RIVERSIDE 2D

All three records were formerly held by the pure-bred Holstein cow, Keystone Beauty Plum Johanna, whose figures as a senior four-year-old were 1,035.77 pounds of butter fat in a year; 897.10 pounds in 305 days; 1,922.88 pounds in two years. She is still world's champion for her age, both of her year's records being made at less than full age.

The present world's champion, Aaggie Acme of Riverside 2d, is owned by A. W. Morris & Sons, of California. She is a daughter of King Mead of Riverside, sire of seven daughters with yearly records. Her dam is Aaggie Acme of Riverside, which is also the dam of the record cow's sire, so that Aaggie 2d is a sister to her own father.

Fewer Cows, But Better

In spite of the cry that many farmers were selling off their cows and calves, recent statistics indicate that producers are reducing their herds by culling out the animals which are not producers. This is good business and should have been done long ago and should continue.

We believe that more heifer calves are being raised than in past years and are replacing the cows sold with better ones, and so long as this condition prevails there will be little danger of the dairy business sliding backwards. The reduction of herds is essential because the high prices of feed demand it. It is a case of the "survival of the fittest."

Testing Shows Worth of Cows

A comparison of the average of the five highest and the five lowest producing cows in an Ohio cow testing association shows that one of the highest producing cows is worth about one hundred times as much as one of the lowest producing cows, from the viewpoint of profit. The averages of the five highest are: Milk, 9,334 pounds; fat, 465.1 pounds; feed cost, $71.98; and profit, $115.80. The five lowest are: Milk, 2,694 pounds; fat, 107.8 pounds; feed cost, $36.97; and profit, $1.43.

During the year, eighty-five cows were sold and three died. Of these sold, the majority were unprofitable. Some were sold to make room for pure-bred cows.

Modern warfare consists of united, coordinated effort on the part of entire nations. If the present war teaches Americans to co-operate it will not have been entirely wasteful.



WHEN PRICES ARE HIGH *and* LABOR IS SHORT

the farmer MUST save time and effort, not only in producing, but in hauling. The larger the load and the faster the trip to market, the greater the profit.

Good roads have always helped the farmer. Now they are indispensable. Farm labor is scarce. Wages are high. Every hour wasted on the highway cuts down output and eats a hole in profits.

What the farmer needs is not a patch of hard road here and there, but a connected system of hard roads putting him in easy reach of his markets. And to get the best prices he needs **roads that stay good 365 days a year.**

There is no reason why farming communities should not have perfect systems of permanent highways. It is entirely up to them. The roads can be built in two or three seasons. When the cost is spread over fifteen or twenty years the annual tax for both interest and principal is only a few cents per acre. In Vermilion County, Illinois, for example, a magnificent concrete system is being built and the annual tax is only about 8c per acre per year, for 20 years, which covers the interest and gradually pays off the debt.

The farmer should act now in getting road plans under way to further his own interests. Systems of permanent highways benefit everyone, but to the farmer they are *indispensable.*

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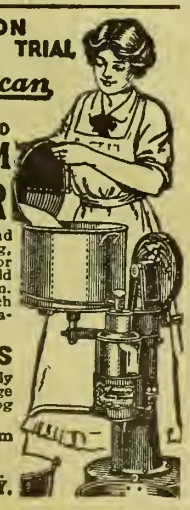
American FULLY GUARANTEED CREAM SEPARATOR



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Western orders filled from Western points.

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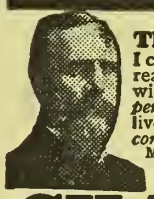



This FREE BOOK Tells How

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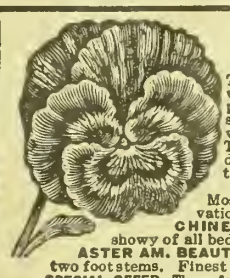

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Pasturing Corn Stalks Dangerous

THERE has been more than the usual amount of trouble from pasturing live stock on stalk fields the present season. We have heard of many losses in various parts of the state. At present valuations of stock of all kinds these losses run into money rapidly. There is of course considerable feed value in a stalk field, but we have believed for many years that the value of these weather-beaten stalks is too small to justify the risk of pasturing them with all classes of stock.

These stalks represent, however, an enormous feed value if properly utilized. Every year there is a tremendous waste of feed value. As silage the fodder part of the corn plant will give as large a return as the grain. This may seem a strong statement, but it is true nevertheless, for the man who is so equipped with good live stock as to make full use of feed so stored. It has been demonstrated over and over again that the use of all fodder as silage increases the cattle carrying capacity of the farm from 50 to 100 per cent.

Right now while the stalk field losses are fresh in mind is a good time to do a little figuring on the feasibility of building a silo before another season rolls around and thus cut out the risk of pasturing stalks and in addition get full value for them.

In commenting on the pasturing of stalk fields, recently A. L. Haecker of Nebraska pointed out that this problem of turning live stock in the corn field after husking is an old one, and has been discussed for many years. There are advocates on both sides, but why not consider the subject at this season, for certainly there is good reason to do so. Already the corn stalk disease has claimed its large number of victims.

Only last week Mr. Haecker received a letter from a man who had lost twenty-five head on a small patch of corn. As he put it, this would have purchased and built five silos or four silos and plenty of good equipment in the way of machinery. Thousands of men all through this country are in the same position. They have lost the cattle but lack the silos.

It is not a waste to leave some of these stalks in the field, for truly there is very little nutriment in the dry, hard stalks. Nine men out of ten who turn in the stalk field, leave the cattle there too long. After the few stray ears and nubbins have been gleaned there is little left but indigestible fodder, which the animals will eat if forced to, but which does them little or no good and often is a great detriment.

With dairy cows, we emphatically challenge anyone to show a benefit from this method of feeding. The exposure to the cold winds, the scratching of the udder and teats by the stalks and blades, the lack of nutriment in the forage and the consequent tramping over a large section tend to shrink a cow and put her in a poor condition for a profitable winter milker.

If you must feed down the stalks, do it with dry cows, young animals, bulls or stock cattle, and even in this case do not compel them to stay on these fields too long or make it their only ration.

Many feeders of fattening cattle make a grave mistake by forcing their animals to eat dry stalks, which is an unbalanced ration to begin with and which is not sufficiently supplied with nutrients to warrant gains. This causes a shrinkage in the fall and before the animals are taken off the stalks the damage is done. They must then feed a month or more to gain back what they have lost and they would have done better had they left the stalks to catch the winter snows.

Tests and experiments have clearly shown that this method of feeding is unwise and unprofitable. Why not use the modern way of making the corn into silage or storing it in shocks, and if you must feed down some stalks, use animals which will not be damaged by a shrink.

William Wales and S. B. Young, of Osborne County, have just conducted a silage-feeding demonstration to prove its value to the doubting ones in that community. They fed silage thirty days to five pure-bred cows ranging in age from two to five years. At the beginning the cows were publicly weighed and again at the close of the period. These weights showed that they had gained on silage alone from twenty to a hundred pounds each. One cow that had been fed forty-five days gained 110 pounds in weight. The silage was made from this year's crops and did not contain a kernel of grain. The recent cold spell occurred during the test and this probably tended to keep down gains. Quite a crowd witnessed the final weighing and a good many guesses were made as to the probable weights of the animals. As a result of this public demonstration, the silo will undoubtedly get a big boost in that community.

Experiment Station Starts Test

A bunch of blue-gray calves have just been started on a feeding test at the Kansas Experiment Station. They were put in a feed lot December 17 and were on full feed January 20. These calves are the result of a cross of white Shorthorn bulls on black polled cows. Sixty-six of the calves were shipped to Manhattan from the Fort Hays station, and fifty of them are being fed in the test, divided into five lots of ten each. The various lots are getting the following rations: shelled corn, linseed meal, alfalfa hay and silage; shelled corn, linseed meal, and alfalfa hay; shelled corn and alfalfa hay; shelled corn, cottonsced meal, alfalfa hay and silage; and ground corn, linseed oilmeal, alfalfa hay and silage.

Thus comparisons are being made between cottonseed and linseed meal in connection with shelled corn, alfalfa, and silage, and between shelled and ground corn. Silage is again being tested as part of the roughage ration for fattening.

The calves were weighed on three successive days to get the average individual weights to start the experiment. Every ten days the lot weights are determined, and every thirty days the individual weights.

Winter Care of Sheep

After the ewes have been bred, the number of lambs and the amount of wool that is produced will depend on the care of the flock during the winter months. Rams should be taken away from the ewes as soon as the ewes are all safe in lamb.

They should be provided with dry well-ventilated quarters, and care should be taken not to confine them too closely, nor have their quarters too warm. A great mistake is often made in confining them too closely. They should be turned out where they can get plenty of exercise. A large field or pasture where corn fodder or other feed is scattered, would make an excellent place in which to give them exercise. If this rough feed could be put out half a mile or even a mile from the barns, making the sheep walk out and back each day, it would be desirable. The feed boxes, doors, etc., should be arranged and constructed in such a way that crowding would be avoided because crowding may cause some of the ewes to lose their lambs.

After the ewes are taken in for the winter they should be given plenty of feed to keep them in good thrifty condition. It is good practice to go over the flock from time to time to determine the condition of the ewes. The thin ewes should be separated from the rest of the flock and given a little extra feed in order that the flock will be uniform in condition. Care should be taken not to get the ewes too fat. This is equally as bad as having them too thin.

The kind and amount of feed to give the breeding flock will depend on the kinds of feed on hand. Where alfalfa is plentiful the ration may consist chiefly of this feed. However, the addition of a small amount of silage is preferred. In feeding silage to sheep care should be taken not to overfeed. Two or three pounds daily is plenty. Never feed silage that is mouldy or frozen.

Where the ewes are in good condition a ration consisting of alfalfa, silage and

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some other roughness is sufficient. However, if the ewes are thin, a little grain should be added, from one-half to one pound daily should be sufficient. Plenty of clean, fresh water, and salt, should be before the sheep at all times.

The ram should be provided with dry, light and well ventilated quarters with ample room in which to exercise. Care should be taken not to get him too fat. One should aim to feed the ram as cheaply as possible during the winter months, always keeping in mind the thrift and health of the animal. Where good alfalfa and clover hay are fed, no grain will be needed unless it be for the thin and young rams. These should have a small grain ration daily of about one-half pound. Two pounds of silage daily is sufficient to keep the animal in a healthy condition, but some rough feed such as fodder, straw, etc., should be added to the ration. Where the former feeds are fed as roughness, without silage, a little grain should be added.—A. M. PATERSON.

Conditioners for Hogs

Proper conditioners serve a very useful purpose in keeping hogs healthy. These are probably not used as much as they should be. Some hogmen are prejudiced against them much as they are opposed to the use of patent medicines. There is considerable difference between the two cases, however.

Another reason for such prejudice is that of the good work done in the early days by the experiment schools against so-called "stock foods." The preparations which were referred to by the experimen schools it seems all carried a filler; in fact, the majority of the mixture usually consisted of some kind of cheap filler. In some cases, we understand, it was powdered oats straw, powdered corn cobs or peanut hulls. In others it was oil meal. Because it has never been made perfectly clear to the general public that there is a wide difference between these so-called "stock foods" and the modern conditions, some men are prejudiced against their use.

The third and one of the main reasons for this prejudice is the kind of work done by some salesmen selling the modern hog conditioner. The hog raiser is made to believe that the results will be wonderful, when such is not the case. Not only is it claimed that hog cholera will be cured, and that it is an absolute preventive of all disease, but the possible purchaser is led to believe that he would make from five to ten dollars on each dollar he invests in such a preparation.

All this is ridiculous. There is no conditioner for hogs that will mean everything to them, and there is nothing that will absolutely prevent any disease. A good conditioner ought, however, to help in preventing any kind of disease, simply because the system is kept in better condition through its use, and the hog has greater resisting power.

A conditioner should regulate the bowels. Sodas and charcoal are used to aid digestion, copperas and sulphur act as a tonic and purify the blood. A bone-building material should always be included in the formula of any mixture. If such a preparation be properly compounded, it will also prevent the accumulation of worms. It usually takes a special compound or remedy for expelling worms, especially in extreme cases.

The hog is a short-lived, quick-maturing animal, and there are many ways we have to handle him different from other domestic animals, and especially different from the way the human body is treated.

You would not want to take a basket of food to the field with you so that you could eat a handful any time you wished. This would probably wear out your stomach in a few years' time. Neither would you want to make it possible for the team you work every day to eat at will.

Because we want to produce the most pork possible in the shortest possible time with the least food, the opposite is true of the hog. The self-feeder idea is very popular and growing more so every day. It has been found that the cheapest pork can be produced by placing the food in a self-feeder where the hogs can have free access to it at all times.

This is only one illustration of how the hog may be handled differently from any other domestic animal and from the way in which the human body is handled. The constant use of a conditioner is another, and there are many ways in which the hog is handled differently from any other domestic animal.

Many hog raisers compound mixtures of simple well-known drugs. Others buy them ready mixed. The only thing you need to consider is whether you can buy these drugs mixed from a reliable firm cheaper than you can make them yourself, quality of both and time of making your own mixture being considered.

When buying prepared mixtures, make sure that no exorbitant claims are made. Let this be your guide in purchasing such a preparation, for when a man makes exorbitant claims it is certain that he needs to in order to sell his goods. In any case, use such a preparation constantly among your hogs. You will find it profitable.

Farmers who chop wood to save coal this winter will be making the chips fly for freedom.

Plan For Garden

[Continued from Page One]

time as cabbage, and Early Snowball and Early Erfurt have been some of the more successful varieties. For tomato plants, a good succession of varieties is desirable: Chalk's Early Jewel, Trucker's Favorite, Stone, Matchless and Trophy, and, if dwarfs are wanted, Dwarf Champion and Dwarf Stone. If a yellow variety is wanted, Golden Queen is one of the best, and while planting the hot bed some egg plant and peppers may be grown with practically the same care as tomatoes. For egg plant, Long Purple and Long Pekin have been successful varieties. Of the large peppers Large Bell and Bull Nose and Sweet Spanish are least likely to acquire an excess of flavor. Chinese Giant bears larger peppers but not so many, and for pickling peppers Long Cayenne is a favorite.

With the warm weather, cucumbers and summer squash may be planted. White Spine and Cool and Crisp are good slicing varieties of cucumbers. For the summer squash, Early White Bush and Giant Crookneck and Vegetable Marrow are planted for early and for later sorts Hubbard, Boston Marrow and Winter Crookneck are still standard sorts. For the string beans, Stringless Green Pod is one of the most satisfactory varieties, and fair success may be expected with the bush lima beans. Beans should not be planted until all danger of frost is past. The extra early varieties of sweet corn are for the most part small ears and not so good quality as the later sorts. Peep-o'-Day and Adams' Early are the earlier varieties and fairly desirable until Stowell's Evergreen and Country Gentleman, two of the most popular and generally successful varieties, are ready for use.



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The story of the Gallipoli withdrawal is a tale of inadequate support. Like Salamanders clinging to the red-hot bars of a fiery furnace, the boys of Australia and New Zealand clung to the slopes of Anzac. Desperately, heroically they clung. No troops under any circumstances ever displayed greater soldierly qualities or upheld more sacredly the best traditions of England's Army. But they had to withdraw because the "follow-up" was not there.

To some of us it has been given to march with the columns of troops that go to France. And to others it is given to wave Godspeed. But he who marches and he who stays is equally a citizen of the world's mightiest republic and equally responsible for its success in this greatest of undertakings.

Then let us at home turn from our flag waving and consider how necessary we are, how useful we must be. Those who go to fight cannot hope to win by naked bravery and we cannot hope to win unless every individual at home does *all* he can. We must have no Gallipoli.

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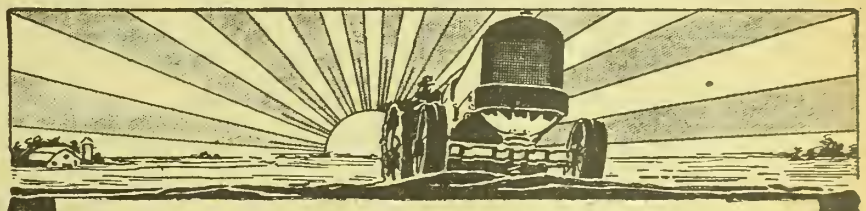

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RHODE ISLAND REDS.

PURE-BRED ROSE COMB RED COCKerels, $2.25 straight. Mrs. A. J. Studnicka, Howells, Nebraska.

R. C. RED COCKERELS, BRED FROM laying strain. Deep rich red. Sired by prize winner. $2.50 to $10. Mrs. L. G. Lambert, Anderson, Mo.

ROSE COMB RED COCKERELS, $2.50 up, on approval. Pullets, $2, $2.50. Chicks, 15c each. Eggs, 100, $5. Fred Leck, Yates Center, Kansas.

ROSE COMB RHODE ISLAND REDS—Poorman's 200 egg laying strain, farm raised, vigorous stock. Eggs, $2 per fifteen, $8 per hundred; chicks, $20 per hundred. Mrs. J. A. Brown, Route 6, Creston, Iowa.

SEVERAL BREEDS

ALL LEADING BREEDS OF POULTRY. Write me your wants. Emma Ahlstedt, Roxbury, Kansas.

LARGE RED UTILITY COCKERELS and pullets. Rouen and Pekin ducks. Stedem & Sons, Marshall, Mo.



HATCHING CHICKENS EARLY

THE United States Government wants you to raise more poultry and produce more eggs. The United States Department of Agriculture is urging poultry men to get off some early hatches. The early hatched birds are easier raised, you avoid many of the deadly parasites and enemies of poultry and your birds mature early enough to make good fall and winter layers. So get out your old incubators and clean them up, or better still, perhaps, is to buy a new one that has all the improvements and which will turn out strong vigorous chicks. We urge you to do your best this season for we believe it will pay. Eggs and poultry have been selling for more than they were ever before known to sell and feed has gradually been declining in price in most sections.

It behooves every poultryman to use such methods in raising his stock as will insure the lowest per cent of mortality and the quickest growth. Brooder stoves of many kinds are upon the market and several of these are giving excellent satisfaction. We know of some who use two of these stoves of small size in one room. Then if one stove goes out, the other will protect the chicks and prevent chilling. For this method of brooding, we build a house 10x20 feet or 12x24 feet. The house has a partition in the center with the board nearest the floor on hinges so it can be raised as a runway for the chicks and a swinging door for the attendant. The stove is placed on one side of the partition and cool room is used for feeding and excercise. It is necessary to have a cool room so the chicks can get away from the heat. This is one of the secrets of successful brooding. Or you may use one room that is long and narrow. Place the stove in one end and the other end remains cool.

The houses for these brooder stoves are built just as we would build any laying or breeding house. We would not build a special brooder house which we could only use three or four months during the year and then let it remain idle for the remainder of the time. Every poultryman should endeavor to have as little idle equipment as possible. We locate the buildings where the chicks can have plenty of range after they grow up. As soon as they are old enough to do without heat, we simply remove the brooder stove and put in temporary roosts. The chicks remain right in this house until the next fall or winter when it comes time to cull them and to select the choicest for the laying and breeding pens. A flock of pullets are usually wintered in these houses. Nests can be put in temporarily until the houses are needed again for next season.

By handling the chicks in this way you avoid handling them so often. They become accustomed to their quarters and you do not check their growth by moving, and you are getting the benefit of your equipment throughout the year. It is easier and better to move the stove to another house than it is to move the chicks and have the house vacant for eight months. We know of one party who lost an entire flock last year simply because they crowded as the result of being moved six times, contracted colds and suffered in other ways.

Tack cloth over the ventilators and make the house comfortable and provide for one cool room. If the chicks have a tendency to cannibalism and pick at one another's toes, paint the window panes with a bluish or whitish frosting. You want light in your poultry house but not the direct rays of the sun. Keep the chicks busy and active. Put some fresh earth on the floor in one corner of the room. If they show signs of developing the habit of picking at one another, grind some lean meat and mix equal parts of bran, shorts, corn meal and ground meat, with a little water just to moisten it a trifle. After it is mixed run it through a sausage mill or meat grinder and then feed it to the chicks every day. The frosted windows will do most to prevent cannibalism.

You will not be bothered with the chicks piling up and crowding at night in a room where you use these brooder stoves if your room is kept warm enough. Don't feed chicks until about 48 hours after they are hatched and dry. One of the first things should be sour milk or buttermilk and coarse sand. Cover the floor of the brooder with clover chaff or fine cut straw. Don't have this too deep. For the first two or three days, feed a mixture of two-thirds rolled oats, one-third wheat bran, mixed with hard boiled eggs and a little powdered charcoal and fine bone meal. Feed a little about five times a day for the first three days. The first mixture is fed morning, noon and night and the chick feed between meals.

As they become older gradually eliminate the rolled oats until you use only the chick feed and keep before them a dry mash in the following proportions: 10 pounds wheat bran, 2 1-2 pounds ground oats, 5 pounds shorts, 5 pounds corn meal, 2 ounces fine charcoal and 2 ounces fine salt.

If you cannot secure sour milk or buttermilk then mix two pounds of dry beef scraps with the above. If you use any form of milk, keep it before them at all times or at least the first half of the day. They need some green food. Use clippings from sprouted oats or cut some onions occasionally. The above methods have proven simple and successful.—T. E. QUISENBERRY, Leavenworth.

Highways of happiness are sometimes cut through with pain and tears.—The Advertising Age.

When men are rightly occupied, their amusement grows out of their work, as the color petals out of a fruitful flower. —JOHN RUSKIN.

Wonderful Egg Producer

Any poultry raiser can easily double his profits by doubling the egg production of his hens. A scientific tonic has been discovered that revitalizes the flock and makes hens work all the time. The tonic is called "More Eggs." Give your hens a few cents worth of "More Eggs" and you will be amazed and delighted with results. A dollar's worth of "More Eggs" will double this year's production of eggs, so if you wish to try this great profit maker, write E. J. Reefer, poultry expert, 4631 Reefer Bldg., Kansas City, Mo., who will send you a season's supply of "More Eggs" Tonic for $1 (prepaid). So confident is Mr. Reefer of the results that a million dollar bank guarantees if you are not absolutely satisfied your dollar will be returned on request and the "More Eggs" costs you nothing. Send a dollar today or ask Mr. Reefer for his free poultry book that tells the experience of a man who has made a fortune out of poultry.—(Adv.)

LEGHORNS.

R. C. W. LEGHORN COCKERELS, $2 each. Cornell, Wakefield, Kansas.

PURE-BRED ROSE COMB WHITE LEGhorn cockerels, $1.25 each. N. C. Dewey, Stafford, Kansas.

TWENTY-FIVE EXTRA QUALITY S. C. Brown Leghorn cockerels, $2 each while they last. Mrs. L. H. Hastings, Thayer, Kan.

SINGLE COMB BUFF LEGHORN COCKerels, $1.50 each. C. J. Neilson, Leonardville, Kansas.

PURE-BRED SINGLE COMB WHITE Leghorn cockerels, $2. Chas. McFadden, Morland, Kansas.

S. C. WHITE LEGHORNS—HENS AND pullets for sale cheap if taken at once. Write O. L. Robey, Maryville, Mo.

YOUNG FRANZ S. C. W. LEGHORN cockerels, $3 each, two for $5, five for $10. Ben Johnson, Route 1, Belton, Missouri.

S. C. W. LEGHORN COCKERELS (Young's strain). Elsie Thompson, Mankato, Kansas.

SINGLE COMB WHITE LEGHORN COCKerels, $2 to $5 each. Mrs. Howard Rodecape, Grove, Okla.

FEW CHOICE S. C. WHITE LEGHORN cockerels from my combined eggs. Contest and show room winners. Reasonable. C. G. Cook, Lyons, Kansas.

ONE HUNDRED SINGLE COMB WHITE Leghorn hens, fifty cockerels. Oldest and best laying exhibition strain in the west. Trapnest bred twelve years. Winners Kansas City, Topeka. $2 to $5 each. Mrs. Grace Ackerman, Route 4, St. Joseph, Mo.

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LIGHT BRAHMAS, LARGE AS TURkeys. Finest in West. Overstocked. In order to sell will take half value compared with prices of meat and feed. Pictorial price list for asking. Mrs. J. R. Kenworthy, Wichita, Kansas.

$8.95 buys Champion 140-Egg Belle City Incubator

The Prize Winning Model with Double Walls of Fibre Board—Hot Water—Copper Tank—Self Regulator—Thermometer Holder—Deep Nursery—same as used by Uncle Sam and America's most successful Poultry Raisers—that has led the field for over 12 years—Over 650,000 sales to date. When ordered with my $5.25 Double Walled—Hot Water — Roomy 140-Chick Brooder—Both cost only $12.95.



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Satisfaction Guaranteed—Handiest machines — Easy to run — Big in results. Start early — Order Now on **1, 2, 3, Months' Home Test Plan** — and share in my

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WHITE ROCK COCKERELS, $2 AND $3. Nora Lamaster, Hallowell, Kansas.

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BARRED ROCK COCKERELS, $3 EACH. Good laying strain. E. M. Wayde, Burlington, Kansas.

BARRED AND WHITE ROCK COCKERels and pullets from prize winners, $2, $3 and $5 each. H. F. Hicks, Cambridge, Kansas.

BARRED AND WHITE ROCK COCKERels and pullets. Write for prices. Nora Hill, Cambridge, Kansas.

WHITE ROCKS, SIZE AND QUALITY. Prices reasonable. G. M. Kretz, Clifton, Kansas.

BARRED ROCKS, BOTH LINES—LARGE cockerels from extra laying strains, $4 and $5 each. C. C. Lindamood, Walton, Kan.

SWAIM'S BLUE RIBBON BARRED Rocks. Big utility cockerels. $3 each; six, $15. C. D. Swaim, Geuda Springs, Kansas.

FOR FANCY BARRED ROCK COCKERels, two dollars and up. Inquire of Wm. C. Mueller, Route 4, Hanover, Kansas.

FOR SALE—BARRED ROCK COCKERels. Every bird from a prize winner. Eggs for sale in season. T. N. Davis, 508 Fillmore St., Topeka.

TURKEYS.

CHOICE MAMMOTH BRONZE TURKEYS —Sadie Litton, Peabody, Kansas.

MAMMOTH WHITE HOLLAND TOMS, $6.50; hens, $5. Not related. Mrs. Frank Wilson, Peabody, Kansas.

QUALITY BOURBON RED TURKEYS. Write for prices. Mrs. Elmer Nicholson, Route 5, Wellington, Kansas.

BRONZE TURKEY TOMS, $6. S. C. White Leghorn cockerels, $2. Willie Tonn, Haven, Kansas.

BOURBON RED TURKEYS, BEST MARKings. Mrs. L. E. Thompson, Wellington, Kansas.

MAMMOTH BOURBON RED TURKEYS—Stock not related. C. K. Thompson, Letts, Indiana.

BOURBON RED TOMS FOR SALE—Prize winning stock. No hens. W. H. Oliver, Reger, Missouri.

GIANT BRONZE TURKEYS FROM 20-pound hens and 42-pound tom. Hens, $4; toms, $10 each. Frank M. Easley, Eldorado, Oklahoma.

MAMMOTH BRONZE TURKEYS, HEAVY bone, masculine in size; good copper bronze, white edging; $10 to $15 until February 1. Jas. W. Anders, Route 8, Unionville, Mo.

CHAMPION BRONZE TURKEYS. SIRED by sons of my 52-pound champion tom. Winners America's largest shows. Have pleased customers in thirty states. $7.50 up to $25 each. Ike Hudnall, Milan, Mo.

MAMMOTH BRONZE TURKEYS — GOLden bronzed and heavy weight. Toms, $10 to $15; pullets, $5 to $10. These are the best obtainable. Satisfaction guaranteed. R. L. Parrott, Osborne, Kansas.

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BLACK LANGSHAN COCKERELS, $2 and up. Mrs. Geo. W. King, Solomon, Kan.

BLACK LANGSHANS WITH SHOW RECord, extra good stock for sale. Eggs in season, $5 per fifteen. Jas. W. Anders, Route 8, Unionville, Mo.

PIGEONS.

FOR SALE — MY ENTIRE FLOCK OF pure-bred Blue Bar Homer Pigeons, 58 birds. Warren D. Parr, 1516 Harrison St., Topeka, Kansas.

POULTRY WANTED.

THE COPES, TOPEKA, BUY POULTRY: Paying $1 dozen for pigeons; guineas, $5; turkeys, 25c pound; fat hens, 21c. Coops loaned free. Daily remittance.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

Enough that He who made can fill the soul
Here and hereafter till its deeps o'erflow;
Enough that love and tenderness control
Our fate where'er in joy or doubt we go.
—Selected.

The fashion of this world passeth away. I would fain occupy myself with that which endures.—GOETHE.

Warm Lunches in Schools

Every growing child needs a warm, nourishing mid-day lunch. The practice of providing warm school lunches in city schools is increasing very rapidly and has been so successful that this idea is extending throughout the country, and during the present year a great many rural schools in several states have adopted the plan of warm lunches for pupils.

A school lunch service should be a part of every rural school. It should be fostered, at least, if not entirely created, owned, and managed by the school authorities. It can be most successfully managed co-operatively by the school authority—district or county—the teacher, pupils, and parents of the children.

Every school building should have a simple kitchen equipment in a small room built for this purpose, or in the schoolroom. A simple equipment, not including the stove, can be purchased for from four to ten dollars. Parents can club together and furnish either a fixed sum of money or supply of food materials. The teacher, with the aid of pupils working in groups periodically, can prepare the lunches. This is now done in many of the schools having lunch service. The preparation of the school lunch makes the best possible demonstration for a lesson in domestic science and cookery. The children with the warm lunch are better nourished and do their school work, especially in the afternoon, with better results.—DR. THOMAS D. WOOD in Health Essentials for Rural School Children.

Shall We Knit for Ourselves?

Our women are responding nobly to the call for knitted garments for the soldiers. At leisure, theaters, conventions, and in almost every place where a crowd is gathered together as well as in their own homes, women may be seen knitting scarfs, sweaters, or helmets of the khaki yarn. At an all-day Farm and Home Institute held a short time ago almost every women had her knitting and worked at it before the meeting was called to order and even during the lecture and while watching a demonstration in the preparing of meat substitutes. This is real service, and the thought that someone at home cared enough to do this for him will warm the soldier boy's heart as much as the comfortable clothing warms his body.

In the general revival of knitting there is, however, one danger, particularly where the younger women are concerned. With the knowledge of this fascinating art comes the natural desire to create pretty and serviceable sweaters and scarfs for one's own wear. We must not yield to this temptation. While suitable yarn is so scarce, every sweater we knit for ourselves means one less for the boys in the trenches. Not only the khaki and the gray yarns should be conserved, but the gay colors also. These would be called in and re-dyed if women would refuse to buy them.

Prayer at Evening

The service of the day is over, and the hour come to rest. We resign into Thy hands our sleeping bodies, our cold hearths and open doors. Give us to awake with smiles, give us to labor smiling. As the sun returns in the East, so let our patience he renewed with dawn; as the sun lightens the world, so let our loving kindness make bright this house of our habitations.—ROBERT LOUIS STEVENSON.

Honey Cookies

⅔ cupful honey
2½ cupfuls flour
⅔ cupful sugar
½ teaspoonful soda
1 teaspoonful cloves
1 teaspoonful allspice
2 ounces finely chopped orange peel candied
¼ pound walnut meats or other nuts finely chopped

Sift together with flour, spices and soda and add the other ingredients. Knead thoroughly and roll out thin, cutting with biscuit cutter. These cookies are very hard.

Sour-Milk Cake

¼ cupful lard or butter
½ cupful sugar
½ cup honey
½ cupful sour milk
1 egg
1⅔ cupfuls flour
½ teaspoonful soda
2 teaspoonfuls baking powder
½ teaspoonful cinnamon
½ teaspoonful cloves
Nutmeg
Pinch salt

Beat the sugar and lard to a cream and then add the egg well beaten and the other ingredients. Use little nutmeg and mix the soda and baking powder with the flour. Bake in either jelly tins or loaf in a moderate oven, as it burns easily.

Boston Brown Bread

1 cupful white flour
1 cupful corn meal
1 cupful Graham flour
1 teaspoonful salt
¾ cupful molasses
1¾ cupfuls sweet milk
¾ teaspoonful soda
1 teaspoonful baking powder

Sift dry ingredients together and stir into liquid ingredients. Fill well-greased cans two-thirds full, cover tightly, and steam four hours. Serve hot, cutting with a thread or a piece of cord, as cutting with a knife while hot will make it a little heavy.

No Peddler ever sells Golden Sun Coffee

ONLY grocers sell it. They sell it because it makes you a satisfied customer. Golden Sun comes to you fresh and fragrant because the cutting process seals in the aroma that makes each cup so mellow and tempting. No chaff or dust in Golden Sun. It's all coffee. Never sold with premiums.



The Woolson Spice Co.
Toledo, Ohio



The New Hired Hand!

—the farmer needs good help in the fields. His wife needs good help in the kitchen. Her important duty is to make the best bakings. Her most important helper is Baking Powder.

If she tries Calumet she'll stick to it. Its dependability and uniform quality means good-bye to bake-day failures.

The farmer's wife wants the *most* of the *best* for her money. That's why most of them use Calumet. It's pure in the can and pure in the baking.

Received Highest Awards

New Cook Book Free — See Slip in Pound Can.

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THOUSANDS U. S. GOVERNMENT WAR jobs open to farmers, men-women 18 or over. $75 to $150 month. Pleasant work. Write for list positions open. Franklin Institute, Dept. L-82, Rochester, N. Y.

WANTED—ACTIVE MEN WITH FARMer acquaintances to sell pipeless furnaces. Splendid line. Good proposition to offer. Richardson & Boynton Co., 171 W. Lake St., Chicago, Ill.

WANTED—RELIABLE AND EFFICIENT married couple to help on farm. Man to be regular month hand, woman to give part of her time to domestic service. New five-room residence, garden and wood free. State qualifications when writing. George L. Clothier, Florence, Kansas.

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WHITE SWEET CLOVER AND ALFALFA at farmers' prices. John Lewis, Madison, Kansas.

ALFALFA SEED FROM NORTHWEST Kansas, 95% pure; good germination; $7.50 per bushel. Order early. Freight will be slow. Geo. Bowman, Logan, Kansas.

SEED CORN—BOONE COUNTY WHITE, Gold Mine, Big Calico, $3 per bushel. Alfalfa seed, $11. Red Texas seed oats, $1. J. F. Feigley, Enterprise, Kansas.

TEXAS RED RUST-PROOF SEED OATS, $1 per bushel, sacks free. My oats have taken first premium at Muskogee State Fair for last two years. J. C. Starr, Vinita, Oklahoma.

TANNING.

LET US TAN YOUR HIDE: COW, HORSE or calf skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

VIOLINS.

VIOLIN FOR SALE—HAS SWEET TONE. Free trial. Easy payments if wanted. Write Miss Bertha Mardiss, Route 5, Rosedale, Kansas.

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RAYO INCUBATORS, REASONABLE. Mrs. Walter Robb, Neal, Kansas.

MISCELLANEOUS.

NEW ZEALAND RED RABBITS, $1.50 each. Harold Fagan, Minneapolis, Kansas.

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COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

COLLIE PUPS OF BEST BREEDING.—E. L. Dolan, Route 2, Platte City, Missouri.

AIREDALES AND COLLIES—GREATEST of all pups. Grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

HORSES AND MULES.

THE GREAT PERCHERON SIRE, PRINCE of the Valley, will be sold at public auction, February 6. Also other good stallions and jacks. Send for catalog. Lewis Cox, Concordia, Kansas.

MUST SELL QUICK, REGISTERED GRAY Percheron stallion, eight years old, ton horse; black jack, nine years old, weight 1,000, good breeder. A. B. Harms, Princeton, Kansas.

FOR SALE OR TRADE — GERMAN Coach stallion, nine years old, weighs 1,500, extra good individual. Also five-year-old jack, a dandy, and a coming two French Draft black stallion. Geo. Molby, Barnes, Kansas.

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WANTED

WANTED—CANE, MILO MAIZE, KAFIR, millet, feterita, Sudan grass, seed corn and other seeds. The Barteldes Seed Co., Lawrence, Kansas.

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YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements, or ready made farms. Loan of live stock. Taxes averade under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

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LEAF TOBACCO — KENTUCKY'S BEST, chewing and smoking, three years old. Three pounds, $1.25; seven pounds, $2.50, prepaid. Special price on large quantities. S. Rosenblatt, Hawesville, Kentucky.

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REGISTERED GUERNSEY BULL CALVES —R. C. Krueger, Burlington, Kansas.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

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REGISTERED HOLSTEIN BULLS FROM good milking strain. Wm. C. Mueller, Route 4, Hanover, Kan.

HIGH-GRADE HOLSTEIN CALVES, either sex, 15-16ths pure, beautifully marked and from high producing dams, four to seven weeks old, $25 crated. Express paid to any station. Reliance Stock Farm, Whitewater, Wisconsin.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

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BARGAINS—BIG POLAND CHINA gilts, bred to farrow March and April; nice boars, serviceable Jersey bulls. Stedem & Sons, Marshall, Missouri.

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PATENT BOOK SENT FREE TELLING how we protect and help market your invention. Also bulletins listing hundreds inventions wanted. Send sketches for free opinion. Lancaster & Allwine, 463 Ouray Bldg., Washington, D. C.

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I HAVE TWO EXCELLENT WHEAT and alfalfa farms for sale at a bargain. C. R. Cantrall, Fredonia, Kansas.

FOR SALE OR EXCHANGE FOR OTHER stock or land, one imported steel-gray Percheron stallion, weight 1,900, six years old; one black Missouri jack, fifteen hands high, weight 1,000, six years old; both sound and right. Want to dispose on account of other business. M. C. Pollard, Carbondale, Kan.

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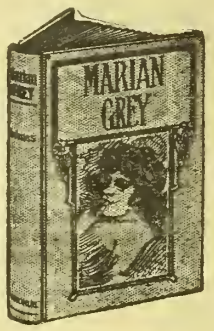

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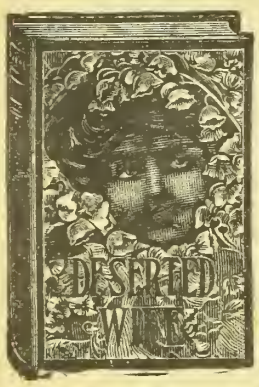

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Ton mares, big handsome fillies either by or bred to Algarve by Samson. Algarve's colts have great bone and size. His weight is over 2,200 pounds and his get proves beyond doubt his great ability as a sire. A nice lot of young stallions, several coming three-year-olds. Priced for quick sale. Farm four miles east of town. Call on or write

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IMPORTED AND HOME-BRED PERCHERONS AND BELGIANS.

I have a good lot of horses to select from at very reasonable prices. I give a gilt edge guarantee of 60 per cent, good for two years.

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FIFTY MARES—Weanlings to mature mares, weighing a ton or more, in foal. Herd headed by Imp. Meknes (106084) 106640, weighing 2,200 pounds.
SEVERAL MATCHED TEAMS—Fifteen head of stallions, from weanlings to six years old. The best lot of two-year-olds we have ever had. The kind to mature into ton horses or better—grays and blacks.
SHORTHORN CATTLE—A few cows for sale. Ten young bulls out of pure Scotch sire ready for service. Herd headed by Village Knight No. 398231 weighing 2,250 pounds and Choice Echo 393419, weighing 2,300 pounds, for sale.
SHETLAND PONIES at very low prices if taken soon—weanlings to broken fillies.
Phone to Ewing Bros., 903A5 or 903A12, Great Bend, or write us at R. F. D. No. 1, Pawnee Rock, Kansas. **EWING BROTHERS.**



FAULKNER'S FAMOUS SPOTTED POLANDS

The World's Greatest Pork Hog, Sells

Wednesday, February 13, 1918, Jamesport, Mo.

In My Annual Bred Sow Sale.

Ask for catalog. Nothing bred sold at private sale. I am still pricing a few good fall pigs.

H. L. FAULKNER, Box K, Jamesport, Missouri

POLAND CHINAS.

DEMING RANCH QUALITY

Big-Type Poland China Hogs.

Fifty March boars for sale. All immuned. Bred sow sale February 18. Send for catalog.

H. O. Sheldon, Herd Manager
OSWEGO, KANSAS.

OLD ORIGINAL SPOTTED POLANDS

Stock of all ages, also bred gilts and tried sows, bred, ready to ship. Priced right. Write your wants to

CEDAR ROW STOCK FARM
A. S. Alexander, Prop. Burlington, Kansas

BIG WONDER 281929

The outstanding spring yearling son of the noted Big Bob Wonder now at the head of my herd. This young sire was first in junior yearling class at Topeka; second at the National Swine Show in competition against the world.

I will sell fifty sows and gilts **Saturday, February 23, 1918,** and a number of the best sows will be bred to Big Wonder. Send name early for catalog.

V. O. JOHNSON - AULNE, KANSAS

Poland China Boars

For Sale—Ten head large growthy spring boars, sired by A Wonderful King, a state fair winner. Ready for service. Price, $35 to $75. Satisfaction guaranteed. First check gets choice. Write at once or come and see our herd.

OLIVIER & SONS, DANVILLE, KANSAS

GRAND VIEW POLANDS

Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.

ANDREW KOSAR - DELPHOS, KANSAS

White Oak Park Polands

Have decided not to hold a bred sow sale this year. Will sell a choice lot of tried sows at private sale. This lot will include 600-pound sows and good show prospects. Big high quality fall yearling gilts and choice spring gilts. All bred to Long Big Joe, Missouri Jumbo, Jumbo Giant and Surprise Wonder. Also have some choice September boars. All immune. Write for prices.

Henry Koch - Edina, Mo.

LONE CEDAR POLANDS

A splendid lot of bred gilts sired by Meyer's Orange and bred to Big Chimes, a fine son of Big Hadley Jr. Also two extra good spring boars left.

A. A. MEYER - - McLOUTH, KANSAS

POLAND CHINA BOARS

FOR SALE—Twelve head extra good spring boars, ready for service. Few choice gilts, bred for March litters. Fall pigs, either sex, sired by Big Tecumseh, Orange Wonder, and out of my best herd sows. The best crop of boars I ever raised. Write or come and see me. **E. M. WAYDE, BURLINGTON, KANSAS**

FALL PIGS, ready to ship. Select Spotted breeding. Express paid on pigs.
T. T. Langford & Sons, Jamesport, Mo.

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene, Peabody, Kan.**

FAIRVIEW POLAND CHINAS.

Heavy-boned March pigs, either sex. Eighty to select from. Prices reasonable. Write us your wants.

P. L. WARE & SON - PAOLA, KANSAS

MATTOX'S SPOTTED POLANDS—Bred sows, serviceable boars, baby pigs, for quick sale. H. A. or Paul H. Mattox, Route 2, Burlington, Kansas.

HORSES AND MULES.



JACKS AND JENNETS

15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.

PHIL WALKER
Moline, Elk County, Kansas

Malone Bros., Jacks and Percherons

We have 2 barns full of extra good jacks ranging in age from weanlings to 6 yrs. old, all over 2 yrs., well broke to serve. Several fine herd headers among them. Also jennets in foal to homebred and imported jacks. A few imported Percheron stallions royally bred. We can deal. Write or call on

J. P. & M. H. MALONE, CHASE, KAN.



Percherons, Belgians, Shires
2, 3, 4 and 5-year stallions, ton and heavier; also yearlings. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.
Fred Chandler, R.7, Chariton, Ia.
Above Kansas City.

Choice Young Belgians, English Shires, Percherons, also Coach stallions, also mares. Many first prizes. Long time 6% notes.
Illinois Horse Co., Good Blk., Des Moines, Ia.

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Jas. T. McCulloch Live Stock Auctioneer. I make sales anywhere. Write for date. CLAY CENTER, KANSAS



P. M. GROSS
Live Stock Auctioneer

Twelve years on the block.

Pure-bred sales a specialty. Sales made anywhere.
4230 Paseo
Kansas City, Mo.

POLLED DURHAM CATTLE

TRUE SULTAN POLLED DURHAMS

A few heifers bred or open are offered. Some by or bred to the champion $2,200 True Sultan and Sultan's Challenger.

ED STEGELIN
STRAIGHT CREEK - - - KANSAS

WILD WOOD STOCK FARM

POLLED DURHAM CATTLE

For Sale—Ten bulls of serviceable age, sired by Roan Acacia 9021. Dam, Golden Acacia by Acacia Victor, a double etandard bull from D. C. Van Nice herd. Write at once. These bulls will sell.
T. M. ETHERINGTON, Hamilton, Kansas

Polled Durham Bulls

One double standard Polled Durham bull and three Shorthorn bulls 8 to 15 months old. They are real herd headers. All pure Scotch. Priced reasonable. Come and see my herd.

C. J. Wood, Rte. 5, Paola, Kan.

CHESTER WHITE HOGS

CHESTER WHITE SPRING BOARS

Husky, growthy fellows of the best breeding. Cholera immune. Priced right.
HENRY MURR - TONGANOXIE, KAN.

HOLSTEIN CATTLE.

CLYDE GIROD, At the Farm — F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd.

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

AN OPPORTUNITY

Buy your bull while it is a calf and save money. These are finest kind of individuals and worth more than price asked. All pure-bred Holsteins.

NO. 5—Born Oct. 18, 1917; ⅞ white; sire, Sir Woodside Norma Imperial, 13 A. R. O. daughters. Dam, a large cow, A. R. O., 16.17. $100.

NO. 13—Born Oct. 12, 1917; color about even; sire, Sir Sadie Cornucopia 18th, son of a 30-lb. cow, and great breeding. Dam, an A. R. O. cow, butter 17.87. She has two A. R. O. daughters, one 23.17, other 18½. $100.

NO. 18—Born Oct. 10; color about ¾ white. Sire, Sir Woodside Norma Imperial, 13 A. R. O. daughters. Dam, an A. R. O. cow, nearly 15½ lbs. butter. $90.

NO. 29—Born Oct. 20; about even black and white. Sire, Sir Sadie Cornucopia 18th. Dam, a 2-year-old heifer whose A. R. O. butter record is over 13¼ lbs. for 7 days. $90.

Fuller information to inquirers. Buy NOW before prices advance.

PHELPS STOCK FARM - AURORA, MO.

STUBBS HOLSTEIN FARM

FOR SALE—YOUNG BULLS READY FOR SERVICE
Sired by Gem Pietertje Paul De Kol 3d

He has twenty-eight A. R. O. daughters, two with records above 29 pounds in seven days, four with records above 750 pounds butter in one year. The dams of bulls are large, typy, high producing cows. Some with A. R. O. records, others to be tested soon. All tested and guaranteed.

Write or Come and See Us.

STUBBS HOLSTEIN FARM, Mulvane, Kan.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves. **H. B. COWLES, 608 Kan. Av., Topeka, Kan.**

Here Is Your Opportunity

On account of hired help difficulties, we are forced to cut our herd down. We are offering twenty-five head of registered Holstein-Friesian cattle, closely related to SEGIS FAYNE JOHANNA, the world record cow. Ages from 10 months to mature cows. Some will freshen soon. Also one bull about 16 months old. Our prices are very reasonable and we can satisfy your wants. We urge you to investigate our cattle before you make your purchase.

STANDARD DAIRY COMPANY
Walnut Grove — Wichita, Kansas

HOLSTEIN CALVES

We offer for sale choice, beautifully-marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated f.o.b. cars: One to two weeks old, $15 each; two to three weeks old, $17 each; five to six weeks old, $20 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

REGISTERED HOLSTEIN BULLS

From A. R. O. cows. All our own breeding. Bred for milk and fat production.

LILAC DAIRY FARM
R. F. D. 2 — Topeka, Kansas

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON, KANSAS

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. **Clover Valley Holstein Farm, Whitewater, Wisconsin.**

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wauwatosa, Wisconsin

Oak Hill Farm's

Registered Holstein Cattle

For Sale—Yearling and bred heifers, also young bull calves, mostly out of A. R. O. cows. Perfect satisfaction guaranteed.

BEN SCHNEIDER, NORTONVILLE, KAN.

BONNIE BRAE HOLSTEINS

Young bulls from high producing dams from a splendid son of King Segis Pontiac for sale.

Ira Romig, Sta. B, Topeka, Kas.

Segrist & Stephenson, Holton, Kan. Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

WHEN WRITING TO ADVERTISERS
PLEASE MENTION KANSAS FARMER

HOLSTEIN CATTLE.

CEDARLANE HOLSTEIN HERD

Four-year-old grandson of Pontiac Korndyke. Guaranteed free from tuberculosis. Dam's record, 27.79; sire's dam, 31.01. Also a 14-months-old son of above bull. A few good cows and bull calves.

T. M. EWING, INDEPENDENCE, KANSAS

Registered Holstein-Friesians

Write for information about the herd bull I am offering for sale. Also two young service bulls, several bull calves and a few females for sale. A. R. O. records up to 26 pounds. Write your wants.

HARRY W. MOLLHAGEN, Bushton, Kansas

HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment. **Edgewood Farms, Whitewater, Wisconsin.**

SHORTHORN CATTLE.

Shorthorn Bulls

FOR SALE—One herd bull and thirteen Scotch-topped bulls, 8 to 12 months old, reds and roans, sired by Pride of Aulne, he by Silver Knight, a pure Scotch bull. Come and see me.

J. R. ELY - - AULNE, KANSAS

MARKS' LODGE

Home of Shorthorn Cattle. Reds Exclusively.

A few choice young bulls for sale, from my best milking cows. All registered. Come and see me.

DR. M. F. MARKS, VALLEY FALLS, KAN.

SCOTCH SHORTHORNS

Twelve Choice Bulls, reds and roans, from seven to fifteen months old, sired by such bulls as Pioneer, Excelsior and Mistletoe King. Priced reasonable.

C. A. COWAN & SON, ATHOL, KANSAS.

ALYSDALE HERD SCOTCH SHORTHORNS

Viscount Stamp 2d, Clipper Brawith and Count Valentine in service. Orange Blossoms, Butterflys, Queen of Beautys and Violets. Choice young stock for sale.

H. H. HOLMES, Route 28, Topeka, Kansas

Pearl Herd Shorthorns

Village Heir by Imported Villager and Orange Lovel by Victor Orange in service.

FOR SALE—Fifteen young bulls from 8 to 14 months old, reds, whites and roans. Scotch and Scotch topped. Inspection invited. Can ship on Rock Island, Union Pacific or Santa Fe Railway.

C. W. Taylor, Abilene, Kansas

Scotch-Topped Shorthorns

For Sale—Red yearling Scotch-topped bull sired by Clansman by Lavender Viceroy by Lavender Viscount, dam Rose Campbell by Baron Gold Dust 2d 125435.

VAIL & SCOTT - HARTFORD, KANSAS

CLOVERDALE SHORTHORNS—For Sale, two roan yearling Scotch Shorthorn bulls. Exceptional quality and breeding. Also a few heifers. **Wesley Jewell, Humboldt, Kansas.**

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS
Best breeding, best type. Stock for sale.

GEO. W. ELA, Valley Falls, Kansas

OLSON HAMPSHIRES.



For Sale—One spring yearling and one fall yearling boar, 8 spring boars, 40 head spring gilts, either bred or open. All immuned and registered to purchaser. Write or come and see our herd. Farm 12 mi. S. of Salina.

OLSON BROS - - ASSARIA, KANSAS

Breeders' Directory

ANGUS CATTLE.
D. J. White, Clements, Kan.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.

GALLOWAY CATTLE.

GOOD GALLOWAY BULLS

Twenty-five Extra Good Yearlings
Extra breeding and quality. Priced to sell.

J. M. HILL, SEDGWICK, KANSAS
Route 4, Box 65A

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 30 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

DUROC JERSEYS.

TAYLOR'S DUROCS

For Sale—One Missouri State Fair prize winning boar. Seven yearling boars sired by champion boars that are real herd headers. Fifty spring boars that are fine prospects. Write for prices or come and see my herd.

Chas. L. Taylor - Olean, Mo.

DUROC BOARS

Thirty-five spring boars by G. M.'s Crimson Wonder, Crimson Wonder Again Jr., Critic D. and Great Wonder, out of my best herd sows. Priced to sell. Come and see my herd.

G. M. Shepherd, Lyons, Kansas

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on spring boars from champions Defender, Illustrator, Crimson Wonder, Golden Model and Critic breeding.

JOHN A. REED & SONS, LYONS, KANSAS

PURE-BRED DUROC GILTS
Bred to Invader of Idlewild.

W. J. HARRISON - AXTELL, KANSAS

WALNUT GROVE DUROCS

Three 2-year-old sows, bred. Two granddaughters of Defender, four spring gilts bred. One yearling herd boar, extra good. Fifty fall pigs, good ones. One roan six-months-old Shorthorn bull calf.

R. C. WATSON - ALTOONA, KANSAS

Guaranteed Duroc Gilts

Immune, recorded Duroc gilts with size, bone and length. Guaranteed to farrow. Shipped to you before you pay for them.

F. C. CROCKER, BOX K, FILLEY, NEB.

HAGUE'S DUROCS

Fifteen choice fall boars and gilts for sale, sired by Kansas Pathfinder by Pathfinder. All immune. **K. Hague, R. 6, Newton, Kan.**

THIRTY DUROC JERSEY BOARS

Cholera immuned. Sired by Taylor's Model Chief 126455, winner at Missouri State Fair and American Royal. Extra good breeding boars at prices to close them out. Also choice bred gilts. Dams well bred for years.

W. R. HUSTON - AMERICUS, KANSAS

WOOD'S DUROCS

For Sale—Choice bred gilts, bred to a son of Great Wonder. Spring boars ready for service. Fall pigs of both sexes at right prices. Come and see my herd.

W. A. Wood - Elmdale, Kan.

GUERNSEY CATTLE.

GUERNSEY BULLS.

Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to twelve months old. **ADAMS FARM, Gashland, Mo.,** 12 miles from K. C.

FARM AND HERD.

A. J. Honeyman & Sons, of Madison, Kansas, have announced February 2 for their spring sale of Spotted Poland Chinas and Jersey cows. On this date they will offer twenty head of the old original Spotted Poland China sows and gilts, all registered and bred for spring litters. The dairy cows are from the best strains of Jerseys and are all bred to a Hood Farm Tormentor registered bull.

The Stubbs Holstein Farm at Mulvane, Kansas, owned and operated by ex-Governor Stubbs, of Lawrence, is the home of one of the finest Holstein herds in the West. The herd now numbers 100 head of registered Holstein cows, about one-half of them having A. R. O. records and a number of them are now milking 80 pounds per day. Two of the great sires of the breed are in use in this herd, Canary Paul Fobes Homestead, seventeen A. R. sons, nine daughters with A. R. O. daughters, 107 A. R. O. granddaughters; Gem Pietertje Paul De Kol 3d, one A. R. son, ten daughters with A. R. O. daughters.

Inquiries for catalogs in advance indicate that the Poland China bred sow sale to be held by John L. Naiman & Sons, of Alexandria, Neb., February 9, will be one of the big sale events of the season. Naiman & Sons own one of Nebraska's greatest herds of big-type Polands and this year they have catalogued a sensational offering of fifty head of big fall yearling sows that are all sired by grand champion boars and are out of grand champion sows. It will probably be the greatest offering of prize-winning blood that has ever been catalogued for one sale. These sows are bred to Long Shot and Long Hadley, two of the great boars now in service and first prize winners. Poland China breeders throughout the corn belt are alive to the importance of this sale and the indications are that practically every corn belt state will be represented at the sale that will be held at Fairbury, Neb.

Prof. W. A. Cochel has announced February 12 as the date of the third annual Kansas Breeders' Hereford Sale. The offering in this sale will consist of forty-one bulls and thirty-seven females carefully selected from twenty-four of the leading herds in the state. The offering will represent the most popular blood lines of the breed and will be carefully selected for individuality. The sale promises to be one of the big events in Hereford circles this season.

National Shorthorn Congress Show and Sale

Chicago, Ill., Feb. 19-22, 1918

International Exposition Bldg.,
Union Stock Yards

400 High Class Shorthorn Cattle

Contributed by prominent breeders from the Atlantic Coast to the Rocky Mountains and from Canada to the Gulf will be entered in the prize contests and offered at public auction.

Approximately $8,000 will be offered in cash prizes in the show contests, which will call forth the best the breed affords, and the fact that all of these prize winners will be sold insures to the buyers an offering of the highest class.

Extensive programs of an instructive and entertaining character, including addresses by speakers of international reputation, have been arranged for the evenings.

An entire day will be devoted to the Milking Shorthorn interests.

Membership badges will be furnished to every person attending the Congress.

For further information address

F. W. HARDING, SEC'Y
American Shorthorn Breeders' Association
13 Dexter Park Ave. — Chicago, Ill.

RED POLLED CATTLE.

RED POLLED BULLS

For Sale—Thirty head coming yearling bulls. Come early and get the best. Our experience has been those that come late found us sold out. Write or come at once.

E. E. FRIZELL
FRIZELL, (Pawnee County), KANSAS

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.

CHAS. L. JARBOE - QUINTER, KANSAS

MULEFOOT HOGS.

KNOX KNOLL STOCK FARM

Mulefoot Hogs. Shorthorn Cattle.

Sold out of spring gilts. Now taking orders for fall pigs. Three registered bulls ready for service. Write for prices.

S. M. KNOX, Humboldt, Allen Co., Kansas

GROWTHY MULEFOOT HOGS from my State Fair prize winning herd. Stock of all ages for sale. Prices low. **C. K. THOMPSON, LETTS, INDIANA.**

JERSEY CATTLE.

120 Jersey Cows and Heifers

Pure-bred and high grade. Forty bred yearlings, superior individuals, all from profitable dams, now for sale.

J. W. BERRY & SON, Jewell City, Kansas

Roy Murray, of Leavenworth, Kansas, has announced a dispersion sale of his dairy herd to be held at the farm 2½ miles southwest of Lansing, Kansas, February 5. On that date he will offer forty-six head of dairy cattle, including thirty head of high-grade Holstein cows and two pure-bred Holstein bulls.

Malone Bros., of Chase, Kansas, are among the successful breeders of high-class registered Percheron horses and jacks and jennets. Their herds have for years furnished foundation stock for new herds and breeding stock from their farm are in the best breeding establishments in the country. They have just returned from Kentucky and Tennessee with a shipment of very high-class jacks. They report prospects for a good demand for high-class breeding stock.

B. C. Settles, of Palmyra, Missouri, the well-known Jersey cattle sales manager, reports the following Jersey sale dates: March 26, Sterling Farm Dairy, Des Moines, Iowa; March 30, D. T. McCarthy, Hannibal, Mo.; April 30, Ralph Ballou, Paris, Mo. Choice offerings of producing Jerseys will be catalogued for each of these sales.

W. T. McBride, of Parker, Kansas, has catalogued fifty head of large yearling Duroc gilts. Most all the gilts are sired by Parker Wonder and will be bred to H. & B.'s Pathfinder boar. W. T. McBride is widely known as a breeder of real high class Durocs and has the best blood lines known to the breed. Mr. McBride will catalog a May boar pig recorded as Red Cross Pathfinder, sired by H. & B.'s Pathfinder, out of a Golden Critic dam. This pig is a splendid herd boar prospect and all over $50 that he sells for in the sale will be donated to the Red Cross.

WHEN WRITING TO ADVERTISERS
MENTION KANSAS FARMER

PUBLIC SALE OF DAIRY CATTLE, TUESDAY, FEB. 5, 1918

On account of shortage of labor I will sell my entire dairy herd, consisting of forty-six head. Thirty high-grade Holstein cows, fourteen red and roan cows, one pure-bred Holstein bull, V. V. F. King Lyons 205373; one 3-year-old Holstein bull; one 3-unit Sharples milking machine in perfect order. **Sale at farm 2½ miles southwest of Lansing, Kansas.** Commences at 10 o'clock sharp. Will meet Leavenworth and Kansas City cars at Lansing, Kansas, every hour.

ROY MURRAY, OWNER -:- LEAVENWORTH, KANSAS

Cols. J. W. Murray and H. L. Strouse, Auctioneers.

25 Percheron Stallions 25
-----Dispersed-----

Bishop Bros.' Entire Stud Sold at Auction

At 1 o'clock p. m.

Towanda, Kan., Tuesday, Feb. 12

Never was there a cleaner, sounder bunch of stallions sold at auction. Twenty-three coming three-year-olds—eighteen of these will weigh 1,800 pounds each, with breeding and quality the best to be found.

They were bought, grown and developed NOT FOR AUCTION SALES, BUT FOR PRIVATE SALE AT OUR BARNS, where each animal gets the very closest inspection of the discriminating buyers. Now, Mr. Stallion Buyer, if you want a really good one this is your opportunity, and should you miss one of your liking there are others, as they are a very uniform bunch and what might be said of one might truly be said of all, with two exceptions, and as this is an exclusive stallion sale there will certainly be bargains. We would impress you with this fact, that we are not dispersing this offering because the business has not been profitable with us, for on the contrary it has been, and we can only see a great future for the good big drafter. We ourselves will continue the business on the sixteen hundred acre farm which we recently bought and must take charge of the first of March. Our oil business and other investments which demand our attention is our sole reason for selling these stallions at auction. For further information and catalog, write

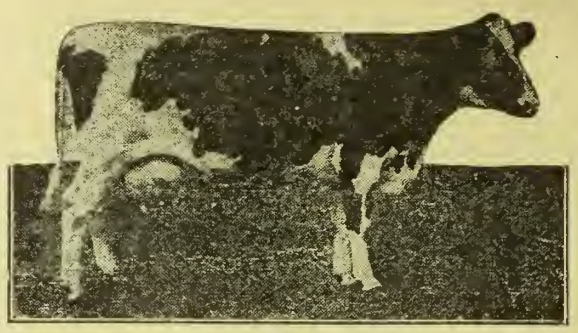
Bishop Bros., Towanda, Ks.

Holstein Cattle Sale

AT FARM NEAR NORTONVILLE, KANSAS

FEBRUARY 13, 1918

ONE HUNDRED HEAD COWS AND HEIFERS AND TWO HERD BULLS



Fifty Young Cows, several with calves at foot. None over six years old.

Twenty-five Yearling Heifers, large and well grown out, splendid specimens of the breed.

Twenty-five Head Summer Heifer Calves.

Five Registered Cows and Two Registered Herd Bulls.

If you want good, useful working cattle, come to this sale. I am selling my entire dairy herd. Nothing will be reserved or bid in. Every animal will sell at the last bid. My cattle are in good condition and will make money for anyone who will give them proper care.

J. W. MYERS, Owner, - Nortonville, Kansas

Ben Schneider, Sale Manager. Chas. W. Crews, Auct.

Royal Grand Wonder Durocs

DUROC BRED SOW SALE

48 Head Immune and Registered 48 Head

McPHERSON, KANSAS, FEBRUARY 14

Ten Tried Sows sired by B. & C.'s Col.'s Son.
Three Gilts sired by Pathfinder.
Three Gilts sired by King's Col. Jr.
Nine Gilts sired by Kansas Cherry Chief.
Twenty-three Gilts sired by Proud Chief.

Thirty-nine head are bred to Royal Grand Wonder, first prize junior yearling boar at Kansas State Fair.

Nine head are bred to Royal Pathfinder, a son of Pathfinder, the most noted Duroc boar living.

Send for catalog at once. O. W. Devine will represent Kansas Farmer at the sale.

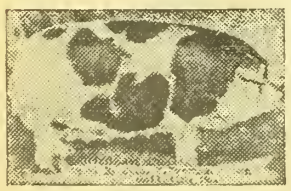
B. R. ANDERSON, - - McPherson, Kansas

SALE TO BE HELD AT FAIR GROUNDS AT 1 O'CLOCK

Spotted Poland China Sale

AT MADISON, KANSAS, FEBRUARY 2

TWENTY BRED SOWS AND GILTS—Bred for early litters
FIFTEEN FALL PIGS—Two good boar prospects
THREE HERD BOARS—They are the old original Spotted Poland China



I Will Also Sell a Few Jersey Cows

Good dairy cows, all bred to Hood Farm Tormenter, registered bull. If you want the Spotted Poland China sows that will make you money, or some good dairy cows, come to my sale. Everything guaranteed.

W. J. HONEYMAN & SONS, MADISON, KAN.

Auctioneers, Crouch & Wood

BUSTER OVER

Indiana Grand Champion of 1917

And Son of Giant Buster, 1916 Champion at Same Show, Now at Wilver Dell Farms.

POLAND CHINA SALE

BIG-TYPE BRED SOWS - CHOLERA IMMUNE

JANUARY 29, 1918 AT ST. JOSEPH, MISSOURI

TEN BIG SENSATIONS

Will be included in the fifty head that sell. They will be exceptional spring gilts that have been reserved especially for this sale and every one a "killer." Also twenty-five "corking" tried sows, all young and all real attractions, and fifteen dandy fall yearlings that are bigger and better than any ever offered in one sale. Bred to Buster Over and

STOREY'S A WONDER, KING OF ALL 2D AND WILVER DELL JONES BY GERSTDALE JONES

The greatest quartet of boars to be found in any herd. Offering bred in the "purple," sired by the noted

Big Bob Wonder	Big Bob	Giant Ben
Model Big Bob	Hercules	Smooth Big Bone
Fesenmeyer's A Wonder	Wedd's Long King	
Giant Joe	Gerstdale Jones	King Joe
King of Wonders	Fessy's Timm	Mouw's Smooth Wonder

EVERY SOW A BIG ATTRACTION

The catalog will tell all about them and is a book that should be preserved for reference by every farmer and breeder. Be sure you get one. Sent on application only.

WILVER DELL FARMS, ST. JOSEPH, MO.

Walter W. Head and W. H. Bridges, Proprietors

O. W. Devine, Kansas Farmer Representative. Col. H. S. Duncan, Auctioneer.

Reduction Hereford Sale

At Marion, Kansas
February 11, 1918

135 HEAD OF HEREFORDS

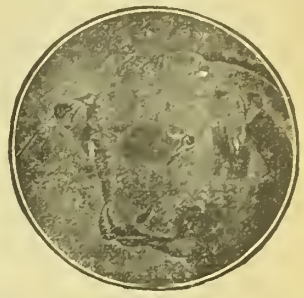


Fifty Cows and Heifers—A number have calves at foot by Wiley Fairfax bull and re-bred to Wiley Fairfax, a half brother to the $3,000 cow that topped Warren T. McCray's last sale.

Twenty-five Selected Herd Bulls of Serviceable Age.

Thirty Head of Registered Range Bulls.

Thirty Head of Non-Registered Range Bulls that are good specimens of the breed but can not be registered. They are a useful lot of working cattle, farm-grown, that will make good on any farm with a little care. Sale will be held right in town. Please send for catalog and come to sale. Write today to



Paul E. Williams -:- Marion, Kansas

Poland China Sow Sale

FAYETTE, MISSOURI

Saturday, February 9th

65 Head of Big-Type Poland Chinas Bred 65

Consisting of Aged Yearlings, Fall Yearlings and Spring Gilts, Sired by Leading Sires of Today.

They will be bred to The Giant, the grand champion at the Missouri State Fair in 1915. He sired the junior champion boar of 1916, also the first prize futurity litter in the same show. He sired the grand champion sow at the same show in 1917, also the junior champion at the Indiana State Fair in 1917, and other sires of equal merit.

SOWS WILL BE EITHER SIRED BY OR BRED TO THE GIANT.

I am exercising my best judgment in having an offering that will please the most skeptical breeders and farmers. In order to have a successful sale, the best must be offered. If you buy a sow sired by or bred to The Giant, she will make you money. You might raise a champion, no one can tell. I am selling the same kind of sows as those that produced champions, bred to The Giant.

SPECIAL FALL PIGS FOR THIS EVENT.

I have decided to offer a select lot of fall pigs in this sale sired by The Giant. Do not overlook these youngsters. This includes ten extra fall gilts, farrowed after September 1, sired by The Giant. My herd represents the best breeding known to the breed.

Send for catalog at once. O. W. Devine will represent Kansas Farmer.

Will G. Lockridge - Fayette, Mo.

Col. R. L. Harriman, Auctioneer.

Dispersion Sale of

Shorthorn Cattle

AT SALE PAVILION

Marion, Kansas, February 15, 1918



100 HEAD OF CATTLE

Comprising

Thirty-two Head of Registered Cows and Heifers
A number with calves at foot and bred again to a pure Scotch bull.

Eight Head of Yearling Scotch-topped Bulls
Reds and roans, all registered.

Sixty Head of Cows and Heifers
Pure-bred but can not be registered. Several calves at foot and bred to pure Scotch registered bull. Most all the cows are of the Bates families and are the real Milking Shorthorns.

Send for catalog and come to my sale if you want good cattle.

J. R. Young, Marion, Kansas

Col. John D. Snyder, Auctioneer

THE THIRD ANNUAL

KANSAS BREEDERS' HEREFORD SALE

to be held at the

AGRICULTURAL COLLEGE, MANHATTAN, KANSAS

Tuesday, February 12, 1918

This sale offers an opportunity to secure good bulls for improving a herd or desirable females for foundation stock. The majority of the bulls are old enough for immediate service. Cows with calf at side, heifers bred to outstanding bulls and heifers ready to be bred are included in the sale. They are not highly fitted and will be presented in the most useful condition.

41 Bulls—37 Females

Representing the most popular blood lines and carefully selected for individuality are consigned from twenty-four of the leading herds of the state. This is a breeders' sale and each animal is representative of the type and quality prevailing in the herd from which it comes.

Consignors:

Dan D. Casement, Manhattan
Fred R. Cottrell, Irving
Dauber Bros., Bunker Hill
Geo. T. Galloway Est., Wakeeney
Chas. E. Gillum, Gypsum
J. A. Howell, Herkimer
Emery Johnson, Emmett
E. S. Jones, Emporia
Kansas State Agricultural College, Manhattan
Klaus Bros., Bendena
Lumley Bros., Emporia
George Lungstrom, Lindsborg
Carl Miller, Belvue
M. A. Pacenka, Bremen
A. M. Pitney, Belvue
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Frank Sedlacek, Marysville
Seldacek Bros., Bremen
J. B. Shields, Lost Springs
Albert E. Smith, Potwin
C. G. Steele, Barnes
Geo. W. Washington, Manhattan

For catalog address

PROF. W. A. COCHEL - - - MANHATTAN, KANSAS

AUCTIONEERS: FRED REPPERT, L. R. BRADY

Naiman's BIG .... Poland China Bred Sow Sale

50 REAL BIG IMMUNED FALL YEARLING SOWS

THE BIG UTILITY KIND Sell in Big Sale Pavilion

Fairbury, Nebraska, Saturday, February 9, 1918

Sale starts at 1 o'clock sharp

Fifty real tops, ribbon pullers, daughters of grand champion sows sired by grand champion boars, bred to first prize winning boars.

If in the market for real herd sow material, write us for catalog. We guarantee satisfaction or no sale.

LET US SHOW YOU THESE GRAND KILLERS

JOHN L. NAIMAN & SONS, ALEXANDRIA, NEB.

Auctioneers—Col. Duncan and Col. Price

Chester White Bred Sow Sale

Leavenworth, Kansas, Feb. 2 1918

SIXTY HEAD AT THE COLISEUM, HEATED BUILDING,

KANSAS HERD
Arthur Mosse

EDGEWOOD HERD
Henry Murr



Bred To Champion Boars

Veto, the grand champion boar at the Topeka Free Fair and the Kan State Fair, 1917, and conceded by competent judges to be one of the outstanding boars of the Chester White breed. Most of the sows and gilts trace to Kerr Garnett, a grand champion boar at the American Royal, and his sire was the great Kerr Dick, the grand champion at the World's Fair, at St. Louis, Missouri. Send for catalog today and come to sale.

Auctioneers: Col. Thos. E. Deem and Col. Harry Strouse

O. W. Devine Will Represent Kansas Farmer at Sale.

Arthur Mosse, Mgr. Leavenworth, Kan.

CHARTER OAK'S POLAND CHINAS

100 Head - Mammoth Bred Sow Sale - 100 Head

Butler, Missouri, Thursday, February 7, 1918

100 Head of Mammoth Sows and Gilts

Of as good big-type breeding as can be found in America, consisting of twenty tried sows, fifty fall yearlings, thirty toppy spring gilts. All bred for February, March and April litters.

THE OPPORTUNITY SALE OF THE YEAR to buy high-class sows and gilts at the right prices.

O. W. Devine Will Represent Kansas Farmer at Sale.

Catalogs ready early in January. Write for one at once.

W. H. CHARTERS, BUTLER, MISSOURI

BIG BOB WONDER

In Our Annual Bred Sow Sale at

THE BREED'S GREATEST SIRE

This sensational breeding boar and sire of ribbon winners is assisted in the H. B. Walter & Son's Herd by two illustrious sons, KANSAS WONDER, out of Giantess H, a daughter of Moore's Halvor; BIG LONG WONDER, out of Bessie by Long King's Best; and WALTER'S JUMBO TIMM, an outstanding grandson of Big Jumbo and the champion Big Timm.

Effingham, Kansas, Wednesday, February 6, 1918

Fifteen of the Greatest Sows That Ever Went Through a Sale Ring Will Be Sold. All Bred to Big Bob Wonder

We are also listing three of our sows sired by him that we had reserved for our next year's show herd.

Other great attractions are included in the fifty head that make up this sale offering.

Our herd was the heaviest winner in the round-up futurity at the National Swine Show, and a consistent winner in the open show.

Our entire show herd was sired by Big Bob Wonder. Caldwell's Big Bob, the world's grand champion, is a son of Big Bob Wonder. Remember our sale is made up of animals bred along the same lines. Send in your name for the catalog early.

O. W. Devine Will Represent Kansas Farmer at Sale.

H. B. Walter & Son, Effingham, Kansas

Caldwell's Big Bob

The 1,122-Lb. Grand Champion, National Swine Show, 1917
The World's Most Sensational Boar Will Be on Dress Parade Sale Day. Come and See Him

Tuesday, February 19, 1918

At Howard, Kansas

50 HEAD 50

This offering will be the equal of anything to sell this winter. Every animal that sells will be an attraction in itself. There will be size and quality enough to suit everybody and class enough to win in the best shows and make money for the farmer and breeder. The winner in every class shown this year was related to Caldwell's Big Bob. He was a sensational pig and is siring that kind. Every animal to sell is a brood sow. They are all tried sows and yearlings and not one that I would not be glad to keep in my own herd. They sell bred to

Caldwell's Big Bob and King Bob By Big Bob

If you are looking for sows that will put your herd in the front rank of popular big-type herds, you will make no mistake buying here. The catalog gives all the particulars and a copy of it should be on every hogman's desk. Write today.

Fred B. Caldwell, Howard, Kansas

Cols. R. L. Harriman and J. C. Price, Auctioneers. O. W. Devine will Represent Kansas Farmer.

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 5. TOPEKA, KANSAS, FEBRUARY 2, 1918. Established 1863. $1 a Year

PRICE-FIXING IN WAR TIME

World's Need for Product Usually Indicated by Price Offered

From War Conference Address of Thos. N. Carver, of Harvard

IT doubtless seems indecent to prosper while the whole world is suffering, but prosperity sometimes comes to a man through no fault of his own. He who does something which the world very much needs to have done, will generally be well paid for doing it. The high price which is offered for his product or his service is quite generally, though not always, a symptom of the world's need for that product or that service. It is a pretty good rule, though not an invariable one, for every man to do that for which the highest price is offered.

There are, as suggested, some exceptions to this rule. If you have reason to believe that the world does not know what it wants, that it has a preverted appetite, one may conscientiously refuse to give it what it demands, or to produce that for which it is willing to pay a high price. Or one may insist on giving the world what he thinks it ought to have instead of what the world thinks it wants. But whenever one has reason to believe that the world knows what it wants, one may with equal regard for his conscience follow the price list and render his service or produce the product for which the world is offering the highest price.

This happens to be both sound economics and sound ethics. If, for example, a farmer finds that the world will pay him more for 100 bushels of corn than it will pay for the beef which that corn will make, he may very consistently decide that the world needs the corn more than it needs that amount of beef. He may therefore decide to sell the corn as corn rather than to feed it to cattle and make it into beef. Incidently, it is more profitable. Again, if he finds that the world will pay more for the wheat which he could grow and harvest with the labor at his disposal than for the corn or the potatoes which he could grow with the same labor power, he may reasonably conclude that it is because the world needs that amount of wheat more than it needs that amount of corn or potatoes, and that he would be rendering a greater service to the world to produce the wheat than to produce the corn or potatoes. If, however, he had reason to believe that the appetite for wheat was a perverted one, the price list would not be his best guide to moral conduct.

In so far, therefore, as one feels reasonably certain that his products will supply real needs rather than vicious appetites, he need feel no compunctions of conscience if he produces the things for which the world is willing to pay the highest price. This doubtless seems simple enough and, stated in these general terms, there is probably no one who would dispute the argument or deny the conclusion. When we come to make specific application of this principle, we sometimes err through lack of information. People who do not know that corn is sometimes used in the making of beef, may urge people to feed more cattle, lest the supply of beef should run short. People who do know that calves drink milk sometimes propose to forbid the killing of calves for veal, in order that they may grow up and make beef. One who understands that the milk which is necessary to make a pound of veal, has from four to five times the food value of that pound of veal, will see the wisdom of making the calf into veal at the earliest possible age. This applies, however, only to dairy regions. Milk which is produced so far from markets as to be unsalable, may very properly be given to calves, because otherwise the milk would go to waste. In the dairy regions of the east, however, the dairyman cannot afford to use up good salable milk in feeding calves. Neither is it to the advantage of the consuming public that he should do so. He would really be robbing the public of food in the form of milk in order to make a much smaller quantity of food in the form of matured veal or beef.

Where land will grow wheat and will not grow corn or potatoes or any of the more heavily yielding crops, it is of course desirable that it should be used in growing wheat. Land, however, which can be used for growing any one of a number of crops should be obviously used for growing those crops which will yield the farmer the highest profit, because these are the crops on which a given amount of value is produced at the lowest expenditure of human energy. This leaves more man power to be used in cultivating either land or doing the other things which are indispensible at this time, when man power is so scarce relatively to the need.

If all this be true, the question may reasonably be asked: Why should the government ever interfere with the course of production or with the prices which are offered on the market? As a general rule it should not. There is no evading this conclusion. But there are exceptional cases when it may be desirable. If the government perceives that a certain agricultural product is going into non-essentials, such as beer or distilled spirits, it may very wisely interfere and say that, at least during wartime when food is so all-important, none of it shall be wasted in the production of things which are either harmful or non-essential. In the crop report of the Department of Agriculture for May, 1917, is published a table of materials used to make alcoholic liquors in the United States during the fiscal year ending June 30, 1916. Of the grains used, something over thirty-nine millions of bushels were used for distilled spirits and sixty-eight millions for fermented liquors. Other materials, such as grape sugar, molasses, glucose, etc., were also used in considerable quantities. Taking seven of the principle items and omitting the unimportant materials, and reducing those items to pounds, we get a total of 7,343,069,939 pounds of food stuffs. Some of this, of course, may be necessary for the manufacture of denatured alchol. Allowing one-fifth of the total for this purpose, the other four-fifths, when reduced to caloric values, are found to furnish calories enough to supply a ration for 6,000,000 men for a year. This does not mean, of course, that the men could live on these particular articles. Their rations would have to be balanced up, but so far as the mere question of calories is concerned, that quantity is used for a non-essential purpose.

There is another important consideration in the question of fixing the price of food stuffs. From a certain point of view we might say that a high price is the best means of securing economy of consumption. This is undoubtedly true of some food products, those for which there are many substitutes to which we can turn if the price gets too high. As applied to certain basic necessaries of life, however, it is likely to work great hardship upon the poorer classes. The well-to-do could buy wheat or wheat flour and wheat bread at any price; even if wheat were to go to $5 a bushel, the well-to-do classes could still buy wheat bread; but it would work great hardship upon the poor. In order that the poor as well as the rich may be well fed with nourishing food of the plainer varieties, it may be necessary to fix a price arbitrarily.

On the other hand, of course, if the price is fixed at too low a point, it may discourage production and thus do more harm than good. The price must obviously be high enough to furnish a sufficient motive to the producer. In a time of great national crisis, however, there are other motives than the cash motive to which we must appeal. We might possibly recruit the armies by merely putting up the wages of soldiers to fifty, one hundred, two hundred dollars a month, but it does not seem expedient to the powers that be to put service in the army on a purely commercial basis. Neither is it absolutely necessary to put services on the farm, in the factory, or in the shop, on a purely commercial basis. The price allowed must obviously be sufficient to cover the cost of production, otherwise the farmer would deplete his capital and find himself at the end of a year or two without adequate tools or teams or other instruments of production. If he can be allowed enough to cover the entire cost of production and to furnish him a comfortable living for himself, then a democratic government need not hesitate to appeal to other than commercial motives in behalf of food production, at least as applied to some of the basic necessaries of life.

Price fixing, however, is not confined to the fixing of maximum prices. In some cases it may be necessary to fix a minimum price in order to guarantee the producer enough to pay the cost of production. It seems to be peculiarly necessary in the case of wheat. Wheat and wheat flour form a more satisfactory basis for an army ration than anything of which we know. Wheat is dry and highly concentrated, and therefore contains large food value in small bulk. It would therefore take four ships to carry as much food value in the form of potatoes as one ship would carry in the form of wheat. We simply haven't got the ships to carry potatoes across the water in sufficient quantities to supply our own armies and those of our Allies. Corn is almost as concentrated as wheat, though not quite. But it does not keep so well. Corn meal is more likely to grow rancid than is wheat flour, and corn bread, while it is delicious when fresh, becomes stale much more rapidly than wheat bread. It is not so well suited, therefore, to the needs of an army as is wheat bread, for you cannot always serve hot bread to your soldiers. It is, therefore, of the utmost importance that our wheat supply be kept up or even increased if that be possible.

Again the course of the wheat market, after this war is over, is an extremely uncertain one. There are considerable quantities of wheat in distant portions of the earth, such as Australia and Argentine. But shipping is so scarce that it can with the greatest difficulty be spared for these long voyages. A ship can make two or three trips across the Atlantic and back while it is making one from Australia to Europe. We simply haven't the ships to spare. If the war should end before another wheat crop is marketed, considerable Australian wheat might come onto the markets of the world. Again, a considerable part of the wheat producing lands of the world are in Southern Russia. Since the war began, this wheat has been unable to find an outlet. Its natural outlet is through the Dardanelles, the only other available one is through the Baltic. Both are closed. When the Swiss Mission was in this country, a few months ago, the representatives of that country made it clear that Switzerland must depend on North America for their wheat. They had been getting most of their wheat from Russia. Even England had been supplied partly from Russia; that is to say, England in time of peace has a number of sources from which she draws wheat—first and most important is North America; second, India; and third,

(Continued on Page Nine)

THIS is no time to talk about rights or wrongs or grievances. Our one inquiry should be, what ought we to do in this crisis; not, how much ought we to get out of it. Our democratic government will not command you to do everything which you ought to do. It expects you to do it of your own free will.

It is not simply the people of England, France, and martyred Belgium who are calling for your wheat! It is democracy itself whose life is at stake. Your wheat will help save its life. Your wheat will not only help to make the world safe for democracy, it will help to make your own Kansas prairies safe for your own childrtn and your children's children.—T. N. CARVER.

REO
"THE GOLD STANDARD OF VALUES"

This New Reo Light Four Is a Handsome Motor Car

AT THE NEW YORK SHOW, in January, the Reo exhibit was, to an even greater extent than ordinarily, the mecca of the crowds.

YOU'D THINK, PERHAPS, that at the National automobile show, and especially in the world's greatest metropolis, where dealers and buyers go to see what is latest in construction and design, that the ponderous multi-cylinder machines would attract the most attention.

ON THE CONTRARY, there was vastly more interest shown in the types of cars that are designed to supply that great American need for a practical, economical, five-passenger touring car or three-passenger roadster.

THIS YEAR, more than ever before, buyers are paying less attention to fads and more to practical things. More to cost of upkeep than to first cost.

AND THIS REO—this new Light Four—stood out above all the rest.

IT IS SUCCESSOR to the greatest four-cylinder automobile ever built—that wonderfully efficient, wonderfully sturdy Reo the Fifth, that for eight years maintained its supremacy.

THIS IS A REFINEMENT of that great car. All fundamentals have been retained and every detail has been refined to the last degree.

IN A WORD, this latest Reo represents all that has gone before and just that much more of Reo experience.

THIS IS A REAL CAR—a full five-passenger Light four. Not a skimpy—not a little four.

IT DOES SEAT FIVE full grown adults—you don't have to use a shoe horn to get them in.

BODY DESIGN IS BEAUTIFUL—it is up to the minute in every line and curve and in every detail of upholstery and finish and appointments.

IT IS JUST THE CAR you would specify if having one made to your own order.

FOR HERE ARE COMBINED roominess with economy of operation; beauty in appearance with sterling mechanical quality;

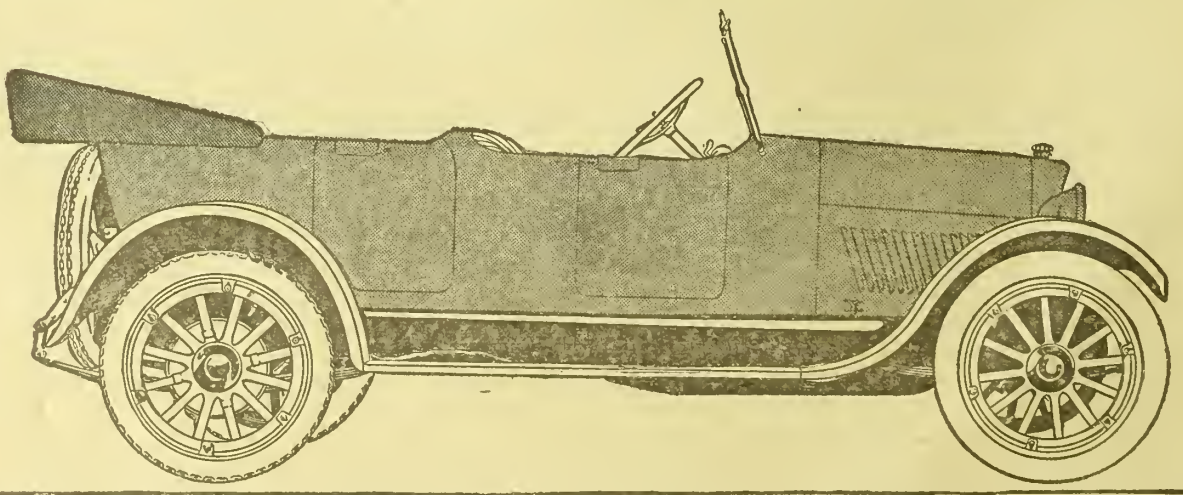
AND LOW UPKEEP—that quality for which Reos have always been famous.

OUTPUT IS LIMITED—must be this year, for we also are doing our part to assist Uncle Sam.

SO YOU'LL HAVE TO HURRY. Make your decision—see your Reo dealer and place your order well in advance of the time you will want delivery, else you will surely be disappointed.

TODAY—won't be a minute to soon.

Reo Motor Car Company, Lansing, Michigan



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KANSAS FARMER

THE FARM PAPER OF KANSAS

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SEED AND LABOR SURVEY

Seed and labor are vital needs for the coming year's production. Never before have we faced so serious a shortage of seed as now confronts us. Much seed that has been saved is of low vitality. While attending the Farm and Home Week meetings we visited the seed-testing laboratory, which is being operated to its full capacity every day. We inspected one of the germinators containing samples of cane, kafir, and other seeds of the sorghums selected from the agronomy farm of the Agricultural College. We found that much of this seed that was selected with probably much greater care than is exercised on the average farm, was of such low vitality as to be unsafe for planting.

It is of the greatest importance that we have a complete survey of the seed and labor situation as early in the season as possible. We have just learned that a plan is now being put into operation which will accomplish this result by utilizing the schools of the state. Every farm in each school district will be canvassed and the information reported and filed. The seed information is to go to the county agents and the chairman of the seed committee of the State Council of Defense, L. E. Call, Manhattan. The labor information is filed with the Farm Labor Administrator, E. E. Frizell, Manhattan, who in co-operation with the county agents, farm bureaus, Council of Defense, and farmers of the state will help to organize local committees to make every source of labor available for farm work.

Samples of all seed located are to be tested by the school children under the direction of the teacher and check samples sent to the Agricultural College to be tested. Detailed instructions have been furnished, and the state committee is urging that prizes be offered in each county to stimulate the boys and girls to vigorously carry on the work. A definite plan has been prepared for offering and awarding these prizes, which will go to the schools making the best records.

KANSAS FARMER has for several years advocated using the schools for seed testing work. It is not only valuable training for the pupils, but gives them an opportunity to be of real service to the home community. In the present emergency we feel sure our readers will co-operate heartily in the making of this seed and labor survey.

CONTROL OF PORK PRICES

The impression seems to be abroad that our Government Food Administration has failed to make good in the matter of keeping up hog prices. The question was raised during the recent meeting of the Improved Stock Breeders' Association in Manhattan. It will be recalled that the statement from Joseph P. Cotton, chief of the meat division of the Food Administration, which we published in our issue of November 10, contained the following words: "The prices, so far as we can affect them, will not go below a minimum of about $15.50 a hundredweight for the average of packers' droves on the Chicago market until further notice." In concluding this statement it was pointed out that it was not a guarantee backed by money nor even a positive promise by the packers. It was simply a statement of the intention and policy of the Food Administration, which through its buying powers for our Government and our allies was in a position to very largely control prices.

In the same statement it was further announced that the Administration would endeavor to stabilize the price of hogs to be farrowed next spring on the basis of a hundred pounds of pork at the cost of thirteen bushels of corn. Study of statistics had shown that when the price ratio was lower than about twelve to one, pork production decreased. The meat administration therefore thought that to increase pork production it was necessary to raise the ratio to thirteen to one.

Prof. W. A. Cochel, who is a member of one of the advisory committees of the Food Administration, called attention to the fact that the thirteen-to-one price basis was not expected to go into effect until the next crop of pigs is ready for market. At the time the Government's hog price statement was issued it was estimated that the price of corn would in all probability be around $1.25 a bushel. Corn has remained considerably higher in price, and on the basis of the price for which it is selling hogs have not sold on the thirteen-to-one basis. They have not, however, gone as low as $15.50. According to Professor Cochel, farmers themselves have been responsible for keeping up the price of corn, since farm buying has furnished most of the competition. In other words, farmers themselves have been willing to give more than $1.25 a bushel for corn purchased for feeding purposes.

It is our belief that the Food Administration will use every possible effort to make its promise good when this year's hogs begin to come to market. The hogman who understands his business can make a hundred pounds of pork with considerably less than thirteen bushels of corn, and in view of the conditions existing, those who are growing hogs will endeavor to get along with a minimum amount of grain feeding.

INCREASE POULTRY EFFICIENCY

Poultry is generally considered as a side line on Kansas farms, and because of that fact does not always get the attention it deserves. The average farm flock, even when given indifferent care, brings in a large revenue in the aggregate. It is so distributed through the year that the total amount is not realized, unless careful figures have been kept, as should be the practice on every up-to-date farm. The large profit from farm poultry is possible because so much of what the chickens eat would be wasted entirely. Because they are able to utilize and save much of the waste grain, poultry thus become most efficient producers. In so far as poultry utilizes the waste grain and does not call for the purchase of large quantities of high-priced feeds, there is probably no more profitable line of production on the farm.

Because of shortage of grain through a period of years, and the prevailing high prices of all feeds, farm flocks have been much reduced all over the country. Eggs have gone to almost unheard-of prices. On every side we are now hearing of the need of increasing poultry production. Our Government is spending much time and effort in seeking to bring about a substantial increase all over the country, largely because poultry supplies meat for home consumption and releases large quantities of beef and pork which is so necessary in rationing an army. Increasing poultry production thus becomes a real war measure in that it increases our surplus of those things which can be transported more successfully than poultry products.

Since poultry stock of all kinds has been so much depleted, increases in production can most economically and logically be brought about by increasing the efficiency of the reduced flocks on our farms. It means getting a larger production from a smaller number of hens. To do this, we must practice better methods. We can increase the average production of each fowl by the right kind of culling, which we trust was done when fowls were being marketed in order to reduce the size of the flock. It is the same problem which has been confronting the dairyman. Weeding out the drones and those individuals which do not return enough in production to pay for the food they consume gives the better hens of the flock a chance to receive better care and feeding. A live-stock farmer told us during the meeting of the State Board of Agriculture that they had culled their flock down to seventy-five hens on account of the high price of feed, and the actual production for the winter had been in excess of that of previous seasons when a much larger number of hens had been carried over. After hearing him describe the method he followed in culling, we could readily believe this statement.

In this issue we are devoting some additional space to these problems of increasing efficiency in poultry production. Learning how to select breeding pens that will give high fertility in eggs and stock of greater capacity, how to use incubators so as to get the best possible results, how to feed and house so that the production of each individual will be increased, all have a bearing on the general problem. We hope during the coming year the side line—poultry production—will be given as much attention in planning for the year's work as is ordinarily given the main features of the farming business. It is a duty, under present conditions, and in performing it there can be no loss, for poultry products are sure to be in great demand. Let us make this a record year for poultry in Kansas. In spite of the shortage in stock and the high feed prices, this is not by any means an impossibility if we will all give our farm poultry the attention it deserves.

GROWING CASTOR BEANS

Castor beans were grown quite extensively in Kansas a good many years ago, but at the present time only a very limited quantity is produced. Usually the test of time determines the crops best adapted to conditions. It is our guess that castor beans were dropped because they were not as profitable as other crops more suitable to Kansas conditions. From the number of inquiries being received, it would appear that people of the state are again thinking favorably of this crop. We presume it is because of the demand for castor oil in the operation of aeroplanes. The Aircraft Board of the Government is making provision for growing a hundred thousand acres of castor beans in the South to supply this need. Probably they can be grown much more successfully in the Southern States than in Kansas, and it is our opinion that Kansas soil and climate will serve a better purpose in producing the food crops which are also a serious war need.

The Kansas Experiment Station is receiving many inquiries for information and literature on castor beans. No bulletins are available from this state, and station men are taking the view given above in answering their inquiries. Castor beans can be successfully grown in Kansas, thriving best on a loamy soil. The yields that have been made where they were grown amounted to from seven to nine bushels to the acre. This is not a time to experiment or branch out extensively in new crops. We had better stick to our staple crops, for we know more nearly what we can do with these.

ENGLAND AND LIQUOR QUESTION

In a famous speech made by England's premier, Lloyd George, he said: "England is fighting three foes — Germany, Austria, and drink, and the greatest of these is drink." He has never denied or qualified this statement. After listening to Dr. C. M. Sheldon tell of his three months' prohibition campaign in England, from which he has just returned, we have come to the conclusion that Lloyd George spoke the plain, unvarnished truth. In spite of having to fight this insidious foe at home, England has done wonders in carrying on the war. Over a million of her women are doing the work of men, and her people have sacrificed without stint. Her government, however, is evidently in the grip of a liquor trust which must be defeated. It is too much to ask a great people to fight such a foe and in addition carry on a great war with such an enemy as Germany.

In spite of the serious shortage of food which exists, Doctor Sheldon found that the liquor interests of Great Britain are to be allowed a 20 per cent increase in production in 1918. They are now using an amount of grain equivalent to 750,000 loaves of bread daily, while the average daily toll of the submarine is but 170,000 loaves. After campaigning in forty-eight of the leading cities of Great Britain, Doctor Sheldon is of the belief that the people of Great Britain would vote for prohibition now if they had a chance. The claim that workingmen would strike if deprived of their beer was proven false by the people conducting the prohibition campaign. Careful plebiscites taken in many of the large shipyards and other war industries showed that the majority of the workingmen would submit to prohibition.

Our Government is justified in protesting against the use of foodstuffs in the manufacture of liquor. Already we have taken radical steps in limiting such use of grains in this country. England is now rationing her people on practically everything except liquor. Maximum prices are fixed on most food products, but not on liquor. In this country our most representative farmers' organization—the Grange—has expressed itself on every possible occasion against the use of grain for liquor. We are now striving to save wheat to send to our allies in response to their urgent appeals. Producers of wheat cannot refrain from voicing their protest against such shameless waste as is permitted to continue in the country of our ally.

Another statement made by Doctor Sheldon is that the British government is not giving our soldiers and sailors the slightest protection against the evils of drink. We have made it a crime to sell or give liquor to a man in uniform in this country, but the moment he lands in England he finds it easier for a soldier to get drunk than for a civilian. The liquor interests seem to look upon him as their legitimate prey, and it has been authoritatively stated that 20,000 of the Canadian boys have been invalided home as a result of drink and its attendant evils without ever stepping foot on the soil of France. In the public houses of England hang posters, one of which Doctor Sheldon brought home with him, stating that spiritous liquors—whisky, etc.—will be sold to soldiers and sailors, but beer only to civilians.

Over seven hundred people were crowded into Doctor Sheldon's church in Topeka to hear his first public utterance following his return, and at the close of his address, by a rising vote the congregation unanimously authorized him to send to Washington a request that our Government ask the British government to give our soldiers and sailors the same protection from liquor and vice that we are giving them in this country.

Doctor Sheldon made it clear that he did not tell these things to arouse bitterness against our ally. He was in consultation with Mr. Hoover, Secretary Daniels, and Secretary Baker, immediately following his landing, and was fully authorized by them to tell many of the things he learned in England. It is evident that the crushing power of the liquor interests is seriously handicapping England and they are striving most nobly under this load to carry on the war. Such a request from our Government as was suggested would without doubt be welcomed by the English people. Even their premier, the head of the English government, has boldly told them that drink is a more serious menace than Germany. We trust some steps may be taken which will help our kinsmen across the sea to conquer this foe, which is admittedly a more serious menace to them than even the central powers of Europe.

INCREASE POULTRY PRODUCTION

Must Make Fewer Hens Produce Greater Output to Supply Need

By George C. Bowman, President Seymour Packing Company, Before State Board of Agriculture Meeting

SOME startling facts are shown through statistics as to poultry production in 1917 as compared with the previous year. The receipts of the company with which I am connected, at all their packing points in the State of Kansas from July 1 to December 31 were only 46.8 per cent of the quantity received for the same period in 1916—and for the 54.7 per cent—figured in the different classes as follows: Hens, 55.4 per cent; springs, 37.2 per cent; miscellaneous poultry, 50.1 per cent. This period is taken for the reason that it covers the marketing season for the new crop of poultry, a very large percentage of the crop being marketed during this period. You may gain the impression that the figures showing the operations of only one company are misleading, but from statistics of the stock of poultry in the warehouses of this country reported to the Bureau of Markets, United States Department of Agriculture, a marked decrease in the crop is shown. July 1, 1917, 218 firms reported 54,186,977 pounds; 144 of these firms on this date reported 36,031,669 pounds as compared with 6,215,672 pounds in 1916, showing an increase of 479.7 per cent. On December 1, 1917, 320 firms reported 49,345,417 pounds; 216 of these firms reported 15,145,830 pounds as compared with 27,138,307 pounds in 1916, or a 44.2 per cent shortage. These reports are incomplete for the reason that the Bureau of Markets did not call for any reports on poultry from the warehouses until April, 1917, and then less than 50 per cent of the total number reported, whereas now all warehouses are compelled to report under the Food Control act. You will note from these statistics, 218 firms reported July 1 as against 320 on December 1, the last report no doubt covering all houses holding poultry.

Considering that a very large per cent of the year's crop is marketed between July 1 and December 31, these figures would indicate that more poultry was consumed than was packed during this period, as compared with a conservative estimate of eighty million pounds having been accumulated above consumptive requirements during the same period in 1916. Our company's figures 37.2 per cent "springs" marketed tend to show less than 50 per cent as much poultry raised in the State of Kansas during 1917 as compared with the previous year. Probably more poultry was consumed on the farms on account of the high prices of other classes of meat, but not enough to materially effect these figures.

In presentation of reasons for such a shortage, it may be taken into consideration that during the fall and winter months of 1916-1917 the supply of eggs was not equal to the demand. Prices advanced to a point far above former years. This situation prevailed through the storing season, March, April, and May, approximately thirty cents a dozen being paid for current receipts to farmers in Kansas during these months, and it is very probable that the farmer considered it was more profitable to sell his eggs than to put them under the hen or in the incubator.

A producer of cattle and hogs reported a short time ago that farmers were selling off their flocks of poultry closer than in years past, the high prices of feed making poultry raising unprofitable. It would appear that the farmers generally keep no accurate account of the poultry and eggs produced each year, the amount of feed consumed, and the actual return through the marketing of these products, including the quantity consumed by the family. If actual records were kept and they proved that three to four hundred hens on each farm showed a loss at 1917 market prices, these products will have to advance in price or the production of poultry will continue to decrease. I am inclined to believe the farmer spends proportionately more of his time and energy in connection with his crops, cattle and hog raising, for the reason that when he sells a load of hogs or a number of cattle at present market prices, he has a large check to deposit in the bank, whereas when he takes a basket of eggs or a coop of poultry to town, it goes for groceries or other commodities used by the family. It is generally understood the chickens belong to the housewife. If this is true, she is doing a large share toward supporting the family, considering that she takes care of the chickens in addition to her household duties.

From reliable information obtained not only from Kansas, but throughout the entire country as well, one deduction is certain, i. e., that of a present shortage of hens, and with this fact in view, what is going to be the outcome? It goes without saying that an increased production is badly needed, but how to accomplish it is another question. A few suggestions along this line might not be out of order. Through the medium of the press, some government officials have recommended that no hens be marketed during the months of March and April. It would seem better to include January and February also, since many birds are sold at this time due to the fact that they are not producing but consuming.

The farmer, through the telephone and rural mail service, is kept well informed as to market conditions. During last spring and summer he no doubt received considerable information that the stocks of poultry in storage were heavier than usual, partially brought about through no export business on account of submarine warfare, causing low prices to prevail relative to the cost of production. With such a situation confronting him, he probably considered it was better to sell his eggs at the then prevailing high prices than to produce more poultry.

Another reason the farmer advances for the disposal of his poultry is that he is short of labor to produce crops and feed, and that feed is too costly in case he has to purchase it. During the period of hard times in Kansas twenty or thirty years ago crops were small and prices were smaller. It was the Kansas hen which kept starvation from the farmer's door. If a survey is made today showing the ratio of the present cost of feed with reference to the price he is able to demand for poultry and eggs as compared with the same figures during the hard times just mentioned, the results are in favor of the present situation. It then behooves every producer of poultry to hold fast to all the hens that are now in his possession and if necessary sacrifice along some other line rather than diminish his flock.

The condition confronting us now simmers down to this: We must make fewer hens produce a greater output. If this added duty is placed upon the generally willing hen, she is entitled to better care, both as to feed and housing conditions, in order that she may be physically fit to live up to her share of the agreement. Now, unless the producer can be convinced that he must follow better methods as to care, improvement in breeding, etc., then the outlook for a recuperation of stocks is far from encouraging.

The hatching of poultry in Kansas after July 1 was very limited, compared with the previous year. Records of poultry packers throughout the state without question will show fewer broilers marketed during October and November than in 1916. Is it possible this condition is partly accounted for through the production of infertile eggs? The campaign in "swatting the rooster" and the production of infertile eggs for market during the summer months is a step in the right direction so far as the quality of eggs alone is concerned, but the question is, what effect is it having on poultry production? When it is possible, why not be so equipped that both fertile and infertile eggs may be produced, the fertile egg for production and the infertile egg for market?

A well regulated and organized business endeavors, as far as is possible and consistent, to keep informed through proper channels as to the volume of business transacted each year or at intervals thereof. Also the amount of stocks on hand at certain definite periods. In this manner it is possible to determine whether stocks are increasing or decreasing. The State of Kansas, through its department of agriculture, has figures which show the number of bushels of grain produced, also the number of head of cattle, horses, hogs, etc., on the farms at certain periods of the year, but it is doubtful if Secretary Mohler can inform you within a million head as to the amount of poultry on Kansas farms and the chicken ranches at any given period during the year 1917.

In this state, poultry and poultry products are of such a volume that they deserve more recognition. As the situation now stands, there is no adequate or certain means of ascertaining how many chickens there are on Kansas farms, and for this reason it is well nigh impossible to make either a comparison, estimate, or prediction. What we need is a poultry census at least once a year—twice would be better. With such information it could be determined within a year or two whether Kansas is doing her duty in so far as poultry production is concerned.

The question now arises, at what time of the year should this census be taken? It is thought that on or about March 1 would be the date that would give the most workable figures. By this time practically all the late young stock has been disposed of. The months of January and February are non-producers so far as eggs are concerned, and in these months a goodly number of idle hens are placed on the market. This would leave the supply of hens which are to produce the spring and summer eggs at a minimum. Under ordinary circumstances the coming year's hatch will vary in accordance with the hens on hand at this season of the year.

A review of the facts and conditions mentioned shows a very slight production in 1917 and at the present time there is a great shortage of poultry on Kansas farms. It is safe to assume that of the young stock raised in 1917 the proportion of pullets was no larger than usual, indicating less laying stock on Kansas farms.

Statistics show that just now poultry is being consumed faster than it is produced. It is further believed that unless immediate steps are taken to obtain an accurate census we will not know at the end of another year whether the poultry situation in Kansas has advanced or retrogressed. It is a self-evident fact that unless everyone concerned uses all the means within his power to encourage an increased production of poultry, the immediate future along this line will look anything but favorable.

Then let us assist the farmers through a state-wide co-operation of the Board of Agriculture, the Agricultural College, farmers' institutes, county agricultural agents, granges, small town merchants, poultry packers, and all others who in any way are either interested or affected in the present situation to make the coming year and those following historical ones in the annals of the Kansas hen.



A MORNING PLAY IN THE SNOW AT FOUR DEGREES BELOW ZERO.—BREEDING FLOCK, WOODLAND FARM HOME, WILSON COUNTY

Breeders Laying Contest

In the American egg laying contest being conducted at Leavenworth, seventeen breeds are represented. Light Sussex pullet from Ohio won highest honors for December with 28 eggs. The pen of which she was a member, won the monthly record with 104 eggs.

T. E. Quisenberry, who is directing this contest, called attention to the fact that the great laying and exhibition strains that we have today were not bred in a year nor in a day. It required much thought and labor to accomplish what some of the breeders, who have entries in this contest, have produced. Even though the birds are properly bred, in shipping, in getting accustomed to their new quarters, new climate and new surroundings, the birds may be temporarily thrown off feed or out of condition and suffer a check or drop in egg yield. But if all would look at the matter as one of our broad-minded contestants expressed himself, there would exist a most pleasant spirit of helpfulness and co-operation between this school and the owners of all birds entrusted to our care. This splendid man said; "You will not find me too critical, I feel confident; in fact, I shall abide by results without a whimper. I am not over-sanguine, have gone into the thing in the proper spirit, I believe; I only hope that the pullets I sent will help justify the belief which you and I both entertain that poultry can lay well and look well—a belief which will not be dispelled in my own case even if the coming contest happens not to support it."

The hens in the yearling hen contest all made good records last year. As a result, they were late in moulting and some are not through yet. We, therefore, can not expect many eggs for a few weeks yet. There ought to oe some of these hens that will go over 200 eggs in their second year. The best hen for December was a White Rock from Kansas which laid 24 eggs. The best pen was a pen of Black Langshans from Kansas that laid 91 eggs.

We had the coldest and severest winter weather in December that has been experienced in this section in more than thirty years. At the begining of the month the temperature took a sudden drop and stayed below zero for several days. The Leghorns being a small and close-feathered bird seemed to suffer most and many pens that hadbegun to lay well, suddenly dropped to nothing. This ruined the egg record for the month. This was simply because the birds were not accustomed and hardened to such weather. Their egg record then began to climb back and at the last of the month, even though a second spell of the same sort of weather was experienced, the Legborns laid right on through it and made an increase each day and when the month closed their daily yield was in excess of any Leghorns entered in previous contests. This would indicate that after Leghorns are hardened to the weather and made comfortable and are properly cared for you can expect satisfactory results from them even in the severest months.

The highest individual was a pullet from Washington with a record of 25 eggs.

HINTS ON USING INCUBATOR

Important Factors are, the Eggs, the Machine, the Operator—Do Your Part

A WELL ventilated cellar or basement makes the best place in which to operate an incubator and get the best results. It is much easier to maintain an even heat in the incubator, and bring off a full hatch if the room temperature does not change suddenly, and a cellar is usually best for this reason. Some cellars are poorly ventilated. They are too deep in the ground, too damp or possibly too dry, and conditions are far from being ideal for hatching. A clean room in any part of the house or in an outbuilding will be much better in this case. Choose a convenient place where the incubator will be undisturbed, where the sun will not shine on it at any time during the day, where the ventilation can be readily controlled and you may be sure you have the best location.

The ideal room temperature for the average incubator seems to be around 50 degrees. Many good incubators on the market will hatch successfully in a room where the temperature is down to freezing. A heated room is not advisable, except where the incubator temperature cannot be kept up without it in very cold weather, because heated air is usually dried out and not as pure as it should be when it enters the egg chamber. Correct ventilation, the right temperature and proper moisture conditions at various stages of a hatch, are the three essential "mechanical" factors in incubation and the importance of selecting the best possible location for the incubator is to give most favorable conditions outside of the machine to control the air, the heat and the moisture within.

If more attention were given to the proper location of the incubator, there would be fewer disappointments, more normal hatches in number of chicks produced and more husky chicks that could be raised to a profitable maturity.

The warmer the room temperature becomes as the hatching season advances, the more ventilation can be allowed in the room, but it should never be entirely shut off even in the coldest weather. Provision should be made, therefore, to adequately care for the room ventilation problem. It is much more important than most people think. A simple frame like a window screen, covered with coarse muslin, strong cheese cloth, or bran bagging set in the windows will allow fresh air to enter the room without making a draft on the incubator. In a room where several machines are operated, and in deep cellars, it is well to provide some means of ventilation that will care for the poor air which settles to the floor.

Being satisfied that the room ventilation is the best that you can provide, everything is in readiness for the incubator. A new machine should be carefully uncrated and assembled as directed in the printed instruction sheet which each manufacturer sends out with the incubator. Every part in position and in good condition, the machine should then be leveled carefully. A high corner or high side will be hotter and even heat over all the eggs will not be possible. If necessary, block the incubator carefully so that it will stand firmly and not jar the eggs during the hatch. Some of the mammouth incubators require a certain slight tip to the whole machine to meet the requirements of their hot water system, but directions are given in each case.

An experienced operator should carefully read the instructions for operating, to thoroughly familiarize himself with the function of each part. In fact, many incubator owners who claim experience would profit by re-reading manufacturers' instructions to avoid many of the abuses which are frequently practiced. The operation of modern incubators is comparatively simple and readily understood, and yet few are to be run just alike because of differing principles. To attempt detailed instructions here would be inadvisable, but an outline of important features will not come amiss.

When starting the incubator, screw down the adjusting nut on the regulator to guard against overheating at the start and breaking the thermometer. If your thermometer is not new, or you doubt in the least that it is correct, test it with a clinic thermometer from 100 degrees to 105 degrees, and be sure to make allowances for any variations in regulating and running your machine.

Always wait before putting the eggs into the incubator until you are sure the regulation is correct. Once carefully adjusted before starting a hatch, very little attention to the regulator is required.

Too many make the common mistake of turning the adjusting nut up or down if there is a slight variation in temperature. Many of the most successful operators never touch the regulator, except to test it between hatches to be sure that nothing has accidentally dropped into a working joint or bearing to prevent the free action of the parts. If you find the temperature too high or too low, try to make the correction by turning the wick up or down in the case of the lamp-heated incubators or making corresponding changes in the amount of fire where other kinds of heat are used.

On oil-heated incubators, a new wick should be used with each hatch. If the oil-reservoir is of the ordinary type, it should be filled daily and preferably in the afternoon so that there will always be enough oil to last until morning. Never fill the lamp bowl entirely full. Expansion of the oil when warmed will make it overflow. All lamp fixtures should be wiped clean and dry daily. There will rarely be any trouble with ill-smelling or smoky lamps if the burner is kept perfectly clean each day. Start with a medium-sized fire or lamp flame, and make your adjustments with such. The heat control can then be more easily handled from start to finish.

After the incubator has run at least twelve to twenty-four hours without any needed adjustments, it is ready for the eggs. When they are put in, the temperature will drop and not return to the prescribed heat for several hours while the eggs are warming up. More mistakes are made in changing adjustments on the regulator the first day than at any other time. Later we shall go into greater detail about what takes place in incubation, but be it said now that the first week of the hacth is really the most critical period in the whole process, and greater care is advisable then than at any other particular time. Do not be alarmed if the temperature should vary a degree, or even two, either way from time to time. If the average temperature is maintained results will be quite as good as though the thermometer showed no variation whatever. In fact, some experienced men prefer slight variations.

Never open the door to cool or turn the eggs until the third or fourth day. From then on until about the eighteenth day the eggs should be turned at least twice daily. The length of cooling depends upon the room temperature, the period of the hatch and the condition of the eggs. Attention to instructions and close observation will add to your experience all that is necessary to become quite expert in handling the cooling operation.

A fertile egg will be warmer than an infertile one after the first week or so. If the thermometer is on or near an infertile or dead germ egg, it will not register correctly. This is one reason why testing the eggs is generally advised once or twice during the hatch to remove those which do not contain a live chick embryo. There are many differences of opinion on the moisture needed during the hatch. Some machines require more moisture than others, and some hatch successfully without added moisture under average conditions. It is safe to say that more poor hatches result from insufficient moisture than from too much. In some cases the best and easiest way to supply moisture is to keep the floor of the room well sprinkled, thus allowing the air to become more moist before it enters the egg chamber. It is seldom possible to get too much moisture when this practice is followed. When it is not practical to wet the floor, pails or pans of water may be set near the machine, the eggs may be sprinkled with warm water, or a shallow pan of water may be set into the incubator beneath the egg tray. The necessity for moisture is not to add water to the eggs, but to prevent to rapid evaporation of their normal water content. At the end of the first nine or ten days, the eggs should dry normally down so that the air cell in the large end of the egg is bigger than the size of a silver quarter dollar. This can be determined by testing the eggs.

The varying types of incubators, each with their different ventilation systems, prevent any discussion of this feature. Experts have worked it out for each kind on the market and manufacturers' instructions are usually explicit. The growing chick needs much less "fresh air" during the first half of incubation than the last half. After the tenth or eleventh day the amount of ventilation can be increased gradually, but quite rapidly until the last of the hatch.

Do not be in too big a hurry to remove chicks from the incubator. Let the hatch finish off and the last chicks dry before opening the door. If your incubator has a nursery tray, it is best to test it before the chicks hatch. In very cold weather the drop in temperature from the egg tray to the nursery is too much and chicks will be chilled if the nursery is used unless it is raised.

If during the hatch you should have an accident—the lamp go out and the temperature drop, or something happen so that the eggs are overheated, or should you have left them cool too long, do not throw away your eggs until you are convinced that you cannot get a hatch. Many good hatches have come in spite of these accidents and it is foolish to count your losses too quickly. This does not mean that the best results can be obtained without thoughtful attention to the simple care of your artificial hatcher. Three important factors govern the success of hatching: The Hatcher—The Eggs—and The Operator. Do your part.



PEN OF WHITE LEGHORNS IMPORTED FROM ENGLAND IN 1915 BY E. B. BARNES, RAWLINS COUNTY

Preparing For Breeding Season

The hatching season is almost here and the breeding pens should be mated up at once. If you have sixty or seventy hens, do not mate them to a half dozen males, but select about twenty and mate them to two of the best cockerels that you can get. Pick out the ones that have thin pelvic bones and plenty of space between the two pelvic bones and the rear of the breastbone. See that every hen is up to standard size. Using small hens in the breeding pen will result in a flock of undersized birds next year. None but the healthiest and most vigorous birds should be permitted in the breeding flock.

It is much better to use half of the flock for breeding and have all the chicks of uniform size and color, than to mate up the whole flock and get chicks of all sizes and quality. Suppose, for instance, you have a hundred pens and wish to hatch four hundred chicks this year. Fifty of the best hens mated to four good, husky cockerels should give you this number in three hatches, ten days apart. Now if you were to mate up the whole flock of a hundred hens—as the average farm flock runs—the fertility would run much lower, thereby causing an unnecessary waste of edible eggs, the chicks would be much poorer in quality, mortality heavier, thus causing a further loss, at least a third of them would be culls and hardly bring the cost of their feed on the market. If your flock is like the average farm flock, you will find that after you have picked out the best half, the remainder will hardly lay enough to pay for the feed, even at this time of the year. At the end of the season, you will have more big, healthy chicks from the eggs laid in thirty days by the fifty hens, than you will from the eggs laid by the hundred hens in the same length of time.

In selecting the cockerels, take those that are full of life, ready to fight anything. A small comb for the breed is an indication of weakness. The body should be broad at the shoulders, legs set well apart and body properly balanced. The eye should fill the socket well. Space in front of the eyeball indicates constitutional weakness. The eye should also be rich in color and with an indication of alertness. Test the males for egg capacity, the same as the females. The thinner and straighter the pelvic bones are and the more space between the pelvic and breastbones, the better.

Examine every bird for lice, play safe, and treat every bird with blue ointment. Blue ointment can be purchased at the drug store and mixed with an equal amount of vaseline. Apply a piece about the size of a pea, about an inch below the vent, working it well down to the skin. Lice are often the cause of infertile eggs and poor hatches.

The breeding pens should all be mated up by the first of February if we are to have March chicks. The heavy breeds should be hatched during March, while the Leghorns should not be hatched until April. March is too early for Leghorns. They will, if properly grown, begin to lay in August and then go into a molt the same as the old hens, and will not lay until January or February. April 1 to May 15 is the proper time to set Leghorn eggs, and February 15 to April 1, for the Rocks, Reds, and Wyandottes. Chicks from the heavy breeds hatched in May and June, do not reach maturity by winter. The cold weather stops their growth and they will not attain the size of the early hatched chick. The early chick is not troubled so much with vermin as the late hatched chick. The early chick matures quicker, lays eggs when they reach their highest price, and sits first in the spring.—MELVIN F. UPHOFF.

If it has been the practice to start incubating eggs in April and May, thus getting out the chicks between the last week in April and the last week in May, one will have trouble in getting the pullets to lay before January or February of the next year, especially in the case of the general-purpose breeds. Since the greatest profits are made from pullets that lay during the late fall and winter, it is very important to start incubating the eggs so that the chicks will be hatched between the middle of March and the middle of April. All pullets hatched at that time and properly raised should be laying by the first of November when fresh eggs are high. Following this plan will increase the profits per hen at leats $1 per year. Hatching eggs early each year becomes an easier task—especially if one lets the hens hatch the eggs, since the pullets will become broody earlier in the spring.

It is a bad practice to throw out feed to the poultry from the door of the granary. They soon learn where the grain comes from and hang around the door, watching for a chance to slip in. Poultry can thus easily become a nuisance about the places where grain is stored. In order to make it unnecessary to go to the place of general storage each time the flock is fed, keep a small supply bin or box in the henhouse. Having a comfortable henhouse, everything reasonable should be done to encourage the flock in making it their headquarters when they are not out foraging about the place. A hopper, preferably of metal construction, large enough to hold a week's supply of grain, can be hung on the walls of the house. It should have a sloping top so the hens will not roost on it.



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If you sow insanitary practices, you will reap disease.

To economize space in the poultry house the nests may be placed under the dropping boards. It is best to have them darkened, as the hens prefer a secluded place in which to lay.

KANSAS FARMER DAIRY CLUB

Increasing Dairy Production

BETTER feeding offers the first opportunity for increasing dairy production. That is perhaps the most important lesson to learn from the Dairy Club work. It is impossible to make much progress without keeping records. That is the reason we are so insistent that Dairy Club members keep their feed and milk records up-to-date. The motto, "Do It Now," would be a good one to hang up in the barn where you milk and feed your cow.

Professor O. E. Reed told the grown-up dairymen who attended the annual meeting of the Kansas State Dairy Association in Manhattan last week that the great danger at the present time is that many of the best cows are being underfed because of the high prices of concentrates. If cows are underfed this year, their production will not only be reduced during the present lactation period, but the effects will be carried into the next milking period and they will not produce as heavily and consequently not as economically. Under-feeding and feeding rations that are not properly balanced, undoubtedly result in a great loss of calves—or abortion. "I am of the firm belief," said Professor Reed, "that a large percentage of the abortion in the herds over the country is traceable to mismanagement and careless feeding."

The dairyman should study the feed value tables now as never before. It is necessary for the highest production to use some concentrated grain feeds not produced on the farm, and a thorough knowledge of the feeding value of the various feeds make possible efficient buying of feed and economic production of milk.

Professor Reed emphasized the value of silage. Most of those present had silos and knew from personal experience how it helps in cheapening milk production, but there are many dairymen throughout the country that are not convinced of the value of silage. When food prices are high, is the best time to learn this lesson. Silage was never so valuable as it is this year, and we would urge you to make a great effort to have a silo on your farm before another winter.

* * *

It is commonly reported that some dairymen are selling their cows. You will be interested in reading what Professor Reed told the dairymen on this point. He stated that dairymen the country over have never before faced such a serious problem in the way of producing dairy products at a profit as they are facing at the present time. The prices paid for feeds that the dairyman uses have increased from 50 to 300 per cent during the past year. Labor is high-priced and scarce—in many sections very difficult to get at any price. At the same time, the prices paid for milk and its products have not kept pace with this increase in cost of production. From some sections of the country we get reports that the dairymen are making greater profits than before the war, but this fails to be the condition in the Middle West.

"Many dairymen and cow owners," said Professor Reed, "have undoubtedly asked themselves the question as to whether they could not sell their cows and the feeds they have grown at the current prices, and be money ahead, as compared with feeding this feed and selling the dairy products. No doubt many reasoned this way and have sold their herds. Far too many cows have been sacrificed already this winter. However, the dairymen who think must ask themselves the question, 'What about the future?'

"It seems to me that the future prospects for the dairy industry are very bright despite the fact that production is not as profitable at the present time as compared with a year ago. It is a well known fact that during a crisis such as we are going through at the present time, when prices paid for all products of the farm are on the increase, milk and its products are the last to increase in price.

"There seems to be two reasons for this condition. First, the dairy products are perishable and some products cannot be stored for any great length of time; secondly, there is no other animal product of the milk cow. For this reason, the prices are more generally stabilized and it is more difficult to increase the price on short notice, as can be done with other products. Although the prices for milk and dairy products are the last to increase, we find they are the last to decrease, hence we can expect better conditions in the future.

"From all the information that I can gather, I find that the men who have sold their cattle are those fellows who have had a hard time making a profit under normal conditions. The dairy business has a few of this kind of men, just as any other industry has. These men will naturally stop producing."

* * *

This is a time for weeding out poor dairymen as well as poor cows. This was given by Professor Reed as a reason why the prospects are good for the dairymen who think, and are striving to improve their conditions. There will be a great elimination of those dairymen who do not try to improve their condition. Even in our best producing herds we are seeing quite a change in the management. The dairy herds all over the country are being culled of their poor cows more closely than ever before. The dairyman who does not have definite plans for improvement, cannot hope to stay in the business. It requires more brains and thought to produce dairy products at a profit at the present time than ever before, and the man who does not meet the situation is sure to fail.

"The dairyman who sells out at this time because he is not reaping a large profit is not doing his duty and in many cases may be called a slacker," said Professor Reed. "Dairymen have a great responsibility during the period of the war in furnishing food for the human family. Our Food Administration has asked the people to conserve meat products and accordingly have named meatless days. This means that people have to have meat substitutes, and many households are using dairy products for this purpose. Therefore, the consumption of dairy products will be increased considerably during the war period, if the products can be obtained.

"Ordinarily under normal conditions, the dairy cow furnishes an exceedingly large amount of protein and other nutrients for the human diet, and with the increased demand the dairyman must see to it that the normal production be kept up and an increased production made possible."

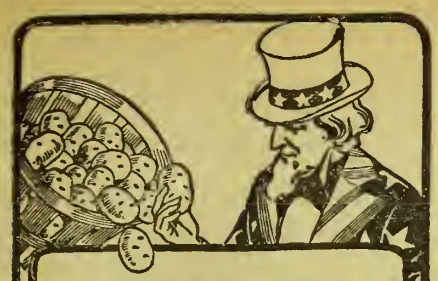
* * *

To show how the food value of the product of our dairy cows compare with the production of other animals, Professor Reed used a chart giving the total production in food nutrient of our twenty-two million dairy cattle, of the eight million beef cattle slaughtered annually, the fifty million hogs killed each year, and the three hundred million bushels of potatoes consumed annually. By referring to this chart, he pointed out some convincing evidence as to the value of the dairy cow as a producer of human food. The nutrients contained in the milk from all dairy cattle—figuring each cow produces 364 gallons of milk per year—is about equal to that contained in the carcasses of all the cattle and all the hogs slaughtered annually in the United States.

The protein of milk is perhaps of the greatest importance of all its constituents in its relation to the nutrition of the human family, and the comparison of this element in the milk from all the cows with that contained in the carcases of the cattle and hogs slaughtered is very striking. The protein in the milk from all the cows is more than equal to the amount in all the beef and pork slaughtered annually. Milk is depended upon to furnish a large portion of the protein needed in growing children and this element is exceedingly important in this relation. Children cannot reach their highest development mentally or physically without protein.

It has been estimated that the milk produced annually from our dairy cows contains nearly one-third of the annual theoretical protein requirement of all the people of the United States.

"When we fully consider these facts," said Professor Reed, "it is apparent that the dairymen and cow owners have a great responsibility in furnishing food for the nation at this time, and that the production of dairy products must be increased, instead of decreased."



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Milking Machine Experience

A WISCONSIN man, H. D. C. Bannister, writes to Hoard's Dairyman regarding his milking machine, as follows:

"Do you know what a glorious feeling it is to be really satisfied with some one thing? You may possess an auto, an implement, a lighting plant—something that serves your requirement in its line with full satisfaction. Isn't it a good experience? I feel exactly that way in regard to my milking machine.

"Prior to three years ago I was skeptical; I feared the newly introduced mechanical milker. Like so many other farmers I thought one would harm the cow by attempting to obtain her milk through any mechanical contrivance. I also thought such a machine would necessarily have to be very complicated and hard to keep working smoothly, also hard to keep clean. But I couldn't help thinking that, if the machine would do the work, it surely would solve the handling of the most monotonous portion of dairy farm labors. I was interested and visited the National Dairy Show—saw the different machines demonstrated—decided to buy, and did. That was the best investment I believe I ever made. I found that it did do the work without injury to the cow, that it was not complicated, and that it was not hard to keep clean.

"Since purchasing and operating my machine I never yet have dreaded milking time. The few chores one has to do about the barns before starting to milk are harder than the milking. My machine can be operated by one man and with it he can milk about thirty-five cows in an hour. I have even beaten that when endeavoring to show off a trifle. It will milk the hard milkers the same as the easy ones and all I have to do most of the time is watch it do the work.

"I never have registered it down as harming an animal, and since it has been in operation there has not been an udder of one cow injured by the machine. In fact, it accomplishes its task better than we did formerly by hand. One instance proves this statement: Having a large dairy and rather small space, my cows were rather crowded in the barn during the winter. Three cows at different times had one teat stepped on—two of these were bad cases, as the milk ducts were severed. I was puzzled to know just the best course of treatment to follow. When milking by hand that accident meant milking carefully as long as one could obtain the milk and later probably having to use the much dreaded milk tube. This course leads to losing a quarter so often that I finally resorted to the milking machine and used it on these animals right along. The result was surprising. I saved all three quarters and they healed nicely. The three animals are still in my herd and still possess perfect udders.

"Several of my neighbors have purchased machines and often I hear the milker discussed. I have heard one say he never again would consider milking by hand; another, that he wouldn't take a thousand dollars for his if he was not sure that he could buy another. Others make even more interesting assertions. I personally can appreciate and believe these testimonials and can join them in all the boasts made of a milker, for I value mine above any convenience I possess on the farm.

"I thought many times before obtaining one, especially to use on my purebred Holsteins, and I have milked with it three years before openly voicing my opinion, but now I am convinced of its utter success and thorough satisfaction. I like it, my cows like it—we are both here to prove it."

Butter has not advanced in price in keeping with other food products in proportion to what it costs to produce it. It is a little unfortunate that a campaign should have been made encouraging people to save butter when it is one of the cheapest foods we have. The same statement could also apply to cheese and milk, but in our anxiety to secure ample food supply for the future, it is only natural that some mistakes be made.

A great improvement can be made in the appearance of farm buildings, fences and farm machinery by a healthy application of paint. Where paint is lacking the farm presents a woeful appearance of neglect and usually is indicative of the owner's shiftlessness.

Save on coal bills with IDEAL heating

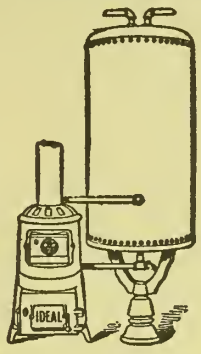


The old folks who have suffered the ills and bills of old-fashioned heating methods, are glad to give their approval to the economy, safety and comfort of IDEAL heating

The best recommendation we can give as to the success and satisfaction of IDEAL heating is from the old folks on the farm. They require the most *dependable* heat. IDEAL heating suits them exactly, it is sure and safe, warm in the morning and all day and mild at night. It is easily regulated to the weather, eliminates drafts and chill spots in the house—easy to take care of—most cleanly heat there is—no coal gas or ash dust, no repairs or over-hauling necessary.

AMERICAN RADIATORS & IDEAL BOILERS

IDEAL heating can be put in any farm cottage or house as a cellar or water pressure system is not necessary, and IDEAL Boilers and AMERICAN Radiators are made in every size to fit requirements.



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I have laid bare the truth on separators. I have gone straight to the heart of the separator business. I can give you the whole story from the raw materials to the finished product because I know. Remember, I don't just sell separators. I design them and make them right here in my immense factories at Waterloo (one entire building is devoted to separator making alone) so I understand separators from every angle and am ready to give you—without cost or obligation—all this separator knowledge—facts you ought to know about separators before you invest your good money. Get the book now—send the coupon.

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This wonderful free book tells about the various methods of separator selling. It proves in figures how buying direct from Galloway—the actual maker—saves you a third to a half in real money. My book tells you in a clear, logical way how buying a separator by any other method means you pay 25% to 40% more than you should. There is a whole lot to this big separator question and to get the most value for every dollar you spend you should know what I know about separators.

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Separators have a certain work to do. They must be substantially made, easily cleaned, sanitary and give lasting service — but they must skim—and skim close — a certain amount in a definite time. Separator service is the big important thing to look for. So I say before you decide on my new Sanitary Model, test it—compare it with any. The higher the price or the better the grade separator you compare it with, the better I'll like it. The more severe and critical you make the comparison, the more certain you will be that Galloway does really give you the greatest and best separator value in the world.

$46.90
375 lbs. Capacity

Larger sizes in proportion. My 950 lbs. size costs no more than other high grade small sizes cost. I guarantee satisfaction or money back. I take all the risk.

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You can take that long if you want to convince yourself. I say—"Use my new Sanitary Model for 180 milkings on your own farm." That will show you and that will prove to you beyond any doubt that your separator money goes farthest when you buy your separator from me. My offer is fair and square.

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So—now then, get the whole story as told in my free book. Get Galloway's first-hand information on separators. Whether you buy from me or not the facts I tell you in this book will save you many a dollar on your separator and will show you how you can make every penny you invest in a separator bring back definite returns. Send the coupon tonight and get this valuable book.

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Galloway separator has given the best of satisfaction. I get all the cream and uniform test. There hasn't been more than two points variation in cream test all summer.
M. B. HICKOX, Miller, S. Dak.

Have given Galloway separator a good trial and am well pleased with it. It certainly is worth the money. I don't understand why some people pay $90 to $120 for a separator when you sell a separator just as good for about half.
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—Cut Out and Mail Coupon—Read My Book

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Sprouted Oats for Chickens

WITH eggs at fifty cents a dozen or better, we are minded to put forth every effort to induce biddy to lay as many eggs as she is capable of doing.

It is approaching the time of year when the hen's tendencies seem to turn to egg production. All she needs is a little encouragement. With the addition of some substitute for bugs and worms and something to take the place of green grass, the hen may be fooled into thinking that spring has arrived.

Commercial beef scrap or sour milk will take the place of bugs. There are also many substitutes for green grass. Silage is valuable. Chopped turnips or small potatoes, steamed clover or alfalfa leaves, and sprouted oats all are good succulent feeds.

Sprouted oats are probably most relished by poultry and pay well for the work required. It is necessary to have some sort of sprouter where many hens are kept. If only a few are to be supplied, shallow pails may be used. The oats are placed four to six inches deep in the pail and warm water poured over them. Each day they should be poured from one pail into another and warm water added as they appear the least bit dry. They should be fed as soon as the sprouts are an inch long.

When a sprouter is needed, it may be cheaply made at home. Simply build a cupboard two feet square and six feet high. Fit to the front of this a glass door that opens the entire front so that the trays may slide in and out freely. Construct seven trays twenty-two inches square and two inches deep. For bottoms to the trays use a very fine mesh hardware cloth or fine chicken wire. If the chicken wire is used, it will be necessary to cover the bottom with a fresh sheet of paper for each sprouting to keep the oats from falling through. Nail two-inch cleats to the inside of the cupboard for the trays to slide on.

The oats should be put in a pail at night and warm water poured over them. In the morning they should be poured out into the trays in which they are spread one or two inches deep. It is necessary to sprinkle once or twice daily. They will sprout quickly and are ready to feed in six or seven days. By filling one tray each day, a constant supply of green succulent feed is furnished.

The best temperature for sprouting oats is 50 to 65 degrees. During cold weather a lamp may be placed in the bottom of the sprouter. It will be necessary to bore small holes near the bottom to admit air so the lamp will burn freely.

A sprouter constructed as above will cost little and will furnish ample green feed for 200 hens. The accompanying cut is such a homemade machine now in use on the poultry farm at the Kansas Agricultural College.—N. L. H.

Water Supply For Poultry

A supply of pure drinking water frequently renewed is as necessary for poultry as sufficient supplies of food.

There are two different types of drinking vessels for poultry in common use: Open vessels—pails, pans, crocks, and the like; and drinking fountains so constructed that dust and dirt can not get into the water except by way of a very small exposed surface.

These quite opposite types of drinking vessel are about equally popular with poultry keepers. Open vessels catch more dirt and dust, but are more easily cleaned. Closed fountains may be used much longer without cleaning, but if allowed to become foul are harder to clean thoroughly.

Placing open drinking vessels on a shelf a foot or more above the floor, prevents the hens from scratching coarse litter into them, but does not keep out fine dust which floats in the air and settles in the water.

Thoroughly rinsing open vessels once a day and scalding drinking fountains once or twice a week will usually keep the mas clean as necessary.

Will Save Your Chicks

Any reader of this paper who writes P. J. Kelley, the Poultryman, at 78 N. 2nd St., Minneapolis, Minn., will receive a Free Copy of his new booklet "White Diarrhoea in Baby Chicks." It tells how to prevent, remedy and save the whole hatch. It's free and this paper urges you to write for it at once.—Adv.

Barred Rock Record

It may interest some of the KANSAS FARMER readers to see hhat a bunch of 130 Barred Plymouth Rock hens has done. From January 1, 1917, to January 1, 1918, they laid 13,000 eggs, which were sold at an average of 27½ cents a dozen, amounting to $297. Eight dozen spring fries were sold for $52.85, and seven and one-half dozen hens for $96.56, making a total income for the year of $440.41. Only five hens were lost during the year. I have on hand 170 hens and pullets with which to start the year 1918.—JOHN N. WESTERBERG, Saline Co.

Guard Against Roup

Roup, the bane of the poultry raiser, will appear with the cold, damp days of early spring.

Perhaps no other disease gives more trouble or causes greater losses than roup in some of its various forms. A large amount of time and money has been spent in efforts to discover a cure, but as yet nothing has been found that will either cure or prevent it. Sometimes a remedy is used which seems to work wonders. The same remedy at another time may give little or no results. As the matter now stands, we can say there are many helps but no cures.

Roup may appear in any one of many forms. That most common results in a gummy substance oozing from the nostrils forming a scab. The breath of such birds is very offensive. This form may be detected by stepping into the hen house at night. The odor will betray the disease. It is rarely fatal in this form but saps the vitality and vigor of the birds, causing considerable loss in eggs and the vigor of the young chicks.

Another form is the swollen face and eye. In some cases both eyes may become



GRASS IS CHIEF DIET OF GEESE.—WITH PLENTY OF RANGE, LITTLE GRAIN IS REQUIRED

entirely blind, a yellow cheesy growth protruding from the eye socket. There is a strong smell to this form also.

Yet another form is called chicken pox. Small black scabs form on the face and comb. If removed, blood will ooze from the scabbed places.

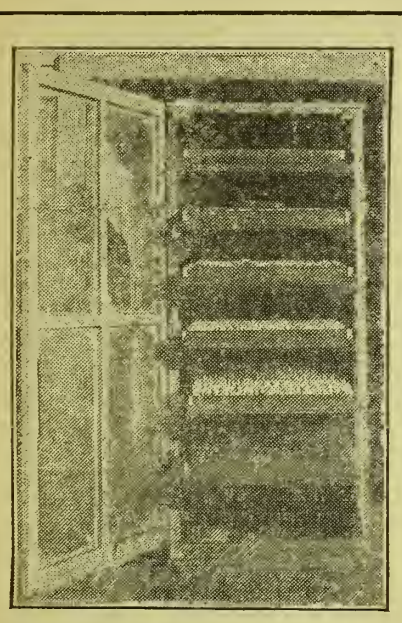
Probably the most fatal form is the diptheritic. In these cases white spots or membranes form in the corners of the mouth, in the nostrils or on the roof of the throat. As a rule the bird is soon out of its misery in such cases.

In the first case of the dirty nose, remove the scab and inject strong soda water or salt water, then blow into the nostril powdered calomel. Repeat until the discharge ceases.

With the "bung-eye" roup, remove all the cheese-like growth from the eye and thoroughly cleanse the cavity with potassium permanganate, then dust with sulphur.

For chicken pox, remove the scabs and paint the sores with pure creolin.

When diptheria strikes the flock, remove the heads from all diseased birds



HOME-MADE OATS SPROUTER, AGRICULTURAL COLLEGE POULTRY FARM

and put them in the stove. That is the only sure cure. Some cases can be cured by the use of burnt alum applied to the canker spots till they turn brown, when they can be removed and the spots covered with sulphur.

As general precautions for the flock, a few drops of spirits of camphor put in the drinking water, enough potassium permanganate in the water to turn it wine color, or ten drops of tincture of aconite to each gallon of drinking water are all of more or less value.

There is but one sure cure for all of these forms of roup—breed it out of the flock. A bird that is thoroughly strong and vigorous will not have roupe unless they are kept under improper conditions. Properly cared for, a strong bird will no more catch the roup than a strong well person will catch cold.

Roup is not very contagious. It is rather a condition than a contagion. When conditions are favorable for the development of the roup germs, one or all of a flock may have it. If things are as they should be, only the weaklings will get the disease. To avoid roup, do not inbreed. Change male birds yearly and build up the vigor of your flock. Do not shut your birds up too closely at night. If frost forms on the under side of the roof of your hen house, knock out another window. Better have a few frosted combs than force the birds to breathe foul air. Do not crowd. You can never make two hens thrive where there is room for but one. If you do not have sense enough to thin out your own flock. Nature will do it for you. Give your birds all they will eat, but make them work for it.—N. L. H.

Poultry For All Purposes

We have arrived at a point where the government is earnestly urging us to raise more and better poultry. The high prices of feed and the high prices which have been paid for poultry, both live weight and dressed, have tempted many to dispose of part or all of their flocks. It is up to us now more than ever before to help make up the deficiency.

Many are thinking of embarking in the poultry business who have never before raised poultry. These people are asking what kind of fowls are the best to start with. This altogether depends on the purpose they are being raised for. If eggs exclusively are wanted, nothing fills the bill better than the Leghorn, but on the other hand where is the meat? In this time of high cost of meat, many will wish to raise an all-purpose breed and have both eggs and meat.

For several years past, I have been watching the egg-laying qualities of the different breeds and I know of a flock of Rose Comb Reds of excellent quality whose egg-laying record would do justice to any flock of Leghorns.

Then there is another instance comes to mind of a flock of Buff Orpingtons of exhibition qualities which has averaged 218 eggs to the bird. Now consider the price of eggs, count the feed at the highest price for last year, and see if the hen does not come out far ahead to say nothing of the chicks we may raise.

White Orpingtons, are equal to the Buff in producing eggs and are of the same size with pure white plumage. The Wyandottes are a fine size and grow quickly. They also lay well during the winter and spring.

The best way to start in the poultry business? Well, there are several ways. It depends upon circumstances. If you can afford it and can get them, buy a few hens. But this is a hard proposition at this time of the year. The drawback is you cannot get eggs fast enough. So I think a better way, if you have hatching capacity, is to buy fifty to one hundred eggs from a reliable breeder. It pays to buy the best. If you do not have the hatching capacity, one can buy baby chicks, or better still month-old chicks. But always buy the best and of a reliable breeder.—Mrs. Lizzie B. Griffith.

New Incubator—Free

The Wight Co., D-18, Lamoni, Iowa, wants to give every reader of this paper a new $5.00 incubator for just a few minutes' work at home. Write for special offer.—(Adv.)

Girl Raises Turkeys

A Chase County girl, Miss Velma Mc Candless, recently marketed a hundred turkeys of her own raising, and after all expenses were paid, deposited $341.33 in the bank as a result of her venture. She also has fifty of her flock left and expects to do even better the coming season. She did not have all smooth sailing. In the spring, heavy rains killed a part of the flock, and later in the summer a pair of coyotes took heavy toll.

Uncle Sam wants to double the production of poultry and eggs next season. Will you do your bit?

Produce infertile eggs and save $15,000,000 worth of food.

Price-Fixing in War Time

[Continued from Page One]

Russia. If the war should close before another wheat crop is marketed, considerable quantities of Russian wheat would probably find their way to their old markets. There would therefore in all probability be something of a drop in the price of wheat. Farmers are a little cautious about sowing a large acreage. But it is so important that a large acreage be sown, that it is highly expedient that the government shall underwrite the farmer and guarantee him a price which shall at least cover his cost of production. Having done that, the government then can very consistently appeal to the patriotism of the farmer to grow as much wheat as he possibly can.

There may be some difference of opinion as to how high a price for wheat should be guaranteed by Congress. The weight of opinion seems to be that $2 is high enough. At any rate it seems reasonable. The men who are responsible for this are as sincere as any of us. In fact I do not know of any men in the food administration who would not gladly step down and out any day when a man arrives who can do their work better than they are doing it. It is our duty to support them in every possible way.

This is no time to talk about rights or wrongs or grievances. Our one inquiry should be, what ought we to do in this crises, not, how much ought we to get out of it. Our democratic government will not command you to do everything which you ought to do. It expects you to do it of your own free will

It is not simply the people of England, France and martyred Belgium who are calling or your wheat! It is democracy itself whose life is at stake. Your wheat will help save its life. Your wheat will not only help to make the world safe for democracy, it will help to make your own Kansas prairies safe for your own children and your children's children.

How to Buy Your Pullman Ticket

Pullman tickets may be purchased at 2,950 offices throughout the country, or they may be purchased from the Pullman conductor on the train.

One Pullman ticket entitles you to a berth (accommodating two people) at night, and a double seat in daytime. Two Pullman tickets entitle you to a whole "section," or two berths and two double seats facing. All Pullman tickets entitle holders alike to the conveniences and comforts of the car and the services of the porter.

The price of a Pullman ticket varies with the distance traveled, but in general it is about the same that you would pay at a moderate priced hotel.

The purchaser of a Pullman ticket must first have his railroad ticket, which he buys from a different official employed by the railroad. The Pullman ticket should be stamped on the back with the date of departure.

It is as simple a matter to buy a Pullman ticket as to buy a railroad ticket. Write to Dept. 80 for an interesting illustrated booklet, "How to Use Pullman Service."

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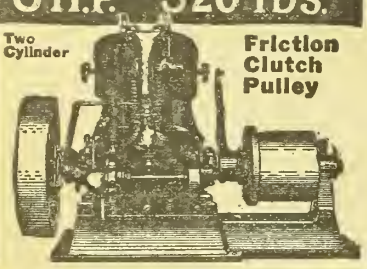



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FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

THE tractor in its present form of development is one of the most important machines at the disposal of the American farmer. W. H. Sanders, instructor in farm motors in our agricultural college, says that cheapness, speed and reliability are important factors in selecting a tractor. A serious labor problem confronts the farmer, yet he has more horses than he can handle. This is largely because farm laborers, heretofore satisfied to spend their time and energies on the farm, have been lured by attractive pay to manufacturing establishments, great transportation systems, and big business of every description.

In the face of this labor condition, it cannot be expected that the farm labor now available can increase farm production unless that labor is equipped with the efficient machinery obtainable for doing farm work.

Mr. Sanders points out that the modern tractor makes it possible for one man to control the necessary farming operations that formerly required from three to five men when this same work was done with horse teams. It is not that the horse has suddenly grown inefficient or that this can be done with less labor, but rather that horses or any other animal power in farming operations can only be used in comparatively small units by one operator.

The chief limiting factor of the tractor is the actual size of the field cultivated. The main drawback to the extensive use of the tractor for increasinng production, lies in the scarcity of competent operators. The average prospective tractor farmer is not fully educated up to the job he is undertaking. He must learn to think his power farming problems out along mechanical lines rather than those of horse power.

Because comparatively few persons on the farms are trained to operate and care for tractors efficiently, the traction short course at the agricultural college from January 7 to March 2 is expected to prove popular.

The motor truck is certain to become more popular as farm labor becomes more scarce and horse feed higher priced, It has proved almost indispensible to those farmers who specialize—dairymen, breeders, fruit growers, seedsmen, nurserymen, and truck gardeners. It may be used for hauling mill feeds and breeding stock as well as for marketing. The truck with a capacity of one or one and one-half tons seems to be the most popular, and it is better adapted to the wide range of uses on the farm. The truck has numberless advantages over horses. It saves time, is cheaper—providing there is enough work to do—and it stands without hitching. It is useful in taking men to and from distant fields in haying or harvest time, in hauling building material, and in fence building.—E. V. COLLINS, K. S. A. C.

Kansas City Tractor Show

The big exhibition building to house the Third Annual National Tractor Show to be erected on the plaza just east of the Union Station, will be larger than orginally planned. The officials of the Kansas City Tractor Club, under whose auspices the National Tractor Show will be held during the week of February 11 to 16, have been deluged with applications for space. Hundreds of manufacturers and dealers will be represented and the rush for space has necessitated enlarging the original plans so that the huge structure will cover over 50,000 square feet.

Farmers throughout the West and Southwest are alive to the importance of selecting their tractors before the shortage in steel becomes more pronounced. Most of the tractor manufacturers have not worried very much about materials until lately. It will be possible for every farmer that wants a tractor to get one, according to F. J. Anderson, president of the Kansas City Tractor Club. The development of the farm tractor in the last few years will be shown in the various exhibits to be displayed at the coming show. A few years back, farmers looked upon tractors with about the same point of view that the average layman looked upon the advent of the automobile. A few years ago, farmers did not realize that the farm tractor would win its way so quikly and become the most important equipment for the modern farm. The development of the tractor has been more rapid than the automobile. Today an efficient farm tractor is probably the only means of solving the problem of shortage of farm labor.

Machinery and Income Tax

"What deductions are allowed a farmer for 'business expenses' in making out his income-tax return?"

This is one of the many questions which revenue officers who will visit every county in the United States during January and February will answer in detail. Briefly, they include the amount expended for labor in the preparation of land for crops and in the cultivation, harvesting, and marketing of the crop. Deductions may be made for the cost of seed and fertilizer, the amount expended for labor in caring for live stock, cost of feed, repairs to farm and other buildings, but not the cost of repairs to the dwelling. The cost of repairs to farm fences and machinery is deductible, as well as the cost of small tools and material which is used up in the course of a year or two, such as binding twine, pitchforks, spades, etc.

The cost of machinery, such as tractors and threshing machines, can not be deducted, but the cost of their operation is a deductible item.

Buy Tractor Early

The farmer who buys his tractor during the winter months when he is not busy will save many dollars that would otherwise be lost.

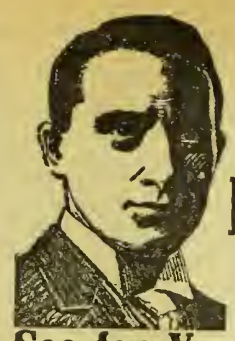
A farmer must necessarily spend a certain amount of time learning to operate the machine. It is not within the range of human ability for a novice to take a tractor, put it immediately into heavy work and obtain from the machine its full working capacity, neither can a manufacturer build a tractor so that the machine when delivered to the farmer is in such perfect condition that it is ready to go into the field and plow for ten or twelve hours without intelligent attention. Many tractors are started without being given the proper attention. Most of them do prove satisfactory, but if these same tractors were run carefully, under the direct attention of a competent man, their length of service would be greatly increased and the amount of "grief" materially reduced.

We might take the farm use of the automobile as an illustration of its utility. The automobile has become so important a factor in the daily life of the farm that it would be difficult to get along without it. It is used almost daily as a conveyance to and from town or to places in and about the farm. Occasionally the family finds it convenient to visit neighbors, thus extending very considerably the social side of farm life. In fact, the automobile has had much to do with keeping the family together on a farm because it has brought to the farm advantages supposedly identified with city life.

There will be a serious shortage of tractors, farm machinery and implements next year from all indications; materials are scarce and high, the labor question is becoming more and more acute, it is almost impossible to get mechanics and other high-class workmen with which to fabricate agricultural implements and farm machinery.

Farmers intending buying tractors or other farm machinery cannot place their orders too early; forewarned is forearmed. Last spring a great shortage of tractors existed as well as poor transportation service. Next season will be acutely worse. The cry for tractors is for spring delivery; it will not be a question of price but whether the tractors can be had.

Trees should be cut back when transplanted. In digging the tree the greater length of each root is usually cut off,



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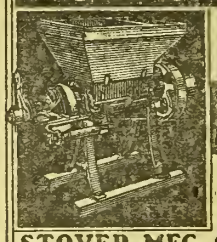

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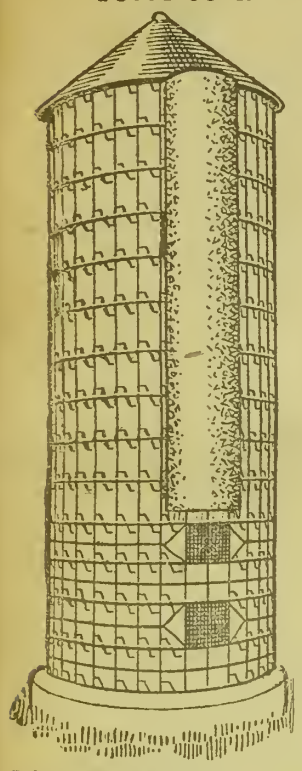

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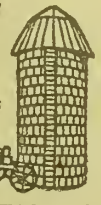

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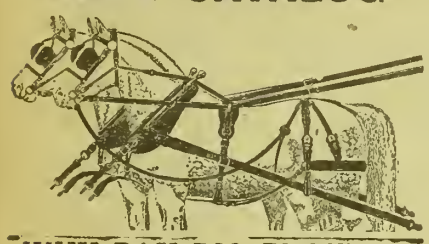

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Association Officers for 1918

All the live stock and agricultural associations meeting at Manhattan during Farm and Home Week held business sessions and elected officers for the coming year. The newly elected officers of the various associations are as follows:

The Kansas Improved Stock Breeders' Association — President, R. H. Hazlett, El Dorado; vice president, C. W. Taylor, Abilene; secretary-treasurer, Dr. C. W. McCampbell, Agricultural College, Manhattan; executive committee, G. W. Berry, Topeka; John Barr, Westmoreland, and Ed Nickelson, Leonardville.

Aberdeen-Angus Association — President, Johnson Workman, Russell; vice president, William Ljungdahl, Manhattan; secretary, A. D. Wilcox, Muscotah.

Kansas Horse Breeders' Association—President, George B. Ross, Kansas City, Kansas; secretary-treasurer, Dr. C. W. McCampbell, Agricultural College, Manhattan; third member executive committee, W. A. Rhoades, Manhattan; vice presidents: First district, D. F. McAlister, Topeka; Second district, M. A. Kelly, Bucyrus; Third district, E. W. Forbes, Cherryvale; Fourth district, William Branson, Overbrook; Fifth district, Ed Nickelson, Leonardville; Sixth district, J. M. Rogers, Beloit; Seventh district, R. Ewing, Pawnee Rock; Eighth district, A. J. Taylor, Sedgwick.

Kansas Swine Breeders' Association—President, H. J. Cottle; secretary, Carl P. Thompson, Agricultural College, Manhattan. Vice-presidents: Berkshires, C. G. Nash, Eskridge; Poland China, H. B. Walter, Effingham; Duroc Jersey, George Klusmire; Hampshire, J. E. Powell, Waldron; O. I. C., Arthur Mosse, Leavenworth, Ray Gatewood, Agricultural College, Manhattan, and Fred Laptad, Lawrence, members executive committee.

The Kansas Sheep Breeders' Association re-elected all of last year's officers: A. L. Stockwell, Larned, president; Henry Schloh, Natoma, vice president, Agricultural College, Manhattan; A. M. Paterson, secretary-treasurer.

Kansas State Dairy Association — William Newlin, Hutchinson, president; George Lenhert, Abilene, vice president; J. B. Fitch, Agricultural College, Manhattan, secretary-treasurer.

Kansas Crop Improvement Association: Carl Wheeler, Bridgeport, Presiation—Carl Wheeler, Bridgeport, president; O. A. Rhoades, Columbus, vice College, Manhattan, secretary-treasurer; C. C. Cunningham, Agricultural College, Manhattan, inspector.

Destroy Parasites

Poultry parasites must be exterminated in order that the hen may do her "bit."

At least 32 species of external parasites are known to exist on domestic fowls. It is not necessary, however, for one to be able to distinguish these 32 species and know their life cycle in order to successfully combat them.

One fact which poultrymen and farmers should know is this: Some parasites remain on the fowls all the time and can be destroyed only by treating the individual birds. Other parasites live in cracks and crevices of the poultry house and attack the birds while at roost or on the nest. Those of the latter class can only be combated by a direct application of some good spray.

The treatment for those parasites which remain on the body of the hen consists primarily in the dusting of insect powder into the feathers of the individual. There are a great many insect powders on the market and some may be very good; however, it is nearly always cheaper to make our insect powder at home. A very effective louse powder for poultry can be made as follows: Take 3 parts of gasoline and add to this 1 part of crude carbolic acid. (The crude acid must be 90-95 per cent strong.) Weaker acid is inefficient and when the strong acid is not available 1 part of cresol may be used instead. Mix these together and add while constantly stirring enough plaster of paris to just soak up the liquid. Usually it takes 4 quarts of plaster of paris to 1 quart of liquid. When this is thoroughly dried it may be dusted into the fowl's feathers from a shaker can. Care should be taken to see that the powder reaches the skin. —P. F. Schowengerdt, Colorado Agricultural College.

Order seeds early. There is a decided shortage of many kinds and the home supply should be obtained as soon as possible.

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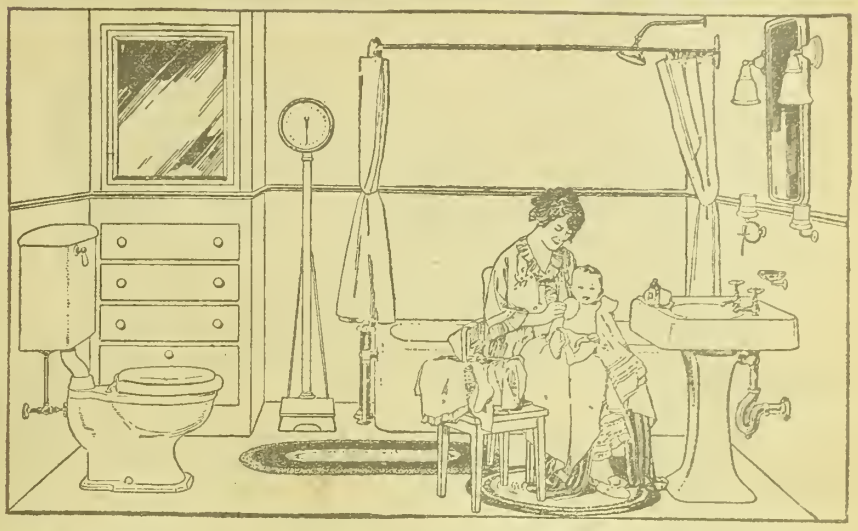

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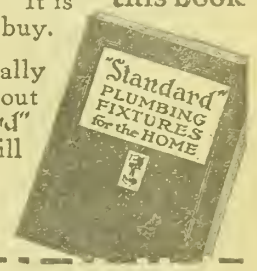

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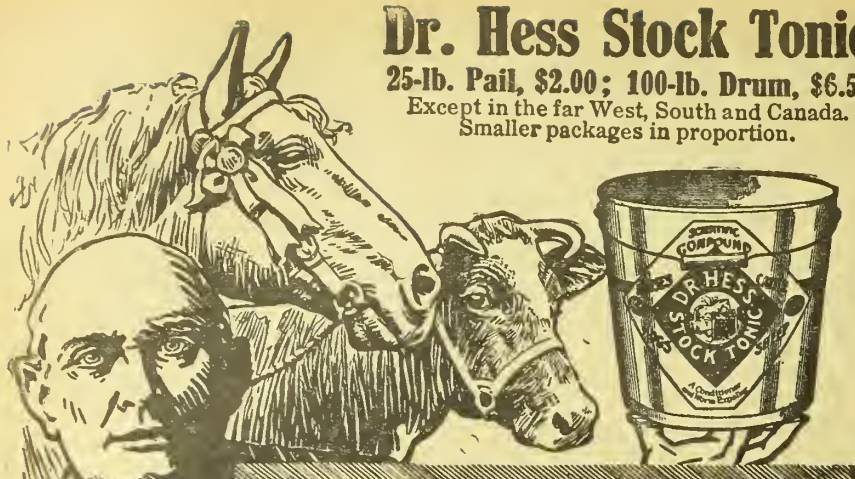

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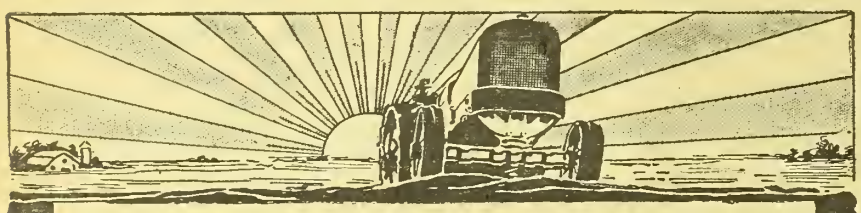

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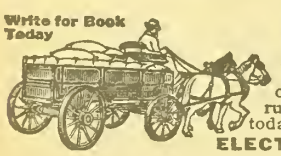

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Color in Jack Stock

ALTHOUGH greatly outnumbered—probably ten to one or better—there remain a few breeders who insist upon placing "color" as of first importance in jack stock. It is for the benefit of such breeders, any that may have attempted to influence and others interested, that these facts are presented. It is admitted that in every breed of live stock there are color preferences; that every breeder certainly has a right to such preference and to satisfy his tastes in that regard the same as in any other particular, provided he can do so. But live stock history and live stock record history prove that it is a sad mistake to attempt the improvement and development of a breed with a certain color as one of the principal requirements of the registry. Particularly is this true of jack stock.

It has been said that "It is difficult to find a good horse with a bad color," and the same is equally true of a good mule or a good jack. The leading mule dealers of this country signed a statement for publication requesting breeders to pay more attention to the production of jacks with more body and bone, regardless of color. The mule market is of more consequence than the mere opinion of a man who has a particular fancy for a certain color.

The different strains of jacks imported from Spain and elsewhere are of various colors. There are better jacks in America than can be found in the rest of the world. Some of the best jacks are of the so-called off colors. The first jack stock imported to this country for breeding purposes were gray and maltese in color.

L. W. Knight, who wrote a history for a record association with height and color its only requirements, makes particular mention of having owned "a very superior jack called Monarch. He was gray, about fifteen hands high, horse measure, and was sired by by jennet jack, Marengo Mammoth." Mr. Knight further states that this gray jack was considered the best and most valuable jack in Rutherford County, Tennessee. He also makes the observation that "Even though the native jack be black, he may not transmit that color—they are quite as apt to transmit the color of their ancestors though it be for generations back." Mr. Knight makes the further observation that "Color has no place in a record association."

Many of the so-called "off color" jacks produce just as many black offspring as some of the black sires. The mare has much to do with coloring mules.

The American breeders do not wish to sacrifice a large per cent of excellent individuals for color in an effort to establish a breed of jacks that would produce a third-rate mule. The highest priced draft mules, everything being equal, are the steel gray mules, red sorrel second, and black third.

There is a shortage of big, well proportioned jacks of a rugged constitution. There are plenty of good big jennets which are not black with white points, that could be profitably mated with good jacks of any color.

Every strain or so-called breed of jacks has various colors. Every jack record has registered jacks and jennets of various colors. It is not wise to destroy a good jack because he happened to breed back to some former color, which is sure to happen with mixed colors bred in all jack stock.

The registering of jack stock of other colors does not in any way conflict with or affect the registering of jack stock black with white points. Breeders particular as to color can easily look through the printed records of the registry and find the exact color of all animals registered. They can in that way be posted and breed for a certain color just as well as if only that particular color had been registered.

Percheron horses and Shorthorn cattle have been injured by the different color spasms. There are no horse record associations except the Suffolk that require any special color.

No breed of live stock has ever been developed by any record association when the requirements were only height and color. There is grave danger of degenerating the usefulness of the American jack to a great extent by placing a premium on height and color only and thus encouraging the production of long, spindle-legged, narrow-chested, small-bodied, light-boned type.

I am not opposed to black jacks, but I am very much opposed to sacrificing quality for color. I do not believe it is wise to encourage the public to patronize a small, inferior jack because he happens to be black with white points, in preference to a good, big rugged jack that will produce the large marketable mules, although he may be of some other color.—WILLIAM E. MORTON, Kansas City, Missouri.

Use Sorghum for Meat Cure

Folks who like sugar-cured meat may save sugar and develop a sugar-cure flavor by using sorghum. This is a suggestion made by P. F. Trowbridge of the Missouri College of Agriculture. Plain salt or salt and pepper may be used in curing the meat. After the meat is smoked the sugar-cure flavor may be developed by smearing the meat thoroughly with sorghum. Wrap the meat and hang it where the mice cannot reach it. The pepper may be omitted from the cure and applied with the sorghum.

Yellow Tepary Beans

A year or two ago I reported to KANSAS FARMER the results we were getting with Puma or Yellow Tepary beans. At that time we had observed their wonderfully prolific habit and extreme drouth-resistant qualities, but had much more to learn. We have now grown these beans four seasons without irrigation and our crops have ranged from twenty-eight bushels an acre in 1914 to six bushels an acre in 1917. In 1917 we planted on ground that had been growing weeds for several years. It was plowed late after the weeds had taken much moisture and plant food from the soil. They were checkrowed thirty inches each way in the rows. With one more good August shower the yield would have been doubled in 1917.

Pinto beans grown near our Puma beans in 1914 were a complete failure and in 1916 the same was true. The Puma bean yielded a fair crop in 1917. The Pinto, or Mexican bean, yielded only about one-half the seed produced by the Puma last season. The Puma has very fine stems and leaves, which are relished by cattle. We have been unable to get cattle or horses to eat the leaves or vines of the Pinto beans, even when they were hungry. Meal made from Puma beans gathered when the pods were immature showed an analysis higher in protein than commercial wheat bran. An acre of good upland will make an average yield of one ton of this bean hay or meal, which has about the same feeding value as bran. With bran at $30 or $35 a ton it is easy to see what a valuable crop they are. There is but one other crop that we know of that will germinate with so little moisture as the Puma bean and that is a Chinese bean we have tried.

The Yellow Tepary, or Puma bean, is an excellent dry bean for table use when properly cooked. It should be parboiled through two or three waters and boiled or baked a long time. These beans are selling locally at 15 cents a pound. Every Puma bean in Kansas should be planted in 1918, for we in this dry plains country have no other such sure food crop if the rabbits are fenced away from them.—H. WILLIS SMITH, Finney County.

Meeting of Beekeepers

The fifteenth annual meeting of the Kansas State Beekeepers was held in the Chamber of Commerce rooms at Topeka January 7 and 8. Monday afternoon after the regular business was disposed of a talk on "The Use of the Smoker" was given by Dr. G. Bohrer and a paper by C. P. Dodont on "The Proper Opening of Frames" was read and discussed.

At the evening session Prof. J. H. Merrill of the department of entomology of the Kansas Agricultural College

presented an able paper on "Bee Diseases." The point was brought out that an apiary which had had foul brood could be cleaned up by following the methods described in bee journals and by doing careful work. In treating diseased colonies, Professor Merrill recommended using a brush to remove the bees from the combs, disinfecting or burning the brush when through. A resolution asking the State Entomological Commission to appoint a competent state apiarist to have charge of all the state inspection work was passed by a unanimous vote.

E. W. Atkins, of the Federal Department of Agriculture, gave a talk Tuesday morning on "Spring Management of Bees," in which he explained the plans of the Department of Agriculture in regard to bee keeping. Mr. Atkins will spend the coming year in Kansas and three other states in helping the beekeepers to secure better returns from their bees. He will be in Kansas about a month this spring and then about a month after the bees are at work, his meetings being arranged by the secretaries of the district associations. If you are interested in having a meeting in your town, write to Prof. George A. Dean, Department of Entomology, Kansas State Agricultural College, Manhattan, or to the secretary of the state association or one of the district associations. This extension work is getting big results in other states. Let us get our share.

One of the pleasing features of the session was an illustrated lecture by Professor Hunter, of the State University, on "Bee Keeping." It is hoped that it can be arranged to send out similar lectures all over the state.

The old officers of the association were re-elected. Dr. G. Bohrer, one of the oldest beekeepers in the United States, was made a life member of the association.

A description of his method of keeping bees on shares was given by Harry A. Huff, of Chapman. He suggested that every beekeeper having a neighbor who has bees but does not take care of them should go to that man and offer to care for his bees for half the honey. Mr. Huff expressed his conviction that any man who has been giving his bees little or no care and trying to get comb honey will get more honey if he lets a good beekeeper look after them for him for half. In beekeeping, preparedness counts for a great deal, and every beekeeper should order his supplies for next season now, as you will not be able to get them if you wait until you are nearly ready to use them.

Prof. J. H. Merrill reported the inspection work done in the north half of the state as follows: Apiaries inspected, 229, with a total of 2,500 colonies of bees; fifty-seven apiaries found infected, with 219 infected colonies. One hundred and two colonies were burned and the remaining 117 were treated. Every apiary where colonies were treated was reinspected and at the present time there is no foul brood in the north half of the state in any locality where foul brood was reported and an inspection made.

Professor Hunter made the report for the south half of the state as follows: Nineteen hundred colonies in the apiaries inspected; 920 colonies opened and examined and foul brood found in 178 colonies. One hundred two colonies were treated and eleven destroyed.

Women as Farmers

Mrs. Theodore Saxon, who is one of the women farmers of Kansas, made a plea for training women in agriculture during the meeting of the State Board of Agriculture. Mrs. Saxon was not on the official program but she was asked to address the delegates at one of the sessions. She said in part:

"From competent authority we learn that the food situation of the United States is going to be increasingly bad. It is bad this year; it will be worse next year, and the third year perhaps worse still. Let us all be prepared accordingly. The trained woman is a valuable woman in working the land. We must train women for housework. We must train women for farm work. We must train women in the home and on the farm to get results. There should be exhibits in every state and county throughout the country especially designed to guide the people in what food to grow and how to cook it, to grow the food most needed by the allied forces and how to preserve it.

Women must be trained in agriculture before they can do it successfully. Therefore I would urge that our agricultural college be urged to provide special courses for women. There is a prejudice against women working in agriculture. The home and the garden offer opportunities for efficient service for women in wartime. The produce of the garden the last summer was in some cases plowed under for lack of labor to conserve it. Women must be trained to conserve it. This would provide occupation for the wives of soldiers.

"Dairying offers exceptionally good opportunities for women and also offers opportunity for the children to serve. I think I hear some of you dairymen saying 'I think I see myself hiring a woman with a bunch of children to work in my dairy!' But what else can you do? I only ask you to give women a trial. Women are considered to have more patience with stock than men and to be much cleaner, and these are essentials in the dairy.

"I want to ask you something else. I wonder if you have ever thought of making your wife your full partner. Let her help in the planning and keep the books. She will enjoy the work and be a real help. Give her a check book and teach her to use it. When you give a note have her sign with you. The banker will treat you better for it. Let her help run the dairy. Ask and take her advice sometimes. Especially do I urge this on the young men. Then if the man is wanted for service, the woman is prepared to carry on the farm work. Teach your wife above all things whom to trust in business transcations, that she may know to whom to go for advice if needed. Business letters should be answered each day as received, especially if relative to stock.

"Why have not you men brought your wives to this meeting? ('Mine had to stay at home to take care of the stock,' interrupted a delegate.) Make it your business, if possible, to teach someone to take care of things while you both take a vacation and come here to enjoy this rubbing together and learning how the other fellow does business. We want you to bring your wife next year. She will get some points you miss and when you get home you will enjoy comparing notes. How your wife would have enjoyed hearing Duncan Marshall yesterday! Next year bring your wife with you and enjoy the meeting and the social time afterward."

Incubating Duck Eggs

Nearly everyone understands how to manage chicken eggs with incubators, but little is written about hatching duck eggs. The duck business is becoming important and profitable, as it affords one of the quickest ways to increase the meat supply.

Most ducks do not become broody until late in the season, consequently the eggs must be hatched in incubators or under hens. We place about 100 of the duck eggs in our 130 egg size incubator. The temperature should be about 102 degrees the first week, and 103 the remaining time.

We do not cool the eggs during the first three days. After this we turn the eggs twice daily until about the seventh day, allowing them to cool only while turning.

Then we test the eggs, removing all that are clear. After this we turn and cool the eggs twice daily, allowing them to cool about ten minutes and gradually increase the time of cooling until the twenty-fifth day, when the machine should be left closed until the hatch is completed, except to remove shells.

Remember that it requires from twenty-six to twenty-eight days to hatch duck eggs and that often it takes a duckling two days to come out of the shell after the egg is pipped.

After the eggs have been tested now and then an egg will have a marble appearance; all such should be removed. Another important point in hatching duck eggs is the question of moisture.

Most incubators are equipped with moisture pans, and we keep them full of wet sand all the time.

After the eleventh day, we sprinkle the eggs about once daily with water heated to about 105 degrees. Duck eggs generally are highly fertile and it is no uncommon occurence to hatch 90 to 95 good strong ducklings from 100 eggs.

To secure a good hatch with hens, dip the eggs in luke warm water about the seventh day and replace at once under the hen. Do this every five or six days. This helps to produce a good hatch and increases the vigor of the ducklings. This rule also applies to goose eggs.—Sunny Slope Farm, Okla.

What's True?

Did it ever occur to you that there are no degrees to truth? A thing can't be almost true, and one thing can't be more true than another. Either what you say is true or it is not true. It is very hard to tell the truth, but one thing you can do: You can always tell what you believe honestly to be the truth. But if you just believe a thing to be true, and don't know it to be true, you should say so when you tell it. Then you've told the truth. Sort of puzzling at first, isn't it?—The American Boy.

When tillage begins, other arts follow. The farmers, therefore, are the founders of human civilization.—DANIEL WEBSTER.



$8.95 buys 140-Egg Champion Belle City Incubator

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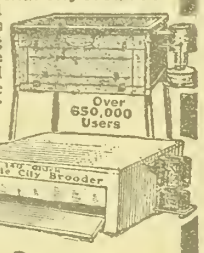

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The Greater War

In the various nations engaged in this war, in times of peace, over 6,500,000 die annually from preventable diseases. There have been fewer than 7,000,000 killed in action on all sides since the outbreak of the war. Obviously, then, all the battles in the interest of humanity and the interests of nations are not fought in the firing line. The perennial warfare waged against the invisible foe is as important—if not more so—than that now waged against those who are threatening the destruction of the very principles of civilization.—CHAS. J. HASTINS, M. D., President American Public Health Association.

Let Us Remember

The small daily service in substitution of foods can be done by all, the saving in waste by the majority, and the lessening of food consumed by many. The amount each one of us can save seems so small in comparison with the world need that sometimes we are tempted to feel that it will not make much difference whether we do our part or not. But it is only through the personal service and co-operation of all of us that America can provide the food which is so much needed and which can come from no other source. This individual daily service in 20,000,000 kitchens and on 20,000,000 tables by 100,000,000 people, which is the sum of all of us, will make that total quantity which is the solution of the problem.

How Can I Do My Bit?

By eating less white, whole wheat, and graham bread, using barley, corn, oats, or other cereals instead;

By using less sugar in tea and coffee, and less in cooking, fewer icings and candies, and by using as sugar substitutes honey, molasses and golden syrup;

By using very little butter in cooking, serving only as much as needed on the table, and saving fats in every way;

By cooking less meat;

By raising all the poultry possible, and using poultry and poultry products instead of meat;

By raising a good garden, eating more vegetables, and canning the surplus;

By economizing in the use of coal;

By doing cheerfully what the Food Administration asks, and influencing other women to help carry out the Government program.

The requirements of a good farmer are at least four: The ability to make a full and comfortable living from the land; to rear a family carefully and well; to be of service to the community; to leave the farm more productive than it was when he took it.—L. H. BAILEY.

Do You Know That—

A cold bath every morning is the best complexion remedy?

Dirty hands spread much disease?

Tuberculosis is contagious, preventable, curable?—Bulletin State Board of Health.

Kafir Meal

The "kafircorn cakes and syrup" listed on the menu card in the dining car seemed to offer an opportunity to satisfy our curiousity and our desire to "Hooverize" at the same time. Whether the early rising hour and the ride in the snappy winter morning to our train had given us an unusual appetite, or whether the cakes really were of a superior sort, we are not sure. At any rate they, tasted good to us, and we became interested in the possibilities of kafir for human food.

On asking questions, we learned that kafir may be used for muffins or for "corn bread" as well as for griddle cakes, in fact in almost any way that corn meal is used. Its food value is about the same as corn meal and its digestibility a little lower. The best results are secured by combining it with wheat flour or corn meal, using about ten per cent of the kafir meal. A larger proportion than this gives rather a strong flavor, which most people do not find palatable.

Kafir meal may be purchased from mills in several parts of the state, or it may be ground in the small hand mills. This year there is not enough kafir on the market to permit a very wide use of it, but next year it may be more plentiful, and in the meantime it would not be a bad idea for us to learn to use this Kansas product.

Conserving Fats

Render fats by chopping them in small pieces and heating in a kettle set in another kettle containing water, the inner kettle being so raised as to allow complete circulation of water. When the fat is completely melted, strain through a rather thick cloth. Fats rendered in this way are not overheated and therefore keep well.

Save drippings from roasts, sausage and broiled meats and all fat from pot roasts and the soup kettle. These may be used as they are for some purposes, or they may be clarified and made available for more uses.

Clarify fats as follows: Heat with an equal volume—or less—of water or milk, in a container set in hot water, for an hour or more, stirring occasionally. Sour milk is preferable to sweet milk for this purpose. After heating the mixture strain it through a fairly thick cloth. When cold the hard, clean layer of fat can be easily removed.

Either uncooked or cooked fats from chickens, geese, or other fowls may often be used as any other fats would be. If the flavor is strong, they may be used in mixtures having strongly flavored ingredients, such as molasses or spice, or they may be prepared as "savory fat."

Savory fat is good for making gravies, browning stews, warming over vegetables, etc. Prepare by heating the fat with onion, salt, pepper, and herbs, such as thyme, bay leaf, marjoram, parsley or summer savory.

Housekeeper or Homemaker

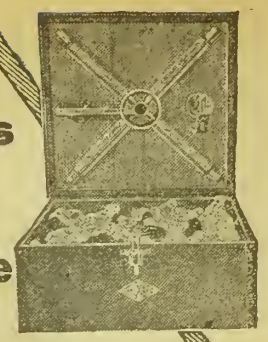
"Which are you, a housekeeper or a homemaker?" Under this head the Household department of The National Stockman and Farmer contains an article which makes so clear and sensible a distinction between the two that we have borrowed the following paragraphs.

"All of us have known both kinds, no doubt. The housekeeper makes the house her first object in life, the family comes second. Absolutely nothing is allowed to come between her and the strict adherence to her rules for keeping everything spick and span in and around the house. She has a day for each particular piece of work and nothing short of an earthquake or a death in the family will persuade her to make an exception to it. If members of her family have an interest in any sort of study they have a mighty hard time getting any comfort out of it.

"Does one like reading and wish to save articles of special interest for further reading? Or is another a lover of nature and interested in birds, flowers or plants and gathers specimens which he values greatly? Or do the men and boys enjoy hunting and fishing and have guns and fishing tackle to store about the house? No matter which nor to whom they belong, they mean only one thing to the housekeeper, they make a muss and are therefore worthless; so all that will burn are likely to find their way into the fire and those that won't to the trash pile whenever she considers it time for a 'ridding up.'

"I know, for I have seen it done on more than one occasion, and know the unhappiness and resentment such an act arouses in a sensible person's mind. Positively nothing of this nature which be-

184 Chicks From 187 Fertile Eggs



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Needs to be filled only once during the entire hatch. Has X-Ray Automatic Trip that regulates flame and prevents both chilled eggs and overheated sides.

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Shipped Express Prepaid to Practically all Points.

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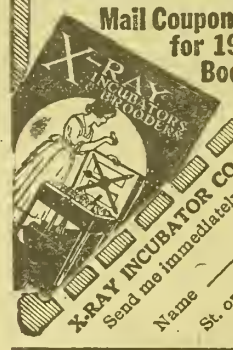

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Think of it! You can now get this famous Iron Covered Incubator and California Redwood Brooder on 30 days trial, with a ten-year guarantee, freight paid east of the Rockies.

150 EGG INCUBATOR CHICK BROODER

Incubator is covered with galvanized iron, triple walls, copper tanks, nursery, egg tester. Set up ready to run. Brooder is roomy and well made. Order direct from this advertisement—money back if not satisfied or send for free catalog.



(8)

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SHIP to the most reliable fur and hide house in Kansas. Liberal Grading and Highest Prices for your Furs. Full, correct weights and top of the market for your hides. Quickest returns. Over a quarter of a century in this business in Kansas. No matter where you have been shipping your furs or what prices you have been getting—send us what you have and let us prove to you how much better you can do in dealing with us.

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Write us at once for price list and free catalog of trappers' supplies. We can outfit you complete and save you money on what you need.

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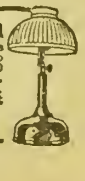
Dept. D Concordia, Kans.

Lights With a Match



The Coleman "Quick-Lite" Lamp makes and burns its own gas from common gasoline. Use a match to light—no torch needed. Gives brilliant light of 300 candle power. No wick. No globe. **Absolutely Safe.** Tip it over—no danger. Guaranteed Five Years. Will last a lifetime. See the Quick-Lite Lamp at your dealer's or write nearest house.

THE COLEMAN LAMP CO.
Wichita, St. Paul Toledo, Dallas, Chicago.

longs to others is sacred to a housekeeper.

"The homemaker has a broader view of the meaning of the house we live in, and knows that it must be the best place in the world for us, not alone physically but mentally and morally as well; that perfect housekeeping must not be allowed to crowd out other things of equal or superior importance. * * * The members of her family do not rush away from home the moment their work is finished, for they know they can find amusement or pleasure in whatever line they choose at home. But the housekeeper's family have no choice; they must get their amusement away from home, so as not to 'muss things up.' * * * Home to her is merely a place to eat and sleep in and keep tidied up.

"I would urge young housewives to learn early the true value of things and choose whether you will be a woman whose first aim in life is a spotless house, from which husband and children flee at every opportunity, or to be a real homemaker, keeping your house wholesomely neat without using up every ounce of energy on it; wise enough to save a part for other things, for pleasant talk and little excursions with the family, for music and reading instructive and inspiring books and magazines together, thus making their leisure so pleasant and profitable that home will seem the best place on earth to them."

Honey Icing

4 tablespoonfuls honey
White one egg
Cocoa, lemon flavoring or almond extract

Cook the honey until a ball is formed when dropped into cold water. Pour into the beaten white of the egg and whip until cool. Flavor with cocoa, lemon, or almond extract.

We wish once more to warn housewives that any persons claiming to be representatives of the Food Administration who may attempt to buy, tax, or carry away home-canned products, are imposters, and rumors to the effect that the Government contemplates such action are absolutely without foundation. It probably would not be difficult to trace this story to the same source as others circulated by German sympathizers with the deliberate purpose of prejudicing our people against the war policy of the Government. Our enemy understands that if those who are "staying by the stuff" can be induced to withhold their united, loyal support of the administration, our cause will have suffered as real a defeat as any that might be experienced on the battle field.

In every man are unlimited possibilities of achievement. No matter what our present condition is, or how we got into it, there is always a way leading from where we are to where we ought to be—and can be. Our mistakes, ignorances, cants, fears and discouragements set our only limits—limits that are self-imposed and removable. They are only seeming barriers that go down before wisdom and right determination. Man so often thinks himself a failure, but when he wakes up and exercises his reason he discovers himself—and nothing then is impossible to him.—THE COMMONWEALTHER.

Go back to the simple life, be contented with simple food, simple pleasures, simple cloths. Work hard, pray hard, play hard. Work, eat, recreate, and sleep. Do it all courageously. We have a victory to win.—HOOVER.

Wonderful Egg Producer

Any poultry raiser can easily double his profits by doubling the egg production of his hens. A scientific tonic has been discovered that revitalizes the flock and makes hens work all the time. The tonic is called "More Eggs." Give your hens a few cents worth of "More Eggs" and you will be amazed and delighted with results. A dollar's worth of "More Eggs" will double this year's production of eggs, so if you wish to try this great profit maker, write E. J. Reefer, poultry expert, 4632 Reefer Bldg., Kansas City, Mo., who will send you a season's supply of "More Eggs" Tonic for $1 (prepaid). So confident is Mr. Reefer of the results that a million dollar bank guarantees if you are not absolutely satisfied your dollar will be returned on request and the "More Eggs" costs you nothing. Send a dollar today or ask Mr. Reefer for his free poultry book that tells the experience of a man who has made a fortune out of poultry.—(Adv.)

Use more salt and you'll want less sugar!
Shorten your shortening—
WIN THE WAR!

The person who coughs or sneezes in your face is an enemy to your health. —Bulletin State Board of Health.

In physical economy, as in other matters, vitality saved is vitality gained.

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This department is prepared especially in New York City, for Kansas Farmer. We can supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10 cents each, postage prepaid. Full directions for making, as well as the amount of material required, accompanies each pattern. When ordering, all you have to do is to write your name and address plainly, give the correct number and size of each pattern you want, and enclose 10 cents for each number. We agree to fill all orders promptly and guarantee safe delivery. Special offer: To anyone ordering a pattern we will send the latest issue of our fashion book, "Every Woman Her Own Dressmaker," for only 2 cents; send 12 cents for pattern and book. Price of book if ordered without pattern, 5 cents. Address all orders for patterns or books to Kansas Farmer, Topeka, Kansas.



No. 8437—Ladies' House Dress: Cut in sizes 36 to 44 inches bust measure. The dress has a duchess closing and a three-piece skirt. **No. 8426—Ladies' Waist:** Cut in sizes 36 to 42 inches bust measure. The frill may be used or not, as preferred. **No. 8431—Girls' Dress:** Cut in sizes four, six, eight and ten years. The dress has a three-piece skirt and long or short sleeves.



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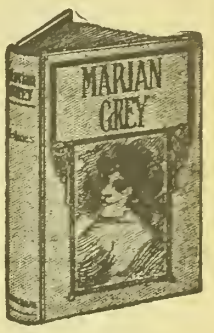

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Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks**, for bona fide seekers of employment on farms.

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WANTED—ACTIVE MEN WITH FARMer acquaintances to sell pipeless furnaces. Splendid line. Good proposition to offer. Richardson & Boynton Co., 171 W. Lake St., Chicago, Ill.

WANTED IMMEDIATELY—FARMERS, men-women, 18 or over. Thousands government war jobs. $100 month. Easy clerical work. Common education sufficient. Write for list positions. Franklin Institute, Dept. M-82, Rochester, N. Y.

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FIELD'S SUSSEX—CHICAGO WINNERS. Stock, Eggs. Fields Brothers, Sandwich Ill.

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WHITE SWEET CLOVER AND ALFALFA at farmers' prices. John Lewis, Madison, Kansas.

ALFALFA SEED FROM NORTHWEST Kansas, 95% pure; good germination; $7.50 per bushel. Order early. Freight will be slow. Geo. Bowman, Logan, Kansas.

WE ARE BUYERS OF FIELD SEEDS: Alfalfa, sweet clover, cane, millet, kafir, sudan. Write and send samples. Mitchellhill Seed co. St. Joseph, Mo.

SEED CORN—BOONE COUNTY WHITE, Gold Mine, Big Calico, $3 per bushel. Alfalfa seed, $11. Red Texas seed oats, $1. J. F. Feigley, Enterprise, Kansas.

TEXAS RED RUST-PROOF SEED OATS, $1 per bushel, sacks free. My oats have taken first premium at Muskogee State Fair for last two years. J. C. Starr, Vinita, Oklahoma.

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VIOLIN FOR SALE—HAS SWEET TONE. Free trial. Easy payments if wanted. Write Miss Bertha Mardiss, Route 5, Rosedale, Kansas.

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RAYO INCUBATORS, REASONABLE. Mrs. Walter Robb, Neal, Kansas.

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COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

COLLIE PUPS OF BEST BREEDING.—E. L. Dolan, Route 2, Platte City, Missouri.

AIREDALES AND COLLIES—GREATEST of all pups. Grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

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WANTED—CANE, MILO MAIZE, KAFIR, millet, feterita, Sudan grass, seed corn and other seeds. The Barteldes Seed Co., Lawrence, Kansas.

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YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements, or ready made farms. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

TOBACCO.

LEAF TOBACCO — KENTUCKY'S BEST, chewing and smoking, three years old. Three pounds, $1.25; seven pounds, $2.50, prepaid. Special price on large quantities. S. Rosenblatt, Hawesville, Kentucky.

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FORDS START EASY IN COLD WEAther if you use our 1918 carburetor. 34 miles per gallon guaranteed. One-third more power. Use cheapest gasoline or one-half kerosene. Quickly starts even at zero and moves right off with full power. No spitting or popping. Slow speed on high. Fits exactly. Attach it yourself. 30 off list where no agent. Big profits selling our goods. We fit all motors. Write for 30 day trial offer and money back guarantee. The Air-Friction Carburetor Company, 558 Madison St., Dayton, Ohio.

A dry house atmosphere is not desirable to live in and it will not permit the raising of good house plants. Plants must not be kept too dry or warm. Fresh air is essential to them as well as to human beings.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

REGISTERED HOLSTEIN BULLS FROM good milking strain. Wm. C. Mueller, Route 4, Hanover, Kan.

FOR SALE — A RED POLLED BULL, calved March 8, 1913. There are very few better bulls in the state. Geo. Haas, Route 6, Lyons, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

HOGS.

BARGAINS—BIG POLAND CHINA gilts, bred to farrow March and April; nice boars, serviceable Jersey bulls. Stedem & Sons, Marshall, Missouri.

MISCELLANEOUS.

NEW ZEALAND RED RABBITS, $1.50 each. Harold Fagan, Minneapolis, Kansas.

WHEN WILL WAR END? BIBLICAL Key, ten cents. Joseph Grolig, Parker, S. Dak.

THIRTY DIFFERENT MAGAZINES, late issues, value $3, yours for 25c prepaid. Eastern Bureau, New Egypt, N. J.

READY CUT HOUSES AND BARNS, wholesale, mill prices. Plan book free. Keystone Lumber Company, Tacoma, Wash.

GENTLEMEN: MASON SOLD 18 SPRAYers and auto-washers one Saturday. Profits $2.25 each. Square deal. Write Rusler Co., Johnstown, Ohio.

REAL ESTATE.

WANTED—TO HEAR FROM OWNER OF good farm for sale. State cash price, full description. D. F. Bush, Minneapolis, Minn.

I HAVE TWO EXCELLENT WHEAT and alfalfa farms for sale at a bargain. C. R. Cantrall, Fredonia, Kansas.

BARGAINS-BARGAINS. SEND FOR free Magazine of Farms, Businesses, wild lands, exchanges, any kind anywhere. Western Sales Agency, Minneapolis, Minn.

TEN NICE BUILDING LOTS. TOPEKA Suburbs $150 each. Or will trade all or part for live stock. J. R. Cunningham, Route 2, Argentine, Kansas.

FOR SALE OR EXCHANGE FOR OTHER stock or land, one imported steel-gray Percheron stallion, weight 1,900, six years old; one black Missouri jack, fifteen hands high, weight 1,000, six years old; both sound and right. Want to dispose on account of other business. M. C. Pollard, Carbondale, Kan.

GOOD IMPROVED FARM FOR SALE—320 acres, one and one-half miles from Mc Cook, county seat of Red Willow county. Two story house, twelve rooms; big barn with mow; corn crib and granary; well, windmill, and other improvements. Farm all fenced and cross-fenced; 260 acres in cultivation, balance grass and pasture. Price for 30 days, $50 per acre; will carry back $6,000 at 6 per cent. For sale by P. S. Thompson, Indianola, Nebr.

THE STRAY LIST.

TAKEN UP—BY J. J. MURRAY, ROUTE 3, Galena, Kansas, one yearling heifer, color red and white, no marks or brands. Appraised at $30. Ed Masterson, County Clerk, Columbus, Kansas.

TAKEN UP—ON NOVEMBER 1, 1917, BY John Holstein, Whitewoman Township, Wichita County, one red steer, four white legs, white tail, horns, about three years old, no marks or brands. Dean Trueblood, County Clerk, Leoti, Kansas.

TAKEN UP—BY SAMUEL MINGER, OF Washington Township, Nemaha County, Kansas, one red calf, six months old, no marks or brands. Appraised at $20. W. L. Kauffman, County Clerk, Seneca, Kan.

TAKEN UP—BY J. P. PATTERSON, OF Richland Township, Pratt County, Kansas, on the 16th day of October, 1917, one small yearling steer, color red and white spotted, brand that resembles D or J on right hip. Appraised at $35. Mrs. Stella B. Sizelove, County Clerk, Pratt, Kansas.

TAKEN UP, JANUARY 4, 1918, BY C. Hannaman, Edwards Township, Wichita County, red whiteface steer about two years old, brand looks like a 4 on right hip. Left ear split. Dean Trueblood, County Clerk, Leoti, Kansas.

SITUATION WANTED.

EXPERIENCED MAN WITH FAMILY wants a job on farm. Prefer to run farm with everything furnished on shares or by month. A. B. Cummings, 179 Norton St., Topeka, Kansas.

Twilight Animal Stories

Bumper The White Rabbit

By George Ethelbert Walsh

(Copyright, 1917, by George E. Walsh)

STORY X.—BUMPER SEES HIS FIRST BLACK CROW.

WHEN Bumper floated away from the mouth of the sewer on his raft, he felt quite jubilant, and a little proud of his achievement. He had escaped the bats successfully, and now he had found a way out of the sewer itself. He was so puffed up by these exploits that he wasn't a bit afraid of what might happen to him on the river.

"This is really much better than being cooped up in the old woman's back yard," he reflected. "Not even Jimsy or Wheedles ever dreamed of such adventures as I've had. My! I feel like a great traveler already."

But when the current of the river began to draw his raft away from the shore into the middle, his enthusiasm was not quite so great. The stream grew rougher, and little white caps appeared ahead. His raft began to bob up and down, and pretty soon a wave washed over it and wet Bumper's feet.

This made him very uncomfortable, for a rabbit doesn't like wet feet any more than a cat does. He tried to sit up on his hind legs and dry his front paws, but other waves washed over the raft and wet his haunches. He couldn't very well stand on his front paws, and dry his hind ones, so he had to endure the wet and cold.

The river passed through a beautiful field all aglow with flowers and green grass, but the shore was too far away for Bumper to swim to it. "I'll leave well enough alone," he said, "and stick to my raft."

Then he came to a woods through which the river flowed. It was swampy here, and twigs and tree trunks seemed to grow out of the water long distances from the shore.

"If I can find a tree fallen in the river, I'll hop on it and escape," Bumper reasoned.

He was so absorbed in watching for a chonce to escape that he hardly noticed a black shadow hovering over him. Not until it approached very close did he duck his head and look up.

"Caw! Caw!"

It was a big, black crow. Now Bumper had never seen a crow. In fact, he had never seen any of the wild animals of the woods, for it must be remembered that he was born in the city. Of course, he had seen plenty of sparrows, for they live in the cities, and also sewer rats. A few bats had also flown over the old woman's back yard on warm nights hunting insects, and Bumper was more or less acquainted with them.

But a crow! He didn't know what it was. So when the loud, raucous cry assailed his ears, he squatted down on his raft, expecting every minute to be attacked by the black shadow above.

"Caw! Caw!" screamed the big bird.

"Mr. Caw! Mr. Caw!" cried Bumper, supposing that was the bird's name. "Good morning! How do you do?"

Now, the crow is very sensitive about his inability to sing. He used to think that cawing was singing until the birds all laughed at him. After that he kept by himself, and very rarely joined the other birds in the woods or fields.

Bumper's calling him by that name very naturally angered him. It was a slight, a slur upon his voice, and he resented it at once. It must be remembered also that the crow had never seen a white rabbit before, and Bumper's appearance floating on the plank had excited the bird's curiosity. White rabbits don't run wild in the woods, and Bumper was almost as much a mystery to the crow as the latter was to the former. All the rabbits Mr. Crow knew were gray or brown, with a white belly and tail, and none of them had pink eyes. So it was quite natural that the black bird should be curious and surprised at the sight of a pure white rabbit, with pink eyes, floating down the river on a raft.

"Caw! Caw!" screamed the crow, flapping his wings so that the wind made by them ruffled Bumper's hair.

"Yes, yes, Mr. Caw. I understand," replied Bumper, getting excited by the nearness of this big, black thing.

"How dare you make fun of me!" cried Mr. Crow, striking the tip of Bumper's ears with his wings. "I'll teach you to laugh at my voice."

With that he struck out with both wings, and nearly upset Bumper from his raft. Frightened by this exhibition of anger, Bumper's teeth chattered, and his voice shook.

"I wasn't making fun of your voice, Mr. Caw," he said. "I think it's a very sweet and pleasant voice. Please don't upset my raft."

The crow, a little mollified by this flattery, circled around the raft, and surveyed the scene below with eyes filled with curiosity.

"What are you, anyway?" he called down at last. "You look like Mr. Rabbit, but I never saw one so white before. What's your name? And what are you doing on that raft?"

"I'm Bumper, the White Rabbit, and—"

"Rabbits are never white," interrupted the crow.

"But I assure you I am."

"Then you're not a rabbit. You're something else."

Bumper smiled and tried to look pleased. "Would you be something else if you were white?" he asked.

Now this reference to an old fable of the crows touched a sensitive spot. There were white crows, or at least there were rumors of them, and every crow liked to believe the story was true. If one white crow, then why not more? Why shouldn't all crows be white?"

"Did you ever see a white crow?" the bird asked.

"Crow! Crow!" stammered Bumper. "Is that your name? I'm sorry, Mr. Crow, I made a mistake. You see, I'm from the city, and crows don't live there."

"No, I should say not—unless the white ones do." He came nearer and showed excitement. "Answer me. Did you ever see a white crow? If all rabbits from the city are white, then maybe that's where the white crows come from."

Now Bumper was learning shrewdness, and he saw right away through the vanity of the bird that had him at his mercy. So, instead of answering directly, he pretended that he knew a great deal more than he did.

"I'm surprised, Mr. Crow," he said, "that you've never been in the city to see for yourself. You really mean to tell me you've never been in the city?"

"Why, no, it's not a place for crows."

"Maybe not for black ones, but white crows are perfectly safe there, the same as white rabbits. I never saw one hurt there."

"Don't men shoot them?"

"No. People don't shoot birds and animals in the city. They're not allowed to carry guns at all. You're really safer than out here in the country."

"But there's nothing to eat in the city—not for crows. Is there?"

"All the white crows I knew were well fed. And the sparrows get plenty. People feed them sometimes in the park. Why, there are squirrels that have all the nuts they can eat, and they don't have to hunt for them."

"White squirrels?" interrupted Mr. Crow, eagerly.

"Did you ever see a white squirrel, Mr. Crow?" asked Bumper, instead of answering this question.

"No, I never did."

"Then," sighing, "I'm afraid there are none."

Mr. Crow wasn't so much interested in white squirrels as in white crows, and he dismissed the matter from his mind. After a pause, he added: "I believe I'll take a trip to the city, if there's no danger. I'd like to visit some of the white crows. It may be if I stay with them in the city, I'll turn white, too."

Bumper didn't want to deceive him, but he was still afraid of him. Instead of answering directly, he asked: "Before you go, Mr. Crow, can't you help me to get ashore? I'm very tired of this raft. You make so much wind with your beautiful wings. I'm sure you could blow me inshore with them."

"Yes, I suppose I could," was the reply. "Well, since you were kind enough to tell me about my relatives in the city, I'll help you."

He began beating his wings violently, and the wind from them nearly blew Bumper off the raft, but the board floated closer and closer to the shore until the rabbit with a hop landed on it, and bade the crow goodbye.

MADE GOOD FOR HIM

HUTCHINSON, KANSAS, January 20, 1918.

KANSAS FARMER, Topeka, Kansas.

DEAR SIRS: I carried a small ad in KANSAS FARMER for three issues and sold $109 worth of cockerels, every one on a money back guarantee, and I never refunded to a single customer. Your paper sure gets the business.

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Buy Spray Material Early

Considerable difficulty is being experienced by manufacturers of spray materials for the use of farmers. On account of traffic congestion, it is not only hard to get materials, but also difficult to distribute them. On account of this situation, many farmers are finding it a prudent practice to buy their spray materials at once. They are also buying their supply of seeds, as there promises to be an unusual shortage of high-grade supplies of this sort.

An exhibit of canned goods prepared by mother-daughter canning clubs will be a feature of Farm and Home Week at the Kansas Agricultural College, January 21 to 25. Fourteen clubs already have notified Otis E. Hall, state club leader, that they will send exhibits of 100 jars each. One first prize of $25, two of $20, three of $15, and several prizes of $10 are offered. Six jar exhibits by individuals also will be a part of this display. Many persons already have indicated their intention of sending in exhibits.

Our meat supply is short and more poultry will help solve the problem. More poultry means more eggs and more eggs and poultry means a greater food supply. Poultry can be raised at lower cost and brought to maturity quicker than any other kind of live stock.

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WOOD'S DUROCS

For Sale—Choice bred gilts, bred to a son of Great Wonder. Spring boars ready for service. Fall pigs of both sexes at right prices. Come and see my herd.

W. A. Wood - Elmdale, Kan.

GUERNSEY CATTLE.

GUERNSEY BULLS.
Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to twelve months old. **ADAMS FARM, Gashland, Mo.**, 12 miles from K. C.

GUERNSEY BULLS
Three registered Guernsey bulls, 9 to 11 months old, tuberculin tested recently; best of breeding. Cows are good producers. For further information inquire of
FRED WILLE - COLUMBUS, NEBRASKA

SHORTHORN CATTLE.

MARKS' LODGE

Home of Shorthorn Cattle. Reds Exclusively.
A few choice young bulls for sale, from my best milking cows. All registered. Come and see me.
DR. M. F. MARKS, VALLEY FALLS, KAN.

SCOTCH SHORTHORNS

Twelve Choice Bulls, reds and roans, from seven to fifteen months old, sired by such bulls as Pioneer, Excelsior and Mistletoe King. Priced reasonable.
C. A. COWAN & SON, ATHOL, KANSAS.

Cedar Heights Shorthorns

For Sale—Three red bulls, 12 months old. A few cows and heifers. Priced reasonable. Come and see my herd.
HARRY T. FORBES
Route 8 Topeka, Kansas

ALYSDALE HERD SCOTCH SHORTHORNS
Viscount Stamp 2d, Clipper Brawith and Count Valentine in service. Orange Blossoms, Butterflys, Queen of Beautys and Violets. Choice young stock for sale.
H. H. HOLMES, Route 28, Topeka, Kansas

Pearl Herd Shorthorns

Village Heir by Imported Villager and Orange Lovel by Victor Orange in service.
FOR SALE—Fifteen young bulls from 8 to 14 months old, reds, whites and roans. Scotch and Scotch topped. Inspection invited. Can ship on Rock Island, Union Pacific or Santa Fe Railway.

C. W. Taylor, Abilene, Kansas

Scotch-Topped Shorthorns

For Sale—Red yearling Scotch-topped bull sired by Clansman by Lavender Viceroy by Lavender Viscount, dam Rose Campbell by Baron Gold Dust 2d 125435.
VAIL & SCOTT - HARTFORD, KANSAS

CLOVERDALE SHORTHORNS—For Sale, two roan yearling Scotch Shorthorn bulls. Exceptional quality and breeding. Also a few heifers. **Wesley Jewell, Humboldt, Kansas.**

Breeders' Directory

ANGUS CATTLE.
D. J. White, Clements, Kan.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

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CLAIM SALE DATES.

Jacks and Jennets.
March 4—Bradley Bros., Warrensburg, Mo.
March 26—H. T. Hineman & Sons, Dighton, Kansas.

Holsteins.
Feb. 5—Roy Murray, Leavenworth, Kansas. Sale at farm near Lansing, Kansas.
Feb. 13—J. W. Myers, Nortonville, Kan.
Feb. 27—W. O. Morrill, Summerfield, Kan.
March 26—Kansas Holstein Breeders' sale, Topeka, Kan.
March 27-28—Iowa Holstein-Friesian Breeders' Association. Sale at the State Fair Grounds, Des Moines. F. C. Barney, Secretary, Chapin, Iowa.

Herefords.
Feb. 12—Kansas Hereford Breeders' Consignment Sale at Agricultural College, Manhattan; W. A. Cochel, manager.

Shorthorns.
Feb. 15—J. R. Young, Marion, Kan.
Feb. 20—D. E. Reber & Sons, Morrill, Kan.
Feb. 26—H. E. Huber, Meriden, Kan.

Jerseys.
March 26—Stirling Farm Dairy, Des Moines, Iowa. B. C. Settles, Palmyra, Mo., sales manager.
March 30—D. T. McCarthy, Hannibal, Mo. B. C. Settles, Palmyra, Mo., sales manager.
April 30—Ralph Ballou, Paris, Mo. B. C. Settles, Palmyra, Mo., sales manager.

Miscellaneous.
Feb. 25-28.—Kansas National Live Stock Show, Wichita, Kan. Draft, coach, standard-bred horses and jacks; Shorthorn, Hereford and Holstein cattle; Poland and Duroc hogs. F. S. Kirk, sales manager, Wichita.

Poland Chinas.
Feb. 6—H. B. Walter, Effingham, Kan.
Feb. 7, 1918—W. H. Charter, Butler, Mo.
Feb. 8, 1918—W. B. Wallace, Bunceton, Mo.
Feb. 9, 1918—Will J. Lockridge, Fayette, Mo.
Feb. 9—John L. Naiman & Sons, Alexandria, Neb. Sale at Fairbury, Neb.
Feb. 16—Wm. Sullinger, Orrick, Mo.
Feb. 18—Deming Ranch, Oswego, Kansas.
Feb. 13—H. L. Faulkner, Jamesport, Mo.
Feb. 19—Fred B. Caldwell, Howard, Kansas.
Feb. 20—B. E. Hodson, Ashland, Kansas; sale at Wichita.
Feb. 21—E. J. Erhart & Son, Ness City, Kansas; sale at Hutchinson.
Feb. 22—F. Olivier & Son, Danville, Kansas.

Poland Chinas.
Feb. 23—V. O. Johnson, Aulne, Kan.
Feb. 28—Clarence Dean. Sale at Dearborn, Mo.
March 6—J. R. Young, Richards, Mo.
March 15—H. E. Myers. Gardner, Kan.
April 24—Fred G. Laptad, Lawrence, Kan.

Durocs.
Feb. 14—B. R. Anderson, McPherson, Kan.
Feb. 20—W. T. McBride, Parker, Kan.
Feb. 27—R. W. Murphy, Dearborn, Mo.
March 7—W. W. Otey, Winfield, Kansas.
March 8—R. L. Hurst, Bolckow, Mo.
April 24—Fred G. Laptad, Lawrence, Kan.

Chas. L. Jarboe, of Quinter, Kansas, reports his great herd of Red Polled cattle doing fine. This is one of the heavy producing herd in Kansas. Many of the cows are now milking better than $1 per day profit.

W. W. Jones of Clay Center, Kansas, has announced Feb. 18 for a bred sow consignment sale. 42 head of bred sows and gilts will be consigned by the following well known breeders: R. B. Miller, A. L. Wylie, G. F. Keesecker, Wm. Morrow, A. L. Breedling, Howell Bros. and W. A. Jones The offering will comprise a well bred lot of large Duroc sows and gilts sired by leading boars of the breed.

The Phelps Stock Farm, Aurora, Missouri, is demonstrating in a practical way the value of good dairy cows on the farm. This farm is now the home of one of Missouri's record bred heavy producing herds of Holsteins. The herd numbers seventy-five head. The equipment in the way of silos and barns is strictly modern and were installed at considerable expense, yet their Holsteins produce a good profit on the entire investment. A feature of their herd at this time is the number of A. R. O. cows and the choice lot of young stock sired by such bulls as Sir Woodside Norman Imperial with thirteen A. R. O. daughters, and Sir Sadie Cornucopia 18th, a son of Sir Sadie Cornucopia with forty A. R. O. daughters.

The Holstein-Friesian cow, Fairview Korndyke Mata 169926 has shown a production of 776.2 pounds milk containing 37.365 pounds fat in seven consecutive days. She freshened at the age of 6 years, 6 months, 25 days. Her sire is Pontiac Korndyke 25982; her dam is Princess Matador 78740. She was bred by E. H. Dollar, Heuvelton, New York, and she is now owned by Oliver Cabana, Jr., Elma Center, New York. With this production she is the twenty-third cow to obtain place in the list of Holstein-Friesian cows with production exceeding 32 pounds fat in seven days and stands fourth in the list. Computed on the 80 per cent basis, the equivalent butter claimed for Fairview Korndyke Mata would amount to 46.71 pounds.

Al E. Smith of Lawrence, Kansas, owner of high class herds of Percheron horses and jacks and jennets, reports his herd doing well. Mr. Smith is one of the pioneer horse and jack man in Kansas and for many years his herds have been drawn upon heavily for breeding stock. At this time Mr. Smith has about 40 Percheron stallions and mares in his herd and about the same number of jacks and jennets.

PERCHERON MARES AND STALLIONS

Thirty Head from Which to Select

Ton mares, big handsome fillies either by or bred to Algarve by Samson. Algarve's colts have great bone and size. His weight is over 2,200 pounds and his get proves beyond doubt his great ability as a sire. A nice lot of young stallions, several coming three-year-olds. Priced for quick sale. Farm four miles east of town. Call on or write

D. A. HARRIS - Route 6 - GREAT BEND, KANSAS



PERCHERONS AND BELGIANS

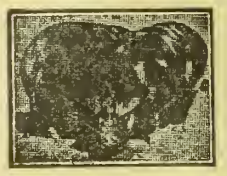
IMPORTED AND HOME-BRED PERCHERONS AND BELGIANS.
I have a good lot of horses to select from at very reasonable prices. I give a gilt edge guarantee of 60 per cent, good for two years.

Barns Four Blocks from Santa Fe Depot.

W. H. RICHARDS - EMPORIA, KANSAS

EWING BROS.' PERCHERON HORSES, SHORTHORN CATTLE, SHETLAND PONIES AND POLAND CHINA HOGS

FIFTY MARES—Weanlings to mature mares, weighing a ton or more, in foal. Herd headed by Imp. Meknes (106084) 106640, weighing 2,200 pounds.
SEVERAL MATCHED TEAMS—Fifteen head of stallions, from weanlings to six years old. The best lot of two-year-olds we have ever had. The kind to mature into ton horses or better—grays and blacks.
SHORTHORN CATTLE—A few cows for sale. Ten young bulls out of pure Scotch sire ready for service. Herd headed by Village Knight No. 398231 weighing 2,250 pounds and Choice Echo 393419, weighing 2,300 pounds, for sale.
SHETLAND PONIES at very low prices if taken soon—weanlings to broken fillies.
Phone to Ewing Bros., 903A5 or 903A12, Great Bend, or write us at R. F. D. No. 1, Pawnee Rock, Kansas. **EWING BROTHERS.**



FAULKNER'S FAMOUS SPOTTED POLANDS

The World's Greatest Pork Hog, Sells

Wednesday, February 13, 1918, Jamesport, Mo.

In My Annual Bred Sow Sale.

Ask for catalog. Nothing bred sold at private sale. I am still pricing a few good fall pigs.

H. L. FAULKNER, Box K, Jamesport, Missouri

POLAND CHINAS.

DEMING RANCH QUALITY

Big-Type Poland China Hogs.
Fifty March boars for sale. All immuned. Bred sow sale February 18. Send for catalog.

H. O. Sheldon, Herd Manager
OSWEGO, KANSAS.

OLD ORIGINAL SPOTTED POLANDS

Stock of all ages, also bred gilts and tried sows, bred, ready to ship. Priced right. Write your wants to
CEDAR ROW STOCK FARM
A. S. Alexander, Prop. Burlington, Kansas

BIG WONDER 281929

The outstanding spring yearling son of the noted Big Bob Wonder now at the head of my herd. This young sire was first in junior yearling class at Topeka; second at the National Swine Show in competition against the world.
I will sell fifty sows and gilts **Saturday, February 23, 1918,** and a number of the best sows will be bred to Big Wonder. Send name early for catalog.
V. O. JOHNSON - AULNE, KANSAS

GRAND VIEW POLANDS

Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.
ANDREW KOSAR - DELPHOS, KANSAS

White Oak Park Polands

Have decided not to hold a bred sow sale this year. Will sell a choice lot of tried sows at private sale. This lot will include 600-pound sows and good show prospects. Big high quality fall yearling gilts and choice spring gilts. All bred to Long Big Joe, Missouri Jumbo, Jumbo Giant and Surprise Wonder. Also have some choice September boars. All immune. Write for prices.

Henry Koch - Edina, Mo.

LONE CEDAR POLANDS

A splendid lot of bred gilts sired by Meyer's Orange and bred to Big Chimes, a fine son of Big Hadley Jr. Also two extra good spring boars left.
A. A. MEYER - - McLOUTH, KANSAS

POLAND CHINA BOARS
FOR SALE—Twelve head extra good spring boars, ready for service. Few choice gilts, bred for March litters. Fall pigs, either sex, sired by Big Tecumseh, Orange Wonder, and out of my best herd sows. The best crop of boars I ever raised. Write or come and see me. **E. M. WAYDE, BURLINGTON, KANSAS**

FALL PIGS, ready to ship. Select Spotted breeding. Express paid on pigs.
T. T. Langford & Sons, Jamesport, Mo.

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene, Peabody, Kan.**

FAIRVIEW POLAND CHINAS.
Heavy-boned March pigs, either sex. Eighty to select from. Prices reasonable. Write us your wants.
P. L. WARE & SON - PAOLA, KANSAS

MATTOX'S SPOTTED POLANDS—Bred sows, serviceable boars, baby pigs, for quick sale. H. A. or Paul H. Mattox, Route 2, Burlington, Kansas.

CHESTER WHITE HOGS

CHESTER WHITE SPRING BOARS

Husky, growthy fellows of the best breeding. Cholera immune. Priced right.
HENRY MURR - TONGANOXIE, KAN.

HORSES AND MULES.



JACKS AND JENNETS

15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.
PHIL WALKER
Moline, Elk County, Kansas

Malone Bros., Jacks and Percherons

We have 2 barns full of extra good jacks ranging in age from weanlings to 6 yrs. old, all over 2 yrs., well broke to serve. Several fine herd headers among them. Also jennets in foal to homebred and imported jacks. A few imported Percheron stallions royally bred. We can deal. Write or call on
J. P. & M. H. MALONE, CHASE, KAN.



PERCHERONS AND JACKS
FOR SALE—Four jacks, two coming three-year-olds, one four-year-old and one ten-year-old. All good size, sound and guaranteed. Will price a few good jennets. Also have five Percheron stallions and a few good mares, priced right. Come and see me.
M. G. BIGHAM & SON, OZAWKIE, KAN.
7 miles from Meriden, Kan. 10 miles from Perry, Kan. 20 miles northeast Topeka.



Percherons, Belgians, Shires
2, 3, 4 and 5-year stallions, ton and heavier; also yearlings. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.
Fred Chandler, R.7, Charlton, Ia.
Above Kansas City.

Choice Young Belgians, English Shires, Percherons, also Coach stallions, also mares. Many first prizes. Long time 6% notes.
Illinois Horse Co., Good Blk., Des Moines, Ia.

40 Percheron Stallions and mares, weanlings up. 20 Mammoth jacks, 10 jennets in foal. Priced reasonable. Al E. Smith Lawrence, Kansas.

AUCTIONEERS.

Jas. T. McCulloch Live Stock Auctioneer. I make sales anywhere. Write for date. CLAY CENTER, KANSAS

POLLED DURHAM CATTLE

TRUE SULTAN POLLED DURHAMS

A few heifers bred or open are offered. Some by or bred to the champion $2,200 True Sultan and Sultan's Challenger.
ED STEGELIN
STRAIGHT CREEK - - - KANSAS

WILD WOOD STOCK FARM

POLLED DURHAM CATTLE
For Sale—Ten bulls of serviceable age, sired by Roan Acacia 9021. Dam, Golden Acacia by Acacia Victor, a double standard bull from D. C. Van Nice herd. Write at once. These bulls will sell.
T. M. ETHERINGTON, Hamilton, Kansas

Polled Durham Bulls

One double standard Polled Durham bull and three Shorthorn bulls 8 to 15 months old. They are real herd headers. All pure Scotch. Priced reasonable. Come and see my herd.

C. J. Wood, Rte. 5, Paola, Kan.

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS
Best breeding, best type. Stock for sale.
GEO. W. ELA, Valley Falls, Kansas

HOLSTEIN CATTLE.

Food Administration Officials All Over the World are Saying, *"Dairy Production Must Be Stimulated."*

British farmers have been urged officially to cut down the feed of other animals in order that they may increase that of the dairy cows of the KINGDOM. The German government has been buying every available cow in Denmark at the hitherto unheard-of prices of $500 to $800 each, in order to keep up the supply of dairy products. In America Mr. Hoover is urging that everything possible be done to increase the output of milk, butter and cheese.

THESE OFFICIALS KNOW that the dairy cow will produce more food for a hungry world from the available supply of grains and roughages than any other animal and also that her products are more valuable, per unit of nutrients, for human food than the food nutrients from other animals. The consuming public is being shown by people who know that dairy products are not only the best, but also the cheapest, even at present prices, of all animal foods.

Hence more dairying is a world-wide efficiency measure. The man who increases his dairy production is "doing his bit" in the present crisis. All this means unheard-of dairy development. The future was never so promising. It is the time to expand along the line of more and better cows.

OPPORTUNITY KNOCKS TODAY. Prices will be higher, and good cattle harder to buy tomorrow. In order that you may more wisely take advantage of the offerings of Opportunity, this space will be devoted in future issues to the subject of better dairy cattle and where to get them. Cattle of breeding, production, individuality and health.

Our business is breeding pure-bred Holsteins and producing milk. We cannot keep all the good ones and hence always have choice heifers and bulls for sale. Ask us about them.

A. S. Neale - 1642 Fairchild Ave. - Manhattan, Kansas

CLYDE GIROD, At the Farm — F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd.

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

STUBBS HOLSTEIN FARM

FOR SALE—YOUNG BULLS READY FOR SERVICE
Sired by Gem Pietertje Paul De Kol 3d

He has twenty-eight A. R. O. daughters, two with records above 29 pounds in seven days, four with records above 750 pounds butter in one year. The dams of bulls are large, typy, high producing cows. Some with A. R. O. records, others to be tested soon. All tested and guaranteed.

Write or Come and See Us.

STUBBS HOLSTEIN FARM, Mulvane, Kan.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.
H. B. COWLES, 608 Kan. Av., Topeka, Kan.

HOLSTEIN CALVES

We offer for sale choice, beautifully-marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated f.o.b. cars: One to two weeks old, $15 each; two to three weeks old, $17 each; five to six weeks old, $20 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

REGISTERED HOLSTEIN BULLS

From A. R. O. cows. All our own breeding. Bred for milk and fat production.

LILAC DAIRY FARM
R. F. D. 2 Topeka, Kansas

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.
J. P. MAST - - SCRANTON, KANSAS

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. **Clover Valley Holstein Farm, Whitewater, Wisconsin.**

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.
FERNWOOD FARM, Wanwatosa, Wisconsin

Oak Hill Farm's

Registered Holstein Cattle

For Sale—Yearling and bred heifers, also young bull calves, mostly out of A. R. O. cows. Perfect satisfaction guaranteed.

BEN SCHNEIDER, NORTONVILLE, KAN.

BONNIE BRAE HOLSTEINS

Young bulls from high producing dams from a splendid son of King Segis Pontiac for sale.

Ira Romig, Sta. B, Topeka, Kas.

FOR SALE
ENTIRE HERD HIGH GRADE HOLSTEINS

Fifty head young cows and heifers. Will sell all or part.

WICHITA HOLSTEIN HERD
Route 4 Wichita, Kansas

CEDARLANE HOLSTEIN HERD

Four-year-old grandson of Pontiac Korndyke. Guaranteed sound and a sure breeder. Average record dam and sire's dam, 29.4 pounds in seven days. Special price on bull calves from above bull. Also several good cows. **T. M. Ewing, Independence, Kansas.**

HOLSTEIN CATTLE.

Registered Holstein-Friesians

Write for information about the herd bull I am offering for sale. Also two young service bulls, several bull calves and a few females for sale. A. R. O. records up to 26 pounds. Write your wants.

HARRY W. MOLLHAGEN, Bushton, Kansas

HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment. **Edgewood Farms, Whitewater, Wisconsin.**

Segrist & Stephenson, Holton, Kan. Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

FARM AND HERD.

D. E. Reber & Sons of Morrill, Kansas, owners of one of the best Shorthorn herds in this state claim Feb. 20 as the date of their public sale of Shorthorn cattle. On that date they will offer a choice lot of Scotch and Scotch topped Shorthorns.

We have received Volume 36 of the Holstein-Friesian herd book. This volume contains the pedigrees of bulls from No. 187554 to 202565, and cows from No. 333562 to 365525, or the record of all approved and admitted for entry since the close of Volume 35. The pedigrees in Volume 36 include all approved up to March 1, 1917.

Dr. W. H. Richards, of Emporia, Kansas, has for years been one of the consistent workers for better horses on Kansas farms. His importations of Percheron and Belgian horses have been among the best that have come to this state, and many good herds in the West were started with foundation stock from his barns.

Dehner & Glynn of Cascade, Iowa, owners of one of the record bred herds of Ayrshire cattle, report their herd doing well. This herd was started with nine cows from the famous South Farms herd at Willoughby, Ohio. They now have twenty-three head of record bred cows and heifers and one of the good Ayrshire sires now in service.

C. A. Cowan & Son, of Athol, Kansas, owners of high class herds of Scotch Shorthorns and big-type Poland China hogs, report their herds doing well. Their herd of Scotch Shorthorns was founded many years ago with the best Scotch breeding that could be obtained. The herd now numbers sixty head of richly-bred high-class individuals. They are representatives of such bulls as Duke of Lawndale 4th and Happy Knight. During the past ten years Victorious King by Victorious Pioneer, a grandson of Whitehall Sultan; Excelsior by Village Boy, and Mistletoe King by Mistletoe Archer by Prince Royal have been used in this herd. A feature of the herd at this time is the fine lot of young stock, including some outstanding bulls.

Clarence Dean, of Weston, Missouri, has catalogued fifty head of high class Poland China sows and gilts for his sale to be held at Dearborn, Missouri. The offering will be bred to Dean's Big Timm and Dean's Big Jones. Dean's Big Timm comes direct from a great family of show hogs of the big-type breeding. His sire, Big Timm 67111, was the grand champion Poland China boar at the Nebraska State Fair in 1915, and Dean's Big Timm fitted in show form is a better hog than his sire. Dean's Big Jones is by Gerstdale Jones and out of a sow known as Mouw's Black Miss, a granddaughter of the noted Iowa King.

V. O. Johnson, of Aulne, Kansas, has catalogued fifty-five head of high class Poland China sows and gilts for his sale on February 23. Most of the gilts will be bred to Big Wonder, a boar that was one of the sensations at the swine show at Omaha last fall. This event is Mr. Johnson's first public sale and is the last day of the Southwest Poland China Circuit sales, and this offering promises to be up to the average in quality.

The first day's sale of Carl Miller's Herefords at Alma, Kansas, resulted in seventeen bulls selling for an average of $411, and fifty-four cows averaged $398. The seventy-one head sold on the first day of the sale made an average of $401, which was very satisfactory to Mr. Miller.

AYRSHIRE CATTLE.



Some folks say that Conformation and Milk production are incompatible, but the

AYRSHIRE does

combine these two prime requisites of a perfect cow. PROOF?—First Prize and Grand Champion Ayrshire Cow at 1917 National Dairy Show, Shewalton Mains Queen, Imp., produced 3 calves and 23,049 lbs. milk, 948.6 fat, in 2 years. Second Prize, Lochfergus Snow, Imp., 14141 lbs. milk, 4.22%, 595 lbs. fat.

AYRSHIRE BREEDERS' ASSOCIATION
C. M. Winslow, Sec'y. 33 Park St., Brandon, Vt.

ARYSHIRE HERD FOR SALE

Herd consists of 23 cows and heifers
One herd bull and 3 bull calves
Six of the cows from A. R. cows with high records.

The heifers are mostly from these cows. Herd bull richly bred, fine individual and a show bull.

Two bull calves from A. R. cows. Will sell herd bull and cows separate from young stock. All cows and herd bull registered. Young stock registered on request of purchaser. Priced to sell.

DEHNER & GLYNN, Cascade, Iowa.

January 17, 1918.

Kansas Farmer, Topeka.

Please continue my ad as it is until ordered stopped. I wish to report the following sales: To T. R. Weber, Tecumseh, Kansas, an Orange Blossom bull, Orange Knight 560977, sired by Butterfly's Lad 448517, and two heifers, a Bloom and a Rosemary. To A. W. Minks, Stafford, Kansas, a bull, Maurice 606638, dam tracing to Imp. Flora, sire Roan Monarch 448522, and two heifers, a Young Mary and a White Rose. Both buyers are laying the foundation for new herds. I feel they used good judgment in their selections. All are choice individuals.

Yours truly,
HARRY T. FORBES.

The annual meeting of the stockholders of the Standard Poland China Record Association was held in the office of the association at Maryville, Missouri, January 9, 1918. The banquet the previous night was well attended and much enjoyed by those present. Several good talks on Poland China hogs were given. A large number of breeders attended the meeting on Wednesday. The Record's receipts for the past year showed the largest gains in the history of the association; 150 shares of stock were sold during the year as compared to 79 shares sold the previous year; also large gains were shown in recording and the sale of supplies. The secretary, F. L. Garrett, received many complimentary remarks on the way the business had been conducted. A dividend of 10 per cent on the par value of the stock was declared. The following officers were elected for the year 1918: John B. Lawson, Clarinda, Iowa, president; F. L. Garrett, Maryville, Mo., secretary; C. D. Bellows, Maryville, Mo., treasurer. The following new directors were chosen for a term of three years: Walter W. Head, Omaha, Neb.; H. C. McKelvie, Lincoln, Neb.; James Kennish, Mound City, Mo. All officers were elected unanimously; no proxies being used.

Secretary F. W. Harding of the American Shorthorn Breeders' Association advises in regard to the entries for National Shorthorn Congress Show and Sale, Chicago, February 19 to 22 inclusive. The total entry of bulls is 125 head, cows with calves and heifers 200 lots; Milking Shorthorns 15 bulls, 60 cows and heifers. Total 400. No sale or weeks series of sales ever held in this country, contained as large a number of choicely bred, high-class Shorthorns as will be exhibited and sold at auction in this event. Tuesday, February 19, is Judging Day. This work will be done by Lawrence Ogden, Maryville, Mo., Will Rees, Pilger, Nebraska, Harry Hopley, Atlantic, Iowa, John Robbins, Horace, Ind. February 20 and 21 are Auction Sale Days. Milking Shorthorns will be judged by Prof. H. Barton, Montreal, Quebec, on Friday morning the 22nd. Auction Sale will follow same day.

Fred Wille, of Columbus, Nebraska, owner of one of the heavy producing Guernsey herds in that state, reports his herd making a good record. Mr. Wille started his herd nine years ago. His foundation stock was heifers from the W. D. Hoard herd and they were all from A. R. dams and sired by Mr. Heard's noted bull, Starlight Excelsior, with a long list of A. R. daughters. The first herd bull used in this herd was Island Count by Island Champion, a bull with a splendid record. The bull now in use is Hero of Midrale, a record bred bull and a very promising youngster. A feature of the herd at this time is the fine lot of record bred young stock.

C. A. Fees, of Wichita, Kansas, owner of Wichita Holstein herd, one of the good herds of high grade Holsteins, reports his cows making a good record. A feature of this herd is the choice lot of young cows and heifers that are bred for high production.

John A. Reed & Sons, of Valley View Stock Farm, Lyons, Kansas, owners of one of this state's greatest herds of pure-bred Duroc hogs, report their herd doing fine. This herd is headed by Reed's Gano, a boar that is conceded to be one of the great sires of the breed by all competent Duroc judges. A feature of their herd at this time is the extra fine lot of boars and gilts, representatives of the champions, Defender, Superba, Critic B., Crimson Wonder Again, Golden Model, King the Col., Gano, and Illustrator. They have bred a large number of choice gilts for spring farrow.

AYRSHIRE CATTLE.

National Shorthorn Congress Show and Sale

Chicago, Ill., Feb. 19-22, 1918

International Exposition Bldg., Union Stock Yards

400 High Class Shorthorn Cattle

Contributed by prominent breeders from the Atlantic Coast to the Rocky Mountains and from Canada to the Gulf will be entered in the prize contests and offered at public auction.

Approximately $8,000 will be offered in cash prizes in the show contests, which will call forth the best the breed affords, and the fact that all of these prize winners will be sold insures to the buyers an offering of the highest class.

Extensive programs of an instructive and entertaining character, including addresses by speakers of international reputation, have been arranged for the evenings.

An entire day will be devoted to the Milking Shorthorn interests.

Membership badges will be furnished to every person attending the Congress.

For further information address

F. W. HARDING, SEC'Y
American Shorthorn Breeders' Association
13 Dexter Park Ave. Chicago, Ill.

RED POLLED CATTLE.

RED POLLED BULLS

For Sale—Thirty head coming yearling bulls. Come early and get the best. Our experience has been those that come late found us sold out. Write or come at once.

E. E. FRIZELL
FRIZELL, (Pawnee County), KANSAS

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.
CHAS. L. JARBOE - QUINTER, KANSAS

MULEFOOT HOGS.

KNOX KNOLL STOCK FARM

Mulefoot Hogs. Shorthorn Cattle.

Sold out of spring gilts. Now taking orders for fall pigs. Three registered bulls ready for service. Write for prices.
S. M. KNOX, Humboldt, Allen Co., Kansas

GROWTHY MULEFOOT HOGS from my State Fair prize winning herd. Stock of all ages for sale. Prices low. **C. K. THOMPSON, LETTS, INDIANA.**

GALLOWAY CATTLE.

GOOD GALLOWAY BULLS

Twenty-five Extra Good Yearlings
Extra breeding and quality. Priced to sell.
J. M. HILL, SEDGWICK, KANSAS
Route 4, Box 65A

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.
E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

Seventy-eight bushels of wheat worth two dollars a bushel was threshed recently from a last year's straw stack by John Cody of Harper County. He plans to thresh all the straw stacks on a 160 acre field. This is a waste that runs into money rapidly. The wheat so saved will help to feed our allies and our soldiers.

PUBLIC SALE OF DAIRY CATTLE, TUESDAY, FEB. 5, 1918

On account of shortage of labor I will sell my entire dairy herd, consisting of forty-six head. Thirty high-grade Holstein cows, fourteen red and roan cows, one pure-bred Holstein bull, V. V. F. King Lyons 205373; one 3-year-old Holstein bull; one 3-unit Sharples milking machine in perfect order. **Sale at farm 2½ miles southwest of Lansing, Kansas.** Commences at 10 o'clock sharp. Will meet Leavenworth and Kansas City cars at Lansing, Kansas, every hour.

ROY MURRAY, OWNER -:- LEAVENWORTH, KANSAS

Cols. J. W. Murray and H. L. Strouse, Auctioneers.

Holstein Dispersion

One hundred head grown and developed on this farm. An opportunity to buy from a herd that has been developed on this farm and culled closely. All high grades except five pure-breds, two cows and three heifers, all to freshen by sale day. Bred to a registered bull.

NORTONVILLE, KANSAS

FEBRUARY 13, 1918

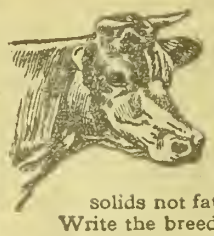


Forty-five cows and heifers that are giving a good flow of milk now or heavy springers. The money-making kind. Twenty-five heifers (not bred) that are coming yearlings that are as fine as silk. Twenty-five heifer calves that are beauties. A registered herd bull three years old and a good one, and a yearling bull. Everything over six months old tuberculin tested. Ben Schneider, the well known Holstein breeder, is managing the sale. For information write him. Address

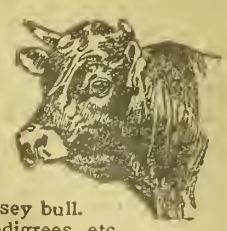
BEN SCHNEIDER, Sale Mgr., Nortonville, Kan.
J. W. MEYER, Owner, - Nortonville, Kan.

AUCTIONEERS: CREWS, REGAN AND SHARP.
O. W. Devine, Fieldman.

Jerseys for Net Profits



You're in the dairy business for profit—the *net* profit that your herd has made you at the end of the year will determine the size of your bank account. Jerseys yield the largest returns from every ounce of feed—proved by tests at two great expositions. Jersey milk averages 5.3% butter fat, 9.1% solids not fat—highest of all breeds. Buy a Jersey bull.



Write the breeders advertised below for prices, pedigrees, etc.

The American Jersey Cattle Club, 375 West 23rd Street, New York City

120 JERSEY COWS AND HEIFERS
Pure-bred and high-grade. Forty bred yearlings, superior individuals, all from profitable dams, now for sale.
J. W. Berry & Son
JEWELL CITY - - - - KANSAS

IDYLWILD STOCK FARM
REGISTERED JERSEYS OF BOTH SEXES FOR SALE
C. F. Blake, Glasco, Kan.

LONGVIEW JERSEYS
(Register of Merit Herd)
Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.
Longview Farm
LEE'S SUMMIT - - - MISSOURI

BROOKSIDE JERSEYS
Registered Jersey Bulls, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.
THOS. D. MARSHALL, Sylvia, Kan.

LOMAX JERSEYS
A Herd of Producers, Backed by Records. Popular blood lines. Choice individuals. We invite inspection of our herd at all times. Write us your wants.
Dr. J. H. Lomax
STATION B - - ST. JOSEPH, MO.

B. C. SETTLES
MAKES A SPECIALTY OF MANAGING JERSEY SALES.
Write for catalogs.
Palmyra, Missouri

REGISTERED JERSEY BULLS
BUTTER-BRED, FROM HIGH-PRODUCING COWS.
Photo furnished.
Maxwell's Jersey Dairy
ROUTE 2 TOPEKA, KANSAS

Fine Young Jersey Bulls
From Register of Merit and tested cows; Register of Merit sire.
Dornwood Farm, Topeka

J. B. PORTER & SON
MAYETTA, KANSAS
BREEDERS OF HIGH-CLASS JERSEYS. STOCK FOR SALE AT ALL TIMES.
WRITE US YOUR WANTS.

Allen Center Stock Farm
Registered Bull Calves — Some Ready for Service.
Sale or exchange for bull or heifers.
TREDWAY & SON, LA HARPE, KAS.

FOR SALE

25 Bred Duroc Sows and Spring Gilts 25

March and April Farrow, All Immune

Bred To

King's Pathfinder Jr., a son of King's Col., the $5,000 Nebraska boar, his dam Miss Pathfinder, sired by Pathfinder, the great Iowa boar and part bred to Gold Coin's Critic by Model Chief's Critic. These are a good lot of select sows and gilts of Bader's Model 2d, a Critic and Orion breeding, to start a herd or to put new blood in any herd with the above sire's breeding. Come and see them or write for prices.

Prices reasonable for the breeding.

Duff Bros., Horton, Kan.

Feed Plenty of Hay

The dairy cow has a stomach that you can make use of to a better advantage this winter, due to the cost of grain, than ever before. The fact that she has four stomachs does not minimize the importance of the first or any one of them. Practical dairymen in many instances have been making use of stomach No. 1 to its full capacity by feeding hay often, four to six pounds at a time.

Hay furnishes the cheapest nutrients that we have access to in feeding dairy cattle; it has three times as much total digestible nutrients as an equal weight of silage. When the cow has consumed twenty pounds of hay, she has three times the food that twenty pounds of silage give, or the equivalent of sixty pounds of silage.

Silage is an economical feed when not fed in too large quantities. Its succulence is a factor of great importance, but to rely upon silage alone to reduce the grain bill this winter is not wise. The water content is so high that valuable space in the first stomach, and throughout the digestive tract, is utilized by it. It would seem wise to feed silage at the rate of three pounds for each hundred pounds of live weight. This should be the maximum rate. A thousand-pound cow would thus be allowed thirty pounds of silage daily.

The function of the first stomach is to soften and prepare roughages for the cud which the cow can regurgitate and chew at will. The average cow can handle about four or five pounds of hay at a time in this stomach. After it is in proper condition it will be re-chewed and passed on to the other stomachs. The repeated filling and emptying of this stomach, by the feeding of hay, supplemented with water of the right temperature, greatly increases the amount of nutrients needed for production from the cheapest source. It is entirely possible to reduce the grain needed by this practice. Little grain is being fed at a cost of less than $58 to $60 a ton. A pound of fine quality clover or alfalfa hay is nearly equal to a pound of wheat bran. Common hay is of less value, but is approximately five-sixths the value of bran. Cows are especially adapted to using hay and other rough feed.

Bran is near $43 per ton; the nutrients in it cost $3.45 per hundred pounds. Hay would sell on this basis at slightly over $35 per ton. Is there a better market for hay than to substitute it for grain to a limited extent? The only factor to limit this practice is the capacity of the cows. So much bulk is taken up by hay that for high records concentrates must be fed; yet much can be saved in the above suggestion.

Another fact that makes possible the economy of this extra heavy hay feeding at this time, is that cows in general have had little grain compared to past years, and they are becoming adapted to securing more from roughages, but to get the best results frequent feeding is necessary.

It will be found economical to feed hay in small feeds, as the cow will not consume hay after she has been breathing into it for some time, unless forced to do so. The practice here recommended will waste less hay and more hay per cow will be consumed.

Accompanying this practice should be that of warm water (55 to 60 degrees) either ad libitum or twice daily.—KARL B. MUSSER, Extension Dairyman, Connecticut.

Belgian Hares as Meat Animals

There seems to be a revival of interest in the growing of domestic rabbits for food purposes.

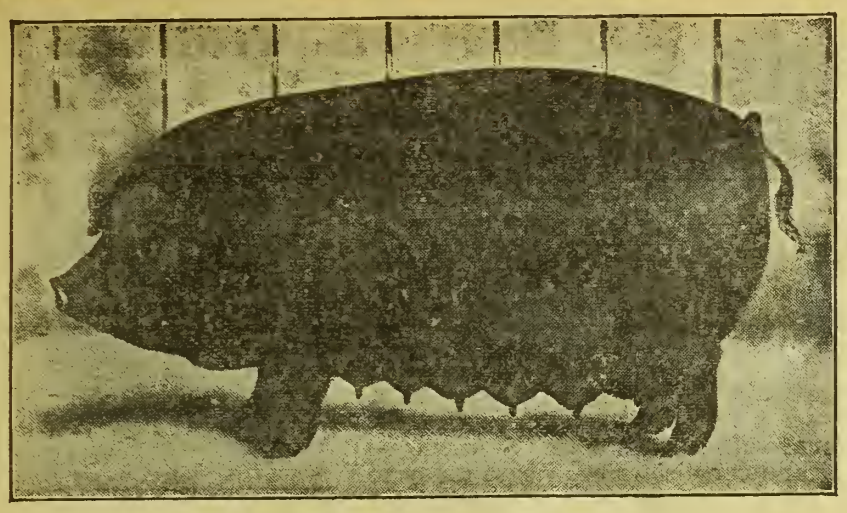
Dr. A. S. Heath, of New York City, is credited with the following statement regarding the value of rabbit meat in the human dietary:

"There should be hundreds of thousands of dollars worth of rabbit meat shipped to our hospitals and sanitariums. For digestibility and nutritive value there is no meat comparable with that of the rabbit. Beef gives 55 per cent of nutrients, mutton 65 per cent, pork 75, and chicken 50, while rabbit meat yields 83 per cent of digestible nutriment far superior to any other meats obtainable. Rabbit meat should be prescribed for fever patients, aged and feeble persons, consumptives, and anemic patients."

A rabbit grower who visited us recently said: "Belgian hares are very prolific under ordinary conditions. One doe will raise from thirty to forty young each year. The cost of raising a rabbit to good eating age on a farm would be about 25 cents. In the city it would cost more. They will eat anything you feed them. I like to feed them oats soaked over night, boiled in the morning, stirring in some alfalfa meal, corn chop, and bran while hot. I also feed hay, carrots, turnips, beets, lettuce, dandelions, plantain, wild lettuce, and horse weeds.

"The best way for a beginner to start is with a pair or trio of good pedigreed stock, which can be bought for five dollars a pair at three months of age. I would not advise purchasing stock under that age; it is better to buy stock at the breeding age.

"Rabbits are cleaner and easier to raise and handle than chickens. They require only feed and water twice each day. You can feed before daylight and after dark, as they will eat in the dark as well as in the day. The young require no attention, as the mother gives them the proper care. Use the self-cleaning hutch and they will take very little of your time."



AUCTIONEERS: RULE BROS. AND S. L. JACKSON

Duroc Jersey Bred Sow Sale

Parker, Kansas, February 20

Fifty Head of Bred Sows and Gilts

Most all sired by Parker Wonder, he by Lidore Wonder, and will be bred to H. & B.'s Pathfinder, Golden O'Rion King, Golden Model, and Troutman Cherry King. This is the best lot I have ever offered, and they are bred to the best boars that I ever owned.

I am selling a real herd boar of May 31 farrow, recorded as Red Cross Pathfinder. He is by H. & B.'s Pathfinder and his dam is Golden Critie by Parker Wonder. All over $50 that this pig sells for will be given to the Red Cross.

Catalogs are ready to mail out. Please send for one and arrange to come to my sale. I guarantee a good offering.

W. T. McBride, Parker, Ks.

Caldwell's Big Bob

The 1,122-Lb. Grand Champion, National Swine Show, 1917
The World's Most Sensational Boar Will Be on Dress Parade Sale Day. Come and See Him

Tuesday, February 19, 1918

At Howard, Kansas

50 HEAD 50

This offering will be the equal of anything to sell this winter. Every animal that sells will be an attraction in itself. There will be size and quality enough to suit everybody and class enough to win in the best shows and make money for the farmer and breeder. The winner in every class shown this year was related to Caldwell's Big Bob. He was a sensational pig and is siring that kind. Every animal to sell is a brood sow. They are all tried sows and yearlings and not one that I would not be glad to keep in my own herd. They sell bred to

Caldwell's Big Bob and King Bob By Big Bob

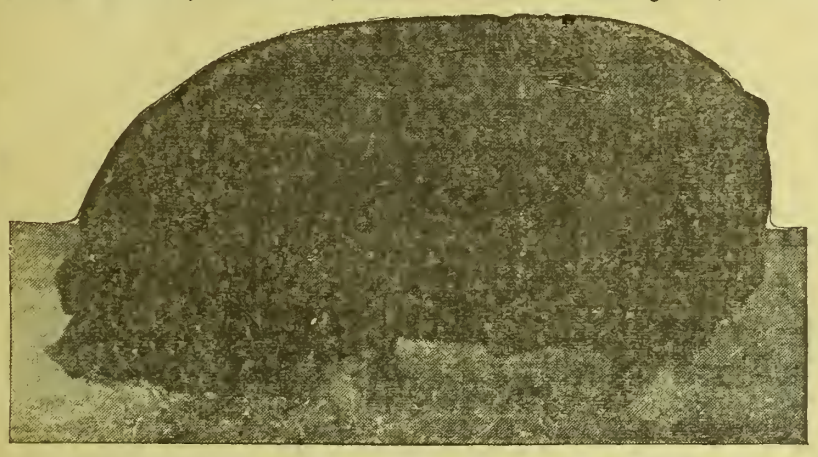
If you are looking for sows that will put your herd in the front rank of popular big-type herds, you will make no mistake buying here. The catalog gives all the particulars and a copy of it should be on every hogman's desk. Write today.

Fred B. Caldwell, Howard, Kansas

Cols. R. L. Harriman and J. C. Price, Auctioneers. O. W. Devine will Represent Kansas Farmer.

POLAND CHINA BRED SOW SALE

Hutchinson, Kansas, Thursday, February 21, 1918



We will sell the greatest bunch of sows and gilts we have ever owned, bred to our great herd boars, **ERHART'S BIG CHIEF** by Bloemendaal's Big Chief, and **BIG ROBIDOUX** by Robidoux, grand champion Oklahoma State Fair.

Such sows as **Lady Jumbo's Equal** by Long King's Equal; **Jumbo A** by King of All; **Miss Prospect A** by A Wonder (this was one of the high-priced sows in Hosler & Leets' last winter sale); **May Queen** by Moore's Halvor; **Garnetta** by A Wonder; **Lady Jumbo** by Orphan Big Gunn; **Big Lady** by Big Hadley's Jr.; **Peerless Wonder** by A Wonder. All these sows are bred and safe to Big Wonder.

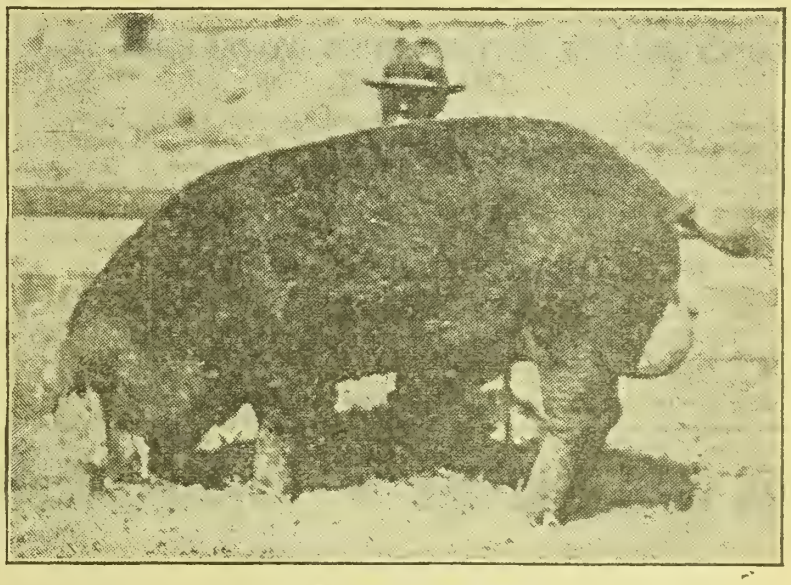
10 Top Spring Gilts. 15 Tried Sows. 25 Fall Yearlings.	**50 HEAD** ALL IMMUNED	SOWS AND GILTS Bred along same lines as our ribbon winners.

BIG HADLEY JR., the greatest Hadley-bred boar of the breed.
A BIG WONDER, the 1,250-pound son of King of Wonders.
LONG BOB by Big Bob 2d, Junior Champion Kansas State Fair.

A useful lot for farmers and breeders to make them plenty of money. Send today for catalog. Please mention Kansas Farmer. O. W. Devine will represent Kansas Farmer at sale.

A. J. Erhart & Sons, Ness City, Kansas

Auctioneers: Col. J. C. Price, Col. J. D. Snyder.



ROYAL GRAND WONDER

Last Call for Royal Grand Wonder

DUROC BRED SOW SALE

To be held in building at Fair Grounds

McPHERSON, KAN., FEBRUARY 14

FORTY-EIGHT HEAD OF TRIED SOWS AND GILTS

All Good Individuals. All Immune and Bred to the Greatest Team of Boars in Kansas

Royal Grand Wonder

First Prize Yearling, Kansas State Fair, 1917.

A boar of wonderful size and immense bone.

Royal Pathfinder

A Son of Pathfinder, the Most Noted Boar Living, a giant for size, with quality to spare.

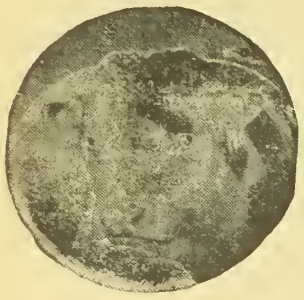
Send your bids to O. W. Devine, who will represent Kansas Farmer. Write for catalog at once.

B. R. ANDERSON - - McPHERSON, KANSAS

Reduction Hereford Sale

At Marion, Kansas
February 11, 1918

135 HEAD OF HEREFORDS



Fifty Cows and Heifers—A number have calves at foot by Wiley Fairfax bull and re-bred to Wiley Fairfax, a half brother to the $3,000 cow that topped Warren T. McCray's last sale.

Twenty-five Selected Herd Bulls of Serviceable Age.

Thirty Head of Registered Range Bulls.

Thirty Head of Non-Registered Range Bulls that are good specimens of the breed but can not be registered. They are a useful lot of working cattle, farm-grown, that will make good on any farm with a little care. Sale will be held right in town. Please send for catalog and come to sale. Write today to



Paul E. Williams -:- Marion, Kansas

Poland China Sow Sale

FAYETTE, MISSOURI

Saturday, February 9th

65 Head of Big-Type Poland Chinas Bred 65

Consisting of Aged Yearlings, Fall Yearlings and Spring Gilts, Sired by Leading Sires of Today.

They will be bred to The Giant, the grand champion at the Missouri State Fair in 1915. He sired the junior champion boar of 1916; also the first prize futurity litter in the same show. He sired the grand champion sow at the same show in 1917, also the junior champion at the Indiana State Fair in 1917, and other sires of equal merit.

SOWS WILL BE EITHER SIRED BY OR BRED TO THE GIANT.

I am exercising my best judgment in having an offering that will please the most skeptical breeders and farmers. In order to have a successful sale, the best must be offered. If you buy a sow sired by or bred to The Giant, she will make you money. You might raise a champion, no one can tell. I am selling the same kind of sows as those that produced champions, bred to The Giant.

SPECIAL FALL PIGS FOR THIS EVENT.

I have decided to offer a select lot of fall pigs in this sale sired by The Giant. Do not overlook these youngsters. This includes ten extra fall gilts, farrowed after September 1, sired by The Giant. My herd represents the best breeding known to the breed.

Send for catalog at once. O. W. Devine will represent Kansas Farmer.

Will G. Lockridge - Fayette, Mo.

Col. R. L. Harriman, Auctioneer.

Dispersion Sale of

Shorthorn Cattle

AT SALE PAVILION

Marion, Kansas, February 15, 1918



100 HEAD OF CATTLE

Comprising

Thirty-two Head of Registered Cows and Heifers
A number with calves at foot and bred again to a pure Scotch bull.

Eight Head of Yearling Scotch-topped Bulls
Reds and roans, all registered.

Sixty Head of Cows and Heifers
Pure-bred but can not be registered. Several calves at foot and bred to pure Scotch registered bull. Most all the cows are of the Bates families and are the real Milking Shorthorns.

Send for catalog and come to my sale if you want good cattle.

J. R. Young, Marion, Kansas

Col. John D. Snyder, Auctioneer

THE THIRD ANNUAL

KANSAS BREEDERS' HEREFORD SALE

to be held at the

AGRICULTURAL COLLEGE, MANHATTAN, KANSAS

Tuesday, February 12, 1918

This sale offers an opportunity to secure good bulls for improving a herd or desirable females for foundation stock. The majority of the bulls are old enough for immediate service. Cows with calf at side, heifers bred to outstanding bulls and heifers ready to be bred are included in the sale. They are not highly fitted and will be presented in the most useful condition.

41 Bulls—37 Females

Representing the most popular blood lines and carefully selected for individuality are consigned from twenty-four of the leading herds of the state. This is a breeders' sale and each animal is representative of the type and quality prevailing in the herd from which it comes.

Consignors:

Dan D. Casement, Manhattan
Fred R. Cottrell, Irving
Dauber Bros., Bunker Hill
Geo. T. Galloway Est., Wakeeney
Chas. E. Gillum, Gypsum
J. A. Howell, Herkimer
Emery Johnson, Emmett
E. S. Jones, Emporia
Kansas State Agricultural College, Manhattan
Klaus Bros., Bendena
Lumley Bros., Emporia
George Lungstrom, Lindsborg
Carl Miller, Belvue
M. A. Pacenka, Bremen
A. M. Pitney, Belvue
W. H. Rhodes, Manhattan
J. M. Rodgers, Beloit
Jos. F. Sedlacek, Blue Rapids
Frank Sedlacek, Marysville
Seldacek Bros., Bremen
J. B. Shields, Lost Springs
Albert E. Smith, Potwin
C. G. Steele, Barnes
Geo. W. Washington, Manhattan

For catalog address

PROF. W. A. COCHEL - - - MANHATTAN, KANSAS

AUCTIONEERS: FRED REPPERT, L. R. BRADY

DUROC JERSEY BRED SOW SALE

At Clay Center, Kansas, February 18th, 1918

FORTY-TWO HEAD BRED SOWS AND GILTS

Consigned by W. W. Jones, A. L. Wylie, R. B. Miller, G. F. Keesecker, Wm. Morrow, A. L. Breeding, and Howell Bros.

The offering is sired by O'Rian Cherry King, Illustrator 2d, Elk Col., Sensation Wonder 2d, and Joe O'Rian 5th, and will be bred to the following boars: Elk Col., King Invincible, Jones O'Rian, Cherry King, Illustrator Jr., and King Col. Everything guaranteed.

Write for Catalog and Send Bids to

W. W. Jones, Sale Mgr., Clay Center, Kan.

Auctioneers: Jas. T. McCullough, Jess Howell, Wm. Myers

McGATH'S BIG ORPHAN
The Grand Champion at Topeka and Hutchinson, 1917

Bert E. Hodson

Poland China

Bred Sow Sale

Wichita, Kans., Feb. 20

50 Big Immuned Sows and Gilts

An Attractive Offering Bred to McGath's Big Orphan and His Capable Assistant, Captain Gerstdale Jones

Among the outstanding attractions will be WONDER BEAUTY 2D by Big Bob Wonder, second senior prize gilt at the National Swine Show. Others equally attractive. Daughters of many noted boars sell, the blood of such sires as A WONDER, YOUNG ORPHAN, BIG HADLEY JR., ORPHAN BIG GUN, KING OF WONDERS, LONG BIG BONE, LONG JUMBO 2D, BIG BEN, BIG BOB WONDER, CALDWELL'S BIG BOB, A WONDERFUL KING, MODEL BIG BOB and MASTER ORPHAN. Plan to attend this sale. Send for the catalog.

O. W. Devine Will Represent Kansas Farmer at the Sale

Bert E. Hodson, Ashland, Kan.

Poland China Bred Sow Sale

At Deming Ranch, Oswego, Kansas

Mammoth Bred Sows

Monday, February 18th, 1918

These Are the Kind That Sell ———— The Kind That Make Money for Farmers



THE KIND WE BREED AND GROW

GREATEST OFFERING OF THE YEAR

Bred to the Breed's Best Boars

BIG BOB JUMBO
Son of Big Bob and First Prize Junior Yearling at Hutchinson, 1917.

BIG BOB'S ORANGE
Litter Mate to Big Bob Jumbo and His Equal as a Breeder. He Sires Size.

Assisted in the herd by Big Logan, a great smooth boar that is right in the 1,000-pound class. We are proud of these boars and believe them the equal of any trio to be found in any one herd.

THIS IS OUR SUPREME EFFORT

and will include some of the best prospects for 800-pound brood sows we have ever had on the farm, as well as

FIFTEEN BIG MOTHERLY SOWS THAT ARE THE ENVY OF ALL WHO SEE THEM

These are the dams of our winners for the past two years. They have raised winners for us—they will do it for you. They have made money for us—they will do the same for you.

Fifteen Great Yearlings and Twenty Spring Gilts complete this great offering. All choicely bred, carefully selected and bred to a boar of established reputation. When you see them you will want one. Send for catalog.

O. W. Devine will Represent Kansas Farmer.

DEMING RANCH, OSWEGO, KS.

H. O. SHELDON, MANAGER

Poland China Bred Sow Sale

Big-Type Bred Sows

Danville, Kan., Friday, February 22

50 HEAD All Tops 50 HEAD

Herd Boars

A Wonderful King
First in Three State Fairs, 1915

Logan Price
Second in Three State Fairs

Olivier's Big Timm
By Blue Valley Timm

The sows offered are the biggest, smoothest lot of high-bred sows you will find, sired by the leading boars of the country. They all make a favorable impression. We have been heavy winners at the fairs and have produced the kind that please. They are the money-making kind for us and will do the same for our buyers. Every sow will be showing heavy on sale day. Write for catalog.

Col. J. C. Price, Auctioneer

O. W. Devine Represents Kansas Farmer

F. Olivier & Sons, Danville, Kansas

Breeders of
Big-Type, Easy-Feeding, Prolific, Winning Poland Chinas

FIRST ANNUAL
Poland China Hog Sale

Orrick, Mo., on February 16, 1918

30 HEAD SOWS AND GILTS
3 TRIED BROOD SOWS
7 EXTRA GOOD FALL YEARLINGS
20 LARGE SPRING GILTS, ALL SAFE



A Sample of the Offering

A number of fine herd sow prospects of strictly big-type Poland China breeding. The sows will either be bred to my herd boars, Hillcroft Model Jr. by Long Model, his dam Wonder's Maid by King of Wonders, and Big Giant by Pfander's Big Ben is also used in the herd on a few of the gilts. My main herd boar, Sampson, was by Hillcroft Model and out of Giantess Wonder 1st. This sow was bred by Will G. Lockridge, and Sampson is a grandson of The Giant. This massive hog was the grand champion Poland China boar at the Missouri State Fair, 1915, and widely known as one of the great sires of the breed.

They are well grown out and I guarantee a good offering. Catalogs are ready to mail out. O. W. Devine will represent Kansas Farmer at sale. Send for catalog today to

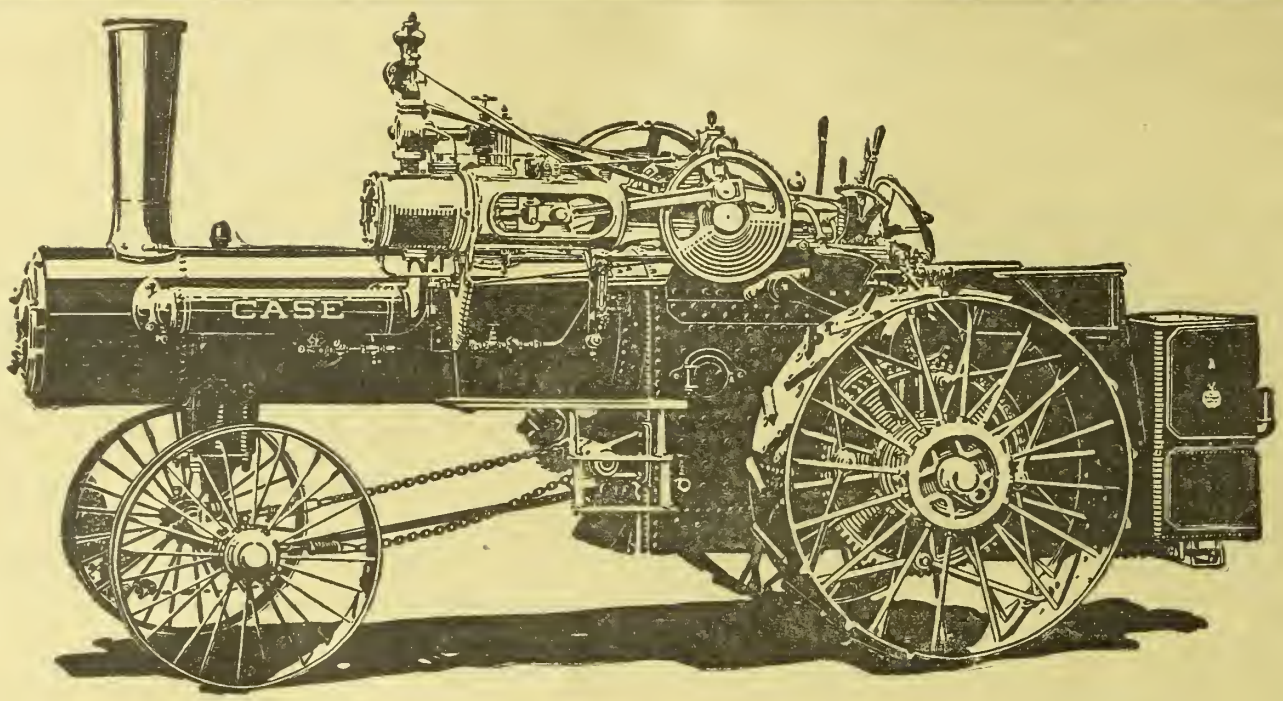
William Sullinger, Orrick, Mo.

AUCTIONEER: COL. J. D. MATHIS

Founded 1842

CASE

Famous the World Over



Case Steam Engines

Famed for Power, Simplicity, Durability, Economy

This Company wants it understood by all farmers that the development of Case Kerosene Tractors has not interfered with the development of Case Steam Tractors.

We have two separate departments. We have been making steam tractors for over 40 years. We designed our first gas tractor 26 years ago.

Case Steam Tractors, which have long been in the lead, receive the same or even more attention. We are continuing whenever improvements are presented, to better Case Steam Tractors. Our engineers and experts are always on the lookout.

Case Steam Tractors in Eight Sizes

Many men believe that in certain sections and for certain work, steam is preferable to gas. So the Case line of Steam Tractors is complete. We make them in sizes from 30 to 110 horsepower.

Case Steam Tractors are used in all parts of the world for plowing, driving threshing machines, operating silo fillers, running baling presses and other lines of farm work. They are also used for hauling, road building, etc.

Case Steam Tractors, like all Case machinery, are not built to sell on price alone. They are built to meet a quality standard which is demanded of every Case product.

Farmers know they can turn to a Case product with confidence. They know they are getting dollar for dollar value, and an engine on which they can rely.

Thousands of Case Steam Tractors are in use all over the world. Their power, dependability and length of service cannot be equaled. They are simple to operate and economical.

Those who are interested in Steam Tractors should write for our catalog, which contains pictures and detailed specifications. A copy will be mailed free upon request.

Those who are interested in other Case power-farming machinery may write for any of the free booklets named below.

J. I. Case Threshing Machine Company, Inc. (Founded 1842) 861 Erie Street, Racine, Wis.

FREE Books

Send for This Descriptive Printed Matter—All Free

Below are listed the different series of booklets and folders. Tell us which interest you.

1—Kerosene Tractors 2—Steam Tractors 3—Grand Detour Plows 4—Threshers 5—Hay Balers 6—Silo Fillers 7—Road Machinery 8—Automobiles

Or, if you wish, ask for our General Catalog, describing the entire Case line. It is free.

Write Today

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 6. TOPEKA, KANSAS, FEBRUARY 9, 1918. Established 1863. $1 a Year

FARMERS MUST ADVERTISE

To Bring Results Advertising Must be Seen, Read, Understood and Believed

HERE are the tests applied by Frank Pyle to every piece of advertising copy used in finding buyers for his farm products:

"Do you tell your complete story in easily understood words and sentences?

"Is there anything about you to grasp the attention and interest of the reader?

"Do you clearly convey the impression you want the reader to get?

"Have you the character and ability to carry conviction to the indifferent and prejudiced?

"Do you appeal to the reader's imagination, taste, reason and business sense?

"Have you made clear the action you wish the reader to take?

"When the ad can answer 'yes' to all these questions, I draft it into immediate service," said Mr. Pyle who spoke on the subject of farm advertising during Farm and Home week at Manhattan.

The subject assigned Mr. Pyle was, "How to Advertise Fruit," but the principles and methods outlined apply to advertising live stock, seed grains, poultry, and in fact anything which the farmer has to sell.

In opening his talk, Mr. Pyle quoted these words:

"If a man can write a better book, preach a better sermon, or make a better mouse trap than his neighbor, though he build his house in the woods, the world will make a beaten path to his door."

"These words," said Mr. Pyle, "were written by one of the greatest advertising men this country has produced—the late Elbert Hubbard. Knowing them to be a part truth—which is worse than a lie—Hubbard placed quotation marks about them and wrote after them, 'Ralph Waldo Emerson.'

"The epigram would not have sounded so clever had he written the whole truth, and said 'the world will make a beaten path to his door,' if he advertises much and well.

"For fifty years of my life I envied the farmer his freedom of action—his independence—then I became a fruit farmer. I toiled, I sweated, I produced, and I found that I must sell at the other man's price and for his profit. I produced better fruit than my neighbors only to find that their fruit set the price, very often, at which I must sell, in the local market.

"I have been asked to tell you what I am doing to free myself from this handicap. But for the deep obligation I feel to the horticultural department of the Agricultural College and to George O. Greene of the extension division for the great assistance they have been to me in making my orchard a success, I would not be here, for I am not a speaker, either by inclination or training.

"I will tell you, in the fewest possible words what I am doing in the way of advertising my fruit farm and the motives back of these things. Orchard Home is the name of our farm. This name was suggested, among 347 others, in answer to the advertisments I inserted in the papers of four nearby towns, offering five dollars in gold for the best name suggested.

"I wanted to name the farm, so that should I ever come to sell it, it would be known under a name that I could sell along with the farm—a name that would have an actual money value. So I advertised for a name. That got everybody to talking about Frank Pyle's orchard. Some of them said I was a 'fool' to spend money for a name for a farm.

"Suggestions came from Florida, California, Maine and all the states between. I advertised again when the name was selected, telling who suggested it and all about it. Thus I established the name—Orchard Home—at once in the minds of people far and near.

"Then I registered in the United States Patent Office a drawing of the farm house and its surroundings with the name—Orchard Home. I use this design on my letter heads, newspaper advertising, apple boxes, vinegar and all other lables except on my apple juice.

"Some of my advertising has seemingly fallen flat. Some of it has produced good results immediately. All of it has helped to build a reputation for Orchard Home. In one instance an advertisment that I considered a failure brought me a customer a year later, who told me this 'ad' had brought him. He came twenty miles and has since that time purchased more than one hundred dollars' worth of fruit.

"There are much larger commercial orchards, not many miles from Orchard Home, but over the countryside Orchard Home is better known than any. When folks think of fruit, they think of Orchard Home and they instinctively head toward it every time they start out on a foraging expedition.

"This is my advertising platform:

"First—To work in closest possible harmony with the horticultural department of our Agricultural College, and to let everybody know it.

"Second—To encourage visitors to come to Orchard Home on every possible occasion and to always have something novel and interesting to tell and show them.

"Third—To always keep before everybody that Orchard Home products are strictly country products and the best of their kind.

"Fourth—To impress on them that while I am an old farmer, I am not too old—nor too much of a hayseed—to take advantage of every modern thing which will improve our products for their benefit.

"Fifth—To have something in the local papers every week—either display advertising or reading notices—telling about Orchard Home or its products.

"Sixth—To put a fair price on Orchard Home products and stand pat."

Mr. Pyle here threw on the screen a few of his advertisements—selected at random—as printed in the local papers and asked his audience if they all answered 'yes' to the tests which appear at the beginning of this article.

"These advertisments are not miracle workers," continued Mr. Pyle. "No one of them has ever startled me with its accomplishments, but I find as the years roll along, more and more people ask for Orchard Home apples at the stores, demand Orchard Home vinegar, and drink Frank Pyle's Apple Juice.

"My advertising has not been confined to the local papers, although they have been the first line of my offensive. The editors of these papers have given me great support by donating space for the opening to a vast field of new advertisers—the farmers—who in my section have up to this time confined their advertising ventures to sale bills. The banks from which I borrow money, and in which I sometimes have a balance not in the red, have assisted, without cost to me, by supplying specially printed checks.

"The old blackboard by the roadside, in front of the house at Orchard Home works every daylight hour, for I always keep it chalked over with my offerings. It catches the eyes and dollars of many a passing autoist.

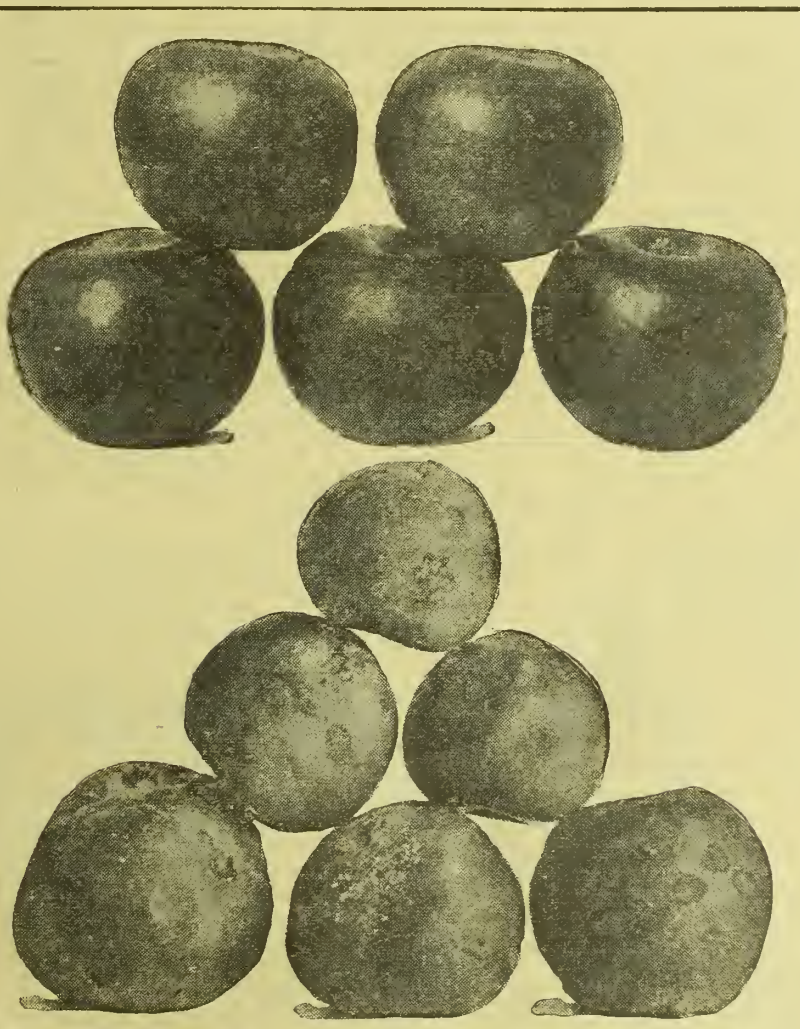
"My delivery truck carries, swung above the load, a large sign, which reads, Big Red Apples From Orchard Home Fruit Farm.

"My old sprayer has helped. I have sent it to neighborhood farms to fog highly perfumed water over the crowds at orchard spraying demonstrations while bearing on its top on ten-foot-long signs, these words in box car letters:

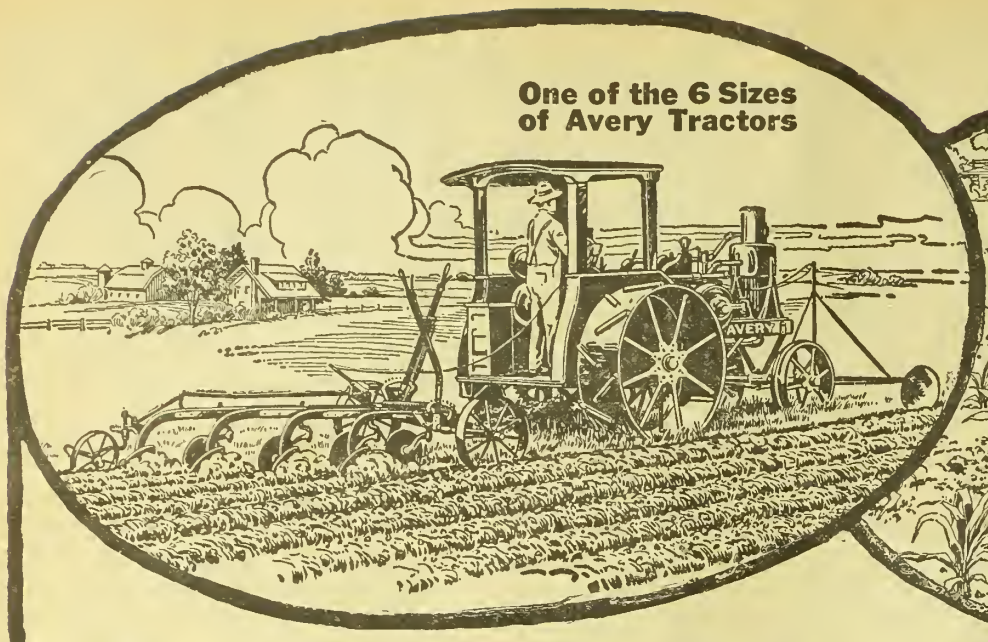
"What am I? I am a battle-scared veteran. I am fighting your fight. I am destroying millions of your foes. I am applying the teachings of science to the battle. I am the preventer of wormy and diseased fruit. I am making fruit better and more plentiful. I am Frank Pyle's Orchard Sprayer. My battle ground is Orchard Home Fruit Farm."

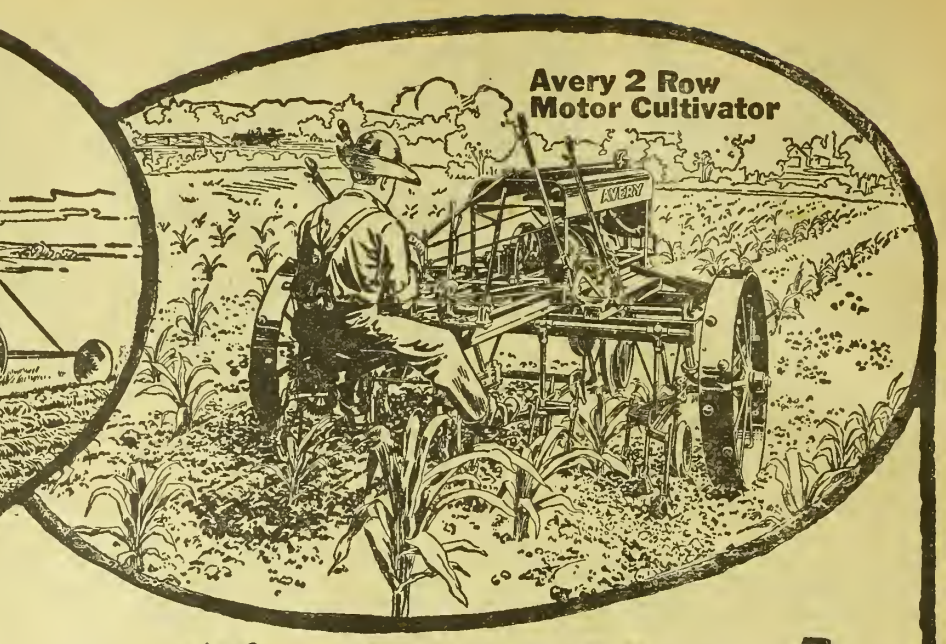
"Even though I did hear one man read the second line, 'I am a bottle-scared vetrinarian,' still I think it has brought me business and helped educate other men, who have orchards, to spray. I do everything I can to encourage spraying, for junk fruit does more than anything else to keep prices below their proper level.

"Like the old breech-burnt, muzzle-loading musket of our boyhood days, advertising shoots both ways. When I advertise, I make claims of superior merit for Orchard Home products. It is rarely that I use reduced prices as an inducement. The back kick of my advertising forces me to make good every promise of my printed words. No sane advertiser will do less than his promise.



WINESAPS FROM SPRAYED TREES ABOVE, FROM UNSPRAYED BELOW.—POOR FRUIT KEEPS PRICES BELOW PROPER LEVEL





Averyize Your Farm Work

There isn't any question any more about the success of tractor farming—the only question now is—which is the best tractor for you to get.

When you **Averyize** your farm you can be sure you have made a wise selection. When you get an Avery Tractor you are getting a tractor that is long past the experimental stage. You are getting a tractor that has been put to every kind of a test known.

We proved our faith in the Avery design by introducing Avery Tractors on a sold-on-approval policy. We have proved the success of the Avery design by entering it in every important motor contest and demonstration held in this or any other country.

And the strongest proof of the success of the Avery design is that men who bought the first Avery Tractors years ago are buying more Avery Tractors—sons, brothers, cousins and others of every relationship to the first buyers are placing their own orders for Averys—and neighbors who have watched their work are buying them in large numbers.

Avery Tractors are built by a company having over thirty years' experience in building power farming machinery with tens of thousands of Avery machines in operation all over the world, and by a company owning a large factory with branch houses and distributers covering every State in the Union and over 60 foreign countries.

A Size for Every Size Farm and Every Kind of Work

You can do practically every kind of work on every size farm with Avery Motor Power. There are six sizes of Avery Tractors from which you can pick exactly the right size tractor for doing your heavy traction and belt work.

There's an Avery Two-Row Motor Cultivator for doing your cultivating and other light traction and belt work. Then you can get an Avery Plow and an Avery Thresher to fit any size tractor, and you have an equipment of Tractor Farming Machinery that will enable you to raise a larger crop at less expense and save it after you raise it.

What You Get in an Avery Tractor

The five sizes of Avery Tractors—8-16, 12-25, 18-36, 25-50 and 40-80 h. p., are all built of the same design. They are the only tractors with a double carburetor and duplex gasifier that burns ALL the kerosene. They have a patented sliding frame that eliminates the intermediate gear used on other tractors, which saves expense and increases the power.

They are the only tractors with renewable inner cylinder walls, crankshafts one-half or more in diameter than the diameter of the cylinders, adjustable crankshaft boxes, no fan, fan belt, governor belt, fuel pump or water pump.

They are the most easily adjustable and accessible tractors built and are light in weight per drawbar efficiency. We also build a smaller 5-10 h. p. Tractor, especially for small farms and lighter work on large farms.

The Wonderful Avery Motor Cultivator

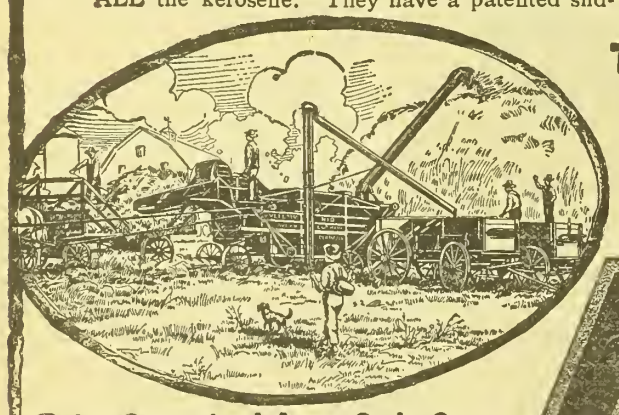
The Avery Motor Cultivator is truly a wonderful machine. It plants and cultivates any crop, such as corn, beans, cotton, etc. With it one man can handle 100 acres of crop or more than double what one man ordinarily handles with horses or mules. It is also a handy machine for harrowing, drilling, harvesting, hay cutting, hay raking, feed grinding, pumping, sawing and other work.

Light and Heavy Tractor Plows Small and Large Sized Threshers

You can also get an Avery Power-Lift Tractor Plow either light or heavy, in any size from 1 to 10 bottoms, and an Avery Thresher in any size from a small 19x30 inch for individual use up to a large 42x70 inch for commercial threshing.

Avery Plows are guaranteed to scour in any soil where any other plow will scour.

Avery Threshers will thresh any kind of grain or seeds and are guaranteed grain savers.



Get a Guaranteed Avery Grain Saver Thresher in any size you need from a small 19x30 inch individual machine up to a large 42x70 inch for commercial threshing.

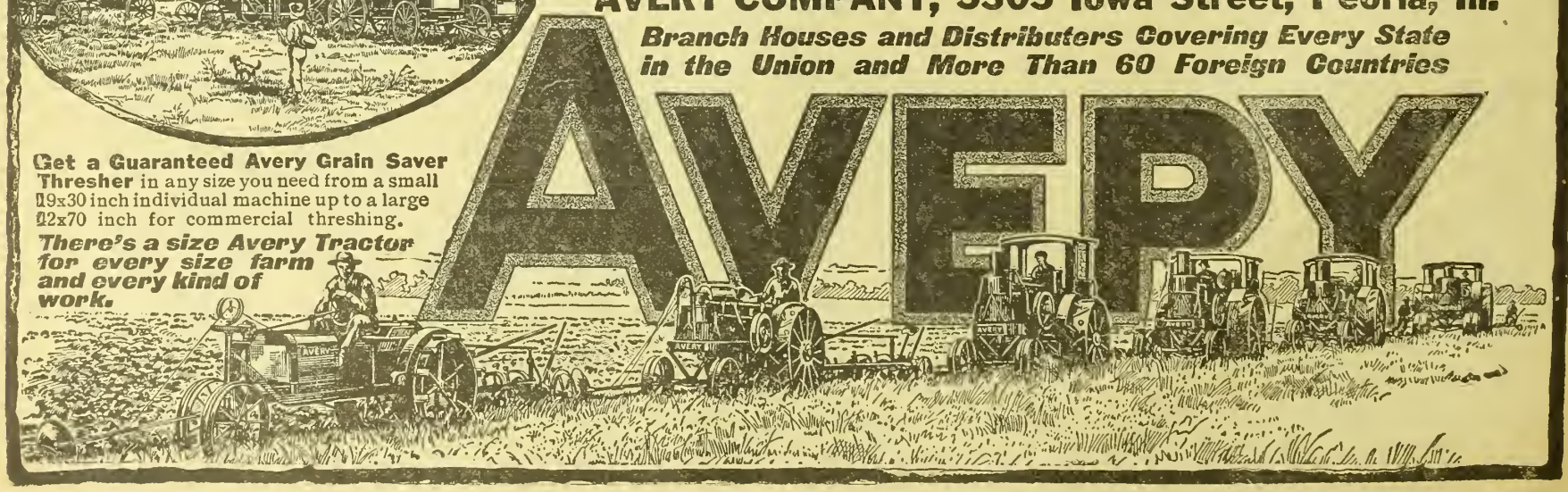
There's a size Avery Tractor for every size farm and every kind of work.

The 1918 Avery Motor Power Book is Ready for You

It shows all Avery machines in their natural colors, both stationary and actual working scenes. It has unusual detailed illustrations of tractor construction. Write for free copy and ask for special information about the size machines you need to meet your requirements. Address

AVERY COMPANY, 5305 Iowa Street, Peoria, Ill.

Branch Houses and Distributers Covering Every State in the Union and More Than 60 Foreign Countries



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KANSAS FARMER

THE FARM PAPER OF KANSAS

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S. E. COBB, Vice President
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ST. LOUIS OFFICE: C. A. Cour, Globe Building

Established by First State Board of Agriculture, 1863

Member Audit Bureau of Circulations

Member Associated Farm Papers

IS DEMOCRACY WORTH SAVING

Democracy is now undergoing the test of fire. Unless the spirit of autocracy is conquered, democracy must go down to defeat and pass into history as a gigantic failure. "Is it worth saving?" asked Dr. Thomas N. Carver in the course of one of his addresses at Farm and Home Week at Manhattan. He showed how a democracy may be as bad as an autocracy, depending on the kind it is. It may be made up on undisciplined people, or it may be the kind of democracy in which everyone does just as he pleases regardless of anyone else—then it is not worth saving. Doctor Carver said that the world has always been ruled by disciplined people, and of these there is more than one kind. There is the discipline of the benevolent despot and a disciplined autocracy will always rule over an undisciplined democracy. The other discipline comes from within, and this is the discipline of true democracy. It is the law of the universe that discipline rules, and there is no getting around its laws.

As an illustration of team work, the speaker used the football team where each player does not play for himself but for the whole team. So must it be with a nation. The disciplined man subordinates the lesser needs of the individual to the larger needs of the group and thus a disciplined people has the esssential team work to win. Democracy will win in the present war only if the devotees of that democracy will so sacrifice that good team work results.

A good deal has been said about the necessity of spending money freely in order to keep it in circulation, thus making for prosperity. Doctor Carver pointed out that in this we should be very careful as to whether the money kept in circulation is spent ou frivolities and non-essentials or in ways in which it can help the Government. Money invested in Liberty bonds will be spent and will circulate freely, as will also money given to the Y. M. C. A. or the Red Cross, whole money spent for mere peace-time trivialties simply makes for exchange. Exchange simply for the sake of trading is valueless from an economic standpoint because nothing is really produced. It is a good thing only as it permits specialization in production so that the work will be done better.

AMERICA MUST BE UNITED

That we must be a unit in our conduct of the war, was the keynote of the address of Lieut. Paul Perogord, of the French army, before an audience at the Agricultural College during Farm and Home Week. This was one of the most thrilling addresses of the whole week. The big auditorium was filled to overflowing. Hundreds crowded in after all the seats were taken and stood in the aisles and doorways while this brilliant Frenchman thrilled the whole assembly by his vivid descriptions and appeals to the highest emotions of the American people.

"In France," he said, "we are soldiers of righgteousness. The man in the trench never asks whether his comrade in arms is a Protestant or Catholic, a Democrat or a Republican. There is only one party, and that is the party of victory. All must belong to it as long as the war lasts. You are called the United States of America, but you are not as yet the united people of the United States."

We believe the point made should be well taken by the people of this country. Anyone who attempts to make political capital from the mistakes which may have been made is serving the enemy. This does not mean that our Government officials should be held above constructive criticism. We should, however, search our own hearts most closely before denouncing anything that has been done or left undone in connection with the enormous work of war preparation.

There are many different degrees of patriotism. Lieutenant Perigord reminded his audience of the great duty of personal sacrifice. He told of hearing individuals boast of their patriotism as evidenced by their investment in Liberty bonds. Our Government must have enormous loans from its people, and it is a real service to take these bonds, but a Government bond at 4 per cent is a good business investment, and the man who has done nothing for his country but buy its bonds has not begun to sacrifice. The speaker also told of meeting people occasionally who rejoiced that they had no sons to offer. "Don't tell me that you have no son to send," he said. "Are they not all your boys." He had a word for the German people, appealing to them to be broader than Phussian autocracy and to believe in the ultimate redemption of those who are still under its yoke. Americans of German descent are proving their patriotism and loyalty to this country, and it might be expected, as their forefathers came to this country to escape the very thing we are now fighting.

Lieutenant Perigord said that if America had failed to enter this war she would have been dishonored forever. The Stars and Stripes—the symbol of justice and freedom, not only for the United States but for all nations—would have been handed down to the next generation defiled stained, and dishonored. Now it can still remain the purest, most beautiful flag in the world, and Americans can truthfully sing of "the land of the free and the home of the brave."

Lieutenant Perigord has taken part in some of the most important battles of the war. He enlisted as a private, but won his commission on the field of battle. He is now representing the French Commission and is being sent to various parts of the United States, addressing audiences on the part America is to take in the war. He has been educated largely in this country, having come to the United States as a Catholic priest to devote himself to missionary work in the Northwest. He studied in the universities of Chicago, Columbia, and Minnesota, and at the time war was declared was just completing his thesis which was to be presented to the University of Minnesota for his degree.

SHOULD TAKE INSURANCE

No nation of the world has ever even attempted to work out so beneficent a plan for protecting its soldiers and their families as has our Government in providing the war risk insurance. Applications for this Government insurance have now nearly reached the three billion mark, the average per man being $8,630.

For men who joined the colors before October 15, 1917, the last day for applying for Government insurance is February 12, 1918. While the insurance applied for already amounts to an immense sum, a comparatively small proportion of our soldiers and sailors have taken steps to protect themselves and their families. Dr. H. J. Waters, chairman of the Kansas Council of Defense, received a telegram during the last session of the recent war conference, stating that a million men are still unprovided with this protection. The parents and friends of soldiers should urge most strongly their taking advantage of the Government insurance. The tendency of military life is against habits of thrift, and this alone is sufficient excuse for men taking insurance. In addition is the thought of protecting families and loved ones from want in case of death or physical disability.

House the flock comfortably; keep houses dry and well ventilated, allowing plenty of fresh air and sunshine. Remodel the old house—stop cracks and eliminate drafts. Give hens a good straw litter to scratch in during the winter months.

KANSAS CITY TRACTOR SHOW

Unusual interest centers around the tractor show which will be held in Kansas City next week. There has never been such serious need for economizing in the labor necessary for crop production. Manufacturers of tractors and farm power machinery are without exception taking advantage of this practical opportunity of displaying their tractors and tractor equipment. Visitors to this show can satisfy that natural desire to study the advantages and disadvantages of all makes side by side, for they will all be there.

Tractors have evidently come to stay. The idea of purchasing and using tractors on a community or clubbing basis is being discussed. Some have already put such plans in operation, and the manufacturers expect to sell a good many tractors to community clubs during next week's show.

The big pavilion which provides 50,000 square feet of floor space will be heated by twelve oil-burning furnaces. A visit to the show will thus be much more comfortable than to previous shows which have been housed in tents. Electricity will be used for lighting and the the power necessary to demonstrate the various kinds of power farming machinery.

It has been suggested that after the tractor show this big building or pavilion would be ideally adapted for use as a great recreation hall for soldiers visiting Kansas City. Officials of the Kansas City Tractor Club, which conducts this show, are considering the proposition of offering the building for this purpose.

SEED AND LABOR CANVASS

Next week every farm in the state will be visited either by a teacher, pupil, county agent, representative of a farm bureau, or of a council of defense, to get information on its seed and labor needs. This is a most important production and conservation measure. At least 45 per cent of the corn produced is unfit for seed. From twenty to thirty-six counties in Central and Western Kansas will be compelled to import seed corn for this year's planting. Seed of the sorghums is even more scarce than seed corn. From 50 to 75 per cent of the crop was damaged by frost. Surrounding states are having similar trouble and some of our seed is being taken by these states.

We would urge the heartiest co-operation in this seed and labor survey. A questionnaire will be furnished and the information filled in on this blank will be of great service in enabling the seed and labor committees to equalize the supply to the fullest extent possible. There will be shortages of seed in some localities and a surplus in others. If all of those interviewed will do their part, we can make the best of a bad situation.

After the information has been obtained, it will be carefully tabulated and will be used in helping to bring about the best distribution possible of seed and labor. Those furnishing the information asked will not only be rendering a service, but will be giving needed help to their respective counties in the present emergency.

Representatives of the United States Department of Agriculture, after conference at the office of the director general of railroads, were informed that the director general has not promulgated a list of non-essential farm products which will be denied transportation facilities, and does not contemplate issuing any such order. Request was made that the Department of Agriculture disseminate this information as widely as possible to the farmers of the country. It is the purpose to make every effort possible to provide transportation for all farm products. Cars should be ordered of local freight as has been the practice.

EVERY WEEK A THRIFT WEEK

The present week has been designated a "thrift week" throughout our nation. From pulpits, in school rooms, moving picture houses, in stores, offices, homes, and through newspapers, a concerted appeal has been made to influence people generally to the adoption of habits of thrift. This is all very fine, as far as it goes, but we hope that our people generally may be led to become savers instead of spenders. What we need more than anything else just now is that we become permanently prosperous, and to do so every week should be a thrift week.

We have been entirely too spasmodic in our saving. A new thrift movement is started, and a lot of people save until their savings begin to amount to something. Too often they then conclude that the thing to do is to draw on these savings and blow in the money on an automobile, new clothes, perhaps a pleasure trip, or something else that is not very seriously needed. It seems that we as a people cannot stand too much prosperity.

Our habits of spending lavishly without thought is well illustrated by an experience which Charles M. Sheldon related on his return from a three-months' trip in England. Just before sailing for home he spent a day in the finest hotel in the United Kingdom. The bill for his room amounted to $2.27, and he was served meals at from 75 cents to $1.25. On landing at New York he had difficulty in getting a room at all and finally was given one nowhere equal in its appointments and comforts to the one he had occupied before leaving England. He was charged $8 for this room. He took the trouble to hunt up the manager of the hotel and ask him for an explanation. He was told of the high price of labor, fuel, and various other expenses, but when he was through Doctor Sheldon said: "Now tell me the real reason." After some hesitation the reply came, and it was to the effect that the American people were willing to pay such prices. Meals no better than the ones served in the English hotel cost $2.50 in the New York hotel. At Washington, where he stopped the next night, he was given even a poorer room and charged more. An interview with the manager resulted in about the same explanation as to the extravagant habits of the American people.

The kind of saving that will make the American people permanently prosperous is systematic saving. The war-savings and thrift plan of the United States Treasury which is being presented all over the country is following this idea. The plan, as everybody in Kansas should know by this time, proposes that every man, woman and child save the amount of $20 and lend their savings to the Government, on War Savings Certificates at 4 per cent interest compounded quarterly for a period of five years. By adopting this plan every man, woman and child in the country may become a stockholder in the best nation on earth. They will be helping to win the war, and the winning of the war is a task to which all true Americans should bend their utmost efforts.

There never was a time when it was more necessary to be careful in our expenditures than at the present time.

The war is going to end some day, and the future of America and the whole world is going to be different than the present. If we are going to do the big things that we have dreamed of doing, become the dominant nation in trade and finance for generations to come, we must continue this program of thrift, for what would it avail if we gain the whole world's trade and become mighty in money affairs of the world, if our people went on spending money for mere pleasure-seeking and riotous living.

SHEEP A WAR-TIME ANIMAL

Increasing Wool And Mutton Production An Act of Patriotism

THERE is such a tremendous shortage of wool in this country that our Government is recommending the use of 30 per cent of woolen substitutes in the manufacture of woolen goods. We are urged to produce more mutton and use it for home consumption, thus saving beef and pork, the standard meats of the army. These are some of the most important reasons given for growing more sheep on our farms, by Prof. W. C. Coffey, of the Illinois Agricultural College, who spoke at the annual meeting of the Kansas Sheep and Wool Growers' Association held in Manhattan during Farm and Home Week.

"We are opposed to our Government using woolen substitutes for our soldiers," said Professor Coffey. "We are in favor of civilians doing without woolen articles rather than that our boys use substitutes. Yet when the number of sheep should be increasing, it is declining. According to the latest estimate there was a shortage of 54,000,000 sheep in the world. If that shortage were taken out of this country it would take us entirely out of the sheep business.

"Where a large section of country is overrun by the armies of the country or of the enemy as in Europe, it is difficult to keep up the live stock industry. This makes it all the more necessary that we increase our production. At present we have in the United States about 48,500,000 sheep. Not since 1840 has this country produced 75 per cent of the wool it uses. Now we do not grow half the wool we consume.

"What would happen to us if we were suddenly cut off from the sources of our wool? We do not grow half enough for our home consumption when we are at peace and not over one-fourth enough when we are at war. In 1915 England lacked 96 per cent of shipping us the amount of wool she had promised us. There are millions of pounds of wool lying in storage in South Africa mainly because the submarine warfare made it too dangerous to attempt to market it. From the patriotic standpoint—from the standpoint of preparedness—it behooves us to interest ourselves in wool."

The standard meats for the army are pork and beef, explained Professor Coffey. Mutton is not a meat used largely for export, so if we grow more mutton we will be adding to the meat supply, thus saving other meats for use in our army.

"We have looked upon the mountain region as the place where our sheep are grown," said Professor Coffey, "and 56 per cent of them are. You can buy these thin western ewes and I want to say that is one of the very best practices that I know of. The ranchman considers that these ewes are no longer useful to him. By taking them off his hands we are engaging in an unusually good type of co-operation. I would warn you in buying these ewes to look them over carefully. Do not buy those that are too broken down in health.

"It is predicted that there is no chance for the West to increase its production for at least another ten years, but how about the Middle West? There is an opportunity for us in sheep raising. In 1911 Kansas had more hogs than sheep.

"In the East there is also a plan under way to get sheep back on the wornout land. Companies have been formed and campaigns are planned to interest people in putting sheep on this land. In the South there are great tracts of land in which the sheepmen have already become interested. We will not be overstocked with sheep if we get them in all these regions.

"Wool is not as important as mutton, but I am talking from the war-time standpoint. The sheep is peculiarly a war-time animal. It is profitable because of the extraordinary demand for wool. The sheep is one of the best animals we have on the farm for utilizing roughage with a minimum amount of grain. No animal is superior to the sheep for this. If labor becomes scarcer it is probable that roughage will grow greater year by year. In this case the sheep will help save labor. I cannot say that a farm stocked with sheep will require less labor than beef, because I do not know, but I believe that it would. I would not say, however, that they require no labor. That is one of the things that is needed here in the Middle West. Sheep are not profitable unless they are handled in the right way.

"The purchase of ewe lambs for breeding should be a last resort. You will not have the success that you would have with older ewes. The shortage may be so great that their use will be advisable.

"The best thing for us to do in the sheep industry right now is to take good care of the sheep we have. That is my best advice. I am interested in seeing you remain in the sheep business after this war is over. A great big opportunity will be lost for making a profit if flocks do not become more common here in the Middle West. We can put these flocks on our farms without replacing other live stock or crops. There is an idea that sheep should live on things that other stock won't eat. Before you buy sheep, be sure you are going to have enough feed to carry them through. Make use of feeds that have no commercial value, but those feeds of themselves rarely serve to carry the ewes through in proper condition. You have got to mix feeds that have a commercial value with them. Ewes must be in proper condition at lambing time. They can't live on scenery.

"Idaho is a good sheep country, yet the ewes are eating four pounds of alfalfa each day. Handle your sheep so that they will pick up the cheap feeds. Run them on the stubble fields. In Illinois just as soon as we have husked out a field of corn, we turn the flock in. They will graze around the edge and get some bluegrass and they will feed on cornstalks and the corn that is left. About the middle of December it is well to supplement this with feed from the barn. If they are exercised out in the corn field they won't get too fat for lambing.

"The hardest drain on the ewe is the first eight weeks after her lamb is born. After that you can decrease the feed a little. If you are giving the lamb enough to eat he will be all right.

"The critical time is lambing. During this time the shepherd should watch his flock closely day and night.

"One of the most healthful places for keeping sheep is a shelter that opens to the South. It is important that the sheep's feet be kept dry. There should be a place in the pen that you can keep warm enough to warm lambs that become chilled. If it is very cold you can put in a second wall about six inches from the first and fill in with straw. Put the forward ewes in that and the colder it is the more ewes you should put in, because the heat from their bodies raises the temperature.

"Another scheme in lambing time is a lambing pen made of two panels hinged together. Put the ewe and her lamb here just after the lamb is born. I do not like to put the ewe in there just before the lamb is born, because she will worry and fuss and may hurt the lamb. This small pen is a good place to keep the ewe and her lamb, especially if she has twins, because the ewe may claim only one unless they are both kept near her. It is very unwise to let hogs and sheep run together during lambing time, because the hogs make short work of the lambs.

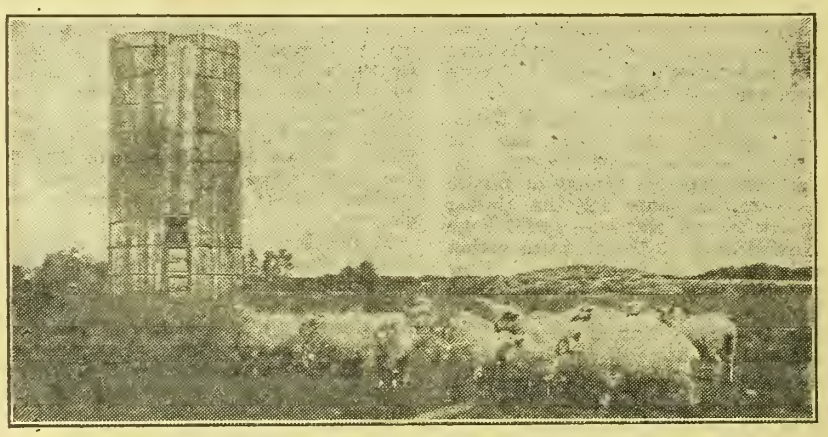
"The sheep barn should be well bedded. Bed it down a foot to fifteen inches deep about the middle of November and it will not be necessary to bed it again until late in the spring.

"If you are going to market your lambs early in the summer, begin to feed grain as soon as you can. For the most part I would advise marketing early. In this way stomach worms and the hot weather are avoided.

"A lamb will start eating when it is fourteen to sixteen days old. A rack containing hay and grain should be accessible to the lambs but not to the ewes. The grain should be crushed at first. This should be fed until they are six or seven weeks old. Let them have about all they want and give them a good quality of hay. In this way they will be ready for market by June 15.

"I think it is best to dock and castrate lambs. You may intend to market them as lambs but something may go wrong and you may want to hold them over. If you dock and castrate your lambs you can carry them over and they will do well, but if you leave them without docking and castrating them they will never do so well on the market and they will fret and fight and it is almost impossible to make a good, marketable product out of them.

"It is no more difficult to castrate a lamb than it is a pig. Castrate lambs when they are about twelve days old. It can be done when they are two months old. Do the castrating first and then cut off the tail. Select a bright morning to do the work. Treat with a good disinfectant and sterilize your knife. See that the lambs are well bedded for several days afterwards."



FLOCK OF EWES ON FARM OF PAGE NICKLEN, IN LYON COUNTY.—MRS. NICKLEN CLAIMS THE SHEEP AND IS VERY PROUD OF THEM

Cultivation of the Raspberry

The cultivation of this splendid fruit throughout the great corn belt of this country is a success if gone at in the right way. A fruit so fine for table use as this is, and so easily grown, ought to be in every farmer's fruit garden. The trouble always has been that so many farmers have concluded that they cannot successfully cultivate this berry. Many who have tried it, not knowing a good method, have been disappointed in results.

Having learned by ample experience how to succeed in raspberry growing, I will outline my plan and from my success in other states of the Union as well as Indiana, I am confident that if what I say is followed in Kansas with but one exception, it will result in complete success.

For roots, or canes to set a plantation, secure them from some nurseryman as near home as possible. This is very important, and it is well to include some of the standard varieties. The roots can be set from March 15 through April, according to the latitude.

The ground ought to be fairly fertile and well supplied with humus, and if there is considerable sand in the soil that is all the better. As I find the vines are more easily cultivated and the fruit produced in greater abundance by certain plans of pruning, I will describe my plan later on.

Set the rows four feet apart and the roots three feet from each other in the rows. Allow two canes to grow up from each hill the first summer. Drive temporary stakes and tie these canes to them. The second season after setting is when I begin special training of the canes to form bushes of long "rainbow canes," such as are natural with this fruit.

The second summer still allow only two canes to grow up from the roots in each hill. When they get thirty inches high, top each one, or pinch off the top bud. This causes side branches, or laterals, to grow out from near the ground to the tips. Allow them to grow thus through the season. The following spring before the foliage appears, cut all such laterals back to about from ten to fifteen inches in length. From all such pruned side branches new wood for bloom starts out. When in full bloom a plantation so treated is crowned with bloom and the fruit is both abundant and well developed.

The canes growing up from the roots the second summer, if cultivation has been clean and almost of a level nature, are stocky and strong. Topped at thirty inches, they stand stiff and sturdy and need no stakes. They are like bushes more than struggling vines. A raspberry plantation so trained is easy to keep free from weeds and grass and can be cultivated through a season by horse implements or the hand plow.

The "one exception" formerly mentioned is in regard to the use of a good coat of straw mulch. In a windy country and one inclined to sudden changes during the winter season and prolonged dry spells in the summer, a heavy mulching with straw would be necessary. That is, I would use this protection for two purposes, viz., to prevent weed growth through the growing season. Put this mulch on the ground early in the winter and again a little while before blooming time. The summer mulch saves any further plowing or cultivation, the remainder of the season. Mulching is no better than clean cultivation, and has some disadvantages, especially in a wet season. With a little care, some labor, and pruning or training as has been described, anyone can have a fine crop of raspberries almost every season and there is no finer fruit for the table, fresh, or for canning, preserving, and for making jelly.—W. A. GRAHAM.

Is Cow Sterile?

C. A. H., Oklahoma, writes that he has a four-year-old cow that freshened at eighteen months of age and has not had a calf since. She has had one of her hind legs broken, but is always fat. He asks if the broken leg would interfere with her breeding and whether she will be all right for beef. He also has a twelve-year-old mare with a fistula which developed last fall. She had a colt last spring. He wants to know if she will breed.

Dr. R. R. Dykstra, of the Agricultural College, answers as follows:

"In my opinion the fact that this cow has had a hind leg broken would not interfere in any way with her breeding qualities unless the break in the leg was so high up as to involve the hip bones. Following such a break there is sometimes a permanent deformity which inhibits conception. I am rather inclined to believe that there is a diseased condition of the uterus or ovaries, which keeps this animal from breeding. The exact nature of this trouble could be determined only by a careful examination. This animal would be suitable for beef.

"Regarding the mare affected with fistula this will have no influence upon her breeding qualities if she is not in a depleted condition. Sometimes an old standing fistula will deplete the animal's system to such an extent that she will not breed."

Sheep are noted scavengers. As weed exterminators they have no equal. They turn waste products into cash, thus saving feeds of commercial value and at the same time increasing the fertility of the soil.

MORE ABOUT FARM LABOR

List Every Person Willing to Work on Farm In Emergency

NO OTHER question discussed during the annual meeting of the State Board of Agriculture held in Topeka last month developed a greater variety of opinions than the farm labor question. Following the address of E. V. Wilcox, of the Federal Department of Agriculture, many spoke briefly on the points raised, among them being Dr. H. J. Waters, editor of the Kansas City Weekly Star, who expressed his approval of the Department of Agrieulture handling the question instead of the Department of Labor. Doctor Waters said he had nothing against the Department of Labor, but pointed out that the man at the head of that department does not understand farm labor and there is no good way to get him to understand it. He thinks in terms of organized labor and eight-hour days and you cannot get him to think in terms of two eight-hour days in each twenty-four-hour period, which is about the proposition the farmers are up against during certain seasons of the year. He agreed with Mr. Wilcox that there is enough unemployed labor in the country, but ventured the statement that the time is coming when everyone will have to get out and get some blisters, closing the grocery stores, the banks, and other town businesses during the periods when extra labor is needed to save crops.

The listing of all those who are willing to work, which is a feature of the plan now being put in operation, will help tremendously in taking care of the "peak load," such as we are sure to have when our big wheat crop is ready to harvest.

Another member of the audience said that other industries were not experiencing the same shortage of labor as the farming industry because they had been paying such attractive wages as to attract boys from the farms. The discussion led Mr. Wilcox to make some further statements regarding the situation as he saw it.

"As a result of this one year's work with the farm labor problem in the United States as a whole," he said, "I am firmly convinced that there is no absolute shortage of farm labor. There are enough of us to do the work if we will all get together and get into our proper places. There are some sections where the farm labor is all drained out, leaving the farmers absolutely without help, and that help must be replaced.

"Now we want to co-operate. We want to work in such a way as not to create any unnecessary hysterics. That is the very worst thing you can have at any time. The labor market is fully as sensitive as the stock market. We had a lot of men in the wheat fields last year observing this thing. A lot of college men went out there. Because our system was not yet well organized, it was impossible to control the men last year. A lot of them would go to one place and work a few days and then some clever fellow would hear of another community where there was no help and they would all hurry over there and get five dollars a day for a few days. We have not got adjusted to the change in conditions from the time when we had plenty of help and the farmer could go into the grocery store and pick up men whenever he needed them. With all the things we had doing this year those men had gone to work and it seemed that the labor supply was exhausted. The farmer cannot spend all his time looking for labor in unaccustomed places. We are hoping that each farmer who needs help will let us know—not if he thinks he may need help, but if he wants help, and how much and when he will need it.

"The matter of wages is a serious thing in many communities, and I think it is highly desirable that farmers have some kind of an understanding about this thing. I do not mean that you are to get together and form a trust, but you must have some sort of an understanding or you will have a condition that is very undesirable. Unregulated changes in wages simply spoil the laborers. Some of them get it into their heads in this wise 'Now, if I can get four dollars a day, I wonder whether I cannot get eight or ten dollars a hundred miles farther on.' It is necessary to try to stabilize farming wages as far as possible, to have an understanding among yourselves that no one of you will make any unreasonable increase.

"We are getting our men to furnish the wages paid for farm labor in each locality once a month and these will be tabulated and sent out to the men. The corn huskers in Illinois last spring were saying: 'They are paying ten cents a bushel in Iowa, and you will have to pay us more or we will go to Iowa.' At the same time the corn huskers in Iowa were saying the same thing about the growers of Illinois, and neither could dispute it because they did not have the figures.

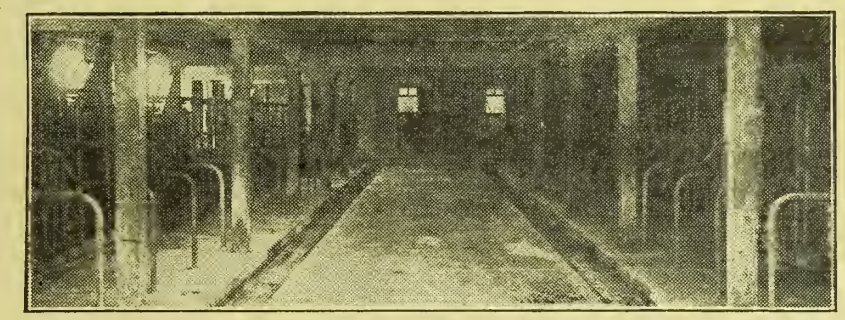
"You have to be careful what you say in regard to an emergency or people will take it in just the opposite way from that intended. One of our men told me that down in Georgia when the word was passed out, 'Sugar and flour are a little short, so use them sparingly,' everybody stampeded to the grocery and laid in a year's supply, and some who never had more than six pounds on hand at one time before began to buy by the barrel. The very same thing is true of labor. The moment you say that there is an absolute shortage of labor, the laborer swells out his chest and it takes a dollar a day more to get him, and he is not worth as much.

"We find in every state that when the supply of people who want to work is exhausted, there are others who could work but do not want to work. In Maryland they have a very effective law which compels people to work or go to jail, and when they are notified that they must go to work they find jobs pretty quickly. There are a large number of professional loafers. There are many looking for positions who do not seem to be just fitted for anything and do not get positions. I have a letter on my desk from a man wanting work, who said: 'I am unmarried; I have stomach trouble and a dependent aunt.' I was a little doubtful as to whether I should recommend that he get married first or get rid of the stomach trouble, or get rid of the dependent aunt.

"This movement is intended to be a great help to the farmers, and we hope that with your help—because we must have the help of the farmers—through the extension service, every farmer will furnish a businesslike statement of what help he wants and when he wants it and what he is willing to pay, and we also hope that everyone who is willing to work will learn through whom he can list himself, so that we can bring the farmer and the available supply of labor together. I think there are enough of us to do the work we have to do if each one gets into his place and gets busy and does the work for which he is fitted.

I am not in sympathy with the idea that we need at the present time millions and millions of orientals brought into this country for farm work. I do not believe those who advocate that realize what that would mean. In the first place we would have trouble with Japan if we allowed the Chinese to come in. In the second place we have not enough ships to bring them in. And then the farmers who had to have help would find this help entirely inexperienced and unused to any kind of labor except hand labor, and you would either have to have an interpreter to explain things to them or use the sign language. And this has been proposed as an immediate solution of the problem!

"You know what the extension service is, you know what the best men in every state are trying to do to solve all the problems that have arisen in war time. We cannot create labor. We have certain things we have to do, and we have boy power and woman power to draw upon. This is no time for pessimism or over-confidence. It is time to get to work. No one has any right to feel that it cannot be done and sit down, because nothing can be accomplished in that way. In every state where we have an agent who has been willing to undertake the impossible, he has done it, and I think that we will not have to send off to China or to Timbuctoo to get laborers, but the problem is to get together and do it ourselves."



INTERIOR VIEW OF WELL-EQUIPPED MODERN DAIRY BARN ON BONNIE BREA FARM, SHAWNEE COUNTY.—OWNED BY IRA ROMIG

Yellow is Butter Trademark

There is a propaganda being carried on at the present time through the newspapers to take off the 10-cent tax on colored oleomargarine. "Yellow" is the trade-mark of butter.

Immense sums have been spent by the oleo interests in the endeavor to steal this trade-mark for the imitation product.

William T. Creasy, secretary of the National Dairy Union, calls attention to the fact that a large oleo manufacturer a few days ago when appearing before a committee of Congress, stated: "That the natural color of oleomargarine was white; that the white oleomargarine was of a higher quality, because it contained a higher grade of refined oils," but he added, "Of course there is more money in the yellow."

Comparing the price of butter with the cost of producing milk, butter is the cheapest dairy product at the present time. "Notwithstanding this fact," says Mr. Creasy, "the beef trust is trying to add new burdens to the creamery interests by recommending to the Joint Committee on Definitions and Standards of Food that the fat standard for butter be increased from 80 to 82½ per cent."

This effort which is again being made to permit oleomargarine to be colored in the semblance of butter would permit the use of the cheaper grades of oils some of which are being produced in Central and South America. And at the same time it would increase the price of oleomargarine.

But then there is millions in it for them, and that beats patriotism.

The Buffalo (N. Y.) Enquirer sizes the matter up correctly when it says:

"Another campaign for the removal of the taxes on oleomargarine is under way, this time on the plea of reducing the cost of living.

"The main argument has been heard before, but it is being reiterated with new features and frills as well as extra fervor.

"Removal of the taxes, say the advocates of that proposition, will be followed by a reduction of the price of oleomargarine and a lower price for oleomargarine will not only lower the price of butter but it should and would decrease the prices of milk and of all milk products, especially cream.

"The public, wisened by experience, however, knows better. Remove the taxes the oleomargarine industry pays into the treasury and later takes out of the pockets of the public and the makers and sellers will keep the savings in their own pockets.

"The argument for removing taxes on oleomargarine is that a clean and wholesome product should not be taxed to benefit the producers of another clean and wholesome product. That removing the taxes would reduce prices all around is nonsense. It is not done nowadays."

This paper is right. Anyone that thinks that oleo is going to get cheaper when they have a right to color it is either saying what he does not believe, or has a stagnant brain covered with a green scum. Oleo has been admitted into Canada for the war period, with the express understanding that it shall not be colored.

Must Sacrifice to Win War

To make war successfully and hasten the end which we all so much desire, we must subordinate everything to the war program. The principles at stake make it worth the price. We believe the people of Kansas are united in this view. Private or personal interests will take a secondary place in the minds of our patriotic and loyal citizens. We have meant to edit KANSAS FARMER with this as our guiding principle, but one of our readers from Franklin County recently took us to task for featuring the idea of personal interest in some articles which appeared. We quote from his letter as follows:

"In your issue of January 5, under 'Building Operations,' you refer to a former suggestion of yours that 'those who are ready to build now or need additional building for storage or shelter would gain little by delay.' The spirit of the former article as well as the present one was that the farmer should only consult his own interest. The Kansas farmer does not need to be advised to consult his own interest. What he needs to be advised is to sacrifice his own interest at present and only consider the best interest of the country.

"There is at present a serious shortage of both transportation and material. It is a fact that the government is today hampered in its preparation for war in both these particulars and no one at present can tell how long this condition will last. In all probability it will last as long as the war lasts. Farmers should be advised that for reasons of patriotism they should not build a new house if the old one can possibly be made to serve. Only such additional farm improvements should be made as are absolutely necessary to preserve the farm products. I am a farmer living on a farm and I feel that I have got to do everything I can in every way possible to help the country in this war. You are in a position to aid in inspiring patriotism among farmers. I do not think you have availed yourself of your opportunities in that direction as you should. The farmer should be told and told often and in vigorous language that there is something bigger and more important than his personal interest to be considered at the present time."

Conditioning Work for Horse

A horse with reserve fat is able to do much more work and do it more easily and with less feed than the horse that does the spring work without this reserve fat. Hence from a practical standpoint it is essential that the farm horse carry considerable reserve force in the form of fat before the heavy work of spring begins. It will pay to get your work horses in good flesh before the heavy work begins.

Fat is also a desirable asset when the farm horse is sent to market. His value will be increased quite materially by fat. When he is sold he is placed in a new and nerve-racking environment. The work is severe, and unless the horse carried on his body an adequate supply of fat to be used as a reserve source of energy, he will quickly succumb to the hardships of his new job. He will be a disappointment to the owner, and it may perhaps be necessary to lay him off for a long rest, which of course entails considerable loss.

TRACTORS CONSERVE LABOR

Timely Plowing Increases Yields of Wheat and Other Crops

By W. M. JARDINE, Director Kansas Experiment Station

A TRACTOR of sufficient horsepower to pull a four-bottom plow in the hands of a skilled operator will plow from ten to fifteen acres of land a day. A man with a four-horse team can plow four or five acres a day. Therefore such a tractor outfit is equal at the best to three such man-power labor units.

The tractor should be used to the utmost in meeting the farm labor shortage. Tractors should be available in every commuuity for job work. Plowing for wheat should be done in July and August if possible. Tractors will make it possible. Practically every farmer knows that land plowed for wheat iu July or August will yield from two and one-half to seven or eight bushels to the acre more than land plowed in September, but more farmers do not plow early because they cannot. They haven't time at the right time. Other farm work presses. Plowing is too often put off because it can be put off.

ADVANTAGES OF TIMELY PLOWING

The wheat grower who can get his land plowed in July and August will, through the increased yield obtained, not only get his plowing done for nothing, but several dollars to the acre besides. Furthermore, he will get more corn and other crops he may be growing, because he can give his entire attention to them.

The weather is frequently too hot and sometimes too dry in July and August to use horses to advantage. Heat and dry weather form no obstacle to the tractor.

Tractors can be made available for farm work under different types of ownership. There are many men in cities who know how to run tractors and could operate them on the farms. These should be encouraged to acquire tractors for job work.

There are farmers who own tractors, or who would purchase them, but who do not know how to operate them and have not the time. Such farmers would doubtless be glad to purchase tractors if they haven't them already, and place them in the hands of skilled operators whom they could trust to give them proper care. The Agricultural College will provide such farmers with men trained in operating tractors.

Tractors may be purchased and owned co-operatively by a number of farmers who would employ a trained man to run them.

TRAINED MEN TO OPERATE TRACTORS

In every city there are many men who know how to run tractors but do not know much about farming. Turning over to these men the job of running the tractors for farmers will be the best way to utilize their services in food production. It will permit the greatest efficiency in the use of the available man power. A farmer who knows nothing about tractors is wasting valuable time in trying to run one. He would better give his attention to that he best knows how to do. A man naturally adapted to operating machinery is wasting time trying to farm. Each should do the work for which he is fitted.

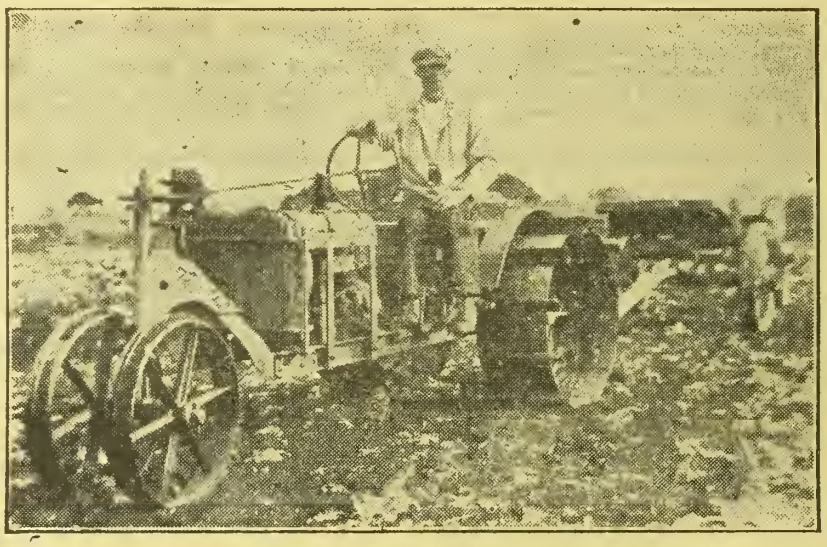
Tractors under any type of ownership, available for job work in the hands of men who know how to run them, will give a large number of farmers all the advantages to be derived from tractors without the trouble and responsibility of operating them.

In the average city of the first or second class there are many vacant lots and small tracts adjoining the city which can be cultivated by city workers after regular work hours, if assistance can be had in the heaviest part of preparing the seed bed. It will be difficult this year to get men with horses to plow the back-yard gardens, vacant lots, and spare plots. A one or two-bottom plow with a small tractor for power, or even with a jitney car adjusted to furnish the power, would make possible the utilization of every spare plot of ground in the production of foodstuffs. It will give city people a chance to do something towards winning the war in the most useful way, and will utilize the man labor that would otherwise go to waste. It is possible that the business men of such cities can do nothing more patriotic than to provide a plowing outfit for vacant lots, back-yard gardens, and tracts adjacent to the cities.

PROVIDE EASY TERMS OF PURCHASE

The man who can run a tractor and could do job work should be aided and encouraged in acquiring a machine. Bankers should help finance such men. Tractor manufacturing companies should arrange easy terms of payment, placing the tractor in the hands of the worthy operator upon a small payment down. It is an excellent chance for demonstrating the usefulness of the tractor on farms when operated by the right men; it will encourage the adoption of the tractor by farmers for general farm work; and it will be a splendid opportunity for manufacturers to demonstrate their appreciation of the country's food needs. The privilege of easy payments should also be extended to groups of farmers who wish to purchase tractors co-operatively, if desired.

The State Council of Defense is preparing to ascertain the number of acres in each county whose owners would be willing to contract for their plowing by the job. The co-operation of the public is asked. Farmers who would like to hire their plowing done should write to the Secretary of the Council, Topeka, Kansas. Men who know how to run tractors and could go into the business of doing job work should also write the secretary. It is not only a good business venturt, it is a chance to serve the nation, a chance to deliver a blow at the kaiser.



LAST spring I got a 5-10 horsepower tractor from the agent here. I have only nine acres of muck land on which I raise celery, onions and lettuce. I have used this tractor to do all my plowing and fitting the ground, and I am so well pleased with it that I am wondering why I did not get it before now. It's cheaper to me than a team of horses, for the reason that its first cost is less than the upkeep. I used kerosene, and eight or nine gallons a day was all that was required. I am using the tractor now to haul my crops to the road and loading on my truck to take to the car for shipment. So you can see I have no horses to feed. I think there is a tractor for any size farm a man has. This niue acres I have is very soft ground, very much different from upland, but with the extra rims I can get onto work as soon as if I had a team.—M. W. ROBERTS, New York.

Lists Tractor Operators

As a voluntary war effort, Power Farming, Michigan, has inaugurated a tractor operators' reserve to assist in securing tractor experts and repairmen. Persons wishing to volunteer their services or who desire employment as operators or repairmen are given an opportunity to enroll. A directory is now being prepared containing detailed information regarding the training and experience of such experts.

Farmers in need of skilled tractor or farm machine operators who state their requirements will be put in touch with suitable men. In a letter to the U. S. Food Administration Raymond Olney, editor of Power Farming, emphasizes that if tractors are to produce more food they must be efficiently manned by men trained in their care and operation. The service is conducted by the magazine without charge as a contribution to the improvement of the nation's food resources.

Chains and Education

Did you ever try to drive a motor car through the snow without tire chains? If you did you know what happens. Your rear wheels buzz around as if they were swimming in grease, your engine roars and coughs and tries to shake itself to pieces, you make a terrific racket—and get absolutely nowhere. You have enough power in your motor to move ten times the weight of your car, but it isn't worth a cent—because your wheels can't take hold. Right then tire chains are more valuable than any other part of your car, because the car is useless without them. * * * Now, then, a boy without an education is like a car without chains. He's got the engine; he's filled with gasoline; the whole equipment is there, but when the engine starts up the wheels simply buzz around because there's nothing for them to take hold of. Education is what gives a boy his traction in heavy going. Be sure you have it in your tool kit.—The American Boy.

Winter Care of Batteries

In cold weather the storage battery should be removed from the automobile and placed in a basement so that the water will not evaporate from the cells. Before storing the battery it should be fully charged and while in storage it should be kept filled with pure rain or distilled water. Water from the city main or well contains iron. This has a tendency to short-circuit the cell. Once a month during the winter the battery should be recharged either by placing it in the car and charging it from the generator, or by having a garage do the work. If the voltage drops below 1.7 volts, lead sulphide will be formed. This will cause the plates to warp and buckle.

Use of Gasoline in France

Commercial Attache Veditz, at Paris, reports:

The Journal Officiel of December 6, 1917, introduces a series of restrictions concerning the use of gasoline, particularly for private automobiles.

The decree provides that after January 1, 1918, no card entitling the holder to purchase and consume gasoline shall be delivered, except under certain prescribed conditions, the object of which is to confine the consumption of gasoline to domestic consumption, to vehicles used for transportation by common carriers, to vehicles used for the public service, and to such uses as grow out of the necessities of commercial, industrial, farming, and transportation enterprises.

Pruning Grapes

Pruning and caring for grapes was one of the topics at a recent meeting of the Shawnee County Horticultural Society. The speaker assigned the subject could not be present, so George Van Orsdol was asked to lead an informal discussion. "In pruning," he said, "don't be afraid to cut short, but be sure to get enough. If you leave too much vine you will not have as good grapes, and probably not as many. The time to prune is before the sap begins to come up almost any time now."

O. F. Whitney, secretary of the State Board of Agriculture, said that his idea of pruning and training a grape vine was to get it up high where it can get plenty of air and be free from fungous diseases. "You can easily tell about how many grapes you are going to have by counting the buds," said Mr. Whitney. "If you let your branches grow out too far you will have more bunches of grapes than the roots can well take care of."

"How long do you leave the branches?" someone asked.

"My vines were eight feet apart in the row, and I used to try to have them just come together," was the reply. "If I got one a little short I made the next a little longer, but the average length was about four feet. In using a single wire as a support, it should be about three feet high, or a little more.

"Be careful not to prune too late," urged Mr. Whitney. "If you do, the cut will not heal and sap will drip from the wound for days. I like to train the vines up straight so that it is possible to plow close without breaking off any of the plants. You can then throw the dirt up close to the plant in the spring and throw it back a little at a time. This will help in keeping down weeds."

The question of varieties was raised. Mr. Whitney believes that there is no better all-round grape than the Concord. It will stand more neglect than any other grape and still produce fruit. "Perhaps the grape of best quality is Moore's Early," he said. "It comes early and hangs on late. There is something peculiar about Moore's Early. Down on the river bottom mine were all gone before my neighbor on the upland began to haul his to town."

T. P. Van Orsdol, who presided at the meeting, said that his worst trouble was in forgetting to cut the strings with which the vines were tied to the wire, the vine breaking as a result. The remedy suggested was to tie the string tightly around the wire first and then around the vine. This last knot does not need to be so very tight. Old rags make the best strings for tying grapevines.

While admitting the good qualities of Moore's Early, Mr. Thorne expressed his belief that the Concord is the best money-maker there is. If he had to discard one of the two, it would be Moore's Early. Mr. Thorne objects to the one-wire system. He thinks he can hold his vines better with two on the wind-swept upland where his farm is located. The fan system of training is his choice. He emphasized the statement previously made that if good grapes are wanted the vines must be cut out well. Mr. Thorne is very anxious to find some good grape that matures later than does the Concord. He would also be glad to learn how to get his young vines started in an upright habit of growth.

Now is a good time to repair the farm machinery, so as to have it in readiness for next spring and summer. Better results are usually secured when the spring work and harvesting are done promptly, and it saves labor. The day or more spent in waiting for extras or in having a machine repaired when it should be in use causes considerable loss in crop as well of time.

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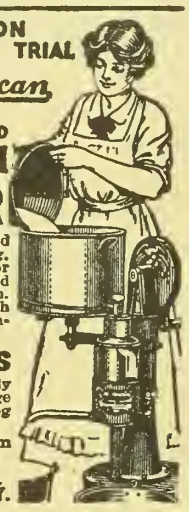

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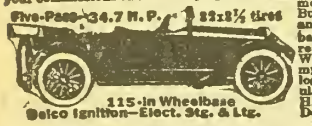

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WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

KANSAS FARMER DAIRY CLUB

My Year Experience in the Dairy Club

I FIRST learned of the Dairy Club through my teacher, Miss Alta Musgrove. She received blanks from the Agricultural College asking her to secure members for the various boys' and girls' clubs, such as those in dairying, canning, and sewing. Four others and myself signed to become members of the Kansas Farmer Dairy Club. I was the only one of the five that took up the work.

Our teacher went to the bank to see Mr. Wulfekuhler, who had arranged with KANSAS FARMER to loan the money for the dairy club work. She found him willing to loan the money. I went to the bank to see Mr. Wulfekuhler. As it was my first business transaction, I felt a little backward, but I found Mr. Wulfekuhler so interesting to talk to about the club work that I was soon over my embarrassment. He agreed to loan me the money to buy my cow.

I started out at once to find a cow. After looking at a number I decided on a Durham owned by Mr. Mills, head farmer of the National Military Home, for which he agreed to take $90.

Papa went and brought her home for me, and I was a very proud girl as I helped take her to the pasture. On my way to the pasture I named her "Beauty."

The next day I went to the bank and signed a note for $90 for one year at 6 per cent interest. I then took the money and paid Mr. Mills, as I had agreed to do. This was in the latter part of June, and in a few weeks papa came home from the pasture and said Beauty had a big black and white heifer calf. Beauty looked very odd with a black and white calf at her side, for she is a bright red. When the calf was thirty-six hours old I removed it out of hearing of the cow. For the first few days I fed it a small amount of warm milk three times a day. After that I fed it one-half gallon of milk night and morning. In a few weeks it was learning to eat dry feed.

I commenced my records on July 15, 1916. I was very much disappointed in Beauty's disposition, but I soon found she was not a believer in "woman's rights." I could never milk her in safety.

Beauty always had pure running water and clean feed which was not musty. She was kept clean, and her stable was clean and sanitary. The milking utensils were always clean, well-scalded, and aired. After cooling the milk I delivered it to my customers.

In one of the winter months I attended a Dairy Club meeting held in Leavenworth. The afternoon of the meeting I went to the Wulfekuhler State Bank. There I met Mr. G. C. Wheeler and Miss Janette Long, of the KANSAS FARMER. They gave me an introduction to several members of the club, who were boys. When all the members had come in we went to the basement of the bank, where the farm bureau meets, and Mr. Wheeler gave a talk on caring for and feeding our cows and calves, which was very interesting. After Mr. Wheeler's talk Miss Long took our pictures. Several men from the Agricultural College gave talks about different clubs. We also took in the Glenwood Canning Club exhibition.

I am glad I joined the dairy club. I read KANSAS FARMER through the year, and learned many facts about live stock. The letters from the other members of the club that were published in KANSAS FARMER were also interesting.

Beauty has more than paid for herself. She is now worth $110 and the calf is worth $40. I close my year's work wishing all the members a happy and prosperous year.—MAHALA SMITH, Leavenworth.

Western Kansas Boy's Story

My father has had a herd of purebred Jerseys ever since I can remember, and I always liked Jerseys better than any other kind of stock, so when KANSAS FARMER announced its Dairy Club of course I was interested and wanted to be a member.

Father had let me do some business with the First National Bank at Norton once before and as I have always known Mr. Campbell, the cashier, it was easy for me to make the arrangements to get the money for the cow. Then I began to make inquiries about cows, for I wanted as good a one as I could get. I found a pure-bred four-year-old that the breeder recommended highly, and bought her for $200. Here is where I made my mistake. Father offered to sell me any one of his cows that I might choose, but as most of his were not registered and he did not ask me a high price, I thought that others were better. After I had my cow a while I found that several of father's cows tested better and were better milkers than my high-priced registered cow. However, I went ahead and did the best I could with her.

Feed was scarce and not of very good quality, and my cow, coming from the East off bluegrass pasture, did not do nearly so well for a while as she might. About the only feed we had plenty of was grass. I never sold any milk or butter, but just cream. I just shipped it with father's cream. Father's cream always grades No. 1, and it must be pretty good, for all the buyers are just crazy to get it.

I raised a nice heifer calf that I am going to keep. After paying for her feed I have $45 to the cow's credit. I have sold the cow, and my account stands as follows: Cost of cow, $200; express charges, $18; cost of feed, $22 — total $240. Received from sale of cow, $175; sale of cream, $67.24; value of calf, $75 —total $317.24, leaving a profit of $77.24.—EMERETH E. WRAY, Devizes.

Wants to Help Uncle Sam

The following letter came from Kormah Knotts, a girl in Finney County who has been reading about the Dairy Club work. She says:

"Will you please send me information about how I can get a cow that will give milk this summer. I am a little girl ten years old, but I want to help Uncle Sammy. I raised $103.60 worth of hogs last year."

We are sorry Kormah did not learn of the Dairy Club soon enough to get started with the new members who began their records last October. We feel sure she is the kind of a girl that can be counted on to do things, and we hope she will later become a Dairy Club member. We have asked her to write something about her work with the hogs.

Value of Shredded Fodder

Gary Cook, of Leavenworth County, asks for a price on shredded fodder. He says:

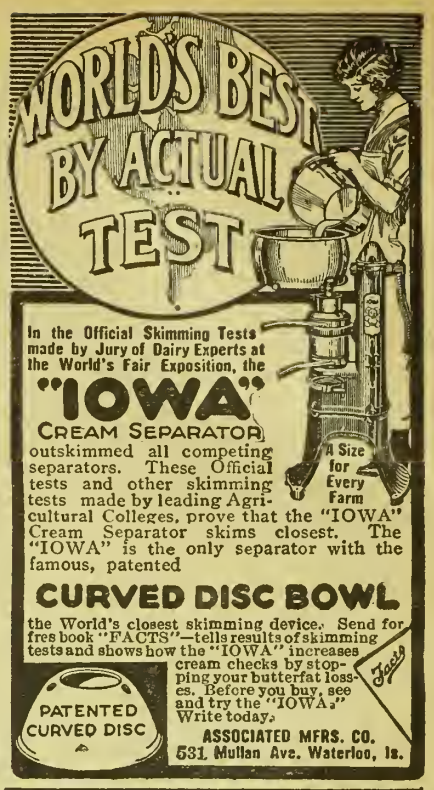
"I am feeding shredded fodder to my cow, Martha, this month, and it is not given on the feed schedule. Alfalfa hay is $26 to $28 a ton here. Do you think it would pay me to buy it to feed her instead of the shredded fodder? Martha has been doing very well in her milk this cold weather. I have never missed milking her yet. She sure is a dandy. Someone wants to buy her every few days."

We wrote to Gary as follows:

"The price to charge for shredded fodder would depend upon how much you figure it costs to get it shredded. Some farmers who shred corn fodder find that it does not cost any more to get the corn out of the fodder in this way than to husk it from the field or shock by hand. Figuring this way, you could charge the cost of shredding against husking the corn and that would leave the fodder shredded for nothing.

"The shredded fodder is nicer to handle and as a rule less of it is wasted in feeding, so you can afford to allow more for it than for ordinary corn fodder. If you figure that the cost of shredding equals the cost of husking the corn, it would be fair to figure the shredded corn at the same price as corn stover on the feed schedule.

"Since you have the shredded fodder, it would hardly pay you to buy alfalfa at the high price mentioned to take the place of all the fodder. Of course a cow must have plenty of protein in her feed in order to give milk, and corn fodder does not have very much protein in it. Alfalfa hay contains considerably more and it would make a much better milk ration to give the cow at least eight or ten pounds of alfalfa hay each day and then let her eat all the shredded fodder she will."



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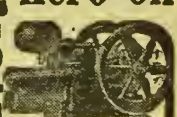

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Production Records of Dairy Breeds

WE ARE often asked for production records of the different breeds of dairy cattle. In Farmers' Bulletin 893 of the United States Department of Agriculture, "Breeds of Dairy Cattle," the average productions of five breeds most generally known in the United States are shown. For Ayrshires the average of the 2,598 cows that have completed yearly records for advanced registry is 9,555 pounds of milk testing 3.95 per cent of butter fat, amounting to 377.51 pounds of fat. The ten highest milk producers of this breed range from 25,329 to 18,745 pounds of milk and the average of these ten highest producers is 21,538.8 pounds of milk. The ten highest butter fat producers among Ayrshires range from 955.56 to 744.73 pounds, with an average, for these ten, of 855.4 pounds of butter fat.

In the Brown Swiss breed the average of 199 cows that have completed yearly records for the register of production is 10,868.7 pounds of milk, testing 3.995 per cent, amounting to 433.45 pounds of butter fat. The ten highest milk producers of the breed range from 19,460.6 to 16,372.2 pounds. The ten highest butter fat producers of the Brown Swiss range from 798.16 to 647.30 pounds, with an average, for these ten, of 683.72 pounds of butter fat.

In the Guernsey breed the average of 6,200 cows that have completed a year's record for advanced registry is 8,934.44 pounds of milk, testing 4.99 per cent, amounting to 446.01 pounds of butter fat. The ten highest producers of this breed range from 24,008 to 17,297.51 pounds of milk with an average, for these ten, of 19,337.9 pounds of milk. The ten highest Guernsey butter fat producers range from 1,098.18 to 910.67 pounds, an average for these ten of 976.75 pounds of butter fat.

Among Holsteins, 3,220 cows that had completed a yearly record for advanced registry averaged 14,622.7 pounds of milk, testing 3.424 per cent butter fat, amounting to 500.7 pounds of fat. The ten highest producers of this breed averaged from 31,246.9 to 28,826.4 pounds of milk, an average for these ten of 29,898.34 pounds of milk. The ten highest Holstein butter fat producers averaged from 1,205.09 to 1,017.28 pounds, an average for these ten of 1,090.89 pounds of butter fat.

In the Jersey breed the average of 5,244 cows that had completed yearly records for the register of merit was 7,792 pounds of milk, testing 5.35 per cent, making 417 pounds of butter fat. The ten highest milk producers ranged from 19,694.8 to 16,633.2 pounds, an average, for these ten, of 17,703.4 pounds of milk. The ten highest butter fat producers range from 999.1 to 875.2 pounds, an average, for these ten, of 943.1 pounds of butter fat.

Good Farm Butter

The making of good butter depends on standardization of methods and care. The butter made on the farms could be materially improved in quality in most cases, if standard methods were employed and greater care exercised in carrying out the necessary details. The following outline of the essential steps to be taken in making good farm butter is from the Federal Department of Agriculture:

1. Produce clean milk and cream. Cool the cream immediately after it comes from the separator. Clean and sterilize all utensils.
2. Ripen or sour the cream at from 65 degrees to 75 degrees F. until mildly sour. Always use a thermometer in order to know that the right temperature is reached.
3. Cool the cream to churning temperature or below, and hold at that temperature for at least two hours before churning.
4. Use a churning temperature—usually between 52 degrees and 66 degrees F.—that will require thirty or forty minutes to obtain butter.
5. Clean and scald the churn, then half fill it with cold water and revolve until churn is thoroughly cooled, after which empty the water.
6. Pour the cream into the churn through a strainer.
7. Add butter color—from twenty to thirty-five drops to a gallon of cream—except late in the spring and early in the summer.
8. Put the cover on tight; revolve the churn several times; stop with bottom up, and remove stopper to permit escape of gas; repeat until no more gas forms.
9. Continue churning until butter granules are formed the size of grains of wheat.
10. Draw off the buttermilk through the hole at the bottom of the churn, using a strainer to catch particles of butter. When the buttermilk has drained out, replace the cork.
11. Prepare twice as much wash water as there is buttermilk, and at about the same temperature. Use the thermometer; do not guess at temperatures. Put one-half the water into the churn with the butter.
12. Replace the cover and revolve the churn rapidly a few times, then draw off the water. Repeat the washing with the remainder of the water.
13. The butter should still be in granular form when the washing is completed.
14. Weigh the butter.
15. Place the butter on the worker and add salt at the rate of three-quarters of an ounce to a pound of butter.
16. Work the butter until the salt is dissolved and evenly distributed. Do not overwork.
17. Pack in any convenient form for home use, or make into one-pound prints for market, wrapping the butter in white parchment paper and inclosing in a paraffined carton.
18. Clean the churn and all butter-making utensils.

Cow Testing Cuts Expenses

Dairymen who have had their profits reduced by increased feed cost will find considerable relief through cow testing associations. The cow testing association places responsibility on each cow to demonstrate her ability to pay for her feed and return a profit to her owner. The loafers in the dairy herd cannot be detected without some system of records. The cow testing association enables the dairymen to calculate the amount of milk and butter fat which each cow returns for the feed she consumes. A system of records will disclose some eye-opening facts concerning the production of individuals of the herd.

Cow testing associations afford a means for co-operative buying of supplies and also facilitate improved methods of feeding. The results which have been obtained by cow testing associations indicate that a large number of dairymen who are not keeping records are feeding some cows at a loss. Sometimes this loss may be attributed to poor producers, poor management, or lack of proper feeding. Savings brought about by cow testing have more than paid expenses during the first year. Marked increase in the production of the herds, and the corresponding reduction of the feed cost in comparison with the milk and butter fat yield always follows.

What a Boy Can Do

"What can a boy do, anyway," lamented a youth who had been refused enlistment in the army.

"But you are too young, son," the father replied.

"Oh, you don't understand, dad," he cried. "Some day I am going to be a man and somebody will say, 'Where were you in nineteen-eighteen?' and it's then I want to say 'I was a soldier in the United States Army fighting to make the world a better place in which to live.'"

There are thousands of true blue young patriots who can't go to war, but there are plenty of ways in which they may serve. They can keep the home fires burning, and they can work and save and lend their savings to Uncle Sam to keep the boys who do go well fed and supplied with ammunition.

How Much Stock to Keep

In Southwest Oklahoma many farmers have had to sell their stock, reports J. E. Payne, agricultural agent of the Frisco Railroad. The season was so extremely dry that they found themselves overstocked.

The question for each man to settle is, How much stock will the farm carry safely when a long series of years is considered? Good feed years like 1915 tempt people to increase their herds unreasonably.

"Would it not be better," asks Mr. Payne, "to store the extra feed produced in the big feed years for use during years like 1917? If we cannot do this, we may plunge in the stock business when the feed is plentiful and be cowless farmers when dry years come. Might we not well cut our herds to a safe number of the best animals, and plan to save feed for them?"

One of the modern labor-saving devices for the dairy barn is the litter and feed carrier. The carrier can be raised or lowered and the manure thrown in. It is run out of the barn on an overhead track and the manure dumped directly into a spreader. The feed carrier also makes it possible to move feed and silage to various parts of the barn with little difficulty.





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About October 1, 1917, butter was selling in Berlin at $2.25 per pound, sugar at 56 cents per pound, and ham and bacon at $2.11 per pound. This information was received by the U. S. Food Administration through a reliable source.



Business Methods of Breeder

THE breeder of pure-bred live stock must of necessity follow the most strict business rules. Many would-be breeders do not appreciate this most important fact, and as a result they fail. Charles L. Hill, of Rosedale, Wisconsin, ex-president of the American Guernsey Record Association, said in an address given in Manhattan Farm and Home Week that he did not believe over 5 per cent of the men to whom he had sold pure-bred cattle ever became successful breeders in the true sense of the term. They simply were not fit to become breeders of pure-bred stock. C. A. Stannard of Emporia, a well-known breeder of Hereford cattle, who prepared a paper for the annual meeting of the Kansas Improved Stock Breeders' Association on "Business Methods of Breeder," gave some most valuable suggestions to those whose ambitions lead them to aspire to become successful breeders of pure-bred stock.

In beginning this paper, he said:

"There is a motto I want to hang before you on this wall while I speak, and if I could, I would hang it on all four sides of your dining room at home where every man, woman and child in your home would see it at least three times a day when you sit down to your meals, and that motto is, 'Do It Now.'

"To the boys I would say, if there is a bucket of coal or an armful of wood to be brought in, or a tub of ashes to be carried out, don't put it off until after supper or until a little later, but 'do it now' and have it out of the way.

"To the girls I would say, if the dishes have to be washed or the floor swept or a kitchen mopped or the beds made, don't put it off until after you have gone to town or visited with your neighbor over the telephone, but 'do it now.'

"And to you, Mr. Breeder, if there is a letter to be written or an entry to be made of the birth of a calf, or a colt, or a litter of pigs, don't put it off until tomorrow or next week, but 'do it now.' If you have sold a calf or any other animal and you must send the pedigree or an application for the transfer and the certificate of registration, 'do it now.' Every night after your day's work is done, answer all the letters received, and make the entry in your books of the calves that were dropped or the cows that were bred. If you are keeping a set of books, make the entries in your book every night of the transactions of the day on the farm. This is doubly important at this time.

"There are a good many farmers this year that should report to the Government the amount of their income for taxation purposes, and you will be expected to do it. If you are a single man and have had an income of over one thousand dollars on the produce of your farm, or if you are a married man and have had an income of over two thousand dollars from your farm, you will be expected to make a report of your income to the Government and pay a tax on whatever there may be over the amounts I have mentioned. You had better do it, too, for it would be quite embarrassing I know to any of you to have a representative of the United States Government come and check up your accounts and find that you had failed to pay your tax, and in addition to being embarrassed there is a very respectable fine or jail sentence for failing to do it. In the past many of you were not annoyed with this matter because your incomes had to be three or four thousand dollars before you paid a tax. You understand this does not mean a thousand dollars above your living expenses. You would be entitled, I suppose, to charge up the board of your hired man, but the living of yourself and family is not deductible. It is just a question of whether you get one or two thousand dollars from the products of your farm and other sources, no matter what you may spend it for. Of course the legitimate expenses of the farm are deductible, such as feed, blacksmithing, interest, taxes, etc.

"Every breeder should keep a set of books. They need not be elaborate, but there should be a debit and credit side showing every item of expense he has incurred during the year, of whatsoever kind, and a credit side for every item received from selling the products of the farm, and once a year at least—the thirty-first of December, I would suggest—there should be a balance struck showing you whether you have made a gain or a loss in the year's business. It is necessary to make an inventory of course of everything you own, and that inventory should be at an honest value. The value of your farm should be placed at what you could reasonably expect to sell it for. The value of every cow, horse, or other animal on the farm should be appraised likewise, and once a year you should balance this inventory and see whether you have made a gain or a loss. The inventory should be kept fully and in detail showing where every piece of property you own is located. You and your family might be killed in an automobile or a railroad accident and your administrator might not know anything about your property. This inventory kept in your safety deposit box or in your safe, if you have one, might save a considerable amount of money to your estate. In this inventory, be honest with yourself, and if your banker asks for a statement occasionally, be honest with him, showing him the number of head of cattle and other stock you have at their actual age and their actual value. Get his confidence, and let him know that he can depend on you. Never make a misstatement to him. Once you get his confidence, you will find he will go the limit to take care of you in a pinch.

"There is no man that needs to be more careful of his reputation for truth and honesty than the breeder of pure-bred live stock. His whole business success, both present and future, depends upon his straightforward honorable business methods. No man can last in the pure-bred live stock business who cheats, wrongs, or defrauds his customer. In selling breeding stock, if there is a blemish on an animal, call the prospective buyer's attention to it. In other words, treat your customer as you would like to be treated if your positions were reversed.

"Be prompt in answering your correspondence, and be prompt in sending the papers to the purchaser of stock. This is one thing that I want to especially emphasize. I have bought a good many pure-bred cattle and I believe 75 per cent, if not 90 per cent of the men of whom I have made purchases have been dilatory about sending the registration papers. I have had to write some of them three or four times before I would get a reply. Others I have had to write and telegraph, and some few I have had to go and see.

"You would hardly believe me if I should tell you how many men are careless about their breeding records; not only careless, but I believe some of them are dishonest with themselves and their associations. Perhaps when you have sold a cow to someone and a calf comes, the birth date conflicts with the previous calf. The secretary calls you down and says that it is impossible for the cow to have two calves in six months, fully matured and live, or or seven or eight months, as the case may be. This usually comes from pure carelessness. You have neglected to set down the date at the time the first calf came. Two or three months, or maybe six months later, you have attempted to guess at the date on which the calf was born, and you have missed it. The result is a conflict of calves, and you are called down by the secretary, humiliated, and perhaps asked for your books. You may have neglected to record a calf until the time went by in which you could record at a nominal fee, and then to avoid the penalty you dated its birth ahead, and when you came to record the next calf you forgot about the previous date and you were caught, the whole thing being occasioned by neglect and carelessness. If you will just heed this motto that I spoke of in the beginning of this paper, you will avoid all of these mistakes; so, whatever it may be, 'do it now.'

"For fifteen years I served on the board of directors of the American Hereford Cattle Breeders' Association, and I got a very good idea of how many men were careless in their records. There

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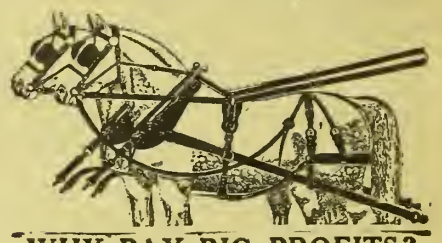

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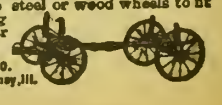

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were not so many men that were really dishonest. When their attention was called to it and they saw how important it was that the records should be kept absolutely correct, they readily acquiesced, and did not feel that the officers of the association were imposing on them. I wish there was something I could say or do to impress on every man in this audience that is engaged in the breeding of pure-bred live stock, the importance of promptness and accuracy in the keeping of breeding records. If your operations are large enough so that you keep a hired man who looks after your records, I would suggest a daily report. I use this in my business. Every three or four days my herdsman, or man keeping track of the records on my place, hands me a report for each day, showing the breeding record of that day, all the calves dropped, the cattle that may have died, and the disease if known, and any other thing that may have happened pertaining to the live stock; also at what he worked on that day. It is a very simple matter and gives you a complete record of all your breeding transactions.

"Several times in my experience I have known of herdsmen taking the breeding records with them when they quit or were discharged, and refusing to deliver them until they made settlement on their own terms. Just last spring a breeder called me over the telephone and stated that he had discharged his herdsman and that he had gone away and taken the breeding records with him and was demanding a thousand dollars for the return of these records, and wanted to know of me what he could do. All I could do was to advise him to consult his lawyer, and to adopt the daily report system when he started his new herdsman on the job. The discharged herdsman and the breeder finally compromised, the breeder paying, as I recollect, some money for the records. In addition to that he had a lawyer's fee to pay. I have known of several cases similar to this in my experience as a director of the Hereford Association. Some of them occasioned very serious losses to the breeder."

When Hogs Are Sold

More hogs are marketed in December than in any other month of the year, according to studies of hog marketing now being made by the United States Food Administration. During the hot months of the year, July, August and September, the shipments are only about one-half those of the winter months. After January, receipts at packing centers decline in each of the succeeding months until May and June, when there is another increase.

The two high points of the year in December and June reflect the marketing of the two crops of pigs that are produced each year and are finished for market during those months.

Wichita Pig Club Winners

The boys who won prizes from the Wichita Union Stock Yards 1917 Pig Club Contest in co-operation with the state club leader are as follows:

Ernest Lunt, Valley Center, first, $15, with a pure-bred registered Duroc Jersey; Thomas E. Davidson, Derby, second, $12, with five grade pigs. Ernest Lunt also won fourth place in the state contest, and Thomas Davidson eighth. Thomas and Cedric Whipple, of Wichita, won prizes of $3 each. Other boys competing made such low grades—or no grades—by not writing a good story or finishing their hogs, that the state club leader gave them no place. The boys are required to keep records and report them in good farm in order to get a grade. With a little extra effort and more definite records, several more boys could have won prizes.

The boys are learning, and from the inquiries already received we can look forward to a good, live pig club this year. The contest will be staged again this year, but boys will be urged to use bred sows. Those wishing to enter and get sows should write J. C. Holmes, Wichita Live Stock Exchange, if in the Wichita district, or to P. R. Imel, Agricultural College, Manhattan, if out of the Wichita district.

Feeding Hogs in Butler

R. G. McCulley, of Butler County, writes that there are not very many cattle being fed in that county this year, more hogs being on feed than cattle. Threshing the seed from kafir and cane and filling silos with the fodder has been a very common practice the past season. This is an indication that every effort possible is being made to conserve rough feed. As in other parts of the state, "soft corn" presented a new problem to the farmers, and as a result husking was greatly delayed. During December corn was being delivered at $1.25 for a seventy-pound bushel. A considerable number of hogs was lost from cholera during the late fall months. A few cattle have also been lost in stalk fields. This has been a very common complaint all over the state. The best way to avoid such danger is to put the stalks in a silo. We never heard of corn-stalk disease resulting from cattle eating silage. Besides this is a much more economical way of using the fodder part of the plant.

Barley for Sedgwick County

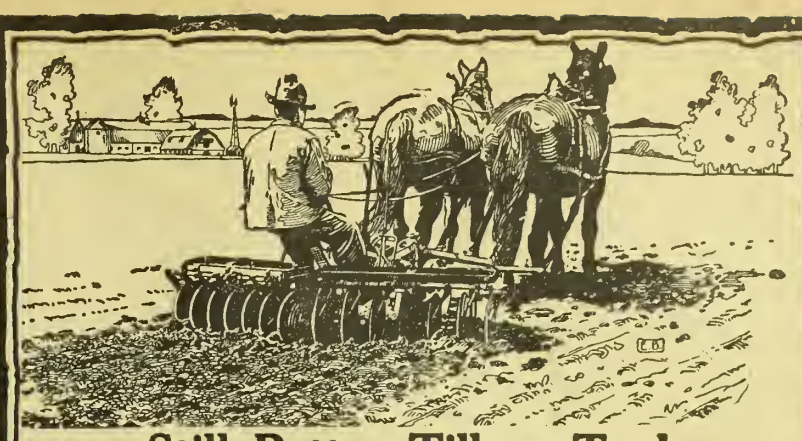
In answering an inquiry from Sedgwick County regarding the adaptability of barley to that section and the best variety of corn to grow, S. C. Salmon, of the Agricultural College, offers the following suggestions: "Barley would be a satisfactory crop for your conditions unless chinch bugs were so numerous last season that they are likely to be a serious menace to small grain in the spring. Barley is an excellent small grain crop and can be sown in the spring except when chinch bugs are bad. I would recommend the common six-row varieties, such as Manchuria, Odessa, or Coast. The latter is often known as 'California feed.' You can probably get seed from some of the various seed dealers in the state or from some of the men on the seed list furnished by the Agricultural College each spring.

"I would recommend an early variety of corn for Sedgwick County, such as the Pride of Saline. I would also suggest that you get seed corn as near your own locality as possible."

Under new food regulations, the Swiss people are allowed only a pound of sugar per month per person. The butter ration is one-fifth of a pound per month.



FONTAINE'S EMINENT COMA, RECORD 10,481 POUNDS MILK AND 523.6 POUNDS OF BUTTER FAT.—OWNED BY DORNWOOD FARM, SHAWNEE COUNTY, KANSAS



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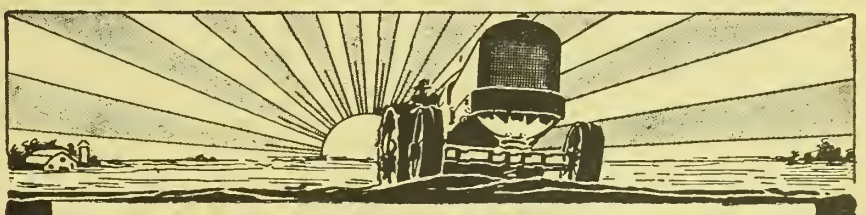

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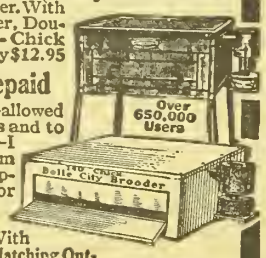

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The best argument for the increased use of incubators is their simplicity and the fact that the buyer does not have to invest in a lot of other equipment to get the full benefit right from the start. Testimony of successful farmer incubator users, such as given in the following extracts from actual letters, emphasizes the one important reason why you should own and operate an incubator.

"The incubator has the old-fashioned way of setting hens beat all hollow. In the first place, if you have a 100-egg machine, you have no chicks to leave their nests or break their eggs or go lousy. What it costs for oil for a hatch is a great deal less than what it will cost to feed eight or nine hens for twenty-one days, and when hatched by machine the chicks don't become lousy from the old hens.

"I have raised chickens for thirty years and from my own experience I believe with a good incubator and brooder, it saves labor and a whole lot of worry. Another reason is, you can have early chicks with an incubator and have your pullets laying by October. You have very few setting hens before April. What chicks you do hatch early you either have to brood them under the kitchen stove or have them freeze to death, where with a good brooder you have none of these troubles. Simply see that your lamp is going all right, and the little fellows will do the rest."

"Have been in the poultry business about two years. From my short experience I have learned that it is impossible to make a success in the poultry business without a good incubator, for the following reasons:

"In order to have fall and winter layers your chicks must be hatched early. During these cold winter months a good incubator will beat the hen; the hen will get off the nest and chill the eggs and some will be broken, but the incubator will stay right on the nest and will require just a few minutes of your time each day to attend to it. For example, suppose you have a good incubator that will hold 240 eggs. This is just one setting for the incubator. It would require sixteen hens, fifteen eggs under each one, to cover this number of eggs. Three or four hens will go to setting this week and three or four next, and so on until you have the required number of hens. This way you will have your chicks all ages and sizes, a few hatched at a time. With an incubator they are all hatched at once and are all of the same size. The incubator can be set in any convenient place. A good incubator will hatch every hatchable egg and the chicks will be just as strong as if hatched under a hen. For good results you want an incubator that is built right from top to bottom. You want one that will hold the heat and will keep cold out and at the same time be so ventilated that the air in the egg chamber will always be pure."

Selection and Mating

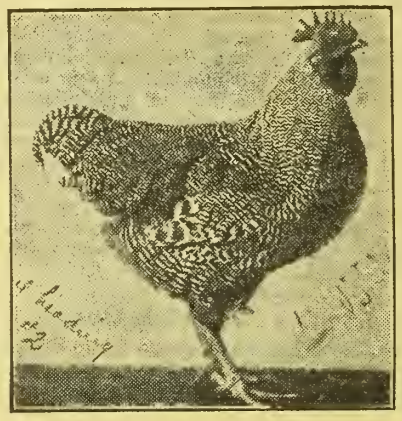
One of the prime essentials in poultry breeding is to use only strong, healthy, vigorous breeding stock. Such stock will produce strong, healthy, fertile eggs which will hatch vigorous chicks capable of making a quick growth, the pullets maturing with sufficient strength to stand the strain of heavy egg production.

The appearance and action taken together form a pretty good basis for picking out vigorous birds. The bright red color of comb and wattles is a good indication of health. The eyes should be bright and prominent, the head short and stout, of course taking into consideration the standard requirements of the breed you are handling. Never use crow-headed birds as breeders.

Placing fowls which have been sick in the breeding yard should be avoided, even if they have apparently recovered, as they will never produce as strong, healthy chicks as if they had not been sick.

We should have a purpose in breeding and should select stock for our matings which will conform nearest to the standard requirements. This should be kept clearly in mind. If we desire to produce exhibition stock, birds should be selected with as nearly the standard type and markings as is possible. If you desire to produce table fowls, birds that have large bodies capable of carrying an abundance of meat should be selected as breeders. They should be broad and deep-bodied, have good length in both back and breast, with a good broad breast well covered with meat. If eggs are desired, one should produce stock as far as possible from ancestors which have egg-laying records.

Matings should be made at least two weeks before beginning to save eggs for hatching. It is very desirable to mate even longer ahead so that a few eggs may be tried to see what percentage of fertility we have; then if the eggs are not fertile, there is still time to change the male bird and thus insure fertile eggs for early hatches.





TOP cut shows a male of high vitality. Note the sturdy, well-developed, evenly-balanced body. Lower cut is of a male of low vitality. The long legs, undeveloped breast, rounded back, partially grown neck and tail feathers, all indicate constitutional weakness. To use such a male in the breeding pen would result in weakness and susceptibility to disease.—From photographs by M. F. Uphoff.

The size of the breed has a great deal to do with the size of the matings. Under yarded conditions it is safe to run twelve to fifteen females with one male of the lighter breeds, such as Leghorns, Hamburgs, and Minorcas, and from ten to twelve of the heavier breeds, such as Reds and Rocks, and eight to ten Orpingtons, Cochins, and Brahmas. If the flocks have free range it is safe to run four to six more females with one male. It is claimed that with free range one male with thirty to forty Leghorn females is sufficient; Plymouth Rocks on free range, twenty to twenty-five females to one male.

If larger flocks are kept and more than one male is required, it is better to keep one male confined while the other is running with the flock, to avoid scraps, as two fighting males are not as good as one alone.

New Kherson Oats



RUST-PROOF, RIPEN EARLIER

Stiffer straw. Just the oat for the Middle West, where so much grain falls down every year. New Kherson will stand up and carry a heavy head of oats. The biggest yielder we have ever seen.

Get our prices on all field seeds — they are hardy stock bred to fit this western climate.

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Vegetable Seeds—See our catalog for some unusual varieties.

Apple trees 10c each, 1 year from graft or bud. All kinds of Fruit trees, shrubs, garden and flower seeds. Catalog free.

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66 Court St., Beatrice, Nebraska



PLENTY OF VEGETABLES

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WRITE AT ONCE for our Free Seed Book. Seeds of all kinds at reasonable prices. Tested for purity. Cleaned and recleaned.

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Dept. 205 Wichita, Kans.

If pullets are used as breeders they should be well developed and mated to cock birds. I prefer hens as breeders, mated to an early-hatched lively cockerel. The reason I prefer hens to pullets is that they lay larger eggs which seem to be of greater fertility and produce stronger chicks. Yearling and two-year-old hens are best, though any male or female which is extra good and proves to be a good breeder should be kept as long as it proves to be so.

If it is at all possible, the breeding stock should have free range. We provide this during the entire fall and winter before the breeding season. We arrange our yards so we can let each yard have free range a greater part of the time. This insures greater fertility and stronger chicks.

The breeding stock should be watched and examined very closely and kept entirely free from lice and mites. If the birds are overrun with vermin, you cannot expect much fertility. Care also must be taken to keep the male from getting comb and wattles frozen, as this also affects the fertility for some time.

It is also well to examine the male occasionally to see if his crop is full and that he is not growing thin. Sometimes the male is so gallant that he allows the hens to eat all the feed, with the result that he soon gets out of condition. If this happens he should be caught and fed at least once daily separately from the hens. The breeders must be fed to keep them in good condition. Any good ration fed with good results to layers is suitable for this purpose, but it should not be extremely forcing; or, in other words, it should not have a large amount of meat scraps. Do not allow breeders to get excessively fat. All whole or cracked grain should be fed in litter so the birds will be compelled to scratch for it. Unless the flock has access to some green stuff — which is not likely during the early hatching season — it must be fed in the form of sprouted oats, vegetables, or cut clover or alfalfa. And last, but not least, keep plenty of charcoal, grit, and pure, fresh water before them all the time.

If there are any weak points in the cockerel or cock bird, be sure the hens are strong in the corresponding points.—MRS. LIZZIE B. GRIFFITH, Lyon County.

Wonderful Egg Producer

Any poultry raiser can easily double his profits by doubling the egg production of his hens. A scientific tonic has been discovered that revitalizes the flock and makes hens work all the time. The tonic is called "More Eggs." Give your hens a few cents worth of "More Eggs" and you will be amazed and delighted with results. A dollar's worth of "More Eggs" will double this year's production of eggs, so if you wish to try this great profit maker, write E. J. Reefer, poultry expert, 4632 Reefer Bldg., Kansas City, Mo., who will send you a season's supply of "More Eggs" Tonic for $1 (prepaid). So confident is Mr. Reefer of the results that a million dollar bank guarantees if you are not absolutely satisfied your dollar will be returned on request and the "More Eggs" costs you nothing. Send a dollar today or ask Mr. Reefer for his free poultry book that tells the experience of a man who has made a fortune out of poultry.—(Adv.)



Testing Seed Important

MOST important is the work being done in the seed-testing laboratory of our Agricultural College. Few people realize the extent to which this work has been developed. Many Farm and Home Week visitors to this laboratory, which is on the top floor of the agricultural building, had their eyes opened to the value of having all seed tested for purity and germination. A demonstration lecture, illustrated with lantern slides, was given during the week by Assistant Professor R. K. Bonnett. In this lecture it was shown most emphatically why all seed should be tested for purity and germination before planting. If the farmer cannot do this himself, he should send the seed to the state experiment station at Manhattan to be tested. It will often save a serious infestation of weeds or a failure to obtain a stand.

It is particularly important that legume seeds he tested because of their size and shape and the tendency for low germination, due to their hard seed coats. Dodder and buckhorn are especially likely to be present in such commercial seeds.

It is generally the best policy to buy high-priced seeds, for they are more likely to be pure and clean. Many farmers make the mistake of buying a cheap grade of seed. Their fields are likely to become infested with many troublesome weeds. Always obtain a sample of seed before purchasing in large quantities and see that it is tested, advised Professor Bonnett.

This seed-testing laboratory is operated for the benefit of all the farmers of Kansas and we would urge our readers to take advantage of the opportunity offered to have samples of seed tested. It is always of the greatest importance to guard against the introduction of noxious weeds, and this year the matter of germination calls for more than the usual amount of attention.

Liming and Fertilizing Paid

The results from liming and fertilizing in tests conducted by the Missouri Experiment Station on outlying experiment fields have shown an average return above the cost of treatment of more than $1,600 during one round of a four-year rotation on 160 acres of land. On certain fields the returns have been much higher. The field at St. James, in Phelps County, for instance, has brought a return from the use of lime and fertilizers during one round of a four-year rotation of corn, soy beans, wheat and clover of $19.60 per acre above the cost of treatment and total cost of production, while on the untreated land the returns have not equaled the cost of production. Likewise, the use of barnyard manure and phosphates has brought a similar return above the cost of treatment and cost of production, during a similar rotation, of $36.84 per acre. Based on 160 acres of rotated land, these returns during a four-year rotation are equivalent to $3,136 for the lime and fertilizers and $5,894 for the manure and phosphates.

Guard Against Canker Worms

To protect trees from canker worms they should he banded now. The moths emerge on warm days even before winter is over and crawl up the trees and lay their eggs. The trees are damaged by worms or larvæ of this insect, which devour the foliage. The eggs from which these worms hatch are laid in sheltered places on the branches hy the female moths. As these female moths are wingless they must crawl up the trunk of the tree when they emerge from the ground to lay their eggs.

A simple method of protection and one that gives excellent satisfaction in the case of shade trees or a few fruit trees, consists of banding the trunk of the tree with a sticky substance—tanglefoot—to prevent the ascent of the wingless females. The best method is to smear this substance on the bands of heavy paper, such as building or tar paper, bound to the trunk of the tree.

The paper bands should he six inches wide and the tanglefoot smeared around the center. The bands should be put on in the first warm days, and the sticky substance renewed whenever the material hardens. Either cotton should he stuffed behind the hand to close all crevices between the tree and the band or a strip of cotton batting two inches wide — the cheapest grade — should be placed around the tree and covered with the hand of tar paper. The paper should be drawn snugly enough to press the thick hand of cotton into the crevices.

The hand can he easily fastened at the end with three sharp-pointed tacks three-fourths of an inch long. If the paper is much wider than the narrow cotton onc it will completely cover it, and thus avoid the unsightly appearance of cotton showing either above or below the edges of the paper. A number of substances of a sticky nature may be used, such as pine tar, coal tar, printers' ink, and dendroline, but the best material for this purpose is tree tanglefoot.

These are the instructions given by Prof. G. A. Dean, entomologist of the Kansas Experiment Station.

Save Old Seeds

Garden seeds for the coming season are scarce. A recent Department of Agriculture report showed an average shortage of about 40 per cent in the common varieties of garden vegetables, and the price is advanced over last year's prices about 60 per cent. Many gardeners were foresighted enough to save their own seed of some kinds of vegetables last summer, and these growers are indeed fortunate. Some bought more seed than they needed last year, and have considerable amounts left over. In view of the scarcity of new seeds, the left-overs may be very useful. Although it is usually advised to get fresh seeds each year, this is not at all necessary with many garden vegetables, which retain viahility for several years if stored under fairly good conditions.

The following list shows the number of years which seed of some vegetahles will retain their vitality: Beans, three; beet, six; cabbage, five; carrot, five; celery, eight; cucumber, ten; eggplant, six; lettuce, five; melons of all kinds, five; okra, five; parsley, three; pea, three; pepper, four; pumpkin, four; radish, five; spinach, five; squash, six; tomato, four; turnip, five. Seed of other vegetables not mentioned here are short-lived, and should never be carried over more than two years. Since seedsmen often carry their seed stocks over one or two seasons, it may not always be safe to count on the full life of seeds as mentioned. Then, too, the older seeds may be somewhat weaker, and therefore should be sowed thicker and more carefully than fresh seeds. However, old seed is valuable this year, and every one who has any should at least test it before ordering a fresh supply. In some cases such as cucumbers, older seed is thought even better than new stock.

Due to extreme dry weather which prevented seeding, Kansas and Oklahoma show a reduced acreage of winter wheat, according to a report just issued by the U. S. Chamber of Commerce. In Missouri and southern states as far as Southern Georgia the acreage is greatly increased. The U. S. Department of Agriculture estimates the total acreage of winter wheat as 4 per cent more than that of last year.

Buy Spraying Materials Early

Organized action is necessary on the part of users of arsenicals and other spraying materials. Delay until the spraying season is on will more than likely result in failure to obtain the needed supply. Retail quotations on arsenicals are now ranging from 50 to 100 per cent above last year's prices; and it is difficult to predict what the situation may he next spring.

Government control of the price and distrihution of certain or all spraying materials is possible and may be necessary to insure the supply. The output of arsenic, in particular, is limited and precaution must necessarily he exercised in the utilization of the available supply.

Co-operative buying within and between communities where fruit, truck and other crops which need protection against pests are grown, will do much to control prices and insure timely delivery. If the needs of a single community are not sufficient for quantity shipments, two or more communities on the same line of railroad may co-operate to advantage.

Conservation of foodstuffs is becoming more important daily. Spraying is conservation. Immediate action will insure orchard and truck crops against preventable loss.



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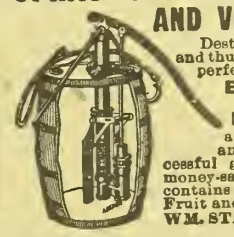
Destroy the fungi and worms, and thus be sure of large yields of perfect fruit.
Excelsior Spraying Outfits and Prepared Mixtures
are used in large orchards and highly endorsed by successful growers. Write for our money-saving catalog, which also contains a full treatise on spraying Fruit and Vegetable crops.
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Win the War by Preparing the Land Sowing the Seed and Producing Bigger Crops

Work in Joint Effort the Soil of the U. S. and Canada—Co-operative Farming in Man Power Necessary to Win the Battle for Liberty.

The Food Controllers of United States and Canada are asking for greater food production. Scarcely 100,000,000 bushels of wheat can be sent to the allies overseas before the crop harvest. Upon the efforts of the United States and Canada rest the burden of supply.

Every Available Tillable Acre Must Contribute; Every Available Farmer and Farm Hand Must Assist.

Western Canada has an enormous acreage to be seeded but man power is short, and an appeal to the United States allies is for more men for seeding operations.

Canada's Wheat Production Last Year was 225,000,000 Bushels; the Demand from Canada Alone, for 1918, is 400,000,000 Bushels.

To secure this she must have assistance. She has the land but needs the men. The Government of the United States wants every man who can effectively help to do farm work this year. It wants the land in the United States developed first of course; but it also wants to help Canada. Whenever we find a man we can spare to Canada's fields after ours are supplied, we want to direct him there. Apply to our Employment Service, and we will tell where you can best serve the combined interests.

Western Canada's Help Will Be Required Not Later Than April 5th. Wages Competent Help, $50 a Month and Up, Board and Lodging.

Those who respond to this appeal will get a warm welcome, good wages, good board, and find comfortable homes. They will get a rate of one cent a mile from Canadian boundary points to destination and return.

For particulars as to routes and places where employment may be had, apply to

U. S. Employment Service, Dept. of Labor.

STRAIT ENDLESS CHAIN TREAD TRACTOR

For the Average Farm
Kerosene burner, 30-h.p. motor. Heavy duty transmission. Tracks case hardened and durable.
Built in Larger Sizes Also.
Gives excellent satisfaction.
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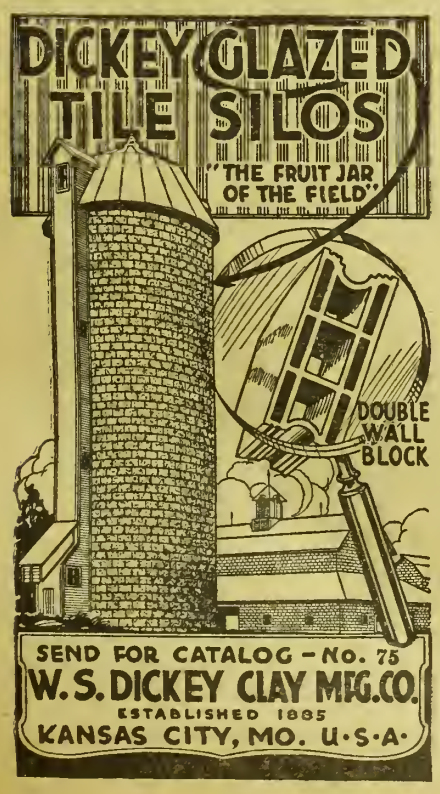
We have been building them since 1911.





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"I know what will change mother's mind"

—nothing has solved household problems like Calumet Baking Powder. It has brought happiness into millions of homes—made expert cooks of millions of housewives who never had much bake day "luck."

Its unequalled leavening and raising powers mean big, tempting bakings. The never-varying quality of its wonderful ingredients means the same good results *every* bake day.

Calumet saves you money because it's moderate in price, goes farthest, eliminates failures and waste. It's pure in the can—pure in the baking—and the favorite in millions of homes.

Received Highest Awards

New Cook Book Free—See Slip in Pound Can.

SCHOOLS AND COLLEGES

BETHANY COLLEGE LINDSBORG, KS.

Business course prepares for government positions guaranteeing $900 annually. Expenses low. 814 students from 16 states. For catalog write PRES. E. E. PIHLBLAD Lindsborg - - - Kansas

Strickler's Topeka Business College

Banks And Railroads Demand Our Graduates

Graduates guaranteed positions and furnished employment to defray expenses while attending.

119 East Eighth St., Topeka

An article on "Conveniences for Children," by Margaret A. Bartlett in the Nebraska Farmer, closes with these pertinent words: "In your search for conveniences for your children don't make the mistake of becoming a convenient mother, one who can be left to do all the disagreeable tasks, the clearing up after play, and the caring for clothes. Teach self-reliance and ability, carefulness and orderliness, not only by your own example, but by little aids carefully planned to help the small worker and make more pleasant his daily tasks."

Mother Goose Revived

Hear! Hear!
The germs are near;
Pneumonia taints the breeze.
It enters and grows
In the mouth and the nose,
And spreads through a cough and a sneeze.
—Texas Bulletin.

Noah was six hundred years old before he knew how to build an ark—don't lose your grip.—ELBERT HUBBARD.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

A War Prayer

Keep, we pray, their footsteps
Father, we beseech Thee,
Guard our boys tonight.
Keep, we pray, their footsteps
On the paths of right.

We have sent them gladly,
For the fight is just,
Yea, their cause is holy,
Glorious their trust.

Hold their fates, O Father,
In Thy wondrous hand;
Bring them back, if may be,
Back to grace our land.

For we loved them dearly
But our path was clear;
Honor bade us send them,
Father, be Thou near!

But if they must leave us,
If it be Thy will,
Father, we implore Thee,
Guide and guard them still.
—James Waterman in Farmers' Review.

Directing Childish Energy

The problem of wisely directing childish energy is ever present with the mother of small children, and is especially difficult during the winter when the children must be in the house almost all of the time. In one article of the series on training little children issued weekly by the United States Bureau of Education, Mrs. Elvira Hyatt, who has worked with children as a kindergarten teacher and later as a mother, makes the following remarks on this subject:

"One of the first problems which confronts the mother is the unceasing activity of her small children. From the moment they can creep they are 'doing something' every minute of the day. We simply cannot bid these restless creatures keep still, for activity is the law of growth. Instead, we must learn to keep them busily and happily employed, and to substitute right activities for wrong ones. Constant repression makes a restless and unhappy child. We must learn to recognize abundant energy as good, and to turn it into right channels. It is not enough to say, 'Run away and play,' but a definite occupation should be suggested. The positive, upbuilding method is to say, 'Do this,' instead of "Don't do that,' and if one form of employment must be taken away something else should be suggested.

"The child can begin very early to reason for himself in small things; later the moral fiber must be developed which will enable him to choose to do the right thing within himself. A desire for right conduct must be awakened. The will does not begin to grow until a definite choice can be made. Strong wills are good, and a parent has no more right to break a child's will than to break his arm or leg. Be sure that your request is just and whenever possible avoid a clash of wills. Forced obedience, or obedience gained through fear, weakens the child's will power and fosters cowardice and deceit."

We believe that mothers will agree that Mrs. Hyatt's suggestions are psychologically correct, but we wonder if definite suggestions regarding ways of keeping the little ones "busily and happily employed" would not be helpful. We would be glad to have any of our readers write us about some of the occupations they have found for the restless little hands during the winter days and the long evenings before even an early bedtime.

Valuable Pamphlets

Copies of pamphlets dealing with health problems of the rural schools prepared by a joint committee of the National Council of Education of the National Education Association and of the Council on Health and Public Instruction of the American Medical Association have recently been received at this office. The first pamphlet report of this joint committee is entitled, "Minimum Health Requirements for Rural Schools." Seven hundred and fifty thousand copies of that eight-page report have been printed through the generosity of the Elizabeth McCormick Memorial Fund of Chicago, and most of these have been distributed throughout the country by the United States Bureau of Education. A moderate number of copies of that report are still available and these may be obtained from the United States Bureau of Education in Washington, D. C.

This first report deals mostly with the sanitary surroundings of the school child in the country. Minimum sanitary requirements for rural schools are proposed for the purpose of helping to establish a standard of fundamental health essentials in the rural schools and its material equipment, so that attainment of this minimum staudard may be demanded by public opinion and by educational authorities of every school in the country.

The second report of the committee is entitled "Health Essentials for Rural School Children," and contains information intended primarily for present and prospective rural school teachers, supervisors and superintendents. Something of the scope of this pamphlet is seen in the announcement of its purposes made by the author: "To state the health conditions of rural school children at the present time; to propose and recommend the practical measures which seem necessary and possible for the health and care of children in country schools; to report praiseworthy efforts which are now being made in a few instances to provide for health care of rural school children which may result in giving to rural school children at least as much health care as is provided for children in the cities."

"Health Charts" is the third pamphlet issued by the committee. This contains illustrations of charts which have been prepared and made available for use when desired, both in rural schools and city schools or communities. These health charts are intended to present important facts and beliefs affecting particularly the health of the school children and the health conditions of the schools. They are intended for display in school buildings, at teachers' conventions, at state and county fairs, and at health conventions or meetings of any kind where may be gathered together people who are interested in health conditions of our rural schools. For this latter pamphlet illustrating fifty-two charts a charge of 10 cents is made, and for the individual charts—22 x 28 inches, printed on thin, durable white paper of good quality—25 cents each. The charts and chart pamphlets may be ordered directly by addressing the American Medical Association Press, 535 North Dearborn Street, Chicago.

We are glad to call the attention of our readers to these pamphlets because we believe them to contain valuable material on a subject which has not received the attention it deserves. We wish that every teacher and every school board might secure copies of the first two pamphlets mentioned, while it seems to us that some of the charts illustrated in the third could be profitably used by school superintendents.

A feeling of monotony is a bad symptom. The Creator did not mean that we should ever be anything but alert and interested and growing.—J. M. STIFLER.

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DON'T *let cheap* PREMIUMS BLIND YOU *to coffee Quality*

WHEN you buy good coffee don't expect to get a premium. The cost of a premium always comes out of the quality. We *could* give a premium with Golden Sun Coffee, but the price would have to be increased. You would get a better premium at the 10-cent store, anyway. Golden Sun is chaffless, dustless, extra-strength. Makes more cups to the pound—each cup of delightful flavor, clear in color and free from bitterness. Sold only by grocers.

Golden Sun Coffee



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Real Estate For Sale

COLORADO LAND BARGAIN

Dry goods merchant owns 3,000 acres choice land in the wheat and corn belt of Eastern Colorado. An ideal location for cattle, sheep, or hog raising. Fine proposition for some hustling farmers who are tired of paying rent and sick of working for the other fellow. I own the land and will let the right fellows in on a good deal. Write me.

C. E. MITCHEM, Harvard, Ill.

Creamed Rabbit on Biscuit

Clean and cut into joints a young rabbit. Soak in slightly salted water for an hour or more. Roll in flour and brown in a frying pan with just a little fat. When nicely browned on both sides add a fourth of a medium-sized onion to each pound of meat, pour in a little water, cover tightly, and cook until tender. Then remove meat from bones and cut it into small pieces. Add milk to the water in which the rabbit was cooked, and thicken to make a thin brown sauce, or gravy. Add the chopped meat, and pour over hot biscuits broken apart.

Make yourselves nests of pleasant thoughts, bright fancies, satisfied memories, faithful sayings, treasure houses of precious and restful thoughts, which care cannot disturb, nor pain make gloomy—houses built without hands for our souls to live in.—JOHN RUSKIN.

He spent his health to get his wealth,
And then with might and main
He turned around and spent his wealth
To get his health again.
—Bulletin Kansas Board of Health.

A New Crochet Book—Yokes



Crocheted camisole, gown, and corset cover yokes. A collection of pretty patterns with illustrations and complete instructions. In ordering be sure to ask for Book No. 7. Price, postpaid, 10 cents.

FANCY WORK DEPT., KANSAS FARMER, Topeka, Kansas.

Twilight Animal Stories

Bumper The White Rabbit

By George Ethelbert Walsh

(Copyright, 1917, by George E. Walsh)

STORY XI—BUMPER MEETS A FOX

WHEN the White Rabbit hopped ashore from his raft, he was so happy that he gave the board a kick with his hind legs, and sent it spinning far out into the stream. He supposed that he was all alone, and no one had seen him land, but he was surprised when a voice near him cried out:

"Look out! What are you trying to do?"

There was a flop in the water, and when Bumper turned he saw a queer looking fish swimming toward the shore, using his hind legs instead of fins to propel him along. He had big, staring eyes, and a green head, with white under his throat.

"That's what I call a mean trick!" the swimmer added, hopping upon a lily-pad, for it was Mr. Bull-Frog that Bumper had mistaken for a queer fish. "You upset me from that leaf and disturbed my sleep. If I hadn't been an excellent swimmer I should have been dead by this time."

"What did I do?" asked Bumper, in surprise.

"What did you do?" was the indignant retort. "What but push that board against my lily-pad and knock me in the water! I call that doing a good deal."

Bumper was inclined to laugh at the angry Bull-Frog, who was swelling up to twice his usual size and puffing out his cheeks; but he refrained from this when he realized that he had unintentionally disturbed the frog's noonday siesta. So he answered in a friendly way, hoping to pacify his feelings.

"I'm sorry, Mr. Frog, but I didn't see you on the lily-pad. The fact is, your head is exactly the color of the lily-pad, and no one could distinguish it a few feet away. What a lovely green it is, too—your head, I mean."

Mr. Bullfrog was apparently as susceptible to flattery as Mr. Crow, and his ruffled feelings began to subside. "Yes, I fancy it is a pretty green," he said. "I've always heard that the lily was the prettiest of flowers, and that's why my family is attracted by it. Would you like to sun yourself on one of these pads? They're very soft and cool."

"No, thank you," laughed Bumper. "I'm afraid I'd get my feet wet. Besides, I'm desperately hungry. If you don't mind I'll eat some of these delicious leaves and grasses."

"Go ahead. I don't mind. But I can't see what you like about them to eat."

"Neither can I see why a frog likes flies and insects. Ugh! The thought of eating them makes me sick."

"Well," remarked Mr. Frog, "I suppose every one to his taste. As for me, I prefer flies and worms, and—"

He stopped suddenly, and looked through the low brush into the woods back of the river front. Bumper was so busy filling his little stomach with green, succulent things that he scarcely noticed the other's hesitation.

"—and," continued Mr. Frog, after a pause, "some animals prefer eating rats, lizards, toads, and rabbits."

"Rabbits!" excialmed Bumper. "Who eats rabbits?"

"Mr. Fox for one," answered the Frog, "and if my eyes don't deceive me there's one in the bushes waiting to eat you. If you'll excuse me, I'll take a dive. I've known Mr. Fox to eat frogs when he was very hungry."

There was a flop in the water, and the bull-frog disappeared from sight. Bumper reared up on his hind legs and looked around him. He had never seen a fox, but his mother had often told him tales about their cruelty. They were forever hunting little rabbits to eat, and they were as sly and cunning as they were barbarous.

Bumper's quick eyes caught sight of Mr. Fox hiding in the bushes, and, for a moment, his heart beat a loud tattoo. What was he to do? Jump back in the river and try to swim across to the opposte shore, or face the fox and try to escape from him by running?

The woods were very thick all along the river's bank, and there were many good hiding-places; but Mr. Fox stood ready to head him off either way he ran. Bumper was in a quandary just what to do.

"Good morning, Mr. Fox!" he called, hoping to gain time by being polite and friendly.

Mr. Fox sniffed the air, raising his nose several inches above his head. He seemed quite uncertain about something, but his nose apparently satisfied him.

"Good morning," he answered finally, grinning. "But what a joke you played on me, Mr. Rabbit. I couldn't believe my own eyes. What's happened to you?"

"Why, nothing," stammered Bumper, mystified. "Whf do you ask such a question?"

"Why? Because you're all white. I thought first you were a ghost. And your eyes—they're pink. Whoever heard of a white rabbit with pink eyes?"

Bumper was quick to see the cause of the fox's surprise. Like the crow, he had never seen a white rabbit before, and he suddenly gained confidence by this knowledge.

"How do you know I'm not a ghost?" he answered, smiling.

"How do I know? Ha! ha! That's a good one! But I'll tell you how I know. I smell you. No ghost could have that delicious rabbit smell that fills my nose every time the wind blows toward me."

Bumper, for the lack of any words to say, laughed long and hard at this remark. Then he controlled himself, and added: "I wouldn't trust my nose, Mr. Fox. A rabbit's ghost might smell just as sweet and delicious as a real one."

"I don't believe it," grinned Mr. Fox. "Anyway, I'm going to find out. If you're a ghost, why, it will be easy enough for you to disappear."

"Yes, of course, but I should hate to disappoint you. Now, do you know where rabbits go when they die?"

"Yes, in my stomach."

Mr. Fox laughed long and loud at this cruel joke, and Bumper winced; but he was playing for time to think of a plan to escape. Evidently Mr. Fox was not to be outwitted by flattery, and he determined upon another ruse.

There was a fallen tree near him, but to reach it he would have to advance a few feet straight toward the fox. The heart of the tree was rotten and hollow, and to escape in this was Bumper's design. But how to distract Mr. Fox's attention until he could reach it was the question.

"Oh, Mr. Fox," he said suddenly, "I met Mr. Crow on the river, and he asked me about the white crows in the city. When I told him, he flew away to the city to see if living there would turn him white. That's a joke on Mr. Crow all right, isn't it?"

"Yes—but are there white crows in the city?"

"There are white rabbits. Then why not white crows, and white foxes?"

"White foxes?"

"Yes, why not? Didn't you ever see one?"

"No, but I've heard of them, it seems to me, but they live way up north, don't they?"

"If you want to see one now," continued Bumper, "look at the sun for ten seconds, and sneeze twice, and then—"

"What then?"

"Do as I tell you, and then I'll tell you the rest."

Mr. Fox, after all, was a little vain, or at least very curious, and this strange proposition interested him. He raised his head, and looked straight into the blinding sun.

"Now, count—one, two, three, four, and sneeze," added Bumper.

No fox can look hard at the sun long without sneezing, and after counting six this one nearly sneezed his head off. That was what Bumper was waiting for. He made a dive for the hollow tree, and got inside of it. When Mr. Fox reached the log, and found the hole too small for him, he was quite mad, and said: "I'll make you pay for that trick some day, Mr. Rabbit."

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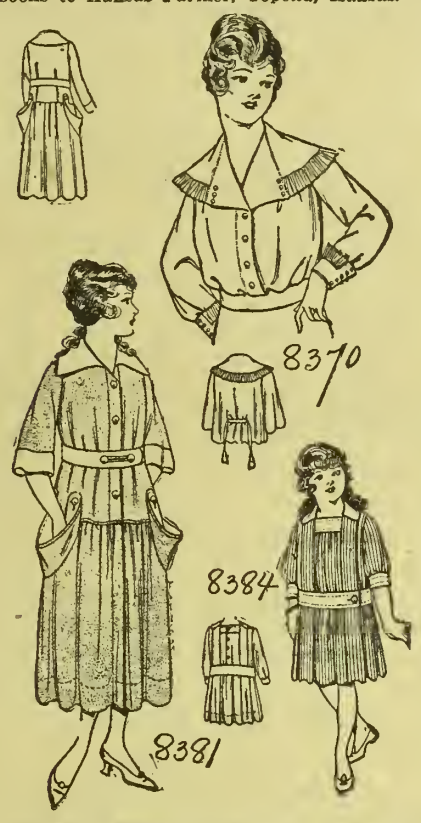

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The method of making butter go farther described in the following paragraph is recommended for home use in the interests of economy and conservation of fat. It yields a product which has a sweet taste resembling that of fresh country butter. We would advise the preparation of only a small quantity at one time so that it will always be fresh and sweet. Of course the addition of the milk, containing as it does 87 or 88 per cent of water, lessens the food value and the product could not be sold commercially as butter.

To each pound of butter use the following: One pint of rich milk, one tablespoonful of gelatin, one tablespoonful of salt. Cream the pound of butter as for cake, squeezing it through the hands. Dissolve the gelatine in a little of the milk. Heat balance of milk to boiling point, then pour over the gelatin as for pudding. Stir until thoroughly mixed. When about lukewarm — as warm as new milk — pour slowly over the creamed butter to which has been added the salt. Beat with an egg beater until well mixed, smooth and thick. The result will be two and one-quarter pounds of war butter. Take a spoon and ladle the mixture out into a plate or other dish. As you do this, each spoonful will set, piling up into firm butter.

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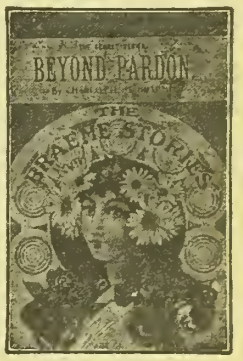

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Corn and Bran for Hens

Bran and corn should be the basis of poultry feed, in consideration of present prices, suggests N. L. Harris, of the Agricultural College poultry plant. As the prices change it may be possible to feed profitably more oats, provided they are of good quality. They should be used extensively for sprouting to furnish the green feed for the winter egg production.

A small amount of oil meal, cottonseed meal, and beef scrap should form part of the ration. In consideration of present prices probably as good a ration as can be fed consists of cracked corn scattered in dry litter in the morning, a bran mash at noon, and a small amount of shorts, cottonseed meal, and beef scrap. If it is desired the mash may be fed dry and the chickens permitted to eat all they desire throughout the afternoon. At night during the cold weather give them all the shelled corn they will eat. The more corn they can be induced to consume, the cheaper will be the ration.

As the prices vary this ration may be changed to maintain as low a feed cost as possible. With eggs at the prevailing prices there is still a margin of profit to be made from poultry, provided there are no losses from imperfect feeding or waste of grain.

Breeding stock should be retained until spring, when a large hatch will be desirable because of shortage of stock. Future results should be considered rather than immediate profit.

Prices of Setting Eggs

With fresh eggs for market bringing almost five cents apiece, breeders having good pure-bred stock can hardly afford to sell hatching eggs for the same old prices. Laying stock is scarce and feed is high, and it costs more to produce eggs than ordinarily.

Breeders probably will not raise their prices in proportion to the increased price of market eggs, but somewhat higher prices for hatching eggs must be expected. People needing eggs for setting will recognize this fact and not find fault with breeders because they cannot buy fertile eggs for five or six dollars a hundred, as many have been able to do in the past.

Poultry Breeding "Don'ts"

Don't breed from all the hens you have, unless you have all strong, healthy, vigorous stock. Select the best you have for breeders.

Don't breed from any male or female that has ever been seriously sick.

Don't breed from immature pullets or pullets that have been laying only a few months.

Don't breed from hens or pullets that have been forced for egg production in winter.

Don't breed from pullets at all if you can use hens instead.

Don't use a general-purpose cockerel that is immature or less than about ten months old, or a Mediterranean-class male less than nine months old.

Don't force the hens before or during breeding season.

Don't neglect to feed green food and sprouted oats.

Don't expect a lazy, shiftless, unnaturally-fed hen to produce strong, vigorous chicks.

Don't forget that the male is more than half the flock. — Poultry Department, University of Nebraska.

One of the simplest ways to keep buildings in good condition is to make free use of the great preservative, paint. Some prefer to paint in the spring, others in the fall, but the advisable plan is to paint whenever and wherever necessary. Any good paint will do, though care should be taken not to use interior paint for exterior purposes and vice versa. Plenty of elbow grease should be applied to insure a thorough rubbing in of the paint.

Hatch your chicks earlier, thereby getting matured birds. The mature pullet lays the most eggs.

Are you doing your share to encourage the production of 6,500,000,000 pounds and eggs that will be needed next season?

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

HELP WANTED.

WANTED—ACTIVE MEN WITH FARMer acquaintances to sell pipeless furnaces. Splendid line. Good proposition to offer. Richardson & Boynton Co., 171 W. Lake St., Chicago, Ill.

WANTED—YOUNG MAN WITH ONE OR two years' experience in printing office. A good chance to finish trade in a large shop and receive machine instruction the last three months. Give experience, wages expected, and when you can come. Address B. W. R., care Kansas Farmer, Topeka, Kan.

WANTED IMMEDIATELY—FARMERS, men-women, 18 or over. Thousands government war jobs. $100 month. Easy clerical work. Common education sufficient. Write for list positions. Franklin Institute, Dept. M-82, Rochester, N. Y.

SEEDS

CHOICE RECLEANED ALFALFA SEED, $10 per bushel. Samples free. F. J. Bartel, Route 8, Topeka, Kansas.

FOR SALE—BY GROWER, SCHROCK Kafir Seed. Write for sample and prices. James D. Wilson, R. F. D. Parsons, Kansas.

WHITE SWEET CLOVER AND ALFALFA at farmers' prices. John Lewis, Madison, Kansas.

ALFALFA SEED FROM NORTHWEST Kansas, 95% pure; good germination; $7.50 per bushel. Order early. Freight will be slow. Geo. Bowman, Logan, Kansas.

WE ARE BUYERS OF FIELD SEEDS: Alfalfa, sweet clover, cane, millet, kafir, sudan. Write and send samples. Mitchelhill Seed co. St. Joseph, Mo.

SEED CORN—BOONE COUNTY WHITE, Gold Mine, Big Calico, $3 per bushel. Alfalfa seed, $11. Red Texas seed oats, $1. J. F. Feigley, Enterprise, Kansas.

TEXAS RED RUST-PROOF SEED OATS, $1 per bushel, sacks free. My oats have taken first premium at Muskogee State Fair for last two years. J. C. Starr, Vinita, Oklahoma.

REAL ESTATE.

I HAVE TWO EXCELLENT WHEAT and alfalfa farms for sale at a bargain. C. R. Cantrall, Fredonia, Kansas.

TEN NICE BUILDING LOTS. TOPEKA Suburbs $150 each. Or will trade all or part for live stock. J. R. Cunningham, Route 2, Argentine, Kansas.

FOR SALE OR EXCHANGE FOR OTHER stock or land, one imported steel-gray Percheron stallion, weight 1,900, six years old; one black Missouri jack, fifteen hands high, weight 1,000, six years old; both sound and right. Want to dispose on account of other business. M. C. Pollard, Carbondale, Kan.

FARM LANDS.

YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements, or ready made farms. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

WANTED—TO BUY.

WANTED—TO BUY SMALL TRACT IN Stafford County or adjoining counties. N. C. Dewey, Stafford, Kansas.

SITUATION WANTED.

EXPERIENCED MAN WANTS WORK ON a farm by year or month. Address Coda Blair, Arno, Mo.

AUTO TIRES.

TIRES — FORD, $6.50. LARGER SIZES equally low. "Wear like iron." Booklet free. Economy Tire Co., Kansas City, Mo.

THE STRAY LIST.

TAKEN UP—ON NOVEMBER 1, 1917, BY John Holstein, Whitewoman Township, Wichita County, one red steer, four white legs, white tail, horns, about three years old, no marks or brands. Dean Trueblood, County Clerk, Leoti, Kansas.

TAKEN UP—BY SAMUEL MINGER, OF Washington Township, Nemaha County, Kansas, one red calf, six months old, no marks or brands. Appraised at $20. W. L. Kauffman, County Clerk, Seneca, Kan.

TAKEN UP, JANUARY 4, 1918, BY C. Hannaman, Edwards Township, Wichita County, red whiteface steer about two years old, brand looks like a 4 on right hip. Left ear split. Dean Trueblood, County Clerk, Leoti, Kansas.

PATENT BOOK SENT FREE TELLING how we protect and help market your invention. Also bulletins listing hundreds inventions wanted. Send sketches for free opinion. Lancaster & Allwine, 463 Ouray Bldg., Washington, D. C.

WHEN WRITING TO ADVERTISERS MENTION KANSAS FARMER

CATTLE.

FOR SALE — A FEW VERY CHOICE Holstein calves, either sex. Prices reasonable. Ernest Dutcher, Whitewater, Wis.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

REGISTERED GUERNSEY BULL READY for service. A show bull combining large producing blood from both parents. J. W. Marley, Oswego, Kansas.

FOR SALE — A RED POLLED BULL, calved March 8, 1913. There are very few better bulls in the state. Geo. Haas, Route 6, Lyons, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

VIOLINS.

VIOLIN FOR SALE—HAS SWEET TONE. Free trial. Easy payments if wanted. Write Miss Bertha Mardiss, Route 5, Rosedale, Kansas.

TOBACCO.

LEAF TOBACCO — KENTUCKY'S BEST, chewing and smoking, three years old. Three pounds, $1.25; seven pounds, $2.50, prepaid. Special price on large quantities. S. Rosenblatt, Hawesville, Kentucky.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

COLLIE PUPS OF BEST BREEDING.—E. L. Dolan, Route 2, Platte City, Missouri.

AIREDALES AND COLLIES—GREATEST of all pups. Grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

TANNING.

LET US TAN YOUR HIDE: COW, HORSE or calf skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

FARM AND HERD.

C. E. Diffenbaugh, of Clear View Hereford Farm, Talmage, Kansas, reports his Herefords doing well. His herd is one of the good ones in Kansas and a feature at this time is the choice lot of young stock.

A. J. Erhart & Sons, Ness City, Kansas, have catalogued fifty-five head of Poland China sows and gilts for their public sale to be held at Hutchinson, Kansas, on February 21. These sows and gilts will be bred to such boars as Big Wonder by King of Wonders, his dam being Big Giantess, a line-bred Giantess sow; Big Hadley Jr. by Young Hadley, his dam Tecumseh Girl by Major B Hadley; Long Bob by Big Bob 2d by Big Bob Wonder, this hog being junior champion at the Kansas State Fair, 1917; King Price Wonder by King of Wonders, his dam Big Ben's Giantess by Big Ben; Big Bob Jumbo by Robidoux, his dam being Lady Jumbo's Equal by Long King's Equal.

W. I. Bowman & Co., Hutchinson, Kansas, owners of one of the great herds of Hereford cattle, announce April 2 as the date of their annual spring sale of Herefords. They will catalog a choice offering for this sale to be held at Hutchinson.

John R. Young, Marion, Kansas, has catalogued forty head of registered Shorthorn cows and heifers for his February 15 sale. They comprise thirty-two head that have calves at foot and are rebred or will drop calves early in the spring. They are a useful lot of Scotch-topped Bates-bred milking Shorthorns. They are all bred to a pure Scotch Shorthorn herd bull. Mr. Young is leaving the farm and is selling his entire herd of cattle, including eight head of yearling registered bulls and sixty head of grade Shorthorns that have been carefully bred in the Shorthorn families but cannot be registered. The sale will be held in Marion.

Paul E. Williams, of Marion, Kansas, has catalogued fifty head of Hereford cows and heifers for his February 11 sale. A number of these cows have calves at foot and are rebred to a trio of Hereford bulls, including a Fairfax-bred bull and Buddy L 401252. Twenty-five select bulls will be included, also thirty head of registered range bulls will be offered. The sale will be held in Marion. This will be one of the good lots of Herefords to be sold this year.

This is the time to study spraying. Spraying is serious business and the spraying campaign should be well worked out in advance. Know first what insects or diseases you are going to combat, then get the best materials to meet them and learn when and how best to apply them.

The Kansas National Live Stock Exposition

HORSE SHOW and HIPPODROME

Wichita, Kas. February 25 to March 2, 1918

The

Largest Annual Combination Sale in America

SALE PROGRAM

Tuesday, February 26, at 1 p. m., at The Forum

65 Registered Holstein-Friesian Cows and Heifers, 10 Bulls

Ten A. R. O. cows. Sixteen heifers out of record cows. Five bulls out of record cows. Consigned by Dr. Axtell, W. H. Mott, Standard Dairy Company, and others.

Wednesday, February 27, 10 a. m., at 420 W. Douglas Ave.

60—Hereford Bulls—60 25—Hereford Females—25

The best lot we ever sold. Consigned by D. N. Pike, Josiah Lockhart, J. E. Siebert, Klaus Bros., L. W. Johnson, A. B. Schlickau, Frank Brown, and others.

Thursday, February 28, 10 a. m., at 420 West Douglass

30—Shorthorn Bulls—30 30—Shorthorn Females—30

Sale managed by The American Shorthorn Breeders' Association.

Thursday, February 28, 10 a. m., at 420 West Douglis

Thirty Scotch and Scotch-Top Bulls — Forty Scotch and Scotch-Top Females

We sell fifteen straight Scotch bulls, reds, whites and roans. One white Scotch bull by Woodlawn Villager, greatest son of Imp. Villager. Two cows bred to him. Two Scotch heifers bred to Gloster Cumberland by Cumberland Type undefeated champion. Others equally as good.

Consignors: Theo Martin, Homan & Sons, Ewing & Sons, J. B. Potter, F. S. Kirk, C. H. William, L. E. Wooderson, C. B. Sparks, and others.

Friday, March 1, 10 a. m., in The Forum

Thirty Selected Poland China Bred Sows—Ten Boars

Every animal in this sale is entered in the show. They are not only show hogs, but from the best herds in Kansas, Missouri and Illinois. Sows are bred to such boars as McGath's Big Orphan, champion at Hutchinson and Topeka.

Friday, March 1, 1 p. m., in The Forum

Sixty Standard—Three Coach—Three Saddle Horses—Ten Jacks—Five Jennets

Stallions, mares and colts sired by The Harvester, 2:01; Searchlight, 2:03¼; Iowa Todd, 2:04¼; Bergin, 2:06¼; Peter The Great, 2:07¼; San Francisco, 2:07¼; etc. By far the best lot of trotters and pacers ever sold in Kansas.

Saturday, March 2, 10 a. m., in The Forum

Twenty-Five Duroc Jersey Bred Sows—Five Boars

The entire lot are consigned from the show herd of the Crow Duroc Farm, Hutchinson, Kansas, the largest prize winning herd in America. Every animal is sired by a state fair champion. Five sows bred to Economy II, International grand champion 1917.

Saturday, March 2, at The Forum, at 1 p. m.

Thirty Imported and American-Bred Percheron Stallions
Forty Imported and American-Bred Mares and Colts

The grandest lot of Percherons ever assembled for one sale. Stallions and mares sired by or bred to Carnot, Casino, Jalap, Scipion, Glacis, Kabin, Calypso. Each and every one of them an International or a state fair grand champion.

Five imported mares including the undefeated show mare, Fosephine, bred to Imported Jalap.

Three mares bred to the undefeated world's champion, imported Lagus, including Ruth, undefeated champion, greatest daughter of Imported Casino.

Consignors: W. S. Corsa, J. C. Robison, Ira Rusk, F. M. Giltner, Branson & Son, R. A. Coffman, and others.

Separate Catalog for Each Breed Mailed Free. Write for the One You Want.

F. S. KIRK, Superintendent of Exhibits and Sales, Box 523
ED. F. McINTYRE, General Manager

Wichita, Kansas

HOLSTEIN CATTLE.

Does an Increase of 85 Per Cent in Feed Prices Interest You?

Careful experiments have shown that the average dairy cow uses only 35 per cent of her feed for milk production and that a good dairy cow turns 65 per cent of her feed into milk, or, in other words, you can sell your feed for 85 per cent more to a good cow than to the average cow. This means that if the average cow pays $1.40 for corn and $28 for alfalfa, the good cow would pay $2.60 for corn and $52 for hay.

Labor can be used more than twice as efficiently on good as on average cows. Hence with prices of feed and labor soaring GOOD COWS ARE AN ECONOMIC NECESSITY.

The net profit from a good cow is often more than the gross income from an average cow. Net income is what counts. We have no barn room for the cow that merely pays expenses or just a small profit. Every cow is making good. We have a few choice bulls from these heavy producing registered Holstein cows that will sire profitable cows. Their dams have good official records and we will sell them right. Ask us about them.

A. S. Neale - 1642 Fairchild Ave. - Manhattan, Kansas

SAND SPRING HERD



The real test of a cow's profit and producing ability is the long distance record. For instance our cow, Cornucopia Johanna Beets No. 139440, produced in twenty-four months 36,000 pounds milk, 1,324 pounds butter, one bull and a pair of twin heifers, and still milking forty pounds daily. This is the kind we back on. Our bulls are all gone. No females for sale. We would like to buy a few young registered cows. We have lots of faith in the Black and Whites. Visitors welcome.

E. S. ENGLE & SON - - - - ABILENE, KANSAS

CLYDE GIROD, At the Farm — F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd.

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

STUBBS HOLSTEIN FARM

FOR SALE—YOUNG BULLS READY FOR SERVICE
Sired by Gem Pietertje Paul De Kol 3d

He has twenty-eight A. R. O. daughters, two with records above 29 pounds in seven days, four with records above 750 pounds butter in one year. The dams of bulls are large, typy, high producing cows. Some with A. R. O. records, others to be tested soon. All tested and guaranteed.

Write or Come and See Us.

STUBBS HOLSTEIN FARM, Mulvane, Kan.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Heilo No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.
H. B. COWLES, 608 Kan. Av., Topeka, Kan.

HOLSTEIN CALVES

We offer for sale choice, beautifully-marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated f.o.b. cars: One to two weeks old, $15 each; two to three weeks old, $17 each; five to six weeks old, $20 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

REGISTERED HOLSTEIN BULLS

From A. R. O. cows. All our own breeding. Bred for milk and fat production.

LILAC DAIRY FARM
R. F. D. 2 Topeka, Kansas

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON, KANSAS

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. **Clover Valley Holstein Farm, Whitewater, Wisconsin.**

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wauwatosa, Wisconsin

Oak Hill Farm's

Registered Holstein Cattle

For Sale—Yearling and bred heifers, also young bull calves, mostly out of A. R. O. cows. Perfect satisfaction guaranteed.

BEN SCHNEIDER, NORTONVILLE, KAN.

BONNIE BRAE HOLSTEINS

Young bulls from high producing dams from a splendid son of King Segis Pontiac for sale.

Ira Romig, Sta. B, Topeka, Kas.

CEDARLANE HOLSTEIN HERD

Four-year-old grandson of Pontiac Korndyke. Guaranteed sound and a sure breeder. Average record dam and sire's dam, 29.4 pounds in seven days. Special price on bull calves from above bull. Also several good cows. **T. M. Ewing, Independence, Kansas.**

HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment. **Edgewood Farms, Whitewater, Wisconsin.**

Segrist & Stephenson, Holton, Kan. Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

AYRSHIRE CATTLE.

AYRSHIRE HERD FOR SALE

Herd consists of 23 cows and heifers
One herd bull and 3 bull calves
Six of the cows from A. R. cows with high records.
The heifers are mostly from these cows. Herd bull richly bred, fine individual and a show bull.
Two bull calves from A. R. cows. Will sell herd bull and cows separate from young stock. All cows and herd bull registered. Young stock registered on request of purchaser. Priced to sell.

DEHNER & GLYNN, Cascade, Iowa.

RED POLLED CATTLE.

RED POLLED BULLS

For Sale—Thirty head coming yearling bulls. Come early and get the best. Our experience has been those that come late found us sold out. Write or come at once.

E. E. FRIZELL

FRIZELL, (Pawnee County), KANSAS

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.

CHAS. L. JARBOE - QUINTER, KANSAS

MULEFOOT HOGS.

KNOX KNOLL STOCK FARM

MULEFOOT HOGS SHORTHORN CATTLE

Registered stock for sale at all times. Am offering some bargains in bred sows, summer gilts and fall pigs. Write for prices and catalog to S. M. KNOX, Humboldt, Kansas.

GROWTHY MULEFOOT HOGS from my State Fair prize-winning herd. Stock of all ages for sale. Prices low. **C. K. THOMPSON, LETTS, INDIANA.**

GALLOWAY CATTLE.

GOOD GALLOWAY BULLS

Twenty-five Extra Good Yearlings

Extra breeding and quality. Priced to sell.

J. M. HILL, SEDGWICK, KANSAS
Route 4, Box 65A

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

HEREFORD CATTLE.

Clear View Hereford Farm

Two bulls, one 2-year-old, one yearling, good ones, sired by Goodiad 405463. Priced to sell. Also twenty-one head of mules from yearlings to 3-year-olds.

C. E. DIFFENBAUGH - TALMAGE, KAS.

Dispersion Sale of

Shorthorn Cattle

AT SALE PAVILION

Marion, Kansas, February 15, 1918



100 HEAD OF CATTLE

Comprising

Thirty-two Head of Registered Cows and Heifers
A number with calves at foot and bred again to a pure Scotch bull.

Eight Head of Yearling Scotch-topped Bulls
Reds and roans, all registered.

Sixty Head of Cows and Heifers
Pure-bred but can not be registered. Several calves at foot and bred to pure Scotch registered bull. Most all the cows are of the Bates families and are the real Milking Shorthorns.

Send for catalog and come to my sale if you want good cattle.

J. R. Young, Marion, Kansas

Auctioneers: Cols. John D. Snyder and J. J. McLinden

Shorthorn Sale at Wichita, Kansas Wed. Feb. 27

At 1 p. m.

Fifty head nearly evenly divided between bulls and females. These have been selected from the leading herds in the Wichita territory and also include a few choice consignments from other sections. This will be one of the most useful offerings of Shorthorns ever made in the Southwest. The sale will be held in connection with the Live Stock Show and will be one of the important features of the occasion.

Shorthorn steers won the grand championship in the carload division at the recent Denver show. A Shorthorn steer was the grand champion at the last International and Shorthorns made the highest percentage of dressed weight of all breeds at the recent International.

The Shorthorn is the breed for you.

For catalogs address

American Shorthorn Breeders' Association
13 Dexter Park Ave.
Chicago - - Illinois
Rank C. Forbes, Sale Manager.
P. M. Gross, Auctioneer.

JERSEY CATTLE.

120 Jersey Cows and Heifers

Pure-bred and high grade. Forty bred yearlings, superior individuals, all from profitable dams, now for sale.

J. W. BERRY & SON, Jewell City, Kansas

Breeders' Directory

ANGUS CATTLE.
D. J. White, Clements, Kan.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.

SHORTHORN CATTLE.

THE SHORTHORN IS THE BREED FOR YOU

Shorthorn steers at the International, Chicago, made the highest dressed weight percentage of any breed. Sixty yearlings averaged 65.3%.

Shorthorn steers were grand champions at Denver, Portland, Salt Lake City and Chicago.

Shorthorn cows are making records up to 17,564 pounds of milk and 569.7 pounds of butter fat per year.

Address Dept. W.
American Shorthorn Breeders' Ass'n
13 Dexter Park Ave. Chicago, Ill.

MARKS' LODGE

Home of Shorthorn Cattle. Reds Exclusively.

A few choice young bulls for sale, from my best milking cows. All registered. Come and see me.

DR. M. F. MARKS, VALLEY FALLS, KAN.

SCOTCH SHORTHORNS

Twelve Choice Bulls, reds and roans, from seven to fifteen months old, sired by such bulls as Pioneer, Excelsior and Mistletoe King. Priced reasonable.

C. A. COWAN & SON, ATHOL, KANSAS.

Cedar Heights Shorthorns

For Sale—Three red bulls, 12 months old. A few cows and heifers. Priced reasonable. Come and see my herd.

HARRY T. FORBES
Route 8 Topeka, Kansas

ALYSDALE HERD SCOTCH SHORTHORNS

Viscount Stamp 2d, Clipper Brawith and Count Valentine in service. Orange Blossoms, Butterflys, Queen of Beautys and Violets. Choice young stock for sale.

H. H. HOLMES, Route 28, Topeka, Kansas

Pearl Herd Shorthorns

Village Heir by Imported Villager and Orange Lovel by Victor Orange in service.

FOR SALE—Fifteen young bulls from 8 to 14 months old, reds, whites and roans. Scotch and Scotch topped. Inspection invited. Can ship on Rock Island, Union Pacific or Santa Fe Railway.

C. W. Taylor, Abilene, Kansas

Scotch-Topped Shorthorns

For Sale—Red yearling Scotch-topped bull sired by Clansman by Lavender Viceroy by Lavender Viscount, dam Rose Campbell by Baron Gold Dust 2d 125435.

VAIL & SCOTT - HARTFORD, KANSAS

CLOVERDALE SHORTHORNS—For Sale, two roan yearling Scotch Shorthorn bulls. Exceptional quality and breeding. Also a few heifers. **Wesley Jewell, Humboldt, Kansas.**

SCOTCH SHORTHORNS

Bettie's Albion 399451 now for sale. Roan, weight 2,000 pounds if fat. Strong breeder. Also six bulls from 6 to 24 months old, reds, whites and roans. Write

C. E. HILL - - TORONTO, KANSAS

DUROC JERSEYS.

TAYLOR'S DUROCS

For Sale—One Missouri State Fair prize winning boar. Seven yearling boars sired by champion boars that are real herd headers. Fifty spring boars that are fine prospects. Write for prices or come and see my herd.

Chas. L. Taylor - Olean, Mo.

DUROC BOARS

Thirty-five spring boars by G. M.'s Crimson Wonder, Crimson Wonder Again Jr., Critic D. and Great Wonder, out of my best herd sows. Priced to sell. Come and see my herd.

G. M. Shepherd, Lyons, Kansas

PURE-BRED DUROC GILTS
Bred to Invader of Idlewild.
W. J. HARRISON - AXTELL, KANSAS

WALNUT GROVE DUROCS
Three 2-year-old sows, bred. Two granddaughters of Defender, four spring gilts bred. One yearling herd boar, extra good. Fifty fall pigs, good ones. One roan six-months-old Shorthorn bull calf.
R. C. WATSON - ALTOONA, KANSAS

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize bear at three state fairs. Special prices on bred gilts and boars from champions, Defender, Illustrator, Crimson Wonder, Golden Model and Critic breeding.
JOHN A. REED & SONS, Lyons, Kansas.

Guaranteed Duroc Gilts

Immune, recorded Duroc gilts with size, bone and length. Guaranteed to farrow. Shipped to you before you pay for them.
F. C. CROCKER, BOX K, FILLEY, NEB.

HAGUE'S DUROCS

Fifteen choice fall boars and gilts for sale, sired by Kansas Pathfinder by Pathfinder. All immune. **K. Hague. R. 6, Newton, Kan.**

WOOD'S DUROCS

For Sale—Choice bred gilts, bred to a son of Great Wonder. Spring boars ready for service. Fall pigs of both sexes at right prices. Come and see my herd.

W. A. Wood - Elmdale, Kan.

POLAND CHINAS.

DEMING RANCH QUALITY

Big-Type Poland China Hogs.

Fifty March boars for sale. All immuned. Bred sow sale February 18. Send for catalog.

H. O. Sheldon, Herd Manager
OSWEGO, KANSAS.

OLD ORIGINAL SPOTTED POLANDS

Stock of all ages, also bred gilts and tried sows, bred, ready to ship. Priced right. Write your wants to
CEDAR ROW STOCK FARM
A. S. Alexander, Prop. Burlington, Kansas

GRAND VIEW POLANDS

Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.
ANDREW KOSAR - DELPHOS, KANSAS

White Oak Park Polands

Have decided not to hold a bred sow sale this year. Will sell a choice lot of tried sows at private sale. This lot will include 600-pound sows and good show prospects. Big high quality fall yearling gilts and choice spring gilts. All bred to Long Big Joe, Missouri Jumbo, Jumbo Giant and Surprise Wonder. Also have some choice September boars. All immune. Write for prices.

Henry Koch - Edina, Mo.

LONE CEDAR POLANDS

A splendid lot of bred gilts sired by Meyer's Orange and bred to Big Chimes, a fine son of Big Hadley Jr. Also two extra good spring boars left.

A. A. MEYER - - McLOUTH, KANSAS

POLAND CHINA BOARS
FOR SALE—Twelve head extra good spring boars, ready for service. Few choice gilts, bred for March litters. Fall pigs, either sex, sired by Big Tecumseh, Orange Wonder, and out of my best herd sows. The best crop of boars I ever raised. Write or come and see me. **E. M. WAYDE, BURLINGTON, KANSAS**

FALL PIGS, ready to ship. Select Spotted breeding. Express paid on pigs.
T. T. Langford & Sons, Jamesport, Mo.

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene, Peabody, Kan.**

MATTOX'S SPOTTED POLANDS—Bred sows, serviceable boars, baby pigs, for quick sale. **H. A. or Paul H. Mattox, Route 2, Burlington, Kansas.**

POLAND CHINA HOGS 150 HEAD IN HERD

Breeding stock for sale. Immune. Satisfaction guaranteed. Come and see me.
V. O. JOHNSON - AULNE, KANSAS

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS
Best breeding, best type. Stock for sale.
GEO. W. ELA, Valley Falls, Kansas

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

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CLAIM SALE DATES.

Jacks and Jennets.
March 4—Bradley Bros., Warrensburg, Mo.
March 26—H. T. Hineman & Sons, Dighton, Kansas.

Holsteins.
Feb. 13—J. W. Myers, Nortonville, Kan.
Feb. 27—W. O. Morrill, Summerfield, Kan.
March 7—C. L. Smith, Lawson, Missouri.
March 26—Kansas Holstein Breeders' sale, Topeka, Kan.
March 27-28—Iowa Holstein-Friesian Breeders' Association. Sale at the State Fair Grounds, Des Moines. F. C. Barney, Secretary, Chapin, Iowa.

Herefords.
Feb. 12—Kansas Hereford Breeders' Consignment Sale at Agricultural College, Manhattan; W. A. Cochel, manager.
April 2—W. I. Bowman & Co., Hutchinson, Kansas.

Shorthorns.
Feb. 15—J. R. Young, Marion, Kan.
Feb. 20—D. E. Reber & Sons, Morrill, Kan.
Feb. 26—H. E. Huber, Meriden, Kan.
April 2, 3, 4 and 5—Shorthorn week, four days' sale; Fair Grounds, Oklahoma City, Okla. Under auspices Oklahoma Shorthorn Breeders' Association, S. B. Jackson, manager, El Reno, Oklahoma. April 2—J. R. Whisler ninth annual Shorthorn sale, fair grounds, Oklahoma City; April 3, Scott & Wolsey Shorthorn sale, fair grounds, Oklahoma City; April 3, 4 and 5, Oklahoma Shorthorn Breeders' Association sales, fair grounds, Oklahoma City. S. B. Jackson, Manager, El Reno, Okla.

Jerseys.
March 26—Stirling Farm Dairy, Des Moines, Iowa. B. C. Settles, Palmyra, Mo., sales manager.
March 30—D. T. McCarthy, Hannibal, Mo. B. C. Settles, Palmyra, Mo., sales manager.
April 30—Ralph Baliou, Paris, Mo. B. C. Settles, Palmyra, Mo., sales manager.

Miscellaneous.
Feb. 25-28.—Kansas National Live Stock Show, Wichita, Kan. Draft, coach, standard-bred horses and jacks; Shorthorn, Hereford and Holstein cattle; Poland and Duroc hogs. F. S. Kirk, sales manager, Wichita.

Poland Chinas.
Feb. 16—Edmund R. Beavers, Junction City, Kansas.
Feb. 16—Wm. Sullinger, Orrick, Mo.
Feb. 18—Deming Ranch, Oswego, Kansas.
Feb. 13—H. L. Faulkner, Jamesport, Mo.
Feb. 19—Fred B. Caldwell, Howard, Kansas.
Feb. 20—B. E. Hodson, Ashland, Kansas; sale at Wichita.
Feb. 21—E. J. Erhart & Son, Ness City, Kansas; sale at Hutchinson.
Feb. 22—F. Ollvier & Son, Danville, Kansas.

Poland Chinas.
Feb. 23—V. O. Johnson, Aulne, Kan.
Feb. 28—Clarence Dean. Sale at Dearborn, Mo.
March 6—J. R. Young, Richards, Mo.
March 15—H. E. Myers, Gardner, Kan.
April 24—Fred G. Laptad, Lawrence, Kan.

Durocs.
Feb. 14—B. R. Anderson, McPherson, Kan.
Feb. 20—W. T. McBride, Parker, Kan.
Feb. 27—R. W. Murphy, Dearborn, Mo.
March 7—W. W. Otey, Winfield, Kansas.
March 8—R. L. Hurst, Bolckow, Mo.
April 24—Fred G. Laptad, Lawrence, Kan.

Bradley Bros., of Warrensburg, Missouri, have announced March 4 for a jack and jennet sale. Bradley Bros. have for years been growing and developing the Giant family of jacks. They have proven the most profitable. They have size and bone with lots of quality. Doctor and Judge Bradley are widely known among jack men. They will catalog for this occasion forty head of very high class jacks, several mature jacks that are fit to head herds. They range in age from yearlings to six years old. Thirty head of jennets will be offered, ranging in age from yearlings to six years old.

The American Shorthorn Breeders' Association will conduct a sale of Shorthorns, Wednesday, February 27, at Wichita, Kansas, in connection with the live stock show. The offering has been selected from prominent herds in the Wichita territory and includes a few outstanding entries from other sections. The purpose is to furnish a class of strictly useful breeding cattle that will work improvement in the herds of the Southwest. As the offering includes a much larger proportion of bulls than usual, it will give an opportunity to farmers and breeders to obtain herd bulls. Rank C. Forbes, representing the American Shorthorn Breeders' Association, will have the direct management of the sale.

Will G. Lockridge, of Fayette, Missouri, has catalogued forty head of very high class sows bred to The Giant and twenty head bred to Joe Junior by Big Joe and Joe Wonder by King Joe's Equal. The attraction of the sale will be ten fall gilts sired by The Giant. This promises to be one of the good sales to be held in Missouri this spring.

The sale of Poland China bred sows of Head & Bridges, St. Joseph, Missouri, January 29, resulted in the disposal of forty-one head at an average price of $268. Notwithstanding the severe cold weather 300 breeders and farmers were present. All were royally entertained at the Wilver Dell farm. The breeding of the premier boar, Buster Over, was a strong factor in attracting representative breeders. Buyers were in evidence from six states. The highest price was $860, paid for No. 1 in the catalog, purchased by Col. R. L. Harriman, of Bunceton, Missouri. This sow was bred to Buster Over for an early March litter.

PERCHERON MARES AND STALLIONS

Thirty Head from Which to Select

Ton mares, big handsome fillies either by or bred to Algarve by Samson. Algarve's colts have great bone and size. His weight is over 2,200 pounds and his get proves beyond doubt his great ability as a sire. A nice lot of young stallions, several coming three-year-olds. Priced for quick sale. Farm four miles east of town. Call on or write

D. A. HARRIS - Route 6 - GREAT BEND, KANSAS



PERCHERONS AND BELGIANS

IMPORTED AND HOME-BRED PERCHERONS AND BELGIANS.
I have a good lot of horses to select from at very reasonable prices. I give a gilt edge guarantee of 60 per cent, good for two years.

Barns Four Blocks from Santa Fe Depot.

W. H. RICHARDS - EMPORIA, KANSAS

EWING BROS.' PERCHERON HORSES, SHORTHORN CATTLE, SHETLAND PONIES AND POLAND CHINA HOGS

FIFTY MARES—Weanlings to mature mares, weighing a ton or more, in foal. Herd headed by Imp. Meknes (106084) 106640, weighing 2,200 pounds.
SEVERAL MATCHED TEAMS—Fifteen head of stallions, from weanlings to six years old. The best lot of two-year-olds we have ever had. The kind to mature into ton horses or better—grays and blacks.
SHORTHORN CATTLE—A few cows for sale. Ten young bulls out of pure Scotch sire ready for service. Herd headed by Village Knight No. 398231 weighing 2,250 pounds and Choice Echo 393419, weighing 2,300 pounds, for sale.
SHETLAND PONIES at very low prices if taken soon—weanlings to broken fillies.
Phone to Ewing Bros., 903A5 or 903A12, Great Bend, or write us at R. F. D. No. 1, Pawnee Rock, Kansas. **EWING BROTHERS.**



FAULKNER'S FAMOUS SPOTTED POLANDS

The World's Greatest Pork Hog., Sells

Wednesday, February 13, 1918, Jamesport, Mo.

In My Annual Bred Sow Sale.

Ask for catalog. Nothing bred sold at private sale. I am still pricing a few good fall pigs.

H. L. FAULKNER, Box K, Jamesport, Missouri

GUERNSEY CATTLE.

GUERNSEY BULLS.
Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to twelve months old. **ADAMS FARM, Gashland, Mo.** 12 miles from K. C.

GUERNSEY BULLS
Three registered Guernsey bulls, 9 to 11 months old, tuberculin tested recently; best of breeding. Cows are good producers. For further information inquire of
FRED WILLE - COLUMBUS, NEBRASKA

Guernsey Cows—A Bargain

$110.00 net profit above feed cost, average in cow testing association for each of the four grade cows I am offering. Here are their records:

Number	Lbs. Milk	Lbs. Fat	Profit Above Feed Cost
1	5,893	312	$101.92
2	6,128	314	104.04
3	7,923	308	98.15
4	7,169	393	135.75

Six years old.
Fresh last October.
Bred to my herd bull.
Dam's A. R. record, 12,187 pounds milk; 625 pounds fat.
Right in every way.
Good foundation stock for business herd.
Only $600.00 for the lot.
Your opportunity is NOW.
FRANK B. YODER
Route 3 South Bend, Indiana

AUCTIONEERS.

Jas. T. McCulloch Live Stock Auctioneer. I make sales anywhere.
Write for date. CLAY CENTER, KANSAS



P. M. GROSS
Live Stock Auctioneer
Twelve years on the block.
Pure-bred sales a specialty. Sales made anywhere.
4230 Paseo
Kansas City, Mo.

Fred B. Caldwell, of Howard, Kansas, has catalogued fifty head of choice sows and gilts for his annual bred sow sale to be held at the farm February 19. The catalogs are out and give a history of the grand champion Poland China boar, Caldwell's Big Bob, and the herd. Mr. Caldwell is one of the progressive breeders of Kansas and is developing and breeding a class of Poland China hogs that are profitable both to the farmer and the breeder.

The Chester White hog sale of Mosse & Murr at Leavenworth, Kansas, on February 2, resulted in disposing of forty-six head, mostly to Kansas farmers and breeders, at an average of $87. A large crowd of representative breeders from Kansas, Missouri and Nebraska were in attendance. The top price, $195, was paid by W. B. Mullin, of Hiawatha, Kansas. Nothing sold high, but the entire offering sold at even prices where farmers and breeders could afford to buy them. The returns from the sale were very satisfactory to both Messrs. Mosse and Murr.

Louis Koenig, of Solomon, Kansas, one of the progressive farmers of that section of the state, is one of the live boosters for improved live stock on Kansas farms. The list of pure-bred stock kept on the Koenig farm includes Percherons, mammoth jacks, Holstein cattle and Duroc hogs. The best of blood lines and individuality has always been Mr. Koenig's motto in building up his herds. Adhering to this policy for years accounts for the high class lot of pure-bred stock now on his farm.

Edmund R. Beavers, of Junction City, Kansas, owner of one of the great Kansas herds of Poland Chinas, has announced February 16 as the date of his bred sow sale. Mr. Beavers has catalogued thirty-eight of choice bred sows and gilts for this sale, sired by such boars as Kansas Giant by The Giant, and Tim's Spot by Big Tim. They are bred to Kansas Giant and A Wonder 2d by Blue Valley Wonder. He will also sell ten choice fall boars.

HORSES AND MULES.



JACKS AND JENNETS

15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.
PHIL WALKER
Moline, Elk County, Kansas

Malone Bros., Jacks and Percherons

We have 2 barns full of extra good jacks ranging in age from weanlings to 6 yrs. old, all over 2 yrs., well broke to serve. Several fine herd headers among them. Also jennets in foal to homebred and imported jacks. A few imported Percheron stallions royally bred. We can deal. Write or call on
J. P. & M. H. MALONE, CHASE, KAN.



PERCHERONS AND JACKS
FOR SALE—Four jacks, two coming three-year-olds, one four-year-old and one ten-year-old. All good size, sound and guaranteed. Will price a few good jennets. Also have five Percheron stallions and a few good mares, priced right. Come and see mo.
M. G. BIGHAM & SON, OZAWKIE, KAN.
7 miles from Meriden, Kan. 10 miles from Perry, Kan. 20 miles northeast Topeka.

Pure Bred Stock for Sale

Pure-bred Percheron stallion, mammoth registered jacks. Pure-bred Duroc hogs, also fine registered Holstein bull calf, born September 9, 1917, nine-tenths white. If you want something good, come and see this stock or write your wants.

Louis Koenig, Solomon, Kansas



Percherons, Belgians, Shires
2, 3, 4 and 5-year stallions, ton and heavier; also yearlings. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.
Fred Chandler, R.7, Charlton, Ia.
Above Kansas City.

Choice Young Belgians, English Shires, Percherons, also Coach stallions, also mares. Many first prizes. Long time 6% notes.
Illinois Horse Co., Good Blk., Des Moines, Ia.

40 **Percheron** Stallions and mares, weanlings up. 20 Mammoth jacks, 10 jennets in foal. Priced reasonable. Al E. Smith Lawrence, Kansas.

POLLED DURHAM CATTLE

TRUE SULTAN POLLED DURHAMS

A few heifers bred or open are offered. Some by or bred to the champion $2,200 True Sultan and Sultan's Challenger.

ED STEGELIN
STRAIGHT CREEK - - - KANSAS

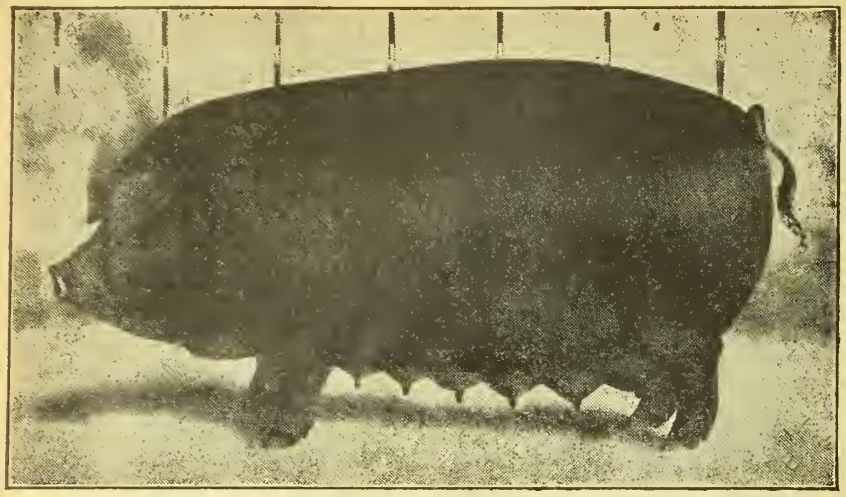
WILD WOOD STOCK FARM

POLLED DURHAM CATTLE
For Sale—Ten bulls of serviceable age, sired by Roan Acacia 9021. Dam, Golden Acacia by Acacia Victor, a double standard bull from D. C. Van Nice herd. Write at once. These bulls will sell.
T. M. ETHERINGTON, Hamilton, Kansas

Polled Durham Bulls

One double standard Polled Durham bull and three Shorthorn bulls 8 to 15 months old. They are real herd headers. All pure Scotch. Priced reasonable. Come and see my herd.

C. J. Wood, Rte. 5, Paola, Kan.



AUCTIONEERS: RULE BROS. AND S. L. JACKSON

Duroc Jersey Bred Sow Sale

Parker, Kansas, February 20

Fifty Head of Bred Sows and Gilts

Most all sired by Parker Wonder, he by Lidore Wonder, and will be bred to H. & B.'s Pathfinder, Golden O'Rion King, Golden Model, and Troutman Cherry King. This is the best lot I have ever offered, and they are bred to the best boars that I ever owned.

I am selling a real herd boar of May 31 farrow, recorded as Red Cross Pathfinder. He is by H. & B.'s Pathfinder and his dam is Golden Critic by Parker Wonder. All over $50 that this pig sells for will be given to the Red Cross.

Catalogs are ready to mail out. Please send for one and arrange to come to my sale. I guarantee a good offering.

W. T. McBride, Parker, Ks.

DUROC JERSEY BRED SOW SALE

At Clay Center, Kansas, February 18th, 1918

FORTY-TWO HEAD BRED SOWS AND GILTS

Consigned by W. W. Jones, A. L. Wylie, R. B. Miller, G. F. Keesecker, Wm. Morrow, A. L. Breeding, and Howell Bros.

The offering is sired by O'Rian Cherry King, Illustrator 2d, Elk Col., Sensation Wonder 2d, and Joe O'Rian 5th, and will be bred to the following boars: Elk Col., King Invincible, Jones O'Rian, Cherry King, Illustrator Jr., and King Col. Everything guaranteed.

Write for Catalog and Send Bids to

W. W. Jones, Sale Mgr., Clay Center, Kan.

Auctioneers: Jas. T. McCullough, Jess Howell, Wm. Myers

Home of the Giants



Public Sale of

Registered Jacks and Jennets

MARCH 4, 1918

40 Jacks 30 Jennets

We guarantee more size, bone, foot and weight than any sale this year or in recent years. This sale includes four of the best big herd jacks that will be sold in the United States this year, including Eastern King, Demonstrator, Rondo Jr., Sir John, besides some young ones that will make herd headers. Mule jacks are of the same type and breeding. More Giant blood than any herd we know of. Catalogs out February 10.

Bradley Bros. Warrensburg, Mo.

FARM AND HERD.

It is an interesting record that the Shorthorn is making in the leading show contests throughout the country. At the recent Denver show a carload of Colorado-bred and fed Shorthorns were made the grand champions. This same honor rested with the Shorthorns at Denver a year ago. In the feeder class at the recent show Shorthorns were reserve champions. At Salt Lake City, Utah, some months ago Colorado-bred Shorthorns won the grand championship in the fat carlot class. At Portland in December, Shorthorns were made the grand champions in the carlot fat division and a registered Shorthorn calf bred and exhibited by the University of California was the grand champion steer. Purdue University carried off the highest honors at the International at Chicago with a registered Shorthorn steer, in fact won in the group contests with Shorthorn steers bred and fed at the university farm. Four carloads of Shorthorn yearlings made a record in dressed weight percentages that has never been equalled by any breed, sixty steers averaging 65.3 per cent, the lowest being 64.9 per cent and the highest 66 per cent. All of the International Shorthorn steers that were slaughtered made the highest record in dressed weight percentages of any breed in that show. These records are phenomenal and were made in competition with all breeds. They have a greater significance when considered in connection with the fact that Shorthorn cows are making records up to a maximum of 17,564 pounds of milk and 569.7 pounds of butter fat in twelve months. These combined beef and milk records are distinctly Shorthorn characteristics.

The sale held in connection with the Kansas Live Stock Exposition, Horse Show and Hippodrome will not only be the largest combination sale held in America, but will be the best lot of registered live stock ever offered at auction in one sale. Every department of the sale is filled with the blood of state fair, International and world's fair champions. Doctor Axtel, of Newton, not only has one of the best herds in the United States, but he has the largest herd in Kansas. He has consigned fifteen head of his choicest individuals. M. H. Mott, of Herington, is secretary of the Holstein Breeders' Association of Kansas. He has an exceptionally well bred herd and has consigned fifteen head of his best animals. The Standard Dairy Company, of Wichita, which recently shipped 150 head from Wisconsin, has consigned forty-five cows and heifers and five bulls. The cows and heifers are all bred to Johanna DeKol 19th. He is a bull with a national reputation as a sire and grand champion that weighs 2,500 pounds. The sale of Hereford cattle is equally as good, as the very best herds in Missouri, Kansas and Oklahoma have made consignments. The Shorthorns are all pure-bred, many of them show animals, and at least one-half of the offering are straight Scotch. Such bulls as Cumberland's Type, Imported Villager and other famous bulls are represented. The sale of standard-bred horses is filled with no less than fifty animals from the best farms in Kentucky and sired by such famous champions as The Harvester, 2:01; Peter The Great, 2:07¼; and Bingen, 2:06¼. The Percheron horse sale is a lot of show animals and Royal-bred stallions, mares and colts. Carnot, Casino, Kabin, Calypso, Lagus, Jalap, with each of them state fair, International and world's fair champions, and all are represented with sons and daughters in this sale. The Poland China sale is filled with five head each from eight of the best breeding establishments in Illinois, Missouri and Kansas, and the sows are bred to such boars as McGath's Big Orphan, grand champion boar at Topeka and Hutchinson in 1917, weighing at that time 1,170 pounds. The Durocs are mostly consigned by Crow & Sons, of Hutchinson, who have won more money and more premiums at state fairs and National stock shows than any Duroc herd in America. Most of the twenty-five sows consigned by them are daughters of the many times grand champion, Pathfinder.

On April 2, 3, 4 and 5 the Oklahoma Shorthorn Breeders' Association will hold a four days' sale of Shorthorn cattle at the live stock pavilion, Oklahoma State Fair Grounds, Oklahoma City. A four days' sale of 350 Shorthorn cattle will offer the carlot buyer of bulls or females a golden opportunity to supply himself with reliable Shorthorns, and as the sales are all held at the same place traveling expenses of buyers will be much less than when sales are on a circuit that makes it necessary for the buyer to travel hundreds of miles to attend all the sales. Oklahoma City is on the main lines of the Santa Fe, Rock Island, Frisco, M. K. & T. and Ft. S. & W. Railroads. The fact that Oklahoma City has such splendid rail facilities will lessen the cost of shipping the cattle bought at these sales, as the expense of two line hauls will be eliminated. Delays in transit that usually happen when two or more lines of railroad must be traversed for cattle to reach destination will be reduced to a minimum and the cattle will arrive in better condition. At these sales special attention will be given the beginner in the Shorthorn cattle business. The success of the breed depends upon the results attained by the man just starting in the business. Both the American Breeders' Association and the Oklahoma Breeders' Association realize this and will have representatives in attendance at these sales to assist buyers in making selections for herds already established or in the selection of Shorthorns as foundation stock for a herd. J. R. Whisler, of Watonga, who has the honor of having one of the first Shorthorn herds established in Oklahoma, will open the Shorthorn week sales in Oklahoma City with his ninth annual sale. Scott & Wolsey, of Watonga, who had planned to form a circuit with Mr. Whisler, will also move their sale to Oklahoma City. The program for Shorthorn week is as follows: April 2, 1:30 p. m., J. R. Whisler ninth annual sale; April 3, 10 a. m., Shorthorn breeders' sale; April 3, 1:30 p. m., Scott & Wolsey Shorthorn sale; April 4, 10 a. m., Shorthorn breeders' sale; April 5, 10 a. m., Shorthorn breeders' sale. The Shorthorn week sales afford the farmer, ranchman or breeder an opportunity to buy one or a carload of Shorthorns that are guaranteed to be as represented, and this guarantee is backed by the individual consignor and the Oklahoma Shorthorn Breeders' Association. S. B. Jackson, of El Reno, Oklahoma, will manage the sale and look after the consignments.

C. E. Hill, Toronto, Kansas, reports his Shorthorn herd doing well and his young stock growing out fine. Mr. Hill owns one of the best herds of Shorthorn cattle in the state. Bettie's Albion 399451, the pure Scotch bull that has been in use in this herd, is a richly-bred bull and one of the good sires of the breed now in service. The young stock in the herd at this time is one of the best lots that Mr. Hill has ever raised. The heifers and young bulls are a top lot of the ideal type and are richly bred.

Catalogs are out for the dispersion Shorthorn sale to be held by D. E. Reser & Sons, of Morrill, Kansas, February 20. On that date Reber & Sons will sell their entire herd and will also close out all farm stock and implements. Their offering will consist of twenty-five head of choice individuals of the best blood lines of the Shorthorn breed. It will include their herd bull, True Goods by Fair Goods. True Goods is a very fine individual and one of the great Shorthorn sires now in service. Twelve of the cows catalogued for this sale will have calves at foot or be well along in calf and the lot of bred heifers that will go in the sale is an outstanding lot of richly-bred individuals. The offering will represent the blood lines of such sires as Supereminent, Diamond Emblem, True Goods, Good Scotchman, a grandson of Imp. Royal Pride and a grandson of Choice Goods, Barmpton Knight, Baron Lavender, and other noted bulls.

Duff Bros., Horton, Kansas, owners of one of the richly-bred herds of registered and immuned Durocs, report their herd doing well. This year they have bred a select lot of sows and spring gilts for spring farrow. Some of them are bred to King's Pathfinder Jr., a son of King's Col., the $5,000 Nebraska boar. Others are bred to Gold Coin's Critic, a great boar by Model Critic. They are out of daughters of the greatest boars of the Duroc breed.

S. M. Knox, of Knox Knoll Stock Farm, Humboldt, Kansas, reports his herds of Shorthorn cattle and Mulefoot hogs doing well and a heavy demand for high-class Shorthorn breeding stock, also for Mulefoot hogs. This year Mr. Knox bred a large number of tried sows for early farrow. He also raised a very fine lot of summer and fall pigs.

William Sullinger, of Orrick, Missouri, has catalogued forty head of very high class Poland China sows and gilts for his Poland China sale February 16. A large part of the offering will be bred to Sampson, the herd boar by The Goliath by A Wonder. His dam was Giantess Wonder 1st by The Giant, he by Big Bob Wonder. This hog, Sampson, is a splendid specimen of the Poland China breed. Sampson is assisted by Hillcroft Model Jr. by Long Wonder and his dam was Wonder's Maid by King of Wonders. The offering comprises thirty head of gilts sired by or bred to the above boars and is a very promising lot.

H. H. Holmes, of Topeka, Kansas, is the owner of one of the high class herds of Shorthorn cattle in Eastern Kansas. The herd is headed by Viscount Stamp, a Scotch bull. He is assisted by Brawith Bud and Count Valentine, one of the best sons of Prince Valentine 4th. The cows in Mr. Holmes' herd are a very fine lot and represent the popular families of the breed. The prices paid by Mr. Holmes for a large number of cows in his herd range from $500 to $1,025 per head. A feature of the herd at this time is the choice lot of young bulls and heifers sired by good bulls of the herd and out of the richly bred high priced dams.

POLAND China Bred Sow SALE

Hutchinson, Kan., Thursday, February 21

We will sell the greatest bunch of Sows and Gilts we have ever owned, bred to our great herd boars, ERHART'S BIG CHIEF by Bloemendaal's Big Chief, and BIG ROBIDOUX by Robidoux, grand champion Oklahoma State Fair.

Such sows as Lady Jumbo's Equal by Long King's Equal, Jumbo A by King of All, Miss Prospect A by A Wonder (this was one of the high-priced sows in Hosler & Leets' last winter sale), May Queen by Moore's Halvor, Garnetta by A Wonder, Lady Jumbo by Orphan Big Gunn, Big Lady by Big Hadley's Jr., and Peerless Wonder by A Wonder. All these sows are bred and safe to Big Wonder.

Ten Top Spring Gilts

Fifteen Tried Sows

Twentyfive Fall Yearlings

FIFTY HEAD

All Immuned.
Sows and Gilts.

Bred along the same lines as our ribbon winners.



BIG HADLEY JR.

The greatest Hadley-bred boar of the breed.

A BIG WONDER

The 1,250-pound son of King of Wonders.

LONG BOB

By Big Bob 2d, junior champion Kansas State Fair.

A useful lot for farmers and breeders to make them plenty of money. Send today for catalog. Please mention Kansas Farmer.

A. J. Erhart & Sons, Ness City, Kansas

O. W. Devine Will Represent Kansas Farmer at Sale. **AUCTIONEERS—COL. J. C. PRICE, J. D. SNYDER**

Farmers and Poland China Breeders

You are Invited to attend my next Annual Poland China Sale

Tuesday, February 19

At

HOWARD, KANSAS

Caldwell's Big Bob

1,122-pound Grand Champion, National Swine Show, 1917

The World's Most Sensational Boar, Will Be on Dress Parade Sale Day. Come and See Him.

If you are satisfied, then buy you a good sow or gilt bred to

CALDWELL'S BIG BOB AND KING BOB BY BIG BOB

If you are looking for sows that will put your herd in the front rank of popular big-type herds, you will make no mistake buying here. The catalog gives all the particulars and a copy of it should be on every hogman's desk. Write today.

Fred B. Caldwell, Howard, Kansas

Cols. R. L. Harriman and J. C. Price, Auctioneers

O. W. Devine Will Represent Kansas Farmer at the Sale

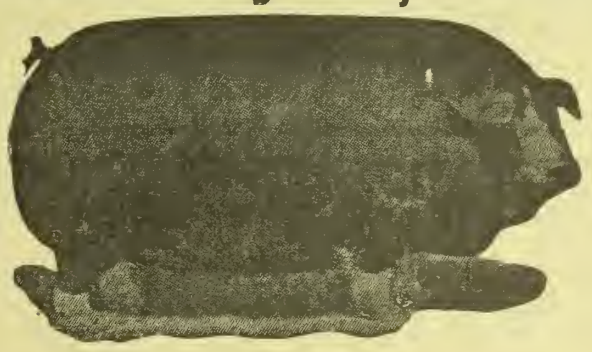
BEAVERS

Poland Chinas

70 Head 70

Junction City, Kansas

February 16, 1918



THIRTY-EIGHT BRED SOWS AND GILTS

TWENTY-TWO OPEN GILTS

TEN FALL BOARS

Sired by Kansas Giant by The Giant

Others by Tim's Spot by Big Tim, bred to Kansas Giant and A Wonder 2d by Blue Valley Wonder.

Send for catalog today. Sale held at Harbes' Sale Pavilion.

Edmund R. Beavers, Juntion City, Kansas



A GROUP OF SILK GOODS HEIFERS

Shorthorn Cattle Sale

At My Farm Near Meriden, Kansas
FEBRUARY 26, 1918

THIRTY-FIVE HEAD

Consisting of Ten Cows, Mostly with Calves at Foot; Twelve Yearling Heifers, and Thirteen Young Bulls.

Most all the cows are bred t o Silk Goods. All the heifers are by him. Several pure Scotch pedigrees.

This is my fourth annual sale and I am selling some good cattle that will make good for any farmer or breeder who will give them proper care.

My catalogs are ready to mail out. Please send for one today and come to sale.



SILK GOODS, TEN YEARS OLD

Parties met either at Meriden, on Santa Fe, or Grantville, on Union Pacific Railway. Farm sixteen miles from Topeka. Write for catalog.

O. W. Devine Will Represent Kansas Farmer at Sale.

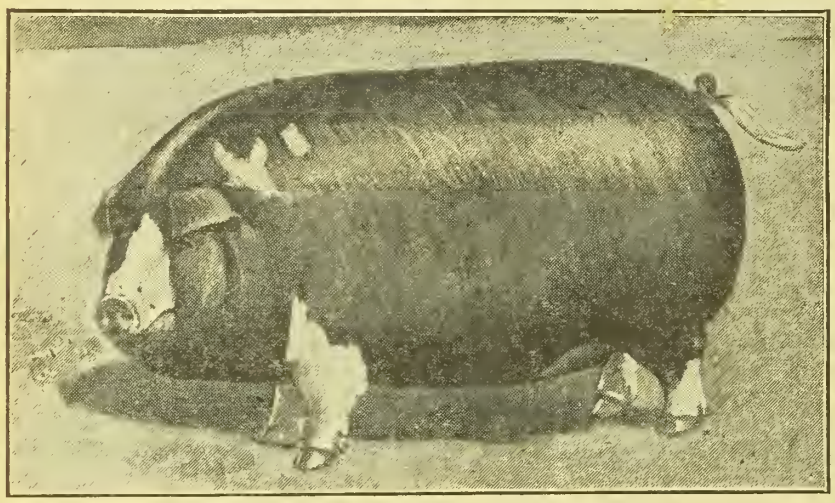
H. E. HUBER, MERIDEN, KANSAS

Dean's Poland China Bred Sow Sale

At Dearborn, Mo., February 28

On Electric Line.

Cars Every Hour from St. Joseph and Kansas City, Missouri



FIFTY HEAD SOWS AND GILTS

Comprising the best lot I have ever offered, and the most fashionable breeding. Six tried sows, all bred to Dean's Big Timm; one by Mastodon Price, one by Smooth Black Bone, two by Long Big Bone, and two by Big Bone Model.

Eight Fall Yearlings by Big Bone Model and Smooth Black Bone, all bred to Dean's Big Timm.

Thirty-six Large Spring Gilts, all bred to Dean's Big Jones, a son of Gerstdale Jones. Two of the real attractions are Miss Big Bone and Miss Big Bone 3d, daughters of Long Big Bone and out of a Big Bob sow and bred to Dean's Big Timm. They farrowed twelve and thirteen pigs last litters and will be showing nicely on sale day. Several other valuable sows, perfectly marked and splendid specimens of the breed.

Remember, the sale will be held in Dearborn, in comfortable sale barn. Electric cars every hour.

Send for Catalog to

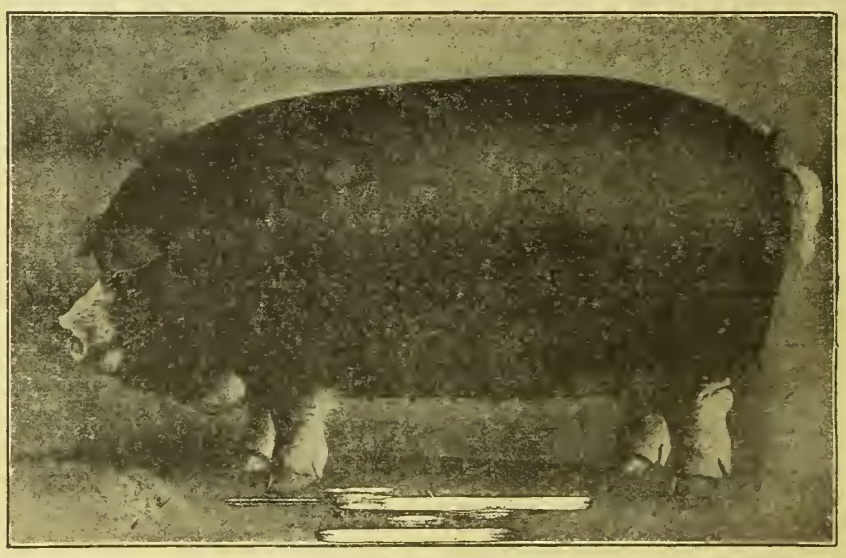
CLARENCE DEAN - - - WESTON, MISSOURI

Auctioneer, P. M. Gross.

O. W. Devine will represent Kansas Farmer at the Sale.

Poland China Bred Sow Sale

At Aulne, Kan., Feb. 23



THIS IS MY FIRST PUBLIC SALE OF POLAND CHINAS. I WILL SELL

FIFTY-FIVE HEAD OF THE VERY BEST POLAND CHINA SOWS AND GILTS

That I can collect together. A number will be bred to the sensational boar, BIG WONDER 281929, the outstanding son of Big Bob Wonder and was first in junior yearling class at Topeka and second at the National Swine Show in competition with the world.

EVERYTHING IMMUNE

The offering will include **FIFTEEN TRIED SOWS, TWENTY FALL YEARLING and TWENTY SPRING GILTS.** Many of the choicest lots are bred to BIG WONDER, others to FASHIONABLE PRICE by GRAHAM'S BIG PRICE and GERSTDALE BOB by the noted Gerstdale Price.

An Offering of Selected Tops Presented in the Proper Condition.

O. W. Devine Will Represent Kansas Farmer at the Sale.

Please send for catalog, and come to my sale. I guarantee a splendid offering.

V. O. JOHNSON, AULNE, MARION COUNTY, KANSAS

Auctioneers, J. C. Price and Fred Groff.

Duroc Jersey Bred Sow Sale

At Dearborn, Mo., February 27, 1918

Forty Head Tried Sows and Gilts, Five Fall Yearling Gilts.

Two are litter mates to the junior champion at the Missouri State Fair, 1917.



THE PAL.

Twenty Head of Large Spring Gilts that are Granddaughters of Old Cherry Chief No. 21335A.

This offering will be bred to my trio of herd boars — Model Ally, a grand Model bred boar: The Pal, a grandson of old Pal Col., and Illustrator Chief by old Illustrator and a full brother to Illustrator 2d.

This will be the best offering I have ever sold, and they are all of popular breeding.

Send for catalog and come to sale.

R. W. Murphy, Dearborn, Mo

Auctioneer, Col. P. M. Gross.

Shorthorn Dispersion Sale

Morrill, Kansas, February 20, 1918

Twenty-five Head Strictly High-Class Registered Shorthorns

Twelve cows, some with calves at foot, others well along in calf. The cows in our offering are a richly-bred lot. They are the ideal type and will make good in any herd.

We Will Also Sell a Choice Lot of Heifers That Are Bred.

They are choice individuals and of the best blood lines. Also a number of extra good calves. Our offering includes our herd bull, True Goods by Fair Goods. This bull is a fine individual and a proven breeder of merit.

Our herd is made up of representatives of such bulls as Supereminent, Diamond Emblem, True Goods, Barmpton Knight, Baron Lavender and other noted sires. Every animal in our herd must be sold in this sale. Will also close out all farm stock and implements.

Morrill is on the St. Joseph & Grand Island Railroad. Sale at farm one-half mile north of town. Send at once for catalog.

D. E. Reber & Son, Morrill, Kansas

McGATH'S BIG ORPHAN
The Grand Champion at Topeka and Hutchinson, 1917

Bert E. Hodson

Poland China

Bred Sow Sale

Wichita, Kans., Feb. 20

50 Big Immuned Sows and Gilts

An Attractive Offering Bred to McGath's Big Orphan and His Capable Assistant, Captain Gerstdale Jones

Among the outstanding attractions will be WONDER BEAUTY 2D by Big Bob Wonder, second senior prize gilt at the National Swine Show. Others equally attractive. Daughters of many noted boars sell, the blood of such sires as A WONDER, YOUNG ORPHAN, BIG HADLEY JR., ORPHAN BIG GUN, KING OF WONDERS, LONG BIG BONE, LONG JUMBO 2D, BIG BEN, BIG BOB WONDER, CALDWELL'S BIG BOB, A WONDERFUL KING, MODEL BIG BOB and MASTER ORPHAN. Plan to attend this sale. Send for the catalog.

O. W. Devine Will Represent Kansas Farmer at the Sale

Bert E. Hodson, Ashland, Kan.

Poland China Bred Sow Sale

At Deming Ranch, Oswego, Kansas

Mammoth Bred Sows

Monday, February 18th, 1918

These Are the Kind That Sell ———— The Kind That Make Money for Farmers



THE KIND WE BREED AND GROW

GREATEST OFFERING OF THE YEAR

Bred to the Breed's Best Boars

BIG BOB JUMBO
Son of Big Bob and First Prize Junior Yearling at Hutchinson, 1917.

BIG BOB'S ORANGE
Litter Mate to Big Bob Jumbo and His Equal as a Breeder. He Sires Size.

Assisted in the herd by Big Logan, a great smooth boar that is right in the 1,000-pound class. We are proud of these boars and believe them the equal of any trio to be found in any one herd.

THIS IS OUR SUPREME EFFORT

and will include some of the best prospects for 800-pound brood sows we have ever had on the farm, as well as

FIFTEEN BIG MOTHERLY SOWS THAT ARE THE ENVY OF ALL WHO SEE THEM

These are the dams of our winners for the past two years. They have raised winners for us—they will do it for you. They have made money for us—they will do the same for you.

Fifteen Great Yearlings and Twenty Spring Gilts complete this great offering. All choicely bred, carefully selected and bred to a boar of established reputation. When you see them you will want one. Send for catalog.

O. W. Devine will Represent Kansas Farmer.

DEMING RANCH, OSWEGO, KS.

H. O. SHELDON, MANAGER

Poland China Bred Sow Sale

Big-Type Bred Sows

Danville, Kan., Friday, February 22

50 HEAD All Tops 50 HEAD

Herd Boars

A Wonderful King
First in Three State Fairs, 1915

Logan Price
Second in Three State Fairs

Olivier's Big Timm
By Blue Valley Timm

The sows offered are the biggest, smoothest lot of high-bred sows you will find, sired by the leading boars of the country. They all make a favorable impression. We have been heavy winners at the fairs and have produced the kind that please. They are the money-making kind for us and will do the same for our buyers. Every sow will be showing heavy on sale day. Write for catalog.

Col. J. C. Price, Auctioneer

O. W. Devine Represents Kansas Farmer

F. Olivier & Sons, Danville, Kansas

Breeders of
Big-Type, Easy-Feeding, Prolific, Winning Poland Chinas

FIRST ANNUAL
Poland China Hog Sale

Orrick, Mo., on February 16, 1918

30 HEAD SOWS AND GILTS
3 TRIED BROOD SOWS
7 EXTRA GOOD FALL YEARLINGS
20 LARGE SPRING GILTS, ALL SAFE



A Sample of the Offering

A number of fine herd sow prospects of strictly big-type Poland China breeding. The sows will either be bred to my herd boars, Hillcroft Model Jr. by Long Model, his dam Wonder's Maid by King of Wonders, and Big Giant by Pfander's Big Ben is also used in the herd on a few of the gilts. My main herd boar, Sampson, was by Hillcroft Model and out of Giantess Wonder 1st. This sow was bred by Will G. Lockridge, and Sampson is a grandson of The Giant. This massive hog was the grand champion Poland China boar at the Missouri State Fair, 1915, and widely known as one of the great sires of the breed.

They are well grown out and I guarantee a good offering. Catalogs are ready to mail out. O. W. Devine will represent Kansas Farmer at sale. Send for catalog today to

William Sullinger, Orrick, Mo.

AUCTIONEER: COL. J. D. MATHIS

$ ONLY 2 DOWN

A Year to Pay



Gets ALL The CREAM

Made $61.39 More from Same Cows

"We made $78.61 worth of butter before we had the machine and in the same length of time we made with the Butterfly Separator $140.00 worth of butter from the same number of cows." THOS. S. KERMOSKY, Point Aux Pins, Mich.

Think of it! You can now get any size of the New Butterfly Cream Separator you need direct from our factory for only $2 down and on a plan whereby it will earn its own cost and more **before you pay.** You won't feel the cost at all. Our low prices will surprise you. For example:

$29 buys the No. 2 Junior, a light running, easy cleaning, close skimming, durable, guaranteed separator. Skims 96 quarts per hour. You pay only $2 down and balance on easy terms of

Only $2 a Month

You have no interest to pay. No extras. The prices we quote include everything. We also make five larger sizes of the

New Butterfly

up to our big 800 lb. capacity machine shown here—all sold at similar low prices and on our liberal terms of only $2 down and more than a year to pay. Every machine guaranteed a lifetime against defects in materials and workmanship.



EASY TO TURN

Twelve-Year-Old Child Runs It

"We would not do without our Butterfly Separator or exchange it for all the machines we have seen. Our little girl, 12 years old, runs it like a clock!" MRS. P. E. RUDE, Ashland, Wis.



Top of Milk Tank is waist high—easy to fill

Milk and cream spouts are open—easy to clean

One-piece aluminum skimming device is very easy to clean

All shafts are vertical and run on "frictionless" pivot ball bearings making the New Butterfly the lightest running of all separators

More Than 125,000 New Butterfly Cream Separators are now in use

30 Days' Trial

You can have 30 days' trial on your own farm and see for yourself how easily one of these splendid machines will earn its own cost and more before you pay. Try it alongside of any separator you wish. Keep it if pleased. If not you can return it at our expense and we will refund your $2 deposit and pay the freight charges both ways.

Catalog Folder—FREE

Why not get one of these big labor-saving, money-making machines while you have the opportunity to do so on this liberal self-earning plan? Let us send you our big, new, illustrated catalog folder showing all the machines we make and quoting lowest factory prices and easy payment terms. We will also mail you a book of letters from owners telling how the New Butterfly is helping them to make as high as $100 a year extra profit from cows. Sending coupon does not obligate you in any way. Write today.

ALBAUGH-DOVER CO.
MANUFACTURERS
2181 Marshall Blvd. CHICAGO



EASY TO CLEAN

Simplest, Easiest to Clean

"My son took a course in agriculture at Cape Girardeau and he worked with a dozen or more makes of separators, and he said this was the most simple and easier cleaned machine than any of them." J. B. FINLEY, Oran, Mo.

[6]

ALBAUGH-DOVER CO.,
2181 Marshall Blvd., Chicago, Illinois

Gentlemen:—Without obligation on my part, please mail me your **free** Catalog Folder and full particulars regarding your special easy payment offer on the New Butterfly Cream Separator.

I keep.....cows.

Name.....

P. O.....

State.....R. F. D.....

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KAF

FEB 1 1918

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 7. TOPEKA, KANSAS, FEBRUARY 16, 1918. Established 1863. $1 a Year

HOG AND CORN FIGURING

Producers Contend Food Administration Has Failed in Pork Price-Fixing

PORK has a very important part to play in winning the war. It forms one of the staple army rations, and no satisfactory substitute has ever been found. Greatly increased quantities of pork will be required to supply the soldiers in our army and our allies. All over the country we have been asked to make definite increases in the amount of pork produced the coming year. Here in Kansas conditions have not generally been favorable for very large pork production for several years, and yet year in and year out hogs have brought a great deal of revenue to our farms. The hog early earned the title, "the mortgage-lifter," which is significant of its standing as a profitable farm animal.

With soaring prices of corn and mill feeds, hog producers have been up against a hard proposition, and the uncertainty of what the future might have in store was having a tendency to cause a contraction in pork production when expansion was most seriously needed. Last fall hog men gathered all over the country and held conferences in order to talk over the situation, and following the definite statement of the Food Administration that it would use every possible power to prevent hogs from going below $15.50 a hundred, and further that its policy for the next year's production would be to maintain the price in the ratio of thirteen bushels of corn to the hundred pounds of pork, pork producers generally accepted the proposition of the increase which was asked.

While the price has not gone below the $15.50 mark, there have been rather wide fluctuations from day to day, these violent fluctuations being the very thing the Food Administration had promised to prevent through its price-fixing policy. Even though prices did not get down to the minimum of $15.50, these fluctuations have had a rather disquieting effect. Producers of pork have also in some cases misunderstood the statements made, confusing that having to do with hogs being marketed now and the thirteen-to-one policy which was announced to cover the production of the coming year. Corn of the 1917 crop has been higher in price than was expected, and these various circumstances have led to considerable unrest as to what the future may have in store. To show what producers are thinking and saying, we reproduce a letter from one of the well-known hog men of Anderson County. He says:

"I am writing this not for the purpose of discouraging swine production. Far from it. What I want to do is to show that we are entitled to a higher price for hogs than we are receiving. I would urge my brother farmers to keep tab on the actual cost of producing the pork they raise to sell so that we will all be in position to tell the Government and all consumers what a hundred pounds of pork cost us to produce in actual cash. If there is a government on the face of the earth that tries to be fair to all the people, you know it is our government. It is the hardest thing in the world to strike an average cost on the farm products. As an illustration: When the price of wheat was fixed I am told by those very high up that they did not know of, nor have within calling distance, a single farmer that could tell them the cost of raising a single bushel of wheat in 1917, so they guessed at the price. And when the meat committee announced the $15.50 price on hogs they used as a basis last year's Number 1 corn. Now that is correct as far as 1916 corn is concerned, but 1917 corn is altogether different because we raised no Number 1 corn in 1917. The corn was all of a much inferior grade. It takes at least two bushels more of 1917 corn to produce a hundred pounds of pork than it did of the 1916 crop. The local selling price of corn here is $1.35 a bushel and the local selling price of fat hogs is $1 to $1.50 under Chicago top prices.

"Now there are locations where the corn is lower and others where the corn is higher priced than my figures. So there is a slight variation, but any way you figure it from your local market value price you will readily find an actual cash loss of $3 to $5 or even more cash loss on producing 100 pounds of pork. Now the Government claimed that the price of corn would be held at $1.20 in Chicago, which meant locally a price of from 75 cents to $1 a bushel for feeding corn. Is there a place in the United States where corn is that cheap? The corn price has advanced one-fourth and even more. Now why in fairness, if the cost of corn has gone up one-fourth, does not the Food Administration allow us a one-fourth higher price on fat hogs? As soon as they found out that the cost of mining coal was higher than their estimate they immediately raised the price of coal. Why can they not do the same thing with fat pork? Their intentions were good in both cases, but why rectify one mistake and not the other? Are the farmers not as good citizens as the coal producers? Is the farmer getting a square deal?

"I think it is generally considered by farmers that there will as a rule be very little financial profit to them in the succeeding years of this war, but we are willing to go to it harder, take in our belts, and work twelve hours a day, while in other occupations they only work eight and ten hours daily. We are willing to suffer, for nearly everyone suffers during war times, but why should we pork-producing farmers be singled out and required to accept an actual cash loss on pork production? It looks to me as if we were penalized for producing the most essential food used to sustain human life and to help win the war. At present government prices there is and can be nothing but a cash loss, nor will it be otherwise for years so long as there are high prices for pork-producing feeds, for the reason that grains used for human consumption are about the only feeds that will produce fats—pork.

"Pork production is our work, occupation, or business. Now I want to ask the Food Administration what will be gained by putting us out of business. I have talked with many swine breeders and feeders, and most of them see nothing but cash loss in sight. These same men, though perfectly equipped for pork production, feel it necessary as a safety measure to curtail their production from one-fourth to one-half, and some of the most conservative are going out entirely because feed is too high. This campaign to increase swine production has induced a few inexperienced ones to enter the production field. As soon as they have received their much-expected gain in the form of a cash loss, they will drop swine-raising right then and there.

"The preceding questions I would like to put up fairly to our food price regulators and consumers. We farmers are unorganized and we feel that we have no friend higher up. There is only one friend through whom we farmers can get recourse, and that is the press. Our newspapers are fair. They want to help the people live and let them live. They encourage production. Three-fourths of the people live on the food the other one-fourth produces. Therefore, it is only fair that the three-fourths of the people should get better acquainted with the farmer and his conditions.

"Now we, as farmers, are not expecting a profit on account of war conditions. All we ask is a price for our pork and meats that is not below actual average cash cost of production. A few weeks ago Mr. Hoover asked the farmers to hold back the hogs and not crowd them onto the market. Did they do it? No! They could not stand the cash loss they were sustaining each additional day in complying with orders, hence the big run.

"I earnestly ask our food administrators and all level-headed business men to investigate swine-raising conditions for the reason that if the price is not raised to a living basis we are going to face a greater and more serious shortage in this much-needed food. I hope something will be done to stop the present necessity for shipping out bred sows to the packers.

"All we ask is a square deal for the farmer, the hungry people's friend. When a farmer is striving to send to market a few head of fat hogs, he is surely serving his country."

Questions and expressions of like import have been going to the meat division of the Food Administration. A statement just issued from that division discusses the matter of hog and corn price fixing and explains the thirteen-to-one policy of the coming season. There apparently has been a great deal more confusion relative to current prices of hogs than over the thirteen-to-one proposition. This statement will be helpful in clearing up some of the misunderstandings among our pork producers. We trust they will give this statement careful reading.

"Farmers from all parts of the country are writing us," states Melvin Green, of the Meat Division, "telling what they think of the hog production outlook. The thirteen-to-one ratio policy receives general approval. The minimum of $15.50 for the average of packers' droves in Chicago, which the Food Administration on November 3 promised to do its best to maintain until further notice, has not been generally so well understood as the thirteen-to-one ratio policy. The thirteen-to-one ratio price is to apply to pigs farrowed this spring. The $15.50 price does not pretend to be based on a thirteen-to-one ratio. It was intended rather to let farmers know that prices would be kept stable and treacherous market breaks prevented.

MISTAKE COMMONLY MADE

"Here is a mistake that many are making in their figuring on the hog and corn situation: A man will write, 'I fed my hogs on corn that I could have sold for $1.50 a bushel and then sold the hogs for $14 a hundred. If I had sold my corn I would have got $19.50 because according to the thirteen-to-one ratio there were thirteen bushels of corn in each hundred pounds of hog, and thirteen times $1.50 equals $19.50. There-

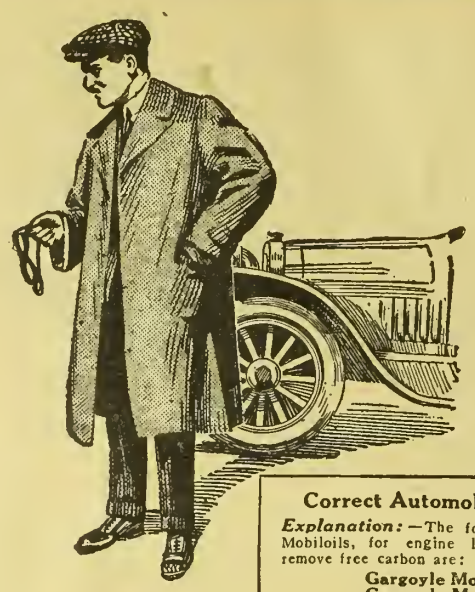
(Continued on Page Four)



Two Rather Small Ones and One Quite Big One.—Why?

IT IS a care on rape pasture, of respectively from left to right—corn gluten feed versus shelled corn versus shelled corn plus tankage. That's about all. The middle pig fed corn on rape is about in the same boat as the leftmost pig fed the by-product from the corn-starch factory, namely corn gluten feed. The pig receiving tankage and gluten feed is not pictured but comes about between the two smallest pigs in size. Evidently the meat product helped out considerably when added to the entire corn grain ration. The feeding of pigs on various grains grows more complicated as one delves into the hidden mysteries of various combinations and re-combinations. But most of the time we feel more sorry for the poorly nourished pigs than because of the lack of explainable results. The new saying, true as true can be, "Blood will tell," is echoed and re-echoed in "Feed will [illegible]" —JOHN M. EVVARD, Iowa Experiment Station.





We Protest

Now and then we meet a man who says with some enthusiasm, "I am using Gargoyle Mobiloil and it works fine."

To our great disappointment we sometimes find that this friend is using the wrong grade for his engine.

We are too jealous of the results which can be secured from the proper use of Gargoyle Mobiloils to allow this careless practice to go on without a protest.

Naturally, because of their sheer *quality*, Gargoyle Mobiloils are bound to show good *lubricating* results. But we are aiming to furnish more than protection to the moving parts.

For this reason, we annually determine through our Board of Engineers, which *grade* of Gargoyle Mobiloils is best suited to each make and model of car.

The man who fails to use the *grade* of Gargoyle Mobiloils specified for his car stands to lose some of the greatest benefits which the oils offer him.

For example: Gas consumption depends a great deal on the piston-ring seal. The piston-ring seal depends solely on the "body" and character of the oil used.

In a given engine, oil of the very highest *quality* may be of wrong *body* for proper piston-ring seal. The result then is waste of gas and power with each piston stroke.

To assure your securing best results will you please look at the partial Chart at the right and see if you are using the correct grade for your car. If not, in justice to your own engine, will you, please, insist on being supplied with the correct grade.

Write for new 56-page booklet containing complete discussion of your lubrication problems, list of troubles with remedies and complete Charts of Recommendations for Automobiles, Motorcycles, Tractors and Marine Engines.



Mobiloils

A grade for each type of motor

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the Red Gargoyle on the container. If the dealer has not the grade specified for your car, he can easily secure it for you.

VACUUM OIL COMPANY, Rochester, N. Y., U. S. A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world

Domestic Branches: Detroit New York Philadelphia Minneapolis Boston Chicago Indianapolis Pittsburgh Kansas City, Kan. Des Moines

Correct Automobile Lubrication

Explanation: —The four grades of Gargoyle Mobiloils, for engine lubrication, purified to remove free carbon are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "E"
Gargoyle Mobiloil "Arctic"

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A." "Arc" means Gargoyle Mobiloil "Arctic," etc. The recommendations cover all models of both pleasure and commercial vehicles unless otherwise noted.

This Chart is compiled by the Vacuum Oil Co.'s Board of Engineers and represents our professional advice on Correct Automobile Lubrication.

Model of CARS	1917 Summer	1917 Winter	1916 Summer	1916 Winter	1915 Summer	1915 Winter	1914 Summer	1914 Winter	1913 Summer	1913 Winter
Abbott-Detroit	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	A	Arc.
" " (8 cyl)	...	...	A	A	A	A	...	...	...	...
Allen	A	Arc.	A	Arc.	A	Arc.	A	A	A	A
" (Mod. 33-34-35)	...	...	...	...	A	Arc.	...	...	...	...
Apperson	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (8 cyl)	A	A	A	A	...	...	...	...	...	...
Auburn (4 cyl)	...	...	A	Arc.	A	Arc.	A	A	A	A
" (6 cyl)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	...	...
Autocar (2 cyl)	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Briscoe	A	Arc.	A	Arc.	A	Arc.	A	Arc.	...	...
" (8 cyl)	...	...	A	A	...	...	...	...	...	...
Buick	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	A	Arc.	A	Arc.
Cadillac	...	...	...	...	...	Arc.	Arc.	Arc.	Arc.	Arc.
" (8 cyl)	A	A	A	A	Arc.	Arc.	...	...	...	...
Case	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Chalmers	...	...	Arc.	Arc.	Arc.	Arc.	A	A	Arc.	Arc.
" (Mod. 6-40)	...	...	A	Arc.	...	...	...	...	...	...
" (Mod. 6-30)	A	A	A	A	...	...	...	...	...	...
Chandler Six	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	...	...
Chevrolet	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	A	Arc.	A	A
Cole	...	...	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (8 cyl)	A	A	A	A	A	A	...	...	...	...
Cunningham	...	...	...	...	Arc.	Arc.	Arc.	Arc.	A	A
" (8 cyl)	A	A	A	A	...	...	...	...	...	...
Dart	A	Arc.	A	Arc.	Arc.	Arc.	A	A	A	Arc.
" (Mod. C)	A	Arc.	A	Arc.	A	Arc.	A	A	...	...
Detroiter	Arc.	Arc.	Arc.	Arc.	A	Arc.	A	A	A	Arc.
" (8 cyl)	...	...	...	...	Arc.	Arc.	...	...	...	...
Dodge	A	Arc.	A	Arc.	E	E	...	...	...	...
Dort	A	Arc.	A	Arc.	A	Arc.	...	...	...	...
Empire (4 cyl)	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (6 cyl)	Arc.	Arc.	Arc.	Arc.	...	...	...	...	...	...
Federal	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Flat	B	A	B	A	B	A	B	A	B	A
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	A	A	A	A	A	A	A	A	Arc.	Arc.
Grant	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.	...	...
Hal-Twelve	A	A	A	A	...	...	...	...	...	...
Haynes	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (12 cyl)	A	A	A	A	...	...	...	...	...	...
Hudson	...	...	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	A	Arc.
" (Super Six)	A	Arc.	A	A	...	...	...	...	...	...
Hupmobile	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Jeffery	A	A	A	Arc.	A	Arc.	A	A	...	...
" (6 cyl)	A	A	...	...	...	...	...	...	...	...
" Com'l	A	Arc.	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.
Kearns	...	...	E	E	E	E	...	...	...	...
" Com'l	A	Arc.	A	Arc.	A	Arc.	...	...	...	...
Kelly Springfield	A	A	A	A	A	A	A	Arc.	Arc.	...
King	...	...	...	...	A	Arc.	A	A	A	E
" (8 cyl)	A	A	A	Arc.	Arc.	Arc.	...	...	...	...
" Com'l	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	...	...
Kissel Kar	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" " Com'l	A	Arc.	A	Arc.	A	Arc.	A	Arc.	Arc.	Arc.
" " (Mod. 48)	...	...	A	A	A	A	A	...	...	...
" " (12 cyl)	A	A	...	...	...	...	...	...	...	...
Lexington	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	...	...	...	...
Lippard Stewart	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" " (Mod. M)	A	Arc.	A	Arc.	...	...	...	...	...	...
" " Mod. M(W)	A	Arc.	...	...	...	...	...	...	...	...
Locomobile	E	E	E	E	E	E	E	Arc.	Arc.	...
McFarlan	A	Arc.	A	A	A	Arc.	A	A	A	Arc.
Marmon	A	A	A	A	Arc.	A	Arc.	A	Arc.	Arc.
Maxwell	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Mercer	A	A	A	A	Arc.	A	Arc.	A	Arc.	Arc.
" (22-70)	...	...	...	...	Arc.	Arc.	...	...	...	...
Mitchell	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Mitchell (8 cyl)	...	...	A	A	...	...	...	...	...	...
Moline	...	...	...	...	...	...	...	...	A	Arc.
" Knight	A	A	A	A	A	A	A	...	...	...
Moon (4 cyl)	...	...	...	...	Arc.	Arc.	A	Arc.	Arc.	Arc.
" (6 cyl)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	...	...
National	Arc.	Arc.	A	Arc.	A	Arc.	A	A	A	A
" (12 cyl)	A	A	A	A	...	...	...	...	...	...
Oakland	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	A	Arc.
" (8 cyl)	...	...	A	A	...	...	...	...	...	...
Oldsmobile	...	...	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (8 cyl)	A	A	A	A	...	...	...	...	...	...
Overland	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Packard	...	...	...	...	A	Arc.	A	Arc.	Arc.	Arc.
" (12 cyl)	A	A	A	A	...	...	...	...	...	...
" Com'l	A	A	A	A	A	A	Arc.	Arc.	Arc.	Arc.
Paige	...	...	...	...	A	Arc.	A	A	A	E
" (6-46)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	...	...	...	...
" (6-36 & 38)	A	Arc.	A	Arc.	A	Arc.	...	...	...	...
Pathfinder	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	A	A	Arc.
" (12 cyl)	A	A	A	A	...	...	...	...	...	...
Peerless	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (8 cyl)	A	A	A	A	...	...	...	...	...	...
Pierce Arrow	A	A	A	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" Com'l	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Premier	A	A	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Regal	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (8 cyl)	...	...	A	A	Arc.	Arc.	...	...	...	...
Renault (French)	...	...	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Reo	A	Arc.	A	Arc.	A	Arc.	A	A	A	Arc.
Richmond	Arc.	Arc.	Arc.	Arc.	A	Arc.	A	Arc.	Arc.	Arc.
Riker	E	E	...	...	...	...	...	...	...	...
Saxon	E	E	E	E	E	E	E	...	...	...
Selden	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Simplex	A	A	A	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Stearns-Knight	A	A	B	A	B	A	B	A	A	A
" " (8 cyl	A	A	B	A	...	...	...	...	...	...
Studebaker	A	Arc.	A	Arc.	Arc.	Arc.	A	Arc.	A	Arc.
Stutz	A	A	A	A	A	A	A	Arc.	Arc.	Arc.
Velie (4 cyl)	...	...	...	...	A	Arc.	A	Arc.	A	Arc.
" (6 cyl)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	...	...
Westcott	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	A	Arc.	...
White	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (16 valve)	A	A	...	...	...	...	...	...	...	...
Willys-Knight	A	A	B	A	B	A	A	A	...	...
Willys Six	Arc.	Arc.	...	...	...	...	...	...	...	...
Winton	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.

Electric Vehicles: For motor bearings and enclosed chains use Gargoyle Mobiloil "A" the year 'round. For open chains and differential, use Gargoyle Mobiloil "C" the year 'round.

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A PROTEST

Live stock men insist that they are not unpatriotic, neither are they willing to be classed as speculators. They cannot continue production, however, at a loss, much as they may wish to help win the war by supplying the necessary food. Tbey must have a legitimate profit or go out of tbe business. Tbe great packers of the country, according to their own reports, have made enormous profits during the war period. The investigation of the packers by the Federal Trade Commission, which is still in progress, has already revealed many facts showing how unscrupulous packers have been in their methods.

A protest against the apparent policy of the Food Administration in permitting packers to make such profits, while urging hog and cattle men to go on producing even at a loss, was sent to Mr. Hoover last week by the Kansas City Live Stock Exchange. This protest grew out of the address of Joseph P. Cotton of the meat division of the Food Administration before the American National Live Stock Association at Salt Lake City. The Live Stock Exchange speaks for the producer because of its interest in the live stock business tbroughout tbe Kansas City territory. It is pointed out in the letter sent to Mr. Hoover by the Exchange that it is organized to handle all kinds of live stock on commission, acting as a go-between for the producer and purchaser of every kind of live stock. It does not own a dollar's worth of any kind of stock, but its members handle hundreds of millions of dollars' worth of live stock annually for their customers, selling not only to the packers, but to the feeders and cattle growers of practically every state in the Union. The commission men consider that they are not middle men in the ordinary sense of the term, but agents of the producers at that market.

It was stated that the year 1917 shows the highest prices on record on all meat-producing animals. It was a banner year for the cattlemen both on production and high prices. The packers likewise made fabulous profits on everything they handled, Swift and Armour each making a net profit of over thirty million, and when tbe Government gets reports on their subsidiary corporations, additional profits will undoubtedly be shown. In spite of the high cost of production and the conditions as to demand, cattle are now bringing less in Kansas City than they did off of grass, although it has cost fully twice as much money to produce this beef.

The letter calls attention to the fact that the packers are today selling army beef at probably the highest price ever known. Hog products are higher today than they were when live hogs were selling on tbe market at 20 cents a pound. Since the Food Administration announced the minimum of $15.50 a hundred on hogs, it is claimed the packers have reduced their purchases to conform to this minimum. On January 30 Armour's hogs in Chicago cost them $15.51, and this means that the farmer did not receive to exceed $14.50 at the loading point. The Live Stock Exchange insists that farmers tributary to the Kansas City market generally feel that they are suffering a great hardship by having to sell their cattle much below the cost of production, and they feel sure that if the Food Administration had all the facts Mr. Cotton would not tell the cattle feeders, as he did at the Salt Lake City meeting, that they are speculators and have bought their feeding stock too high and must expect a loss in handling it.

In conclusion the protest points out that the Food Administration in its effort to increase production has through Mr. Cotton, unwittingly of course, given a "black eye" to the producers by telling them that they may look forward to continued disaster in their feeding operations the coming year. The way to increase production is to make it profitable. The way to curtail production is to make it unprofitable.

We believe the Food Administration will give due consideration to the statement of facts as presented by tbe Kansas City Live Stock Exchange.

SAVE MORE WHEAT

Our allies are asking us for at least 75,000,000 bushels more wheat. Making it possible to supply them with this wheat is as imperative a war measure as sending our armies. Many of you have given your boys and probably are doing all you can in supplying the means to make them effective. Can we as a people do less than make the necessary sacrifices in changing our customary habits of eating so that our allies may have this wheat they must have?

Lord Rhondda, speaking for the English, French, and Italian governments, in his recent cable appeal to this country for more wheat, says: "No one knows better than I that the American people, regardless of national and individual sacrifice, bave so far refused nothing that is needed for the war, but it now lies with America to decide whether or not the allies in Europe shall have bread to hold out until the United States is able to throw its force into the field." To this appeal our Government has replied: "We will export every grain that the American people save from their normal consumption. We believe our people will not fail to meet the emergency." The only way we can send tbis wheat is to save it by tbe means put up to us by our Food Administration. In the millions of homes in this country it must be saved day by day. All bave not been called on to furnish a boy, but all can join in this form of service, and thus hold up the hands of those who are doing the actual fighting. So far we have had no compulsory wheatless or meatless meals. Our Food Administration has recognized that we are a democratic people and has placed before us the facts and it remains to be seen whether we can rise to the situation and bring forth a discipline from within that can successfully combat the disciplined efficiency of an autocracy.

THE FARM ACCOUNT BOOK

Very few farmers have been in the habit of keeping books. This has greatly complicated the making out of their income tax reports. For the past two years a farm account book has been available in Kansas which has been most helpful to farmers who have used it. This book has been distributed through the Kansas Bankers' Association. This association has found sufficient merit in the distribution of such a book to warrant them in continuing this policy of publishing an account book suitable for farm use, and it is now just getting a third edition from tbe press.

This book has been prepared by the farm management specialist in the extension division of our Agricultural College, and is based on tbe actual needs of the farmer who tries to keep farm records. It has been revised each year in the light of the experience gained through its use under practical farm conditions. This year's revision takes into account the necessity for having certain definite information available for the income tax report. This is a valuable feature of the book being distributed this year. Heretofore only a few farmers have had to make income tax reports, but the present law, lowering the exemption to $2,000 for married persons, brings a great many farmers under its provisions. In making out their reports many have been brought to a realization of the unbusinesslike methods that have prevailed. It has been stated that next year the Government will require actual figures on some of the items for which estimates were accepted this year. This means that a great many farmers must of necessity keep farm accounts who have not done so in the past.

But laying aside the necessity for keeping more accurate accounts in order to meet Government requirements, farming as a business would be much more efficient if more bookkeeping could be done. Every successful business finds it necessary to keep accounts, and farming should be no exception to that rule. The keeping of farm records would undoubtedly result in the changing of methods on many farms.

The difficulty of keeping farm records has kept many from making the attempt. No system such as devised for other lines of business is practical. Witb tbis book, which is now being distributed in Kansas for the third time, the keeping of farm accounts is greatly simplified. The making of an inventory is the first job in beginning a system of accounts, and is perhaps the most complicated task in getting a start. This book explains in detail how to make an inventory, and after the start has been made later inventories are comparatively simple matters. This inventory should be made during the winter season if possible. Many make the practice of dating the year's work from January 1, wbile others find that March 1 is a very satisfactory date. Unless the start is made soon, farm work will be on and it will be much more difficult to make the inventory and begin a system of farm accounts.

On many farms the children can be interested in the keeping of farm accounts. It is splendid training for tbem and through it they can be led to see that they have a real part in conducting the farm business. It also gives them a means of connecting up the school work with the real things of life.

An edition of 30,000 copies of the book has been printed by the Kansas Bankers' Association. Almost the full edition has already been applied for by banks over the state which will distribute them to their patrons.

We have the fullest confidence in the practical value of this account book, and would urge our readers to get them and use them the coming year. Go first to the banks in your home town. If you find tbey have neglected to supply themselves, write to W. W. Bowman, secretary of the Kansas Bankers' Association, Topeka, Kansas. A few copies will be retained to meet such calls. Tbe intention, however, is to have the books distributed through the banks.

LABOR FOR SHIPYARDS

Kansas has been asked to furnish two thousand skilled men for work in the sbipyards of the country. It has been a good many years since we bave conducted a very extensive ship-building business. We are now feeling the effects of this policy. Ships are a vital necessity in tbe conduct of the war. Every effort we have made in food production and conservation, in Red Cross work, in the raising and training of armies, manumanufacturing munitions of war will be nullified if we lack ships. Striking at the shipping of the world is one of the German war measures upon which they are pinning their faitb. It is up to this country to defeat this blow at the shipping of the world.

All over the country the campaign for shipyard volunteers is being made. In Kansas the enrollments will be received by A. A. Knapp, assistant labor commissioner, and agents he has appointed over the state. This call will probably have little effect in reducing the available farm labor and for that reason may seem to be of little concern to the people of the farms. It is one of our vital war measures, however, and we should give it our support. We have already given up 25,000 of our young men for the firing line, and soon another 25,000 will be called. Furnishing the 2,000 skilled laborers which has been allotted to us as our quota for the shipyards may bring additional burdens, but we are in this war to win and it will take ships and more ships to make our other efforts effective.

NEGLECT OF ORCHARDS

On many a farm in Kansas the orchard is a disgrace to the farm. In tbe early days all we had to do was to set out some trees and in the course of time we would bave fruit. Now tbe orchard is the prey of almost innumerable insect pests and fungous diseases. To have good fruit requires eternal vigilance, an accurate knowledge of the enemy and how to successfully fight it. The average farmer who is doing general farming feels disposed to throw up his hands and let the orchard go. Many orchards have actually been uprooted and the ground planted to other crops.

A common mistake is to have entirely too large an orchard. A few trees properly handled will supply enough fruit for home use, wbile a larger orchard migbt result in an actual loss, simply cumbering the ground and producing little or nothing of value because of neglect.

No one has any corner on the knowledge required to successfully handle the farm orchard. Demonstrations by the horticultural specialists of our Agricultural College are being given all over the country on pruning and spraying methods. In every community where these demonstrations have been given farm orchards are being given better care witb the result tbat tbey have become valuable adjuncts to the farm instead of an eyesore. If you hear of such an orchard demonstration being given in your community, plan to be on hand. You will learn more in an hour or so about proper orchard care tban you could get by wading through all tbe bulletins written. Do not, however, overlook the printed material, for the technical information is being prepared in a tboroughly practical manner and so condensed and systematized as to make it easy to become informed upon what to do and how to do it.

The Food Administration some weeks ago sent to Europe a Food Commission consisting of six people. Four were to study the food problems in France, their aim being to find out just how the present needs of the allied armies and the civil population can best be met. The report from these four should soon be available. The two who went to Italy to do similar work will report later. Future conservation measures in this country will largely be based on wbat this commission reports. Tbey will probably be sent all over the country to tell American audiences of the conditions they bave found in France and Italy.

MORE TIME ON TAX REPORT

Every taxpayer will be interested in the information contained in the following telegram:

"Treasury Decision Twenty-Six Hundred Fifty, issued today extends time for filing all income and excess profits tax returns including information at source to April 1.—(Signed) ROPER, Commissioner."

All returns should be made as soon as possible, and it will be appreciated by the Government if those who can do so will accompany the report by the remittance.

Maurice McAuliffe, Salina, was re-elected president of the Kansas Farmers' Union at the recent annual meeting in Wichita. The other officers are: E. E. Woodman, Centralia, vice president; E. B. Roadhouse, Osborne, secretary; Willis D. Beller, Russell, treasurer; W. G. Swanson, Vliets, lecturer; John Scheel, Emporia, conductor. Resolutions indorsing the Government's policy of price fixing, the Government ownership of public utilities and the Federal Land Bank plan were adopted.

GFNERAL FARM AND STOCK ITEMS

Something of Interest For All—Overflow From Other Departments

DRAINAGE and the use of lime were pointed out as important factors in crop production by Dean Alfred Vivian of the Ohio University in an address given during Farm and Home Week at Manhattan. He spoke of drainage as the first round of the ladder of increased production.

Proper drainage is of utmost importance to the growth of the plant. It determines the amount of air and water the roots are going to obtain. It is gradually being realized that pure air is as valuable in the roots as in the upper parts of the plant.

The most efficient way of obtaining drainage of the soil is by laying underground tile. In many parts of the country where tile is being used, the farmers are obtaining results of which they never before dreamed.

The soil is not only the home of the plant but also the stomach of the plant. There may be food for the plant in the soil, but if the bacteria are not in condition to prepare the food for the use of the plant, it is of no value. The second step, therefore, is the use of limestone. A soil without limestone is worthless.

Even if there is limestone present, the soil must be constantly watched because it is always losing the lime. Whenever manure is plowed under, fertilizers used, or green manure is plowed under, an acid is being formed. It is the farmer's business to form an acid and it is also his business to destroy that acid.

Some soils contain enough lime to neutralize the acid formed in four or five years—others enough for a hundred years—but every soil will be without limestone sooner or later. If a farmer can grow clover or alfalfa, he need not worry about the acidity of the soil. If he cannot produce these crops, he should put lime on the soil either in the form of burnt lime or limestone. The two words, "try it," should be in every farmer's vocabulary.

Fort to Fort Road

Petitions have been completed for an eighteen-foot concrete road from Topeka to Lawrence and thence to Kansas City, Kansas, and a branch to Leavenworth. From Topeka west to St. Marys is a good gravel road in Shawnee County which at present is considered a 365-day road and will be maintained so long as the traffic does not make it inadequate. At such time as a better road is needed—and that will not be long after the new paved roads are completed—then a permanent road will be constructed here. From St. Marys along the south side of the river over the Midland Trail, a petition is on file with the county commissioners of Wabaunsee County for a gravel road. The commissioners are not at present inclined to grant the petition, as they feel that the road is not of sufficient importance to the taxpayers of that county to justify the improvement. Possibly they may change their attitude soon. Plans are being considered to circulate petitions for a gravel road along the north side of the river over the Golden Belt Route in Pottawatomie County between St. Marys and Manhattan. Just what success will be met here remains to be seen. It is proposed to include with this improved road a gravel road from Wamego to Westmoreland, the county seat of Pottawatomie County.

The last link in the eastern section of this road has just been assured through the filing of the Leavenworth and Wyandotte petitions following a canvass by E. C. McNerney, of Tonganoxie. Mr. McNerney has just reported to J. Frank Smith, general manager of the Kansas Good Roads Association, that signatures have been secured in both these counties, representing 60 per cent of the land in the district. The road has already been declared a Federal Aid road, and the filing of these last petitions with the county commissioners practically assures the federal aid.

In Riley County the county commissioners have been holding back any move to improve the Fort to Fort road across that county from Manhattan to Camp Funston. This is a very important section of this state highway and it is hoped that conditions will soon change in favor of a paved road across Riley County.

The War Department has constructed a bituminous macadam road across the Fort Riley reservation, which provides a good road to the river between the fort and Junction City. Arrangements are made for a paved road into Junction City and a concrete road is already constructed three miles southwest of Junction City.

In Dickinson County, adjoining Geary on the west, a petition has been completed for a good gravel road from the county line west to Abilene.

In Saline County petitions are being prepared for a paved road across that county.

The prospects are very good for a 365-day road from Kansas City and Leavenworth west to Salina within a year.

Grass on Hilly Land

Grass crops rather than cultivated crops should be maintained in fields that are steep and subject to surface run-offs. Through run-offs the best soil is carried away. This is the reason cultivated crops should not be grown on steep hillsides. The few inches of surface soil contains more nitrogen and organic matter than the subsoil.

The surface soil contains the more readily available plant foods. It is this soil that has been carried from the uplands to the bottom farms where it has built up the most productive class of soil. In addition to the organic matter and plant food removed by surface run-off, gullies form in fields and interfere with cultivation.

Since it is the run-off of water which causes the damage, any means of preventing this will decrease the loss. A soil which contains a large amount of organic matter will absorb and hold more water than one which has a low organic content. A high organic content will be obtained by plowinng under green crops, such as sweet clover, cowpeas, or alfalfa, or by application of straw and manure from barnyards.—R. I. THROCKMORTON, K. S. A. C.

Cheap Seed Is Expensive

There was a man drifted in here the other day acting like he had something on his mind. Nice old man. Bought clover seed of me for years. Didn't buy of me last time though. Thought my prices were too high. Found some cheaper seed that looked like a bargain.

I didn't say anything about clover seed this time, but we passed the time of day, talked about the weather, and so on, and directly the talk drifted around to weeds.

Said he found a yellow vine in his clover field last fall that he couldn't name. Twined all over the clover and killed it out. Spots of it all over the field. And another plant that looked like dooryard plaitain, only the leaves stood up more in bunches, and were rougher and narrower, and had a head like a timothy head only stiffer. Thick as hair all through his clover. And a thistle that wasn't very big but awful prickley and seemed to be spreading from the root. And a white flower that looks like carrot tops, only finer.

Know what he had? It was dodder, and buckhorn, and Canada thistle, and wild carrot. And he got it all in that devilish cheap clover seed. He got a plenty, too.

I told him all I could about the weeds, and got out my microscope and museum of weed seeds and showed him what the seeds looked like and how to watch for them. But he's got a job of weed fighting ahead of him that will last for years.

And just as he started away he said: "By the way, Henry, I wish you would save me five bushels of good clover seed. I'll be after it Saturday." And after he got outside he stuck his head in the door and said: "Say, I forgot to ask you what the price was, but it'll be all right anyway."

Yes, indeed. Cheap clover seed doesn't interest him any more.—Field's Seed Sense.

Spraying Orchards Profitable

Spraying orchards brought large money returns to farmers in ten Missouri counties last year. It will pay on every barren orchard which is barren because of insect and disease attacks. Many orchards of bearing age are producing absolutely nothing because they are neglected. Spraying and pruning will put these orchards in bearing condition. The figures given were obtained from orchards that had never been sprayed before the season of 1917 and should convince anyone who has doubts concerning the value of such orchard practices.

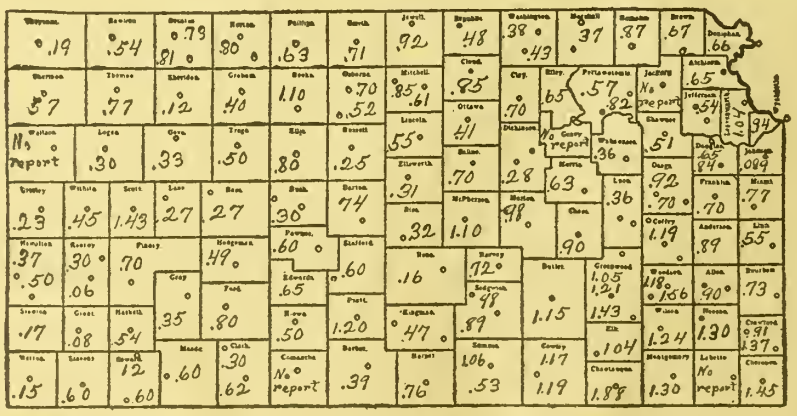
G. C. Kinder, Daisy, Cape Girardeau County, sprayed eight trees at a cost of $6 and made a profit of $54; Emmett Linder, Kirksville, Adair County, sprayed seven trees at a cost of $3.82 and cleared $43.18; T. S. Frost, Cassville, Barry County, twenty-one trees, cost $6.80, profit $55.20; Clyde Shelman, Cameron, DeKalb County, eighteen trees, cost $8.92, profit $116.08; J. C. Beard, Fredericktown, Madison County, ten trees, cost $5.50, profit $24.50; W. E. Cottey, Edina, Knox County, 300 trees, cost $60, profit $440; Louis Hackman, St. Charles, St. Charles County, twenty-one trees, cost $16.71, profit $204.41; C. J. Westmire, Farmington, St. Francois County, twenty trees, cost $15.32, profit $142.18; W. S. Melton, Poplar Bluff, Butler County, twenty-four trees, cost $15, profit $55; Charles Tanzberger, Jefferson Barracks, St. Louis County, 130 trees, cost $84, profit $1,813.55.

These figures were obtained under conditions which can be duplicated by any man who has an orchard to spray. It is apparent from these results that even a small orchard of a few trees can be made to pay. The Missouri College of Agriculture co-operated with these men in the experiments. Similar co-operative orchard work is done each year by the horticulturists of the extension division of our Kansas Agricultural College. You should act at once, as the spraying season is almost here. Make your plans to prune and spray this year and increase the profit from the orchard.

How labor and feed may be saved by using a self-feeder is explained in a circular issued by the division of extension in the Kansas Agricultural College and written by Carl P. Thompson of the division. Mr. Thompson shows in the bulletin that more rapid and economical gains are made when the self feeder is used than when the hogs are fed by hand. Plans and specifications for constructing self feeders at small cost are included in the circular which may be had upon request to the division of extension.

Precipitation of January 1918

Reports Furnished by S. D. Flora, Meteorologist, Weather Bureau, Topeka



KANSAS received more precipitation during last January than in any month since September, and the amounts were close to normal in all places. Most of this moisture occurred as snow, which fell to the depth of six to ten inches over the greater part of the state and was the heaviest since March, 1915. It lay on the ground practically all the time after the tenth, but drifted badly in the high winds that accompanied several cold waves, leaving many fields bare, especially in the western portion, where moisture was most badly needed. Wheat was practically dormant. Where the snow did not blow off, or where it drifted to a considerable depth, wheat greened up a little, but generally its condition was the same as at the end of December—poor to fair—and it was still needing more moisture.

Hog and Corn Figuring

[Continued from Page One]

fore I am losing $5.50 on every hundred pounds of hogs I sell, and work and risk thrown in.' Now this man is making not merely one mistake in his reckoning. He is making a whole row of them.

"In the first place the finding of the committee of hog experts did not say and did not mean that it takes thirteen bushels of corn to make a hundred pounds of hog. The thirteen-to-one ratio in reality offers a price which puts a substantial premium on hogs over the amount of corn necessary to grow them under average conditions.

"An average of six feeding trials at the Missouri, Nebraska, Iowa and Indiana experiment stations — reported in Purdue University Extension Bulletin 39 —gives the amount of corn required to make a hundred pounds of pork as 586.2 pounds, or slightly less than 10.5 bushels. This is for corn, fed alone, under dry lot conditions. Here is a premium of 2.5 bushels to pay for the feeding and the risks. Besides, fertility is maintained by feeding the corn on the farm.

PREMIUM ON WISE FEEDING

"In addition to this the farmer who lets his hogs follow cattle and turns into pork everything on his farm which would otherwise have gone to waste, is getting part of his hogs' weight as a gift. He can produce another large percentage of each hundred pounds by various forage crops, many of which at the same time improve his soil. By the amount the farmer can manage to grow his hogs on other and cheaper things than corn he can increase his profits over the normal corn fed premium.

"Thus, instead of thirteen bushels, it takes, according to actual experiment, less than ten and one-half bushels to make a hundred pounds of pork, and by using skillful hog-raising methods this amount may be cut down a good deal lower yet.

ONLY ONE-FIFTH CORN MARKETED

"Here is another point which we are apt to overlook. It is only because 82 per cent of the corn crop is fed on the farm and only 18 per cent is put on sale that corn brings the price it does. Just stop and think what would happen to the price of corn if most farmers tried to sell their corn as corn, instead of feeding it. Instead of 18 per cent, or less than one-fifth of the entire crop going onto the market, we would have three or four times the amount that the trade normally takes flooding the market and corn would go to the prices that prevailed in the 90's. The price of corn depends on the fact that four-fifths of the crop is fed and never reaches the market to break it."



Profiteering in Seeds

NO ONE should think of asking exorbitant prices for seeds this year. There are always some, however, who take advantage of such opportunities as the one presented by the general scarcity and poor quality of seed available for the present year's planting.

The Agricultural Production Committee of the State Council of Defense in a recent meeting considered the seed situation and particularly that phase having to do with the prices to be charged for seeds of the various kinds. Following this meeting which was held February 5, the committee issued the following statement:

Complaints have reached the Council of Defense of exorbitant prices demanded for corn, kafir, and cane for seed. We feel that a plain statement of the seed situation in the state will help to correct this unfortunate condition.

The crops of corn, kafir, and cane in Kansas this year are below the average both in quantity and quality. Nevertheless, the portion of those crops required for seed is comparatively so small, the supplies available for seed are perhaps ample in most cases for the needs of the state. All food is high and good seed should command a good price, but exorbitant prices are justified neither by existing conditions nor patriotic motives. Such prices are profiteering pure and simple.

The Agricultural Production Committee of the Council of Defense has listed the names of farmers with seed for sale and is rapidly testing for germination the hundreds of samples submitted. This list will soon be available for anyone wishing to secure good seed. Any prospective buyer can get in touch promptly with hundreds of farmers with good seed for sale simply by advising the agricultural prodnction committee of his needs.

But seed should be secured without further delay. Transportation is very slow and the demand from other states less fortunate in their seed supplies suggests the wisdom of quick action on the part of our farmers in taking care of their own needs.

Considering the high price of sweet sorghum seed, and the demand for sweet sorghum seed outside the state, it is the recommendation of the committee that the crop be planted this year in rows and cultivated. Practically as much feed can be produced where the crop is planted in this way as where it is sown broadcast, and a large quantity of seed will be saved. In view also of the shortage of sweet sorghum seed, it is recommended that farmers considering using this crop for feed purposes plant a portion of their acreage to Sudan grass. Sudan grass planted on clean ground late in the spring when the soil is warm, at the rate of eight pounds to the acre, in rows twenty-two inches apart, will produce a heavy yield of excellent feed. Sudan grass seed is plentiful.

It is strongly urged that purchasers should make germination tests of all seeds before planting. It is known that much of this year's corn and sorghum seed is of low germinating power. Average of all tests at the laboratories of the Agricultural College showed but 76 per cent germinability for corn, which of course means that about 25 per cent would not grow. Germination tests of kafir show equally poor results. Unusual conditions are found this year with respect to corn especially. One ear will show a high percentage of germinability. Another ear is dead. A dead seed ought to be fed, not planted. The only way to tell whether seed is dead or alive is through the germination test. The price of farm crops this year is high. This is not a year to run risks. Insure against crop failure by planting seed that will grow. Play safe. Buy early. Test your seed.

National Farmers' Association

The National Farmers' Association, which holds its third annual convention in Kansas City at the Coates House on February 20, 21 and 22, is a broad, democratic association in the fullest sense of the word. Its membership comes from all farmers' organizations and from unorganized farmers as well. At the coming convention the different farmers' organizations are all asked to send delegates. Governors of states are asked to appoint ten delegates each selected from among the best and most practical farmers of their respective states. A general invitation is also extended to individual farmers to attend. All farmers in attendance will have equal rights and will be granted a voice and a vote.

The farm labor question is one of the most important subjects to be taken up. This, with problems of marketing, will constitute the principal business of the session. Federal officials connected with the work of helping out the farm labor situation and officials of labor organizations are expected to be in attendance and assist in devising ways and means of meeting the conditions now confronting agriculture.

C. D. Resler, of Chanute, Kansas, is president of this organization, which is national in character. A business office has been maintained in Kansas City, Missouri, for some time in charge of the secretary, I. M. Wright. The following extracts from a circular of the organization will give some idea of its general scope and purposes:

The prime purpose of the association is: To establish a market system for our great staples such as wheat, corn, oats, hay, and live stock. * * *

After the war is over, then the reconstruction period begins. All prices must be lowered and revised to a peace basis. If we are to judge the future by the past, all the vocations will again be permitted to regulate the selling price of their production. Will the farmer again become a "slacker" in his own behalf and permit the same interests as heretofore to fix and regulate prices for him?

Those same interests are lying in wait and doing all within their power to again take over the market system under their control. They will not easily give over or surrender a vocation through which they have in the past been able, so easily, to wax fat and live in luxury from the sweat of the other fellow's face. * * *

It is the full intention, if possible, at this coming meeting, to elect a governing board or farmers' cabinet which shall be of national character and sit as a price-fixing and regulating commission.

Various suggestions as to who should compose this board have been made. The one suggestion most entertained is that the different state presidents or heads of the farm organizations such as the Grange, Farmers' Union, the Society of Equity, and others, should be selected as the national board, and that they be given the authority to select a commission, when the Government relinquishes control after the war, of perhaps twelve men who must first qualify as active practical farmers whose duty it shall be to fix and regulate the prices upon the great staples named above. * * *

The one fundamental principle that should govern such a board is to fix a price that would at all times and places be equitable and just to both producer and consumer with all unnecessary costs eliminated along the route from the one to the other. This would afford a modern market system to which no fair-minded person could object. * * *

Farm organizations may be rivals in many other matters but here is where all differences and jealousies must be set aside. There can be no rival market systems. The one strongest will rule. The strong system to rule must be the farmer's own market system for his own production.

Every farmer should awake to the opportunity. What one man can do in the way of price fixing on the great staple food products as a war measure, certainly can be done by ten million farmers as a peace measure.

If the elimination of the "profit hog" is necessary during war times what motive under the sun is there for retaining him during times of peace? He of all others is most responsible for bringing about conditions that cause war. The farmer must never surrender again to the "profit hog" and permit them to price-fix him.

The Farm-Labor Shortage

The farm-labor shortage exists because many farm laborers have been attracted by higher wages to war industrial work —munitions manufactures, ship and cantonment building, etc., and because many men from the farms have answered the greatest of all calls—the call of the colors.

The present farm-labor situation cannot be solved unless thousands of people who heretofore have not done farm work now undertake such service. As far as possible a new supply of farm labor must be trained, principally through boys' camps, and town and city men who will volunteer as farm workers will be needed.

Last year, all over the country communities and states grappled with their particular farm-labor problem along two general lines — emergency volunteer workers and high-school or other boys assembled in camps, and put through a short training in practical farm work.

These emergency methods did not meet the situation in a satisfactory way everywhere. There were some sections where the farm-labor shortage was not corrected and where the harvest was reduced for that reason. But there were many more places where the use of some form of emergency farm labor resulted in the saving of crops that otherwise would have been lost.

This year we may have to use even more unskilled farm labor than we did last year. The farmer will understand that this is not a hardship which applies peculiarly to him. In every industry and profession and business, in every human enterprise, revolutionary readjustments have been made necessary by the war. No commercial establishment is without baffling problems, caused by many of its skilled and valuable men volunteering or being selected for war service of some kind. The farmer is not alone in having a labor shortage to cope with. He has a host of company—every manufacturer, every business man, every commercial establishment, every producer.—CLARENCE DUBOSE.



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Do this with "Ball-Band" Rubber Footwear and you will see that it wears longest at the lowest price.

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GOOD plowing is necessary for good crops, and good plowing is largely dependent on the plow. Moline plows have long been famous for the good quality of their work.
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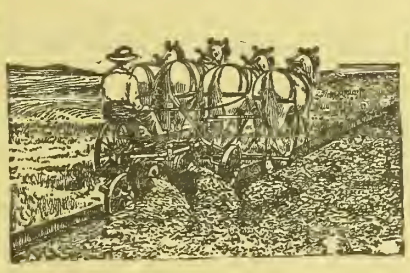



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Moline Power Lift Gang Plow

Fits any size of tractor. Power lift is so arranged that bottom can be raised entirely or any intermediate distance by simply pulling a cord—a desirable feature in difficult plowing. Very strongly constructed for hard usage. Thoroughly turns soil and covers trash. Made in 2, 3, 4 or 5-bottom sizes. Equipped with Moline Acme Quick Attachable Steel Shares—simply loosen one nut and the share comes off easily and quickly.

Your Moline dealer will be glad to show you these plows. If there is no Moline dealer in your locality write us for further information. Address Dept. *10*

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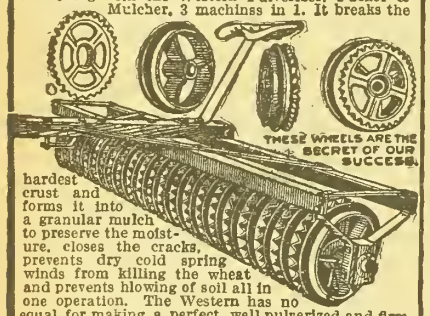
SAVE YOUR WHEAT

Winter killing can be prevented by rolling early in the spring with the Western Pulverizer, Packer & Mulcher. 3 machines in 1. It breaks the



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10 Days' Free Trial

Wood ashes are valuable fertilizers, containing considerable lime and potassium with some phosphorus. A cord of wood will make nearly a dollar's worth of fertilizer at present prices.

The entire wheat crop of France has been requisitioned by the French government.

KANSAS FARMER DAIRY CLUB

Learning By Experience

LESSONS learned from actual experience are sometimes rather expensive, but they are lessons that will not soon be forgotten. Clyde Hines, one of the Dairy Club members, has had some disappointing experiences in trying to get a good milk cow for the Dairy Club work. We have just received the following letter from him, which tells how he has learned some of the essential lessons of good dairying:

"I paid $90 for the first cow I bought, but she proved so poor that I saw there was no use trying to make a record with her, so my father took her and I looked for another cow. I found a big, nice, red cow that I could get for $100. She looked as though she would give three gallons at a milking. Her looks were deceiving. It was not milk. I also found that it did but little good to feed her grain. She would eat all you would give her, but it did not increase the milk flow enough to pay for half of what she ate.

"I began milking her June 24 and quit January 15. During that time I paid $46.93 on my note. I have fed very little grain. The pasture is about all the expense she has been in feed. I believe she will bring $80 in the spring for beef when she gets fat on grass, and I will have a pretty good calf left, so you see she will pay me well for my bother, even if she is a poor milk cow. This proves to me that a good dairy cow will be a good investment. This I probably would have been a long time in finding out if I had not joined the Dairy Club. Therefore I believe I have been well paid for joining the club.

"I am enclosing a clipping from the Chanute Daily Tribune giving an account of the calf club they are organizing. I presume my brother and I will get a calf apiece if they will let us enter the club. If we do go into this club we will get us a pig each to feed the skimmed milk to when the heifers are fresh. If I had gotten a pig last summer to feed my skimmed milk to, I would have had very little of my note left at this time."

State Pig Club Winners

Orville Caldwell, of Emporia, fourteen years old, won first honors and $10 in the 1917 state pig club contest, final awards being made at Manhattan during Farm and Home Week. Harvey Stewart, of Emporia, fourteen years old, was awarded the $10 prize in the sow and litter club contest. Otis E. Hall, state club leader at the Kansas Agricultural College, has charge of this club work.

Second places were taken by Virgil Kent, Leavenworth, and Harold Delfelder, Effingham. Thirds were won by Melvin Jung, of Lyons, and Ben Fridley, of Wamego. Ernest Lunt, of Valley Center, and Douglas Wright, of Sterling, were awarded fourth prizes. In each contest five fifth prizes were given. In the pig feeding club these prizes were won by Vance Lindahl, of Clyde, Sammie Hunt, of Sabetha, George Delfelder, of Effingham, Dean Besse, of Admire, and Roswell Capsey, of Soldier. In the sow and litter contest fifths were awarded to Leslie Stewart of Americus, Leonard Wells of Ottawa, Merrill Greenlee of Emporia, Walter Delfelder of Effingham, and Wallace Smith of Sterling.

The pig fed by Orville Caldwell weighed fifty-four pounds at the start of the contest and 345 pounds at the close. The average daily gain in the 135 days of feeding was 2.15 pounds. The total expense of feeding was $32.66. The pig sold at $56.92, netting the owner a profit of $24.26.

The winning litter in the sow and litter contest was one of ten pigs, the cost of raising being $285.82. Total receipts were $433.32, and the net profit $147.50.

The enrollment in pig clubs in the state was 466. Sedgwick County with sixty members had the largest enrollment. The sow and litter club has received increased attention this year. In this club the boy takes the pigs under his care after they are old enough to wean, and gets them ready for market. One boy may handle several pigs, producing on an average of six times as much pork as he could in caring for one pig in the pig club.

One boy, fourteen years old, raised eight pigs weighing 225 pounds each. His father figures that the profit from these pigs will bring more money to the boy than he could have earned by the month or day in working for the neighbors.

Winners of Corn Club Prizes

Cyrus Aiken, fourteen years old, of Louisburg, who won the sweepstakes prize for the state corn club boys under Otis E. Hall, state leader, exhibiting the best ten ears of corn Farm and Home Week. He will receive $5 in cash and a ribbon, and his name will be engraved on the $100 silver loving cup offered by the Kansas Crop Improvement Association and kept at the college.

First place in the kafir club contest was won by C. Erwin Henderson, Ingalls; in the feterita contest by Franklin Hull, Cimarron. The sweepstakes



CHARLES LIND HAS TRAINED THE BULL, MARQUIS GOOD GIFT, TO DO HIS BIDDING

prize in the milo contest was won by Peter Smith of Garden City.

The best display of hard winter wheat was shown by Phyllis Brown of Emporia. Mollie Brox of Atchison had the best display of soft winter wheat.

First prize for the square rod garden was won by Dorothy Taylor, Parsons; second by Eva Mae Hyde, Welda; third by Lavon Stewart, Newton; and fourth by Tom Harrington, McPherson.

Cow Test Report

We have not been able to publish regularly the monthly report of the Dickinson County Cow Testing Association, as we did for several years. This pioneer testing association is still doing business and has accomplished a great work in improving the profits of its members.

C. A. Herrick, official tester, furnishes the figures given in the table, showing the records of cows in the association which produced more than fifty pounds of butter fat during the month of January:

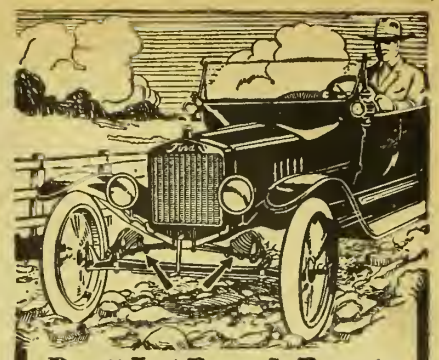
Owner—	Pounds Milk	Per Cent of Fat	Pounds Butter 80% Fat
Geo. Lenhert, H.	1,587	3.7	58.7
Geo. Lenhert, H.	1,695	4.0	67.8
Geo. Lenhert, H.	1,269	4.0	50.8
Geo. Lenhert, H.	1,857	3.6	66.9
A. B. Wilcox, H.	1,713	3.6	61.7
J. C. Stockard, S.H.	1,287	4.3	55.3
E. S. Engle & Son, H.	1,581	4.4	69.6
N. E. Engle, H.	1,749	5.2	90.9
J. A. Weishar, H.	1,500	4.2	63.0
J. A. Weishar, H.	1,380	3.8	52.4

H stands for Holstein; S.H. for Shorthorn.

Plant More Trees

In renewing his subscription, S. C. Yingling, Coffey County, offers the following valuable suggestion:

"A more general observance of Arbor Day would be of inestimable value to Kansas' future welfare, for there is much waste land along creeks and draws where valuable nut and timber trees could be grown. Many valuable black walnut trees have been cut in Coffey County this winter. The wood of these trees is being used for making gunstocks. We have white walnut or butternut, black walnut, linden, pines, and cedars, and I intend to try planting seed of hard maple, or sugar tree, this spring if the seed can be secured in suitable condition for growing. Seed will be used because it is difficult to transplant sugar maples successfully, since they are not a native tree."



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Hassler Shock Absorbers make your Ford ride as easily as a $2,000 car. They increase tire mileage 20 to 100 per cent, save gasoline, cut your up-keep bills one-third, and increase the resale value of your car. 300,000 Ford Owners recognize their economic necessity.

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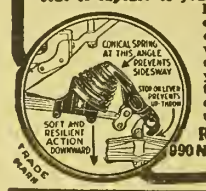

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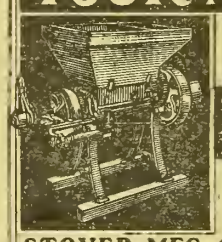

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Who brings sunshine into the life of another has sunshine in his own.—DAVID STARR JORDAN.



Breeds of Dairy Cattle

FIVE breeds of dairy cattle have attained considerable prominence in the United States—the Ayrshire, Brown Swiss, Guernsey, Holstein-Friesian, and Jersey, each of which has certain distinct characteristics not found in the other breeds, but no one breed excels in all points. Each breed is considered superior to the others in certain particulars. The different breeds are discussed in Farmers' Bulletin 893 of the Department of Agriculture, a publication which will be found valuable to those interested in dairy cattle.

In selecting a breed, a dairyman should take local conditions and market requirements into consideration in connection with the characteristics of the various breeds. He should give weight to the fact that a breed is already established in his community. The predominance of a certain breed in a section offers many advantages. For instance, a market is established, surplus stock may be disposed of to better advantage, co-operative advertising may be used, and bulls may be bought co-operatively or exchanged readily among breeders. Personal preference for a certain breed should not be allowed to cause the selection of a breed unsuited to local conditions.

The Ayrshire breed originated in the County of Ayr in Southwestern Scotland and has only been sufficiently developed to be established as a type within the last hundred years. This breed is not well known in many sections of the United States—New England, New York and Pennsylvania probably containing the largest number of its representatives. There is a small distribution in the Middle Atlantic States and the Pacific Northwest. There are now over ninety farmers in Kansas having pure-breds of this breed.

The color of this breed varies from a medium red to a very dark mahogany brown and white. The cattle have long horns which turn outward, then forward and upward. Ayrshires are characterized by quick, brisk actions. They have a highly nervous disposition and a pronounced ability as "rustlers"—the obtaining of a livelihood on scant pastures. Cows of this breed average 1,000 pounds in weight and bulls average about 1,600.

Ayrshire milk has comparatively little color and has small fat globules, because of which the milk stands shipping well without churning. The percentage of butter fat is medium.

The Brown Swiss breed, which does not have a widespread distribution in the United States, originated in the Canton of Schwyz, in Switzerland, and is found principally in New York and Wisconsin.

The cattle vary in color from a light-gray mouse color or brownish-dun to dark brown. They are mild and docile and are excellent grazers, especially on rough land. Cows average about 1,250 pounds in weight and bulls from 1,500 to 2,500 pounds.

This breed ranks well in milk production, with a moderate percentage of fat.

The Guernsey breed developed on the Channel Islands of Guernsey and Alderney, although probably the parent stock came from Normandy, France. This breed has maintained a steady growth in numbers and popularity in the country, and its largest numbers are found in the eastern and middle western states.

The characteristic colors of Guernseys are some shade of fawn and white. Cows average about 1,050 pounds and bulls about 1,600 pounds in weight. Guernsey milk is noted for his extremely yellow color and high percentage of butter fat.

The Holstein-Friesian, more commonly known as the Holstein breed, originated in the northern part of Holland, where it has been bred for centuries. Holsteins have grown greatly in numbers and popularity in recent years in this country and are most numerous in the United States in the Middle Atlantic, Middle Western, and Pacific sections.

Holstein cattle are of black and white color. They are docile and even tempered, not good "rustlers," and do best when plenty of feed is available. Holstein cows average about 1,250 pounds and bulls 1,800 pounds in weight. The average of milk production is high, but the percentage of butter fat is comparatively low.

Jersey cattle, the most numerous breed in the United States, originated in the Island of Jersey. Jerseys and Guernseys probably had the same foundation stock but have been developed toward different ideals so that the breeds now differ in a number of particulars.

Jerseys vary considerably in color. Shades of fawn, squirrel gray, mouse color and very dark brown are common. Jerseys have a highly organized nervous system and are usually somewhat excitable, responding quickly to good treatment and good feed. Cows average about 900 pounds and bulls 1,500 pounds in weight. The Jersey cow gives rich, yellow-colored milk and is an excellent butter fat producer.

Lesson in Dairying

A recent Jersey Register of Merit record has back of it a valuable lesson in dairying. Ovid Pickard, of Marion, Oregon, began his dairy career at the age of thirteen with a capital stock of 50 cents and an ambition to own a good dairy herd. That the money end was of least importance is proved by his contribution to the dairy world of a new champion.

One of his cows, Vive la France, has just smashed the world's record for junion three-year-old Jersey cows by making, in one year, 892.63 pounds butter-fat, or over 1,100 pounds of 80 per cent butter. Her milk record was 12,744.8 pounds. Her average test for the year was 7 per cent.

In developing this wonderful animal Mr. Pickard has set aside the belief of many dairymen, that champion cows can only be developed on the farms of cattle fanciers whose unlimited resources allow them to give their animals special care and feed. He has proved, as many other working farmers have done, that proper selection, careful breeding and the courage to adequately feed the most promising individuals in a herd, will open the way to success and fame for the small breeder.



VIVE LA FRANCE, JUNIOR THREE-YEAR-OLD CHAMPION JERSEY—MILK 12,744.8 POUNDS, FAT 892.6 POUNDS

Perhaps Mr. Pickard's own words will serve best to illustrate the manner in which he has reached one of the top rungs of the ladder of fame. He says: "I have always loved the Jersey cow, from boyhood up. Many times when a mere boy I have gone miles to see some farm where they kept registered Jerseys just to see those beautiful cows, and when I would read of these cows making fourteen pounds of butter a week I wondered if I would ever be able to own such cows. The chances did not look very bright, for I started out to do for myself at the age of thirteen with but fifty cents in my pocket.

"When I first saw Golden Glow's Chief, the sire of Vive la France, I said, 'There is the best bull I have ever seen.' I believe that my close study of breeding animals stood by me, as this bull now has fourteen daughters that average 700 pounds of butter, and thirty daughters that average 600 pounds of butter. The dam of the new champion is Sugar-in-the-Barrel, a cow with four Register of Merit daughters.

"Vive la France has had good care and plenty of feed during her test, and she has paid well for it. My motto is, 'Good breeding, good feeding and good care, with kindness.' These are all essentials in the making of good records.

"We read of balanced rations for cows, and we believe in balanced rations, but I have always found that we cannot balance the same ration to suit all cows. We must study our cows and know them, then balance the ration to the cow."

Labor and machinery being scarce, we must make plans whereby machinery shall be used to its utmost and labor organized and taught to become proficient enough to make up for our lack of man and horse power in order that we may produce our maximum in spite of all the handicaps war has put upon us.

A prosperous citizen of Kansas who was born in Germany is urging his fellow Germans who are now citizens of the United States to support the Government in all its war activities. He writes to his county school superintendent: "It is the only thing to do. I have more to lose in this war than you have, for should Germany be victorious we would feel the full force of her mailed fist. She may forgive you for being an American, but she would never forgive us for leaving her of our own free will and coming to a place where the individual is paramount to the state. I left Germany for the same reason the United States is now fighting her — for freedom."

WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

Three Important Reasons For Buying a NEW DE LAVAL CREAM SEPARATOR At Once

THERE are three very strong reasons for the immediate purchase of an up-to-date De Laval Cream Separator.

In the first place, a new De Laval machine will now save its cost in a few months—in more and better cream and butter and in time saving—at the present very high butter prices and great need of every minute of time.

In the second place, the patriotic duty rests upon every producer of butter-fat to save every ounce of it, and nothing is of greater food value to a nation at war. All European countries are encouraging the sale of the best cream separators in every way possible.

In the third place, railway delays are such that you can't depend upon quick delivery, and if you don't order your De Laval now there is no telling when you can get it. Moreover, the supply of labor and material is uncertain and all last year De Laval deliveries were nearly two months behind.

Again, De Laval prices have advanced very little thus far but must go higher if present industrial conditions continue, let alone become more difficult. Present prices hold good until March 1st only.

There was never a time when the immediate purchase of a latest improved De Laval Cream Separator was more important to everyone separating cream, or when it could less wisely be delayed.



See the nearest De Laval agent at once. Arrange to try a new De Laval machine for your own satisfaction. See for yourself just what it will do for you. If you don't know the nearest agent simply address the nearest General Office

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That hide is worth more to you as a coat than it will bring you as a hide. Real wool coats will be scarce next year, tailors say. Prepare now for next winter by getting a fur coat for every member of the family. Send your hides to us for tanning and coat-making. Our work is best. Our prices are most reasonable. Send for FREE illustrated catalog.

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COLORADO LAND BARGAIN
Dry goods merchant owns 3,000 acres choice land in the wheat and corn belt of Eastern Colorado. An ideal location for cattle, sheep, or hog raising. Fine proposition for some hustling farmers who are tired of paying rent and sick of working for the other fellow. I own the land and will let the right fellows in on a good deal. Write me.
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COLORADO LAND for SALE
In Kit Carson County, Colorado
Southwest quarter Sec. 13, Twp. 9, Range 46, $15 per acre. Southwest quarter Sec. 14, Twp. 9, Range 46, $15 per acre. North one-half Sec. 9, Twp. 9, Range 45, $17.50 per acre. Address
Frank Jaehn Construction Co.
Huron, South Dakota.

SITUATION WANTED.

EXPERIENCED MAN WANTS WORK ON a farm by year or month. Address Coda Blair, Arno, Mo.

THE STRAY LIST.

TAKEN UP—BY SARAH F. BARKER, Rural Route 4, Kansas City, Kansas, on the 22d day of January, 1918, one yellow heifer, no marks or brands. Appraised at $20. William Beggs, County Clerk.

FARM AND HERD.

H. E. Anderson, of Clover Valley Holstein Farm, Whitewater, Wisconsin, reports his Holsteins making fine records again this year. This herd is headed by Sir Pontiac Chief 100732, dam Pontiac Denijlander, with the following records: At 3½ years, butter 7 days, 30.10; milk, 7 days, 588.60; butter, 30 days, 123.88; milk, 30 days, 2,522.2; at 4½ years, butter, 32.72; milk, 613.30; butter, 30 days, 135.31; milk, 30 days, 2,632.01; at 5½ years, butter 35.43, milk 750.20; butter, 30 days, 144.60; milk, 30 days, 3,090.06.

Dan Wilcox, of Cameron, Missouri, who owns the Crystal herd of Chester White hoge, one of the best herds of that breed in Missouri, reports his herd doing well. This year Mr. Wilcox has a large number of choice tried sows ann sprldg gilts bred to farrow in March and nearly April, a lot of them sired by Achilles 58994 and bred to Billy The Kid, a grandson of Wm. A. The blood lines of Crystal herd are the best of the breed and Mr. Wilcox has succeeded in developing a type that matures early, has sizs and quality, and are very profitable feeders.

Updegraff & Son, of Topeka, are among the live breeders of pure-bred stock that are consistent workers in the interest of improved stock on Kansas farms. Their specialty is pure-bred big-type Poland China hogs and the herd of Polands on their farm two miles from the city limits is one of the high class herds in this state. This year they have bred thirty-five sows and gilts for spring farrow. Many of their sows are by King of All. Others are daughters of Meyers' Orange. They have a choice lot of gilts by Riverside Wonder by Bib Bone Jr. and out of a Big Bob Wonder dam. Their sows and gilts are bred to Gerstdale Jones Again and Riverside Chief, a good son of Chief Mian.l. Updegraff & Son keep their herd immune at all times and the result is a healthy growthy lot of Polands.



Pure-Bred Sire Pays

IF THERE is any place where theory and practice "link together," it is in the value of the pure-bred sire in live stock improvement. Theory says "blood will tell," and practice proves it.

There is abundant testimony to show that a grade or mongrel sire will "backfire" and the offspring prove a degraded or nondescript animal. On the other hand, evidence is not lacking that the offspring resulting from the service of the sound pure-bred sire will not only be a valuable addition to any stud, herd, or flock, and a credit to the judgment and intelligenee of the breeder, but will bring a higher price on the market.

Many concrete instances can be given illustrating the benefits and profits resulting from the use of pure-bred sires. Two or three cases from widely separated districts will show the greater advantages resulting from wise and careful selection.

There is the case of a man out west who began farming with a small number of scrub mares which he always bred to pure-bred stallions. The mares averaged about 1,200 pounds, and at prices prevailing today would barely bring $125 apiece. Some of the first colts sold at maturity at prices as high as $175, while fillies that were retained and in turn later bred to pure-bred draft stallions produced male and female colts none of which sold for less than $160. Three mares sold at $235 each, and $450 was offered for one team. When it is remembered that this man started with scrub mares, it readily can be seen what the next crop of colts from pure-bred stallions will bring. In other words, this man is grading up by using good sires. His profits would have been still larger had he started with grade mares instead of scrubs. The results, however, show the value of the pure-bred male and his influence for improved live stock.

Another instance is that of an Ohio farmer who several years ago purchased a pure-bred mare of one of the popular draft breeds, which has, in eleven years, produced ten colts, nine of which were raised. These colts increased this man's bank account to the extent of $4,930. The highest price received was $850 for a four-year-old mare, and the lowest $325 for an eleven-months-old colt. Included in the total given are $300 which this man estimates as the value of a weanling filly which he is keeping.

In a northern state a good pure-bred stallion and a grade were standing in the same community, the owner of the pure-bred charging a fee of $15, while the grade stallion stood at a fee of $10. A wise farmer bred his mares to the higher-prieed pure-bred, while a neighbor, feeling that the cheapest was the best, patronized the grade. This is what happened: Two fillies sired by the pure-bred stallion could have been sold at $750, but the owner would not let them go at that price, claiming they were worth more. The other farmer sold two mares by the grade stallion for $200. One striking thing about this instance is that the mares owned by both of these farmers were of practically the same type and breeding.

Fat Cattle Prices

"Any hardship which farmers have suffered, and for that matter any hardships which other classes have recently suffered, are simply the inevitable result of war. It is the Prussians who are hurting some of you cattle feeders, not your fellow citizens or your government."

That was the answer of E. D. Durand, assistant chief of the meat devision of the United States Food Administration, to complaints that cattle feeders have lost money recently. Mr. Durand, who spoke to the farmers of Nebraska at Lincoln recently, indicated that the meat division will not change the minimum of $15.50 for hogs for some time to come. Enough export orders are on hand to hold the price above that figure during the winter. Orders for beef for export shipment are also on hand, and he predicted that there would be no decline in medium weight, medium quality cattle.

Mr. Durand stated that the food administration is endeavoring to protect the consumer as much as the producer. The meatless days will be continued, he declared, despite some agitation to have them done away with. "The meatless and wheatless days do not merely save meat and wheat," he said. "They are the symbols of general saving. They are a pledge on the part of the people to economize all along the line to help in the war." The abandonment of the meatless days would be of little assistance to cattle feeders. "It is top prices that have fallen," he said. "The prices of the lowest grades of cattle have actually moved up."

Why Live Stock Is Scarce

The present shortage of meat animals offers the live stock man the greatest opportunity that has been held out to him for many years. He has a double opportunity—for patriotic service and for advancing his business. How the shortage which opened this opportunity came about was given by F. B. Mumford, dean of the Missouri College of Agriculture, in addressing a meeting of Missouri pork producers.

"During the three years of war, the belligerent nations have found it necessary to reduce their live stock in order to sustain their armies and their civilian population," said Dean Mumford. "They have made this reduction to get meat and fat enough for their people. They had a further reason in that they needed the land which was maintaining these animals for bread-grain production. They have not had land enough and labor enough to produce food grains for their live stock. As a result the reduction in the number of live stock in European countries has reached almost staggering proportions. The cattle population has been reduced by 28,000,000 head in the allied countries and in Germany and Austria. The number of sheep has been reduced 54,000,000 head. There has been a total net decrease in live stock for the world of 115,560,000 head.

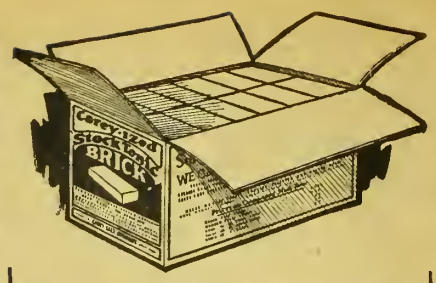
"The belligerent nations must have meat and fat. Their own supply is so depleted that they must depend upon the supplies of exporting countries. Presumably the condition which brought about the decrease in live stock during the three years of war that have passed will become more acute as the war continues. Two facts are apparent from these statistics: The first is that no matter how long the war lasts, the demand for live stock products will be greater and greater and greater. The second is that even though peace should come immediately, the demand for live stock will not be changed because the supplies of all nations are depleted, and they will have just as many people to feed in peace as in war. It is possible that these same people will need more meat and fat after the war than they are now eating under enforced conservation. War or no war, therefore, there will be a world-wide demand for meat production."

Announcement has been made that the prices of binder twine for 1918 and the supply will be controlled by the Food Administration. This control has been worked out through voluntary agreements of manufacturers. Buying will be centralized and competition eliminated. It is expected that this arrangement will stabilize prices, prevent undue advances, eliminate waste, speculation and hoarding, and give the product to the farmer at the lowest reasonable cost. Henry Wolfer, former warden of the Minnesota prison, is administering twine control for the Food Administration.

Tells Why Chicks Die

E. J. Reefer, poultry expert, of 463 Reefer building, Kansas City, Missouri, is giving away free a new book which tells of a simple home solution that raises 98 per cent of all chicks hatched and cures white diarrhea over night. All poultry raisers should write for this valuable free book.—(Adv.)

We can't reform our parents or our grandparents, but we can do something with ourselves.—Live Wires.



HOG HEALTH

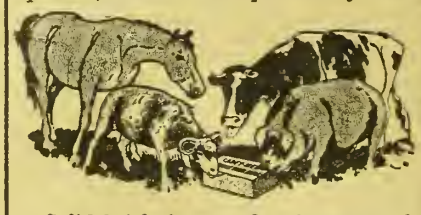
Immature corn will make serious trouble for hog raisers this year. But as a good hog looks more like a $50 bill now than ever before, it is worth a little extra care to get it to market quickly and in good condition.



This is exactly the emergency in which Carey-ized Stock Tonic Brick shows itself to greatest advantage. It is the tonic which your hogs crave and must have to keep stomach, bowels, liver and kidneys in order—prevent or destroy worms.



Carey-ized Stock Tonic Brick keeps brood sows and young pigs in good health—prevents scours. Puts growing pigs on the market in less time at less food cost. Composed of eight different ingredients: Powdered gentian root, sulphur of iron, bi-carbonate of soda, sulphur, carbonized peet, quassia, charcoal and pure dairy salt.



Solid brick form makes it easy and economical to feed. Just place it in the feed lot or troughs—animals will portake of it only when they need it and as much as they need. Indispensable and undoubtedly the cheapest, most convenient and surest health promoter for live stock which science has discovered.

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Order a dozen bricks from your dealer, let your animals have free access to it for 60 days. If you are not satisfied with the result, return what you have left to your dealer, who is authorized to refund your money. If your dealer does not handle Carey-ized Stock Tonic Brick, fill out and mail us the coupon below and we will see that you are supplied.

We are an old established, reliable firm, and your banker will tell you that we are financially responsible. We want you to know that you are taking no chances whatever in sending us a trial order. We know that a fair trial and the rapidly improved condition of your live stock will show you that you can not afford to be without this wonderful remedy. Surely no squarer offer can be made to you than that we will give you 60 days in which to try out this preparation and will refund all your money if you are not entirely satisfied. You can not lose and are sure to gain by the experiment. Fill out and mail the coupon today and get the benefit of this sterling health promoter and conditioner while live stock values are high. Valuable stock health literature free on request.

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CAREY SALT CO.,
Dept. 256, Hutchinson, Kansas.
Enclosed find $2.50 (check or P. O. money order). Send me, prepaid, one dozen Carey-ized Stock Tonic Bricks for 60 days trial—my money back if not satisfied.

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Prize Winners in Club Work

By ETHEL WHIPPLE

THE large exhibit of canned fruits, vegetables, and meats, and of plain and fancy bread, both white and brown, made at Manhattan during Farm and Home Week by the mother-daughter canning clubs and the bread clubs of the state, showed that the club members are doing their part in producing and conserving foodstuffs. The sewing clubs also furnished convincing proof that they have been doing their part toward "keeping the home fires burning."

In the mother-daughter canning clubs the work is done in teams, a mother and daughter working together. If an older woman who has no daughter wishes to become a member of the club, she may bring into it as her junior partner a neighbor's daughter. Boys may enter on the same terms as girls if they wish. Mrs. E. L. Marshall, of Bonner Springs, a member of the Glenwood Mother-Daughter Canning Club and who was awarded first honors on canned meats, displayed chicken, pork, tenderloin, rabbit, spare ribs, and sausage. Prizes for canned foods to the amount of $8.50—including three first prizes—were won by members of clubs among the colored people. Though there have been for several years a few clubs under the direction of the state club leader having a colored membership, a man of their own race, who works exclusively among the colored people, has been added to the extension force during the past year, with the result that the club work is now reaching a great many more of this race.

Class B in the sewing club work is composed of girls between ten and fourteen years of age. The full set completed by each girl consists of a bib apron, sleevelets, a dusting cap, a nightgown of longcloth, muslin, nainsook, or cotton crepe, with round neck and elbow sleeves trimmed with lace edging, and samples of darning and patching. Class A is for girls between the ages of fifteen and eighteen. Their work is the same as that of those in Class B except that a cotton school dress is required instead of darning and patching. In making this dress a commercial pattern is used, but patterns for the other garments made in both classes are drafted by the contestants. Club members were allowed to enter the full set of garments made in the year's work, or, if they preferred, to make single entries—either the apron set, consisting of apron, cap, and sleevelets, the nightgown, the school dress, or, in the case of Class B members, models showing darning and patching. In determining the awards, 30 per cent was allowed for records and story of the club work.

Among so many beautiful exhibits it was difficult in the brief time at our disposal to select those worthy of special notice. One or two which had distinctive features may be mentioned, however. The school dress displayed by Cecile Paine, of Admire, seemed to us particularly attractive, not because the workmanship was better than that of some others shown, but because the simple, well worked out design was so suitable for its purpose. This dress was made of a soft blue and white gingham, with sailor collar, cuffs, tie, and pockets of white, finished with an edging in which blue rickrack braid was skilfully combined with white crochet. A plain white belt went with this dress. A neat pink and white gingham dress with collar and cuffs trimmed with a tatted edging was also a pleasing model, and we are sorry that we did not learn the name of the maker.

In the work of the younger girls, Ruth Coad, of Cawker City, who won first prize on the full set required, exhibited some unusually good darning. Her work on a black stocking was so fine and so evenly done that took a careful inspection to convince one that she had not inserted a piece of woven cloth.

We were glad to note among the prize winners a few of our own Dairy Club members. The list of awards follows:

CANNED FOODS

Soft Berry Fruits—First, $2, Mrs. George O. Greene, Manhattan.

Soft Pit or Stone Fruits—First, $2, Mrs. Brown, Manhattan; second, $1.50, Mrs. George O. Greene, Manhattan; third, $1 each, Mrs. T. H. Parks, Mary Hall, Mrs. Harrison, and Mrs. Pryor, all of Manhattan.

Hard Fruits—First, $2, Mrs. Owens, Manhattan; second, $1.50, Mrs. E. G. Alexander, Manhattan.

Beans—First, $1, Ernest V. Carson, Emporia; second, 75 cents, Mary Hall, Manhattan; third, 50 cents, Mrs. Spencer, Manhattan.

Beets—First, $1, Mrs. Nellie C. Herriott, Manhattan; second, 75 cents, Mrs. C. A. Teagarden, Manhattan.

Corn on Cob—First, $1, Mary Hall, Manhattan; second, 75 cents, Mrs. C. Meyer, Bonner Springs; third, 50 cents, Mrs. E. L. Marshall, Bonner Springs.

Corn Club Breakfast Food—First, $1, Mary Hall, Manhattan.

Greens—First, $1, Mrs. E. L. Marshall, Bonner Springs; second, 75 cents, Mary Hall, Manhattan; third, 50 cents, Mrs. C. A. Teagarden, Manhattan.

Peas—First, $1, Mrs. George O. Greene, Manhattan; second, 75 cents, Mary Hall, Manhattan; third, 50 cents, Mrs. Nellie C. Herriott, Manhattan.

Pumpkin or Squash—First, $1, Mary Hall, Manhattan; second, 75 cents, Mrs. E. L. Marshall, Bonner Springs; third, 50 cents, Mrs. Nellie C. Herriott, Manhattan.

Sweet Potatoes—First, $1, Mary Hall, Manhattan.

Asparagus—First, $1, Mrs. Nellie C. Herriott, Manhattan; second, 75 cents, Sylvia Harter, Manhattan; third, 50 cents, Mary Hall, Manhattan.

Beet Pickles—First, $1, Mrs. Brown, Manhattan.

Pears—First, $1, Mrs. M. S. Spencer, Manhattan.

Meats — First, $3, Mrs. E. L. Marshall, Bonner Springs; second, $2, Mary Hall, Manhattan.

Tomatoes—First, $1, Mrs. M. S. Spencer, Manhattan; second, 75 cents, Sylvia Harter, Manhattan; third, 50 cents, Mary Hall, Manhattan.

SEWING CONTEST

Class B, Full Set—First, $5, Ruth Coad, Cawker City; second, $4, Leta Bradley, Fredonia; third, $3, Julia Martin, Admire; fourth, $2, Mary L. Wortman, Dodge City; fifth, $1 each, Avanel Ellis, Lyons; Hilma Elledge, Pierceville; Orpha Railing, Dodge City; Cora Hunt, Americus; Mary Calhoun, Lake Valley; Mildred Gehrette, Mankato; Lutie Whitcomb, Cottonwood Falls; Minnie Eherle, Emporia; Lucile McKenzie, Wayne; Virgie Armstrong, Pierceville.

Class A, Full Set—First, $5, Nellie Whitcomb, Cottonwood Falls; second, $4, Garnet Carpenter, Fredonia; third, $3, Cecile Paine, Admire; fourth, $2, Vera Coad, Cawker City; fifth, $1 each, Ina Smith, Lyons; Vada Wilke, Inman; Wanda Campbell, Wayne; Mary Seeley, Wilroads; Katherine Esau, Inman; Mary Griffith, Emporia; Ruth Bowman, Colby; Alma Goss, Pierceville.

Class B, Single Entries—First, $3, Hilma Elledge, Garden City, night gown; second, $2, Leta Bradley, Fredonia, night gown; third, $1 each, Mary L. Wortman, Dodge City, patches; Lutie Whitcomb, Cottonwood Falls, apron set; Mildred Gehrette, Mankato, night gown; Cora Hunt, Americus, apron set; Orpha Railing, Dodge City, apron set; Mary Calhoun, Kipp, night gown; Hilda Wilke, Inman, apron set; Minnie Eherle, Emporia, apron set; Virgie Armstrong, Pierceville, apron set; Lila Bly, Pierceville, night gown.

Class A, Single Entries—First, $3, Nellie Whitcomb, Cottonwood Falls, night gown; second, $2, Nellie Whitcomb, school dress; third, $1 each, Cecile Payne, Admire, school dress; Garnet Carpenter, Fredonia, night gown; Vera Coad, Cawker City, night gown; Vada Wilke, Inman, school dress; Mary Griffith, Emporia, night gown; Wanda Campbell, Wayne, night gown; Mary Seeley, Wilroads, night gown; Katherine Esau, Inman, night gown; Alma Goss, Kipp, night gown; Ruth Bowman, Colby, night gown.

BREAD

White Bread—First, $5, Vada Wilke, Inman; second, $4, Lena Lickteig, Greeley; third, $3, Helen Hill, Axtel; fourth, $2, Mary Lee Wortman; fifth, $1 each, Georgia Denton, Denton; Marie Austin, Saffordville; Inez Lovell, Maple Hill; Martha Coffey, Axtell; Elnora Carlson, Maple Hill; Doris Walton, Wayne; Hary Higdon, Potwin; Phyllis Brown, Emporia; Mary Lickteig, Greeley; Edith Carlson, Maple Hill.

White Bread Modifications—One loaf raisin bread, half dozen cinnamon rolls, and half dozen Parker House rolls: First, $3, Hilda Wilke; second, $2, Katie Lickteig; third, $1, Jennie Smith.

Brown Bread—First, $5, Phyllis Brown; second, $4, Elnora Carlson; third, $3, Mary Lickteig.

Peter Eicher, of Thomas County, in the northwestern part of the state, writes that he raised 2,500 bushels of corn on a hundred acres, 10 per cent of which is good enough for seed. He states that there was not enough oats, barley, and wheat raised last year for seed The corn in that part of the state would have made quite a crop this year had it not been for the freeze of October 6. There is plenty of rough feed for stock and all classes of animals are in good condition. Too much young stock has been shipped out, in Mr. Eicher's opinion. Sows, however, are being held. Hogs are not very plentiful, but are being fed to heavier weights. This would indicate that those having hogs are responding to the demand for more pork and are trying to market as much grain as possible in the form of pork, which is so much in demand for war rations.

The average chick increases in weight from twenty to twenty-five times in the first twelve weeks. There is nothing wrong with hogs, sheep or cattle, but none of these can beat the chick.

Save All Your Chicks

E. J. Reefer, poultry expert, of 163 Reefer building, Kansas City, Missouri, is giving away free a new book which tells of a simple home solution that raises 98 per cent of all chicks hatched and cures white diarrhea over night. All poultry raisers should write for this valuable free book.—(Adv.)

SAVE! TIME-LABOR MONEY AND BUTTERFAT AS A WARTIME ECONOMY

$46.90 — 375 lbs. Capacity



All Sizes up to 950 lbs.



Never was there a time when it was so important that you get every ounce of butter-fat. With cream and butter commanding top prices you actually throw good money away when you waste the smallest particle of butter-fat by old-fashioned methods of separating or by using an out-of-date model separator.

Get a Galloway Sanitary Separator

Then you know positively that you are skimming clean, right down to the last drop. My new 1918 separator is not just a warm weather skimmer. When your cows are on dry feed it will skim just as close as when the cows are pasturing. In cold weather you are not so particular if your separator doesn't skim up to rated capacity. But in the spring and summer when the grass is green and the milk flow is heavy you want a separator like the Galloway. A few minutes saved in the morning and evening mean just that much more time in the fields.

Sold Direct to You from My Factory!

And the best thing about my wonderful New Sanitary, next to its perfect skimming qualities, is that the price is right. A too cheap separator is not economy. It's just as bad to pay too little as too much. My Sanitary is in the class of the best machines, but is sold at a fair price because you can buy one direct from my immense factories at Waterloo. This plan saves you the difference in price. I cut out all waste and sell you at the rock bottom factory price. Examine the Galloway Sanitary thoroughly. Test one for 90 days. Note its strong, sturdy base. Big, roomy, seamless supply tank of pressed steel; Heavy tinware; Sanitary bowl; its self-centering neck bearing and simple but effective two-piece lower bearing. Then look at the discs which separate from each other for washing. Takes only a few of them to skim a lot of milk. Cream peil shelf and bowl vise combined in one, with hinge for lowering. Examine its helical drive gear; high crank shaft (just 60 r. p. m.); its high carbon steel worm wheel shaft; oil bath and sanitary drip pan.

Write for Free Book at once. Get the big 1918 spring Catalog. Find out how much you can save when you buy direct—not only on Separators, but on Spreaders, Engines, Tractors and other implements as well. Close shipping points save you freight. O. A. Vick says: "I like your separator just fine. I think it is as good as they can be. If I were to buy another, I would not want any but a Galloway."

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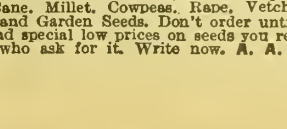
A regular farm power house on wheels. Has anti-friction bearings. 21 sets Hyatt roller and ball bearings. Only 13½% of motor's power needed to pull tractor unloaded. Plows, discs, harrows, hauls, threshes, saws, grinds, shreds, grades roads, fills silos. Pulls three 14-in. bottoms 8 to 9 in. deep. Burns Kerosene or Gasoline



6-20 Size



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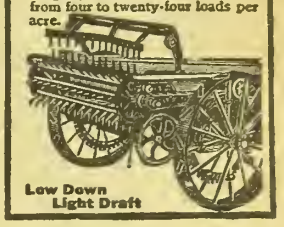
The best of its kind and lightest in draft; patented roller feed; steel beater; V rake; automatic stop; uniform clean-out push board; steel tongue; double chain drive; spreads from four to twenty-four loads per acre.



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Win the War by Preparing the Land Sowing the Seed and Producing Bigger Crops

Work in Joint Effort the Soil of the U. S. and Canada—Co-operative Farming in Man Power Necessary to Win the Battle for Liberty.

The Food Controllers of United States and Canada are asking for greater food production. Scarcely 100,000,000 bushels of wheat can be sent to the allies overseas before the crop harvest. Upon the efforts of the United States and Canada rest the burden of supply.

Every Available Tillable Acre Must Contribute; Every Available Farmer and Farm Hand Must Assist.

Western Canada has an enormous acreage to be seeded but man power is short, and an appeal to the United States allies is for more men for seeding operations.

Canada's Wheat Production Last Year was 225,000,000 Bushels; the Demand from Canada Alone, for 1918, is 400,000,000 Bushels.

To secure this she must have assistance. She has the land but needs the men. The Government of the United States wants every man who can effectively help to do farm work this year. It wants the land in the United States developed first of course; but it also wants to help Canada. Whenever we find a man we can spare to Canada's fields after ours are supplied, we want to direct him there. Apply to our Employment Service, and we will tell where you can best serve the combined interests.

Western Canada's Help Will Be Required Not Later Than April 5th. Wages Competent Help, $50 a Month and Up, Board and Lodging.

Those who respond to this appeal will get a warm welcome, good wages, good board, and find comfortable homes. They will get a rate of one cent a mile from Canadian boundary points to destination and return.

For particulars as to routes and places where employment may be had, apply to

U. S. Employment Service, Dept. of Labor.

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We save you money on your Seed Bill. Write for our Special Money-Saving Price List and get our reduced prices on Best Quality Guaranteed Seed. You should know about our low prices. Write at once and be convinced. Everything Guaranteed equal to Samples or Money Refunded. Don't pay double profits on Grass Seed. Our seeds are sold subject to Government test. Have low prices on Seed Corn, Oats, Wheat, Speltz, Barley, Cane, Millet, Cowpeas, Rape, Vetch, Sudan Grass, Potatoes, Artichokes and all Farm and Garden Seeds. Don't order until you write for big 116-p. catalog. Free samples and special low prices on seeds you require. Free 60-p. book on Growing Alfalfa to those who ask for it. Write now. A. A. Berry Seed Co., Box 267, Clarinda, Iowa.





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This is the secret of a happy life—work, more work, at a job you love.—Live Wires.



Feeding the Breeding Stock

TO SECURE fertile, hatchable eggs that will produce big, strong, husky chicks, requires a broad knowledge of feeds and feeding and the application of considerable common sense. Feeding for fertile, hatchable eggs and feeding for high egg production alone is a vastly different proposition.

Hens fed for market eggs alone do not need much exercise, just enough to keep them in a good healthy condition, but the breeding stock should be made to exercise continually. The breeding stock should not be given any mash either wet or dry. A simple ration composed of equal parts of corn, oats, and wheat, fed in a deep litter, will be found very satisfactory. Keep them scratching from daylight to dark, never allowing them to eat all they want.

At this time of the year they should have their feed in the morning as soon as it is light enough for them to see to scratch. Feed about a quart of the scratch grain in the morning to twenty hens, scatter it over the litter, then turn the litter over with the foot. Have the litter eight or ten inches deep, clean, sweet and free from any mold. Cover the grain completely so that it will take several hours of work for them to get all of the grain. At noon give them all the green food they will clean up in an hour. Sprouted oats are the best green food obtainable, while cabbage, mangel beets, turnips, and carrots are very good. Green food of some kind is absolutely essential to the production of a large number of hatchable eggs. Feed a good two quarts of the scratch feed in the litter two hours before dark so that they will have ample time to fill their crops before going to roost.

Never feed the scratch feed without covering it completely with the litter. Hens will not scratch for the mere pleasure of scratching, there must be something to scratch for, and if the feed is well covered it will require several hours to get enough to supply the bodily demands of the hen and a surplus for the making of the egg. If the feed is only partly hidden they will eat the exposed grain and then sit around until hunger forces them to scratch for more feed.

Keep grit and oyster shell before them all of the time in open hoppers. Not grit or oyster shell, but grit and oyster shell. Grit cannot take the place of oyster shell, neither can oyster shell take the place of grit. Oyster shell forms the lime necessary in the production of egg shells, while grit grinds up the food in the gizzard. Grit should be hard and sharp and cut the proper size. Both grit and oyster shell can be purchased in 100-pound sacks at a very low cost. Most all of the commercial oyster shell now on the market contains a large portion of fine particles which should be sifted out before the oyster shell is placed in the hopper. This fine part is the portion that clogs up the hopper.

Feed regularly. Have a certain time to feed and then stick to it. Don't feed the green food at 11 o'clock one day and 2 o'clock the next day. See that the hens do not get fat. Go into the house after dark and examine a few here and there. If they are getting fat, cut down on the quantity of grain and make them work a little harder, but if they are getting thin increase the grain a little. Close attention to the condition of your breeders now will be rewarded later by a big crop of strong healthy worth-while youngsters.

Table scraps may be given at noon along with the green food, but care must be exercised lest they be given too much at one time. A quart of edible food from the table is enough for twenty hens for one meal. Table refuse adds variety to the ration and helps to maintain the flock in good condition.

Clean pure water is essential to good results. Never allow the water fountain to remain frozen over for any length of time during the day. Place the water fountain on a stand or table eighteen inches above the floor to keep dirt and litter from getting into it. The drinking vessel is a very fruitful source of disease. Wash it thoroughly with boiling water at least once a week.

Skim milk should be kept before them all the time, the same as water. Place the pan or fountain up off the floor to keep the litter and dirt out of it. Let them have all the milk they will drink. Milk is one of the very best poultry foods obtainable. Sour milk may take the place of sweet skim milk, but feed either sweet skim milk all the time or sour milk all the time. Feeding sour milk one day and sweet milk the next will quickly throw the digestive organs out of order and cause diarrhea.

Remember that it is quality and not quantity that we are feeding for. Why force the breeders for eggs, throw 50 per cent of the eggs away, and then raise a handful of weak chicks from the remainder? Make them take plenty of exercise, do not let them become fat, be content with a reasonable number of eggs, and a large flock of healthy, robust youngsters will be your reward.—MELVIN F. UPHOFF, Leavenworth.

Wonderful Egg Producer

Any poultry raiser can easily double his profits by doubling the egg production of his hens. A scientific tonic has been discovered that revitalizes the flock and makes hens work all the time. The tonic is called "More Eggs." Give your hens a few cents worth of "More Eggs" and you will be amazed and delighted with results. A dollar's worth of "More Eggs" will double this year's production of eggs, so if you wish to try this great profit maker, write E. J. Reefer, poultry expert, 4632 Reefer Bldg., Kansas City, Mo., who will send you a season's supply of "More Eggs" Tonic for $1 (prepaid). So confident is Mr. Reefer of the results that a million dollar bank guarantees if you are not absolutely satisfied your dollar will be returned on request and the "More Eggs" costs you nothing. Send a dollar today or ask Mr. Reefer for his free poultry book that tells the experience of a man who has made a fortune out of poultry.—(Adv.)

Candle Eggs During Incubation

In running an incubator it is always advisable to test the eggs by candling at least once, and better twice during the hatch. This gives the operator a chance to study the growing embryos, to watch their development. From the size of the air bladder at the different stages he is able to know whether he is supplying the proper amount of moisture. In cases of low fertility, very frequently the eggs from two or three machines can be combined after the first candling.

On the seventh day the infertile eggs will appear clear and much like fresh eggs. The fertile egg will have a central dark spot and radiating blood vessels. There are always a number of germs that for various reasons of weakness start to develop and die. They will appear gray and lifeless, the partially developed embryo floating about in the egg. These should be removed. They tend to lower the temperature of the machine and decay very quickly.

An electric flashlight makes a very good tester. Darken the room and pass the light around under the egg tray. The clear infertile eggs can easily be detected. The same method can be used in candling for dead germs, but it will be necessary to turn the eggs about some to make sure of the absence of life.

If an electric flashlight is not available, a piece of cardboard with a round hole an inch in diameter cut in the center will serve the purpose. With the cardboard held between the operator and a lamp, place the eggs one at a time before the small hole. The embryo will be easily seen.—C. S. ANDERSON, Colorado Agricultural College.

Let meatless and wheatless be kickless and whineless
Lest all days to come be soulless and spineless.

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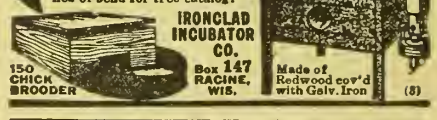
Think of it! You can now get this famous Iron Covered Incubator and California Redwood Brooder on 30 days trial, with a ten-year guarantee, freight paid east of the Rockies.

150 EGG INCUBATOR CHICK BROODER

Incubator is covered with galvanized iron, triple walls, copper tanks, nursery, egg tester. Set up ready to run. Brooder is roomy and well made. Order direct from this advertisement—money back if not satisfied or send for free catalog.



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This is proved by the "Successful" 25 year record. You want the "Successful" for a sure success this year. Sell more eggs and chickens—help feed the world.

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Write me a postal for book and prices. "Proper Care and Feeding of Chicks, Ducks and Turkeys" sent for 10 cents. "Successful" Grain Sprouters furnish green food—make hens lay in winter. Ask about my high-grade poultry—all leading varieties.

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$8.95 Buys 140-Egg Champion Belle City Incubator



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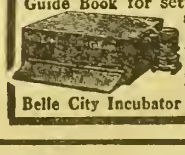

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S. C. WHITE LEGHORN COCKERELS, $2. Willie Tonn, Haven, Kansas.

S. C. BROWN LEGHORNS BRED 22 years. 222 to 266 egg lines. Eggs 15-$2; 50-$4; 100-$6. Gorsuch, Stilwell, Kansas.

L. B. RICKETTS, BREEDER OF PRIZE Winning Single Comb White Leghorns, Greensburg, Kansas.

A FEW CHOICE ROSE COMB BROWN Leghorn cockerels, $1.50 each. Mrs. Griswold, Tecumseh, Kansas.

SINGLE COMB BUFF LEGHORNS — Eggs, farm stock. Write for prices. John Fritzemeier, Napoleon, Mo.

SINGLE COMB WHITE LEGHORN cockerels, $2 to $5. Mrs. C. C. Cole, Levant, Kansas.

SINGLE COMB WHITE LEGHORN COCKerels, extra good, $1.50 each. Mabel Teagarden, La Cygne, Kansas.

PURE-BRED SINGLE COMB WHITE Leghorn cockerels, $2. Chas. McFadden, Morland, Kansas.

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FERRIS S. C. WHITE LEGHORNS, 200-egg strain. Ninety pullets laying, $1.50; seven cockerels, $5. H. L. Coleman, Martin City, Missouri.

FIFTY COCKERELS, "HARDSCRABBLE" strain Single Comb White Leghorns. Raised by themselves. If interested, write me. E. M. Wheeler, Jefferson, Kansas.

SINGLE COMB WHITE LEGHORNS— First and third pullet at American Royal. Eggs, $1.50 per setting, $7 per hundred. H. A. Ketter, Seneca, Kansas.

FOR SALE—PURE-BRED SINGLE COMB Brown Leghorn eggs for hatching, fifteen for 75c or $4.50 a hundred. Mrs. H. W. Brewer, Route 3, Waverly, Kansas.

SINGLE COMB BUFF LEGHORNS — Eggs, exhibition pen matings. Free range mating. Cockerels from 200-egg hens. Pearl Haines, Rosalia, Kansas.

PURE SINGLE COMB WHITE LEGHORN eggs from Famous Yesterlaid laying strain, mated to Tom Barron cockerels. Eggs that will hatch, securely packed, $7 per hundred. Shady Pine Leghorn Farm, Rossville, Kan.

INCREASED EGG YIELD POSITIVELY comes from the sire. Absolutely pure Tom Barron White Leghorn cockerels of 275 to 283 egg breeding $5 each. Successfully bred for high egg yield for 18 years. Braunhurst Farms, Gridley, Kansas.

WYANDOTTES.

CHOICE SILVER WYANDOTTE HENS $2. Mrs. Edwin Shuff, Plevna, Kansas.

SILVER AND GOLDEN LACED WYANdotte cockerels for sale. They are good ones. W. I. Lowrey, Stafford, Kansas.

SILVER WYANDOTTE COCKERELS from a laying strain. Henry L. Brunner, Newton, Kansas.

FOR SALE — CHOICE WHITE WYANdotte cockerels, $2 each while they last. Chilcott Poultry Farm, Mankato, Kansas.

CHOICE WHITE WYANDOTTE COCKERels from winning laying strain; also eggs. Andrew Kosar, Delphos, Kansas.

EXTRA CHOICE ROSE COMB SILVER Wyandotte cockerels, $3 each; six for $15. Eggs in season. Mrs. Phillip Schuppert, Arrington, Kansas.

GREEN LAWN POULTRY YARDS — Regal White Wyandotte cockerels from blue ribbon winners, $3 to $5. Henry Keil, Fairmont, Neb.

PARTRIDGE WYANDOTTES, STATE show winners. Cockerels scored 91 to 94½, $3.50 to $10. Eggs, $3. Satisfaction guaranteed. F. R. Beery, Concordia, Kansas.

COLUMBIAN WYANDOTTES AT KANsas City Poultry Shows, Convention Hall, January 14; 1st cock, 2d cockerel, 1st pullet, 2d, 3d hen. Stock in season. Egg orders booked now. J. J. Pauls, Hillsboro, Kan.

EGGS—WHITE WYANDOTTES LAYING strain. Utility, $1.25 fifteen; $3.50 fifty; $6 hundred. Pen headed by $15 cockerel direct from Keeler, $2 fifteen. M. M. Weaver, Newton, Kansas.

LAYER-PAYER SILVER LACED WYANdotte flock of Little Valley Farm is headed by high scoring and high-priced cockerels. Plenty of eggs for hatching any time. Eggs from early layers produce early laying pullets. Fifteen, $1.50; fifty, $3.50. Irve Wright, Clifton, Kan. Cockerels, $2, $3, $4.

SEVERAL BREEDS

ALL LEADING BREEDS OF POULTRY. Write me your wants. Emma Ahlstedt, Roxbury, Kansas.

EGGS, BABY CHICKS — ALL LEADING varieties, Rocks, Reds, Orpingtons, Leghorns. Fine stock. Quality Poultry Co., Emporia, Kansas.

FOR SALE—EGGS FROM ALL KINDS of pure-bred poultry. Geese, 7 kinds of ducks, Pearl and white guineas, Bantams, Fancy Pigeons, Canaries, Rabbits, Guinea pigs, Dogs. Write wants. D. L. Bruen, Platte Center, Nebr.

BABY CHICKS.

YOU BUY THE BEST CHICKS FOR least money. Guaranteed alive or replace free. Shipped anywhere. Colwell Hatchery, Smith Center, Kansas.

WHEN WRITING TO ADVERTISERS MENTION KANSAS FARMER

ORPINGTONS.

SELLING OUT, WHITE ORPINGTONS.— Jacob Klassen, Inman, Kansas.

LARGE CHOICE BUFF ORPINGTON cockerels, $2.50, $3, $4, $5. Myrtle Howard, Byron, Okla.

BUFF ORPINGTON COCKERELS, SINgle comb, good weight, bone, size and color, $2.25 each. Mabel Teagarden, La Cygne, Kansas.

FOR SALE—BUFF ORPINGTON COCKerels from one and one-half dollars to two dollars; also one Black Minorca cockerel. W. M. Scherman, Route 3, Olathe, Kansas.

WHITE ORPINGTONS, ALDRICH STRAIN direct. Males, $4 and up. Eggs from pens containing Topeka and Kansas State Show winners. H. M. Goodrich, 712 Topeka Ave., Topeka, Kansas.

SINGLE COMB BUFF ORPINGTON cockerels, $3, $4, $5 each; pullets, $25 and $30 dozen. All birds not satisfactory money refunded, less express. Frank E. Davenport, Norfolk, Neb.

PRIZE WINNING SINGLE COMB BUFF Orpingtons. Best of breeding and individuals. Splendid cockerels, $5 each. Eggs from excellent matings, $2, $3 and $5 for fifteen. Send for mating list. Sunflower Ranch, Ottawa, Kansas.

PLYMOUTH ROCKS.

BARRED ROCK COCKERELS, $2. J. Hammerli, Oak Hill, Kansas.

WHITE ROCK COCKERELS, $2 AND $3. Nora Lamaster, Hallowell, Kansas.

CHOICE WHITE ROCK COCKERELS, $3. Mrs. E. E. Merten, Clay Center, Kansas.

WHITE ROCK ROOSTERS, FINE BIRDS. Pure-bred stock. $2 each. Perry S. White, Offerle, Kansas.

BARRED AND WHITE ROCK COCKERels and pullets from prize winners, $2, $3 and $5 each. H. F. Hicks, Cambridge, Kansas.

"PAYWELL" BUFFS LAY AND WIN. Eggs from superior matings, ten cents each. L. S. Weller, Salina, Kansas.

WEIGHER-LAYER BARRED ROCK cockerels, $3 to $5. Eggs, 100, $6. C. F. Fickel, Earlton, Kansas.

BARRED AND WHITE ROCK COCKERels and pullets. Write for prices. Nora Hill, Cambridge, Kansas.

WHITE ROCKS, SIZE AND QUALITY. Prices reasonable. G. M. Kretz, Clifton, Kansas.

WHITE PLYMOUTH ROCKS—COCKERels and eggs. 200-egg strain. Mrs. J. F. Romary, Olivet, Kansas.

LUCAS BUFF ROCKS—COCKERELS, $3, $5 and up. Eggs, best pens, $5 and $3 per fifteen; range flock, $6 per hundred. T. H. Lucas, Pattonville, Mo.

PARTRIDGE PLYMOUTH ROCK EGGS for hatching. My birds are better than ever. Get my price. Jno. W. Norton, Talmage, Nebr.

BUFF ROCK EGGS FROM EXTRA QUALity; pens and utility stock. Heavy layers. Prices reasonable. A. R. Quinnette, Box 241, Ames, Kansas.

WINTER-LAYING STRAIN BARRED Rocks, cockerels. Eggs, $5 hundred; $1 fifteen. Valuable circular free. O. E. Skinner, Columbus, Kansas.

FIFTY BARRED ROCK COCKERELS, prize winning stock, $3 to $5. Reduction on numbers. Mrs. A. M. Shipley, Coffeyville, Kansas.

FOR SALE — A FEW WHITE ROCK cockerels, $2.50 to $3 each; also a few choice laying Buff Rock pullets at $3 each. A. H. Alpers, Hudson, Kansas.

RINGLET BARRED ROCKS — STATE Fair winners. Special matings. Eggs, $2 and $3 per fifteen; utility, $1.25. Stock also. Satisfaction guaranteed. Hiram Patten, Hutchinson, Kansas.

HAVE BEEN BREEDING PURE-BRED Barred Rocks over 25 years. Have built a splendid laying strain. Eggs for the season, $7.50 per hundred prepaid. Mrs. Ed Snyder, Fontana, Kansas.

BARRED ROCKS; 80 PREMIUMS, 33 firsts, Kansas City, Topeka, Salina, Manhattan, Clay Center, Denver. Stock for sale. Eggs 15-$5; 30-$9. Mattle A. Gillespie, Clay Center, Kansas.

BARRED ROCKS, BOTH LINES. STATE show winners. Good layers. Eggs, $1.50 per fifteen, $6 per hundred. Special matings, $5 per fifteen. C. C. Lindamood, Walton, Harvey County, Kansas.

"ROYAL BLUE" and "IMPERIAL RINGlet" Barred Plymouth Rocks. Twelve blue ribbons 1917, 203 to 218-egg production. Stock and eggs for sale. Free mating list. North Willow Poultry Ranch, A. L. Hook, Prop., Coffeyville, Kansas.

WHITE ROCK EGGS FROM FARM flock of extra large hens, $1 per fifteen, or from select pens containing my birds that won the blue at Kansas State Fair and State Poultry Show, $2 and $3 per fifteen. Minnie Clark, Haven, Kansas.

LANGSHANS.

BLACK LANGSHANS WITH SHOW RECord, extra good stock for sale. Eggs in season, $5 per fifteen. Jas. W. Anders, Route 8, Unionville, Mo.

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PHEASANT REARING, THE NEW INdustry. No limit to demand for these beautiful birds. Easy to rear as chickens at one-fourth the cost. Stock and eggs. Harper Lake Poultry Farm, Jamestown, Kan.

Classified Advertising

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GENTLEMEN: MASON SOLD 18 SPRAYers and auto-washers one Saturday. Profits $2.25 each. Square deal. Write Rusler Co., Johnstown, Ohio.

WANTED IMMEDIATELY—FARMERS, men-women, 18 or over. Thousands government war jobs. $100 month. Easy clerical work. Common education sufficient. Write for list positions. Franklin Institute, Dept. M-82, Rochester, N. Y.

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NICE ALFALFA SEED, $10 PER BU. J. Hammerli, Oak Hill, Kansas.

CHOICE RECLEANED ALFALFA SEED, $10 per bushel. Samples free. F. J. Bartel, Route 8, Topeka, Kansas.

WHITE SWEET CLOVER AND ALFALFA at farmers' prices. John Lewis, Madison, Kansas.

FOR SALE—BY GROWER, SCHROCK Kafir Seed. Write for sample and prices. James D. Wilson, R. F. D. Parsons, Kansas.

ALFALFA SEED FROM NORTHWEST Kansas, 95% pure; good germination; $7.50 per bushel. Order early. Freight will be slow. Geo. Bowman, Logan, Kansas.

SEND $1 AND WE WILL SEND YOU 100 Progressive Everbearing strawberry plants (postage prepaid), catalog free. Welch Nursery, Shenandoah, Iowa.

WE ARE BUYERS OF FIELD SEEDS: Alfalfa, sweet clover, cane, millet, kafir, sudan. Write and send samples. Mitchelhill Seed co. St. Joseph, Mo.

TEXAS RED RUST-PROOF SEED OATS, $1 per bushel, sacks free. My oats have taken first premium at Muskogee State Fair for last two years. J. C. Starr, Vinita, Oklahoma.

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WANTED—TO BUY SMALL TRACT IN Stafford County or adjoining counties. N. C. Dewey, Stafford, Kansas.

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S. C. RHODE ISLAND RED COCKERels, excellent color. Laying strain. Eggs. Mrs. Geo. Long, St. John, Kansas.

ROSE COMB RED PULLETS, $2, $2.50. Chicks, 15c each. Eggs, 100, $5. Fred Leck, Yates Center, Kansas.

FIFTY LARGE 6½-9½-POUND ROSE Comb Red utility cockerels. Stedem & Sons, Marshall, Mo.

BRED TO LAY, S. C. R. I. REDS, LAYers at six months. 250 eggs per year. G. R. Donald, Emmett, Kansas.

ROSE COMB RED COCKERELS, CHICKS 20 cents. Booking orders now. Lilly Robb, Neal, Kansas.

SINGLE COMB RED COCKERELS. EGGS $3 per setting. Maple Hill Poultry Farm, Lawrence, Kansas.

100 ROSE COMB RHODE ISLAND RED cockerels and cocks sired by roosters costing $15 to $50. $3.50, $5, $7.50, $10 each and up. 1918 matings, best ever. America's best breeding is represented here by birds of quality. W. R. Huston, Americus, Kansas.

TURKEYS.

MAMMOTH BOURBON RED TURKEYS— Stock not related. C. K. Thompson, Letts, Indiana.

PURE-BRED MAMMOTH BRONZE TURkey toms for sale. Weight, twenty-six to thirty pounds. Mrs. Minnie Snider, Piedmont, Kansas.

MAMMOTH BRONZE TURKEYS, HEAVY bone, masculine in size; good copper bronze, white edging; $10 to $15 until February 1. Jas. W. Anders, Route 8, Unionville, Mo.

DUCKS AND GEESE.

PURE-BRED WHITE RUNNER DUCKS, $2. Chas. McFadden, Morland, Kansas.

WHITE PEKIN DRAKES FOR SALE BY Almeda Smith, Great Bend, Kansas.

MAMMOTH PEKIN DUCKS, DRAKES $2.00, Ducks $1.50. Amelia and Minnie Grabert, Broken Bow, Nebr.

ANCONAS.

ANCONA EGGS, $1.25 SETTING. PREpaid. Cockerels $2. W. G. Shaw, Cherokee, Oklahoma.

SUSSEX.

FIELD'S SUSSEX—CHICAGO WINNERS. Stock, Eggs. Fields Brothers, Sandwich Ill.

LANGSHANS.

BIG BLACK LANGSHANS SCORED. H. Osterfoss, Hedrick, Iowa.

MINORCAS.

SINGLE COMB WHITE MINORCA EGGS $5 and $3 per 15, from prize winning and pure-bred birds. Correspondence solicited. A. K. Goodwyn, Minneapolis, Kansas.

BRAHMAS.

LIGHT BRAHMA COCKERELS, FELTON strain, $2.50 each. C. S. Newkirk, Geneseo, Kansas.

POULTRY WANTED.

THE COPES, TOPEKA, ARE PAYING for No. 1 capons, 26c; turkeys, 27c; cockerels, 20c. Coops loaned free. Daily remittances. Write them.

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YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements, or ready made farms. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

HOGS.

BARGAINS—BRED SOWS, GILTS, BIG-type Poland Chinas to farrow March, April. Nice boars. Serviceable Jersey bulls and bull calves. Stedem & Sons, Marshall, Mo.

TOBACCO.

LEAF TOBACCO — KENTUCKY'S BEST, chewing and smoking, three years old. Three pounds, $1.25; seven pounds, $2.50, prepaid. Special price on large quantities. S. Rosenblatt, Hawesville, Kentucky.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

FOR SALE—A-1 coon, skunk and 'possum hound, none better, $50. Will send anywhere on ten days' trial. Also one still trailer, $30. R. R. Steves, 116 E. Fifth St., Topeka, Kan.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

TANNING.

LET US TAN YOUR HIDE: COW, HORSE or calf skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

MISCELLANEOUS.

THIRTY DIFFERENT MAGAZINES, late issues, value $3, yours for 25c prepaid. Eastern Bureau, New Egypt, N. J.

WANTED—OLD FALSE TEETH. I PAY $2 to $16 for complete or broken sets. Dr. Wright, Hartford City, Indiana.

READY CUT HOUSES AND BARNS, wholesale, mill prices. Plan book free. Keystone Lumber Company, Tacoma, Wash.

HORSES AND MULES.

FOR SALE—TEN MAMMOTH KENTUCKY jacks. Ages two to ten years. Write owner, John Tutcher, Parsons, Kansas.

PURE-BRED PERCHERON STALLION, sure getter. Sires choice stock. E. D. King, Burlington, Kansas.

JACK FOR SALE—BLACK WITH WHITE points, heavy bone, 5 years old. Can be registered. G. F. Dodge, Route 1, Ft. Scott, Kansas.

FIVE BIG BLACK MAMMOTH JACKS, big bone and bodies, 2 to 5 years; broke. Special price if sold soon. Ira Jenkins, Belvue, Kansas, 3 miles west of Topeka; barn in town.

REAL ESTATE.

MONTANA, LAND OF OPPORTUNITY.— Illustrated booklet, published by authority of state, telling of resources and opportunities for farmers and investors. Send 4 cents to pay postage to Chas. D. Greenfield, Helena, Commissioner Agriculture.

EASTERN COLORADO RAINBELT farms lead them all. Land cheap and productive. No crop ruined by hot winds. Spring is near, don't wait. Send for descriptive circular. Joseph Schwickrath, Stratton, Colorado.

VIOLINS.

VIOLIN FOR SALE—HAS SWEET TONE. Free trial. Easy payments if wanted. Write Miss Bertha Mardiss, Route 5, Rosedale, Kansas.

CATTLE.

FOR SALE — A FEW VERY CHOICE Holstein calves, either sex. Prices reasonable. Ernest Dutcher, Whitewater, Wis.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

REGISTERED GUERNSEY BULL READY for service. A show bull combining large producing blood from both parents. J. W. Marley, Oswego, Kansas.

FOR SALE — A RED POLLED BULL, calved March 8, 1913. There are very few better bulls in the state. Geo. Haas, Route 6, Lyons, Kansas.

FOR SALE—TWO REGISTERED ABERdeen Angus bulls, eight and nine months old, Duchess and Queen Mother. Alden Bros., Kidder, Mo.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

DUROC JERSEYS.

TAYLOR'S DUROCS

For Sale—A few choice herd boars, extra good. All sired by state fair champion boars. A lot of spring and fall yearling gilts and a few tried brood sows bred for March and April litters. Priced to sell quick. Come and see me.

Chas. L. Taylor - Olean, Mo.

DUROC BOARS

Thirty-five spring boars by G. M.'s Crimson Wonder, Crimson Wonder Again Jr., Critic D. and Great Wonder, out of my best herd sows. Priced to sell. Coms and see my hsrd.

G. M. Shepherd, Lyons, Kansas

PURE-BRED DUROC GILTS
Bred to Invader of Idlewild.
W. J. HARRISON - AXTELL, KANSAS

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Spscial prices on bred gilts and boars from champions, Dsfender, Illustrator, Crimson Wonder, Golden Model and Critic breeding.
JOHN A. REED & SONS, Lyons, Kansas.

Guaranteed Duroc Gilts

Immune, recorded Duroc gilts with size, bone and length. Guaranteed to farrow. Shipped to you before you pay for them.
F. C. CROCKER, BOX K, FILLEY, NEB.

HAGUE'S DUROCS

Fifteen choice fall boars and gilts for sale, sired by Kansas Pathfinder by Pathfinder. All immune. **K. Hague, R. 6, Newton, Kan.**

POLAND CHINAS.

DEMING RANCH QUALITY

Big-Type Poland China Hogs.

Fifty March boars for sals. All immuned. Bred sow sals Fsbruary 18. Send for catalog.

H. O. Sheldon, Herd Manager
OSWEGO, KANSAS.

OLD ORIGINAL SPOTTED POLANDS

Stock of all ages, also bred gilts and tried sows, bred, ready to ship. Priced right. Writs your wants to
CEDAR ROW STOCK FARM
A. S. Alexander, Prop. Burlington, Kansas

PURE-BRED POLAND SOWS AND GILTS
For Sale, above, bred to Gerstdale Jones Again and other extra good boars. All immune.
UPDEGRAFF & SON, TOPEKA, KANSAS

FAULKNER'S FAMOUS SPOTTED POLANDS
Old original big boned, mature early, have size and quality. Easy feeders. Most profitable hog for the farmer. Breeding stock for sale.
H. L. FAULKNER, Box K, Jamesport, Mo.

GRAND VIEW POLANDS

Big stretchy March and April boars, brsd gilts and fall pigs. Herd boar Hercules 2d for sals or trade for bred gilts or sows, fully guaranteed.
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LONE CEDAR POLANDS

A splendid lot of bred gilts sired by Meyer's Orange and bred to Big Chimes, a fine son of Big Hadley Jr. Also two extra good spring boars left.

A. A. MEYER - - McLOUTH, KANSAS

POLAND CHINA BOARS
FOR SALE—Twelve head extra good spring boars, ready for service. Few choice gilts, bred for March litters. Fall pigs, either sex, sired by Big Tecumseh, Orange Wonder, and out of my best herd sows. The best crop of boars I ever raised. Write or come and see me. **E. M. WAYDE, BURLINGTON, KANSAS**

FALL PIGS, ready to ship. Select Spotted breeding. Express paid on pigs.
T. T. Langford & Sons, Jamesport, Mo.

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene, Peabody, Kan.**

MATTOX'S SPOTTED POLANDS—Bred sows, serviceable boars, baby pigs, for quick sale. H. A. or Paul H. Mattox, Route 2, Burlington, Kansas.

POLAND CHINA HOGS 150 HEAD IN HERD

Breeding stock for sale. Immune. Satisfaction guaranteed. Come and see ms.
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POLLED DURHAM CATTLE

TRUE SULTAN POLLED DURHAMS

A few heifers bred or open are offered. Some by or bred to the champion $2,200 True Sultan and Sultan's Challenger.
ED STEGELIN
STRAIGHT CREEK - - - KANSAS

WILD WOOD STOCK FARM

POLLED DURHAM CATTLE
For Sale—Ten bulls of serviceable age, sired by Roan Acacia 9021. Dam, Golden Acacia by Acacia Victor, a double standard bull from D. C. Van Nice herd. Write at once. These bulls will sell.
T. M. ETHERINGTON, Hamilton, Kansas

WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

FARM AND HERD NEWS NOTES

C. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

Address All Communications to Kansas Farmer, and Not to Individuals

Personal mail may have to be held for several days, or be delayed in forwarding, and Kansas Farmer cannot assume any responsibility for mistakes occurring thereby

CLAIM SALE DATES.

Jacks and Jennets.
March 4—Bradley Bros., Warrensburg, Mo.
March 23—D. T. McCarthy, Hannibal, Mo.
March 26—H. T. Hineman & Sons, Dighton, Kansas.

Holsteins.
Feb. 25—Warren S. Neff, Glen Elder, Kan.
Feb. 27—W. O. Morrill, Summerfield, Kan.
March 7—C. L. Smith, Lawson, Missouri.
March 26—Kansas Holstein Breeders' sale, Topeka, Kan.
March 27-28—Iowa Holstein-Friesian Breeders' Association. Sale at the State Fair Grounds, Des Moines. F. C. Barney, Secrstary, Chapin, Iowa.

Shorthorns.
Feb. 20—D. E. Reber & Sons, Morrill, Kan.
Feb. 26—H. E. Hubsr, Meriden, Kan.
April 2, 3, 4 and 5—Shorthorn week, four days' sale; Fair Grounds, Oklahoma City, Okla. Under auspices Oklahoma Shorthorn Breeders' Association, S. B. Jackson, manager, El Reno, Oklahoma. April 2—J. R. Whisler ninth annual Shorthorn sale, fair grounds, Oklahoma City; April 3, Scott & Wolsey Shorthorn sale, fair grounds, Oklahoma City; April 3, 4 and 5, Oklahoma Shorthorn Breeders' Association sales, fair grounds, Oklahoma City. S. B. Jackson, Manager, El Reno, Okla.

Jerseys.
March 26—Stirling Farm Dairy, Des Moines, Iowa. B. C. Settles, Palmyra, Mo., sales manager.
B. C. Settles, Palmyra, Mo., sales manager.
April 30—Ralph Ballou, Paris, Mo. B. C. Settles, Palmyra, Mo., sales manager.

Red Polled Cattle.
March 6—I. L. Rogers, Oberlin, Kan.

Miscellaneous.
Feb. 25-28.—Kansas National Live Stock Show, Wichita, Kan. Draft, coach, standard-bred horses and jacks; Shorthorn, Hereford and Holstein cattle; Poland and Duroc hogs. F. S. Kirk, sales managsr, Wichita.

Poland Chinas.
Feb. 18—Deming Ranch, Oswego, Kansas.
Feb. 13—H. L. Faulkner, Jamesport, Mo.
Feb. 19—Fred B. Caldwell, Howard, Kansas.
Fsb. 20—B. E. Hodson, Ashland, Kansas; sale at Wichita.
Fsb. 21—E. J. Erhart & Son, Nsss City, Kansas; sale at Hutchinson.
Fsb. 22—F. Ollvier & Son, Danville, Kansas.
Poland Chinas.
Feb. 23—V. O. Johnson, Aulne, Kan.
Feb. 28—Clarence Dean. Sals at Dsarborn, Mo.
March 6—J. R. Young, Richards, Mo.
March 15—H. E. Myers, Gardner, Kan.
April 24—Fred G. Laptad, Lawrence, Kan.

Durocs.
Feb. 20—W. T. McBride, Parker, Kan.
Feb. 27—R. W. Murphy, Dearborn, Mo.
March 7—W. W. Otey, Winfield, Kansas.
March 8—R. L. Hurst, Bolckow, Mo.
April 24—Fred G. Laptad, Lawrence, Kan.

The Charter Oak's Poland China sale was held as advertised at Butler, Missouri, on February 7, and ninety-six head of Poland China bred sows and gilts were sold at an average of $116. For the large number sold this was a splendid average. A local crowd of farmers and breeders were present and several states were represented. The highest price was paid for No. 1, by the Lampton Realty Company, Mayville, Miss. Nothing sold high but the returns for the entire offering were very satisfactory to Mr. Charters.

The sale of Poland Chinas held by H. B. Walter & Son, of Effingham, Kansas, February 6, resulted in the dispersal of forty-nine head of bred sows and gilts at an average price of $402. The sale was well advertised both in the farm and breed papers. Five hundred or more farmers and breeders were present. The breeding oh the premier boar, Big Bob Wonder, was a strong factor in attracting representative breeders from seven states. The highest price paid was $1,200 for No. 50 in the catalog, a full sister to Caldwell's Big Bob, the National Swine Show champion. This sow was mated to Walter's Jumbo Timm and was bought by Fred B. Caldwell, of Howard, Kansas.

The Wyatt Park Stock Farm at Golden City, Missouri, has announced February 21 for a reduction sale of jacks and jennets. This firm for years has bred and sold some very high class jacks and Percheron horses that have gone out to head herds. This offering will consist of ten head of jacks ranging in age from two to four years and ten head of mature jennets, several with colts by side or bred to foal in spring. Two registered Percheron stallions will be offered.

Warren Neff, of Glen Elder, Kansas, has announced a dispersion sale of Holstein cattle to be held February 25. Mr. Neff has sold his farm and will disperse his entire herd of thirty head. A number of the cows are in milk and others are due to freshen soon.

C. S. Nevius & Sons, of Chiles, Kansas, have announced March 5 for their next brood sow sale of Poland Chinas. They have catalogued fifty head of valuable brood sows and gilts, tracing through the blood lines of old Designer, Major Look and Good Metal and sired by Expansion King and bred to King Wonder 2d, he by Big Bob Wonder, and Giant Joe by Big Joe. The offering will be one of the profitable lots of bred sows that will be sold this season.

J. R. Young, of Richards, Missouri, has announced March 6 for his annual Poland China bred sow sale. Mr. Young is one of the oldest breeders of big, smooth Poland China hogs in Southwest Missouri. His herd has a wide reputation. Farmers and breeders of Kansas will be pleased to learn that he is to hold a bred sow sale.

I. L. Rogers, of Oberlin, Kansas, has announced March 6 as the date for his public sale of Red Polled cattle. He will catalog a choice offering of bulls, cows and heifers for this sale to be held at his farm near Oberlin.

Maple Lawn Stock Farm, owned by C. W. Hodge, of Milton Junction, Wisconsin, is one of the Holstein centers of that state. Maple Lawn Holstein herd is drawn upon heavily for herd material and a number of the good producing herds of high grade Holsteins in the country were started with stock from this farm.

Charles L. Taylor, Olean, Missouri, is the owner of one of the best herds of Duroc Jersey hogs in Missouri. Mr. Taylor is one of the directors from Missouri in the National Duroc Record Association and is one of the best showmen that has ever exhibited Durocs in Missouri. He has bred and developed a class of hogs that are easy feeders. They have been grown in a way that insures their usefulness as producers. The herd now numbers over 100 head and a feature of the herd at this time is the large number of bred sows and bred gilts that are due to farrow in March and April.

PERCHERON MARES AND STALLIONS

Thirty Head from Which to Select

Ton mares, big handsome fillies either by or bred to Algarvs by Samson. Algarvs's colts have great bone and size. His weight is ovsr 2,200 pounds and his gst provss bsyond doubt his great ability as a sire. A nice lot of young stallions, ssveral coming three-year-olds. Priced for quick sale. Farm four miles sast of town. Call on or write

D. A. HARRIS - Route 6 - GREAT BEND, KANSAS



PERCHERONS AND BELGIANS

IMPORTED AND HOME-BRED PERCHERONS AND BELGIANS.
I have a good lot of horses to select from at very reasonable prices. I give a gilt edge guarantee of 60 per cent, good for two years.

Barns Four Blocks from Santa Fe Depot.

W. H. RICHARDS - EMPORIA, KANSAS

EWING BROS.' PERCHERON HORSES, SHORTHORN CATTLE, SHETLAND PONIES AND POLAND CHINA HOGS

FIFTY MARES—Weanlings to mature mares, weighing a ton or more, in foal. Herd headed by Imp. Meknes (106084) 106640, weighing 2,200 pounds.
SEVERAL MATCHED TEAMS—Fifteen head of stallions, from weanlings to six years old. The best lot of two-year-olds we have ever had. The kind to mature into ton horses or better—grays and blacks.
SHORTHORN CATTLE—A few cows for sale. Ten young bulls out of purs Scotch sire ready for service. Herd headed by Village Knight No. 393231 weighing 2,250 pounds and Choice Echo 393419, weighing 2,300 pounds, for sale.
SHETLAND PONIES at very low prices if taken soon—weanlings to broken fillies.
Phone to Ewing Bros., 903A5 or 903A12, Great Bend, or write us at R. F. D. No. 1, Pawnee Rock, Kansas. **EWING BROTHERS.**

AYRSHIRE CATTLE.



ARYSHIRE HERD FOR SALE
Herd consists of 23 cows and heifers
One herd bull and 3 bull calves
Six of the cows from A. R. cows with high records.
The heifers are mostly from these cows. Herd bull richly bred, fine individual and a show bull.
Two bull calves from A. R. cows. Will sell herd bull and cows separats from young stock. All cows and herd bull registered. Young stock registered on request of purchaser. Priced to sell.
DEHNER & GLYNN, Cascade, Iowa.

HEREFORD CATTLE.

Clear View Hereford Farm

Two bulls, one 2-year-old, one yearling, good ones, sired by Goodlad 405463. Priced to sell. Also twenty-one head of mules from yearlings to 3-year-olds.
C. E. DIFFENBAUGH - TALMAGE, KAS.

Hereford Bulls For Sale

One registered four-year-old Polled Hereford bull, weight 1,700 pounds. Also one registered Hereford bull calf, 8 months old, weight 865 pounds. Best blood lines.
F. A. LAWRENCE, Route 3, Meriden, Kan.

GUERNSEY CATTLE.

GUERNSEY BULLS.
Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to twelve months old. **ADAMS FARM, Gashland, Mo., 12 miles from K. C.**

GUERNSEY BULLS
Three registered Guernsey bulls, 9 to 11 months old, tuberculin tested recently; best of breeding. Cows are good producers. For further information inquire of
FRED WILLE - COLUMBUS, NEBRASKA

HORSES AND MULES.

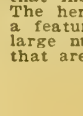


JACKS AND JENNETS

15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; largs, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.
PHIL WALKER
Moline, Elk County, Kansas

Malone Bros., Jacks and Percherons

We have 2 barns full of extra good jacks ranging in age from weanlings to 6 yrs. old, all over 2 yrs., well broke to serve. Several fine herd headers among them. Also jennets in foal to homebred and imported jacks. A few imported Percheron stallions royally bred. We can deal. Write or call on
J. P. & M. H. MALONE, CHASE, KAN.



PERCHERONS AND JACKS
FOR SALE—Four jacks, two coming three-year-olds, one four-year-old and one ten-year-old. All good size, sound and guaranteed. Will price a few good jennets. Also have five Percheron stallions and a few good mares, priced right. Come and see mo.
M. G. BIGHAM & SON, OZAWKIE, KAN.
7 miles from Meriden, Kan. 10 miles from Perry, Kan. 20 miles northeast Topeka.

Pure Bred Stock for Sale

Pure-bred Percheron stallion, mammoth registered jacks. Pure-bred Duroc hogs, also fine registered Holstein bull calf, born September 9, 1917, nine-tenths white. If you want something good, come and see this stock or writs your wants.

Louis Koenig, Solomon, Kansas



Percherons, Belgians, Shires
2, 3, 4 and 5-year stallions, ton and heavier; also yearlings. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.
Fred Chandler, R.7, Charlton, Ia.
Above Kansas City.

Choice Young Belgians, English Shires, Percherons, also Coach stallions, also mares. Many first prizes. Long time 6% notes.
Illinois Horse Co., Good Blk., Des Moines, Ia.

40 Percheron Stallions and mares, weanlings up. 20 Mammoth jacks, 10 jennets in foal. Priced reasonable. **Al E. Smith Lawrence, Kansas.**

CHESTER WHITE HOGS

Crystal Herd Chester Whites

Choice tried sows and spring gilts, bred to farrow March 8 to April 6. Gilts are sired by Achilles 58994 and are bred to "Billy the Kid," a grandson of Wm. A. One gilt by Scotlea Archie, bred to Achilles. Have some choice September boars. This is a choice offering, priced right for quick sale to make room for spring pigs.
DAN WILCOX, ROUTE 2, CAMERON, MO.

RED POLLED CATTLE.

RED POLLED BULLS

For Sale—Thirty head coming yearling bulls. Coms early and get the best. Our experience has been those that coms lats found us sold out. Write or come at oncs.

E. E. FRIZELL

FRIZELL, (Pawnee County), KANSAS

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.
CHAS. L. JARBOE - QUINTER, KANSAS

HOLSTEIN CATTLE.

"THE WORLD'S BEST BY EVERY TEST." THE HOLSTEIN COW

Whether for one day, seven days, one year or five years, officially conducted tests all proclaim the Holstein cow supreme in production of butter fat, as well as milk. All evidence proves the claims of adherents of some breeds that the Holstein is a milk cow but that theirs is the butter breed are absolutely without foundation. Hear the following witnesses:

Segis Fayne Johanna, at full age, production 40.5 pounds fat in seven days equal to 50.6 pounds 80% butter. Fancher Farm Maxie, at 4 years of age, production 37.47 pounds fat in seven days equal to 46.8 pounds butter. Lady Pontiac Johanna at 3 years of age, 33.44 pounds fat in seven days equal to 41.8 pounds butter. Naiad Jewel Pet, at 2 years of age, 25.28 pounds of fat in seven days, equal to 31.6 pounds of butter. Duchess Skylark Ormsby production for one year, 1,205 pounds fat equal to 1,506 pounds 80% butter. Keystone Beauty Plum Johanna, at 4 years of age, 1,035 pounds fat equal to 1,294 pounds butter in one year. Finderne Holingen Fayne, at 3 years of age, 1,116 pounds fat equal to 1,395 pounds butter. Finderne Mutual Fayne, at 2 years of age, 960.5 pounds fat equal to 1,200 pounds butter in one year, and Tilly Alcartra, whose production of over 123,000 pounds milk and 4,800 pounds of butter fat in five successive lactation periods stands as the crowning record of Holstein ability to produce, over a long as well as a short time, more milk, and more butter fat, than any cow of any breed. Furthermore, more Holstein cows have produced over 600 pounds of butter fat in a year under official supervision than the cows of all other breeds combined. THIS PROVES that high fat production is not an accident in the Holstein breed but is a breed character. This is why the Holstein is now in the lead, and will remain in the lead of all other breeds in popularity.

NOW is the time to get into the business of producing these world-wide winners. Would you get up behind a second rater if you had a chance to drive the winner? Why then tie up for life to a breed that is and always will be behind? Get into the winning Holstein game. Let us help you. We have a good bull, ready for service, closely related to three of the world's record cows named above, and we will sell him cheap for the quality. We can also spare a few yearling heifers bred to a 30-pound bull. These heifers are also related to world's record cows. Ask us about these cattle.

A. S. NEALE, 1642 Fairchild Avenue, MANHATTAN, KAN.

CLYDE GIROD, At the Farm — F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd.

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.

H. B. COWLES, 608 Kan. Av., Topeka, Kan.

HOLSTEIN CALVES

We offer for sale choice, beautifully-marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated f.o.b. cars: One to two weeks old, $15 each; two to three weeks old, $17 each; five to six weeks old, $20 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

REGISTERED HOLSTEIN BULLS

From A. R. O. cows. All our own breeding. Bred for milk and fat production.

LILAC DAIRY FARM

R. F. D. 2 — Topeka, Kansas

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON, KANSAS

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wanwatosa, Wisconsin

Oak Hill Farm's

Registered Holstein Cattle

For Sale—Yearling and bred heifers, also young bull calves, mostly out of A. R. O. cows. Perfect satisfaction guaranteed.

BEN SCHNEIDER, NORTONVILLE, KAN.

BONNIE BRAE HOLSTEINS

Young bulls from high producing dams from a splendid son of King Segis Pontiac for sale.

Ira Romig, Sta. B, Topeka, Kas.

CEDARLANE HOLSTEIN HERD

Four-year-old grandson of Pontiac Korndyke. Guaranteed sound and a sure breeder. Average record dam and sire's dam, 29.4 pounds in seven days. Special price on bull calves from above bull. Also several good cows. T. M. Ewing, Independence, Kansas.

HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment. Edgewood Farms, Whitewater, Wisconsin.

$20.00—HOLSTEINS—$20.00

Fine heifer calves, seven-eighths pure, from high record registered sires and heavy producing dams. Two to four weeks old. More white than black, $20; more black than white, $19. Satisfaction guaranteed or your money back.

Harris Holstein Farms — Sextonville, Wis.

Cows AND Heifers

Pure-Bred Holsteins, bred to King Segis Urma Alcartra

A 30-pound son of King Segis Pontiac Alcartra, the $50,000 bull.

Also a few bull calves, sons of Sir Sadie Cornucopia 18th, a 30-pound son of Sir Sadie Cornucopia. A. R. O. dams.

PHELPS STOCK FARM

Aurora - - Missouri

HOME of the DAIRY COW

Write us for our prices on carloads or less of the best dairy cows in the state. High grades or pure-breds, cows or heifers. Service bulls. High grade calves, crated, $20 to $25.

Edgewater Stock Farm

FORT ATKINSON - - WISCONSIN

STUBBS HOLSTEIN FARM

FOR SALE—YOUNG BULLS READY FOR SERVICE Sired by Gem Pietertje Paul De Kol 3d

He has twenty-eight A. R. O. daughters, two with records above 29 pounds in seven days, four with records above 750 pounds butter in one year. The dams of bulls are large, typy, high producing cows. Some with A. R. O. records, others to be tested soon. All tested and guaranteed.

Write or Come and See Us.

STUBBS HOLSTEIN FARM, Mulvane, Kan.

Segrist & Stephenson, Holton, Kan. Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

Holsteins

HIGH GRADE COWS AND HEIFERS

Carload lots and less. Calves fifteen-sixteenths pure-bred for sale at all times. $20 crated for shipment.

MAPLE LAWN STOCK FARM

C. W. HODGE — Milton Junction, Wis.

FARM AND HERD.

Edgewater Stock Farm, Fort Atkinson, Wisconsin, is noted for its fine herds of pure-bred stock. Their herds of Holsteins and Guernseys are among the best in the state and many of the good Holstein and Guernsey herds now assembled were started with foundation stock from Edgewater herds. They also have fine herds of Percheron horses and Duroc Jersey swine.

W. F. Phelps, of Phelps Stock Farm, Aurora, Missouri, owns one of the best Holstein herds in that state and one of the profitable herds now assembled. His herd is made up of individuals of record breeding and a feature of the herd at this time is the choice lot of cows and heifers bred to King Segis Urma Alcartra, a 30-pound son of King Segis Pontiac Alcartra, the $50,000 bull. Mr. Phelps reports his herd making a good record again this year.

The date of the Jersey cattle sale announced by D. T. McCarthy, of Hannibal, Missouri, for March 30, has been changed to March 23. Mr. McCarthy will catalog a choice offering for this sale.

Poland China Bred Sow Bob Quality Sale

At Richards, Mo., March 6, 1918

60 HEAD OF VALUABLE SOWS AND GILTS BRED TO BOB QUALITY AND SMOOTH BOB 60

We are selling some of our favorite brood sows. They are the dams of high class litters, such as Lady Wonder, the da mof the $655 boar in our last sale; Queen X. B., the dam of $910 litter; Big Wonder Lady, the dam of the senior pig show litter at Missouri State Fair 1917. All these sows are regular producers.

As attractions we will offer the two show sows, Liberty Bells and Leader Girl, both bred to Gerstdale Jones; one outstanding sow, St. Joe Gentry, bred to Big Jones. Queen Eveline and Lady X are desirable young herd sows. Lady Queen and Sweet Lady by Goldengate King. The catalog will give a complete description of the herd and herd boars. It is brum full of hog talk.

Please send for one and arrange to attend our sale.

O. W. Devine will represent Kansas Farmer.

J. R. YOUNG, Richards, Mo.

Auctioneer, R. L. Harriman

Shorthorn Sale at Wichita, Kansas Wed. Feb. 27

At 1 p. m.

Fifty head nearly evenly divided between bulls and females. These have been selected from the leading herds in the Wichita territory and also include a few choice consignments from other sections. This will be one of the most useful offerings of Shorthorns ever made in the Southwest. The sale will be held in connection with the Live Stock Show and will be one of the important features of the occasion.

Shorthorn steers won the grand championship in the carload division at the recent Denver show. A Shorthorn steer was the grand champion at the last International and Shorthorns made the highest percentage of dressed weight of all breeds at the recent International.

The Shorthorn is the breed for you. For catalogs address

American Shorthorn Breeders' Association

13 Dexter Park Ave.

Chicago - - Illinois

Rank C. Forbes, Sale Manager.

P. M. Gross, Auctioneer.

Breeders' Directory

ANGUS CATTLE.

D. J. White, Clements, Kan.

DORSET HORN SHEEP

H. C. LaTourette, Route 2, Oberlin, Kan.

RED POLLED CATTLE.

Mahlon Groenmiller, Pomona, Kansas.

MULEFOOT HOGS.

KNOX KNOLL STOCK FARM

MULEFOOT HOGS SHORTHORN CATTLE

Registered stock for sale at all times. Am offering some bargains in bred sows, summer gilts and fall pigs. Write for prices and catalog to S. M. KNOX, Humboldt, Kansas.

GROWTHY MULEFOOT HOGS from my State Fair prize winning herd. Stock of all ages for sale. Prices low. C. K. THOMPSON, LETTS, INDIANA.

ANGUS CATTLE

ANGUS CATTLE AND BERKSHIRES

For Sale—Registered Aberdeen Angus cattle and Berkshire swine, both males and females for sale now. Address

GEORGE M. McADAM - HOLTON, KAN.

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS

Best breeding, best type. Stock for sale.

GEO. W. ELA, Valley Falls, Kansas

SHORTHORN CATTLE.

THE SHORTHORN IS THE BREED FOR YOU

Shorthorn steers at the International, Chicago, made the highest dressed weight percentage of any breed. Sixty yearlings averaged 65.3%.

Shorthorn steers were grand champions at Denver, Portland, Salt Lake City and Chicago.

Shorthorn cows are making records up to 17,564 pounds of milk and 569.7 pounds of butter fat per year.

Address Dept. W.

American Shorthorn Breeders' Ass'n

13 Dexter Park Ave. — Chicago, Ill.

MARKS' LODGE

Home of Shorthorn Cattle. Reds Exclusively.

A few choice young bulls for sale, from my best milking cows. All registered. Come and see me.

DR. M. F. MARKS, VALLEY FALLS, KAN.

SCOTCH SHORTHORNS

Twelve Choice Bulls, reds and roans, from seven to fifteen months old, sired by such bulls as Ploneer, Excelsior and Mistletoe King. Priced reasonable.

C. A. COWAN & SON, ATHOL, KANSAS.

Cedar Heights Shorthorns

For Sale—Three red bulls, 12 months old. A few cows and heifers. Priced reasonable. Come and see my herd.

HARRY T. FORBES

Route 8 — Topeka, Kansas

ALYSDALE HERD SCOTCH SHORTHORNS

Viscount Stamp 2d, Clipper Brawith and Count Valentine in service. Orange Blossoms, Butterflys, Queen of Beautys and Violets. Choice young stock for sale.

H. H. HOLMES, Route 28, Topeka, Kansas

Pearl Herd Shorthorns

Village Heir by Imported Villager and Orange Lovel by Victor Orange in service.

FOR SALE—Fifteen young bulls from 8 to 14 months old, reds, whites and roans. Scotch and Scotch topped. Inspection invited. Can ship on Rock Island, Union Pacific or Santa Fe Railway.

C. W. Taylor, Abilene, Kansas

CLOVERDALE SHORTHORNS—For Sale, two roan yearling Scotch Shorthorn bulls. Exceptional quality and breeding. Also a few heifers. Wesley Jewell, Humboldt, Kansas.

SCOTCH SHORTHORNS

Bettie's Albion 399451 now for sale. Roan, weight 2,000 pounds if fat. Strong breeder. Also six bulls from 6 to 24 months old, reds, whites and roans. Write

C. E. HILL - - TORONTO, KANSAS

GALLOWAY CATTLE.

GOOD GALLOWAY BULLS

Twenty-five Extra Good Yearlings

Extra breeding and quality. Priced to sell.

J. M. HILL, SEDGWICK, KANSAS

Route 4, Box 65A

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

AUCTIONEERS.

Jas. T. McCulloch Live Stock Auctioneer. I make sales anywhere. Write for date. CLAY CENTER, KANSAS

Holstein Cattle and Poland China Hog Sale

At Lawson, Mo., March 7, 1918

FORTY HEAD FINE WELL-GROWN HIGH-GRADE HOLSTEIN HEIFERS

All bred to freshen in April and later to a registered line-bred grandson of the King of the Pontiacs.



I am offering for sale one splendid young registered bull, Downing Pontiac Korndyke Noble No. 205622, by Downing's Pontiac Butterman No. 94805.

His dam was Downing's Pontiac Fillpail No. 284861, with an A. R. O. record, and sired by a brother to the sire of Abby Josie and six other 30 to 43-pound A. R. O. cows. If you want some good useful grade Holstein heifers bred to one of the best registered bulls known to the breed, come to my sale. All will be tested and guaranteed as represented.

I will also sell twenty-five large Poland China bred gilts and one tried Spotted Poland China sow bred to Andrews Clover.

All the gilts will be bred to Missouri Jumbo 82035 by Long Jumbo. This hog is one of the good sires of the breed. HOGS ALL IMMUNED. Sale right in town in good comfortable sale barn.

Send for catalog and come to my sale. O. W. Devine will represent Kansas Farmer.

C. L. SMITH, Lawson, Mo.

Auctioneer—Col. Frank J. Zaun.

Jack and Percheron Stallion Sale

Owing to a change in the plans of operating the farm, we offer the following stock for sale at the WYATT PARK STOCK FARM, GOLDEN CITY, MISSOURI, on

Thursday, February 21, 1918



TEN HEAD OF EXTRA GOOD REGISTERED JACKS

from three to seven years old, are proven breeders and are well broke. No cull stuff. This is our breeding stock. Three yearling jacks, good bone, good size and color. Two jack colts.

TWELVE HEAD GOOD JENNETS

from two to six years old. All bred. Some have colts by side.

TWO REGISTERED PERCHERON STALLIONS

One black and one gray, each seven years old. These horses are proven breeders.

Also Four Richly-Bred Shorthorn Yearling Bulls, Ready for Service.

WYATT PARK STOCK FARM

J. H. Whittle J. A. Godman W. H. Scott W. R. Crowther

Auctioneers—Col. R. L. Harriman, Col. B. F. Boland.

Jerseys Win Economy Test





In a recent test at the Ohio State University, 157 Jerseys and 131 members of another dairy breed were entered. The Jerseys required only 75.3 per cent as much digestible nutrients per lb. of fat produced as did the other breed. Further, they produced 1.2 per cent more milk, 25.6 per cent more solids and 59.3 per cent more fat per 1000 lbs. live weight. Jerseys produce the largest *net profits* from every pound of feed. Build a Jersey herd. Write to breeders for prices.

Send today for free book, "The Jersey Cow in America."

The American Jersey Cattle Club, 375 West 23rd Street, New York City

120 JERSEY COWS AND HEIFERS

Pure-bred and high-grade. Forty bred yearlings, superior individuals, all from profitable dams, now for sale.

J. W. Berry & Son

JEWELL CITY - - - - KANSAS

IDYLWILD STOCK FARM

REGISTERED JERSEYS OF BOTH SEXES FOR SALE

C. F. Blake, Glasco, Kan.

LONGVIEW JERSEYS

(Registsr of Merit Herd)

Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.

Longview Farm

LEE'S SUMMIT - - - MISSOURI

BROOKSIDE JERSEYS

Registered Jersey Bulls, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.

THOS. D. MARSHALL, Sylvia, Kan.

LOMAX JERSEYS

A Herd of Producers, Backed by Records. Popular blood lines. Choice individuals. We invite inspection of our herd at all times. Write us your wants.

Dr. J. H. Lomax

STATION B - - ST. JOSEPH, MO.

B. C. SETTLES

MAKES A SPECIALTY OF MANAGING JERSEY SALES.

Write for catalogs.

Palmyra, Missouri

REGISTERED JERSEY BULLS

BUTTER-BRED, FROM HIGH-PRODUCING COWS.

Photo furnished.

Maxwell's Jersey Dairy

ROUTE 2 TOPEKA, KANSAS

Fine Young Jersey Bulls

From Register of Merit and tested cows; Register of Merit sire.

Dornwood Farm, Topeka

J. B. PORTER & SON

MAYETTA, KANSAS

BREEDERS OF HIGH-CLASS JERSEYS. STOCK FOR SALE AT ALL TIMES.

WRITE US YOUR WANTS.

Allen Center Stock Farm

Registered Bull Calves — Some Ready for Service.

Sale or exchange for bull or heifers.

TREDWAY & SON, LA HARPE, KAS.

Poland China Bred Sow Sale

AT FARM NEAR CHILES, KANSAS,

MARCH 5, 1918

FIFTY HEAD

Twenty Tried Sows, all sired by Expansion King.

Thirty Spring Yearling Gilts by Expansion King and King Wonder 2d, he by Big Bob Wonder. They will be bred to King Wonder 2d and Wonder Joe by Giant Joe. Former boars used in herd

MAJOR LOOK
DESIGNER
GOOD METAL

We are selling a splendid offering and invite farmers and breeders that want a good sow or gilt to come to our sale. Everything guaranteed as represented. Catalogs now ready to mail out. Send for one and arrange to attend our sale.

C. S. NEVIUS & SONS - - - CHILES, KANSAS

Public Sale of Red Polls

MARCH 6, 1918

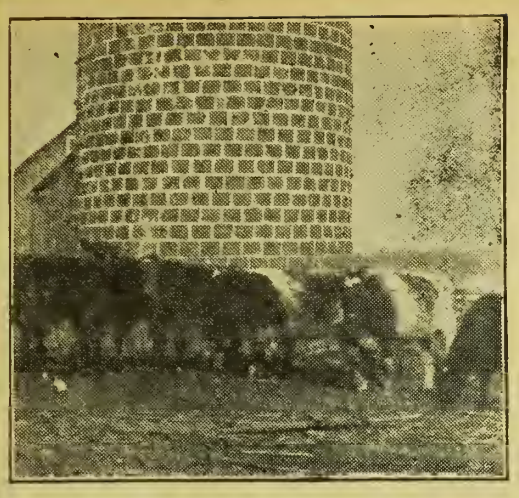
A choice lot of Red Polled Cows, Heifers and Bulls, all ages. Sale six miles west of Oberlin. Write at once for catalog.

I. L. ROGERS - - - - - - OBERLIN, KANSAS

HOLSTEIN DISPERSION SALE, MONDAY, FEBRUARY 25

Having sold my farm, I will sell our entire herd of thirty head registered and high grade Holsteins at farm near Glen Elder, Kansas. Herd headed by 17th Spring Farm King Pontiac 6th, a choice individual who carries over 43 per cent of the blood of the first 44-pound cow, and his pedigree abounds with world's records on both sides. Nine cows, four registered, five pure-breds, all giving milk but one, which is soon due. Sixteen registered and pure-bred heifers and heifer calves. Two fine young registered bulls out of the best producing cows. Two baby bulls, pure-bred. Send for catalog and come to the sale.

WARREN S. NEFF - - - - GLEN ELDER, KANSAS



A GROUP OF SILK GOODS HEIFERS

O. W. Devine Will Represent Kansas Farmer at Sale.

Shorthorn Cattle Sale

At My Farm Near Meriden, Kansas
FEBRUARY 26, 1918

THIRTY-FIVE HEAD

Consisting of Ten Cows, Mostly with Calves at Foot; Twelve Yearling Heifers, and Thirteen Young Bulls.

Most all the cows are bred t o Silk Goods. All the heifers are by him. Several pure Scotch pedigrees.

This is my fourth annual sale and I am selling some good cattle that will make good for any farmer or breeder who will give them proper care.

My catalogs are ready to mail out. Please send for one today and come to sale.



SILK GOODS, TEN YEARS OLD

Parties met either at Meriden, on Santa Fe, or Grantville, on Union Pacific Railway. Farm sixteen miles from Topeka. Write for catalog.

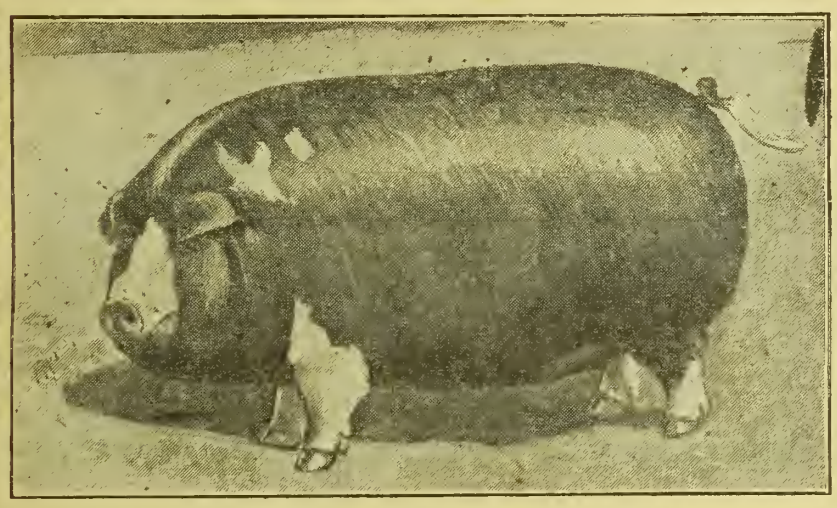
H. E. HUBER, MERIDEN, KANSAS

Dean's Poland China Bred Sow Sale

At Dearborn, Mo., February 28

On Electric Line.

Cars Every Hour from St. Joseph and Kansas City, Missouri



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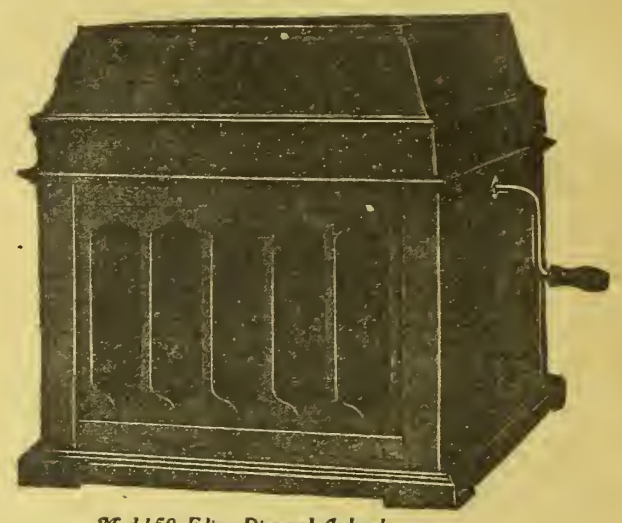

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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 8. TOPEKA, KANSAS, FEBRUARY 23, 1918. Established 1863. $1 a Year

GROWING SORGHUMS IN KANSAS

Sorghums More Profitable Than Corn in Many Sections of State

THE sorghums are more resistant to heat and drouth than corn. They are therefore more profitable in those sections where, because of drouth, hot winds, and shallow soils, corn is not a reliable crop.

Sorghum will outyield corn as a forage or silage crop in any part of the state.

Sorghum leaves the ground in poor condition for the following crop, and is therefore commonly considered hard on the ground. Pound for pound of material produced, sorghum does not remove more fertility than other crops.

Crops that make their growth during the latter part of the growing season should follow sorghum rather than fall or early spring-seeded crops like wheat or oats.

The varieties of grain sorghum most extensively grown in Kansas are: Blackhull kafir, pink kafir, dwarf blackhull kafir, dwarf milo, and feterita. Blackhull kafir gives best results with favorable conditions. Pink kafir yields better than the blackhull variety on poor soils or in unfavorable seasons, or where the growing season is too short for the latter. Dwarf milo and feterita and other early varieties are grown where the season is too short, or the rainfall too deficient, for pink kafir.

The varieties of the sorgos or sweet sorghums most extensively grown in Kansas are: Black amber, red amber, orange, and sumac. The red amber is the best variety for Western Kansas. Kansas orange and an early strain of sumac are best for Eastern Kansas.

Three methods of planting the sorghums are employed in Kansas: Surface planting, open furrow planting, and listing. Surface planting is best on heavy, poorly drained soils in Eastern Kansas. The open furrow method usually gives the best results in Eastern Kansas, where drainage is good and rainfall abundant. Listing is practical, and generally the best method in Western and Central Kansas.

Careful preparation of the seedbed for sorghum pays. Cultivation of the ground to kill weeds before the crop is planted is important, since the sorghums are likely to grow slowly and weeds are often difficult to control.

Fall listing for sorghum is good farm practice in Western Kansas. The furrows hold the snow and prevent blowing. The ridges may be worked down during the spring or the grain may he planted in the same furrow, depending on conditions.

The sorghums should not be planted until the ground is thoroughly warm. Usually they should be planted about ten days later than corn.

Rowed sorgbum for grain should be seeded at the rate of four to eight pounds per acre depending on the soil and rainfall. If grown for forage or silage, this amount should be doubled.

Sorghum broadcasted or drilled for hay should be seeded at the rate of one to two bushels per acre. It should be sown later than sorghum for grain.

Rowed sorghum should receive as thorough cultivation as corn.

The proper stage to harvest rowed sorghum is governed by the purpose for which it is intended. Sorghum for feed should be cut when the grain is in the dough stage. For silage it should be cut when fully matured. For syrup it should be harvested in the dough stage. Sorghum drilled or broadcasted for hay should be cut in the milk or soft dough stage. It makes the best quality of feed when it reaches the proper stage for cutting just before frost.

Sorghum cross-fertilizes readily, which almost always results in deterioration. Continual roguing to remove hybrid and foreign heads is necessary to maintain a pure variety. Sorghum seed for home use should be field selected and kept in the head until planting time.

Sweet sorgbum is utilized to a limited extent in Kansas for syrup production. This industry is increasing.

The grain sorghums—kafir, milo, and feterita—when properly fed are but slightly inferior to corn for feeding live stock. They are similar to corn in composition, hut are not as palatable, and a smaller per cent of the nutrients is digestible. Feeding tests indicate that they have from 85 to 90 per cent of the feeding value of corn for fattening hogs and cattle and from 90 to 95 per cent for fattening sheep. The grain sorghums are extensively used for poultry feed. Sweet sorghum and kafir make excellent forage. Sorghum silage is about equal to corn silage.

The sorghums are comparatively free from diseases and insect enemies. Kernel smut is the only serious sorghum disease in Kansas. This can be readily controlled by treating the seed with formaldebyde. Chinch bugs, grasshoppers, and the kafir ants are the only insect enemies that seriously damage sorghum in Kansas.

The above is a summary of a most valuable bulletin just issued by the Kansas Experiment Station, entitled "Growing Sorghums in Kansas." Its authors are C. C. Cunningham and Ralph Kenney.

Sorghums will grow better than most crops with poor methods, and for that reason these crops are often the most neglected on the farm. They have made good and have increased in their importance in spite of this neglect. Good methods will pay, however, as well with the sorghums as with other crops.

Proper preparation of the land is a most important factor in growing kafir, milo, or others of the sorghums. In the bulletin just issued it is stated that no general rules for preparing the ground where sorghum is listed will fit all cases. The usual method, though probably not the most profitable, is to plant with no preparation whatever. Listing the ground in the fall or early spring or disking in the early spring usually pays. The best practice will depend mainly on the kind of soil and the seasonal conditions.

Some valuable experimental work in soil preparation methods for sorgbums has been carried out at the Fort Hays Branch Experiment Station. Seven different methods were studied, the tests beginning in 1914. Plot 1 was double-disked in July or August, fall-listed, and listed at planting time. Plot 2 was fall-listed, the ridges worked down, and listed at planting time. Plot 3 was fall-listed, harrowed in the spring, and the ridges split at planting time. Plot 4 was fall-listed, harrowed in the spring, and listed in the same furrows at planting time. Plot 5 was fall-listed and the ridges split at planting time. Plot 6 was early spring-listed, and the seed planted in the same furrows. Plot 7 was disked early in the spring and listed at planting time. By way of comparison, an additional plot in all the tests was simply listed at planting time, which is by far a too common practice where sorgbums are grown.

The best yields of both grain and stover were obtained on the plots listed in the fall, and the lowest yields on the check plot where no preparation was given until planting time. The average grain yield for Plots 3 and 4 for the three years was 25.8 busbels an acre each. In other words, there was no difference whether the ridges were split at planting time or the grain planted in the old furrows. Working down the ridges, as was done in Plot 2, reduced the yield slightly, the average grain yield of this plot being 24.3 busbels an acre. A reduced yield also followed the July and August disking in advance of the fall listing, Plot 1 yielding at the rate of 21.5 bushels to the acre. Harrowing the fall-listed ground early in the spring, however, increased the yield, as is shown by comparing the 25.8 bushel yields of Plots 3 and 4 with the yield of Plot 5, which was 19.7 busbels to the acre.

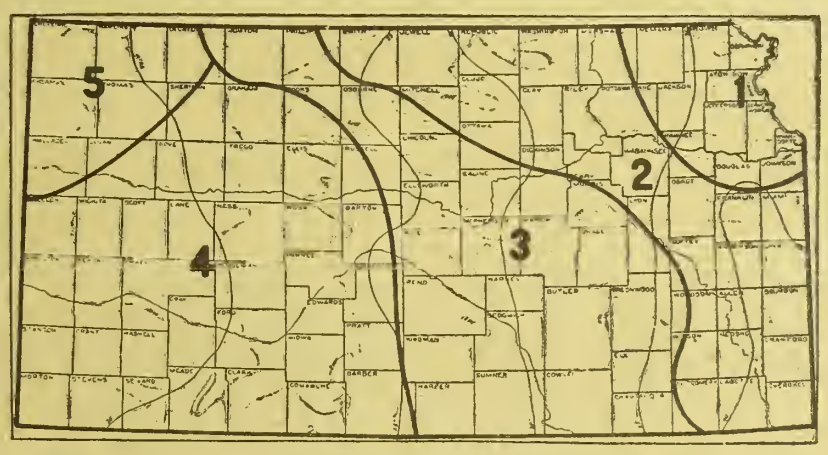
Listing early in the spring gave considerably better yields than where no preparation was given previous to planting, but much less than on the plots that were fall-listed. Disking early in the spring proved slightly better than no preparation, hut not as good as listing early in the spring or in the fall. The average grain yield on the check plot where no preparation was given was 13.3 bushels to the acre for the three years of the test.

In general the results of this experiment agree with farm practice. Fall-listing is usually best because it prevents soil blowing. The furrows catch the winter's snow, and it thus increases the amount of moisture absorbed by the soil. It is always better to list east and west, because the ridges then provide better protection from the prevailing north and south winds. Listing as a preparation method will thus be done in the fall, early winter, or early spring. As a rule the earlier this is done, the better.

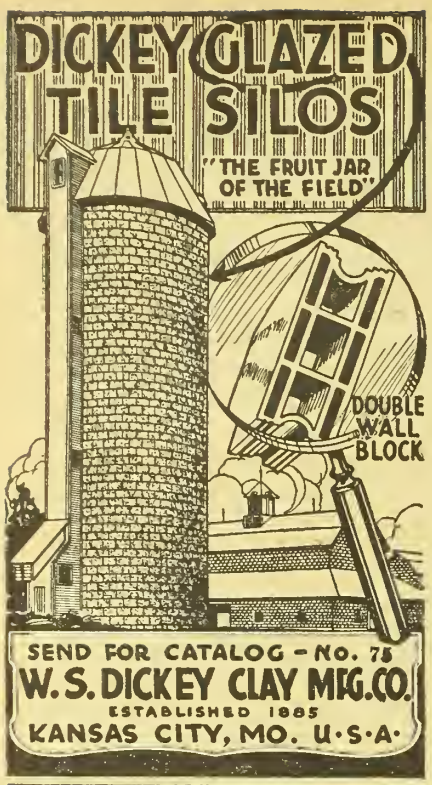
Whether the seed should he listed in the old furrows, or the ridges split at planting time, seems to depend on conditions. If the ground, and especially the subsoil, is moist, and the weeds abundant, splitting the ridges will probably give the best results. If the ground is very dry or moist near the surface only, planting the seed in the old furrows is preferable, since splitting the ridges will result in losing some of the moisture.

If the ground has not been listed in

(Continued on Page Thirteen)



THIS map of Kansas is divided into sections according to their adaptability for growing the grain sorghums. In the northeastern part of the state, or in Section 1, corn is usually a more profitable grain crop than sorghum. In Section 2, corn is a better crop on the rich hotton land and on deep upland soils, hut upon the less fertile shallow uplands, certain shale types in southeast Kansas being excepted, sorghums produce larger yields and are generally more profitable. In Central Kansas, or Section 3, sorghums usually yield more than corn and are more profitable except on the best land. In the section marked 4, corn will very seldom produce as large yields as the grain sorghums except on the sandy creek and river bottoms. In the extreme nortbwestern part of the state, Section 5, corn and sorgbums are about equal in productiveness and value. The seasons are so short that only the earliest of the sorghums mature, and since corn can be planted earlier than sorgbums it has an advantage that it does not possess farther east and south. In this section corn is generally more profitable than sorghums, especially when grown as a cash crop or when grown in a rotation with winter wheat. This map has been prepared hy C. C. Cunningham and Ralph Kenney, autbors of Kansas Experiment Station bulletin No. 218, "Growing Sorghums in Kansas."



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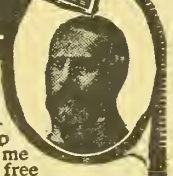

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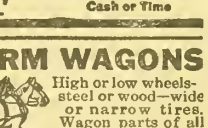

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FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

BECAUSE of the manufacturers of tractors losing so many of their expert mechanics who formerly were used to give tractor service out in the various territories among farmers owning tractors, it is now becoming necessary that the farmers and dealers look to each other for this sort of service. It is physically impossible under present conditions for the manufacturer to send out experts to unravel tractor difficulties and it now becomes necessary for the dealers and farmers to handle such difficulties which have heretofore been left to the experts.

While the manufacturers are losing many of their skilled laborers and experts to the war, the demand for their product is ever increasing. This means that manufaturers must increase their factory output, and to do so they must use men within the factory that heretofore have been out on the territories.

It is within the memory of old-time dealers that when the first self-binder came onto the market it seemed to dealers and farmers alike that they would never be able to master this intricate machine. From the beginning binder operative service was necessary, but education brought on by intensive usage of the machine made farmers and dealers familiar with it until finally the manufacturers were able to cease binder service.

This same situation is coming in the tractor field. Perhaps it is because we are at war that the elimination of tractor service is coming more quickly than it would under normal conditions. To this end many of the manufacturers of tractors have adopted a policy of holding tractor service schools at their branches where dealers and farmers may learn of the construction and operation of tractors in general. So broad-minded is this policy on the part of the manufacturers that the matter of sales is over-shadowed during the school of instruction.

When first one begins to operate a tractor he is apt to be impressed with the power and the work which the tractor will do and for that reason he feels that it must be an intricate and complicated machine. As a matter of fact the tractor is a remarkably simple machine, and can be readilly understood and properly operated by any one who will give the subject close attention for a few days.

If the operator will keep in mind that there are only three important parts to practically any tractor, namely the motor, the transmission and the truck, and spend a little time in getting acquainted with these different parts, he will be able to perform any service necessary.

The motors of most tractors are built on the same principle as are 99 per cent of all the motors used today in trucks, automobiles and even aeroplanes. Practically the only difference in a tractor motor and motors used in trucks or automobiles is that in the case of the tractor it is necessary, because of the heavier work which it must perform, to provide more ample means for cooling.

The transmission of the tractor is not unlike that of the average automobile, and if a tractor owner will secure an illustrated catalog of the tractor which he owns, he will soon be able to learn from cross-section cuts the mechanism and parts of the transmission.

The frame and the wheels of the tractor form the truck, and after the transmission and motor is placed on the truck the essentials of any tractor are built. To add to the beauty and protection of the tractor a hood for the motor and the shields for the wheels and sheet metal parts for appearance are then added to the tractor. But, remember, if you study the motor, the transmission and truck and master them you will be able to perform any repair or adjustment the same as any expert service factory man.—Implement and Tractor Trade Journal.

Machinery to Replace Men

For several years prior to the breaking out of the European war which has since involved the greater portion of the civilized world, a serious shortage of farm labor existed in this country. Since the United States entered the conflict, that situation has been aggravated by the demands of military mobilization and the inducements of shorter hours and larger returns for labor offered by industrial organizations engaged in the manufacture of munitions of war.

The moment that any government is face to face with a food shortage and food riots begin to break out, that government is in serious danger. Lack of food is at the foundation of the Russian revolutions, and that in Portugal, and will cut down the efficiency of our allies, especially France, unless we here in America can offset it by a larger production.

Germany today probably is better off in regard to agricultural labor than any other European nation. She is employing vast numbers of military prisoners, and civilians deported from the occupied territories, thus releasing her own labor for military purposes. She is working these laborers long hours, without regard to age or sex, and forcing them to the limit of human endurance, fully expecting that, when these are worn out, others will be available.

It is up to us to combat the handicap forced upon us by an unprincipled nation which has, as yet, never hesitated to violate any and every principle of humanity when it has been to her advantage so to do.

Various remedies have been proposed, from time to time, to solve the problem of labor shortage on the farm. Some of these remedies have been put into effect, for example, that of fixing the prices at the point of origin for certain staple products. This price regulation assures the farmer a fixed price for his product notwithstanding temporary gluts in the market which would ordinarily force prices down. It enables him to compete in the labor market with industrial concerns and encourages him to produce as largely as possible of those products most needed and for which prices have been fixed.

Another remedy advocated is that of drafting labor, not otherwise economically employed, for use on farms. To those familiar with farming conditions, this seems impracticable. A popular misconception exists that farming is not a skilled occupation. What relation this misconception bears to the truth may be realized when one considers the training of the average farmer. He serves a long period of apprenticeship, generally during the period of his minor years. The successful farmer must be, and is, familiar not only with mechanics, but the clements of meteorology, soil physics and chemistry, plant pathology, and animal physiology, though he may not use those names. To succeed, he must also have a knowledge of commercial practices and customs, in order profitably to market the products of his industry.

Another remedy which will do much to solve this vexatious problem is the more efficient use of labor on the farm. This is the age of machinery and labor-saving devices. If by the use of labor-saving machinery, two men may be replaced by one, or one able-bodied man by an old man incapacitated for hard physical labor, or even by a woman, a long step will have been taken toward the solution of the problem which confronts this country today. If, in addition to solving the labor problem, the work of preparing the soil for the crop, the seeding, cultivation, and harvesting may be prosecuted more expeditiously and effectively, a still greater step in the march of progress will have been performed.

EDITORS NOTE.—The above article is part of an adress before the annual meeting of the American Society of Agricultural Engineers by E B McCormick, formerly dean of engineering at the Kansas Agricultural College and now connected with the Federal Department of Agriculture.

Power-driven rotary saws, commonly spoken of as "buzz saws," are frequently used to cut stove or block wood. These saws vary in size from twenty-four to thirty inches and are operated by engines of six to ten horsepower, depending on the size of the saw. Three men with such an equipment can saw twelve to eighteen cords of wood a day.



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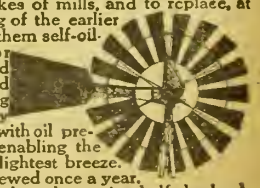

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TRACTOR SHOW GREAT SUCCESS

We spent a day last week visiting the Kansas City Tractor Show. The big building in which this show was housed was crowded throughout the week. In the afternoon it was difficult to get around. Farmers were much in evidence, and they were taking advantage of the opportunity presented to study minutely the inside workings of the various tractors shown. Exhibitors of practically every machine on exhibition had gone the limit in making it possible to see all working parts.

A study of the different outfits makes it evident that tractor makers are bringing about many refinements in the tractors they are turning out. These are in most cases the result of practical experiences in the field. They are giving much attention to simplifying machines, increasing their durability, and making it easier to get at the various parts. These are points which the farmers present were noting most carefully. Roller and ball bearings are being extensively used, magnetos are housed, oiling systems simplified and made positive in action ,and gears being covered and run in oil to insure proper lubrication. Tractors must stand up and work in the field where it is impossible to get away from the dust, so protection from dust and dirt is a most important consideration.

A few new types have come out, but in the main the tendency is toward standardization. Some companies are specializing on a single size, but in most cases it is recognized that there is a demand for tractors suited to farms of different sizes.

There seems to be a noticeable increase in the 1918 output of tractors. The Government has recognized the tractor as a faetor in conserving labor and in increasing production, and every effort possible will be made to supply the raw material. All companies represented made sales during the show. Many dealers were in attendance, and in many cases they had with them prospective farmer buyers who gave orders at the show for tractors to be delivered through their local dealers at once. Taking it as a whole, the show demonstrated that real progress is being made in developing the tractor.

INCOME TAX DECISION

A very important income tax decision affecting the farmer has just been handed down by the Treasury Department. The original method of figuring was working an injustice against farmers who had been accumulating live stock and equipment for several years. The short crop of 1917 made it necessary for them to decrease the number of stock carried over. The method first used in figuring their income considered only cash sales during the year and the necessary expenses incident to the business. This caused farmers to pay income taxes on the accumulations of several years and thus worked an injustice.

P. E. McNall, farm management specialist in the extension division of our Agricultural College, has given a great deal of attention to the income tax as affecting the farmer and in explaining this new ruling points out that it permits a farmer to use inventories for January 1, 1917, and January 1, 1918, in connection with his receipts and expenses. Large cash sales are thus offset by a decrease in inventory which causes the net income to be the exact income for the year rather than the accumulation of several years.

The Internal Revenue Bureau of the United States Treasury suggests the use of Farmers' Bulletin No. 661 for this purpose. The last nine pages of this bulletin contain blanks for entering the items of the farm business for the year. The first part of the book takes up a discussion of how these entries are made.

The blanks are arranged to show the inventories, receipts and expenses of the farm business. These blanks may be somewhat conflicting especially since they contain sales and expenses of both operator and landlord. "All that need be made out in any case," says Mr. McNall, "is the column which represents the business of the man making the report. If this man be a tenant or an owner who farms his own place, he should fill out the column headed 'Operator.' He should show only his share of the receipts, expenses and inventories. If he is an owner who rents his place out he should enter in the landlord's column his share of the receipts and farm expenses only.

"If a farmer after filling out these blanks and adding his other income and necessary expenses for obtaining these incomes, finds his net income is less than $2,000 for the head of a family, or $1,000 for an unmarried person, he does not need to report. If his net income is greater than the respeetive amounts named he should report to the Internal Revenue Collector at the time he is in the county."

Since there is always danger that mistakes may be made in the matter of deductions, it is safer to go to the deputy revenue collector and be sure that all deductions made are allowable by the Government. A heavy penalty attaches to failure to make report, and ignorance of the rulings is no excuse. A deputy revenue collector will be on duty in every county in the state.

Figuring the farmer's net income in this way makes it almost necessary that he keep farm records. Unless he has an accurate inventory for the two dates given, he cannot take advantage of the new ruling. We would again urge the importance of beginning to keep farm records. The farm account book to which we referred last week is suitable for this purpose, and can be obtained through local banks, or, if they have failed to provide themselves with copies, by writing to the extension division of the Agricultural College, or to W. W. Bowman, secretary of the Kansas Bankers' Association, Topeka.

KANSAS WOMAN'S FARM MEETING

The Kansas Woman's Farm and Garden Association, which was organized in Topeka January 12, is wasting no time in attempting to put its program into practice. A meeting of the association will be held in the Chamber of Commerce rooms, Topeka, February 26, 27 and 28. The Tuesday evening meeting will be simply a get-together meeting. An all-day program will be given Wednesday. The backers of this movement insist that the women of the farms whose husbands, fathers, or brothers were called to the service, should stay on the farms and "keep the home fires burning." They point out that nowhere else and in no other way can these women help more in winning the war than by staying on the farm and helping to raise the necessary food. The aim of this organization is to show how inexperienced women may become farmers and especially to encourage intensive gardening throughout the state.

A great deal of interest has already been taken over the state in this movement. The papers and talks given will be by experienced women farmers and gardeners.

The officers of the organization are: President, Mrs. Theodore Saxon; vice-president, Miss M'Edna Corbet; secretary, Mrs. A. D. Folker; treasurer, Miss Louise Krigbaum, all of Topeka.

HOG PRICE MINIMUM

No change is to be made in the hog priee minimum of $15.50 established last November by the meat division of the Food Administration. In last week's issue we gave some of the complaints and also the explanatory statement from the Food Administration relative to the thirteen-to-one ration whieh has been promised for this year's pork production. We also gave a brief statement eovering the protest sent to Mr. Hoover by the Kansas City Live Stock Exehange. There has been a lively exchange of letters and telegrams, the character of which indicates that Mr. Cotton is giving some attention to what live stock men are saying.

Just as we go to press a telegram came to hand in which the following statement authorized by Joseph P. Cotton, head of the meat division of the Food Administration, is made. "Complaints from various sources have reached the meat division of the United States Food Administration to the effect that the minimum price of $15.50 a hundredweight on the basis of packers' droves at the Chicago market, which the Food Administration had established at the request of growers for the purpose of stabilizing the market in the general policy of increasing production, was detrimental to their interests. In my judgment that minimum has been a sustaining element in the price of hogs, but in order to find out whether my judgment was well grounded, I decided upon a referendum. I therefore sought the advice of a hundred leading hog producers, editors of farm journals, and presidents of the stock exchanges in the principal hog-producing states. Answers to my request have been overwhelmingly in favor of maintaining the minimum, but three answers expressing dissatisfaction with the plan having been received. The minimum will continue in force."

We have no details regarding this decision other than the statement itself. This would seem to indicate that the hog producers at least do not want the present minimum removed. The only replies to Mr. Cotton's inquiry coming to our notice have been those of the president of the Kansas City Live Stock Exchange and the Daily Drovers' Telegram of Kansas City. After calling a meeting of a large number of representative hogmen and discussing this message which had come from Mr. Cotton asking whether the minimum should be removed, the president of the Exchange was instructed to wire as follows: "Minimum should not only be maintained, but should be materially advanced." The Drovers' Telegram said: "Materially increase. Do not under any circumstances discontinue minimum hog price."

James Dorsey, of Gilberts, Illinois, was recently convicted in the federal court on a charge of using the mails to defraud. Mr. Dorsey was charged with selling diseased dairy eattle. He "plugged" these cattle with tuberculin in advance of the offieial tuberculin test so they would not react. Dorsey has been out of business since his arrest several years ago, but the news of his conviction will interest dairymen throughout the country who have worked in season and out to keep the dairy business elean and drive out the crooks handling dairy cattle. A good many Dorsey cattle were shipped to Kansas, being represented as healthy. Later they developed tuberculosis and there were a great many losses. Federal Judge Landis sentenced Dorsey to eight years in the federal penitentiary at Leavenworth and in addition fined him three thousand dollars. He was released on a fifteen-thousand-dollar bond pending action on appeal.

The requirement made by the Food Administration that wheat flour substitutes be purehased in equal quantities with white flour might give the profiteers a chanee to shove up the priees of these substitutes without justifieation. Complaints have been made that some are taking advantage of this enforced demand for flour substitutes and trying to reap undue profits. Warnings have been sent out, however, that drastic action will be taken against anyone who attempts to charge unwarranted prices for such cereals as are being sold as substitutes for white flour.

BEEF WITH LESS FAT

We have been told by the meat division of the Food Administration that the highest grade of beef is a luxury under present conditions. Some of us have eome to that conclusion because of the price we have to pay for a piece of good beef and have placed it in the luxury class. Highly finished beef is without doubt a wasteful product. This is probably true even under normal conditions. Fat is the most expensive thing to produce in getting a steer ready for market, and when the beef comes to the table this expensive fat is largely a waste. It takes grain to make thick fat on beef and at the present time we are especially concerned in saving all the grain possible.

The more largely the steer is grown on roughage, the less the meat will cost to produce and the larger the percentage suitable for food. The present demand is for cattle in only ordinary condition. This puts steers, commonly spoken of as cheap cattle, in special demand. A farm paper writer recently expressed a fear that this demand for the commoner sorts would tend to slow up eattle improvement. We do not so understand the results of this changed demand. It is even more important to have cattle of pronounced high beefing qualities if they are to be marketed without high finish. High finish makes a relatively greater improvement in cattle of poor beef type than in those of the best type for beef. Let us not confuse this demand for beef carrying less finish with the production of inferior beef cattle. The better the animal from a beef standpoint, the more acceptable it becomes when marketed without high finish such as requires the feeding of a lot of expensive grain. If this is understood beef cattle improvement should receive a boost instead of a setback.

GRAIN GRADING COMPLAINTS

It is most unfortunate that the new federal grain grading regulation should have been put into operation just as a time when the war emergency required that a food administrator fix prices on wheat. There is absolutely no relation between the operation of the new grain regulations and the regulations of the Food Administration governing the handling of wheat. The grading rules would have gone into effect if there had been no war, and there would have been no regulation of mills and elevators under government license.

Coming together as they have, it has brought about a condition which many believe sufficient justification for suspending the operation of the new grading rules for the period of the war, at least. There is every reason why there should be a speeding up of the production of wheat. The manner in which the two sets of regulations are working is becoming a real obstacle to this end. This was apparent at the recent conference held in Hutchinson. It was charged by farmers and co-operative elevator men that eertain milling concerns were using the new rules to stifle competition. The elevator man must buy on the most strict observance of the grading rules because his wheat is shipped to central markets. Mills at points where elevators are located were charged with raising the grade and of course paying for the wheat on the basis of a higher grade. At non-competitive points the federal rules are rigidly enforced by the mills. These charges were not denied by the millers at the hearing.

There are probably small mills in sections where no wheat was grown that are having a hard time doing business, but it seems that the industry as a whole might well be the subject of an investigation by the Federal Trade Commission. This demand on the part of grain growers was voiced in one of the resolutions passed at the Board of Agriculture meeting recently held in Topeka.

A FARMER ON WAR SERVICE

Insists That Farmers Should Support Administration in All War Measures

By HOWARD M. HILL, Proprietor Sycamore Hill Stock Farm, Wilson County, Before War Council, Topeka

TODAY personalities and plain talk are excusable—if pertinent. In the past farmers have seldom gotten more than laborers' wages for their time and over a vast extent of our farming land its fertility that rightly belonged to all future generations has gone, in the bargain. But times have changed. A leading authority has said, "For the first time in more than a century food is no longer a drug on the the market. The world is at war and it is growing hungry. Men by the millions are being drawn away from production and our problem is no longer 'What crop will make us the most money?' but 'How shall the world be fed?' "

We can well afford to leave the ultimate question of a fair return for working the land until times of peace, for with that time will surely come a closer bond of fellowship between all classes. In the conservation of food we farmers have the advantage of the average nonproducer. In our family through the use of home ground corn and wheat, both of which are used bran and all, we have cut our consumption of white flour to a little less than half the usual amount. By the liberal use of sorghum and honey produced on the farm, without special self-denial we have cut our average consumption of sugar below Mr. Hoover's allowance and to less than one third the usual amount.

Through the increased use of all kinds of poultry, we have practically cut out the buying of beef, never consumed in large quantities on the average farm. And our pork consumption has been cut in two with only half the usual number of hogs reserved for meat this year. Through co-operative home canning, our neighborhood has purchased no canned fruit or vegetables. On our farm home-made soap answers for every use except the toilet. We are great believers in Mr. Hoover and his food saving campaign. He is a big man and has a big job and if he says cut out white flour and pork altogether for a period of three months or more we are with him. When we hear criticism of Hoover and his campaign from those whose ability or opportunity to comprehend the necessity or the magnitude of the move, is small (and this includes about all of us), we feel like asking where another man big enough for the job who will handle it for Hoover's salary can be found?

Y. M. C. A. and Red Cross work in our community brings very much the same response as in the towns. The recent Red Cross membership campaign came at a time when east and west roads were blockaded with snow but workers went on horseback and the response was almost universal.

Through activities in our county council of defense about a year ago, farmers in our section aided by county agents from both Montgomery and Wilson counties secured seed oats of good quality and put in a large acreage. The resultant crop was the best we have had in recent years and since our failure in other grain feed crops, owing to extreme drought, the value of the oats crop is better appreciated.

In our particular section, several hundred acres of rather poor prairie land is untenanted, largely owing to the fact that it does not pay for farming in grain crops. Through our county agent, Independence banks were induced to finance without interest the seeding of a large acreage of kafir and cane on this land, a tractor being used for plowing. The seed for this was also secured through our county agents. The crop was not expected to pay in grain, but in spite of the unusual drought a splendid and heavy crop of forage was secured and again an Independence bank made cattle loans at a low rate of interest with the net result that we are adding a little larger quota of beef for the allied armies and starving civilians. Our own farm is devoted entirely to the production of beef and breeding cattle, but this past season, through the co-operation of neighbors in helping with the plowing and seeding, 200 acres of neighboring land was thoroughly prepared and seeded with the best quality of wheat, fertilizer being applied to some of the poorer soil. A large acreage of oats is also planned for 1918.

The acreage of wheat has practically been doubled in our section, many farmers putting in wheat on land that has not grown this crop for years. The preparation of ground was unusually thorough, but dry weather preceding the sowing and continuing practically without interruption since gave little chance for plant growth. Germination was good, however, and we are hopeful for the life of the plant.

The increased acreage devoted to small grain and the extremely high prices of all feeds are undoubtedly cutting down our live stock supply. A great deal has been said about extravagant profits being reaped by farmers and live stock raisers, but we make the assertion without fear of successful contradiction that in our section and all others in the state, excepting only that where frost damaged corn that is not marketable is being used, every pound of grain in prime beef and pork that was marketed in the last two months of 1917 had been produced at a loss—if present feed and labor values are taken into account. With present market and weather conditions, this loss will continue. I do not make this statement as a complaint in any sense, but with the hope that consumers and our coworkers in war service may better understand the real situation of the farmer.

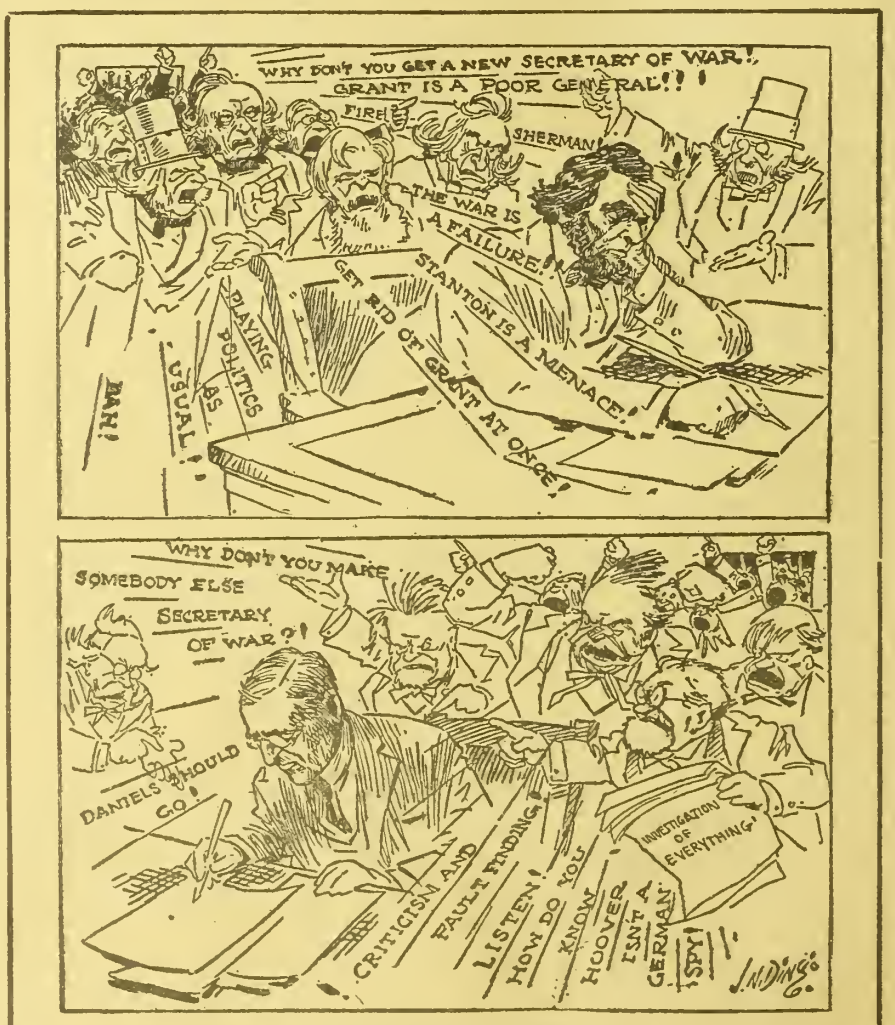
Agriculturists who have been aptly described as those who make their money in town and spend it on the farm, editors and writers in some of our farm papers, bonanza farmers and live stock men, and politicians galore have been very busy trying to make the plain average farmer, who is seldom heard from, think his male citizens of draft age entitled to exemption or deferred classification. We may have our labor troubles, but it is entirely past my understanding how any warm-blooded American who has enjoyed the abundant fruits of admitedly the best government on the face of the earth, with a full understanding of the absolute necessity of millions of workers in ship building, arms and ammunition making, clothing and equipment factories, motor and aircraft factories and the many other branches of the work—if we are to win the war—can desire any less than his full share of service and sacrifice.

We should count it a blessed privilege to contribute to Red Cross and Y. M. C. A., two of the most splendid organizations for war work originated by any people of the earth. We should receive the demands for extra taxes on all sides with a smile of willingness and continue to smile with continued demands because it has been given us to extend to the brotherhood of humanity in every nook and corner of this good old world the greatest and most far-reaching victory in the greatest and most terrible war against the most barbarous and inhuman enemy of civilization since the beginning of time.

A statement of the unusual situation in which we farmers are placed should lead to better understanding and team work all around. We are asked to increase our acreage of wheat, rye, oats, barley, and all food-producing crops, War demands call for increased acreage in cotton and all hay crops. All this increased acreage absolutely necessitates cutting down materially all our live stock forage and feeding crops, more especially corn, which is absolutely necessary to greater pork production, and still we are also being called on for greater meat production. This seeming impossibility would only be possible through increased labor supply or more man power. Man power on the farm is diminishing—the only substitute is woman power.

England through the use of women, who have taken the place of all except the old men and boys on the farm, has tripled her grain food crops, but this has been done partly at the expense of her meat production because a great acreage of pasture and meadow land has been turned by the plow

Grain and forage feeds are still being wasted on almost all of our farms. By the building of silos on every farm, Kansas can increase her live stock and thus make use of more of her grass and through the use of all our manure still grow more grain.



HISTORY REPEATS ITSELF
—Darling, in Des Moines Register.

There are a few fundamental readjustments we farmers should demand before we begin substituting woman power on the farm. First of these comes strict enforcement of the rule, "Work or fight." Every able-bodied man or boy of working age not called for service at the front and not assisting directly behind the firing line should be compelled to join the producers' class unless his time is fully occupied in necessary work. We should use all appeals to public opinion possible in enforcement of this rule—but use strong-arm measurers unhesitatingly where necessary.

Kansas farmers should demand that none of the grain they grow or conserve should be made into Missouri booze while children of all European nations starve. In ordinary times we might concede poor old Mizzoo a few more drinks in the "tapering off" process but now it is not their reform, but the feeding of starving babes we are insisting on.

In this connection it might not be out of place for us to ask what connection their making and using of booze has with their sending of representatives to Washington to obstruct war measures and criticize the administration generally.

Now that our wise statesmen have at last given the American farmer a government loan bank with authority to make loans on long time and at low interest, may we not ask general support of these banks and consideration of their bonds by our bankers and financiers? This has always been the greatest need of the farmer in his struggle for greater production but is doubly necessary now with high priced labor, feed and equipment. These bonds are being neglected now partly because of the strenuous campaigns for Liberty Loan bonds, which we all know are so necessary, and recent authorization by congress for the purchase by the government of these bonds practically does away with the danger of the proposed emasculation of this measure by limiting application to new loans. But another hike in the interest rate will probably result in the large insurance companies, who have heretofore carried a large part of the farm loans, buying up these bonds, with the result that they will have besides their usual gilt edged land security the government guarantee and the farmer will practically be paying the old rate.

We have seen much use of the term, "constructive criticism" lately and desire to say that except in a few fundamentals we are inclined to think "there ain't no sich animal."

General criticism of the administration and its war measures by our newspapers is all too common and is undoubtedly partly responsible for the feeling of unrest and dissatisfaction of the people. On the part of some of our leading newspapers this despicable misleading of the public for mere political purposes is actually giving aid and sympathy to the enemy. A flagrant example of this has just happened. A sharp criticism of Garfield and the administration for the recent coal order was published in a leading Kansas City paper which even went so far as to say that both the senate and congress were exceedingly sore and critical of the administration, and yet in a very inconspicuous place on the inside of the paper in a very short space was given the information that at that time there were lying in the port of New York loaded vessels that would require 40,000 car loads of coal in their bunkers before they could sail with supplies for our army and the starving millions in Europe. That is a justification for the coal order and we should thank God that we have officials with the backbone to make such orders.

Right in Topeka, leading political organs published very freely all the carping criticism and even omitted the small inside article giving the real information. and still all of our candidates are whooping it up for the war and its prosecution to a rapid end.

Now, Kansas gave Wilson a rousing majority and we are still for him and we serve notice on all candidates, regardless of party, that we will not only demand full support of the administration in all war measures but that any who have not a pretty clear record so far as criticising the administration needlessly in the past is concerned may as well lay low.

FARM LABOR SUGGESTIONS

Women and Boys Can be Used to Meet Emergency Demands

IN THE farm labor conferences being held in various parts of the country the Federal Department of Agriculture specialists have reported on the various sources of labor. As a result of tnis study a plan is already in operation which has for its purpose the mobilization of all available farm help. In our issue of January 26 we gave the essential features of this plan which was presented to the representative farmers in attendance at the annual convention of the State Board of Agriculture by E. V. Wilcox of the Federal Department of Agriculture. Some of the suggestions were necessarily omitted from our previous article becausc of lack of space. In his talk Mr. Wilcox pointed out that women have taken an important position in farm life and during the present war emergency a constantly increasing number of women are seeking and obtaining employment on farms either at outdoor work or as help for the farmers' wives. Both as individuals and in camps the women have rendered efficient service at various kinds of farm occupations. The English Government has had an extensive and satisfactory experience with women as farm laborers. It has been found desirable to establish training camps for women, not primarily because they require longer to learn the essential features of farm work than men, but because it was felt that city women should have a preliminary physical training or seasoning in order to prevent unfavorable results from the unuual kind of work. About 150,000 women have been trained in camps in England during the year and their services have been found to be of high value as shown by the voluntary reports of farmers with whom they have found employment. Some interest has been awakened in the United States in training camps for women. As an example of such a camp, mention may be made of that at Mt. Kisco, N. Y. This camp was established by private enterprise on an abandoned farm on which all operations were done by girls from Columbia University and the Manhattan Trade Schools. They performed all kinds of farm work, even including haying, with satisfactory results, and were generally employed by farmers in the neighborhood. Many of these farmers of their own initiative reported that the girls were more alert and active than the ordinary farm laborer and that their services would be gladly accepted during the coming year. Incidentally it should be stated that all of the girls were pleased with their experience and hope to have the same opportunity again.

Husking bees have been organized in various towns for the purpose of assisting the neighboring farmers in harvesting and saving their corn. These husking bees are essentially a revival of a pleasant old farm institution which, like so many of the farm operations of a previous generation, combined social activities with industry.

Several reabjustments of labor already on the farms may be made to meet more adequately the present situation. The old custom of exchanging labor among the farmers, which has come down from the early days of agriculture, is being extended and utilized on a larger scale than ever. The wide use of the method of exchanging labor makes possible not only the rapid accomplishment of tasks which do not permit of delay but also the doing of work which the services of a number of men simultaneously in order to secure the efficient utilization of labor. The custom also permits the better distribution of labor now on farms and the more continuous utilization of their services. Attention has also been called to the possibility of introdueing changes in the cropping system in order to utilize more fully and more efficiently. In a careful survey of the distribution and use of labor in North Carolina it was found that only about 40 per cent efficiency was obtained during the past season among negro laborers. In Maryland a study of the work performed by farm laborers including both family and hired labor indicated that farmers and their hired help do only about one hundred days work each per year. This is a low grade of efficiency and the situation can obviously be greatly improved by giving more careful attention to the distribution and utilization of the labor already available.

A tabulation of the results obtained from the farm labor survey work of the past crop season indicates quite clearly that the work of producing the necessary food and of carrying on other farm operations can be accomplished by a general speeding up without any additional farm labor. More work can be done with the same number of laborers. This has been accomplished on thousands of individual farms and the experience of Canada shows that it can be accomplished in a nation as a whole. The Canadian example is one which merits close study and enthusiastic emulation. Canada, with a population of eight million, has sent 500,000 of her young men to France. If we placed a proportionate number of our population in active military service the total would be 6,250,000. Notwithstanding the large army of men which Canada has taken from her population for military service, the Dominion increased all of its essential industrial operations and also greatly increased the export of all important agricultural products. In other words Canada did a great deal more than heretofore and with fewer men. The problem was solved by speeding up and by more efficient distribution of the available man-power.

Mr. Wilcox referred to some instances in which the method of farm labor problem developed unusual situations, such as the wheat harvest all through the central wheat belt. As is generally known a large army of workers congregate annually for the wheat harvest in the central wheat belt. This harvest begins about June 10 in Oklahoma and extends north gradually with the ripening of the grain, ending in North Dakota about the middle of September. The harvest thus furnishes continuous employment for men for a period of about three months. The harvest army is made up of men from various economic stations in life and from a large number of states. Many college men and residents of eastern cities annually make a pilgrimage to the wheat belt to engage in this work. The employment service of the United States Department of Labor also directs a large number of men to localities where harvest operations are under way. The fact that such work awaits the coming of the harvest hands is generally known throughout the country. The chief way in which the Department of Agriculture can assist in this employment is the furnishing of accurate information as to just where the men are needed, the number of men required, the wages offered, housing conditions and other details concerning which laborers wish to be informed. The laborers are then directed to the proper localities where they are met by farmers and taken to the harvest fields. Definite plans have been laid whereby county agents or others who may be brought into our organization shall keep each other informed of the time when harvest help is required in their locality and of the date when such help will be released upon completion of the work. It is expected that in this manner the laborers will be systematically directed from farm to farm as the wheat harvest progresses northward in order that they may find continuous employment throughout the season.

The idea of establishing training camps where city boys and men may receive instruction in the simple features of farm operations has gained much momentum since the outbreak of the war. The Canadian authorities have found it unnecessary to establish training camps for men and boys. City residents have simply gone out individually to work on farms and the farmers have shown a reasonable amount of patience in instructing such laborers in the methods of farm work. In the United States, however, considerable attention has been given to training camps. This system has been tried with Boy Scouts, units of high school boys, Y. M. C. A. members, the Boys' Working Reserve and in camps financed by private enterprises. The camps have varied greatly in size and in elaborateness of organization and equipment. In some cases idle farms were given over for use as a training camp while in other cases certain farmers allowed camps to be established on their farms to furnish labor for themselves and neighboring farmers. The results obtained from the work of boys who have been trained in these camps have varied greatly. In some instances farmers complain of the inefficiency and playfulness or even maliciousness of boys while in other instances the boys gave complete satisfaction and rendered excellent and effective service. The experience of last year shows clearly that success with boys' camps depends largely on having an efficient leader, a man who has not forgotten the fact that he was once himself a boy and who understands boy psychology. With such a leader the superabundant energy of young boys may easily be directed into useful channels with the result that a great amount of good work is accomplished to the benefit of both the boys and the farmer. Under such conditions a better understanding is brought about between the farmer and the city boy and the way is paved for a still closer co-operation between these two classes of our population.

Summer Fallow Methods Win

By ESTEL WOLLMAN

THAT the conservation of moisture is essential in profitable crop production in Western Kansas has been proved by Louis Shaumburg, a successful farmer of Rush County, Kansas.

In preparing for wheat Mr. Shaumburg disks his fields early in the spring and afterwards whenever necessary so that no weeds grow and the surface remains loose until June, when he plows it to a depth of four inches. He then harrows it after each good rain or when small seeds begin to grow and keeps the surface from becoming crusty or weedy. By this method much of the moisture from early spring until wheat seeding is stored in the soil and the wheat can draw on it when needed.

Mr. Shaumburg has never had a failure with wheat sown in ground prepared by this method, and his smallest yield was ten bushels an acre in 1893 when other wheat was a total failure in the county. In 1913 his yield was seventeen bushels an acre when wheat planted in the ordinary way was again a failure. The average yield for all the years he has summer-tilled his grouud for wheat has been twenty-eight bushels an acre. The year 1917 was an exceptionally dry one, but his growing wheat is making good stock pasture now.

"The average annual rainfall in Western Kansas is twenty inches, two-thirds of which geuerally comes during the growing months of May, June, July and August," said Mr. Shaumburg. "The remaining one-third comes during the other eight months of the year, or at the time when moisture is not in great demand by growing crops. Twenty inches of rain is sufficient moisture to produce large crops of any kind that are adapted to this country, provided it can be utilized by the growing plants.

"Western Kansas has raised large crops when in the growing months it received two-thirds or more of the annual rainfall. Small crops have been raised in years when the rainfall during the growing months was less than two-thirds of the annual amount and the crops failed in years when the growing months were dry ones.

"There is just enough moisture if it is all used, but it is a deplorable fact that much moisture is wasted by the farmer who depends only on getting the moisture during the growing season, and does not save that which he gets when he does not ueed it. Hard and weedy soil loses moisture sooner than clean loose soil."

Mr. Shaumburg begins with the preparation of his fields for crops as long as possible before seediug time. The more time he takes in preparing his fields the more moisture he can store in the soil. During the time he prepares his fields he keeps the surface loose and free from weeds.

In preparing his fields for corn and the sorghums he begins early iu the spring as soon as the frost is out of the ground, by loosening the surface with a disk and then keeping it loose and cleau until planting time. By this method the moisture in the soil is stored until time for the crops to use it. In the growing season his fields are cultivated often to keep the surface loose and free from weeds, so that all the moisture can be used by the crops.

The time from wheat harvest until wheat sowing is too short to prepare properly his wheat fields for wheat again, unless the weather is favorable. Wheat generally uses all the moisture by the time it is matured. If there is then a dry harvest and a few weeks of dry weather after harvest there will be little or no moisture to store between harvest and seeding time, and consequently the wheat fields will be in poor condition. Mr. Shaumburg has adopted the course outlined because it brings results. It is no longer theory with him.



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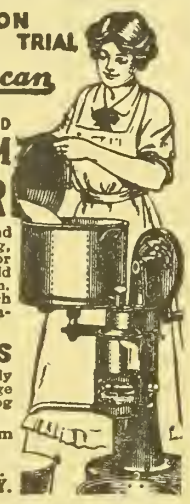

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It Pays to Spray

An example of the profits from spraying is illustrated by the experience of Charles Tanzeberger, of Jefferson Barracks, Missouri. Mr. Tanzeberger's orchard is seventeen years old and was never sprayed until last year. He offered his orchard of 130 trees for a spraying demonstration. In 1917 as a result of proper spraying, the 130 trees produced $1,897.55 worth of fruit. The total cost of spray materials, together with the cost of labor, amounted to $84. Thus. the net profit resulting from spraying was $1,813.55. The orchard had never been profitable before. For example, the same orchard of 130 trees, was set just as heavily with fruit early in the season of 1916 as it was last spring, yet it produced without spraying only enough apples for three barrels of vinegar.

Mr. Tanzeberger's letter dated December 12, 1917, to T. J. Talbert, who conducted the orchard demonstration, follows:

"My apples were divided into first and second grades. Out of my 500 barrels of Winesap apples, I had about eighty barrels of seconds. The culls which I kept myself made three barrels of cider.

"I sold all the apples—500 barrels—to one man. He paid me one price all the way through, which was $3 a barrel.

"All that I had to do was to pick the apples. The commission man barreled them and stood the barrels and hauled them away from the place also. Spraying pays."



Kansas Hereford Breeders Sale

TWENTY-THREE of the best Hereford breeders of Kansas sold drafts from their herd in the consignment sale held at Manhattan February 12 under the management of Prof. W. A. Cochel of the animal husbandry department of the Agricultural College. The holding of these breeders' sales is very helpful to the improved live stock interests of the state. The men who took part in this sale were farmer-breeders who had no other interests, and the sale is a fine example of co-operative work among breeders of pure-bred stock who have a few choice animals to sell each year. This class of breeders is usually handicapped in getting the best prices for their stock because they cannot conduct large sales of their own or manage extensive selling campaigns.

This is the third annual sale of the Kansas Hereford breeders, and the fact that twenty-three of the consigners were represented in previous sales is evidence of their satisfaction with the results. The most important consideration in a sale of this kind is to insure there being nothing but high-class animals sold. Such a sale should never be permitted to degenerate into a marketing place for culls and "tail ends" from the herds. Of the forty-one bulls and thirty-three females sold in the Agricultural College judging pavillion last Tuesday, every single individual had been inspected by a representative of the Department of Animal Husbandry before it was accepted. These animals were truly representative of the herds from which they came. Many of the breeders consigned females that they would rather have kept, but they could not, of course, make the sale on bulls alone.

Judged by the prices paid at some of the big sales of extensive breeders, the prices at the Manhattan sale were not high. This is especially true of the bulls. Buyers came to the sale to get bulls because they needed them, and in their bidding figured that they were buying them worth the money. A good many men at this sale purchased only a single bull. There seemed to be more than enough to go around the group of buyers present, and a number of good animals were bought for resale by breeders who knew buyers would later in the season be scouring the country for bulls to use the coming season.

The forty-one bulls sold averaged $223. The top bull of the sale was Logan Paragon, a coming two-year-old consigned by J. M. Rogers, of Beloit. He went to J. H. Keith, of Coffeyville, for $550. In the show which preceded the sale this bull was placed first among those dropped before September 1, 1916. The American Hereford Journal offered the prizes and ribbons for this show of sale cattle, and the judging of the animals was a most interesting feature of the day. The first prize bull among the yearlings was Bean Brummel 70th, consigned by Klaus Brothers, of Bendena. This fine young bull went to a Mr. Murphy, of Emmet, Kansas. The blue ribbon cow of the show was Blossom 2d, consigned by J. A. Howell, of Herkimer. J. H. Keith, who tied the ribbons, also bought the first prize cow for $565. The blue ribbon female among the heifers dropped since January 1, 1916, was Princess Parso 16th, consigned by C. G. Steele, Barnes, Kansas, and sold to Carl Miller, of Belvue, for $390.

Thirty-three cows and heifers were sold, and there were plenty of buyers ready to take the whole offering. The average price paid was $362. The top, $600, was paid for the eight-year-old cow Aurelle, with heifer calf at side. This cow came from the Agricultural College herd. She was purchased as a two-year-old by R. J. Kinzer just before he left the college to become secretary of the Hereford Cattle Association. The purchaser was Joseph F. Sedlacek, of Blue Rapids. The college also sold a yearling bull from this cow that has the making of a real show bull. He went to Carl Miller for $300.

Considerable interest centered around the sale of a bull calf by a son of Fred Cottrell, of Irving, who bought the calf's mother at last year's sale. The calf brought $200, which was exactly the price he paid for the mother last year.

Another interesting feature of the sale was the purchase of nine cows and heifers by John Poole, of Manhattan. Mr Poole has been raising beef cattle quite extensively for a good many years and has used the best pure-bred bulls. In conformation and quality his cow herd might easily be mistaken for a well selected registered herd. His purchases of registered females, which averaged him about $315, placed him in the ranks of the Hereford breeders of the state.

Professor Cochel, who had just returned from a conference of agrieultural representatives held in Washington, had a word of encouragement for those present. He stated that England had never been so short of meat. They learned in Washington that for five days recently England had been absolutely minus a meat ration. The greatest drawback at the present time is the lack of transportation facilities, which prevents the surplus from being absorbed and tends to its accumulation at our marketing centers. Our Government is now making most strenuous efforts to move all agricultural products. Professor Cochel announced that arrangements had just been made for additional shipping tonnage. He brought with him from Washington the opinion that we must expect to supply the meat demands of Europe for at least five years after the war closes. He told those present that there is little demand for highly finished cattle. The army and navy demand is for meaty carcasses without high finish—such cattle as quite often go out as feeders. This is the kind of beef that can be made with a minimum amount of grain. In supplying this kind of a demand, beef cattle are most profitable adjuncts to general farming beeause they furnish a market for the by-products of grain farming.

Cattle Questions

The future in fat cattle presents quite a problem to the cattle men of the country. Some of the questions that have





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arisen are: Will the Government fix a price on fat cattle? If not, has the Government contracted its beef for the army for the ensuing year? If so, would the size and number of carcasses affect the price of beef to any considerable extent? The following letter was written by Prof. W. A. Cochel of the Kansas Agricultural College in answer to such questions as the above, which came to A. E. Jones, agricultural agent of Jewell County:

"The Government has let a contract for a considerable amount of beef to be used in the immediate future. They have not, however, let the contract so far as I can understand for the next year. They will take carcasses weighing from 450 pounds up and these carcasses come from cattle such as are usually shipped to the country for further feeding. In other words, a good fleshy feeder steer would classify as government beef. This indicates to me that the men who expect to get the most out of the cattle business during the next year should not attempt to make cattle especially fat but should handle lighter and thinner cattle than usual so that they will go to the market and have an outlet either as fleshy feeder steers or as government beef.

As the greater majority of the civil population is consuming beef from that sort of carcass, the price of that kind of cattle is bound to be extra high. If the price of beef paid by the Government is not based upon well finished cattle, they will not enter into competition. On the other hand, if well-finished cattle sell low enough that they may be put in our government consumption, the soldiers are getting better beef and the feeders are losing money, at least more than they anticipate.

There has been no price fixed on beef cattle and I doubt very much whether there will be any in the near future."

Meatless Days on Farm

We have been living here on Cloverbrook Farm for thirty-five years and it seems to me that we have already had more snow this season than in any one winter since we located here. Some of the snows have drifted badly, making travel difficult, especially on the east and west roads, but its benefits to the wheat are very great. The fall was so dry that most of the wheat had made very little growth, but there was a good stand and it will certainly come out fine in the spring.

Many farmers here are put to the inconvenience of hauling water or driving their stock to it, which must be a very unpleasant chore in cold and windy weather. On this farm we have never had to haul water so we hardly know how to sympathize with farmers that are less fortunate.

Stock of all kinds looks well, and the dairy cows are milking well, especially when we consider that we are feeding no grain at all this winter because of the high price of corn chop and mill feeds. This is the fifth winter that we have fed silage and each year we prize it more highly. The cattle go through the winter in good condition on silage and a very little other roughness.

The wheatless and meatless days are not bad for us, as I am a Hoosier by birth and like plenty of corn. If I can have pancakes and fried mush for breakfast, cornbread and potatoes for dinner, and mush and milk for supper, I will not complain. As to meatless days, which we are told applies only to such meat as can be sent to Europe, we suffer no inconvenience, for on our farm we have a lot of chickens, also Carnaux pigeons which are very fine eating. Then we have Belgian hares which cannot be surpassed for really fine meat. And let me say here that hare meat can be produced at the least expense of any of the meats, as their feed is about like that of the goat. In fact I believe there should be a few Belgian hares grown on every farm. They will thrive on what is usually thrown away where they are not kept. A single doe is capable of rearing six litters a year. In each litter there usually are from six to ten that will weigh when grown not far from ten pounds. They are best for eating when about half grown. We have been raising hares for three years and find them easy to raise and very profitable. I must state right here that we have none to sell, as our local market uses all our surplus.—E. B. Studebaker, Wilson Co.

Statement on Potato Situation

Our readers will be interested in the statement just issued by the Federal Department of Agriculture relative to the potato marketing situation over the country. It has been estimated that the total production in 1917 was 442,536,000 bushels, or the largest crop ever produced in the United States. Notwithstanding this fact, prices from the time of digging to the present have ruled higher than in any previous year of which we have record with the exception of last year when the crop was abnormally short.

The Department of Agriculture has been able to compute the movement of the present crop with more accuracy than has ever been possible before and from all the information available it appears that not more than one-third of the marketable surplus of the crop of 1917 has been moved up to December 31. In other words, there remained to be moved upon January 1, two cars of the crop of 1917 for every car marketed up to that time. The movement since January 1 has not been noticeably accelerated. The present reserve stocks are so widely distributed that the transportation problems presented do not appear to be acute. Generally speaking, more potatoes could be moved if offered for shipment.

The situation demands enlightened, patriotic and vigorous action on the part of all concerned in the movement of this crop. Unless large dealers promptly move the stocks on hand in order to speed up distribution and bring the large reserve still on the farms into the channels of trade, heavy wastage of the crop appears certain to result later in the season. It is believed that dealers will in the end find it wiser to move present holdings without profit or even at some loss rather than to risk destructive wastage later in the season. At the same time, present retail prices must be somewhat reduced if potato consumption is to be stimulated as it should be.

Prices at point of production have generally declined since digging began and many dealers are reputed to hold large stocks purchased at prices higher than those now prevailing. This may account in some measure for the present slow rate of movement out of some of the heaviest producing areas and for the abnormally wide difference between present wholesale prices to the grower and retail prices to the consumer.

Under existing and prospective conditions no material quantity of potatoes can be exported or converted into nonperishable products this season. The crop cannot be carried over. It must be consumed or wasted. The food situation throughout the world demands that it be consumed effectively to relieve the existing strain on the supply of cereals. It is the one great food resource of the world upon which there is now danger of a heavy loss and the Department is of the opinion that the situation demands that farmers sell freely; that the larger dealers move their stocks rapidly; and that the retailer content himself with the smallest possible margin of profit, realizing that he is now the most important factor in speeding up potato consumption.

Returns from Manure

The value of barnyard manure has always been recognized, but the protection necessary to preserve the fertility of the manure has not been recognized. The value of manure on different soils is illustrated by tests made in different parts of Missouri. As an average of all experiments on outlying fields, barnyard manure has brought a return of $1.90 a ton, although in some of the fields the return has exceeded $3 a ton. On one experiment field the return has been at the rate of $4.10 a ton. These experiments show that the farmer who is not caring for his manure is overlooking a most important source of revenue. A combination of phosphate and manure on certain fields has been very profitable.

An important function of live stock on the farm is to furnish a market for the crops grown, enabling farmers to convert the grasses, forage crops, legumes, and so on, into higher-priced finished products and to return to the soil the plant food taken from it.

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E. J. Reefer, poultry expert, of 163 Reefer building, Kansas City, Missouri, is giving away free a new book which tells of a simple home solution that raises 98 per cent of all chicks hatched and cures white diarrhea over night. All poultry raisers should write for this valuable free book.—(Adv.)



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Win the War by Preparing the Land Sowing the Seed and Producing Bigger Crops

Work in Joint Effort the Soil of the U. S. and Canada—Co-operative Farming in Man Power Necessary to Win the Battle for Liberty.

The Food Controllers of United States and Canada are asking for greater food production. Scarcely 100,000,000 bushels of wheat can be sent to the allies overseas before the crop harvest. Upon the efforts of the United States and Canada rest the burden of supply.

Every Available Tillable Acre Must Contribute; Every Available Farmer and Farm Hand Must Assist.

Western Canada has an enormous acreage to be seeded but man power is short, and an appeal to the United States allies is for more men for seeding operations.

Canada's Wheat Production Last Year was 225,000,000 Bushels; the Demand from Canada Alone, for 1918, is 400,000,000 Bushels.

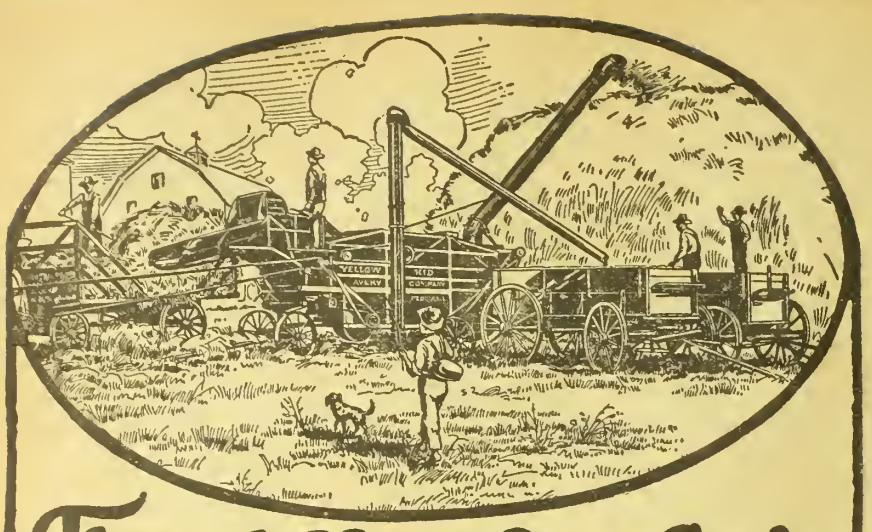
To secure this she must have assistance. She has the land but needs the men. The Government of the United States wants every man who can effectively help to do farm work this year. It wants the land in the United States developed first of course; but it also wants to help Canada. Whenever we find a man we can spare to Canada's fields after ours are supplied, we want to direct him there. Apply to our Employment Service, and we will tell where you can best serve the combined interests.

Western Canada's Help Will Be Required Not Later Than April 5th. Wages Competent Help, $50 a Month and Up, Board and Lodging.

Those who respond to this appeal will get a warm welcome, good wages, good board, and find comfortable homes. They will get a rate of one cent a mile from Canadian boundary points to destination and return.

For particulars as to routes and places where employment may be had, apply to

U. S. Employment Service, Dept. of Labor.

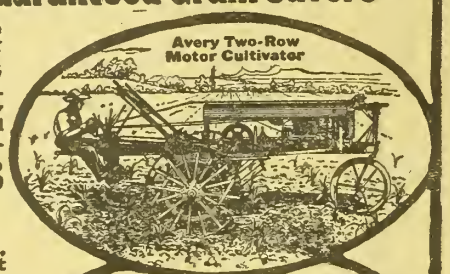


Thresh Your Own Grain With a "Yellow Kid" Separator

THE idea of getting a small grain separator and doing your own threshing is growing fast. When a man gets a tractor he begins to realize very soon that he can make money by getting a separator also and threshing his own grain. He can then thresh when he wants to and save his crop after he raises it. Most men who get small grain separators also thresh for a few of their neighbors.

Avery Threshers Are Guaranteed Grain Savers

We have proved that Avery Threshers are genuine grain savers by field tests threshing on canvas. They have made the champion grain saving record of 99.92% saved in 27 canvas tests. They are backed by the strongest grain-saving guarantees of any. They have the famous Avery Jumbo Tool Steel Teeth, guaranteed for life against breakage.



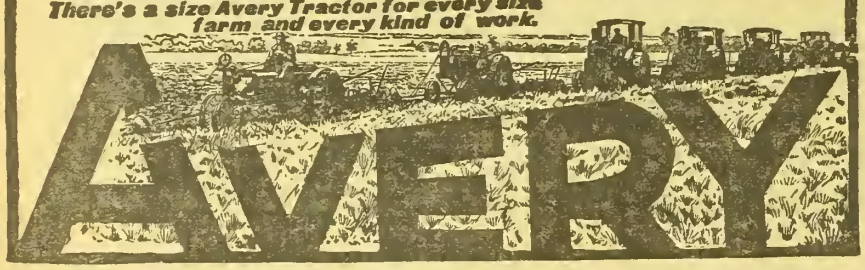
Write for Free Avery 1918 Motor Farming Book

Learn all about Avery Threshers, Tractors, Plows and Motor Cultivators. You can get an Avery Thresher in a size to fit every size tractor from 8-16 h. p. up—there are eight sizes from a small 19x30 up to a large 42x70 inch. There's a size Avery Tractor for every size farm and every kind of work—six sizes from 5-10 to 40-80 h. p. You can get an Avery Tractor Plow in any size from one to ten bottom. The Avery Two-Row Motor Cultivator is the newest successful motor farming machine made. Write now and get an Avery 1918 Motor Farming Book free.

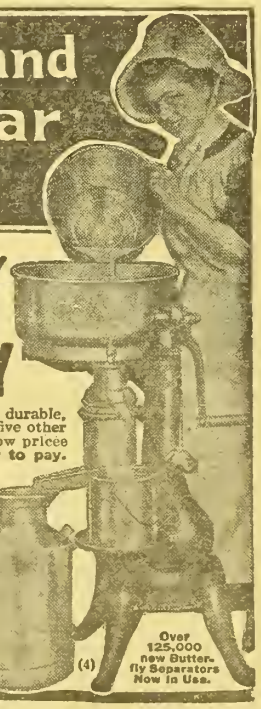


AVERY COMPANY, 5306 Iowa St., Peoria, Ill.
Branch Houses and Distributers Covering Every State in the Union and More Than 60 Foreign Countries

There's a size Avery Tractor for every size farm and every kind of work.



Only $2 DOWN and One Year To Pay



For any Size—Direct from Factory

You can now get one of these splendid money-making, labor-saving machines on a plan whereby it will earn its own cost and more before you pay. You won't feel the cost at all.

$29 BUYS THE NEW BUTTERFLY

No. 2 Junior—a light running, easy cleaning, close skimming, durable, fully guaranteed separator. Skims 95 quarts per hour. We also make five other sizes up to our big 800 lb. capacity machine shown here—all sold at similar low prices and on our liberal terms of only $2 down and a year to pay.

Patented One-Piece Aluminum Skimming Device, Rust Proof and Easily Cleaned — Low Down Tank — Oil Bathed Ball Bearings — Easy Turning — Sanitary Frame — Open Milk and Cream Spouts.

30 DAYS' FREE TRIAL GUARANTEED A LIFETIME
Against defects in material and workmanship

You can have 30 days FREE trial and see for yourself how easily one of these splendid machines will earn its own cost and more before you pay. Try it alongside of any separator you wish. Keep it if pleased. If not you can return it at our expense and we will refund your $2 deposit and pay the freight charges both ways. You won't be out one penny. You take no risk. Postal brings Free Catalog Folder and direct from factory offer. Buy from the manufacturers and save money Write TODAY.

Over 125,000 new Butterfly Separators Now in Use.

(4)

ALBAUGH-DOVER COMPANY, 2181 Marshall Blvd., Chicago, Ill.

Prices on live stock in Switzerland are about double those of the United States, according to the November report of the American consul at Geneva. In the case of cows and calves the price is more than three times as great. Swiss live stock quotations on November 15, 1917, were: Oxen, each, $250; bulls, each, $170; cows, each, $260; calves, each, $180; young pigs, each, $14; sheep, each, $14; fat hogs, per pound, 32 cents.

KANSAS FARMER DAIRY CLUB

Another Pure-Bred Record

IN MAY, 1916, my father heard about the KANSAS FARMER Dairy Club, and asked me if I would join. I thought it would be too much work and wanted to think it over first, but as I read about the club work in every KANSAS FARMER I became more and more interested and finally decided to join.

The first thing I had to do was to buy a cow. I selected one of the best pure-bred Holstein cows out of my father's herd, Thilda De Kol Alcartra 2d. Her record was 81.2 pounds of milk a day and 20.658 pounds of butter in seven days. I borrowed the money at 6 per cent interest and bought the cow for $450 May 25, 1916.

Since I joined the Dairy Club, I have noticed that it pays to treat a cow kindly. I kept my cow in the barn during the cold winter days. In summer I would keep her in the shade if possible and found that this brought me the best results. By the looks of some farmers' cows, they must feed their cows just enough to keep them from starving. I am sure that those cows will not give very much milk.

I have learned that a cow must have all the roughage she will eat, of which I think hay and silage is best, and to every four pounds of milk one pound of grain. For a while I fed my cow a mixture of corn chop, bran, and linseed oilmeal, and found it very good. The cows should be milked and fed at regular hours.

In ten and one-half months my cow gave 13,945.8 pounds of milk. I sold the cream to the creamery for $143.85 and the skim milk to father for $47.50. If I had the chance, like some of the Dairy Club members, to sell the milk at four cents a pound—or eight or nine cents a quart—I would have made $557.83, and had my cow paid for by the end of the year. My expenses for feed through the year were $94.37. I sold two male calves, the first one for $100 when one week old. Later he was sold for $180. I have learned that it pays to keep the calves until they get older. The second calf I sold for $200 when six weeks old. His sire is Sir Rag Apple Korndyke De Kol. Above my expenses I made $396.98, which I paid on my cow. Since the end of my year I have paid $29.04 more on her.

In a business way I have learned to be prompt in everything and to know to the cent what my cow is costing me, and the only way I can do that is to keep a record of the milk and feed every day. After I joined the Dairy Club I fed the cows and calves in the winter when my brothers were off at school. I have raised nineteen pure-bred calves, of which fifteen are heifers and four are male calves. One of these heifers twelve months old, weighs 800 pounds. Another one, nine months old, weighs 720 pounds, and one ten months weighs 690 pounds.

I have not only learned to raise calves with skim milk, but have also raised a mule colt which lost his mother when twelve hours old, and a lamb that was two days old when I started to feed it.

Last June my father sold a four-year-old cow, a calf from my cow, for $375, and kept her heifer calf. It certainly pays to raise pure-bred calves. If my cow will have a heifer calf next time I surely will raise it and keep a record of the feed.

I had the privilege of attending the Farm and Home Week at Manhattan last February and, with several other members of the Dairy Club, was the guest of G. C. Wheeler and Miss Long of KANSAS FARMER. They showed us the interesting places at the college and told us more about the Dairy Club work.—ELISE REGIER, Whitewater, Kansas.

EDITORS NOTE.—While Elise was not able to finish paying for her $450 cow within the year, by selling the two pure-bred calves she paid her note with 6 per cent interest in eighteen months and had a balance of $10.38 remaining.

Helping Her Country

Did you read the letter from Kormah Knotts, a ten-year-old Finney County girl, which we printed on this page a few weeks ago? She said in that letter that she would like to join the Dairy Club and get a cow that would milk this summer, because she wanted "to help Uncle Sammy." We have just received another letter from Kormah, telling how she has already been helping in another way. She says:

"I received your letter of January 23, inquiring about how I happened to go into the hog business. I had $3 and mamma told me to put it into something that would grow into money. We heard of a neighbor having a pig for sale, so mamma 'phoned him. That was in July, 1916. Papa was hauling hay and went by and brought my pig home, and you should have seen how delighted I was when he came home with it.

"We put my pig into a pen with four other pigs and fed it till it was about one year old. 'Morning Glory,' the pig, was then put into a lot by herself. She farrowed seven little pigs in May, 1917. In two weeks I sold four of these at $2 each making $8 in all. I kept Morning Glory and her other three pigs until December, 1917. Then I sold Morning Glory for $37.20. We butchered one pig for home use. It was worth $19.40. I sold another one to a farmer for $15. The last one I sold to the butcher for $24, making in all a total of $103.60. My sow cost $3, and the feed from March 1 until the hogs were sold, $48.45, leaving a profit of $52.15.

"I did little of the slopping of the hogs, for I could not carry heavy pails. I was not a member of any of the state pig clubs. I still have a desire to join the Dairy Club. I think I can learn to milk this summer."

At the bottom of the letter someone—probably her mother—has added a note saying that Kormah has fifteen Brown Leghorn pullets. We know something else about Kormah, too, that we did not need to be told, and that is that she is doing good work in school. Otherwise she would not be able to write so good a letter. The letters written by most of the Dairy Club members show that they are working hard at their studies. And really that is the most helpful thing they can do, because it is getting them ready for bigger things after a while.



ELISE REGIER AND TWO HEIFERS SHE FED.—ONE AT HER LEFT NINE MONTHS OLD, WEIGHT 720 POUNDS; ONE AT HER RIGHT TEN MONTHS OLD, WEIGHT 690 POUNDS

Farmers Ask For Farm Commission

SIXTEEN national farm organizations, and many smaller ones, met President Wilson in a conference February 8, and requested more definite measures in speeding up agricultural production. They urged a farm commission satisfactory to the large farm organizations, to be appointed by the President, to advise in important agricultural matters and to represent the viewpoint of the farming community. They pledged hearty support of vigorous execution of plans to increase production, and for the winning of the war.

The farm representatives were in conference in Washington for three days. They were addressed by U. S. Senator Gore, chairman of the Senate Committee on Agriculture, and held a conference with Herbert Hoover, U. S. Food Administrator. Special committees visited various branches of the Government to ascertain what progress has been made in matters pertaining to an increased labor supply, improved credit facilities, and adequate seed stocks. They also held a conference with Secretary Houston of the Department of Agriculture.

The meeting was called by the Federal Board of Farm Organizations, which is also holding its first annual meeting. This board is an overhead federation of great farm bodies. It now comprises eight farmers' organizations. Leaders of the National Grange are taking a prominent part in the general meetings.

Following is the text of the request:

Desiring earnestly to support and assist the Government of the United States in winning the war, we, representatives of the Federal Board of Farm Organizations and other farmers' organizations, whose names will be found appended, including in all more than three million organized farmers, have assembled in Washington to discuss ways and means for increasing the production of food at the coming harvest.

As set forth in the memorial of the Federal Board of Farm Organizations, submitted to you on January 22, 1918, a reduction in the amount of the coming crop is certain and unavoidable unless certain causes, all of them beyond the control of the farmers, are recognized and removed. We speak with all respect, but definitely, because we know the facts of our own knowledge, and because the time during which effective action can still be taken to increase the coming crop is short.

The chief obstacle which must be removed before the farmers of America can equal or surpass this year the crop of 1917 are:—

Shortage of farm labor
Shortage of seed, feed, fertilizers, farm implements, and other agricultural supplies
Lack of reasonable credit
Prices often below the cost of production
The justified belief of the farmer that he is not regarded as a partner in the great enterprise of winning the war.

Farmers by themselves are powerless to remove these obstacles. Unless the Government grasps the vital seriousness of the situation and forthwith takes steps to help, a crop shortage is certain in spite of any and all things farmers can do to prevent it.

The Government, we understand, will spend some four billion dollars to assist commercial enterprises to produce munitions of war. We approve of this action, recognizing that it is necessary. Assistance for food production in this crisis does not involve any such vast expenditure. But without such assistance, vigorously and promptly given, it will remain impossible for farmers to grow the crops required. The Government should not hesitate to assist in the production of one sort of supplies essential to win the war when it has already spent vast sums to assist in the production of others.

We deem it our duty to advise the nation of these facts, in order that the threatened danger may be minimized if not entirely prevented, and we respectfully suggest the following remedies:—

As to Labor, the parole of trained farm workers back to the farm, to remain there so long as their services are considered by the Government to be more useful in productive agriculture than in the army. The last classification of registrants under the present selective draft, we are informed, is not being uniformly enforced, and in particular we understand that skilled farm workers, farm foremen, and bona fide farmers are being placed in Class One. We ask for such an interpretation of the rule as will make such cases impossible. We welcome the assistance of all organizations that are helpful to furnish labor in the production of food, and we believe that their services should be employed as fully as possible.

We ask for such interpretation of the selective draft as will secure to the nation the services of all of its citizenship where those services are of most value to the nation, and for binding instructions to be issued to all boards to that effect. Especially do we ask that the definition of a skilled farm laborer be a man who is actually engaged in productive agriculture, and is supporting himself in it, without regard to college or university training.

As to Farm Supplies, provision should be made for furnishing to producing farmers who need them such seeds, feeds, fertilizers, and farm machinery at cost as may be actually necessary to maintain their production or to increase it within practicable limits. We urge the transportation of farm products and supplies by the most economic routes and the prompt movement of perishable crops in their season.

We urge that in carrying out the measures to win the war farmers' co-operative societies be given the same consideration that is given to other commercial organizations.

As to Credit, steps should be taken by the Government to promote aggressively and in all practicable ways short time loans to farmers for the purpose of financing the production of crops.

As to Prices, should the policy of price control prevail, then we ask that it shall be applied as much to what the farmer buys as to what he sells, to the end that consumer and producer be protected from exploitation.

As to Representation, we recommend the immediate appointment of a farm commission, to consist preferably of nine farmers actually engaged in the business, to be selected by the President from men representative of and satisfactory to the great farm organizations of America, and to report directly to him on all questions that affect the increase of agricultural production and distribution. Such a commission should be authorized to secure information from all Government sources, and all departments of the Government should be instructed to cooperate with it. It should be in uninterrupted session at the City of Washington, and provision should be made for necessary quarters and expenses by Federal action. The Commission should be required, as its first task, to report at once upon all matters necessary in the immediate execution of recommendations enumerated above.

Such a commission is needed first of all to give to the farmers of America a sense of partnership in the conduct of the war, to which they have a right. The occasional consultation with farmers called to Washington or the occasional appointment of a farmer to a subordinate place does not amount to fitting participation in the conduct of the war on the part of one-third of the population of the United States, and all the more when that third produces the one form of supplies which is the most essential.

This plan would be in harmony with the procedure already adopted by the Government in other essential industries. The creation of such a commission would convince all farmers that their viewpoint was fully represented in Washington and always accessible to the President, and would inspire and encourage them as nothing else could.

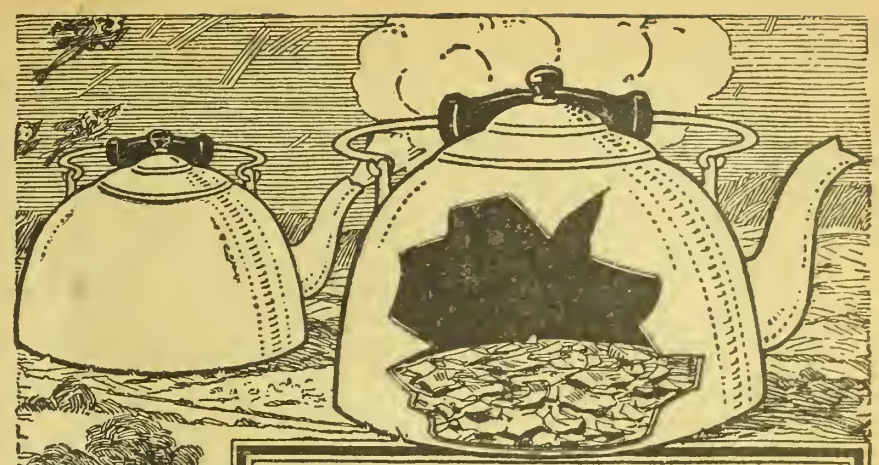
Immediate and vigorous action is imperative.

This statement was signed by about ninety men representing the various farmers' organizations of the country. W. A. Cochel, of Manhattan, represented the Kansas Cattlemen's Association and the Kansas Improved Stock Breeders' Association. The Farmers' Union of Kansas was represented by Maurice McAuliffe, of Salina.

Pinto beans have proved an excellent crop for many parts of the West. In the section of the country embracing Western Kansas, Nebraska and Wyominng, it is estimated that 25,000 acres were grown, while the states to the southwest surpassed that figure several times over. Pinto beans are drouth-resistant and prepare the land for winter wheat. The straw makes excellent protein feed for live stock. The beans are unmatched for flavor and palatability. The pinto is the equal of the navy bean in every way. It is rich in protein and is an excellent substitute for meat. The pinto is an especially good baking bean and promises to become popular with housewives.

Tells Why Chicks Die

E. J. Reefer, poultry expert, of 463 Reefer building, Kansas City, Missouri, is giving away free a new book which tells of a simple home solution that raises 98 per cent of all chicks hatched and cures white diarrhea over night. All poultry raisers should write for this valuable free book.—(Adv.)



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Steam that escapes through a tea-kettle spout, if caught and condensed, would be pure water—distilled water.

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One grease for all uses, all around the motor car, tractor or gas engine. Gives perfect lubrication in differentials, compression cups, transmissions and every other grease point.

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A pure, dry, uniform gasoline that insures utmost satisfaction in continuous, responsive power.

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or other lands at very low prices. Where you **can buy good farm land at $15. to $30. per acre** that will raise **20 to 45 bushels of $2. wheat to the acre**—it's easy to become prosperous. Canadian farmers also grow wonderful crops of **Oats, Barley and Flax. Mixed Farming** is fully as profitable an industry as grain raising. The excellent grasses, full of nutrition, are the only food required either for beef or dairy purposes. Good schools and churches, markets convenient, climate excellent. Write for literature and particulars as to reduced railway rates to Supt. Immigration, Ottawa, Can., or to

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Canadian Government Agent.

160 ACRE FARMS IN WESTERN CANADA FREE

Elise Regier's Year's Record

Month—	Total Milk	Test	Total Butterfat	Average Elgin Market for Month	Value of Butterfat Based onElgin Market	Total Cost of Feed	Profit for Month
June	2,059.4	2.4	49.42	.2862	$14.14	$ 8.52	$ 5.62
July	1,479.9	3.3	48.83	.2762	13.49	6.24	7.25
August	1,219.0	2.5	30.475	.2988	9.11	5.15	3.96
September	1,311.9	2.7	35.42	.3225	11.42	6.72	4.70
October	1,280.4	2.9	37.13	.3462	12.85	8.91	3.94
November	988.8	3.1	30.65	.3862	11.84	9.44	2.40
December	1,163.5	2.8	32.57	38.50	12.54	9.56	2.98
January	883.2	3.0	26.496	.3825	10.13	8.07	2.06
February	586.7	3.9	22.88	.4033	9.23	6.52	2.71
March	....	..	....	....	....	5.28	—5.28
April	570.7	4.2	23.96	.4275	10.24	8.29	1.95
May	2,200	3.1	68.209	.3900	26.60	10.25	16.35
Totals	13,743.8		406.043		$141.59	$92.95	$48.64

Classified Advertising

HELP WANTED.

FARM HAND, $35 MONTH; HOUSE, wood, garden and milk furnished. F. G. Houghton, Dunlap, Kansas.

WANTED — HERDSMAN OF EXPERIence for working Jersey dairy. Steady place for right man. John S. Linscott, Bonner Springs, Kansas.

WANTED—ACTIVE MEN WITH FARMer acquaintances to sell pipeless furnaces. Splendid line. Good proposition to offer. Richardson & Boynton Co., 171 W. Lake St., Chicago, Ill.

WANTED IMMEDIATELY—FARMERS, men-women, 18 or over. Thousands government war jobs. $100 month. Easy clerical work. Common education sufficient. Write for list positions. Franklin Institute, Dept. M-82, Rochester, N. Y.

CATTLE.

FOR SALE — A FEW VERY CHOICE Holstein calves, either sex. Prices reasonable. Ernest Dutcher, Whitewater, Wis.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

REGISTERED GUERNSEY BULL READY for service. A show bull combining large producing blood from both parents. J. W. Marley, Oswego, Kansas.

FOR SALE — HIGH GRADE HOLSTEIN three-weeks-old heifer or bull calves, $25. Express prepaid to your town. Yohn's Farm, Watertown, Wisconsin.

FOR SALE — A RED POLLED BULL, calved March 8, 1913. There are very few better bulls in the state. Geo. Haas, Route 6, Lyons, Kansas.

FOR SALE—TWO REGISTERED ABERdeen Angus bulls, eight and nine months old, Duchess and Queen Mother. Alden Bros., Kidder, Mo.

HOLSTEINS — HIGH - GRADE HEIFER calves crated at $20 each, from extra choice producing dams, sired by high-class registered sires with official record backing. Also fancy brick and limburger cheese by parcel post or express. Hyland Stock Farm, Monroe, Wisconsin.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

TREES, SEEDS AND PLANTS.

CHOICE RECLEANED ALFALFA SEED, $10 per bushel. Samples free. F. J. Bartel, Route 8, Topeka, Kansas.

WHITE SWEET CLOVER AND ALFALFA at farmers' prices. John Lewis, Madison, Kansas.

WANTED—SUDAN GRASS, PINK KAFIR, Schrock kafir sorghum, and pop corn. The Barteides Seed Co., Lawrence, Kansas.

FOR SALE — CHOICE EARLY OHIO seed potatoes, $1.75 per bushel. Helge Lauridsen, Route 1, Mason City, Nebraska.

FOR SALE—WHITE BLOSSOM SWEET clover seed, unhulled, 18c per pound; hulled, 25c per pound. W. C. Mead, Dexter, Kan.

FOR SALE—BY GROWER, SCHROCK Kafir Seed. Write for sample and prices. James D. Wilson, R. F. D. Parsons, Kansas.

FOR SALE — ALFALFA SEED, CLEAN, home-raised, at $12 and $14 per bushel. Will send sample of either on receipt of 10 cents. S. Hunziker, Sutton, Nebraska.

HAVE LARGE SUPPLY OF SENATOR Dunlap strawberry plants. Will make special low price of $2.50 per thousand. G. W. Pollard, Jr., R. F. D. 5, Independence, Mo.

SEED CORN — DIAMOND JOE, EARLY white, 85% germination, $4 per bushel. Bags furnished with two or more bushels. Peter Hangley, Cameron, Missouri.

ALFALFA SEED FROM NORTHWEST Kansas, 95% pure; good germination; $7.50 per bushel. Order early. Freight will be slow. Geo. Bowman, Logan, Kansas.

SEND $1 AND WE WILL SEND YOU 100 Progressive Everbearing strawberry plants (postage prepaid), catalog free. Welch Nursery, Shenandoah, Iowa.

FOR SALE, SEED — BOONE COUNTY White seed corn. Tested and picked. Will butt, tip and shell or ship on cob at $3 per bushel. About 200 bushels left. Tom Henley, Eureka, Missouri.

ALFALFA SEED, ALL RECLEANED, non-irrigated, home grown at from $6 to $12 per bushel. Write for samples and prices on white or yellow sweet clover, Sudan, feterita, red or white kafir, sumac, orange or amber cane seed. The L. C. Adam Mercantile Co., Cedar Vale, Kansas.

SITUATION WANTED.

A WOMAN OF SUCCESSFUL EXPERIence wants a place on Kansas farm to run incubators and raise chickens for owner. Mrs. Ella Eldridge, Arnold, Kansas.

YOUNG COUNTRY WOMAN WANTS housework in country after March 22. Experienced. Central or Western Kansas preferred. $4 without washing. M. A., care Kansas Farmer.

WANTED — POSITION ON FARM BY married man. No children. Thoroughly experienced and reliable. State full particulars. References furnished. Rollie Kelley, Route 1, Dillon, Kansas.

TANNING.

LET US TAN YOUR HIDE: COW, HORSE or calf skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

HORSES AND MULES.

FOR SALE—TEN MAMMOTH KENTUCKY jacks. Ages two to ten years. Write owner, John Tutcher, Parsons, Kansas.

PURE-BRED PERCHERON STALLION, sure getter. Sires choice stock. E. D. King, Burlington, Kansas.

JACK FOR SALE—BLACK WITH WHITE points, heavy bone, 5 years old. Can be registered. G. F. Dodge, Route 1, Ft. Scott, Kansas.

FIVE BIG BLACK MAMMOTH JACKS, big bone and bodies, 2 to 5 years; broke. Special price if sold soon. Ira Jenkins, Belvue, Kansas, 3 miles west of Topeka; barn in town.

SHIRES AND HACKNEY FOR SALE— Shire stallion, age 12 (large), one coming 3 (good). One Hackney stallion 3 (good). Right every way, except the old horses' wind. Very cheap. J. B. Brownrigg, Breeder, Mont Ida, Kansas.

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YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements, or ready made farms. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

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PATENT BOOK SENT FREE TELLING how we protect and help market your invention. Also bulletins listing hundreds inventions wanted. Send sketches for free opinion. Lancaster & Allwine, 463 Ouray Bldg., Washington, D. C.

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BARGAINS—BRED SOWS, GILTS, BIG-type Poland Chinas to farrow March, April. Nice boars. Serviceable Jersey bulls and bull calves. Stedem & Sons, Marshall, Mo.

FEW OHIO IMPROVED CHESTER WHITE fall boars, ready for service. Long, good bone, growthy, immune, pedigreed. $32.50 while they last. Fine bred sow, $55. Ed C. Ackerman, Route 4, St. Joseph, Missouri.

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COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

ENGLISH SHEPHERD DOGS, DUTY stock and farmer's dog. Very intelligent, easily trained. Closing out. Bargains. Albert Schindler, Nebraska City, Nebraska.

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$900 PER YEAR INCOME IN TOPEKA to trade for farm. F. E. Stewart, Enterprise, Kansas.

MONTANA, LAND OF OPPORTUNITY.— Illustrated booklet, published by authority of state, telling of resources and opportunities for farmers and investors. Send 4 cents to pay postage to Chas. D. Greenfield, Helena, Commissioner Agriculture.

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MONTANA! FULL OF WONDERFUL OPportunities. Interesting literature free. Write today. Johnson Bros., Dillon, Montana.

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VIOLIN FOR SALE—HAS SWEET TONE. Free trial. Easy payments if wanted. Write Miss Bertha Mardiss, Route 5, Rosedale, Kansas.

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WANTED—TO BUY SMALL TRACT IN Stafford County or adjoining counties. N. C. Dewey, Stafford, Kansas.

THE STRAY LIST.

TAKEN UP — BY SARAH F. BARKER, Rural Route 4, Kansas City, Kansas, on the 22d day of January, 1918, one yellow heifer, no marks or brands. Appraised at $20. William Beggs, County Clerk.

PET STOCK.

GUINEA PIGS, $1 EACH. WHITE RATS, 50c each. Earl Scott, Belvidere, Kansas.

HEDGE POSTS.

FOR SALE—HEDGE POSTS, CAR LOTS. Patrick Nolan, Formoso, Kansas.

WHEN WRITING TO ADVERTISERS MENTION KANSAS FARMER

The only way we can conquer grief is to accept it, face it, live with it, and then with the help of that love which makes our grief, but is deeper than any grief, we shall in the end win through. —C. HANFORD HENDERSON: John Percyfield.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

Young Men Die Here

A woman said to me, "Are you not glad
Your son is far too young to go to France?"
Madame, I envy every youth who goes,
And every mother of whose flesh they're made.
You say, "They may be killed, those tawny lads."
Young men die here clad in the garb of peace;
Grim death respects not time nor place nor age.
But over there those lads in camp and trench
Have laid youth's doubts aside; a sacred cause
Thrills every heart; inspires them as they stand
Together, facing the fierce hordes of hell.
To fight with brothers for one's brother man,
To fight that women's tears may cease to flow,
To fight for safety of a little child,
Is life indeed. Our soldiers are alive!
Death comes to all; real life belongs to few.
Could any mother ask a greater boon
Than that her boy may live before he dies?
—Exchange.

Whether freshly cooked or left-over, rice can be mixed with the other ingredients in bread-making in proportions varying from a 50-50 ration in corn bread and a two-to-one ration in wheat bread down to the few left-over grains that should be dropped in somewhere. Don't be afraid to use cooked rice in any kind of bread you are making. One part rice flour to three parts wheat flour makes a loaf of fine texture similar in appearance to the all-wheat loaf. Housekeepers, however, need not wait for rice flour to be manufactured. All they have to do is to combine one-third of steamed rice, well mashed, with two-thirds of wheat flour, made up according to the usual formula for white bread.

Rice the Food of Millions

Rice, supplemented with beans and salt fish to balance the diet, forms the principal food of one-half of the population of the earth, and is an important article of diet with the other half. In war time, when we must strain every nerve to cut down wheat consumption, rice will come into its own among our people. In the Southern States and in Chinese restaurants, where rice is more generally eaten than among our own people, a great deal of pains is taken in its preparation, and it comes to the table with each snowwhite grain distinct and separate from the rest.

Every housewife knows that rice can be successfully cooked either by boiling in a large quantity of water and draining, by boiling with just enough water to swell the grains perfectly, or by steaming. The United States Food Administration offers the following suggestions for cooking it in these different ways. Let the "Black Man" describe the first process:

"Black Man's" recipe for preparing rice is: "Wash him well, much wash in cold water, the rice flour make him stick. Water boil already very fast. Throw him in, rice can't burn, water shake him too much. Boil quarter of an hour or little more; rub one rice in thumb and finger, if all rub away him quite done. Put rice in colander, hot water run away; pour cup of cold water on him, put back rice in saucepan; keep him covered near the fire, then rice all ready. Eat him up!"

Boiled Rice No. 2—Always wash the rice until all cloudiness has disappeared from the water. Sprinkle gradually a cup of rice in a pint of vigorously boiling water, salt to taste, boil for fifteen minutes, then place on the back of the stove where it will finish swelling without burning. If a gas stove is used, turn the gas low and put an asbestos mat under the kettle. Cook in a covered vessel.

Steamed Rice—To one pint of washed rice add one pint of water and one-half teaspoonful of salt. Stir and take up with a fork to prevent gummy and lumpy appearance. Never stir rice with a spoon.

Conservation Breads

In a recent experiment in the use of various wheat substitutes in making conservation bread, Miss Leila Dunton, assistant professor of milling industry in the Kansas Agricultural College, made bread from kafir meal, corn meal, corn flour, peanut flour, cottonseed meal, corn meal, rolled oats, and potatoes. Of these, kafir made the best bread, though it was speckled because it is impossible to mill out the dark spot on the kafir grain. Unless the kafir crop is a failure this year, Miss Dunton believes kafir will become a popular wheat substitute.

No special process is necessary when making bread with kafir flour. Miss Dunton uses kafir meal to reulace from 20 to 25 per cent of flour in bread recipes mixing it with the wheat flour before the dough is made. The dough is similar to that made entirely of wheat flour, but rises less. The flavor of the bread is particularly good. Kafir can be satisfactorily milled in a wheat mill when some slight changes are made in the system, as can also corn and rye.

Peanut flour and cottonseed meal are difficult to procure, and since in addition to this they make a bread with a characteristic flavor, they are not likely to become popular as wheat substitutes.

Rolled oats make a delicious bread, according to Miss Dunton. In making bread with rolled oats, use two cupfuls of boiling water, one-half cupful of brown sugar, two teaspoonfuls of salt, one yeast cake, one-fourth cupful of lukewarm water, one and one-half cupfuls of rolled oats, and five cupfuls of four. Pour the boiling water over the rolled oats, salt, and sugar, and let the mixture stand until lukewarm. Dissolve the yeast in the lukewarm water, add the dissolved yeast and flour to the lukewarm rolled oats, and let the mixture rise until it is light. Then knead it thoroughly and turn it into two buttered bread pans. When the loaves have doubled their volume, put them into a moderate oven and bake them.

Another palatable new bread tried out by Miss Dunton is made with mashed potatoes. In making this bread, use five cupfuls of mashed potatoes, two and one-fourth pounds of flour, one and one-half tablespoonfuls of salt, three tablespoonfuls of sugar, two cakes of compressed yeast or one cake of yeast foam, and four tablespoonfuls of water. When the potato is lukewarm, add the yeast rubbed smooth with the water. Add sugar, salt, and one scant cupful of flour. Mix them thoroughly and let the mixture rise until light. Then add the remainder of the flour, kneading thoroughly until a smooth, stiff, elastic dough has been formed. Let it rise until it has trebled its volume. Then divide it into four loaves, knead it, and place it in baking pans. Allow loaves to rise until double in volume before baking them.

Kansas Woman Wins Prize

In a contest recently conducted by Today's Housewife, the first prize of $25 for the best account of "How I Did My Bit," was won by a Kansas woman, Mrs. E. L. Marshall, of Bonner Springs, in competition with canning club members from all parts of the United States. Mrs. Marshall and her daughter, Lois, were the honor team of the Glenwood Mother-Daughter Canning Club. The prize-winning letter tells of their work in the 1917 season. The number of quarts canned in the season by this team was 1,125, or more than one and one-half tons of produce.

Milk used in bread in place of water adds as much protein to a pound loaf of bread as there is in one egg. It gives a softness of texture to bread that adds particularly to the palatability of graham or bran bread.

Oatmeal Macaroons

1 cupful sugar
2 eggs, well beaten
2½ cupfuls rolled oats
1 tablespoonful butter, melted
1 teaspoonful baking powder.

Mix the ingredients; add the eggs and lastly the butter. Drop from a teaspoon upon a well greased pan. Bake fifteen to twenty minutes in a slow oven. Makes about forty-four cookies one and one-half to two inches in diameter.

Twilight Animal Stories

Bumper The White Rabbit

By George Ethelbert Walsh

(Copyright, 1917, by George E. Walsh)

STORY XII.—BUMPER ADMIRED BY THE BIRDS.

IT isn't good for us to be too smart. It sometimes makes us vain, and then one day we overdo it. Bumper had some excuse for playing the trick on Mr. Crow and Mr. Fox, for his life depended upon it; but his success was giving him a little swelled head. He began to feel that he could get out of any danger by using his wits.

"It takes a city rabbit to find a way out of difficulty," he reflected, as he lay snugly in the hollow trunk of the tree. "These country animals are dull-witted. I do hope my cousins of the woods are not so stupid. Perhaps they are, and that's why people say rabbits are cunning but very stupid."

This sort of reasoning was the very thing that got him in trouble, and nearly caused his death. He was so sure that he had outwitted Mr. Fox, he decided after a while to leave the hollow trunk, and eat some of the green leaves and branches growing around outside.

But he knew less about the cunning and patience of the fox than he thought. Instead of trotting off in the woods, chagrined and disgusted by his defeat, the fox was lying low ready to pounce on the white rabbit the moment he showed himself. He was so still that Bumper couldn't hear the rustle of a leaf or the snap of a twig.

"I think I'll go out now," Bumper said finally. "I'm dreadfully hungry."

Instead of poking his head out cautiously to investigate, he walked straight from the hollow trunk into the very jaws of the fox. There was a sharp click of teeth, and Bumper felt a terrible pain in one of his long ears. He must have leaped five feet in the air, and another five feet sideways. The fox had missed his neck by an inch, but to make up for this mistake, he now pursued the rabbit, leaping nearly as high in the air to catch him as Bumper.

Terrified by the attack, and not knowing what to do, the white rabbit jumped this way and that, clearing high bushes and landing in dense thickets that tore his fur and hurt him terribly. But the fox followed him, paying no attention to the briers and thorns.

It was a narrow escape. For a moment Bumper thought his time had come. He couldn't get back to the hollow tree trunk, and there was no other hiding-place near that the fox couldn't follow him in.

It certainly would have gone hard with him, and the rest of his adventures could never have been told, if a couple of bluejays hadn't built a nest in a tree directly over him. The commotion in the bushes startled the birds, and with loud, shrill cries they darted down to see what was doing. The sight of the fox angered them. Foxes robbed birds' nests whenever they got a chance, and the bluejays knew this. Therefore, a fox in the neighborhood of their home was not to be tolerated.

They flew down like two blue streaks and landed their sharp bills on the head and face of Mr. Fox. One stroke came so near to one of his eyes that he dodged and ducked, and stopped pursuing Bumper long enough to snap at the birds.

But the bluejays were prepared for this, and they kept well beyond his reach. As soon as he turned from them to the rabbit again they flew back to the attack. They punished him unmercifully, pecking at him until he was so angry that he could hardly see straight.

Meanwhile, of course, Bumper was taking advantage of this interruption. He was running through the underbrush as fast as he could until he was far ahead. Right and left he searched for a hole or any kind of an opening he could crawl in. And there, just ahead of him, appeared what he was looking for! This time it was the hollow branch of a giant tree hanging down, with one end still attached to the trunk.

Bumper was in the hollow branch like a flash. Mr. Fox reached it just a moment too late, and to vent his anger at losing the rabbit the second time he clawed and snapped at the branch as if he would rip it asunder. But the limb, with a decayed heart, had a stout shell, and the fox soon gave it up in disgust.

Now, the hollow branch, as you know, had one end on the ground, and the other still attached to the trunk where the wind had broken it off. So Bumper found his hole slanting upward, and as he crawled through to the other end he was actually climbing a tree. Perhaps you have heard that rabbits can't climb trees, but Bumper did in this instance.

When he reached the upper end, he found himself ten feet from the ground, with Mr. Fox below and unable to reach him. It was such an unusual sight to see a rabbit up a tree that the fox was more puzzled than ever. "Could white rabbits climb trees?" he asked himself.

Between his discouragement at being twice outwitted, and his amazement at finding a white rabbit with pink eyes that could climb a tree, Mr. Fox finally dropped his tail between his legs and trotted away. Bumper watched him go, and sighed with relief. The bluejays were equally relieved in mind, and once more returned to their home to guard it against invasion.

When Bumper stuck his head out of the upper end of the big tree branch, he noticed that he was up among the birds which had been singing a lively concert until he interrupted them. There were birds which Bumper had never seen before, some with startling plumage, and others with voices that sounded like flutes.

They did not renew their singing, but perked their heads sideways and watched this strange thing popping out of the hollow limb. Finally one of them, Mrs. Oriole, clad in a suit of gold, streaked with black and gray, spoke.

"It's Mr. Rabbit's ghost, I do believe. Mr. Fox must have caught him after all."

"If it's a ghost, I'd like to have some of his white fur for my nest," remarked Rusty the Blackbird. "I think I'll steal some."

"He's a pretty lively ghost," warned Piney the Purple Finch. "I wouldn't venture too near."

Bumper blinked his pink eyes at them, and smiled.

"I'm not a ghost yet," he said. "I'm quite alive and well, but very hungry. If you don't mind I'll eat a few of these delicious green leaves."

The birds watched him in silence. They were as curious and puzzled as the Crow had been. Finally, Mr. Pine Grosbeak plucked up courage to approach nearer.

"If you're really alive," he said, "let me pluck some of those beautiful white hairs as souvenirs. I never saw such lovely fur before."

"You can have one hair," laughed Bumper, "just to prove to you that I'm a real live rabbit."

Mr. Pine Grosbeak took him at his word, and plucked a hair from his back. It made Bumper wince.

"Surely you'll give me one, too, for my nest," added Piney the Purple Finch, and without waiting for consent he plucked two. Rusty the Blackbird came swooping down next. "I need some of your beautiful white fur for my little ones," he said. "I'll take three."

The other birds expressed their admiration, and then begged a few hairs, too. There was Mrs. Crested Flycatcher, and Mrs. Phoebe Bird, and little Towhee the Chewink. The process of extracting a few hairs from his back caused Bumper exquisite pain, but he wanted to be obliging, especially as the birds all admired and flattered him.

But when Mr. Woodpecker, who had been rapping on the dead trees of the woods, appeared, Bumper decided it was time for him to call a halt. "That's all I can spare," he said, and darted back into the hollow branch.

He was glad to make friends with the birds, but he didn't want to be robbed of all the clothes he had.

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Any poultry raiser can easily double his profits by doubling the egg production of his hens. A scientific tonic has been discovered that revitalizes the flock and makes hens work all the time. The tonic is called "More Eggs." Give your hens a few cents worth of "More Eggs" and you will be amazed and delighted with results. A dollar's worth of "More Eggs" will double this year's production of eggs, so if you wish to try this great profit maker, write E. J. Reefer, poultry expert, 4632 Reefer Bldg., Kansas City, Mo., who will send you a season's supply of "More Eggs" Tonic for $1 (prepaid). So confident is Mr. Reefer of the results that a million dollar bank guarantees if you are not absolutely satisfied your dollar will be returned on request and the "More Eggs" costs you nothing. Send a dollar today or ask Mr. Reefer for his free poultry book that tells the experience of a man who has made a fortune out of poultry.—(Adv.)

FASHION DEPARTMENT.

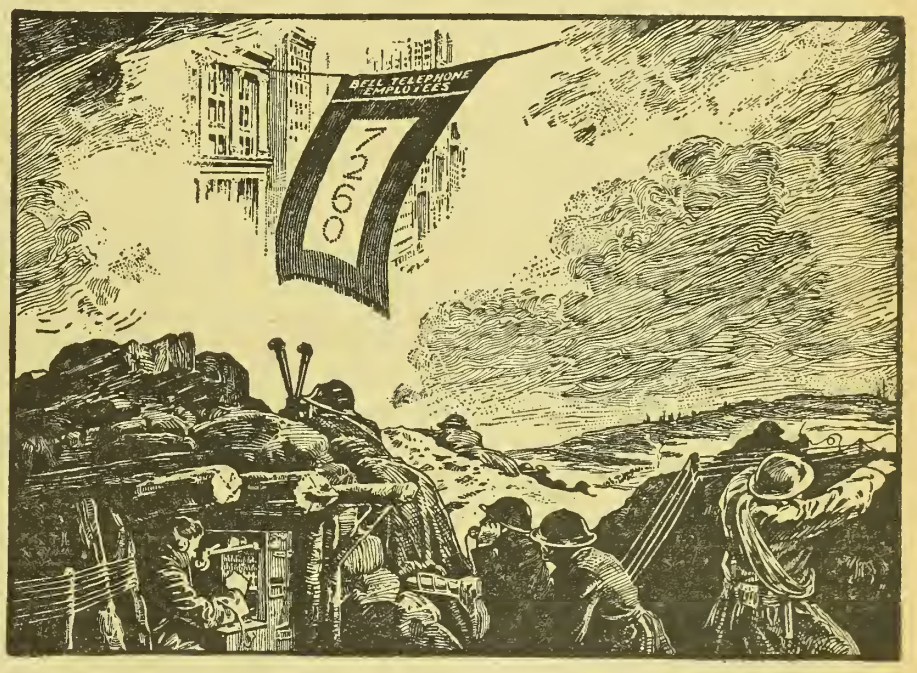
This department is prepared especially in New York City, for Kansas Farmer. We can supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10 cents each, postage prepaid. Full directions for making, as well as the amount of material required, accompanies each pattern. When ordering, all you have to do is to write your name and address plainly, give the correct number and size of each pattern you want, and enclose 10 cents for each number. We agree to fill all orders promptly and guarantee safe delivery. Special offer: To anyone ordering a pattern we will send the latest issue of our fashion book, "Every Woman Her Own Dressmaker," for only 2 cents; send 12 cents for pattern and book. Price of book if ordered without pattern, 5 cents. Address all orders for patterns or books to Kansas Farmer, Topeka, Kansas.



No. 8428—Ladies' Apron: Cut in one size. The apron is to be slipped on over the head. **No. 8412—Girls' Dress:** Cut in sizes six to fourteen years. Long or short sleeves may be used. **No. 8409—Ladies' Skirt:** Cut in sizes 24 to 32 inches waist measure. The skirt has two pieces and a slightly raised waistline.

Milk utensils or dishes that have contained dough made from flour will be easier to wash if rinsed out in cold water before putting hot suds into them, as the hot water cooks the albumen of the milk and the gluten of the flour and makes them harder to remove.





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In deep frying, do not have the temperature of the fat too low—too much is soaked up by the food. Do not have it too high—its quality is impaired for future use.

Add butter to vegetables just as they are served. If added during the cooking, some is lost in strength of flavor and also in quality unless the cooking water is saved.



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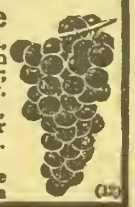

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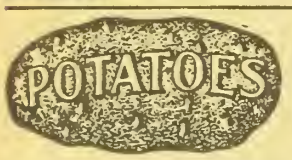

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IN THE first place I examine every part of the machine thoroughly several weeks before it is to be operated to see if it is in good working order. If new parts are needed or repairs necessary, there is then ample time to order them and get everything in perfect running order before I begin saving eggs.

I place the incubator in one corner of the living room, generally, at a distance from the stove, out of the direct rays of the sun and where it will not be exposed to drafts. When all is in readiness, the machine setting level and the water pipes filled with soft boiling water—mine is a hot water machine—I light the lamp, which has previously been fitted with a new wick and clean, shiny burner, place it in position, and let the machine begin to warm up. When it is running steadily at the desired temperature with regulator properly adjusted, I fill my tray with eggs and place inside. I aim to keep the thermometer registering as near 103 degrees as possible throughout the whole period of incubation.

I try to operate the incubator according to the manufacturer's instructions, rather than according to my own ideas or the opinion of my neighbors. There are a few general directions I follow, however, that apply to all machines. When the eggs are first put in I let them warm up slowly, from eight to fifteen hours generally being required to bring them up to the proper temperature. I never add other eggs to the machine at various intervals, as some do.

I try to have the eggs uniform in size and coloring, believing by so doing that a better hatch results. After the second day I turn the eggs twice daily, turning and rolling them about with the palms of my hands, exercising and making stronger the embryo chicks. I cool the eggs once each day after the first week, leaving them out from ten to thirty minutes, according to the weather and temperature of the room. After the eighteenth day I cease both turning and cooling, as the eggs are then liable to begin to pip and should not be handled or exposed to the air. I always test the eggs the ninth or tenth day, discarding all infertile or dead-germed ones. This allows of more freedom and circulation of air about those containing embryo chicks.

I attend to the machine at regular hours and am sole manager. It receives my first attention in the morning and the last at night. I never "set up" with it, neither do I get up to look after it during the night save occasionally at hatching time. I often leave it for two or three hours at a time to attend church or to go shopping, but never do I go off for an all-day's visit while it is in operation. There is too much risk involved. If it is necessary for me to be away during the heat of the day, I lower the wick a little before starting, to prevent over-heating. Raising the wick a trifle at bedtime, if the atmosphere of the room is likely to grow cooler, helps to keep the temperature of the machine from changing. If the eggs get too warm at any time, I pull the tray out and give them a thorough cooling.

I fill the lamp twice daily in cold weather, using a good grade of oil and keeping the wick well trimmed. When the eggs begin to pip I try to keep the heat at from 103 to 104 degrees. A lowering of the temperature at this period delays and diminishes the hatch, while too high a temperature weakens and cripples the chicks. I keep the door closed as much as possible to prevent escape of moisture as well as to prevent chilling. When the hatch is mostly out I remove all dry chicks and empty shells, turn up the lamp flame and give the rest of the little fellows a fair chance for their lives. The chicks taken from the incubator are placed in wool lined baskets till all are out and have gained strength to run about, when they are given to motherly hens or placed in a warm brooder.

By the forgoing method I averaged 80 per cent hatches of all the eggs set, which I consider good, inasmuch as I am able to raise a fair share of them, getting strong, sturdy chicks for my painstaking care, which is what counts.—MRS. C. K. TURNER, Meade County.

Prepare for Early Chicks

It is none too early to prepare for the spring hatching season. First, dispose of all surplus cockerels, and have your breeding yards in the best condition.

It is always the early chicks that pay. The first cockerels on the market for fries bring the best prices, and the early hatched pullets will be sure to be thoroughly developed so that they will lay through next fall and winter. There will be a bigger demand for poultry and poultry products than ever before to take the place of other meats which are slower to mature. The first hatches should be off by March 1. Get out the incubator and try it, so if any repairs are needed you will have plenty of time to make them. Perhaps you will need to replace the old machine with a new one, or the prospects ahead for an abnndant supply may induce you to buy a second machine. At any rate you will be in readiness to start right off on time and not be handicapped all season because of late hatches.

The hens will need extra attention at this season of the year. See that they have a ration containing plenty of protein and mineral matter. Wood ashes are good to supply the mineral, and ground bone is rich in protein. Drop some red-hot coals into a bucket of water and you have an abundant supply of charcoal, which the hens will clean up quickly if it is broken into pieces about the size of a grain of corn.

There will be a bigger demand this year than ever before for pure-bred setting eggs, so it behooves us to hatch our own chicks as early as possible, so that we may let others have the eggs as soon as they can safely be shipped. If you contemplate sending for a few pure-bred eggs do not put it off till the last minute, but send in your order early so as to get the eggs when you really want them. There are always a number of things that come up to delay the arrival of the first chicks. Get as many of these little things as possible done now, and you will be glad the rest of the season.

Just a word more: If you are expecting to order an incubator, it should be ordered six to eight weeks before you expect to use it. Many wait until a week or two before the machine is to be started, and then are disappointed because it does not arrive at the expected time. During the rush season incubator manufacturers sometimes have more orders than they can attend to promptly, and a delay in filling orders is unavoidable. The safe way is to order in advence of the hatching season.

The kind and type of an incubator to buy is a puzzle to some, especially to the beginner. There are two systems of heating incubators—the hot-air system and the hot-water system. In general it may be stated that they are both good. I have four hot-water machines of different makes, and I must say they are all good and if handled in the proper way they all give exceedingly good hatches. I have hatched as many as ninety-eight strong, healthy chicks from 102 fertile eggs and raised ninety-seven out of the ninety-eight, one being killed by accident.

In purchasing incubators, many who have had no experience make the mistake of getting machines of too small a capacity. It is very little more trouble to operate a machine of 200-egg capacity than to operate one of fifty-egg capacity, and the cost of fuel in operating the larger machines is very little more. This is a very important item this year when we must conserve all fuels. Where one is running several large machines, a small one is very handy in that it enables one to run the large machines at full capacity. I have three large machines and one of the fifty-egg size. My fifty-egg machine never hatches a chick. It never gets the chance. During the hatching season I fill up two large machines and the small one. Then at the end of ten days I test the eggs of all and put the eggs from all three into the two large machines and under one hen. I say under one hen, as the fertility usually runs very high in our yards and we do not have many to test out. Then we set another large machine and the small machine. At the end of ten days these eggs are tested, and what we can put in the large machine are placed in it and the rest under hens. The little machine enables me to run the large machines at full capacity, thus saving time and fuel. If one is careful about running the incubator and runs it so the regulator damper is only very slightly raised, much oil may be saved. We cannot urge too strongly the economical use of oil.—MRS. LIZZIE B. GRIFFITH, Lyon County.

$8.95 buys 140-Egg Champion Belle City Incubator

Prize Winning Model — Double Fibre Board Case, Hot-Water, Copper Tank, Nursery, Self-Regulated Safety Lamp, Thermometer Holder, Egg Tester. With $5.25 Hot-Water, Double Walled 140-Chick Brooder—both only $12.95.



Freight Prepaid

East of Rockies—allowed towards Express and to points beyond. I ship quick from Buffalo, Minneapolis, Kansas City or Racine. Used by Uncle Sam and Agri'l Colleges. With this Guaranteed Hatching Outfit and my Guide Book for setting up and operating you can make a big income.—And my **Special Offers** provide ways for you to make extra money. Save time—Order now, or write today for my Free Catalog, "Hatching Facts"—It tells all. Jim Rohan, Pres.



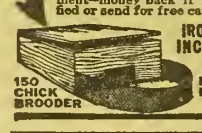
Belle City Incubator Co., Box 18, Racine, Wis.

You Take No RISK With An **Ironclad** Both $12.50 30 Days Free Trial 10 Yr. Guarantee Freight Paid

Think of it! You can now get this famous Iron Covered Incubator and California Redwood Brooder on 30 days trial, with a ten-year guarantee, freight paid east of the Rockies.

150 EGG INCUBATOR CHICK BROODER

Incubator is covered with galvanized iron, triple walls, copper tanks, nursery, egg tester. Set up ready to run. Brooder is roomy and well made. Order direct from this advertisement—money back if not satisfied or send for free catalog.



IRONCLAD INCUBATOR CO. Box 147 RACINE, WIS.



(3)



American Mastodon Pansies

These possess the most robust vigor, largest sized flowers, superb rounded form, great substance, violet scent, and marvelous colors without limit. The quickest to bloom and most durable; the acme of perfection in Pansies. Seed, pkt. 10c.

CHILDS' GIANT KOCHIA. Most decorative annual in cultivation, pkt. 20c.

CHINESE WOOL FLOWER. Most showy of all bedding annuals, pkt. 10c.

ASTER AM. BEAUTY. Gigantic pink flowers on two foot stems. Finest Aster. pkt. 10c.

SPECIAL OFFER—These four greatest floral novelties FOR 25c. with Booklet, "How to Grow Flowers," and Catalog.

OUR BIG CATALOG of Flower and Veg. Seeds, Bulbs, Plants and new fruits FREE. We excel in quality and varieties.

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Direct-from-factory-to-farm Selling plan saves you fully 40%. If not greatest bargain you ever saw, return it—test costs nothing.

Wm. Stahl Sprayer Co., Box 450 Quincy, Ill.

"WHY CHICKS DIE IN THE SHELL"

We want to tell you how to prevent chicks from dying in the shell just at hatching time, how to save them from White Diarrhoea or Bowel Trouble; how to build the best Home Made Brooder in the world from an ordinary box or change your old one. Above information absolutely FREE, for names of 5 or 6 of your friends who use incubators. Send Names Today.

RAISALL REMEDY CO., Box 58, BLACKWELL, OKLAHOMA

Reliable Poultry Breeders

LEGHORNS.

S. C. WHITE LEGHORN COCKERELS, $2. Willie Tonn, Haven, Kansas.

R. C. W. LEGHORN COCKERELS, $2 each. F. W. Cornell, Wakefield, Kansas.

S. C. BROWN LEGHORNS BRED 22 years. 222 to 266 egg lines. Eggs 15-$2; 50-$4; 100-$6. Gorsuch, Stilwell, Kansas.

L. B. RICKETTS, BREEDER OF PRIZE Winning Single Comb White Leghorns, Greensburg, Kansas.

BARRON ENGLISH WHITE LEGHORN eggs, 100, $7.50; 100, $10, prepaid. Mrs. J. L. Todd, Route 8, Warrensburg, Mo.

SINGLE COMB WHITE LEGHORN cockerels. Dave Baker, Conway Springs, Kansas.

SINGLE COMB BUFF LEGHORNS — Eggs, farm stock. Write for prices. John Fritzemeier, Napoleon, Mo.

SINGLE COMB WHITE LEGHORN cockerels, some scoring as high as 95½. Prices, $2 and up. J. F. Roseborough, Afton, Oklahoma.

S. C. BROWN LEGHORNS — EGGS FOR hatching, $3.50 for fifty, $6 per hundred. Extra quality. Mrs. L. H. Hastings, Thayer, Kansas.

FERRIS S. C. WHITE LEGHORNS, 200-egg strain. Ninety pullets laying, $1.50; seven cockerels, $5. H. L. Coleman, Martin City, Missouri.

SINGLE COMB WHITE LEGHORNS— First and third pullet at American Royal. Eggs, $1.50 per setting, $7 per hundred. H. A. Ketter, Seneca, Kansas.

SINGLE COMB BUFF LEGHORNS — Eggs, exhibition pen matings. Free range mating. Cockerels from 200-egg hens. Pearl Haines, Rosalia, Kansas.

PURE SINGLE COMB WHITE LEGHORN eggs from Famous Yesteriaid laying strain, mated to Tom Barron cockerels. Eggs that will hatch, securely packed, $7 per hundred. Shady Pine Leghorn Farm, Rossville, Kan.

INCREASED EGG YIELD POSITIVELY comes from the sire. Absolutely pure Tom Barron White Leghorn cockerels of 275 to 283 egg breeding $5 each. Successfully bred for high egg yield for 18 years. Braunhurst Farms, Gridley, Kansas.

WYANDOTTES.

PARTRIDGE WYANDOTTE COCKERELS, $1.75. Jacob Klassen, Inman, Kansas.

SILVER AND GOLDEN LACED WYANdotte cockerels for sale. They are good ones. W. I. Lowrey, Stafford, Kansas.

SILVER WYANDOTTE EGGS—FIFTEEN, $1.65; fifty, $3.75; hundred, $6.50. Hens. Mrs. Edwin Shuff, Plevna, Kansas.

PURE-BRED WHITE WYANDOTTE cockerels, $2.50 each. Sade Springer, Route No. 4, Manhattan, Kansas.

FOR SALE — CHOICE WHITE WYANdotte cockerels, $2 each while they last. Chilcott Poultry Farm, Mankato, Kansas.

LAYER-PAYER SILVER WYANDOTTE eggs, fifteen, $1.50; fifty, $3.50. Irve Wright, Clifton, Kansas.

CHOICE WHITE WYANDOTTE COCKERels from winning laying strain; also eggs. Andrew Kosar, Delphos, Kansas.

EXTRA CHOICE ROSE COMB SILVER Wyandotte cockerels, $3 each; six for $15. Eggs in season. Mrs. Philip Schuppert, Arrington, Kansas.

PARTRIDGE WYANDOTTES, STATE show winners. Cockerels scored 91 to 94½, $3.50 to $10. Eggs, $3. Satisfaction guaranteed. F. R. Beery, Concordia, Kansas.

EGGS—WHITE WYANDOTTES LAYING strain. Utility, $1.25 fifteen; $3.50 fifty; $6 hundred. Pen headed by $15 cockerel direct from Keeler, $2 fifteen. M. M. Weaver, Newton, Kansas.

RHODE ISLAND REDS.

ROSE COMB REDS, WINTER LAYERS. R. E. Milis, Lexington, Neb.

SINGLE COMB RED EGGS, $2.50 PER setting, $8 per hundred. Maple Hill Poultry Farm, Lawrence, Kansas.

ROSE COMB RED PULLETS, $2, $2.50. Chicks, 15c each. Eggs, 100, $5. Fred Leck, Yates Center, Kansas.

PURE-BRED R. C. R. I. R. COCKERELS, $2 and $3 each. Mrs. E. M. Wade, Burlington, Kansas.

FIFTY LARGE 6½-9½-POUND ROSE Comb Red utility cockerels. Stedem & Sons, Marshall, Mo.

BRED TO LAY, S. C. R. I. REDS, LAYers at six months. 250 eggs per year. G. R. Donald, Emmett, Kansas.

ROSE COMB RED COCKERELS, CHICKS 20 cents. Booking orders now. Lilly Robb, Neal, Kansas.

ROSE COMB RHODE ISLAND COCKERels, $3; eggs, $1.50 per setting or $5 per hundred. Della Schultze, Melvern, Kansas.

HEAVY BONED, DEEP BRILLIANT R. C. Reds, good combs, yellow legs, long back, low tail, high scoring. Satisfaction guaranteed. Highland Farm, Hedrick, Iowa.

100 ROSE COMB RHODE ISLAND RED cockereis and cocks sired by roosters costing $15 to $50. $3.50, $5, $7.50, $10 each and up. 1918 matings, best ever. America's best breeding is represented here by birds of quality. W. R. Huston. Americus, Kansas.

SUSSEX.

FIELD'S SUSSEX—CHICAGO WINNERS. Stock, Eggs. Fields Brothers, Sandwich Ill.

ORPINGTONS.

BUFF ORPINGTON EGGS—HATCH guaranteed. Shipped prepaid. Leo Anderson, Juniata, Neb.

CHOICE S. C. BUFF ORPINGTON COCKerels, $4 each. Mary E. Price, Route 7, Manhattan, Kansas.

BUFF ORPINGTON HENS FOR SALE at $1.25 if taken at once. Ray Heel, Manchester, Oklahoma.

SPLENDID WHITE ORPINGTON COCKerel, Kellerstrass strain. Also eggs. A. Houts, Circleville, Kansas.

WHITE ORPINGTONS, ALDRICH STRAIN direct. Males, $4 and up. Eggs from pens containing Topeka and Kansas State Show winners. H. M. Goodrich, 712 Topeka Ave., Topeka, Kansas.

PRIZE WINNING SINGLE COMB BUFF Orpingtons. Best of breeding and individuals. Splendid cockerels, $5 each. Eggs from excellent matings, $2, $3 and $5 for fifteen. Send for mating list. Sunflower Ranch, Ottawa, Kansas.

PLYMOUTH ROCKS.

WHITE ROCK COCKERELS, $2 AND $3. Nora Lamaster, Hallowell, Kansas.

CHOICE WHITE ROCK COCKERELS, $3. Mrs. E. E. Merten, Clay Center, Kansas.

WHITE ROCK ROOSTERS, FINE BIRDS. Pure-bred stock. $2 each. Perry S. White, Offerle, Kansas.

BARRED ROCK COCKERELS, $2.25 each, and one Bourbon Red turkey tom, $6.50. Vivien Hind, Madison, Kansas.

BARRED PLYMOUTH ROCK EGGS, from well barred, large birds; 100 eggs for $5.50; 50 eggs $3. R. D. Ames, Walton, Kan.

WHITE ROCK EGGS—FIFTY, $3 PREpaid. Photo free. Mrs. John Ramsey, Ft. Scott, Kansas.

BARRED AND WHITE ROCK COCKERels and pullets from prize winners, $2, $3 and $5 each. H. F. Hicks, Cambridge, Kansas.

WEIGHER-LAYER BARRED ROCK cockerels, $3 to $5. Eggs, 100, $6. C. F. Fickel, Earlton, Kansas.

PRIZE-WINNING WHITE ROCKS, EGGS for hatching, 5c a piece. Also three good cockerels. Edw. Fehr, Marquette, Kansas.

THE VERY BEST FANCY BRED PLYmouth Rocks for sale. Wm. Harrison, Marshall, Mo.

BARRED AND WHITE ROCK COCKERels and pullets. Write for prices. Nora Hill, Cambridge, Kansas.

LUCAS BUFF ROCKS—COCKERELS, $3, $5 and up. Eggs, best pens, $5 and $3 per fifteen; range flock, $6 per hundred. T. H. Lucas, Pattonville, Mo.

PARTRIDGE PLYMOUTH ROCK EGGS for hatching. My birds are better than ever. Get my price. Jno. W. Norton, Talmage, Nebr.

BUFF ROCK EGGS FROM EXTRA QUALity; pens and utility stock. Heavy layers. Prices reasonable. A. R. Quinnette, Box 241, Ames, Kansas.

WINTER-LAYING STRAIN BARRED Rocks, cockerels. Eggs, $5 hundred; $1 fifteen. Valuable circular free. O. E. Skinner, Columbus, Kansas.

RINGLET BARRED ROCKS — STATE Fair winners. Special matings. Eggs, $2 and $3 per fifteen; utility, $1.25. Stock also. Satisfaction guaranteed. Hiram Patten, Hutchinson, Kansas.

HAVE BEEN BREEDING PURE-BRED Barred Rocks over 25 years. Have built a splendid laying strain. Eggs for the season, $7.50 per hundred prepaid. Mrs. Ed Snyder, Fontana, Kansas.

BARRED ROCKS; 80 PREMIUMS, 33 firsts, Kansas City, Topeka, Salina, Manhattan, Clay Center, Denver. Stock for sale. Eggs 15-$5; 30-$9. Mattie A. Gillespie, Clay Center, Kansas.

EGGS FOR HATCHING FROM PRIZEwinning White Rocks, $1.50 per setting, $6.50 per hundred. Fishel and White Ivory strains. All orders handled promptly. A. H. Alpers, Hudson, Kansas.

BARRED ROCKS, BOTH LINES. STATE show winners. Good layers. Eggs, $1.50 per fifteen, $6 per hundred. Special matings, $5 per fifteen. C. C. Lindamood, Walton, Harvey County, Kansas.

"ROYAL BLUE" and "IMPERIAL RINGlet" Barred Plymouth Rocks. Twelve blue ribbons 1917, 203 to 218-egg production. Stock and eggs for sale. Free mating list. North Willow Poultry Ranch, A. L. Hook, Prop., Coffeyville, Kansas.

BARRED ROCKS THAT PRODUCED 175 eggs each in 1916; 120 eggs seven months, 1917. Four ribbons, 1917. Pens standardized, Hogan system, eggs, $2 and $3 per fifteen, $10 and $15 hundred. Mating list free. Farnsworth, 224 Tyler St., Topeka.

POULTRY WANTED.

GOVERNMENT RESTRICTING SALE OF hens created demand for cockerels, turkeys, ducks, geese. Write for highest cash offer. "The Copes," Topeka.

PHEASANTS.

PHEASANT REARING, THE NEW INdustry. No limit to demand for these beautiful birds. Easy to rear as chickens at one-fourth the cost. Stock and eggs. Harper Lake Poultry Farm, Jamestown, Kan.

CORNISH

DARK CORNISH COCKERELS, EGGS. East Lawn Poultry Yards, Fairmont, Neb.

GENERAL FARM ITEMS

It is good practice to disinfect the interior parts of the old incubator before warming, and then when the machine is heated the fumes will penetrate to every crack, killing infectious germs.

Is your incubator in order? A machine which has stood all winter without use may have become damaged. This is especially the case with the hot-water type. If they have not been properly drained, ice may have formed in one or more corners, causing the seams to burst. Many times the water pipes corrode and pin-hole leaks result. The thermostat will sometimes become ineffective and fail to regulate the heat properly.

Provide four or five inches of good, clean litter on the floor of the poultry house in which to scatter the grain feed. The hens must exercise in order to get the grain, and this promotes health and egg production.

A Good Pork Substitute

For several years we have used ducks as a substitute for fresh pork. We raise a large breed of ducks which start to lay in January; thus we have young ducks weighing five to six pounds in May. They make delicious fries and roasts—in fact we prefer them to pork—and the fat is better than lard for cooking purposes.

In the fall we allow the ducks to become full-grown and fat, at which time they weigh eight to nine pounds. We eat roast duck until February.

The eggs are large, white, and of a fine flavor, and also afford good substitutes for meat.—Mrs. Fred Sieglinger, Oklahoma.

Strong for Pure-Bred Poultry

Pure-bred stock of all kinds has come to stay. I wouldn't feed mongrels if they were given to me. Nothing looks nicer than a pure-bred flock, and they pay better also.

I started with six pullets and a rooster. The first year I lost my rooster in July, so did not make any great success that year. I had seventy-five nice pullets for the next year and a few fine cockerels for sale, which I disposed of at good prices. I bought two cockerels and had two pens, selling some eggs for hatching, which helped to pay the feed bills and other expenses. Now I have 150 hens from which to pick out my breeding pens for this year. I keep from two to three pens each year. I always dispose of all my culls and surplus roosters, sending everything to market which is not fit to use for breeding purposes.

In the winter I put an advertisement in a good paper. I have always used Kansas Farmer and never had enough poultry to supply the demand. I handle a good breed, but not on as large a scale as I would like, on account of having too much other work to do.

Even if you fail the first year, do not get discouraged, for any woman can make her own pin money and furnish her house if she will just start right, stick to one breed, and advertise and sell her surplus stock.—Mrs. Maggie Gingerich, Osage County.

Markets for Soft Corn

The closing of many distilleries under the food control act has not destroyed the market for soft corn, according to a statement from the Bureau of Markets, United States Department of Agriculture, which has made a survey of grain-drying plants now in operation and under construction at thirty terminal points.

The survey shows 154 grain driers in operation and seventeen under construction. The combined capacity of the grain driers is about 3,000,000 bushels of corn every twenty-four hours. The Department states that this survey probably does not include all plants, but is inclusive enough to allay rumors that there would be no market for soft corn.

An unusual amount of soft corn was harvested in 1917, because of early frosts and cool, wet weather in September and October. It can be sold direct to grain driers, says the Department, or in many markets can be dried for the producer at a cost of three-quarters to two and one-half cents a bushel and sold in dried condition. Owing to present transportation difficulties, it is recommended that farmers and country shippers delay the movement of soft corn unless conditions at the terminal market are favorable.

Save the Hens

Every laying hen sold from the farms before the first of May means a loss of about thirty eggs to the food supply of the nation. These eggs are valuable food, manufactured largely from insects, weeds, and grass, garbage and waste. The eggs, therefore, are almost wholly a net gain in human food. Moreover, the hen is just as good meat after she has laid these eggs as before.

Save the hens, is the message that the United States Department of Agriculture is sending broadcast through press notices and posters, and through its county agents, especially in the southern poultry raising sections.

It pays to use the best of oil for the incubator lamp. If you want your incubator to hatch every fertile egg, you must keep the temperature as uniform as possible. The use of a low grade sulphur-laden oil is dangerous. The lamp is almost sure to smoke, and if any of the fumes get into the egg chamber the hatch will be poor. It is false economy to save a few cents a gallon on oil and spoil hatches as a consequence.

Growing Sorghums in Kansas

(Continued from Page One)

the fall, disking early in the spring—just as early as the ground can be worked—usually pays. It puts the soil in good condition to absorb moisture, and if weeds have started it destroys them. It is pointed out in this bulletin, however, that if the alternate thawing and freezing has left the soil loose on the top, very early disking is not necessary and would probably not be advisable. Under those conditions it would be better to wait until the weeds have started. If the surface of the ground is badly crusted from the melting snow or dashing rains, disking as early as the condition of the ground will permit is advisable.

Those who expect to grow kafir or other sorghums this year should by all means get a copy of the sorghum-growing bulletin. Address Kansas Experiment Station, Manhattan, Kansas.

COCHINS.

BUFF COCHIN BANTAM EGGS, 10c each; cockerels, $1.25 up. Lester Fagan, Minneapolis, Kansas.

SEVERAL BREEDS

WHITE ORPINGTONS, WHITE ROCKS. Fifteen eggs, $1; chicks, 20c. Hines Poultry Farm, Route 3, Parsons, Kansas.

TWENTY VARIETIES POULTRY — Stock and eggs. Royal Poultry Yards, Coffeyville, Kansas.

ALL LEADING BREEDS OF POULTRY. Write me your wants. Emma Ahlstedt, Roxbury, Kansas.

EGGS, BABY CHICKS — ALL LEADING varieties, Rocks, Reds, Orpingtons, Leghorns. Fine stock. Quality Poultry Co., Emporia, Kansas.

FOR SALE—EGGS FROM ALL KINDS of pure-bred poultry, Geese, 7 kinds of ducks, Pearl and white guineas, Bantams, Fancy Pigeons, Canaries, Rabbits, Guinea pigs, Dogs. Write wants. D. L. Bruen, Platte Center, Nebr.

BABY CHICKS.

SINGLE COMB WHITE LEGHORN BABY chicks, 15 cents. Orders booked now. Mrs. Anna Hege, Sedgwick, Kansas.

REDS, ROCKS, LEGHORNS;—15 CENTS. Request Folder. McCune Hatchery, Ottawa, Kansas.

YOU BUY THE BEST CHICKS FOR least money. Guaranteed alive or replace free. Shipped anywhere. Colwell Hatchery, Smith Center, Kansas.

MINORCAS.

SINGLE COMB WHITE MINORCA EGGS $5 and $3 per 15, from prize winning and pure-bred birds. Correspondence solicited. A. K. Goodwyn, Minneapolis, Kansas.

BRAHMAS.

LIGHT BRAHMA COCKERELS, $2 AND $2.50. Eggs after April 1. Mrs. A. J. Applegate, Gilmore City, Iowa.

TURKEYS.

QUALITY BOURBON RED TURKEYS— Write for prices. Mrs. Elmer Nicholson, Route 5, Wellington, Kansas.

PURE-BRED MAMMOTH BRONZE TURkey toms for sale. Weight, twenty-six to thirty pounds. Mrs. Minnie Snider, Piedmont, Kansas.

DUROC JERSEYS.

TAYLOR'S DUROCS

For Sale—A few choice herd boars, extra good. All sired by state fair champion boars. A lot of spring and fall yearling gilts and a few tried brood sows bred for March and April litters. Priced to sell quick. Come and see me.

Chas. L. Taylor - Olean, Mo.

DUROC BOARS

Thirty-five spring boars by G. M.'s Crimson Wonder, Crimson Wonder Again Jr., Critic D. and Great Wonder, out of my best herd sows. Priced to sell. Come and see my herd.

G. M. Shepherd, Lyons, Kansas

PURE-BRED DUROC GILTS
Bred to Invader of Idlewild.
W. J. HARRISON - AXTELL, KANSAS

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on bred gilts and boars from champions, Defender, Illustrator, Crimson Wonder, Golden Model and Critic breeding.
JOHN A. REED & SONS, Lyons, Kansas.

Guaranteed Duroc Gilts

Immune, recorded Duroc gilts with size, bone and length. Guaranteed to farrow. Shipped to you before you pay for them.
F. C. CROCKER, BOX K, FILLEY, NEB.

HAGUE'S DUROCS

Fifteen choice fall boars and gilts for sale, sired by Kansas Pathfinder by Pathfinder. All immune. **K. Hague, R. 6, Newton, Kan.**

POLAND CHINAS.

DEMING RANCH QUALITY

BIG-TYPE POLAND CHINA HOGS

Breeding stock for sale at all times. All immuned. Come and inspect our herd or write us your wants.

H. O. Sheldon, Herd Manager
OSWEGO, KANSAS.

OLD ORIGINAL SPOTTED POLANDS

Stock of all ages, also bred gilts and tried sows, bred, ready to ship. Priced right. Write your wants to
CEDAR ROW STOCK FARM
A. S. Alexander, Prop. Burlington, Kansas

PURE-BRED POLAND SOWS AND GILTS
For Sale, above, bred to Gerstdale Jones Again and other extra good boars. All immune.
UPDEGRAFF & SON, TOPEKA, KANSAS

GRAND VIEW POLANDS

Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.
ANDREW KOSAR - DELPHOS, KANSAS

LONE CEDAR POLANDS

A splendid lot of bred gilts sired by Meyer's Orange and bred to Big Chimes, a fine son of Big Hadley Jr. Also two extra good spring boars left.

A. A. MEYER - - McLOUTH, KANSAS

POLAND CHINA BOARS
FOR SALE—Twelve head extra good spring boars, ready for service. Few choice gilts, bred for March litters. Fall pigs, either sex, sired by Big Tecumseh, Orange Wonder, and out of my best herd sows. The best crop of boars I ever raised. Write or come and see me. **E. M. WAYDE, BURLINGTON, KANSAS**

FALL PIGS, ready to ship. Select Spotted breeding. Express paid on pigs.
T. T. Langford & Sons, Jamesport, Mo.

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Glant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene, Peabody, Kan.**

MATTOX'S SPOTTED POLANDS—Bred sows, serviceable boars, baby pigs, for quick sale. **H. A. or Paul H. Mattox, Route 2, Burlington, Kansas.**

POLAND CHINA HOGS

150 HEAD IN HERD

Breeding stock for sale. Immune. Satisfaction guaranteed. Come and see me.
V. O. JOHNSON - AULNE, KANSAS

POLLED DURHAM CATTLE

TRUE SULTAN POLLED DURHAMS

A few heifers bred or open are offered. Some by or bred to the champion $2,200 True Sultan and Sultan's Challenger.
ED STEGELIN
STRAIGHT CREEK - - - KANSAS

WILD WOOD STOCK FARM

POLLED DURHAM CATTLE
For Sale—Ten bulls of serviceable age, sired by Roan Acacia 9021. Dam, Golden Acacia by Acacia Victor, a double standard bull from D. C. Van Nice herd. Write at once. These bulls will sell.
T. M. ETHERINGTON, Hamilton, Kansas

JERSEY CATTLE.

120 Jersey Cows and Heifers

Pure-bred and high grade. Forty bred yearlings, superior individuals, all from profitable dams, now for sale.
J. W. BERRY & SON, Jewell City, Kansas

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
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CLAIM SALE DATES.

Jacks and Jennets.
March 4—Bradley Bros., Warrensburg, Mo.
March 14—G. M. Scott, Rea, Missouri. Sale at Savannah, Missouri.
March 23—D. T. McCarthy, Hannibal, Mo.
March 26—H. T. Hineman & Sons, Dighton, Kansas.

Holsteins.
Feb. 25—Warren S. Neff, Glen Elder, Kan.
Feb. 27—W. O. Morrill, Summerfield, Kan.
March 7—C. L. Smith, Lawson, Missouri.
March 26—Kansas Holstein Breeders' sale, Topeka, Kan.
March 27-28—Iowa Holstein-Friesian Breeders' Association. Sale at the State Fair Grounds, Des Moines. F. C. Barney, Secretary, Chapin, Iowa.

Shorthorns.
Feb. 26—H. E. Huber, Merlden, Kan.

Shorthorns.
Shorthorn Weed, Oklahoma State Fair Grounds, Oklahoma City, Okla. Oklahoma Shorthorn Breeders' Association, S. B. Jackson, sales manager, El Reno, Okla.;
March 26 — Breeders' Shorthorn Sale, Fair Grounds, Oklahoma City; S. B. Jackson, Manager, El Reno, Okla.
March 27—J. R. Whisler's Ninth Annual Shorthorn Sale, State Fair Grounds, Oklahoma City, Okla.
March 28—Scott & Wolsey, Shorthorn Sale, State Fair Grounds, Oklahoma City, Okla.
March 29—Breeders' Shorthorn Sale, Fair Grounds, Oklahoma City; S. B. Jackson, Manager, El Reno, Okla.

Jerseys.
March 26—Stirling Farm Dairy, Des Moines, Iowa. B. C. Settles, Palmyra, Mo., sales manager.
B. C. Settles, Palmyra, Mo., sales manager.
April 30—Ralph Ballou, Paris, Mo. B. C. Settles, Palmyra, Mo., sales manager.

Red Polled Cattle.
March 6—I. L. Rogers, Oberlin, Kan.

Miscellaneous.
Feb. 25-28. — Kansas National Live Stock Show, Wichita, Kan. Draft, coach, standard-bred horses and jacks; Shorthorn, Hereford and Holstein cattle; Poland and Duroc hogs. F. S. Kirk, sales manager, Wichita.

Poland Chinas.
Feb. 28—Clarence Dean. Sale at Dearborn, Mo.
March 6—J. R. Young, Richards, Mo.
March 15—H. E. Myers, Gardner, Kan.
April 24—Fred G. Laptad, Lawrence, Kan.

Durocs.
Feb. 27—R. W. Murphy, Dearborn, Mo.
March 7—W. W. Otey, Winfield, Kansas.
March 8—R. L. Hurst, Bolckow, Mo.
April 24—Fred G. Laptad, Lawrence, Kan.

The Poland China sale of Will G. Lockridge, Fayette, Missouri, February 9, resulted in the disposal of fifty-five head at an average price of $166.50. A large crowd of farmers and breeders from several states were present. The great show boar, The Giant, was a strong factor in attracting representative breeders. Will G. Lockridge is the owner of one of the good herds of Missouri and his offering merited the good support given by the farmers and breeders attending the sale. The highest price was $690, paid for No. 66, Joe's Mammoth Lady, and bred to The Giant. Nothing high, no records were broken or boom prices obtained, but every animal sold strictly on its merits and the prices received were very satisfactory to Mr. Lockridge.

George McAdam, of Holton, Kansas, reports his herds of pure-bred Angus cattle and Berkshire hogs doing well. The Angus and Berkshire herds owned by Mr. McAdam are among the best now assembled and his herds are drawn upon heavily for breeding stock both for herd headers and foundation stock for new herds. Bulls from his Angus herd now head the Agricultural College herds of both Kansas and Texas and many high class herds of Angus cattle and Berkshire hogs were started with foundation stock from his herds. He recently made a shipment of Berkshires to Australia.

F. A. Lawrence, of Meriden, Kansas, is building up a herd of pure-bred Hereford cattle. Mr. Lawrence selected foundation stock for his pure-bred herd that represented the best blood lines of the breed. He has the ideal beef type among the pure-bred Herefords. He has an eight-months-old calf that weighs 865 pounds without any special fitting. He also has a herd of very fine high grade Hereford cows.

G. M. Scott, of Rea, Missouri, has announced March 14 as the date of his annual jack and jennet sale. Quiet Glen Stock Farm, owned by Mr. Scott, is one of Missouri's famous breeding farms. It was established in the early forties and has been maintained by the succeeding generations of the Scott family. The present owner has been a breeder of high-class jacks and jennets and Percheron horses all his life and has successfully maintained the reputation of the farm as the home of high-class jacks, jennets and Percherons. This year he will catalog twenty-four head of choice black registered jacks from three to six years old, also some good Percheron stallions and mares.

Fred G. Laptad, of Lawrence, Kansas, has claimed April 24 for a sale of Poland Chinas and Duroc Jerseys. Mr. Laptad has made a great success of these two breeds on his farm and is one of the careful hog breeders of Kansas. He has used for several years some of the best sires known in these two breeds. Laptad's Bob Wonder by Big Bob Wonder is now at the head of the Poland China herd. Golden Masterpiece by Laptad's Golden Rule is at the head of the Duroc herd. Both these boars have proven sires of the right type of farmer hogs.

W. D. Brigham, manager of Adams Stock Farm, Gashland, Missouri, reports their fine herd of Guernsey cattle doing well. This is one of Missouri's leading herds of Guernseys and a feature at this time is the outstanding lot of young stock of Imp. May Royal and Imp. Mashel Sequel breeding. Mr. Brigham reports the recent sale of a very fine young bull to R. B. Jeffries to head his herd of high-grade cows.

Mark Abildgaard, manager of the Stubbs Holstein Farm, Mulvane, Kansas, reports the herd doing fine. This is one of the good Holstein herds in Kansas and the herd bulls in use in this herd are two of the good sires now in service. Gem Pietertje De Kol 3d is the only bull with a 30-pound daughter and the only bull in the state with two 29-pound daughters, also with four daughters with over 750 pounds of butter in one year. He is next to Canary Paul Fobes Homestead in number of A. R. O. daughters. Canary Paul Fobes Homestead, their other herd bull, has more A. R. O. daughters than any other bull in Kansas.

W. J. Fitzgerald & Sons, owners of Riverside Stock Farm, Dodge City, Kansas, own one of the good herds of Belgian horses in this state. They also make a specialty of draft mules and Shorthorn cattle. A feature of their Belgian herd at this time is the choice lot of young stock, including some outstanding young stallions.

The Kansas Holstein Breeders' Association has planned to hold their annual meeting at Topeka, Kansas, on March 25, with a banquet at the Commercial Club rooms in the evening. On the following day, March 26, one hundred head of registered cows consigned from twenty of the best herds in Kansas will be dispersed. This is promised to be a high-class offering. The cattle consigned are not cattle that these breeders want to sell, but the kind they all would like to keep in their herds.



SCOTT'S JACK AND JENNET SALE

AT SAVANNAH, MO. MARCH 14, 1918

Twenty-four extra good black Registered jacks, heavy-boned, thick-bodied kind, from three to six years old. These jacks are the right type and will make good. Will also offer three Percheron stallions and four Percheron mares. Write for catalog. Sale at Savannah, Mo., thirteen miles north east of St. Joseph, on the C. G. W. and C. B. & Q. Railroads. Interurban from St. Joseph arrives and departs every hour.
G. M. SCOTT, Route No 2 REA, MISSOURI

PERCHERON MARES AND STALLIONS

Thirty Head from Which to Select

Ton mares, big handsome fillies either by or bred to Algarve by Samson. Algarve's colts have great bone and size. His weight is over 2,200 pounds and his get proves beyond doubt his great ability as a sire. A nice lot of young stallions, several coming three-year-olds. Priced for quick sale. Farm four miles east of town. Call on or write

D. A. HARRIS - Route 6 - GREAT BEND, KANSAS



PERCHERONS AND BELGIANS

IMPORTED AND HOME-BRED PERCHERONS AND BELGIANS.
I have a good lot of horses to select from at very reasonable prices. I give a gilt edge guarantee of 60 per cent, good for two years.

Barns Four Blocks from Santa Fe Depot.

W. H. RICHARDS - EMPORIA, KANSAS

EWING BROS.' PERCHERON HORSES, SHORTHORN CATTLE, SHETLAND PONIES AND POLAND CHINA HOGS

FIFTY MARES—Weanlings to mature mares, weighing a ton or more, in foal. Herd headed by Imp. Meknes (106084) 106640, weighing 2,200 pounds.
SEVERAL MATCHED TEAMS—Fifteen head of stallions, from weanlings to six years old. The best lot of two-year-olds we have ever had. The kind to mature into ton horses or better—grays and blacks.
SHORTHORN CATTLE—A few cows for sale. Ten young bulls out of pure Scotch sire ready for service. Herd headed by Village Knight No. 398231 weighing 2,250 pounds and Choice Echo 393419, weighing 2,300 pounds, for sale.
SHETLAND PONIES at very low prices if taken soon—weanlings to broken fillies.
Phone to Ewing Bros., 903A5 or 903A12, Great Bend, or write us at R. F. D. No. 1, Pawnee Rock, Kansas. **EWING BROTHERS.**

AYRSHIRE CATTLE.

ARYSHIRE HERD FOR SALE
Herd consists of 23 cows and heifers
One herd bull and 3 bull calves
Six of the cows from A. R. cows with high records.
The heifers are mostly from these cows. Herd bull richly bred, fine individual and a show bull.
Two bull calves from A. R. cows. Will sell herd bull and cows separate from young stock. All cows and herd bull registered. Young stock registered on request of purchaser. Priced to sell.
DEHNER & GLYNN, Cascade, Iowa.

HEREFORD CATTLE.

Clear View Hereford Farm

Two bulls, one 2-year-old, one yearling, good ones, sired by Goodlad 405463. Priced to sell. Also twenty-one head of mules from yearlings to 3-year-olds.
C. E. DIFFENBAUGH - TALMAGE, KAS.

Hereford Bulls For Sale

One registered four-year-old Polled Hereford bull, weight 1,700 pounds. Also one registered Hereford bull calf, 8 months old, weight 865 pounds. Best blood lines.
F. A. LAWRENCE, Route 3, Meriden, Kan.

GUERNSEY CATTLE.

GUERNSEY BULLS.
Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to twelve months old. **ADAMS FARM, Gashland, Mo.,** 12 miles from K. C.

GUERNSEY BULLS
Three registered Guernsey bulls, 9 to 11 months old, tuberculin tested recently; best of breeding. Cows are good producers. For further information inquire of
FRED WILLE - COLUMBUS, NEBRASKA

HORSES AND MULES.



JACKS AND JENNETS

15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.
PHIL WALKER
Moline, Elk County, Kansas

Malone Bros., Jacks and Percherons

We have 2 barns full of extra good jacks ranging in age from weanlings to 6 yrs. old, all over 2 yrs., well broke to serve. Several fine herd headers among them. Also jeunets in foal to homebred and imported jacks. A few imported Percheron stallions royally bred. We can deal. Write or call on
J. P. & M. H. MALONE, CHASE, KAN.

Belgian Stallions

Registered Belgian Studs for Sale—Two 2-year-old Belgian stud colts, one 4-year-old Belgian stud. All ready for service.

W. J. Fitzgerald - Owner
DODGE CITY, KANSAS



PERCHERONS AND JACKS
FOR SALE—Four jacks, two coming three-year-olds, one four-year-old and one ten-year-old. All good size, sound and guaranteed. Will price a few good jennets. Also have five Percheron stallions and a few good mares, priced right. Come and see me.
M. G. BIGHAM & SON, OZAWKIE, KAN.
7 miles from Meriden, Kan. 10 miles from Perry, Kan. 20 miles northeast Topeka.



Percherons, Belgians, Shires
2, 3, 4 and 5-year stallions, ton and heavier; also yearlings. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.
Fred Chandler, R.7, Charlton, Ia.
Above Kansas City.

Choice Young Belgians, English Shires, Percherons, also Coach stallions, also mares. Many first prizes. Long time 6% notes.
Illinois Horse Co., Good Blk., Des Moines, Ia.

40 Percheron Stallions and mares, weanlings up. 20 Mammoth jacks, 10 jennets in foal. Priced reasonable. **Al E. Smith Lawrence, Kansas.**

CHESTER WHITE HOGS

Crystal Herd Chester Whites

Choice tried sows and spring gilts, bred to farrow March 8 to April 6. Gilts are sired by Achilles 58994 and are bred to "Billy the Kid," a grandson of Wm. A. One gilt by Scotlea Archie, bred to Achilles. Have some choice September boars. This is a choice offering, priced right for quick sale to make room for spring pigs.
DAN WILCOX, ROUTE 2, CAMERON, MO.

RED POLLED CATTLE.

RED POLLED BULLS

For Sale—Thirty head coming yearling bulls. Come early and get the best. Our experience has been those that come late found us sold out. Write or come at once.

E. E. FRIZELL
FRIZELL, (Pawnee County), KANSAS

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.
CHAS. L. JARBOE - QUINTER, KANSAS

Pine Ridge Percherons THE PROPERTY OF THE ESTATE OF L. M. HARTLEY, WILL BE SOLD TO THE HIGHEST BIDDER - - March 4th.

This offering consists of forty stallions of unexcelled quality, of which twenty-five are coming three years old, six coming four, one coming six and the balance coming two. There will also be sold some Percheron mares, and THREE JACKS.

Send for catalog and come to the best sale of the best Percherons ever shown in the Middle West. Parties from the Southwest take Santa Fe from Kansas City to Fort Madison and change there for Cottonwood, which is but two miles from farm. Free transportation from Cottonwood. Lunch on grounds. Address **Pine Ridge Farm, Salem, Iowa**

HOLSTEIN CATTLE.

STUBBS FARM OFFERS

The bull, Gem Pietertje Delmar Korndyke, ready for service, seven-eights white, extra good individual. He has a 30-pound sister and two 29-pound sisters. His sire, both grandsires, both tuberculin tested and guaranteed to be a breeder. Price $160, f. o. b. Mulvane. Write quick if you want him.

STUBBS FARM - - - - MULVANE, KANSAS

CLYDE GIROD, At the Farm F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd.

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Heilo No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.

H. B. COWLES, 608 Kan. Av., Topeka, Kan.

HOLSTEIN CALVES

We offer for sale choice, beautifully-marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated f.o.b. cars: One to two weeks old, $15 each; two to three weeks old, $17 each; five to six weeks old, $20 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

REGISTERED HOLSTEIN BULLS

From A. R. O. cows. All our own breeding. Bred for milk and fat production.

LILAC DAIRY FARM

R. F. D. 2 - Topeka, Kansas

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON, KANSAS

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. **Clover Valley Holstein Farm, Whitewater, Wisconsin.**

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wauwatosa, Wisconsin

Oak Hill Farm's

Registered Holstein Cattle

For Sale—Yearling and bred heifers, also young bull calves, mostly out of A. R. O. cows. Perfect satisfaction guaranteed.

BEN SCHNEIDER, NORTONVILLE, KAN.

BONNIE BRAE HOLSTEINS

Young bulls from high producing dams from a splendid son of King Segis Pontiac for sale.

Ira Romig, Sta. B, Topeka, Kas.

CEDARLANE HOLSTEIN HERD

Four-year-old grandson of Pontiac Korndyke. Guaranteed sound and a sure breeder. Average record dam and sire's dam, 29.4 pounds in seven days. Special price on bull calves from above bull. Also several good cows. **T. M. Ewing, Independence, Kansas.**

$20.00—HOLSTEINS—$20.00

Fine heifer calves, seven-eighths pure, from high record registered sires and heavy producing dams. Two to four weeks old. More white than black, $20; more black than white, $19. Satisfaction guaranteed or your money back.

Harris Holstein Farms Sextonville, Wis.

HOME of the DAIRY COW

Write us for our prices on carloads or less of the best dairy cows in the state. High grades or pure-breds, cows or heifers. Service bulls. High grade calves, crated, $20 to $25.

Edgewater Stock Farm

FORT ATKINSON - - WISCONSIN

Segrist & Stephenson, Holton, Kan. Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

Holsteins

HIGH GRADE COWS AND HEIFERS

Carload lots and less. Calves fifteen-sixteenths pure-bred for sale at all times. $20 crated for shipment.

MAPLE LAWN STOCK FARM

C. W. HODGE Milton Junction, Wis.

MULEFOOT HOGS.

KNOX KNOLL STOCK FARM

MULEFOOT HOGS SHORTHORN CATTLE

Registered stock for sale at all times. Am offering some bargains in bred sows, summer gilts and fall pigs. Write for prices and catalog to **S. M. KNOX, Humboldt, Kansas.**

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS

Best breeding, best type. Stock for sale.

GEO. W. ELA, Valley Falls, Kansas

HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment. **Edgewood Farms, Whitewater, Wisconsin.**

AUCTIONEERS.

Jas. T. McCulloch Live Stock Auctioneer. I make sales anywhere.

Write for date. CLAY CENTER, KANSAS



P. M. GROSS

Live Stock Auctioneer

Twelve years on the block.

Pure-bred sales a specialty. Sales made anywhere.

4230 Paseo

Kansas City, Mo.

Breeders' Directory

ANGUS CATTLE.

D. J. White, Clements, Kan.

DORSET HORN SHEEP

H. C. LaTourette, Route 2, Oberlin, Kan.

RED POLLED CATTLE.

Mahlon Groenmiller, Pomona, Kansas.

When Writing to Advertisers, Please Mention Kansas Farmer

Wheat Failed to Germinate

Following a dry fall, the question of what to do where wheat failed to start is frequently raised. It is sometimes hard to decide just what should be done. Wheat has wonderful recuperative powers, and sometimes comes on and develops into a much more profitable crop than would seem possible as the spring season opens up. Some wheat growers even contend that wheat can germinate in the early spring and make a crop if the spring and early summer conditions are favorable.

Many are asking just what to plant where there is no hope for the wheat to come out and make a crop. In answering a Harper County farmer's question on the above points, S. C. Salmon, professor of farm crops at our Agricultural College, said that if the wheat germinated last fall there is still a chance for it to come on and make a partial crop, even though it did not come up so as to show above the ground in the fall. If the seed did not germinate at all, however, lying in the dry ground all winter, it will not make a crop even though it germinates in the spring. If the wheat is dead in the spring, he suggests putting in corn or sorghum or barley, if a small grain crop is desired. Barley can usually be depended upon to yield more than spring wheat or oats, unless chinch bugs are bad. Where chinch bugs are likely to be present in large numbers it would probably be safer not to try the barley. We would urge that it be kept in mind that the success of a crop of barley, oats, or other spring grain depends largely on the amount of reserve moisture in the soil at seeding time. If the subsoil is dry and hard, it is a risky proposition to put in either oats or barley in Central or Western Kansas. A good deal of barley was planted around the Hays Experiment Station last spring, against the advice of the superintendent of the station, and the result was far from satisfactory. There was simply not enough moisture in the soil at seeding time to meet the requirements of a spring grain crop.

When meat packers and hotel men boast of tons of meat saved on meatless Tuesday, it is time for every private citizen to tally his pounds.

FARM AND HERD.

H. L. Faulkner, owner of the famous Highview herd of old original Spotted Polands, held one of the most successful sales February 13 in the history of his herd. The average on the lot catalogued was above $170. The top was $400. Mr. Faulkner donated the first hog that was put on sale to the Red Cross and the people of Jamesport, in appreciation of his liberality and their desire to help in a good cause, raised $120 and bought the hog and put her back in the ring. The second sale, Dr. S. P. Loomis, Lost Springs, Kansas, bid her in at $100, and promptly returned the sow to the ring. The third sale was to A. D. Gates, Ravenwood, Mo., and a third time the hog was returned to the sale ring, and the fourth and last sale was made to Francis J. Aubrey, Green City, Mo., at $50. Before proceeding with the sale, Col. P. M. Gross, of Kansas City, who was in charge of the sale, took up a collection for the Red Cross. The total of sales and donations for the Red Cross amounted to $540.69.

William Sullinger, of Orrick, Missouri, held one of the successful Poland China sales of the season February 16. The offering was in the pink of condition and was sold at even prices. Thirty head catalogued made an average of $108.91. The top price was $175, paid by G. M. Grover, of Orrick, Missouri. This was Mr. Sullinger's first public sale of Poland Chinas and he was well pleased with the returns.

The Duroc Jersey sale of B. R. Anderson, of McPherson, Kansas, was one of the good sales of the season. Forty-six head, mostly spring gilts bred, averaged $99.13, a record for the breed in Central Kansas. Weather conditions kept many breeders and farmers away or a much higher average would have been recorded. The breeders and farmers were royally entertained at the Youngdahl Cafe. Those who enjoyed the hospitality will need no second invitation to attend like occasions. The first prize boar, Royal Grand Wonder, was a strong factor in attracting representative breeders from Kansas, Oklahoma and Missouri. The highest price paid was $195, for No. 1 in the catalog. This sow was the bargain of the sale. Seven gilts of her last spring litter sold for $682, and she was bred to Royal Grand Wonder for an early litter.

The Shorthorn cattle sale advertised by J. R. Young, of Marion, Kansas, February 15, was attended by a large crowd of farmers and breeders from Nebraska, Western Kansas and Oklahoma. The thirty-six head of registered cattle catalogued sold for an average of $239.30, including several yearling calves. Seven young bulls averaged $240. Twenty-nine females averaged $239. The sixty head of high-grade Shorthorns sold at good prices ranging from $100 to $225. Several of these cows were large individuals with calves at side. They were practically pure-bred but could not be registered. Nothing sold high, but good even prices prevailed.

Louis Koenig and J. G. Burt, of Solomon, Kansas, have announced a consignment sale of Duroc and Poland China bred sows and gilts for March 5. They will catalog a choice lot of sows and gilts for this sale and all will be bred to outstanding boars of their respective breeds.

Pure-Bred Hog Sale

Polands and Durocs, at Solomon, Kansas, March 5, 1918.

A nice consignment of bred sows and gilts bred to outstanding good boars. Write for catalog to

J. G. BURT OR LOUIS KOENIG

Solomon - - - - Kansas

SHORTHORN CATTLE.

THE SHORTHORN IS THE BREED FOR YOU

Shorthorn steers at the International, Chicago, made the highest dressed weight percentage of any breed. Sixty yearlings averaged 65.3%.

Shorthorn steers were grand champions at Denver, Portland, Salt Lake City and Chicago.

Shorthorn cows are making records up to 17,564 pounds of milk and 569.7 pounds of butter fat per year.

Address Dept. W.

American Shorthorn Breeders' Ass'n

13 Dexter Park Ave. Chicago, Ill.

MARKS' LODGE

Home of Shorthorn Cattle. Reds Exclusively.

A few choice young bulls for sale, from my best milking cows. All registered. Come and see me.

DR. M. F. MARKS, VALLEY FALLS, KAN.

SCOTCH SHORTHORNS

Twelve Choice Bulls, reds and roans, from seven to fifteen months old, sired by such bulls as Pioneer, Excelsior and Mistletoe King. Priced reasonable.

C. A. COWAN & SON, ATHOL, KANSAS.

Cedar Heights Shorthorns

For Sale—Three red bulls, 12 months old. A few cows and heifers. Priced reasonable. Come and see my herd.

HARRY T. FORBES

Route 8 Topeka, Kansas

ALYSDALE HERD SCOTCH SHORTHORNS

Viscount Stamp 2d, Clipper Brawith and Count Valentine in service. Orange Blossoms, Butterflys, Queen of Beautys and Violets. Choice young stock for sale.

H. H. HOLMES, Route 28, Topeka, Kansas

Pearl Herd Shorthorns

Village Heir by Imported Villager and Orange Lovel by Victor Orange in service.

FOR SALE—Fifteen young bulls from 8 to 14 months old, reds, whites and roans. Scotch and Scotch topped. Inspection invited. Can ship on Rock Island, Union Pacific or Santa Fe Railway.

C. W. Taylor, Abilene, Kansas

SCOTCH SHORTHORNS

Bettie's Albion 399451 now for sale. Roan, weight 2,000 pounds if fat. Strong breeder. Also six bulls from 6 to 24 months old, reds, whites and roans. Write

C. E. HILL - - TORONTO, KANSAS

ANGUS CATTLE

ANGUS CATTLE AND BERKSHIRES

For Sale — Registered Aberdeen Angus cattle and Berkshire swine, both males and females for sale now. Address

GEORGE M. McADAM - HOLTON, KAN.

GALLOWAY CATTLE.

GOOD GALLOWAY BULLS

Twenty-five Extra Good Yearlings

Extra breeding and quality. Priced to sell.

J. M. HILL, SEDGWICK, KANSAS

Route 4, Box 65A

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

Holstein Cattle and Poland China Hog Sale

At Lawson, Mo., March 7, 1918

FORTY HEAD FINE WELL-GROWN HIGH-GRADE HOLSTEIN HEIFERS

All bred to freshen in April and later to a registered line-bred grandson of the King of the Pontiacs.



I am offering for sale one splendid young registered bull, Downing Pontiac Korndyke Noble No. 205622, by Downing's Pontiac Butterman No. 94805.

His dam was Downing's Pontiac Fillpail No. 284861, with an A. R. O. record, and sired by a brother to the sire of Abby Josie and six other 30 to 43-pound A. R. O. cows. If you want some good useful grade Holstein heifers bred to one of the best registered bulls known to the breed, come to my sale. All will be tested and guaranteed as represented.

I will also sell twenty-five large Poland China bred gilts and one tried Spotted Poland China sow bred to Andrews Clover.

All the gilts will be bred to Missouri Jumbo 82035 by Long Jumbo. This hog is one of the good sires of the breed. HOGS ALL IMMUNED. Sale right in town in good comfortable sale barn.

Send for catalog and come to my sale. O. W. Devine will represent Kansas Farmer.

C. L. SMITH, Lawson, Mo.

Auctioneer—Col. Frank J. Zaun.

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Public Sale of Registered Jacks and Jennets

MONDAY, MARCH 4, 1918

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DEMONSTRATOR

We guarantee more size, bone foot and weight than any sale this year or in recent years. This sale includes four of the best big herd jacks that will be sold in the United States this year, including Eastern King, Demonstrator, Rondo Jr., and Sir John, besides some young ones that will make herd headers. Mule jacks are of the same type and breeding. More blood than any herd we know of. Catalogs out February 10.

Bradley Bros., Warrensburg, Missouri

Poland China Bred Sow Sale

AT FARM NEAR CHILES, KANSAS,

MARCH 5, 1918

FIFTY HEAD

Twenty Tried Sows, all sired by Expansion King.

Thirty Spring Yearling Gilts by Expansion King and King Wonder 2d, he by Big Bob Wonder. They will be bred to King Wonder 2d and Wonder Joe by Giant Joe. Former boars used in herd

MAJOR LOOK
DESIGNER
GOOD METAL

We are selling a splendid offering and invite farmers and breeders that want a good sow or gilt to come to our sale. Everything guaranteed as represented. Catalogs now ready to mail out. Send for one and arrange to attend our sale.

C. S. NEVIUS & SONS - - - CHILES, KANSAS

Poland China Bred Sow Bob Quality Sale

At Richards, Mo., March 6, 1918

60 HEAD OF VALUABLE SOWS AND GILTS BRED TO BOB QUALITY AND SMOOTH BOB 60

We are selling some of our favorite brood sows. They are the dams of high class litters, such as Lady Wonder, the da mof the $655 boar in our last sale; Queen X. B., the dam of $910 litter; Big Wonder Lady, the dam of the senior pig show litter at Missouri State Fair 1917. All these sows are regular producers.

As attractions we will offer the two show sows, Liberty Bells and Leader Girl, both bred to Gerstdale Jones; one outstanding sow, St. Joe Gentry, bred to Big Jones. Queen Eveline and Lady X are desirable young herd sows. Lady Queen and Sweet Lady by Goldengate King. The catalog will give a complete description of the herd and herd boars. It is brum full of hog talk.

Please send for one and arrange to attend our sale.

O. W. Devine will represent Kansas Farmer.

J. R. YOUNG, Richards, Mo.

Auctioneer, R. L. Harriman

Otey & Wooddell's Duroc Sale

THURSDAY, MARCH 7, WINFIELD, KANSAS

55 - Royal Bred Sows and Gilts - 55
10 - BOARS - 10

HERD BOARS

THE GREAT HERCULES—900 pounds in breeding flesh.

CHIEF'S WONDER—A wonderful son of Cherry Chief.

PATHFINDER'S CHIEF 2D—One of the greatest sons of the mighty Pathfinder.

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Send for catalog and come.

Otey & Wooddell, Winfield, Kansas

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MARCH 6, 1918

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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 9. TOPEKA, KANSAS, MARCH 2, 1918. Established 1863. $1 a Year

MILK WITHOUT MILL FEED

Silage and Alfalfa Solve the Dairyman's Feed Troubles

By MATH. MICHELS, Peebles, Wisconsin

THERE is no question that many dairymen are hard pressed in these days of unusual high priced feed, due in part to the fact that our country became unavoidably involved into a world's war raging in Europe; a war against an enemy that would take away liberty and the pursuit of happiness from all people in this world if their plans were carried out successfully.

It is up to us dairymen to devise plans and means by which the supply of cattle, milk and its products are kept up. Accomplishing this we are not only performing a patriotic duty, but will gain financially, as without doubt dairy cattle and dairy products will continue to be in great demand after the war owing to the wholesale slaughter of all cattle in Europe.

If we sell our cows this year we will be confronted with the hardest kind of a task when we want to replace them. Good cows have been scarce for a number of years, and I believe that we have not reached the highest point when it comes to prices to be paid for good dairy cattle. Rather than sell our cows we can afford to buy feed even at a temporary loss, as the situation is full of hope and promise to those who are willing to learn the lesson which the present crisis teaches.

First of all it comes back to the low producers. A poor cow has always been a losing game. With the present high-priced feeds the loss sustained by poor cows actually becomes so serious as to drive many to the point of selling their stock.

What, then, is the proper thing to do under these circumstances? Hang onto your stock and start at once to raise good cows from bulls that are capable of producing such cows. It brings back to us as never before the eternal bull question. So long as dairymen will continue to carry heavy investments in barns and cows and then risk all on a bull of uncertain worth, just so long will dairying remain a drudgery.

My advice, therefore, is not to sell the poor herds, but to raise heifers from sires backed by good yearly milk and fat records, and then, as soon as these heifers come in milk, sell the poor cows.

A poor cow is a disappointment under any system of feeding and with the present high-priced feeds dairying with such cows may actually prove disastrous. Yet many an apparently hopeless situation may be turned to good account by skilled management of the feeding problem. Too many dairymen are still of the opinion that milk cannot be produced without the use of expensive concentrated feeds. What the present situation demands is less mill feeds and more home-grown feeds of the right kind.

To raise all the feed needed for dairying is entirely practical where alfalfa can be grown. Alfalfa hay has a feeding value equal to good wheat bran, and far too little of this hay is raised at the present time. Supply your protein in the form of legume hay—alfalfa easily leads in the class, and red cover, though quite inferior to alfalfa, I would place as second on the legume list.

After legume hay, silage is the most important farm feed. In this connection it should be remembered that the variety of corn that gives the largest yield of shelled corn will give the best returns when fed as silage. Corn with big stalks and little grain does not make the silage wanted when feeding without concentrates. Be sure that the corn is fairly well matured before it goes into the silo.

The combination of feeds, then, that produces milk the most economically, is alfalfa hay, corn silage and good pasture.

In our herd we carry some fifty head of pure-bred Guernseys, counting calves and all. For the past six years this herd has been fed on practically nothing but alfalfa hay, corn silage and pasture. The small amount of concentrates bought would only amount to from $50 to $60 a year.

I believe it is entirely practical to get along without paying a single dollar for any feed. We can sow our alfalfa with a nurse crop of barley or oats, and this will give us a little grain for variety's sake and straw for bedding. For the years 1913, 1914, and 1915 we reseeded no alfalfa fields and had no grain at all. During this time we raised alsike and sweet clover for the seed, using the chaff for bedding.

We have had very satisfactory returns from our cows for the past six years that we have caried and raised all of our stock without grain or other concentrates. Our cows and heifers in milk have not averaged below $100, and for the past year our average was $159.60 per head for the cream sold. All skim milk was fed to our calves, pigs and chickens.

Since we have been having our cows semi-officially tested for a number of years, it may be of interest to give you the fat records. All of these cows except three were born and raised in our own barn under our system of feeding. The three were bought as calves. Three five-year-old cows averaged 414 pounds of butter fat, producing 54 pounds more than the requirement to enter the advanced register; three three-year-old cows averaged 363 pounds of butter fat, producing 56 pounds above the requirement; and ten two-year-old heifers averaged 321 pounds of fat, producing 71 pounds fat more than the requirement for entering the advanced register.

Besides producing the above amount of fat, each of the above animals carried a calf from six and one-half to eight months and on twice-a-day milking.

These records, while there is nothing unusual about them, speak volumes for more economical, safer and more practical feeding. I know that much better records can be produced by high feeding of concentrated feeds, but the expense will be greatly increased.

The item of expenses is by no means the only objection I take to the high feeding of concentrates. Among other things I would mention the fact that many good cows are made non-breeders or irregular breeders, others being overfed, resulting in various troubles, even failing to enter the advanced registry, to say nothing about the extra and better labor that must be employed.

We feed practically nothing but alfalfa hay, corn silage and pasture, not only to our cows but also to our young stock, calves and horses. Out of the fifty-four head we carry this winter, all but four were born and raised in our barn and the four head were bought as calves.

We feed alfalfa the year around, also silage when we have it. When on pasture we feed alfalfa evenings and silage in the morning, when without silage we feed alfalfa twice each day at milking time. During the winter months we feed twenty-five pounds of silage in two feeds per day and not only all the alfalfa hay they will eat, but enough more so that we get practically all of our horse hay from the cows' mangers. Horses prefer to eat the stems as much as the cows do the leaves. Feeding for best results it is necessary to change to the different cuttings of alfalfa from one feeding to the next. Most of the time our stock will get hay from two cuttings each day. We find that by feeding the finest of second and third cutting for a few days the cows prefer first cutting even if coarse.

Some may say that they cannot practice a method of this kind because they feel that they cannot grow alfalfa. I firmly believe that many farmers can grow and will grow alfalfa that are not doing so now. After once getting used to feeding alfalfa hay you will find nothing to take its place.

Years ago as a student in the short course here, at farmers' institutes and conventions, in listening to lectures on the value of alfalfa by Professors Moore and Otis, I used to think that they were over-estimating the value of this plant. Since I have grown and fed alfalfa for many years I have come to the conclusion that it is simply impossible to over-estimate its feeding value.

With our system of feeding we have received fair returns from our cows both for cream sold and advanced registry records. We have bred them regularly and never milked a cow more than twice a day. The herd is in the best of health, being on the Wisconsin Accredited List, and we have not had a single case of abortion.

My experience as a student in the short course, in attending many farmers' courses and taking part in Professor Otis' farm bookkeeping, have done much toward keeping the balance on the right side of my ledger.

SILAGE, ALFALFA HAY, AND PASTURE have been almost the sole feed of the fifty dairy cattle on this farm for the past six years.

COWS AND HEIFERS IN MILK have averaged not less than $100 yearly for butter fat sold and last year's average was $159.60.

THREE FIVE-YEAR-OLD COWS have averaged in semi-official year's test 414 pounds butter fat, 54 more than required for advanced registry.

THREE THREE-YEAR-OLD COWS have averaged in semi-official year's test 363 pounds butter fat, 56 above requirements for advanced registry.

TEN TWO-YEAR-OLD HEIFERS in semi-official year's test have averaged 321 pounds butter fat, 71 more than requirement for advanced registry.

Impressive Coal Figures

Testifying before the Senate Sub-Committee, Harry A. Garfield, U. S. Fuel Administrator, announced facts concerning the nation's fuel situation that are of public concern and should especially interest persons having an available supply of wood.

Production of anthracite coal for 1917 is estimated at 84,000,000 tons, an increase of about 11,000,000 tons over 1916. Bituminous coal mined in the United States during 1917 was approximately 552,770,400 tons, or 50,000,000 tons more than the previous year. The total increase in supply was about 61,000,000 tons, but the demand increased 100,000,000 tons. Most of the extra demand has arisen since April, 1917, when the United States entered the war, and is largely for the needs of the Government, munitions plants, and public utilities supplying power to war industries.

The Fuel Administration has used its powers to stabilize labor conditions and prices so as to insure a large steady coal output for the future. But because of excessive demand, Dr. Garfield is also urging conservation of coal in every way possible and asking for a widespread substitution of wood as a fuel.

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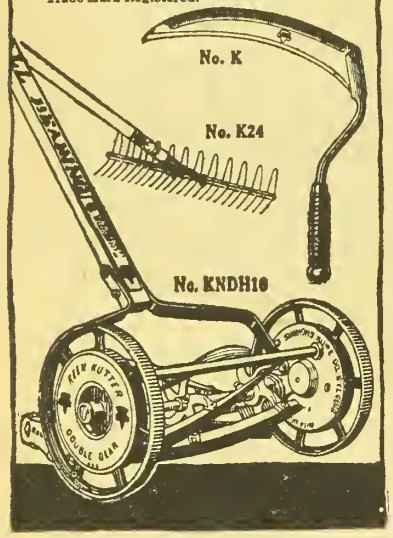

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Tractor Expedition to France

By HENRY MORGENTHAU, JR.

AMERICAN tractors—1,500 of them—sent by the United States Food Administration, will battle hunger in France. When spring comes they will be in the field.

French crop production in 1917 was more than one-third less than in the year before the war. All able-bodied Frenchmen up to fifty years of age are fighting, and though the women, children and old men have made heroic efforts to maintain the agriculture of the country on a normal basis, the burden exceeded their strength and endurance.

One acre out of every four in France now lies idle from sheer lack of man and animal power to plow, seed and harvest crops upon it. So this expedition of 1,500 farm tractors and plows with experts to put them in operation, not only will increase the French harvest in 1918, but the presence of these powerful farm machines preparing their land for crops will cheer French hearts.

French High Commissioner M. Tardieu approved the idea on behalf of the French government and we are assured that the ordering of these tractors at this time will not in the least impair the supply for our own farmers. Manufacturers have ample time to produce additional tractors for the American demand.

TRACTORS CARRIED ON NAVY TRANSPORT

The first hundred tractors were sent to France on the deck of a naval transport and the entire number will reach there in plenty of time for spring plowing.

Purchase, shipment and transportation of 1,500 farm tractor outfits to France would in time of peace be a comparatively simple matter, but today it is made difficult by war restrictions and many unusual conditions. All these obstacles have been overcome in the case of these tractors.

The tractors will operate mainly in the battle-scarred portion of Northern France which has been re-taken from the Germans. There property lines have been largely obliterated. The fields are consequently large and the batteries of tractors will be able to work most effectively. Thus in a few months food crops, especially wheat and potatoes, will be growing in French soil plowed by American tractors—soil that a few months ago was the "No Man's Land" between the great battle lines.

FRANCE SUBSIDIZES PURCHASES

The size and significance of this tractor enterprise is, however, more striking than the mere presence of American tractors in France, as the French have for several years been operating American-made tractors. With characteristic thoroughness, they have kept careful records of the work accomplished, fuel consumed, repairs and other details of the work.

Satisfied with the general results, the French government by legal enactment January 2, 1917, created a credit of $6,000,000 for subsidizing agricultural co-operative societies and groups of farmers for the purchase of tractors. In some instances the government has advanced 40 per cent of the price of the tractors to aid and encourage farmers in securing them.

The tractors and plows in this expedition are being purchased by the French High Commission with money loaned to them by the Treasury Department, and the expense of the mechanics who accompany them is being met by adding a lump sum to the purchase price of the tractors. Judging from past experience these outfits will plow about half a million acres for wheat, potatoes and sugar beets this spring, and a million acres for fall planting of wheat.

When operated in large fields, as in the reconquered zone, the tractors work in batteries of ten, preferably all of the same make. With each battery there are ten drivers, two blacksmiths, two mechanics, one cook, and a manager in charge who has a clerk to assist him. In addition, there is a field man who lays out the work for the tractors; and several motor trucks which serve as workshops, or for hauling provisions, repairs, fuel and supplies.

WOUNDED SOLDIERS PLOWING LAND

These batteries of tractors are subject to the orders of the Minister of Agriculture, notwithstanding the fact that 75 per cent of the operators are soldiers. The problem of getting competent operators and mechanics has been one of the most difficult to solve. Mechanics at present employed on the batteries of tractors either are men relieved from military obligation, wounded men who have not regained their strength, or inexperienced young men below draft age. The Agricultural Service also has sought to employ as mechanics cripples from the re-education schools, who have studied mechanical courses for a few weeks.

The United States Food Administration's tractor expedition will include a limited number of experienced mechanics, who will help supervise and instruct the French in the operation of the machines. It is planned to conduct American lines and to organize the 150 new batteries in the shortest time possible and also to assist the French Minister of Agriculture in distributing the tractors and operating them economically.

In addition to the beneficial effect the machines will have on the morale of the French people, the land plowed by the tractors in 1918 is expected to produce 1,500,000 tons of sugar beets and potatoes and 450,000 tons of wheat; and this increased production in France, amounting to nearly 2,000,000 tons of food, will obviate the necessity of sending about 400 large shiploads from America through the perilous submarine zone.

EDITORS NOTE.—The idea of reinforcing the waning agricultural strength of France with American tractors originated with Henry Morgenthau, Jr., who writes this article. Mr. Morgenthau, Jr., is the son of Henry Morgenthau, former American Ambassador to Turkey. The Food Administration has designated Henry Morgenthau, Jr., to follow the machines to France and put them in operation. This article written just before Mr. Morgenthau left for Europe, will be followed later in the season by an account of how the tractors were managed and what they accomplished.



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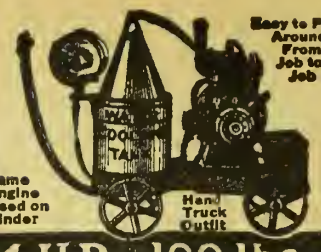

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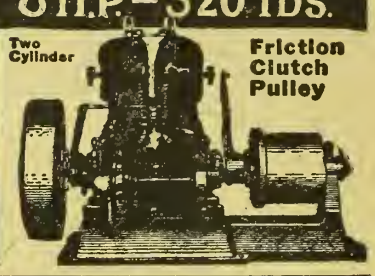

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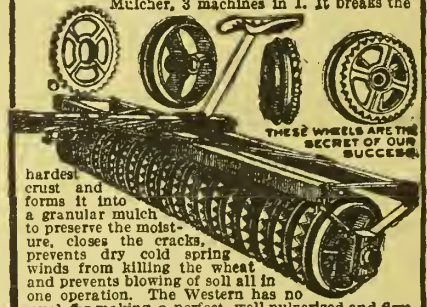

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WINTER-KILLED WHEAT

We are again up against the proposition of having to reseed to some other crop, land where wheat has winter-killed. It is of course too early to know just what has happened to the wheat, but conditions are none too good at the present time. With the assurance that wheat will at least bring $2 a bushel, a poorer prospect can be left than ordinarily. We would not advise being too hasty in plowing up an apparently winter-killed field. Many are, however, beginning to ask themselves what is the best thing to do where wheat seems to have failed. Spring wheat is being considered by some, also oats. Oats did unusually well over much of Kansas last year and for that reason seed will probably be easy to get. This and the fact that the oats did so well last year may lead some to put oats where they cannot as a rule be expected to make much of a crop in average seasons.

Spring wheat is not a success in Kansas, and while the Food Administration is now making a nation-wide appeal for increased sowing of spring wheat, we would advise against giving it much consideration in this state. Barley is probably a much safer crop for the western section at least than either the oats or spring wheat. The grain from this crop has high feeding value and adjustments are being made in some of our mills so it can be used as a bread grain. On page 5 of this issue is a special article on barley which gives its exact status in Kansas, where it has been grown, yields obtained, and in addition offers some helpful suggestions on handling the crop.

Difficulty in getting seed will enter into the question of sowing barley. The county, district, or emergency agricultural agents can be of great help in working out co-operative plans for getting seeds of various kinds, and their services should be sought. A single farmer who might wish to plant barley would be greatly handicapped in getting seed without co-operating with others in his locality who also might wish seed.

We would also urge that in planting barley or oats in the West at least, the most careful consideration be given to the condition of the soil at planting time. In the western section neither oats nor barley can be expected to do much if planted in ground holding no reserve of moisture when the seed is sown. Many failures in oats and barley can be attributed to planting them in fields where no reserve of moisture has been stored during the months preceding the sowing of the crop.

NATIONAL FARMERS' ASSOCIATION

The National Farmers' Association, which held its third annual convention in Kansas City last week, is not a new farmers' organization, according to its president, C. D. Resler, Chanute, Kansas, but simply a conference or public forum for farmers representing all the organized groups from different sections of the country.

Naturally most of the discussions hinged on the war, the part the farmers are taking in it, and the difficulties with which they have to contend. There was no cut and dried program, although several special speakers addressed the convention. The fullest opportunity was given to all those present to have the floor and present such ideas as they had.

The effect upon meat production of having animals sell on the market for less than the cost of feed consumed was a subject taken up in considerable detail. Just at present the relation of pork prices to corn prices is a matter of much concern. In the resolutions passed during the closing session it was held that the $15.50 price on pork for average packers' droves at Chicago was out of line with the cost of production and a request was made for a readjustment. Another resolution protested against any further fixing of prices on farm products until prices of things bought by the farmers are regulated, and also asked that all price-fixing committees dealing with farm products be composed of more than 50 per cent actual farmers. A strong protest was also made against the continued use of grain for the making of liquors. Liberty bonds and thrift stamps were recommended as investments for farmers. The county farm bureau was strongly endorsed, likewise the election of farmers to Congress and the Legislature.

The association also adopted a resolution favoring a minimum price of $2.50 a bushel on wheat during the period of the war and demanded that the prices of meat animals be established on the basis of the prices of feeds used to produce them. It was also urged that unreasonable profits by retailers be curtailed by government regulation.

Co-operation in marketing farm products is the big aim of this movement. An office has been established in Kansas City, and a number of farmers at the meeting told of selling grain through this office with most satisfactory results. The spirit of co-operation is in the air, and it was pointed out in the course of the discussion that the men who go to Europe will return filled with the idea of co-operation as it has been worked out in European countries.

C. D. Resler, of Chanute, was re-elected president. E. P. Smoot, of Sturgeon, Missouri, was elected secretary-treasurer. A board of directors was also elected.

UNCLE SAM BUYS HORSES DIRECT

There has been considerable criticism because the government horse buyers have purchased animals only through contractors. The Government needs a great many horses, but apparently army officers are helpless in initiating any movement that would bring them into closer touch with those who have horses to offer.

Last week representatives of the Quartermaster General's office visited the office of the State Live Stock Registry Board in Manhattan and presented an appeal for help in interesting farmers in the matter of purchasing direct. They stated that an army officer is prohibited by law from taking part in any publicity campaign or propaganda of this kind. Some plans were made and Dr. C. W. McCampbell, secretary of the Live Stock Registry Board, is urging that farmers take advantage of the opportunity to meet government inspectors direct. On page 9 of this issue appears an article giving descriptions and prices of the horses and mules desired and further details of the plan.

FARMERS BEHIND GOVERNMENT

We do not like the use of the term "exemption" as applied to the classification of men for war service. The selective draft law implies the "selection for service" of every man in the country. No one is exempt from his country's service in this time of strife. The first call for men was so hurriedly made, because of the great need for a big army in training at once, that the principle of the law could not be made fully operative as it was intended.

While some may have been led to believe that farmers generally are asking for exemption, it has not been our observation, from any discussions we have heard of this subject in farmers' meetings, that farmers are asking or claiming exemption as a class. It is a privilege to serve the country from which we have received so many blessings. Some must of necessity serve in the trenches, whole others must strive to keep them supplied with everything they need to make them effective and give them every chance possible for their lives. It would be to our everlasting shame if our boys who go to the trenches should come home and charge us with failing to do our part in giving them the chance that is their just due in this great conflict. Shaking with emotion so he could hardly speak, T. E. Reed, a farmer of Davies County, Missouri, implored those in attendance at the National Farmers' Association meeting held in Kansas City last week to rally to the support of the Government. He said he had earned a rest, but he and his wife could get into the harness and do their share. He said:

"We must win this war. I can work, and I am going to work. We can raise enough on our farm to at least feed the two strong young men we have given Uncle Sam, who are now at Funston ready to go to France. Now you fellows who have no boys in the army as I have, get busy and see to it that no other man and woman's son goes hungry because you have failed to do your duty. Let's raise hogs and wheat and corn and simply cover Uncle Sam under a pile of provisions in 1918. Let's demand that we have cars to carry our products and that profiteers and middlemen be eliminated and forced to quit taking their toll of profits from the crops we raise."

It is gratifying to note that the district appeal boards sitting in Topeka and Wichita are granting deferred classification to farmers who are managing heads of farms or experienced in the raising of crops which will help to win the war. The appeal boards are even more lenient in this respect, exempting every man from army service who claims deferred classification because he is a farm hand. They are holding back those who can be of real help on the farm in raising crops, but are not permitting any to get by on the mere excuse of being a farmer unless it is very apparent they are especially skilled and in position to be of greater value in producing crops than in shouldering arms.

TRACTORS TO SAVE LABOR

During the farm labor discussion at the Board of Agriculture meeting last month, Dr. E. V. Wilcox, of the Federal Department of Agriculture, was asked if tractors were practical for the small farmer. The Farm Management Department in which Doctor Wilcox works has made a careful study of the tractor situation, but he declined to go extensively into the economics of the tractor because he did not have the figures at hand. He did state, however, that he knew of several communities that are now combining and forming crews for the operation of tractors in a co-operative manner. He expressed a belief that it probably would not pay to get an expensive tractor for one small farm. In New York State the State Council of Defense bought a number of tractors and put them to work in the fields.

Such tractor crews as suggested by Doctor Wilcox cannot be organized to cover a very large territory, because two men are likely to want their work done the same day, but with a little patience many of these points can be adjusted. The labor-saving possibilities of changing our cropping systems with reference to saving labor and using more power should be seriously considered in the present emergency. It is evident that fewer men must be enabled to perform more actual work in crop production. We have talked in an academic manner for a number of years of the advantages of arranging our cropping systems to use labor more efficiently, and all have agreed that it was a good thing to do. It looks now as though we had got past the talking stage and would actually have to get busy and do it.

IMPLEMENT REPAIR WEEK

The man who habitually plans his work in advance does not need to be reminded that it is a most expensive proposition to wait until a piece of farm equipment is needed before putting it into condition for work. The time to do repair work is during the winter season. When a tool is put away for the season it is an easy matter to make note of what must be done to it in the way of repairs. If this is omitted it passes from the mind and too often is not thought of again until the machine is pulled from the shed to be used in the field.

While we hope most of the readers of KANSAS FARMER have taken the "stitch in time" as regards the various farm implements, we will call attention to what is being announced as Implement Repair Week, March 4 to 9. If the repair work has not already been done, it cannot be delayed longer without there being danger that the tool will be needed before the necessary new part can be obtained and put in place. An abnormal demand for farm machine repairs is expected and advance information from the metal working industries indicates difficulty in promptly supplying parts, especially those of "malleable iron and steel," unless the bulk of orders are placed early. To keep the machinery in the field at the time most needed is of the greatest importance and if the repair work has not already been done we would urge that this special repair week be observed.

There is a certain amount of virtue associated with doing a thing when everyone is thinking, planning, and working along the same line, and we would commend this idea of subordinating everything else to this one object next week; namely, that of putting every piece of equipment on the farm in perfect repair for the season's work.

The various grain smuts cause very serious losses. It has been estimated that, taking the United States as a whole, this runs into millions of dollars. Demonstrations in smut control are to be given this year all over the country. The extension division of the Kansas Agricultural College, through the office of plant pathology, is handling the situation in this state. The Government will also furnish five or six men who will assist in giving demonstrations in every county in the state that is growing wheat or barley. A new and more simple method of treating oats for smut, known as the dry formaldehyde treatment, is being recommended for the first time this year. This method is described on page 7 of this issue.

HARRIS GOES TO ARIZONA

N. L. Harris, who for the past eight or nine years has been superintendent of the Kansas Agricultural College poultry farm, has resigned to accept a position as emergency poultry specialist in Arizona. Mr. Harris deserves great credit for the development of the college poultry plant, and his many friends among the poultrymen of the state will be sorry to learn of his leaving. Harold Amos, former labratory assistant to Prof. H. H. King, of the chemistry department, is the new superintendent of the plant. He had been assisting in the poultry department for several months.

It is possible to be overcome with gas in your own garage or workshop if you allow the exhaust from a gas engine to accumulate, and breathe it for any length of time. Don't take chances. You may need only three or four good lungfuls to put you out. The first effect is to make you a little dizzy, then before you know it you are overcome and you're lucky if your legs hold up to get out of the place. Unless someone happens along to discover your predicament and help you out it may go hard with you—in fact, it is almost sure to do so. This has been the experience of city people since closed garages came in style, and now since farmers are building tight garages and putting gasoline engines in basements to run electric lighting plants and water systems there are instances of gas poisoning in the country.

CO-ORDINATE FARM SOCIETIES

Competition Between Farmers' Organizations Weakens Their Power

By EDW. C. JOHNSON, Before National Farmers Association

FARMERS have felt that organization is necessary to progress and ever since Washington's time they have been busy organizing associations of one kind or another, many of which have run their course and disappeared. The spirit of organization, however, has been present at all times. "Everybody else is organized and therefore farmers must organize," has been the plea of practically every organization trying to increase its membership and of every professional organizer whether he is working for his own ulterior motives or for the good of the farming population.

The progressive man is expected to belong to a number of organizations and it often becomes a question with him as to what he is to do. If the Farmers' Union, the Grange, the Live Stock Breeders' Association, the County Fair Association, and the Co-operative Elevator Company all invade his community, is he to be a member of all of these or of only one or two? To attend all the meetings of all these associations would take as much as twenty afternoons or evenings a month in meetings. Those in attendance would find also that at two-thirds of these, the same subject would be under consideration.

While I know of no farmer who actually belongs to all the organizations that I have mentioned or to as large a number, I do know that twelve men who came together in a Kansas community to consider what could be done to unify the life of the community, represented forty-eight organizations or "causes" all of which took a share of their time. Think it over—forty-eight separate "causes" in one country community! Is it any wonder that one often hears the complaint that farmers are not organized? Is it any wonder that many farmers' organizations are complaining of no live interest in their business, no attendance at their meetings? Is it any wonder that organizations as powerful as the Grange, the Farmers' Union, the Farmers' Institute, should feel the results of this keen competition for the farmer's time? Recently I saw an item written by a patron for one of our farm journals, as follows:

> One reason why many granges do not efficiently represent agriculture is because there are so few representative farmers that belong. I often wonder if farmers outside the order read the Grange page. If they do, I wish to ask them for their own sakes and for the sake of the community where they live, to join the Grange. We need young men and women in the Grange. We need boys and girls on the program in the lecturer's hour, we need entertainment, recitations, dramas, essays, and music and all that, but we must never forget how much we need progressive, broad-minded, intelligent farmers. The Grange will never adequately represent agriculture until we have more of them inside its gates.

This same letter might have been written by a member of the Farmers' Union, the Society of Equity, the Farmers' Equity Union, or by a member of the Farmers' Alliance in days past. The organization was suffering not from lack of organization but from the disorganization of an over-organized community where everyone wanted to be an officer and there were no privates. The demand upon the farmer's time in that community, whose farm has and should have the first hold upon him, was all too great.

The development of numerous organizations is the natural result of the great diversity of interests on the farm. There are the economic, the social, and the religious interests, with numerous subdivisions of each. Each one of these sooner of later organizes around itself a group of individuals who have the desire to give this interest special emphasis. An organization is formed. Others follow and numbers multiply rapidly. No one organization stands for the whole group. Competition becomes general, the sense of unity in the community is lost and decline and final extinction of some organizations is the result.

MANY COMPETITIVE ORGANIZATIONS

That I am not describing theoretical but actual conditions is very clear if we examine conditions in most of our states. Let us take Kansas as an example. We have a number of strong organizations, each of them with much to command. Most of them are attempting and often doing good work, yet they overlap very greatly in their efforts and in their competition for the farmer's time. One of the oldest and best known of these—the Grange, organized in 1867—is becoming stronger in Kansas every day. Once it was the dominant farmers' organization in the nation. Then comes a period of decline and the Grange disappeared almost entirely south of the Mason and Dixon line. While it is still wanting in the Far West, it is strong in the East and is rapidly gaining strength throughout the Central West. The Grange emphasizes principally educational and social features, but in addition is devoting attention to co-operative buying in carload lots and to co-operative insurance. Its greatest emphasis in a business way is upon the latter feature. Running parallel with the Grange in many counties is the Farmers' Educational and Co-operative Union, more commonly known as the Farmers' Union. This organization, strong in the South among the cotton growers, has had comparatively little strength in the Northwest and not any in the East, but is branching out in the Central West and to a great extent competing with the Grange. While its principal emphasis is upon buying and selling, and that of the Grange upon educational and social features, the latter also are emphasized in the Farmers' Union. In fact, some of the unions, particularly those that have had disagreeable experiences in some of their co-operative work are now featuring the development of social life and education exactly as the Grange is doing.

The Farmers' Equity Union, with headquarters in Illinois and membership in Kansas and Nebraska, is developing in the territory already covered by the Grange and the Farmers' Union, and to a very large extent is duplicating their efforts. Its main purpose appears to be identical with that of the Farmers' Union.

The Anti Horse Thief Association, once a powerful organization in the Central West, is still doing a great service in enforcing the law and as a police organization. It also is emphasizing to some extent the social feature and in that respect duplicates the activities of the Grange.

The Society of Equity, also active in Kansas, devotes its energies largely to grain marketing. The Farmers' Institute, found in every county in the state and organized primarily for educational purposes, in some places competes with the Grange as a social organization. More recently the Non-Partisan League avowedly organized to unify members of all farmers' organizations and to control the government and warmly welcomed in the field by the Socialists as promoting some of the things for which they have stood for many years. It is militant, crowding into and covering the fields of other organizations which in some instances resent this advocate of class control of government machinery and a form of state socialism.

What is to become of these organizations in the future and what power will they have? Judging by the history of farmers' organizations in the country in the past, they will either co-ordinate their program through some form of central council which will give a sense of unity and solidarity to farming people, or one by one they will disappear from the field and their places will be taken by others.

Those who have followed the history of such organizations as The Wheel, Farmers' Alliance, the Northwestern Allianee, the Farmers' Mutual Benefit Association, and other organizations more or less distinctly of farmers, recognize that an organization built around a specific cause or to combat a specific evil, which fails to take into account the work of other organizations or runs in keen competition with them, eventually disappears while its object may or may not have been attained.

On the other hand, all of us recognize that organizations are essential to progress. If, however, they are to be a power in determining the affairs not only of our own communities but those of our state and nation, there is need of co-ordination and unification of their efforts. How this is to be brought about is a live problem and a large one. The national need, the emergency of war and the re-construction period which is to follow probably will compel us to solve it more rapidly than many of us have thought possible. Certainly at a time when such vast movements in the co-ordination of public service corporations as the placing of all railroads under one director-general is accomplished almost over night, nothing seems impossible.

FARM BUREAU CO-ORDINATING FORCE

How is the problem to be solved? Let us imagine that all of us were placed in an agricultural district absolutely new to us, where the farms were laid out, homes built, and everything was ready for taking up farming and developing a community life. How would we proceed?

Our farms naturally would receive our first attention. We would want to get acquainted with them and commence our farming operations. After these were in running order, we would begin to develop the organized business and social life which should exist in every farming community. In our community of farmers, however, there would be perhaps five or six who had been members of the Grange, five or six members of the Farmers' Union, three or four of the A. H. T. A., two or three members of the Farmers' Equity Union, a dozen or more members of the Farmers' Institute, two or three members of a co-operative elevator company, and so on. Would we immediately desire locals of all these different organizations, or having had experience in over-organizing communities would we want to do something better than that? Don't you think we would decide to call a conference where we could discuss the local situation fully and then appoint a committee to outline plans for one strong farmers' organization with such committees or subsidiary associations as would handle all the diverse needs and requirements of our new community? I believe we would follow the latter plan.

As this is not possible, however, what can we do and what shall we do to bring order out of the present chaos of a multitude of farmers' organizations? It seems to me that even if we have not recognized it as such, the movement on foot throughout the country to bring about the co-operation of all the associations in our counties and commities through central councils or bureaus, is a long step toward the solution of the problem. These community councils and county bureaus known as agricultural improvement associations, farm improvement associations, farm bureaus, or by some other name, are springing up all over the North and West. Those organizations, even if not at first thought of as co-ordinating the efforts of a number of organizations, often do so without destroying the individuality of them. They have as members, farmers, farmers' wives, and such townspeople as wish to join. Usually in their membership are representatives from every organization in the county and their central committees known as executive committees and composed of representatives from each township or community, in many counties are slowly but surely co-ordinating the efforts of the associations already in the field. They are not attempting to supplant these organizations but are endeavoring to emphasize one especially for each to keep each organization informed of what the other is doing and to give a sense of unity to the whole. As an example, one farm bureau in Kansas in a county where the Grange is strong, is seeing to it that most of the educational work is done through the Grange of the county, and the co-operative purchase of supplies is made through special committees. In another farm bureau county, where the Farmers' Union is strong, the co-operative buying and marketing activities are handled by the Farmers' Union and the educational work by the Farmers, Institute.

The various phases of agricultural production are emphasized by these bureaus through breeders' associations, dairy associations, or crop improvement associations, related to the parent or farm bureau organizations, at least to the extent that its officers are farm bureau members. These associations may meet once or twice a year, devoting all the time at their meetings to their special subject, instead of meeting twelve or twenty-four times a year and giving attention to fields other than their own. In this way each meeting may have a difinite purpose, the meetings of each group will be few, and one man interested in the subject emphasized in several groups may have membership in each of them and yet not over-tax his time in attendance at too many meetings. Moreover, questions with reference to any one specific thing can be answered by the leader of that group. For instance, inquiries in regard to breeding which may arise in the county can be taken up with the chairman of the breeders' association who ex-officio is the chairman of the live stock committee of the farm bureau. Questions with reference to co-operative buying are taken up with the business head of the Farmers' Union who ex-officio is chairman of the committee on co-operative purchase and marketing. Matters pertaining to education are taken up with the Institute or the Grange, whichever is dominant. In this way each organization acts as a committee of the larger council or bureau, maintains its specific field and does a specific piece of work, and the other organizations learn to depend upon that organization for that work. The county council or farm bureau, therefore, becomes the co-ordinating agency for special groups represented by those organizations present in the field. In no sense does it displace these groups, and in no sense does it weaken them. On the other hand, it increases their efficiency and their power in the community, and where there is need it brings new groups into being as strong working committees of the co-ordinating council.

ORGANIZATIONS ENDORSE FARM BUREAU

The value of this work of co-ordination is recognized by many of the progressive organizations. The Kansas State Grange, for instance, at its recent annual meeting endorsed the farm bureau movement as an aid to agriculture in war times. The Farmers' Union at its last annual meeting did likewise. National and state governments also have recognized the great value of the co-ordination of effort which well organized county bureaus produce, and for this reason actively promote their formation. Both nation and states acknowledge that assistance rendered to such organizations is a sound investment. Therefore, we have federal and state appropriations which may be used for the employment of men and women to serve the county

(Continued on Page Seven)



LIVE STOCK BARN, KANSAS AGRICULTURAL COLLEGE.—SILAGE IS VERY ESSENTIAL PART OF RATIONS FED TO COLLEGE LIVE STOCK

Barley for Spring Seeding

By S. C. SALMON, Professor Farm Crops, K. S. A. C.

SPRING wheat is not a safe crop in Kansas. Barley is more dependable and will give larger yields on the average. Spring wheat can be grown only in extreme Northwestern Kansas, and even there barley gives larger yields producing from fifty per cent to two hundred per cent more than either of these crops. In other parts of the state, spring wheat is almost certain to be greatly injured by hot winds, drouth, and rust. Occasionally, as in 1917, fairly good yields will be obtained, but nine years out of ten it will be practically a failure.

The present outlook for winter wheat in much of the state is not favorable. Because of dry weather last fall and a cold and almost snowless winter, many wheat fields will not come through the winter in condition to make a crop.

As far as possible such land should be replanted. In the extreme western part of the state it may be advisable to summer fallow some land for next year's crop. This is especially desirable if early spring rains do not occur. Unless the ground is fairly well supplied with water to begin with, no spring grain is likely to make a crop in Western Kansas. The great need, however, is for a big crop this year, and wherever there is a reasonable chance of success grain of some kind should be sown.

Kafir and sorghum crops are usually considered the most dependable spring crops for Central and Western Kansas and corn for Eastern Kansas. As large an acreage of these crops as possible should be grown, but it is not advisable to plant a larger acreage than can be cultivated. Labor will be scarce, and it will not be possible to greatly increase the acreage of these cultivated crops. For this reason, a small grain should be sown to replace a part of the winter wheat which fails to survive the winter.

Records of average yields and experimental tests show that barley is more dependable and will give larger yields than spring wheat, flax, emmer, or oats, except in the eastern part of the state, where chinch bugs are numerous. Chinch bugs seem to prefer barley to other small grains, and damage it more when present in sufficient numbers. Where chinch bugs are numerous, oats usually prove better than barley. There were not many chinch bugs in 1917 and, only in a few localities, is there likely to be many in 1918. Whether they are likely to be a menace this year can be determined by examining the bunch grass in low places and in fence corners. It is in such places that chinch bugs pass the winter. If large numbers are found, they will likely prove troublesome. In such localities, barley should not be sown. If only a few or none at all are found, there will be little damage from them.

The map on this page shows where barley has been grown during the past ten years, each dot on the map representing 500 acres. Table one shows the average yield of barley, oats, and spring wheat for five years, 1911 to 1915, in representative counties of Western Kansas. It will be seen from the map that barley is generally grown only in the western half of the state, and mostly in the northwest corner.

Table two gives the yield of barley and other spring grains in experimental tests at Manhattan and McPherson, in Eastern and Central Kansas, at Garden City, Hays, Tribune, and Colby in Western Kansas, and at Akron in Eastern Colorado, about sixty miles west of the northwestern corner of Kansas.

In all tests, barley has given much higher yields than spring wheat and higher than oats in all tests except at Manhattan. In three years at Manhattan, chinch bugs destroyed the barley crop or reduced the yields very greatly. In other years, barley gave considerably better yields. General farm experience also shows that barley is a more profitable crop than spring wheat in all parts of the state and generally gives higher yields than oats except when chinch bugs cause considerable damage.

TABLE I.

Counties	Ave. Yield per Acre, Lbs. Oats	Barley	Spring Wheat
Barton	724	1,100	...
Cheyenne	600	858	488
Comanche	677	695	...
Decatur	298	738	...
Edwards	709	959	...
Ellis	650	415	...
Finney	745	1,023	...
Ford	648	932	...
Graham	482	1,571	...
Gray	601	995	...
Haskell	458	802	...
Hodgeman	622	857	...
Kiowa	645	738	...
Lane	426	765	....
Logan	500	973	508
Meade	513	728	...
Norton	473	394	...
Pawnee	872	985	...
Phillips	638	965	...
Pratt	714	842	...
Rawlins	451	805	439
Rush	547	689	...
Scott	592	687	...
Sheridan	488	712	307
Sherman	595	958	467
Thomas	329	690	322
Trego	614	731	...
Wallace	563	1,160	250
Wichita	594	605	240

An additional reason for growing barley is the fact that it can be used very successfully as a substitute for corn in fattening hogs, or it may be ground and fed to horses. For the latter purpose it is not as good as oats or corn. It may also be milled and used in mixtures with wheat flour for bread. Barley straw is not as good as oat straw for feed because of the long, stiff, and strongly barbed beards, which often injure the mouths of animals that eat it. The straw of beardless varieties is practically as good as oat straw, but, unfortunately, beardless varieties are invariably low yielders.

TABLE II—EXPERIMENTAL TESTS.

Place	Years Tested	Yield per Acre, Pounds Spring Wheat	Oats	Barley
Manhattan	11	468	1,507	1,501
McPherson	4	806	1,203	1,454
Garden City	10	270	292	386
Hays	12	238	538	626
Tribune	1	2,232	1,770	3,134
Colby	2	960	856	1,459
Akron, Colo.	6	652	704	893

The common six-row barley gives the best yields in most parts of Kansas. In a seven-year test at Manhattan, the best variety of common six-row barley produced nearly twice as much grain as a variety of two-row barley and about 25 per cent more grain, pound for pound, than beardless and hulless barley.

In a four-year trial at McPherson, the best six-row variety averaged 30.3 bushels as compared with 24.8 bushels for the best two-row variety, and 15 bushels for the best hulless barley.

In a single test at Tribune, the common six-row variety gave about three bushels more grain than the two-row. At Akron, Colorado, the yields of the best varieties of two-row and six-row barley were practically equal.

Among the best varieties of six-row barley may be mentioned Common, Manchuria, Odessa, and Coast, or, as it is more commonly known, "California feed."

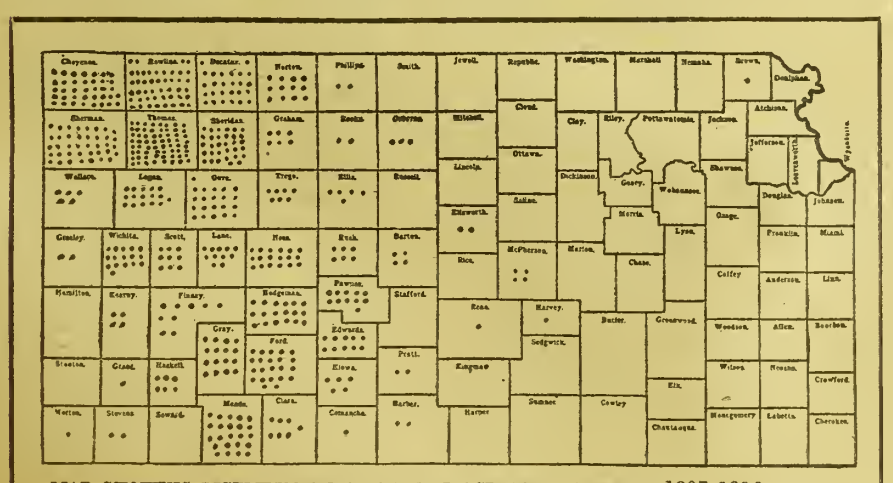
Ground for barley is prepared as for oats. In a test conducted at Hays, Kansas, corn ground prepared by disking gave 1.6 bushels more than ground that was spring plowed. Fall plowing barley stubble gave 3.7 bushels more than spring plowing.

Barley should be sown as early in the spring as the condition of the ground will permit. If sown late, it is likely to be injured by heat and dry weather.

Two bushels to the acre is a common rate to seed in Eastern Kansas. Farther west, less is sown. In Western Kansas, five to six pecks to the acre is sufficient.

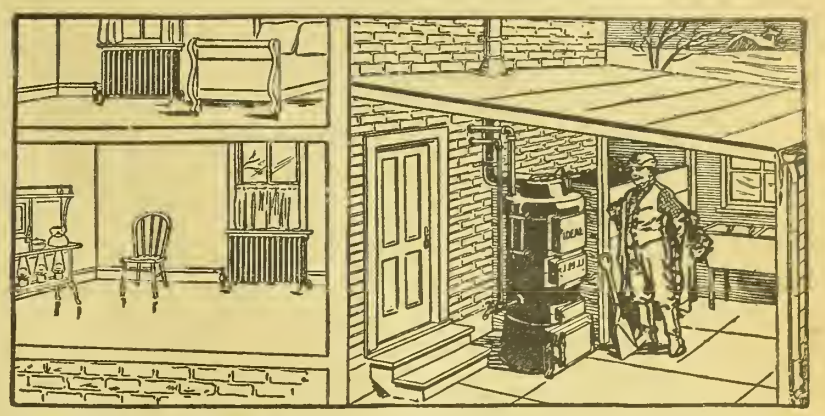
Seed barley is scarce and difficult to obtain. Very little was raised in Kansas in 1917. Some was raised in Eastern Colorado but, unfortunately, most of it has been fed.

The only available supply appears to be in North and South Dakota, Minnesota and contiguous areas. Barley raised in these states can be successfully grown in Kansas, but the freight and commission charges make the price high. The same argument applies, of course, to spring wheat. Where it is a question of which of these crops to grow, the choice should be barley. Where oats are a more profitable crop and seed can be easily obtained, as is the case in most of Eastern Kansas, probably this crop should be grown as a spring grain rather than barley unless one is so fortunate as to be able to secure barley seed at a reasonable price.



MAP SHOWING DISTRIBUTION OF BARLEY ACREAGE.—AVERAGE 1907-1916.—EACH DOT FIVE HUNDRED ACRES OR LESS

Have IDEAL heating in any farm home



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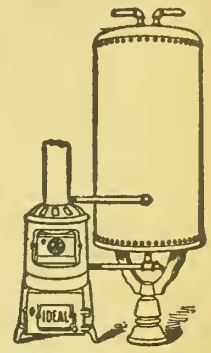

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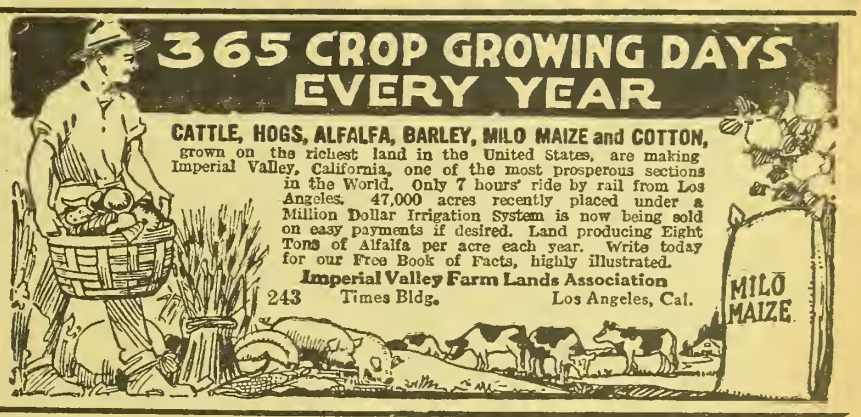

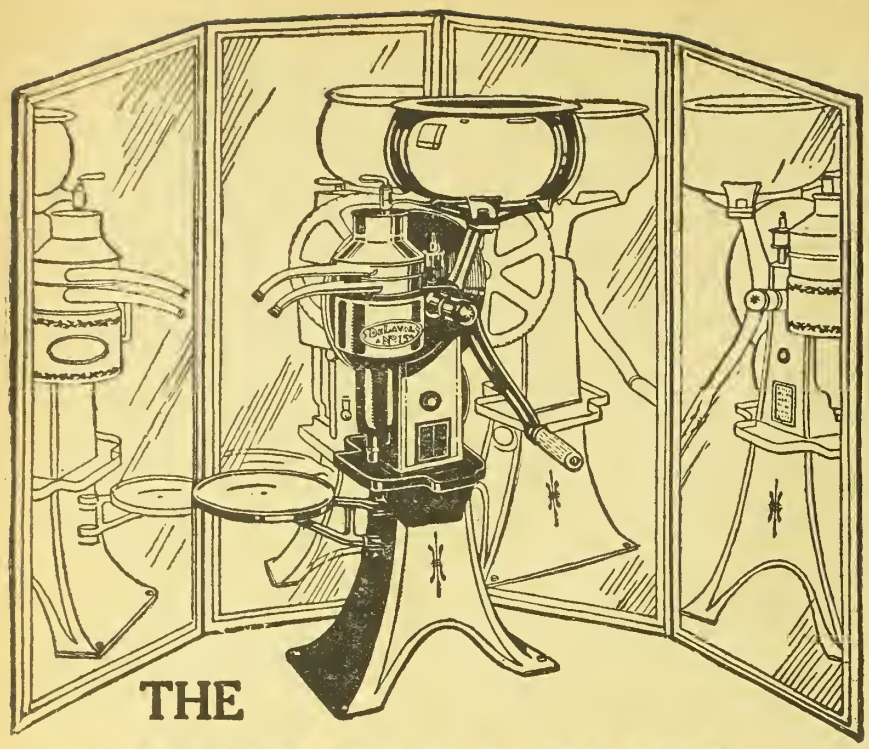

THE

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CREAM SEPARATOR
Every Reflection Shows Perfection

VIEWED from every angle, the De Laval is distinctly in a class by itself. It has a business-like appearance. It looks as if it were well made, and it is. It looks sturdy, and it is. There is no make-believe about it anywhere, from the wide-spreading substantial base to the solid, seamless, symmetrical supply can.

It's no wonder that big dairymen and creamerymen who have for years made a careful study of dairy methods and machinery refuse to consider any other separator but the De Laval. They know that from every angle—clean skimming, ease of operation, freedom from repairs, durability—there is no other cream separator that can compare with the De Laval.

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Order your De Laval now and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash or on such liberal terms as to save its own cost. See the local De Laval agent, or if you don't know him, write to the nearest De Laval office as below.

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Bowl a *sanitary marvel* easily cleaned. Whether dairy is large or small, write for free catalog and monthly payment plan. *Western orders filled from western points.*

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$20.00 Sweep Feed Grinder. | **$26.00 Galvanized Steel Wind Mill.**



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620 E. Seventh St., Topeka, Kansas

Do not fail to read the article on the front page. This tells how a bright young farmer up in Wisconsin produces milk at a profit without feeding much, if any, grain. The big lesson in this story is that silage and alfalfa are almost essential to profitable dairying. It is necessary to have good cows, but these two feeds, which can be produced on nearly every farm in Kansas, should be depended on as the principal feeds for producing milk. A dairy farm without a silo is not fully equipped.

The Missouri State Corn Growers' Association has set $5 a bushel as a fair price for pure seed corn of standard varieties. This action was taken to thwart efforts of speculators and profiteers who were taking advantage of the seed corn shortage to demand exorbitant prices. In view of the war emergency and the shortage of good seed corn, the association believes that a price of $5 a bushel is fair for well selected, tested seed. Farmers who are requested by profiteers to pay a higher price will do well to take notice of this action by the corn growers of Missouri.

KANSAS FARMER DAIRY CLUB

Fall or Spring Freshening

PROBABLY the boys and girls of the Dairy Club would rather have the heavy end of their dairy work come in the spring and summer when they are not busy with school work. Cows seldom do their best, however, during the summer season. It is really a more trying period than the winter season, or at least on farms where the cows are provided with good warm shelter and have plenty to eat.

On farms where it is not necessary to have about the same amount of milk at all times, the best way to dairy is to have the cows freshen in the fall. There is nearly always a heavy production of cream in the spring and early summer. This is because a lot of people do not pretend to milk cows except when the pasture is good. This results in a heavy production of cream in the spring and early summer and of course the prices are lower. A study of butter fat prices shows that the high period is from November to April.

On most farms the work is not so pushing during this period because there are no crops to plant or harvest. There is more time to milk cows, feed and care for them, and care for the cream and skim milk. You who are milking cows that freshened in the fall will find them beginning to fall off in milk production in the spring because they have passed the first flush period, but when they get out on fresh green pasture they will take a new start, and this extra milk can be produced at low cost because the grass is then at its best. When the flies get bad and the weather becomes hot and the pastures dry up, your cow will be about ready to go dry and can rest during this trying period. Unless you study the yearly records of cows you would not find out some of these things. The facts are that the cow freshening in the fall will actually give more milk in a year than the one freshening in the spring if provided with good shelter and well fed. In addition the cream produced during the fall and winter season will be worth more per pound.

We are calling these things to your attention because, even though just at present it may seem a little difficult to handle the heavy end of your dairy work at the same time you are doing school work, in the long run this plan of dairying where cream is sold will be the most profitable.

Alfalfa Not Good for Calf

Harold Bentz writes that his cow is doing very well now, but he has just lost his youngest calf. He is milking the same cow he milked in his first year's work in the Dairy Club. He says:

"When my calf was about two weeks old I let her have all the alfalfa she could eat. She would just eat and eat and never seem to get enough. Then I tried shutting her away from the alfalfa and fed her oats and bran, skim milk, and a little alfalfa. She would lie down and could not get up herself, and a few days ago she died."

Alfalfa is not a good feed for young calves. There is no better roughage to feed milk cows or calves after they are several months old and have been weaned from milk. When they are young and getting skim milk they do not need the protein which the alfalfa contains because they get plenty of this in the milk. What they need is something to take the place of the butter fat, and the kinds of feed to supply this are corn or oats, and for hay nothing is better than clean, bright prairie hay. This does not contain much protein and will never cause scours, as alfalfa will. Alfalfa is nearly always loosening in its effect on the young calves, and if they get to scouring it is sometimes very difficult to stop it. If you wish to be really kind to your young calves, do not give them alfalfa hay, even though they do seem to like it.

Ration to Feed Cow

Floyd Gerardy, a Dairy Club member in Lyon County, asks for a ration to feed his cow, using corn and cob meal, oats, and bran. He asks if he should feed cottonseed meal, and if so how much. From his milk and feed records we find that his cow was giving about twenty-six pounds of milk a day at the time he wrote. He was feeding her twelve pounds of alfalfa hay a day and for grain two pounds of oats, two pounds of bran, and three pounds of ear corn broken in small pieces.

The first suggestion we would make would be to feed more roughage. The cow would handle more alfalfa, but perhaps the quantity of alfalfa is limited. If that is the case, it probably is better to limit the quantity and thus lessen the possibility of waste. A good cow has the capacity for handling more than twelve pounds of rough feed a day, and if the alfalfa must be limited we would advise giving the cow some good kafir or corn fodder or oat straw. A cow's capacity for eating rough feed and turning it into milk should be used to the limit and especially at the present time when grain and concentrated feeds are all so high in price. Floyd is feeding his cow grain enough for the milk she is giving now, and we would not advise feeding more cottonseed meal than the two pounds a day. In fact it might perhaps be reduced without cutting down the flow of milk. Ordinarily when oats can be fed it hardly pays to feed bran, because bran and oats are very similar in feeding value. We would suggest a pound of cottonseed meal to take the place of the bran.

Floyd has a very promising young heifer, and part of the feed that she eats must of necessity go to growth. It is making her more valuable each day because as she grows and develops, her capacity to give milk will increase. People who see this heifer undoubtedly are appreciating this fact, for he says hardly a day passes without someone wanting to buy his cow.

Club Members Not Quitters

Ernest Worthington wrote us a few weeks ago that his father had sold his farm and stock, including Ernest's contest cow, and intended to go to Missouri. They planned to make the trip in an automobile, but the roads got bad and they have decided to stay in Kansas. Ernest's father has bought another farm in Stanton County, and Ernest has already found a cow. He started her record the first of February so that he lost only one month.

This cow is a four-year-old grade Jersey. Ernest thinks she is not quite so good as the one he sold, but he says she is younger and that she is gaining in flesh and will soon give more milk on a good ration. She has been getting only prairie grass.

If Ernest had been a boy who gives up easily he would have been discouraged a long time ago. In the first place he lacked a few months of being twelve years old by the closing date for enrollment in the club, but he was so anxious to join that we thought he should be allowed to try the work. Then he could not find the pure-bred cow which he wanted, but had to get a grade cow, and as he lives almost forty miles from the railroad he was not always able to get grain for her. Finally he sold his cow and had to lose a month's time before he could get another. We like to see a boy or girl who stays with whatever he or she undertakes, because we know that is the sort of a boy or girl who can be depended on and who will make a success not only of this one particular thing but of the other bigger things that will come to them when they are men and women.

We feel that all of the Dairy Club members who have stayed "in the game" this winter in spite of all the cold weather and the high feed prices have shown that they have nothing of the "quitter" about them.

Club Member Has Measles

Claude Carter's cow has been doing well all through the cold weather. He writes that she is "staying pretty fat, too." Besides his school work, Claude is helping with the milking of seventeen cows and other farm chores.

His January records came in a few days late, and Claude explained that the delay was caused by his having measles. Of course in case of sickness work must wait. We appreciated his writing to tell us what was the matter. Several January records have not been received yet. We wonder if all those who are behind with their records have measles.

GENERAL FARM ITEMS

With strictly egg breeds, it is not advisable to hatch before the middle of March, as they will often begin to lay early and go into molt about the first of January.

New Plan to Prevent Oat Smut

The sprinkling method has been most commonly and widely used for a number of years and is effective in controlling smut of oats and the covered smut of barley. It consists of making a solution of formaldehyde—"formalin"—by mixing one pint of 40 per cent formaldehyde with about forty or forty-five gallons of water. Use only good seed. Spread the grain to be treated on a floor or wagon box so that the seed is from four to six inches deep. With a sprinkling can apply the formaldehyde solution at the rate of about one gallon to one and one-third bushels of seed. Forty gallons of solution is enough to treat between fifty and sixty bushels of grain. Shovel over until the seed is evenly wetted, place in a pile and cover with canvas or sacks from two to five hours. The seed may then be dried and stored or planted immediately. Germination tests are advisable. In case there is injury of vitality, increase the rate of planting.

A new method, known as the dry treatment of seed, to prevent oat smut and covered smut of barley, is now being recommended. For the past four years experiments have been conducted with the use of this dry treatment with very satisfactory results. Details of the treatment follow.

Dump the oat seed—best after cleaning with a fanning mill—on a clean barn floor, canvas, or tight wagon box. Dilute one pint of 40 per cent formaldehyde solution with one pint of water and pour into a quart hand sprayer such as is commonly used about stables to keep flies away. This amount — one quart — will treat fifty bushels of seed. If a smaller amount of oats is to be treated, the amount of formaldehyde should be lessened accordingly.

While the oats are being shoveled from one pile to another, spray each shovelful with the solution. One movement of the handle gives about the right amount. After the oats are all treated in this way, pile in a heap and cover with blankets, canvas, or grain sacks which have been sprayed, inside and out, with the solution. Allow to remain covered for at least five hours, after which they may be bagged and drilled. Treatment may be made any time previous to sowing.

The solution of formaldehyde vapor acts as an irritant upon the mucous membrane of the eye, nose, and throat, therefore in using this method hold the sprayer down close to the oats, shovel seed onto the vapor, work from one side of the pile, and have a circulation of air in the room where the treatment is made.

The advantages of the dry wethod are that it does not wet the seed, thus making it possible to treat and drill on the same day. It may be made several weeks ahead of planting. It is effective, giving complete control, and is simple. The seed is not injured, does not swell, and does not stick in the drill. These methods should not be used to treat kafir or cane seed for smut.

This method has been worked out and recommended by the New York Agricultural College and the United States Department of Agriculture. The instructions here given are from Prof. L. E. Melchers, plant pathologist at the Kansas Experiment Station.

Testing Seed Corn

A simple way to test seed corn is to use several shallow wooden trays nearly filled with sawdust or fine soil. They may be of any size desired, but a tray about two feet square is perhaps the most convenient size to handle. A cotton cloth the size of the tray is marked off in two-inch squares, each square numbered, and laid on top of the soil. The ears to be tested are laid out in sets of ten, each ear being given the same number as one of the squares on the cloth. Taking a set of ears, remove six kernels from an ear and place them on the square in the cloth, which bears the ear number. Do this for all the ears. When all the squares on the cloth are filled, the kernels are covered with a second cloth, a third cloth is placed over this and an inch of sawdust or soil is spread on top and thoroughly wet with warm water. In place of the layer of soil, a pad filled with sawdust may be used to cover the tester. This is somewhat cleaner and more convenient than loose soil or sawdust. When all the trays are filled, stack them in a warm place and wet the top layer of soil in each tray with warm water once a day for five or six days. At the end of this time remove the top cloth and examine the kernels. If the kernels from any ear do not show strong germination, that ear should not be used for seed.

By the use of the germination test all ears unfit for seed may be found and thrown out. The result will be a better stand and a thriftier growth of the young crop.

Where Blood Tells

At the live stock show held in connection with the Southern Cattlemen's Convention at Little Rock, Arkansas, recently, a fifteen-year-old boy, James Carlson, of Bentonville, Arkansas, exhibited a roan grade Shorthorn steer calf weighing 950 pounds at eleven months of age. This calf was the production of the first cross of a registered Shorthorn bull on an Arkansas scrub cow. The weight of the calf at eleven months was nearly 150 pounds more than the weight of the dam.

There have been many cases through the South where calves, the first cross of a Shorthorn bull on the piney woods cows, actually weighed more than their dams at weaning time. It is remarkable the improvement that is made by the first cross of a pure-bred sire.

This roan calf was sold at Little Rock at auction for $200 to the Little Rock Packing Company and because of the publicity resulting from his exhibition and sale there will unquestionably be encouraged a more general recognition of the value of the use of improved blood in the South.

Snow in Roads

East and west roads are frequently blocked by drifts of snow blown from the bare fields of adjoining farms. J. Will Horn, county commissioner of Stafford County, in a letter printed in the St. John News suggests that this might be prevented by leaving six or eight rods of wheat stubble the coming fall, where the ground is now in wheat, on the south side of the fields. This could be planted to corn the following spring, and wheat drilled in the standing stalks in the fall. By always having the wheat stubble or the standing corn stalks to catch the snow Mr. Horn thinks much of the drifting in the roads will be prevented. He urges farmers to try this plan.

Tells Why Chicks Die

E. J. Reefer, poultry expert, of 463 Reefer building, Kansas City, Missouri, is giving away free a new book which tells of a simple home solution that raises 98 per cent of all chicks hatched and cures white diarrhea over night. All poultry raisers should write for this valuable free book.—(Adv.)

Co-ordinate Farm Societies

(Continued from Page Four)

councils in the capacity of helpers, teachers, and leaders. These men and women, known as county agents and home demonstration agents, respectively, are now found in every state.

Nor are the federal and state governments following new theories in making these appropriations. Even in Washington's day federal appropriation to promote organized work among farmers was urged by Washington himself. In one of his speeches he said:

> It will not be doubted that with reference either to individual or national welfare, agriculture is of primary importance. In proportion as nations advance in population and other circumstances of maturity this truth becomes more apparent and renders the cultivation of the soil more an object of personal patronage. Institutions for promoting it grow up supported by the public purse, and to what objects can it be dedicated with greater propriety?

Most of us have felt that the time at our disposal is all too short and we must make it count. If we dissipate it among a large number of organizations unrelated, over-lapping, and competitive, we arrive nowhere and our energies are wasted. On the other hand, if the number of our organizations can be reduced and if we will co-ordinate the efforts of those remaining through a central council, bureau, or board, our time will be conserved and our organized work far more effective. With our nation at war, needing every ounce of its energy in concerted action, is it not time that we support a program of co-ordination in every county and in every community in order that our efforts may be 100 per cent effective?





Healthy Grain

Seeds grow faster and mature into good healthy grain when first freed from smuts by using

FORMALDEHYDE
The Farmer's Friend

This powerful disinfectant destroys grain smuts and fungus growth. Every up-to-date farmer should use Formaldehyde. It has the supreme endorsement of the U. S. Dept. of Agriculture. Our Formaldehyde in one pint bottles costs 35 cents and treats 40 bushels of grain. Big illustrated hand book sent free on request.

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FERTILE KANSAS LAND CHEAP

Those who located in Central Kansas 20 years ago are the big farmers today. Their land has made them independent.

Your chance *now* is in the five Southwestern Kansas counties adjacent to the Santa Fe's new line, where good land is still cheap.

With railroad facilities this country is developing fast. Farmers are making good profits on small investments. It is the place today for the man of moderate means.

Wheat, oats, barley, speltz, kaffir and broom corn, milo and feterita grow abundantly in the Southwest counties referred to. Chickens, hogs, dairy cows and beef cattle increase your profits.

You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6 per cent—price $10 to $15 an acre.

Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy-purchase contract. Address

E. T. Cartlidge,
Santa Fe Land Improvement Co.,
1892 Santa Fe Bldg., Topeka, Kansas.

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Stackers and Sweep Rakes
Harvesting hay the Jayhawk way means time, men and money saved. Jayhawk Stackers and Sweep Rakes make it easy to harvest and save every hay crop. Pays for itself the first year. Fully guaranteed. Sold direct at manufacturers price. Write today for free catalog and price list.

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HOME CANNER

Many are making $15.00 and up per day canning fruits and vegetables for market, neighbors and home by using a
"FAVORITE" HOME CANNER
Made better, last longer no waste, gives best results, uses less fuel, easy to operate. Prices, $4.50 and up. We furnish cans and labels. Write for FREE BOOKLET.



We also manufacture Home and Community Steam Pressure Outfits.

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Silo War Time Equipment

HERE are ten good reasons why every farmer who keeps live stock should have a silo:

1. The silo preserves the palatability and succulence of the green corn plant for winter feeding.

2. It helps to make use of the entire corn plant.

3. The silo increases the live stock capacity of the farm.

4. Silage is a good summer feed when pastures are short.

5. Because of the small amount of ground space required by the silo, it is an economical means of storing forage.

6. The silo prevents waste of corn stalks, leaves and husks which contain about two-fifths of the feeding value of the corn plant.

7. The silo located near the feed manger is an assurance of having feed near at hand in stormy as well as fair weather.

8. The silo assists in reducing the cost of grains in fattening cattle and sheep.

9. Silage greatly increases the milk flow during the winter seasons and decreases the cost of production.

10. There are no stalks to bother in the manure when corn is put into the silo.

In this time of agricultural preparedness the possibilities of the silo as a means of conserving the food supply loom high. It not only saves the entire corn plant and turns it into a valuable feed, but insures a supply during the winter when other feeds are scarce and high in price. It will not be possible, nor perhaps desirable, to feed all the corn crop through the silo another year. However, farmers should plan to utilize a larger part of the crop than they used this year. The farmer will be rendering real service to the country when he utilizes the corn crop in the production of meats and dairy products.

Each year millions of acres of corn are grown in the Central West. In the fall, wagons are driven up and down the rows, the ears of corn are removed and the stalks allowed to be washed out and the finer parts blown away. Where these stalks are disked and plowed under, organic matter is returned to the soil. Where they are burned this is entirely lost. It is estimated that from 30 to 35 per cent of the feeding value of the corn is in the stalks and leaves.

Experiments conducted by the experiment stations demonstrate that silage is superior to corn fodder for dairy cows. Cows receiving silage in the ration produced 13 per cent more milk that cows receiving corn fodder. Henry, in "Feeds and Feeding,' states that "silage gives better results that dry corn fodder for the reason that cows fed the succulent palatable silage usually consume a heavier ration than those fed the dry fodder, and hence have a larger amount of nutrients available for milk production after the maintainance requirements of the body have been met."

The Purdue Animal Husbandry Department states that corn silage is, without a doubt, the most economical roughage ever used for feeding cattle at Purdue University. Ten years' experience with this feed proves that the extensive use of this roughage for the wintering and fattening of cattle will do more to keep the beef cattle industry on a thriving basis than any other one factor. The addition of one-half feed of silage to a ration of corn, cottonseed meal and hay reduced the cost of gain $1.09 per hundred pounds on an average of five trials with fattening cattle. The addition of silage twice daily to a ration of corn, cottonseed meal and hay, on an average of four trials reduced the cost of gain $1.70 per hundred pounds. Every acre of corn put into the silo has returned practically twice as much as the same acre would have returned had it not been so preserved.

In tests conducted by the Purdue Experiment Station it was found that when cattle were fed a ration of corn, corn stover and oat straw, 13 pounds of corn were required to produce a pound of beef. A second car load of cattle, fed corn, corn silage, cottonseed meal and clover hay required only seven pounds of corn for a pound of gain. While cottonseed meal and clover hay added protein to the ration of the second lot and thus increased its value, yet at the same time the corn silage was a big factor in reducing the amount of grain necessary for the increased gains.

If the silo makes it possible to secure a larger amount of meat from 100 pounds of corn, then patriotic farmers should employ the better methods and secure the largest number of pounds of foodstuffs from every acre of corn grown.

A silo also increases the live stock capacity of the farm. Using the eight-year cattle feeding data from the Purdue Experiment Station, it is calculated that the acres needed to grow the feed for a two-year-old steer for 150 days could be decreased from 20 to 40 per cent by the use of silage in the ration. In feeding a car load of twenty steers it required approximately thirty-eight and three-fourths acres to grow the feed needed for 150 days, when corn, oil meal, oat straw and stover were fed. Thirty-five acres were required when corn and clover hay were fed, while only twenty-four acres were used when corn, cottonseed meal, clover hay and silage was the ration. If a balanced ration, including silage, will decrease the amount of land by more than fourteen acres in the feeding of a car load of steers, surely live stock feeders at this time should be willing to adopt this ration. Again when there is a shortage of foodstuffs and every acre of land should be made to produce its full share, can a farmer justify his actions and practice by using the crops of thirty-eight acres to produce a car load of beef, when better methods would produce the same beef from twenty-four acres?

Meatless days proclaimed by the food administration emphasize the fact that the supply of meat now produced is not meeting the demand. If our own people, our armies and the hungry people of Europe are to be fed, then the production of meat must be increased. The employment of the silo will make it possible to utilize a larger per cent of the corn crop and to feed larger numbers of beef cattle and sheep. Farmers interested in carrying out the food program of the government will give every consideration to the use of the silo in their farming program.

Labor is now a serious problem on American farms. With the mobilization of a larger army, labor difficulties will increase. The silo will help meet this problem by reducing the labor required to feed the stock during the long winter months. When the corn crop is placed in the silo, the land is also cleared and much less labor is required to prepare the ground for future crops.—G. I. CHRISTIE, Purdue University.

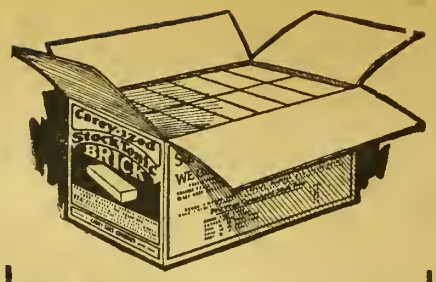
No Big Texas Cattle Losses

Reports that loss in cattle on account of cold weather and blizzards in the northwest and western part of Texas is abnormal are denied by E. B. Spiller, secretary of the Texas Cattle Raisers' Association.

"We have suffered only a minimum loss," said Mr. Spiller, in a statement for the press, "and the reason is but one—the assistance of the Federal Food Administration of Texas in enabling the cattlemen to obtain feed and get it at once. This help is supplemented, of course, by the fact that the cattlemen prepared this year for a severe winter more strenuously than ever before."

Saving an average of one more pig from each litter would mean increasing the pig crop by 20 per cent. It will be profitable, too, as by next fall one of these little pigs should be worth $30 to $40. If the sow is to be put into new quarters before farrowing, move her early enough so that she will have time to get accustomed to the pen. Use short straw or chaff for bedding. Fenders made by nailing 2 by 6's to the wall five or six inches from the floor also helps save pigs. When the sow lies down the little pigs will slide under the fender. More pigs are needed, and this is one way to increase the crop without additional expense.

"What helped you over the great obstacles of life?" was asked a successful man. "The other obstacles," he replied.



HOG HEALTH

Immature corn will make serious trouble for hog raisers this year. But as a good hog looks more like a $50 bill now than ever before, it is worth a little extra care to get it to market quickly and in good condition.



This is exactly the emergency in which Carey-ized Stock Tonic Brick shows itself to greatest advantage. It is the tonic which your hogs crave and must have to keep stomach, bowels, liver and kidneys in order—prevent or destroy worms.



Carey-ized Stock Tonic Brick keeps brood sows and young pigs in good health—prevents scours. Puts growing pigs on the market in less time at less food cost. Composed of eight different ingredients: Powdered gentian root, sulphur of iron, bi-carbonate of soda, sulphur, carbonized peet, quassia, charcoal and pure dairy salt.



Solid brick form makes it easy and economical to feed. Just place it in the feed lot or troughs—animals will portake of it only when they need it and as much as they need. Indispensable and undoubtedly the cheapest, most convenient and surest health promoter for live stock which science has discovered.

Try It 60 Days at Our Risk

Order a dozen bricks from your dealer, let your animals have free access to it for 60 days. If you are not satisfied with the result, return what you have left to your dealer, who is authorized to refund your money. If your dealer does not handle Carey-ized Stock Tonic Brick, fill out and mail us the coupon below and we will see that you are supplied.

We are an old established, reliable firm, and your banker will tell you that we are financially responsible. We want you to know that you are taking no chances whatever in sending us a trial order. We know that a fair trial and the rapidly improved condition of your live stock will show you that you can not afford to be without this wonderful remedy. Surely no squarer offer can be made to you than that we will give you 60 days in which to try out this preparation and will refund all your money if you are not entirely satisfied. You can not lose and are sure to gain by the experiment. Fill out and mail the coupon today and get the benefit of this sterling health promoter and conditioner while live stock values are high. Valuable stock health literature free on request.

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DEPT. 256 HUTCHINSON, KANSAS

CAREY SALT CO.,
Dept. 256, Hutchinson, Kansas.
Enclosed find $2.50 (check or P. O. money order). Send me, prepaid, one dozen Carey-ized Stock Tonic Bricks for 60 days trial—my money back if not satisfied.

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SEED CORN FOR 1918

IN buying seed corn it is always best to get a well acclimated variety produced on similar soil in the same locality in which it is to be grown, or within a radius of fifty to sixty miles. In other words, plant home-grown seed if possible. Good home-grown seed of the 1915 or 1916 crops should be preferred to corn introduced from distant localities or of unknown origin.

If it is necessary to introduce seed, care should be taken to get the best adapted varieties available, since corn is very susceptible to changes in climate and soil. Corn developed and grown under favorable conditions in the eastern states is poorly adapted to climatic conditions in Central and Western Kansas, even though suitable in size and the time required to mature. Large, late-maturing varieties from Missouri, Oklahoma, and Eastern Kansas should not be introduced into Central and Western Kansas because of the comparatively short growing season and limited rainfall. The varieties that ordinarily yield best in Central Kansas are medium sized ones which mature in 110 to 120 days. Only early "90 to 100-day" varieties should be introduced into Western Kansas, where the growing season is short and rainfall often deficient.

Large varieties grown on fertile, well watered bottom land are often poorly adapted for growing on adjacent thin uplands; nevertheless, many upland farmers make a practice of obtaining bottom land grown corn in poor seasons because of the comparatively larger size and better quality of the ears. This practice is not to be recommended. An upland variety grown one or two years on bottom land, however, is often satisfactory for upland planting.

Throughout Eastern Kansas there should be no difficulty in locating good seed corn within a short distance of home, since a big surplus of matured corn of the medium and early varieties was grown. In parts of Bourbon, Crawford, and adjoining counties an unusually heavy crop was produced. The medium sized varieties grown on upland soils in these counties are fairly adapted for growing anywhere in the eastern half of Kansas. This part of the state is perhaps the best source of carload lots of well matured corn of good vitality. Considerable well matured corn was produced in parts of Pratt, Edwards, and adjoining counties. This should be suitable for planting throughout South-Central Kansas, while the earlier maturing strains should do well in the north central part of the state.

The section of the state most in need of seed is North Central and Northwestern Kansas. Ordinarily the best source of seed for these sections is East Central and Central Nebraska. There is but little, if any, seed available from that source this year. Seed corn for North Central Kansas will have to be secured from Northeastern Kansas, preferably that of early and medium varieteis adapted for growing on uplands in Clay, Riley, Marshall, Geary, Pottawatomie, Waubaunsee, and Morris counties. Similar varieties from the extreme northeastern counties would do equally as well in a favorable season, but corn from this source would not be as well acclimated to Central Kansas conditions in an average season as that from the counties mentioned because of the more favorable conditions for corn in that part of the state.

Only the very early varieties of Eastern Kansas corn should be introduced into Northwestern Kansas. Western grown corn of the 1916 crop is about the only source of adapted seed for planting in this part of the state. Seed from this crop may be available along the Republican River Valley in Eastern Colorado, Cheyenne County, Kansas, and adjacent territory in Nebraska.—C. C. CUNNINGHAM, K. S. A. C.

The Army Needs Horses

The United States Government needs horses. It wants to buy them direct from the farmer and it wants to pay the producer every dollar possible for the horse he sells, but it is not possible for the army officer to make a farm-to-farm canvass in his efforts to find suitable horses. This being the case it is most earnestly urged that those who can spare horses suitable for army purposes interest themselves in this matter and present them for inspection when the army inspector visits their community. This method means more money to the producer for horses sold, but aside from the financial gain to the producer is it not the patriotic duty of everyone to assist in every way possible in winning the war?

In this instance there is an opportunity to render a splendid service by meeting with the army inspectors and assisting them in securing a class of horses that will do their work most efficiently, and with the greatest comfort and safety to the boys who shall ride them during the war.

At first thought some may not be interested in this matter, but when we stop to consider the fact that horses are absolutely necessary to win this war, and that it may be a friend, a relative, or we ourselves who shall be called upon to ride these horses, we realize more fully that this is a matter of concern to every loyal citizen.

The horses and mules desired are described as follows:

HORSES.—Geldings, bay, brown, black, chestnut, roan, and dark gray, from six to ten years of age; cavalry, 15 to 16 hands high, weight from 950 to 1,200 pounds; artillery, 15.2 to 16 hands high, weight from 1,150 to 1,400 pounds.

MULES.—Any color, either sex, from five to ten years of age; pack mules, 14.2 to 15.1 hands high, weight from 950 to 1,100 pounds; lead mules, 15 to 15.3 hands high, weight from 1,000 to 1,150 pounds; wheel mules, 15 to 15.3 hands high, weight from 1,150 to 1,250 pounds.

The prices quoted are as follows: Cavalry horses, $145; artillery horses, $170; pack mules, $170; lead mules, $170; wheel mules, $210.

It should be remembered that only a limited number of mares can be purchased, and that all horses accepted must be sound. Anyone in Kansas who has horses for sale or knows of horses that are for sale, suitable for army purposes, will greatly assist the government purchasing officers if they will write the State Live Stock Registry Board, Manhattan, Kansas, giving the kind—cavalry, artillery, etc.—number, owner, and location of such horses.

Save All Your Chicks

E. J. Reefer, poultry expert, of 163 Reefer building, Kansas City, Missouri, is giving away free a new book which tells of a simple home solution that raises 98 per cent of all chicks hatched and cures white diarrhea over night. All poultry raisers should write for this valuable free book.—(Adv.)

Will Seed Germinate?

G. G. W., Langdon, writes as follows: "I have been advised that a black point or under-tip on a kernel of corn indicates that the germ is dead. Is that true? Please tell me of a kind of corn to plant for silage, something with good foliage."

C. C. Cunningham, in charge of cooperative experiments over the state, offers these suggestions:

"It is always well to be suspicious of seed corn when the tip cap breaks off in shelling, showing a dark tip. This indicates that the corn did not mature properly and it may or may not grow, depending on whether or not it dried out before a hard freeze occurred. In a season like 1916, when a light frost killed the leaves on corn but did not freeze the ears and no hard freezes occurred until late in the fall or early winter, thus giving the corn an opportunity to become dry in the meantime, corn showing a large percentage of black tips will often germinate well and make as good yields as that which matured perfectly. In a season like 1917, where hard freezes occurred, early corn with black tips will likely prove weak or entirely lacking in vitality. A germination test should be made to ascertain whether or not it will grow.

"The Commercial White corn is a good variety for silage in your locality."



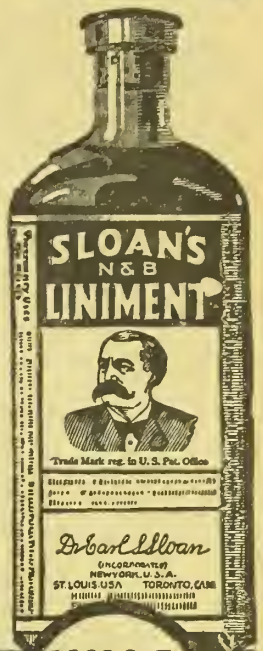
I Feared I Couldn't Knit!

After I fell, my wrist swelled and pained dreadfully. And every hour idle meant just that much lost knitting things for the boys.

Then I got out the old standby, our large bottle of Sloan's Liniment, applied it *without rubbing*, and it *penetrated* right to the strained ligaments, reduced the swelling, and let me go right on plying my needles.

We'd be lost without Sloan's. It relieves lame back, sore muscles, pains, strains, and is wonderful in warding off the after-effects of exposure to bad weather.

And used on our live stock, it keeps bruises, distemper, lameness, and such things from interfering with their work. We get the big dollar bottle because it contains six times the amount of the small size.



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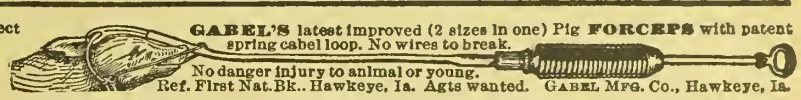

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Dr. R. R. Dykstra, professor of surgery in the department of veterinary medicine, has been appointed veterinarian of the Kansas State Board of Agriculture for the year 1918. The position is an honorary one awarded to men of distinguished ability in veterinary medicine.

The whole great problem of winning the war rests primarily on one thing, the loyalty and sacrifice of the American people in the matter of food. If we are selfish or even careless, we are disloyal; we are the enemy at home. Now is the hour of our testing.

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The whole story is in my big catalog, "Hatching Facts", sent Free. It tells how money is made raising poultry. Get this Book and you'll want to start one of my Guaranteed Hatching Outfits making money for you. It's good patriotism and good business to raise poultry this year, and



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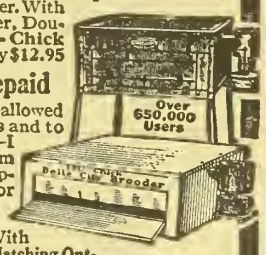

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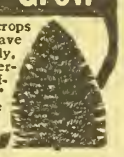

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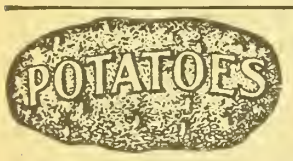

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All hens will lay fairly well in March, April, and May. The poor layers seldom, if ever, lay in those months when prices are the highest. They are not economical producers and should not be kept as breeding stock.



Selecting Eggs For Hatching

MANY times such complaints as, "I followed instructions, but I didn't get a hatch," are heard, and the incubator is given all the blame. Given the most reputable hatching equipment, operated under the most ideal conditions and by a most careful operator, a good hatch will result only from good hatchable eggs.

The shell of the egg is a thin porous layer of calcium carbonate or lime. A thin membrane lines the shell and a second membrane adheres to it at all points except at the large end where there is an air space between the two. Within this second membrane there are three layers of albumen or "white," and within these the yolk in its two membranes. The yolk is suspended in the center by two hard white spiral-like strands of albumen, called "chalazea." The germ in a fertile egg rests at one side of the yolk just above the watery part called the "utricle," and due to the action of the chalazea this watery part of the yolk or utricle and the germ always float to the top, no matter in what position the egg rests. With this brief explanation, let us consider just what goes to make a good "hatchable" egg and how a chick develops.

Needless to say a good strong germ is the fundamental necessity. Eggs will not hatch unless fertilized. Fertilization takes place well up in the oviduct before the albumen or "white" and the shell is added in the process of "manufacture." The presence of a healthy vigorous male bird in the flock has nothing whatever to do with egg production, but it has everything to do with good fertile eggs. First, therefore, we must be sure of a well-mated flock, free from disease, comfortably provided for and in "the pink of condition" so that the eggs may not only be well fertilized, but that the germ may be strong. Too much importance cannot be laid upon the health and condition of the breeding stock.

But all fertile eggs will not hatch. Very early in the season eggs are apt to run high in fertility but hatch poorly, because the fowls have lacked exercise during the cold weather. This is especially true where old male birds are used. When spring comes and the birds have free range this is usually overcome. Too many females mated to one male will also cause weak germs, and any unnatural condition, such for instance as poor feeding, which lowers the vitality or vigor of the breeding stock, will make for the same results.

Many eggs for hatching, fertilized with good strong germs, might otherwise produce a living chick, but fail to hatch because they are improperly kept before incubation. An egg may be hatchable when it is laid and then lose its hatchability through lack of good care. Gather eggs for hatching every few hours to be perfectly safe that they become neither chilled or heated. It must be borne in mind that the germ is a sensitive organism. Chilling will kill it. Incubation, which means the growth and development of the germ, will start at summer heat. A few hours of heat starts development. Then if growth is checked by the eggs becoming chilled, the germ dies and is spoiled. Keep eggs for hatching in a cool dry place at a temperature of from 50 to 60 degrees, but do not keep them long. The fresher an egg the better it will hatch. Usually it is best not to keep them longer than a week to ten days. Germs lose their strength as the eggs become older. If they are to be held more than a few days it is best to turn them once or twice a day to prevent the yolk from settling and sticking to the shell. They may be kept satisfactorily for a short time in a basket covered over with a cloth to check evaporation, and placed where they will be undisturbed. Rough handling is apt to ruin an egg for hatching. Constant vibration, such as eggs are subject to when poorly packed and shipped by express or mail, may weaken the germ so that it will not hatch.

One other point is important in the selection of good hatchable eggs, and that is the character of the egg itself. Some eggs are too long and some too round to be classed as good eggs for hatching. Reject all those that are not normal in shape as well as size. Irregular shapes, abnormally large or small sizes, rough shells, ringed, ridged, or porous shells should not be in your selection.

There is frequently a larger percentage hatch from white-shelled eggs than from brown shells, though it may not mean necessarily that they are more hatchable. Wherever possible it is best to separate the white from the brown eggs, because the white eggs hatch a few hours earlier than the brown when put together.

The first stages of incubation are very important. Care must be taken about the proper heat, the right amount of cooling and handling to prevent injury to the delicate growing embryo. Mistakes made during this period may spoil the very best of hatchable eggs. There is nothing complicated about the matter; merely occasion for careful attention to the simple instructions for operating an incubator.

In incubation the chick's head starts to grow first. Blood begins to move a very little about the third or fourth day. By the seventh day the body wall is pretty well formed and by the ninth day the "feathers" are started and the beak is also apparent. During the second weeks the feathers or down are about a half inch long. For about the first ten to fourteen days the chick's body lies crosswise in the egg, but then the chick turns and from then on it is much stronger.

Under normal conditions the chick becomes full grown about the nineteenth or twentieth day. The last thing it does before breaking the shell is to take in through the body the last of the yolk sack to form its food supply for the first thirty-six to seventy-two hours. Then it breaks a hole about a third the way from the large end and for the first time the lungs begin to act. As a rule the chick goes to sleep then and when it wakes it begins to struggle around, cutting the shell in a circle and kicking free from the shell, it rests, sleeps and gains strength.

Dead germs or dead chicks often occur at various stages of development. Where the operation of the incubator has been correct the fault is usually in the eggs. Your care in selecting good hatchable eggs will go a long way toward your success with incubators, will increase your profits with poultry and help out on Uncle Sam's much needed food supply this year.—HUBERT D. WHITE.

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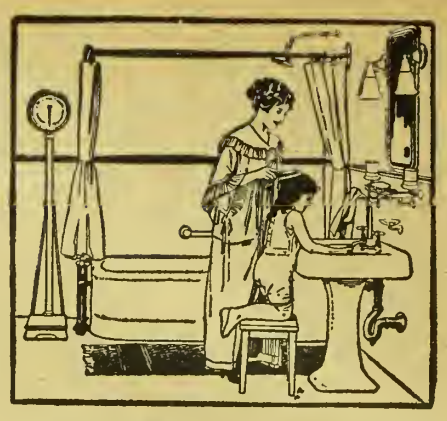
Any poultry raiser can easily double his profits by doubling the egg production of his hens. A scientific tonic has been discovered that revitalizes the flock and makes hens work all the time. The tonic is called "More Eggs." Give your hens a few cents worth of "More Eggs" and you will be amazed and delighted with results. A dollar's worth of "More Eggs" will double this year's production of eggs, so if you wish to try this great profit maker, write E. J. Reefer, poultry expert, 4633 Reefer Bldg., Kansas City, Mo., who will send you a season's supply of "More Eggs" Tonic for $1 (prepaid). So confident is Mr. Reefer of the results that a million dollar bank guarantees if you are not absolutely satisfied your dollar will be returned on request and the "More Eggs" costs you nothing. Send a dollar today or ask Mr. Reefer for his free poultry book that tells the experience of a man who has made a fortune out of poultry.—(Adv.)

Only the very poor and men and women doing the hardest kind of work may have more than seven ounces of war bread a day in France.



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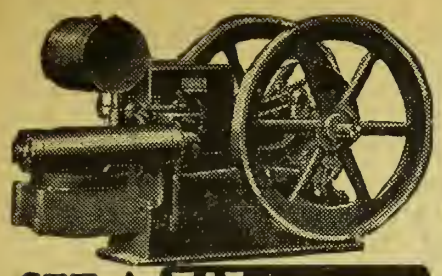

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By securing an arbitrary wholesale price of 7¼ cents per pound for sugar, the Food Administration has made it possible to hold the retail price between 8 and 10 cents per pound even in the face of actual world shortage. During the Civil War sugar advanced from 8⅝ cents retail to 35 cents per pound. Such a jump today would take $468,000,000 out of the American consumer's pocket.

Early-hatched chicks are the most profitable both for meat and for egg production. They are the most easily raised because while they are young they are not subjected to the cloudy, rainy weather which comes later in the spring. They are usually more vigorous. Later chicks have a higher rate of mortality due to the extremely hot weather and the presence of a greater number of parasites.

Where possible breeding pens should be maintained during the hatching season. All poor layers, undeveloped pullets, and otherwise imperfect birds should be discarded prior to the breeding season if satisfactory results are to be expected.

New Zealand has decided to control the purchase and distribution of its new wheat crop. The maximum government price will be $1.41 per bushel. Latest estimates give the total amount of wheat land as 293,000 acres and the estimated yield, thirty bushels per acre. New Zealand has lately been importing wheat from Australia.

Ducks Easy to Raise

The Food Administration of our Government wants you to get off some early hatches of poultry and thus increase the home supply of meat, that more of the beef and pork may be conserved for our soldiers and our allies. It behooves us all to help in this great cause. We women cannot fight, but we certainly can do a great deal in the way of helping to produce food for the men and boys who are doing our fighting for us.

Did you ever stop to think that every pound of poultry meat you produce, every quart of fruit and vegetables you can, every potato you raise, is helping to win the war, even if it is consumed on our own tables? Some perhaps may not see how this can be, but nevertheless it is true, as this saves the commercial product. All the beef, pork, and lard we save or replace by poultry products on our own tables leaves that much more to go across for those who are fighting for our liberty.

In this the ducks have their part. I have always found them more easily raised than chickens. They are also good egg producers. I have raised several varieties of ducks, including the Pekin, the Buff, the Rouen, and the Indian Runner, and I think I like the Pekin best. While the Indian Runners are claimed to be the best layers, I am inclined to think that with good care the Pekin will almost equal them. The latter also have extra large bodies and can easily carry seven to eight pounds of fine meat. The Buff ducks are also large, but I can see no advantage that they possess over the Pekin, and I like white feathers. The Rouens have dark feathers. Mine did not lay equal to the Pekin, and were not nearly so easily dressed on account of the dark feathers. The Runners are good meat, but are small, weighing three to four pounds each, perhaps five pounds very fat. You can get ducks large enough for the market in ten weeks and they make excellent eating at that age.

I do not like ducks as mothers or for hatching the eggs. I very much prefer incubators and brooders, and, as a second choice, hens, for hatching and brooding. As for the percentage of hatch, I could never see any difference in the two ways. I notice some writers claim there is more moisture in a duck's nest, but this I find is merely a claim, as I have filled the incubator half full of duck eggs and at the end of eight days finished filling the machine with hen eggs and both hatched well with no additional moisture.

There is one thing I do not want to do, and that is to raise ducks with my chickens. They make their drinking water too muddy. Chickens must have clean, pure water.

It takes less rain to drown a little duck than a little chick. Little ducks open their mouths, stick their bills straight up, and soon fill up with water and drop over. A friend of mine thought she would go into the duck business a few years ago. She hatched out about a hundred of the finest little Runners I ever saw. They were about half grown when there came up a rain. She thought they were ducks and large enough to stand it. After the rain she went out to feed them, and to her amazement seventy-two lay dead under the eaves of the house. If found soon enough after they drop over they can be dried and saved. They will not run from rain as chicks do, but with a reasonable amount of care very few ducks will be lost on account of rains. After they get their real feathers there is no danger from drowning.

Duck eggs are pipped much longer than hen eggs before they hatch, but just leave them alone and the ducklings will kick out of the shell when they get ready. Don't help them or you will have dead ducks. Little ducks can be almost continually given soft food without bad effects. To start them, a little stale bread soaked thoroughly and scattered over a little water is fine. After they are about a week old shorts and corn meal—equal parts mixed and moistened—makes a good feed. A few mashed potatoes are good. When a little older wheat bran and cracked corn are good, but all should be well moistened.—MRS. LIZZIE GRIFFITH, Lyon County.

New Incubator—Free

The Wight Co., D-18, Lamoni, Iowa, wants to give every reader of this paper a new $5.00 incubator for just a few minutes' work at home. Write for special offer.—(Adv.)

General purpose breeds should be hatched not later than the last of April if the pullets are to be developed for egg production the following fall and winter. The young cockerels can be disposed of as broilers at much better prices than those of later hatches.

Mating Time Is Here

Now's the time to put your hens and roosters in the pink of condition with Poultry Pan-a-ce-a.

If you want chicks that will live and develop rapidly—if you want early broilers—if you want pullets that will develop into early winter layers, then feed the parent stock—

DR. HESS POULTRY PAN-A-CE-A

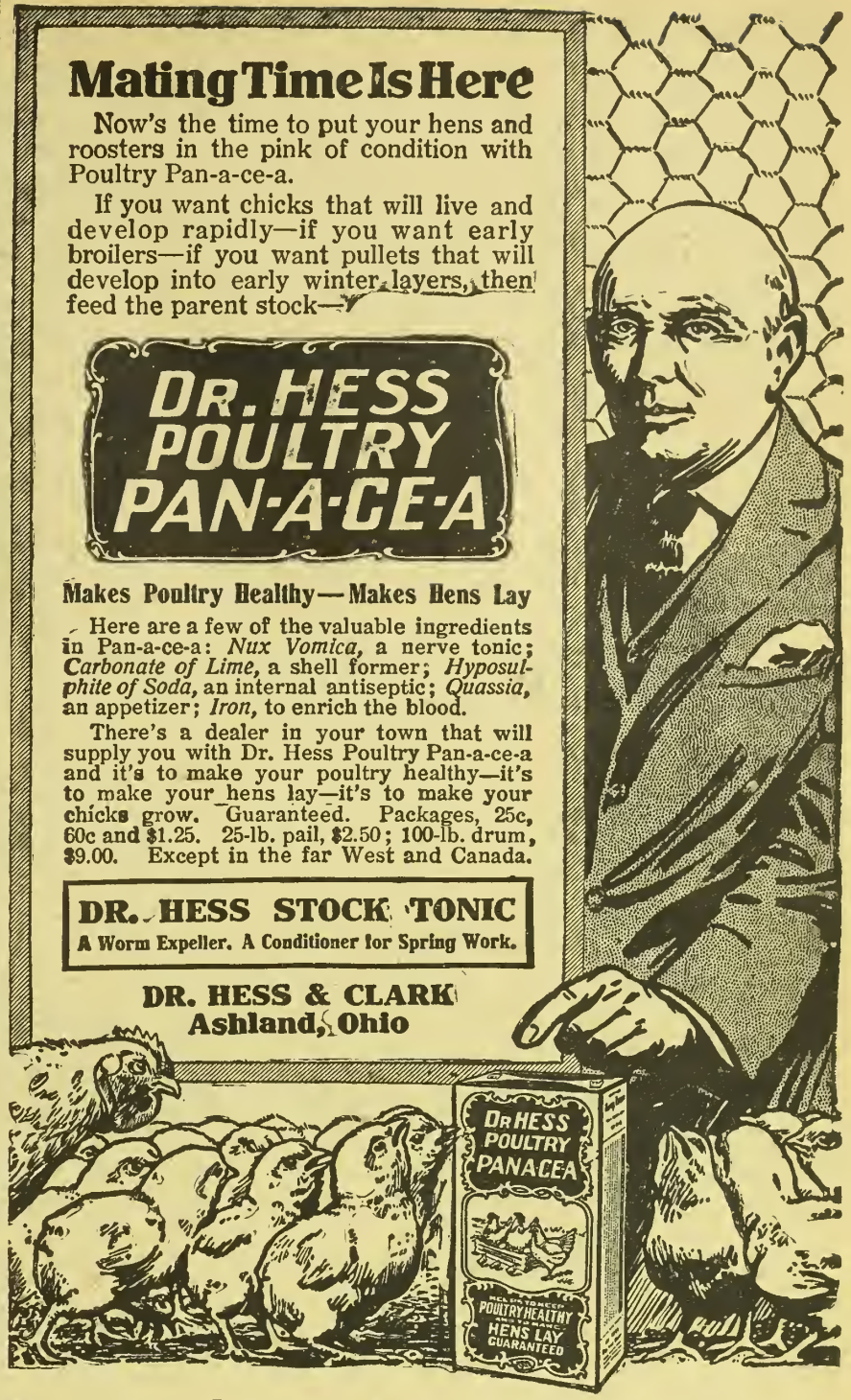
Makes Poultry Healthy—Makes Hens Lay

Here are a few of the valuable ingredients in Pan-a-ce-a: *Nux Vomica*, a nerve tonic; *Carbonate of Lime*, a shell former; *Hyposulphite of Soda*, an internal antiseptic; *Quassia*, an appetizer; *Iron*, to enrich the blood.

There's a dealer in your town that will supply you with Dr. Hess Poultry Pan-a-ce-a and it's to make your poultry healthy—it's to make your hens lay—it's to make your chicks grow. Guaranteed. Packages, 25c, 60c and $1.25. 25-lb. pail, $2.50; 100-lb. drum, $9.00. Except in the far West and Canada.

DR. HESS STOCK TONIC
A Worm Expeller. A Conditioner for Spring Work.

DR. HESS & CLARK
Ashland, Ohio



Dr. Hess Instant Louse Killer Kills Lice

Win the War by Preparing the Land Sowing the Seed and Producing Bigger Crops

Work in Joint Effort the Soil of the U. S. and Canada—Co-operative Farming in Man Power Necessary to Win the Battle for Liberty.

The Food Controllers of United States and Canada are asking for greater food production. Scarcely 100,000,000 bushels of wheat can be sent to the allies overseas before the crop harvest. Upon the efforts of the United States and Canada rest the burden of supply.

Every Available Tillable Acre Must Contribute; Every Available Farmer and Farm Hand Must Assist.

Western Canada has an enormous acreage to be seeded but man power is short, and an appeal to the United States allies is for more men for seeding operations.

Canada's Wheat Production Last Year was 225,000,000 Bushels; the Demand from Canada Alone, for 1918, is 400,000,000 Bushels.

To secure this she must have assistance. She has the land but needs the men. The Government of the United States wants every man who can effectively help to do farm work this year. It wants the land in the United States developed first of course; but it also wants to help Canada. Whenever we find a man we can spare to Canada's fields after ours are supplied, we want to direct him there. Apply to our Employment Service, and we will tell where you can best serve the combined interests.

Western Canada's Help Will Be Required Not Later Than April 5th. Wages Competent Help, $50 a Month and Up, Board and Lodging.

Those who respond to this appeal will get a warm welcome, good wages, good board, and find comfortable homes. They will get a rate of one cent a mile from Canadian boundary points to destination and return.

For particulars as to routes and places where employment may be had, apply to

U. S. Employment Service, Dept. of Labor.

SAVE! TIME-LABOR MONEY AND BUTTERFAT AS A WARTIME ECONOMY

$46.90

375 lbs. Capacity



All Sizes up to 950 lbs.

Never was there a time when it was so important that you get every ounce of butter-fat. With cream and butter commanding top prices you actually throw good money away when you waste the smallest particle of butter-fat by old-fashioned methods of separating or by using an out-of-date model separator.

Get a Galloway Sanitary Separator

Then you know positively that you are skimming clean, right down to the last drop. My new 1918 separator is not just a warm weather skimmer. When your cows are on dry feed it will skim just as close as when the cows are pasturing. In cold weather you are not so particular if your separator doesn't skim up to rated capacity. But in the spring and summer when the grass is green and the milk flow is heavy you want a separator like the Galloway. A few minutes saved in the morning and evening mean just that much more time in the fields.

Sold Direct to You from My Factory!

And the best thing about my wonderful New Sanitary, next to its perfect skimming qualities, is that the price is right. A too cheap separator is not economy. It's just as bad to pay too little as too much. My Sanitary is in the class of the best machines, but is sold at a fair price because you can buy one direct from my immense factories at Waterloo. This plan saves you the difference in price. Cut out all waste and sell you at the rock bottom factory price. Examine the Galloway Sanitary thoroughly. Test one for 90 days. Note its strong, sturdy base. Big, roomy, seamless supply tank of pressed steel; Heavy tinware; Sanitary bowl; its self-centering neck bearing and simple but effective two-piece lower bearing. Then look at the discs which separate from each other for washing. Takes only a few of them to skim a lot of milk. Cream pail shelf and bowl vise combined in one, with hinge for lowering. Examine its helical drive gears; high crank shaft (just 50 r. p. m.); its high carbon steel worm wheel shaft; oil bath and sanitary drip pan.



Write for Free Book at once. Get the big 1918 spring Catalog. Find out how much you can save when you buy direct—not only on Separators, but on Spreaders, Engines, Tractors and other implements as well. Close shipping points save you freight. O. A. Vick says: "I like your separator just fine. I think it is as good as they can be. If I were to buy another, I would not want any but a Galloway."

WM. GALLOWAY, President

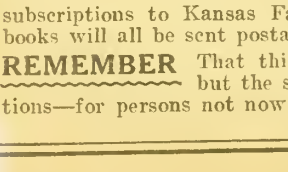
Wm. Galloway Co. 217 Galloway Sta., WATERLOO, IOWA

90 Day Trial

Money-Back Guarantee

TRACTORS

A regular farm power house on wheels. Has anti-friction bearings, 21 sets Hyatt roller and ball bearings. Only 13½% of motor's power needed to pull tractor unloaded. Plows, discs, harrows, hauls, threshes, saws, grinds, shreds, grades roads, fills silos. Pulls three 14-in. bottoms 8 to 9 in. deep. Burns Kerosene or Gasoline



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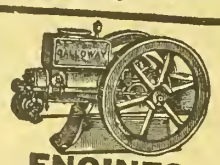
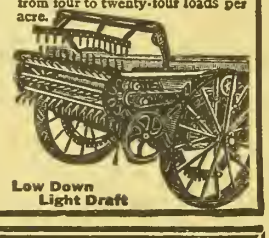


ENGINES

Slow speed because that's the way to get the great power. All parts are perfectly balanced, standardized and interchangeable. Runs at uniform speed. Starts easy. No cranking. Has valves-in-head like Automobile Engines. Make and break ignition. Special magneto produces hot spark. Requires no batteries. Fool-proof and frost-proof. Portable or Stationary. 1¾ to 16 H.P.

SPREADERS

The best of its kind and lightest in draft; patented roller feed; steel beater; V rake; automatic stop; uniform clean-out push board; steel tongue; double chain drive; spreads from four to twenty-four loads per acre.



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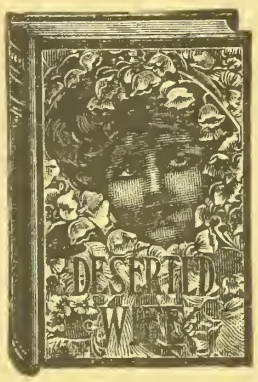
Books You Want to Read Given By Kansas Farmer

We want to send one or more books to each of our subscribers. Every book offered is highly interesting. You will find in the list books of travel, romance, love and mystery. Each book is printed in large clear type and bound in strong cover paper bindings.



1—Marian Gray, by Mary J. Holmes.
2—Rosamond Layton, by Mary J. Holmes.
4—Beulah, by Augusta J. Evans.
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12—East Lynne, by Mrs. Henry Wood.
13—A Romance of Two Worlds, by Marie Corelli.
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36—Beyond the City, by A. Conan Doyle.
37—Kidnaped, by Robert Louis Stevenson.
39—The Cloister and the Hearth, Vol. I, by Charles Reade.
40—The Cloister and the Hearth, Vol. II, by Charles Reade.
43—David Copperfield, Vol. I, by Chas. Dickens.
44—David Copperfield, Vol. II, by Chas. Dickens.
45—David Copperfield, Vol. III, by Chas. Dickens.
46—Nicholas Nickleby, Vol. I, by Chas. Dickens.
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48—Dr. Jekyll and Mr. Hyde, by R. L. Stevenson.
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We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

Amid the din and tumult of daily tasks, it may seem sometimes as if you were doing naught which was worth the doing; down there in obscurity, unthought of and un-noticed by the great world, simply beating out the allotted task upon the clattering keyboard. But do it well. Do it as the violet smiles, as the bird sings, as Jesus lived, and you shall send out, over land and sea, music which shall bless the generations afar off.—Dr. Geo. Thomas Dowling.

Patriotic Work in the Home

A talk on this subject by Miss Hannah Jones, of the domestic science department of the Kansas Agricultural College, was one of the numbers on the home economics program offered for women and girls during Farm and Home Week. Miss Jones said in part:

"We all know that patriotism means devotion to service and sacrifice. Our men are certainly doing their part as they are going out to fight the battles, and women will have to help bear the responsibility of other things, now that so many of the men are gone. Six million English women are doing the work of men. Every elevator in the United Kingdom is run by a woman. Over a million women are making shells in the munition factories, and England is supplying not only her own shells, but a large portion of those used by her allies. So we see what women are trying to do in the industrial war, and we shall see what they can do in the home.

"If you can get time away from the home, you can help make surgical dressings. The report comes that in some places the supply of surgical dressings is so short that they are using newspapers to bind up the wounds of the men. It does not seem that that is necessary when there are so many women who have time to do this kind of work. The report that these things are not needed is a part of the German propaganda."

Miss Jones showed samples of various knitted garments which may be made at home for the soldiers, and described the new trench cap, which is largely taking the place of the helmet for the reason that it can be worn under a gas mask without causing suffocation, as the helmet is apt to do. Full directions for making any of these knitted garments may be obtained from any Red Cross station.

"While woman's work may be in the home," said Miss Jones, "at present it is our business to help win the war, and the more of this work for the soldiers we can do, the better satisfied I think we will be, and the more we will be able to help. The Red Cross slogan is, 'Everyone together in the work of the Red Cross.'

"Another line of work undertaken by the Red Cross in addition to the making of garments is the salvaging of all discards and the saving of scraps to help the soldiers. We are asked to help save the discards for the Red Cross. This is a conservation idea regarded by some as the greatest of wartime measures. In this work we are not asking people to give money, but merely to save what they would ordinarily throw away. Among the things wanted by the salvage department are newspapers, tin foil, gunny sacks, and old shoes. An arrangement is being made with the manufacturers to buy back the receptacles in which their products have been sold. Typewriter companies are asked to buy back old ribbon boxes. Even cold cream boxes are being bought back. Whenever a box is bought and returned to the manufacturers it is labled, 'Salvaged by the Red Cross,' and a cold cream box has come back to the manufacturers as many as six times.

"Small pieces of wool are being combined in squares to make large quilts. In some large cities they are taking the dealers' large samples of wool and making woolen comforts and sending them out to the camps. We cannot send too many warm things. Among the things which can be made at home and which would be acceptable to many of the soldiers is a blanket bathrobe. This is easy to make and can be made considerably cheaper than it can be purchased ready-made.

"In place of giving the children in schools doll clothes to make, sewing teachers are asking them to make garments which could be used by refugees. On of the main things we need to take up with the children is the training in attitude toward this war. The following no-waste pledge, intended to be memorized by the children, helps them to keep in mind ways in which their loyalty may be expressed:

" 'I will avoid all waste, to this I truly swear;
I will be careful of my clothes and everything I wear.
No foolish pennies will I spend, but save that I may give
To those less fortunate than I, who find it hard to live.
And what I take upon my plate, I'll eat up every bit;
Nor make complaints because I am not very fond of it.
And dishes new I'll learn to eat as far as I am able,
But one thing I will never be—that's finicky at the table.
This pledge I take because I am
A soldier true of Uncle Sam.' "

Substitute Suggestions

One cupful of corn syrup is equivalent to one cupful of sugar and one-fourth cupful of liquid. Corn syrup does not sweeten as much as molasses or honey. Substitute either honey or maple syrup for sugar in a boiled icing. Do not use any icing unless you can make it without sugar.

Baking, instead of frying, croquettes will help to save fat, or a meat loaf may be made instead.

Macaroni, spaghetti, and noodles are made of wheat; do not serve bread with them. Use cornstarch or rice flour for thickening sauces, gravies, and puddings, but use only one-half as much as of flour. For bread use any of your own recipes, but omit sugar and fat and use at least one-fourth wheat substitute. For the liquid use water, milk and water, whey, potato water, or rice water.

The Council of National Defense requests the public to discontinue the practice of sending food to soldiers and sailors in camps. The amount sent is enormous and much of it is spoiled through over-heating in express cars and long transportation. Besides this, while there is such a shortage of cars the space is needed for shipping things which are more essential. It seems a little hard not to be allowed to send our boys some of mother's cooking or sister's candy, but we are at war, and this is after all only a little thing to sacrifice. The boys are given good, wholesome, substantial food, and are really just as well off without so many sweets.

Rolled Oats Cookies

2¼ cupfuls rolled oats, heated in oven fifteen minutes
¼ cupful flour
¾ cupful molasses
¼ teaspoonful soda, moistened with 2 tablespoonfuls sour milk
2 teaspoonfuls baking powder
2 eggs, well beaten
¼ teaspoonful each of cinnamon, nutmeg and cloves
½ cupful raisins, cut fine.

Mix the dry ingredients; add the eggs, molasses, and raisins, and lastly the soda and milk. Drop from teaspoon upon greased pan and bake about twenty minutes in an oven below medium temperature. This makes about thirty-six cookies.

When I see a child, he inspires me with two feelings: tenderness for what he is now, respect for what he may become hereafter.—Villery-Radot: Life of Pasteur.

Will Save Your Chicks

Any reader of this paper who writes P. J. Kelley, the Poultryman, at 78 N. 2nd St., Minneapolis, Minn., will receive a Free Copy of his new booklet "White Diarrhoea in Baby Chicks." It tells how to prevent, remedy and save the whole hatch. It's free and this paper urges you to write for it at once.—Adv.

Reliable Poultry Breeders

LEGHORNS.

S. C. BROWN LEGHORNS BRED 22 years. 222 to 266 egg lines. Eggs 15-$2; 50-$4; 100-$6. Gorsuch, Stillwell, Kansas.

L. B. RICKETTS, BREEDER OF PRIZE Winning Single Comb White Leghorns, Greensburg, Kansas.

SINGLE COMB BROWN LEGHORNS—Winners of the blue in four states. Eggs, $6.50 per hundred. Wm. Roof, Malze, Kan.

PURE-BRED BUFF LEGHORN COCKERels, $1.50 and $2. P. A. Wempe, Seneca, Kansas.

BARRON ENGLISH WHITE LEGHORN eggs, 100, $7.50; 100, $10, prepaid. Mrs. J. L. Todd, Route 8, Warrensburg, Mo.

SINGLE COMB WHITE LEGHORN cockerels. Dave Baker, Conway Springs, Kansas.

S. C. BROWN LEGHORNS — EGGS FOR hatching, $3.50 for fifty, $6 per hundred. Extra quality. Mrs. L. H. Hastings, Thayer, Kansas.

SINGLE COMB WHITE LEGHORNS—First and third pullet at American Royal. Eggs, $1.50 per setting, $7 per hundred. H. A. Ketter, Seneca, Kansas.

SINGLE COMB BUFF LEGHORNS — Eggs, exhibition pen matings. Free range mating. Cockerels from 200-egg hens. Pearl Haines, Rosalia, Kansas.

PURE-BRED SINGLE COMB WHITE Leghorn eggs (Young strain), $1.50 per fifteen or $7 per hundred. Chicks, 20c. Mrs. David Christmann, Route 2, Oswego, Kan.

ROSE COMB BROWN LEGHORN COCKerels, $2.90 each. Eggs, $5.90 per hundred; fifty, $3.50; thirty, $2.40. Chickens have taken five prizes, one state, none better. Rufus Standiferd, Reading, Kansas.

EXCELSIOR FARM SINGLE COMB White Leghorns. Yesterlaid Young strain cockerels, $2, three for $5. Eggs, $5 for 100. Baby chicks, 12c each. Mrs. C. C. Cole, Levant, Kansas.

PURE SINGLE COMB WHITE LEGHORN eggs from Famous Yesterlaid laying strain, mated to Tom Barron cockerels. Eggs that will hatch, securely packed, $7 per hundred. Shady Pine Leghorn Farm, Rossville, Kan.

FEW CHOICE S. C. WHITE LEGHORN cockerels from my combined egg contest and show room winners, reasonable. Eggs $7 hundred, chicks 15 cents. C. G. Cook, Lyons, Kansas.

WYANDOTTES.

SILVER AND GOLDEN LACED WYANdotte cockerels for sale. They are good ones. W. I. Lowrey, Stafford, Kansas.

SILVER WYANDOTTE EGGS—FIFTEEN, $1.65; fifty, $3.75; hundred, $6.50. Hens. Mrs. Edwin Shuff, Plevna, Kansas.

PURE-BRED WHITE WYANDOTTE cockerels, $2.50 each. Sade Springer, Route No. 4, Manhattan, Kansas.

LAYER-PAYER SILVER WYANDOTTE eggs, fifteen, $1.50; fifty, $3.50. Irve Wright, Clifton, Kansas.

WHITE WYANDOTTE EGGS FROM high scoring birds at $2 per fifteen (Martin strain). Frank Henderson, Solomon, Kan.

CHOICE WHITE WYANDOTTE COCKERels from winning laying strain; also eggs. Andrew Kosar, Delphos, Kansas.

PARTRIDGE WYANDOTTES, STATE show winners. Cockerels scored 91 to 94½, $3.50 to $10. Eggs, $3. Satisfaction guaranteed. F. R. Beery, Concordia, Kansas.

EGGS—WHITE WYANDOTTES LAYING strain. Utility, $1.25 fifteen; $3.50 fifty; $6 hundred. Pen headed by $15 cockerel direct from Keeler, $2 fifteen. M. M. Weaver, Newton, Kansas.

RHODE ISLAND REDS.

ROSE COMB REDS, WINTER LAYERS. R. E. Mills, Lexington, Neb.

SINGLE COMB RED EGGS, $2.50 PER setting, $8 per hundred. Maple Hill Poultry Farm, Lawrence, Kansas.

ROSE COMB RED PULLETS, $2, $2.50. Chicks, 15c each. Eggs, 100, $5. Fred Leck, Yates Center, Kansas.

S. C. RHODE ISLAND RED COCKERels, excellent color. Laying strain. Eggs. Mrs. Geo. Long, St. John, Kansas.

SINGLE COMB RHODE ISLAND RED eggs from my fine pen, Cyphers strain, $3 for fifteen eggs. Elmer Dovel, Auburn, Neb.

PURE-BRED R. C. R. I. R. COCKERELS, $2 and $3 each. Mrs. E. M. Wade, Burlington, Kansas.

ROSE COMB RED COCKERELS, CHICKS 20 cents. Booking orders now. Lily Robb, Neal, Kansas.

ROSE COMB RHODE ISLAND COCKERels, $3; eggs, $1.50 per setting or $5 per hundred. Della Schultze, Melvern, Kansas.

CARRIER STRAIN, R. C. R. I. R. EGGS —Utility, $5 per hundred; pen, $3 per fifteen. Mrs. S. H. Nash, Route 1, Box 19, Kinsley, Kansas.

HARRISON'S NON-SITTING SINGLE Comb Reds (250 egg strain). Mating list for customers. Robert Harrison, Lock Box, Lincoln, Nebraska.

100 ROSE COMB RHODE ISLAND RED cockerels and cocks sired by roosters costing $15 to $50. $3.50, $5, $7.50, $10 each and up. 1918 matings, best ever. America's best breeding is represented here by birds of quality. W. R. Huston, Americus, Kansas.

DUCKS AND GEESE.

CHOICE WHITE CHINA GANDERS, $5 each. Earl Scott, Belvidere, Kansas.

ORPINGTONS.

BUFF ORPINGTON EGGS—HATCH guaranteed. Shipped prepaid. Leo Anderson, Juniata, Neb.

CHOICE S. C. BUFF ORPINGTON COCKereis, $4 each. Mary E. Price, Route 7, Manhattan, Kansas.

BUFF ORPINGTON HENS FOR SALE at $1.25 if taken at once. Ray Heel, Manchester, Oklahoma.

S. C. BUFF ORPINGTONS — EGGS, $2 for fifteen or $7 per hundred, postpaid. Mrs. S. S. Tate, Orlando, Oklahoma.

WHITE ORPINGTON COCKERELS, 3 and 5 dollars. Eggs for hatching. E. L. Gerardy, Americus, Kansas.

GOLD-DUST S. C. BUFF ORPINGTON eggs, $2.50 setting or $10 hundred. Mary E. Price, Route 7, Manhattan, Kansas.

PURE-BRED WHITE ORPINGTON eggs for hatching, $1.50 per fifteen. Frank Hinson, Stockdale, Kansas.

BUFF ORPINGTON EGGS, PREPAID. Pens, $2 and $1.50 per fifteen; extra quality farm flock, $1 fifteen, $5 hundred. A. M. Jordan, Route 4, Manhattan, Kansas.

PRIZE WINNING SINGLE COMB BUFF Orpingtons. Best of breeding and individuals. Splendid cockerels, $5 each. Eggs from excellent matings, $2, $3 and $5 for fifteen. Send for mating list. Sunflower Ranch, Ottawa, Kansas.

PLYMOUTH ROCKS.

WHITE ROCK COCKERELS, $2 AND $3. Nora Lamaster, Hallowell, Kansas.

BARRED ROCK COCKERELS, $2. J. Hammerli, Oak Hill, Kansas.

WHITE ROCK ROOSTERS, FINE BIRDS. Pure-bred stock. $2 each. Perry S. White, Offerle, Kansas.

BARRED PLYMOUTH ROCK EGGS, from well barred, large birds; 100 eggs for $5.50; 50 eggs $3. R. D. Ames, Walton, Kan.

BARRED ROCKS — HIGH SCORING cockerels, $5 to $10. Fifteen eggs, $3. F. F. Wood, Wamego, Kansas.

"PAYWELL" BUFFS LAY AND WIN. Eggs from superior matings, ten cents each. L. S. Weller, Salina, Kansas.

WHITE ROCK EGGS—FIFTY, $3 PREpaid. Photo free. Mrs. John Ramsey, Ft. Scott, Kansas.

PURE-BRED BARRED ROCK COCKERels, $2 and $2.50. S. A. Grindol, Perry, Kansas.

BARRED AND WHITE ROCK COCKERels and pullets from prize winners, $2, $3 and $5 each. H. F. Hicks, Cambridge, Kansas.

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Twilight Animal Stories

Bumper The White Rabbit

By George Ethelbert Walsh

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STORY XIII—BUMPER NEEDS A DOCTOR.

IT was necessary for Bumper to show a certain amount of firmness with his newly-made friends, and when he finally emerged from the hollow branch again he made a little speech to the birds.

"If you don't mind, dear friends," he said, "I must ask you to stop plucking me any more. I really can't afford to lose my fur. It's all the protection I have from the rain, and when winter comes I'll need it to keep me warm."

"But a few hairs to line my nest with won't hurt you," pleaded Mrs. Phoebe Bird.

"No," replied Bumper firmly, "if I let you have some I must do the same to all the others, and I don't want to offend Towhee the Chewink or Mr. Crested Flycatcher or any of the others. I want to be friends with all of you."

The justice of this was recognized by all the birds, and they decided not to press the question; but they were voluble with their expressions of admiration.

"I never saw such beautiful pink eyes before," remarked Piney the Purple Finch.

"Nor such snow-white fur," added Mr. Pine Grosbeak.

"I never knew there was such a thing as a white rabbit in the world," said Rusty the Blackbird.

Bumper could not feel other than puffed up by such remarks, but he tried to hide it from his new friends.

"Are all the rabbits in the woods brown or gray, then?" he asked. "I should like to see them. Do they live around here?"

"Yes," replied the Purple Finch, "but they're very much frightened and keep to their burrows since Mr. Fox came here to live."

"I should like to find them," sighed Bumper. "The fact is, I'm lonesome, and a little bit homesick. I'm not used to the woods, and I should dearly like to find some of my brown cousins so they could teach me things."

"I shouldn't think you needed much teaching," laughed the Red-Headed Woodpecker, tapping the limb with his powerful bill. "Any rabbit that can escape from Mr. Fox and climb a tree as you did must know a great deal."

The other birds nodded their heads at this remark, and Bumper looked pleased at the compliment.

"Still," he said, "I'd like to meet my country cousins."

"If I see any of them," Rusty the Blackbird replied, "I'll tell them about you. They'll be surprised to know of your coming."

The rest agreed to carry the news to the wild rabbits when they saw them, and Bumper knew that he would soon find his country cousins. He felt that he would be welcome, and safer with them. There were so many puzzling things about the woods that, in spite of his self-confidence, he was often embarrassed.

This conclusion was further impressed upon him very forcibly a few hours later. When he was certain that the fox had left the vicinty for good, he crawled through his tunnel to the ground, and began feeding on the wild grasses, leaves and strange plants that grew so thickly in the woods.

Most of the plants were new to him. He hardly recognized any of them. Some were sweet and juicy, and others were so bitter that one taste was enough. No one could help him in the selection of his food, and he had to trust to his instinct.

But instinct isn't always a safe guide when one is not familiar with his surroundings. Now just what plant it was that disagreed with him Bumper never knew. His little stomach was so full of leaves and plants that when he first began to feel sick and giddy he thought it was due to overeating.

"I'll just lie down in the shade now and rest," he said. "Then when I feel better I'll hop around and find a place to spend the night."

This was a wise decision, but it wasn't a cure. Something he had eaten clearly disagreed with him. Instead of growing better he felt worse the longer he rested. In time he was feeling so sick and giddy that if Mr. Fox had appeared he would have made short work of Bumper. His groans soon attracted the birds, and they flew to where he was lying and asked him the trouble.

"I'm dying, I think," moaned Bumper. "I must have eaten some poisonous plant, and I know I'm dying."

The birds were startled by this information, and they held an immediate consultation.

"It's perhaps true what he says," remarked Mrs. Phoebe Bird. "He's eaten some poisonous plant."

"If we only knew what it was," added the Pine Grosbeak, "we might help him. There's an antidote for every poison."

"Yes," assented the Purple Finch, "but not knowing the kind of poison, we can't prescribe the antidote."

"Why not," suggestd the Crested Flycatcher, "give him all the antidotes, and then we're sure to give him the right one."

Rusty the Blackbird laughed out loud at this suggestion. "Why," he said, "we'd stuff him so full of antidotes that he'd die anyhow. No, I think we'd better see Mr. Crane."

"What could he do? He's no kind of a doctor," indignantly remarked Mrs. Phoebe Bird. "The idea of calling him in!"

Rusty, who was a jolly, rollicking bird, winked, and added: "No, he isn't much of a doctor, it's true, but he's got one medicine that nearly always works. I'll go fetch him."

During the dispute that followed, Rusty slipped away, and before the argument had reached a climax, he returned, accompanied by Mr. Crane.

"Now, Dr. Crane," said Rusty, smiling and winking, "see what you can do with the White Rabbit. I told you what ailed him. He's eaten too much of something that disagrees with him."

"Then I can cure him," gravely replied Dr. Crane, approaching Bumper's side. The other birds crowded around to see what he would do. The appearance of Mr. Crane in the role of a doctor was a new one to them, and they were curious to see how well he would acquit himself.

"Let me see your tongue," Mr. Crane said solemnly.

Bumper stuck out his tongue obediently, for he felt so sick that he didn't care what happened to him.

"That's good! Now I must look down your throat. Open it wide."

Bumper readily complied, and Mr. Crane looked down it.

"Now hold it open," Mr. Crane continued. "Don't close it until I tell you. I won't hurt you."

Then to the surprise of Bumper and all the birds, he inserted his long, slender bill down the throat as if he intended to pull something out of it. But he had no such intention. He simply twisted the bill around gently.

Bumper felt a tickling sensation in his throat, and he wanted to gag, but the bill prevented him. The tickling went on for some time until Bumper, in spite of himself, began to gag and retch. Then, as suddenly as Dr. Crane had inserted his bill in the throat, he withdrew it.

But Dr. Crane had accomplished his purpose. The tickling in the throat had started Bumper to vomiting, and all his dinner, including the poisonous plant, came up with a rush. It made him weak and faint, but the pain in his stomach was relieved, and when he was through he looked up and said faintly: "Thank you, Dr. Crane, I feel much better."

And Rusty the Blackbird, flapping his wings, crowed with delight: "What did I tell you! Dr. Crane carries an antidote for every poison in his bill! But it's a bitter medicine sometimes."

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FOR $1 WE WILL SEND YOU, ALL charges prepaid, twenty apple, pear, or apricot, or ten cherry trees all budded, or 25 grapes or 100 asparagus or 50 raspberry, blackberry or dewberry or 150 or 75 everbearing strawberry plants or 50 red cedar or Chinese arbor vitae seedlings or 10 transplanted evergreens, four years old. Many other bargains. Catalog free. Manhattan Nursery, Manhattan, Kansas.

MISCELLANEOUS.

THIRTY DIFFERENT MAGAZINES, late issues, value $3, yours for 25c prepaid. Eastern Bureau, New Egypt, N. J.

SELL "AMERICA, WE LOVE YOU." Great new patriotic picture. Agents make $10 daily. Large, beautiful 16 x 20 sample picture prepaid, 10c. Sells for 25c. Clement Moore, Publisher, New Egypt, N. J.

ONE DOLLAR FOR YOU. WE WILL send $1 cash to first person in each neighborhood sending us the name of a farmer from whom we can buy white sweet clover seed. Small lots allowable. Standard Seed Company, Eureka, Kansas. Note: We buy field seeds.

J. Edward Pliley, of Gilman City, Missouri, owner of one of the choice herds of big-boned Spotted Polands in that state, reports his herd doing well. Mr. Pliley has the best blood lines of the Spotted breed in his herd and also has the big high-quality kind. This year he will have a large number of early litters by some of the best sires of the breed and out of the big high-quality sows in his herd.

DUROC JERSEYS.

TAYLOR'S DUROCS

For Sale—A few choice herd boars, extra good. All sired by state fair champion boars. A lot of spring and fall yearling gilts and a few tried brood sows bred for March and April litters. Priced to sell quick. Come and see me.

Chas. L. Taylor - Olean, Mo.

DUROC BOARS

Thirty-five spring boars by G. M.'s Crimson Wonder, Crimson Wonder Again Jr., Critic D. and Great Wonder, out of my best herd sows. Priced to sell. Come and see my herd.

G. M. Shepherd, Lyons, Kansas

DUROC SOWS AND GILTS

Bred to Illustrator's Climax. Gilts bred to Gano. Boars 5 to 11 months old.
WOODS DUROC FARM, WAMEGO, KAN.

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on bred gilts and boars from champions, Defender, Illustrator, Crimson Wonder, Golden Model and Critic breeding.
JOHN A. REED & SONS, Lyons, Kansas.

Guaranteed Duroc Gilts

Immune, recorded Duroc gilts with size, bone and length. Guaranteed to farrow. Shipped to you before you pay for them.
F. C. CROCKER, BOX K, FILLEY, NEB.

HAGUE'S DUROCS

Fifteen choice fall boars and gilts for sale, sired by Kansas Pathfinder by Pathfinder. All immune. **K. Hague, R. 6, Newton, Kan.**

POLAND CHINAS.

DEMING RANCH QUALITY

BIG-TYPE POLAND CHINA HOGS

Breeding stock for sale at all times. All immuned. Come and inspect our herd or write us your wants.

H. O. Sheldon, Herd Manager
OSWEGO, KANSAS.

OLD ORIGINAL SPOTTED POLANDS

Stock of all ages, also bred gilts and tried sows, bred, ready to ship. Priced right. Write your wants to
CEDAR ROW STOCK FARM
A. S. Alexander, Prop. Burlington, Kansas

Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders
J. EDW. PLILEY - GILMAN CITY, MO.

PURE-BRED POLAND SOWS AND GILTS

For Sale, above, bred to Gerstdale Jones Again and other extra good boars. All immune.
UPDEGRAFF & SON, TOPEKA, KANSAS

GRAND VIEW POLANDS

Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.
ANDREW KOSAR - DELPHOS, KANSAS

LONE CEDAR POLANDS

A splendid lot of bred gilts sired by Meyer's Orange and bred to Big Chimes, a fine son of Big Hadley Jr. Also two extra good spring boars left.

A. A. MEYER - - McLOUTH, KANSAS

REDFIELD'S SPOTTED POLANDS

Fall boars, large enough for spring service.
Chas. H. Redfield, Bucklin, Kansas.

POLAND CHINA BOARS

FOR SALE—Twelve head extra good spring boars, ready for service. Few choice gilts, bred for March litters. Fall pigs, either sex, sired by Big Tecumseh, Orange Wonder, and out of my best herd sows. The best crop of boars I ever raised. Write or come and see me. **E. M. WAYDE, BURLINGTON, KANSAS**

FALL PIGS, ready to ship. Select Spotted breeding. Express paid on pigs.
T. T. Langford & Sons, Jamesport, Mo.

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene, Peabody, Kan.**

MATTOX'S SPOTTED POLANDS—Bred sows, serviceable boars, baby pigs, for quick sale. **H. A. or Paul H. Mattox, Route 2, Burlington, Kansas.**

POLAND CHINA HOGS

150 HEAD IN HERD

Breeding stock for sale. Immune. Satisfaction guaranteed. Come and see me.
V. O. JOHNSON - AULNE, KANSAS

RED POLLED CATTLE.

RED POLLED BULLS

For Sale—Thirty head coming yearling bulls. Come early and get the best. Our experience has been those that come late found us sold out. Write or come at once.

E. E. FRIZELL

FRIZELL, (Pawnee County), KANSAS

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.
CHAS. L. JARBOE - QUINTER, KANSAS

FARM AND HERD.

W. C. Kenyon & Sons, of Elgin, Illinois, owners of one of the high class herds of pure-bred and high-grade Holsteins in that state, report their herd making a fine record at this time. A feature of their herd just now is the very fine lot of young stock, both pure-breds and high grades.

J. W. Dwyer, of Liberty, Missouri, and H. M. Marsh, of Holt, Missouri, have announced a combination jack and jennet sale to be held at Kearney, Missouri, March 8. This sale will be under the management of J. W. Snow, of Kearney, Missouri, and the offering will consist of twenty head of high-class jacks, twenty head of jennets, also two draft stallions.

One of the big Shorthor nand Polled Durham sales of the season is announced for March 26, 27, 28 and 29, at South Omaha, Nebraska. H. C. McKelvie, of Lincoln, Nebraska, will manage the sale. Eighty Shorthorn bulls and seventy Shorthorn cows will be catalogued and 100 double standard Polled Durhams, consisting of sixty females and forty bulls, will be offered. Fifty of the cows will have calves at foot.

The sale of Poland China bred sows of F. Olivier & Sons, Danville, Kansas, resulted in the disposal of fifty-three head averaging $160.18, this being one of the best sale averages ever made by Olivier & Sons. A pleasing feature of the offering was that out of the firty-four head catalogued, fifty-three head were sold at the above average. This firm has been breeding and showing Poland Chinas for twenty years. About 300 farmers and breeders were present and were royally entertained a tthe farm. The highest price was $810, paid for No. 3 in the catalog, which went to B. C. Pierce, Savoy, Texas. Mr. Pierce also purchased several other lots.

V. O. Johnson, of Aulne, Kansas, held one of the successful Poland China sales of the season. A splendid offering attracted more than 1,500 farmers and breeders to the first annual public sale held at the Johnson farm. The prize winning boar, Big Wonder, was one of the attractions. The offering was presented in splendid condition and sold at good prices. Forty-six head catalogued averaged $128.70, with a top of $350 for No. 42 in the catalog, which went to the good herd of Fred B. Caldwell, Howard, Kansas.

J. R. Young, of Richards, Missouri, has catalogued fifty head of high class Poland China sows and gilts for his March 5 sale. Inquiries for catalogs indicate widespread interest in this sale and the prospects are that it will be one of the Poland China sale events of the season.

Castillo & Son, of Independence, Kansas, are the owners of one of the heavy producing herds of Holstein cattle in this state. This is one of the herds in the Montgomery County Cow Testing Association that is making a fine record. The breeding of this herd is backed by records and this accounts for the heavy production. A feature of the herd at this time is the choice lot of record-bred young stock.

F. F. Wood, of Wamego, Kansas, owner of one of the high class Duroc herds in Kansas, reports his herd doing well. Mr. Woods has the best blood lines of the breed in his herd and has developed a type that makes the profitable hog for farmers and feeders. This year he has bred a select lot of tried sows and gilts for spring farrow. The sows are bred to Illustrator's Climax and the gilts to Gano. Both are outstanding boars. Mr. Woods also makes a specialty of high-scoring Barred Rock chickens.

H. E. Myers, of Gardner, Kansas, has announced March 15 for his annual Poland China bred sow sale. Mr. Myers has catalogued forty head of big mature brood sows and fall yearling gilts. They comprise the blood lines of Big Defender, King of Wonders, Wedd's Long King, Giant Joe, Bridges' Bob Wonder, Model Big Bob, Choice Goods, and other good pedigrees. The offering will be bred to Giant Joe, King of All, and two good sons of Big Timm.

The first annual Poland China hog sale advertised by Bert E. Hodson, of Ashland, Kansas, was held at Wichita on February 20 and resulted in the disposal of fifty head of bred sows and bred gilts. The sale was well advertised and a large crowd of representative breeders from several states was present. The keen competition was for sows bred to the champion boar, McGath's Big Orphan, a boar that made an enviable show record during the fall fairs of 1917. The sale was a success in every way. No records were broken or high averages recorded. The fifty head sold for an average of $170.70. The top price was $775, paid for No. 1 in the catalog, Wonder Beauty 3d, bred by H. B. Walter and sired by Big Bob Wonder, the premier sire of the Poland China breed and mated to McGath's Big Orphan for a spring litter. This sow was purchased by F. E. Webb, of Protection, Kansas.

The sale of Poland China bred sows of Fred B. Caldwell, of Howard, Kansas, resulted in the disposal of forty-two head at an average of $330.83. The twenty-four head of sows bred to the premier boar, Caldwell's Big Bob, averaged $443. Three hundred farmers and breeders were present. They were royally entertained at the farm by Mr. and Mrs. Caldwell. The breeding and show record of Caldwell's Bib Bob was a strong factor in attracting representative breeders from sevcral states. The highest price was $700, paid by V. O. Johnson, of Aulne, Kansas, for No. 14 in the catalog, Mollie O by Haivor Boy and bred to Caldwell's Big Bob.

The Deming Ranch, Oswego, Kansas, Poland China sale was held February 18. Owing to weather conditions and late trains the attendance was not as large as the offering justified. The local support was not strong and breeders from Missouri, Kansas and Colorado purchased a large percentage of the offering. The forty head catalogued sold for an average of $109. The top of the sale was $210.

Charles H. Redfield, of Bucklin, Kansas, owner of one of the good herds of Spotted Polands, reports his herd doing well. Mr. Redfield has succeeded in building up a herd of the easy feeding type. A feature of his herd at this time is the choice lot of young stock, including a fine lot of fall boars.

E. S. Engle & Son, of Sand Springs Farm, Abilene, Kansas, are proving in a practical way that the right kind of dairy cows are a dependable source of profit. The records of their Holstein herd, not for months but for years, is the conclusive evidence that dairy cows of the right type mean a guaranteed profit to the farmer who owns them. Every cow that stays on the Engle farm must show by actual test that she is a profit producer. Their motto is, "We don't want Holsteins to keep; we want Holsteins that will keep us."

The Kansas Holstein Breeders are ready to receive consignments for their big Holstein sale to be held in Topeka March 26, the day following the annual meeting of the association. A committee of sales managers has been appointed, consisting of F. J. Searle, Ben Schneider and W. H. Mott. At a conference of the committee recently held It was decided that members of the Kansas State Association only may participate in the sale, and that no breeder can consign more than five head, and that all cattle to be consigned be inspected by someone appointed for such duty by the sale managers. Every animal in the sale to be tuberculin tested and free from all blemishes. It is the desire of the managers that nothing but cattle of a high class be offered. Cows with creditable records, record heifers, or heifers of dams with good records, and every one of them to be of individuality as near faultless as possible. They will admit about eight bulls, but they must be from high-class sires and dams of not less than twenty-three pounds in seven days.

A. J. Erhart & Son, of Ness City, Kansas, held one of the successful Poland China sales of the season February 21. Fifty-one head of bred sows and bred gilts were disposed of at an average of $206.50. The offering was presented in splendid condition and was taken by breeders and farmers from Kansas and Oklahoma. The local support was strong and a number of the good things were bought by old customers that have bought in other sales held by Messrs. Erhart & Son. No. 4 was the top of the sale, going to McCord Bros., of Paul's Valley, Oklahoma, at the record price of $1,550, this being the state record for a Poland China sow sold in Kansas.

"Dairy Cattle and Milk Production" by Prof. C. H. Eckles of Missouri University is a book that is well worth adding to the library of every man interested in dairy cattle. Professor Eckles has had charge of a dairy herd of from thirty to fifty cows for the past fifteen years. The book presents in printed form the knowledge and experience he has gained in working with dairy cattle during this period. He has brought together a large amount of essential information that is scattered through experiment station bulletins and other publications and in the possession of practical dairymen and arranged it in usuable form. No other book published has come to our notice which so fully and completely covers dairy production from the standpoint of the farm and the cow as does this thoroughly practical book by Professor Eckles. Prof. O. E. Reed of the Kansas Agricultural College, who is so well known to Kansas dairymen, is given credit by the author for assisting in the preparation of certain portions of the material. The Mac-Millan Company of New York City is the publisher and the price is $1.60.

When Writing to Advertisers, Please Mention Kansas Farmer



SCOTT'S JACK AND JENNET SALE

AT SAVANNAH, MO. MARCH 14, 1918

Twenty-four extra good black Registered jacks, heavy-boned, thick-bodied kind, from three to six years old. These jacks are the right type and will make good. Will also offer three Percheron stallions and four Percheron mares. Write for catalog. Sale at Savannah, Mo., thirteen miles north east of St. Joseph, on the C. G. W. and C. B. & Q. Railroads. Interurban from St. Joseph arrives and departs every hour.
G. M. SCOTT, Route No 2 REA, MISSOURI



PERCHERONS AND BELGIANS

IMPORTED AND HOME-BRED PERCHERONS AND BELGIANS.

I have a good lot of horses to select from at very reasonable prices. I give a gilt edge guarantee of 60 per cent, good for two years.

Barns Four Blocks from Santa Fe Depot.

W. H. RICHARDS - EMPORIA, KANSAS

EWING BROS.' PERCHERON HORSES, SHORTHORN CATTLE, SHETLAND PONIES AND POLAND CHINA HOGS

FIFTY MARES—Weanlings to mature mares, weighing a ton or more, in foal. Herd headed by Imp. Meknes (106084) 106640, weighing 2,200 pounds.
SEVERAL MATCHED TEAMS—Fifteen head of stallions, from weanlings to six years old. The best lot of two-year-olds we have ever had. The kind to mature into ton horses or better—grays and blacks.
SHORTHORN CATTLE—A few cows for sale. Ten young bulls out of pure Scotch sire ready for service. Herd headed by Village Knight No. 398231 weighing 2,250 pounds and Choice Echo 393419, weighing 2,300 pounds, for sale.
SHETLAND PONIES at very low prices if taken soon—weanlings to broken fillies.
Phone to Ewing Bros., 903A5 or 903A12, Great Bend, or write us at R. F. D. No. 1, Pawnee Rock, Kansas.
EWING BROTHERS.

HEREFORD CATTLE.

Clear View Hereford Farm

Two bulls, one 2-year-old, one yearling, good ones, sired by Goodlad 405463. Priced to sell. Also twenty-one head of mules from yearlings to 3-year-olds.
C. E. DIFFENBAUGH - TALMAGE, KAS.

Hereford Bulls For Sale

One registered four-year-old Polled Hereford bull, weight 1,700 pounds. Also one registered Hereford bull calf, 8 months old, weight 865 pounds. Best blood lines.
F. A. LAWRENCE, Route 3, Meriden, Kan.

GUERNSEY CATTLE.

GUERNSEY BULLS.

Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to twelve months old. **ADAMS FARM, Gashland, Mo.,** 12 miles from K. C.

GUERNSEY BULLS

Three registered Guernsey bulls, 9 to 11 months old, tuberculin tested recently; best of breeding. Cows are good producers. For further information inquire of
FRED WILLE - COLUMBUS, NEBRASKA

GUERNSEY BULLS

For Sale—Two registered Guernsey bulls, one year old. Well bred and of good size.
L. W. GOSS - MANHATTAN, KANSAS

HORSES AND MULES.



JACKS AND JENNETS

15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.
PHIL WALKER
Moline, Elk County, Kansas

Malone Bros., Jacks and Percherons

We have 2 barns full of extra good jacks ranging in age from weanlings to 6 yrs. old, all over 2 yrs., well broke to serve. Several fine herd headers among them. Also jennets in foal to homebred and imported jacks. A few imported Percheron stallions royally bred. We can deal. Write or call on
J. P. & M. H. MALONE, CHASE, KAN.

Belgian Stallions

Registered Belgian Studs for Sale—Two 2-year-old Belgian stud colts, one 4-year-old Belgian stud. All ready for service.

W. J. Fitzgerald - Owner
DODGE CITY, KANSAS



PERCHERONS AND JACKS

FOR SALE—Four jacks, two coming three-year-olds, one four-year-old and one ten-year-old. All good size, sound and guaranteed. Will price a few good jennets. Also have five Percheron stallions and a few good mares, priced right. Come and see me.
M. G. BIGHAM & SON, OZAWKIE, KAN.
7 miles from Meriden, Kan. 10 miles from Perry, Kan. 20 miles northeast Topeka.



Percherons, Belgians, Shires
2, 3, 4 and 5-year stallions, ton and heavier; also yearlings. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.
Fred Chandler, R.7, Chariton, Ia.
Above Kansas City.

Choice Young Belgians, English Shires, Percherons, also Coach stallions, also mares. Many first prizes. Long time 6% notes.
Illinois Horse Co., Good Blk., Des Moines, Ia.

40 Percheron Stallions and mares, weanlings up. 20 Mammoth jacks, 10 jennets in foal. Priced reasonable. **Al E. Smith Lawrence, Kansas.**

WHEN WRITING TO ADVERTISERS MENTION KANSAS FARMER

POLLED DURHAM CATTLE

Shorthorns and Polled Durhams

In Big Four Day Sale

So. Omaha, Neb., March 26, 27, 28, 29

150 Shorthorns, 80 bulls and 70 cows and heifers sell on the first two days.
100 Double Standard Polled Durhams, 40 bulls and 0 females sell on the last two days.
50 Calves go free with dams in the four days. Car lot buyers will find this event attractive.
Write for illustrated catalog of the sale that you are interested in to

H. C. McKELVIE, SALE MANAGER
LINCOLN, NEBRASKA

TRUE SULTAN POLLED DURHAMS

A few heifers bred or open are offered. Some by or bred to the champion $2,200 True Sultan and Sultan's Challenger.

ED STEGELIN
STRAIGHT CREEK - - - KANSAS

WILD WOOD STOCK FARM

POLLED DURHAM CATTLE

For Sale—ten bulls of serviceable age, sired by Roan Acacia 9021. Dam, Golden Acacia by Acacia Victor, a double standard bull from D. C. Van Nice herd. Write at once. These bulls will sell.
T. M. ETHERINGTON, Hamilton, Kansas

Jerseys Win Economy Test



In a recent test at the Ohio State University, 157 Jerseys and 131 members of another dairy breed were entered. The Jerseys required only 75.3 per cent as much digestible nutrients per lb. of fat produced as did the other breed. Further, they produced 1.2 per cent more milk, 25.6 per cent more solids and 59.3 per cent more fat per 1000 lbs. live weight. Jerseys produce the largest *net profits* from every pound of feed. Build a Jersey herd. Write to breeders for prices.



Send today for free book, "The Jersey Cow in America."

The American Jersey Cattle Club, 375 West 23rd Street, New York City

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120 JERSEY COWS AND HEIFERS

Pure-bred and high-grade. Forty bred yearlings, superior individuals, all from profitable dams, now for sale.

J. W. Berry & Son
JEWELL CITY - - - - KANSAS

IDYLWILD STOCK FARM

REGISTERED JERSEYS OF BOTH SEXES FOR SALE

C. F. Blake, Glasco, Kan.

LONGVIEW JERSEYS
(Register of Merit Herd)

Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.

Longview Farm
LEE'S SUMMIT - - - MISSOURI

BROOKSIDE JERSEYS

Registered Jersey Bulls, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.

THOS. D. MARSHALL, Sylvia, Kan.

LOMAX JERSEYS

A Herd of Producers, Backed by Records. Popular blood lines. Choice individuals. We invite inspection of our herd at all times. Write us your wants.

Dr. J. H. Lomax
STATION B - - ST. JOSEPH, MO.

B. C. SETTLES

MAKES A SPECIALTY OF MANAGING JERSEY SALES.

Write for catalogs.

Palmyra, Missouri

REGISTERED JERSEY BULLS

BUTTER-BRED, FROM HIGH-PRODUCING COWS.
Photo furnished.

Maxwell's Jersey Dairy
ROUTE 2 TOPEKA, KANSAS

Fine Young Jersey Bulls

From Register of Merit and tested cows; Register of Merit sire.

Dornwood Farm, Topeka

J. B. PORTER & SON
MAYETTA, KANSAS

BREEDERS OF HIGH-CLASS JERSEYS. STOCK FOR SALE AT ALL TIMES.

WRITE US YOUR WANTS.

Allen Center Stock Farm

Registered Bull Calves — Some Ready for Service.

Sale or exchange for bull or heifers.
TREDWAY & SON, LA HARPE, KAS.

Otey & Wooddell's Duroc Sale

THURSDAY, MARCH 7, WINFIELD, KANSAS

55 - Royal Bred Sows and Gilts - 55
10 - BOARS - 10

HERD BOARS

THE GREAT HERCULES—900 pounds in breeding flesh.
CHIEF'S WONDER—A wonderful son of Cherry Chief.
PATHFINDER'S CHIEF 2D—One of the greatest sons of the mighty Pathfinder.
THESE ARE PRE-EMINENTLY THE BIG BOARS OF THE SOUTHWEST.
Send for catalog and come.

Otey & Wooddell, Winfield, Kansas

THIS IS KANSAS' BIG DUROC EVENT OF 1918

COMBINATION SALE OF TWENTY JACKS, TWENTY JENNETS AND TWO DRAFT STALLIONS



At Kearney, Missouri

Twenty-six miles east of Kansas City, on Burlington and Rock Island Railroads, on

Friday, March 8, 1918
at 1 o'clock sharp.

Some very fine herd jacks, Limestone King 442 and others, and a number of good mule jacks. Come out and get a good jack. Sale under cover. Under the management of J. W. Snow, Kearney, Mo.; J. W. Dwyer, Liberty, Mo., and H. M. Marsh, Holt, Mo.

Col. P. M. Gross and Col. J. W. Mathews, Auctioneers.

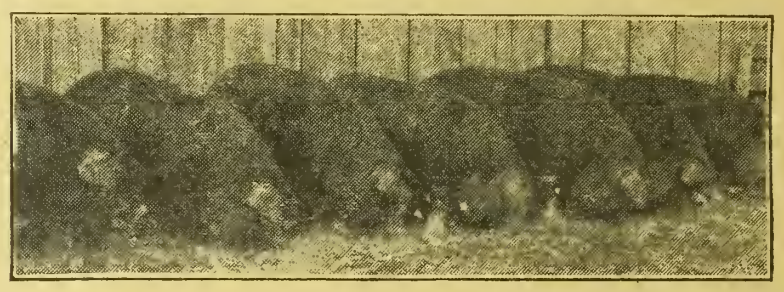
Myersdale Farms' Poland Chinas

First Annual Bred Sow Sale to be Held in Westminster Hall

Gardner, Kans, Friday, March 15

FORTY HEAD OF TRIED SOWS, FALL YEARLINGS AND SPRING GILTS

Sired by such boars as BIG DEFENDER, KING OF WONDERS, WEDD'S LONG KING, GIANT JOE, BRIDGES' BOB WONDER, MODEL BIG BOB, CHOICE GOODS, and others of prestige.



The offering is bred to Giant Joe, King of All 2d by John B. Lawson's King of All, and good sons of Big Timm and Storey's A Wonder. We used two young boars, one by Big Timm and the other by Storey's A Wonder. Have sold both pigs.

One Gilt Will Be Sold for the Benefit of the Red Cross.

Lunch by Red Cross ladies. O. W. Devine will represent Kansas Farmer.

H. E. Myers, Gardner, Kansas

Auctioneers—Cols. J. C. Price, W. F. Reed, and J. A. Marshall.

MULEFOOT HOGS.

KNOX KNOLL STOCK FARM
MULEFOOT HOGS SHORTHORN CATTLE

Registered stock for sale at all times. Am offering some bargains in bred sows, summer gilts and fall pigs. Write for prices and catalog to S. M. KNOX, Humboldt, Kansas.

ANGUS CATTLE

ANGUS CATTLE AND BERKSHIRES

For Sale — Registered Aberdeen Angus cattle and Berkshire swine, both males and females for sale now. Address
GEORGE M. McADAM - HOLTON, KAN.

SHORTHORN CATTLE.

THE SHORTHORN IS THE BREED FOR YOU

Shorthorn steers at the International, Chicago, made the highest dressed welght percentage of any breed. Sixty yearlings averaged 65.3%.

Shorthorn steers were grand champions at Denver, Portland, Salt Lake City and Chicago.

Shorthorn cows are making records up to 17,564 pounds of milk and 569.7 pounds of butter fat per year.

Address Dept. W.
American Shorthorn Breeders' Ass'n
13 Dexter Park Ave. Chicago, Ill.

MARKS' LODGE

Home of Shorthorn Cattle. Reds Exclusively.
A few choice young bulls for sale, from my best milking cows. All registered. Come and see me.
DR. M. F. MARKS, VALLEY FALLS, KAN.

SCOTCH SHORTHORNS

Twelve Choice Bulls, reds and roans, from seven to fifteen months old, sired by such bulls as Ploneer, Excelsior and Mistletoe King. Priced reasonable.
C. A. COWAN & SON, ATHOL, KANSAS.

Cedar Heights Shorthorns

For Sale—Three red bulls, 12 months old. A few cows and heifers. Priced reasonable. Come and see my herd.
HARRY T. FORBES
Route 8 Topeka, Kansas

Pearl Herd Shorthorns

Village Heir by Imported Villager and Orange Lovel by Victor Orange in service.
FOR SALE—Fifteen young bulls from 8 to 14 months old, reds, whites and roans. Scotch and Scotch topped. Inspection invited. Can ship on Rock Island, Union Pacific or Santa Fe Railway.

C. W. Taylor, Abilene, Kansas

SCOTCH SHORTHORNS

Bettie's Albion 399451 now for sale. Roan, weight 2,000 pounds lf fat. Strong breeder. Also six bulls from 6 to 24 months old, reds, whites and roans. Write
C. E. HILL - - TORONTO, KANSAS

GALLOWAY CATTLE.

GOOD GALLOWAY BULLS

Twenty-five Extra Good Yearlings
Extra breeding and quality. Priced to sell.
J. M. HILL, SEDGWICK, KANSAS
Route 4, Box 65A

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.
E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

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Volume 56, Number 10. TOPEKA, KANSAS, MARCH 9, 1918. Established 1863. $1 a Year

MARKETING LIVE STOCK

Sell Beef, Pork and Mutton Instead of Cattle, Hogs and Sheep

FROM the nature of our marketing system we do not market beef, we market cattle. This was the assertion made by Albert Berns, of Peabody, before the Kansas Live Stock Association in Wichita last week. Mr. Berns is one of the most extensive cattle feeders in Kansas. He gave numerous instances to illustrate the illogical and unjust system followed in buying our meat-producing animals at the great central markets. He said in part:

"Would it not be better if we marketed beef, pork and mutton, rather than cattle, hogs and sheep? By selling meat-producing animals for their value determined after they are killed, we could arrive at their actual value much better than we are doing under the present system. I have no grievance against any packer, buyer or commission man. My business relations have been of the most pleasant character and I have sold the packers 99 per cent of the cattle I have handled since I have been in this business. I even borrow the money I do business on largely from them, weigh the stock I sell them over their scales by men employed by them to do the weighing, and as far as I know they have never treated me dishonestly. They are what we term today good business men, and I do not think there are very many of us that would refuse to own and handle a business as they own and handle it. They are the victims of our present system, just as much as we are, only they are the willing victims and we are the unwilling. It is the system that is wrong. Take an analysis of our so-called markets. In the selling transaction where their value is determined you very rarely hear of their meat value discussed either as to quality or quantity. Last September there was a range of values on beef animals quoted in the report of the Chicago live stock market from $6 to $17.90 per hundredweight, and a valuation placed at every 5 cents between the top and the bottom of this range, or 238 valuations placed on live stock classed as beef. Eliminating a class called canners there were about 200 valuations. In this same report there were three quotations on beef. Now if we producers of beef animals only produce three classes of beef, why should we have 200 or more classifications made on our beef animals?

"The packers will probably contend that on account of the uncertainty of the dressing percentages they have to buy them that way, and through the judgment of the buyers they are really only getting three classes of beef. Now if the buyers can and do in buying these cattle at 200 or more classes alive, ad just them into three classes as beef fairly to the producer, we have no argument on that score. But is it not reasonable to suppose that the buyer that succeeds in getting the most cattle for the least money is the one that finds the most favor in the eyes of his employer and gets advanced to the more favorable positions? And is it not fair to assume that the most of our so-called head buyers are those that have demonstrated their ability to get the most cattle at less than their real value? We cannot conceive of a packer long retaining a buyer that does not make a good showing along this line. By taking the actual value determined after they are killed, could we not eliminate this guessing value that certainly does not work to the advantage of the producer? When these widespreading valuations are in effect, as they are during the last four months of the year, there are cattle purchased on foot at values far apart that cost the same in the beef.

"In my own experiences that I have cited, cattle marketed only a day apart have netted $10.80 a head difference on exactly the same cattle. Cattle marketed the same day with only a few hours difference in the time of their arrival, have varied $5 a head in the net return. Cattle marketed the same time of the day, sold by the same salesman to the same buyer, have varied in price more than $1 per head. And cattle of the same kind, had they been marketed on a different market the same day, could have varied $16.80 per head and possibly sold to the same packer. It looks as though these statements were almost too nonsensical to be true, but they are actual experiences of my own, and the chances are that I have not been subject to the worst that has occurred along this line. A dressed meat value would have eliminated almost every one of these experiences, nor have I cited all the peculiarities that have occurred to me along this line, but only enough to bring out these points.

"A product as highly consumable as beef should have a certain fixed value, at least for a few hours, and probably does have this kind of a value, but leaving the actual value to a matter of guesswork when we are selling the cattle that go to make this product, is where we are lame. Better arrange to sell the product than the cattle. Under our present system we are encouraged to sell as much water for beef as we think we can get away with, and do you think we are getting away with selling any water for beef? Do you not think it more likely that we are selling more beef as water than water for beef? How long would a packet retain a buyer that was getting too much water mixed with his purchases? About sixteen months ago I wrote my salesmen at Kansas City and St. Joseph that they could sell my cattle off the cars without feed or water as they arrived if they could do any better that way. I did not make any effort to ship my cattle in a condition that would cause them to fill when they arrived in market and I never had more satisfactory selling of cattle than during this period. I did not do this through any charitable feeling for the packer, but because I realized that a satisfactory killing sheet was a better price maker for me than an unsatisfactory one, and I could not long get away with filling these cattle with water.

"Beef speculation has given cause to develop cattle speculation, and this is not best for the good of production. There has been a tendency to put cattle feeding and handling in the hands of fewer men each year. Under our present system they are better able to cope with a centralized distributor. * * *

"An ideal situation would be with a marketing condition that would warrant a feed lot for every farm. As conditions now exist you cannot but notice the so-called small feeder dropping out. With probably only one day's market applying to the marketing of their production of the year, those that are caught on this class of the market called 'lower' and 'draggy' see their year's work go for nothing, or often at a loss.

"This past summer shows us the result of a market in the hands of speculators. We saw a market advanced for cattle such as we had never before experienced. I say advanced here, because I think the market was advanced by some factor that has a power to do this thing, and it represented a condition this factor wished brought about. If the producers of beef in this country had been asked to invoice their cattle at their own price, I doubt very much if they would ever have placed the valuation on them that was placed there. There was something back of establishing these high prices, outside of any necessity of either production, distribution or consumption. Possibly it was because there were immense stocks of meats in the hands of a few holders, as the Government reports at that time show. There never before had been the accumulation of meats that then existed. Possibly it was because there were to be let contracts for large quantities of meats and the high level for them was a more desirable basis for the interests of those supplying those contracts than a low level. It is not so material just what motive caused this manipulated market as it is material that such a thing can occur. Neither is it to the best interests of production or consumption that an influence outside of either of them can and does have an unnatural influence over them. * * *

"Of the three big factors in the meat industry — production, distribution and consumption — production and consumption are paramount and vital. Both are democratic and competitive. Every feed lot, pasture, hog pen or sheep corral is a competitor open and above board, and democratic because there are no secrets or treaties existing to control this factor. Every agency for better or more economical production is an open book where we may all read. Consumption is a vague thing, working without financial remuneration, and democratic because it is beyond the control of any man or agency. Between these democracies has arisen a commercial autocrat which threatens production and consumption as much as any political autocrat ever threatened the democratic world. This autocrat has taken control of the meat industry of our country and we know not how far he has gone in taking control of this western hemisphere. Possibly in the hands of those now controlling the industry it has been wisely handled, but who will account for the vision that may come to one of these autocrats?

"It is possible to have a good and just autocrat, and it may be that ours is that kind, but it is not safe to consider we will always be blessed that way, and it is up to us to neutralize this autocracy. There may arise in our midst one who conceives of controlling not only the meat industry but all food products, whose vision plans for a power not alone on one continent but in one hemisphere, and plays continents for his own satisfaction one against the other. I do not say we have such a man or set of men, but very often when you want to see which way the wind is blowing you look at the smoke.

"Now of the two great factors in this industry, production and consumption, whose fight is it to see that distribution is made a neutral factor, and marketing placed on a just and equitable basis? It certainly does not look as if we could put it on the shoulders of consumption, working as it does without financial remuneration. To us who represent production, belongs this fight. As an individual any one of us would be powerless; as an organization like the Kansas Live Stock Association we would lack enough power. But with a united effort, combining all the organizations representing production making a fight for what is right, through and assisted by our Government, we should be able to win. What I have advocated—the selling of meat-producing animals by determining their value after they are slaughtered—is only a pill for the ill that threatens us. It is possible that we need a surgical operation."



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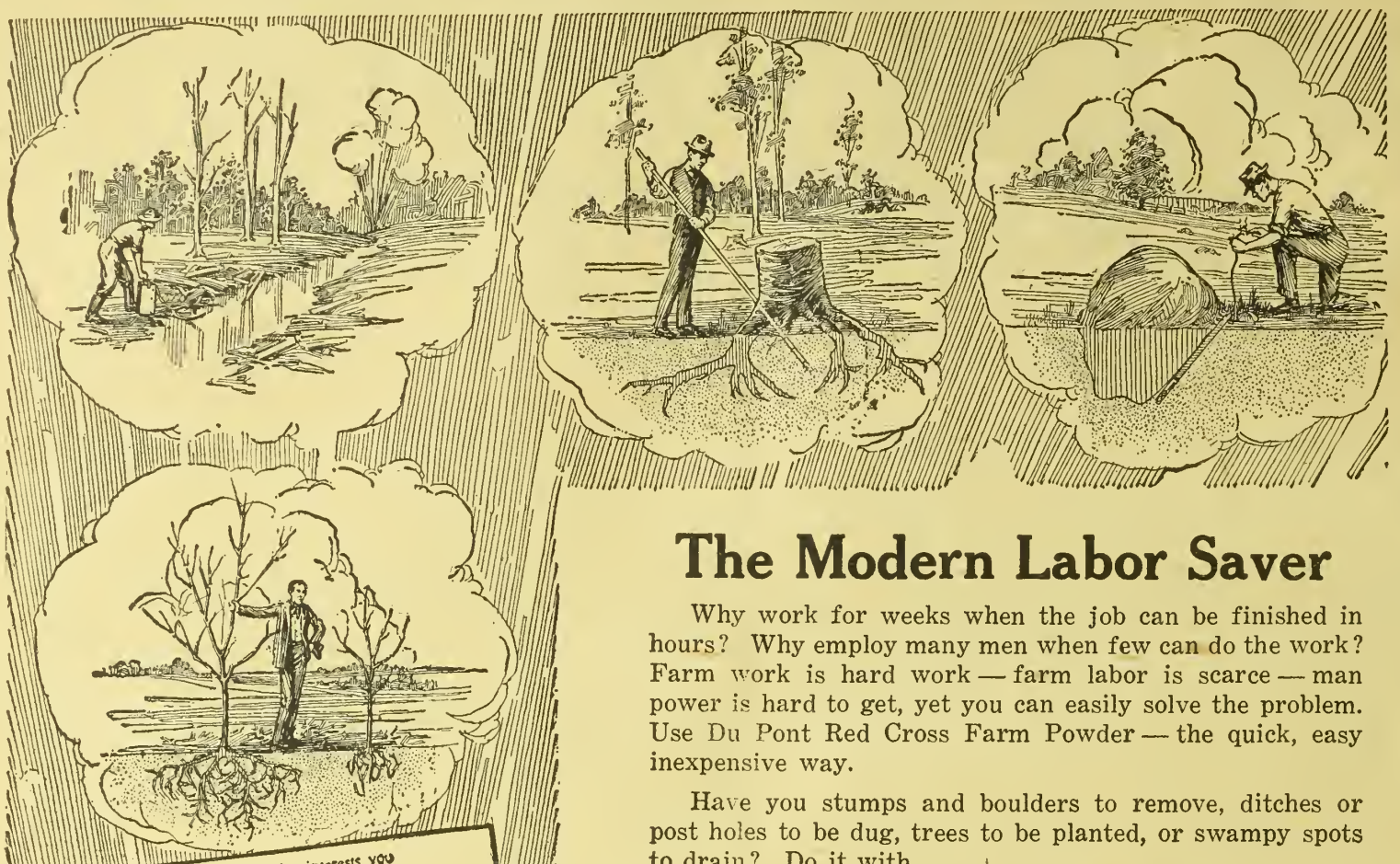

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PRICE OF MILL FEEDS

On another page of this issue we give the new rules regulating the prices of mill feeds. There has been a good deal of complaint that mill feeds were unregulated and that extortionate prices were being charged. Before the price of wheat was regulated and when it was selling on the market as high as three dollars a bushel, bran was selling as low as $1.25 a hundred. These new rules constitute another step in regulating those who would profit from the necessity of the live stock men who cannot continue production without purchasing a certain amount of mill feed. Some time ago rules were announced which restricted the price millers could charge for mill feed, basing it on the actual cost of the wheat used. For example, the price of bran was fixed at 38 per cent of the cost of the wheat from which it was made. These first regulations, however, did not extend far enough down the line to reach the actual consumer.

As the new rules are interpreted, a farmer who might go to a mill where the wheat has actually cost the concern $2.10 a bushel, should be able to buy a carload of bran for $1.60 a hundred. It figures out as follows: If the wheat cost the mill $2.10 laid down, the rate is $3.50 a hundred, and 38 per cent of this is $1.33, the bulk price of bran. To this must be added the cost of sacks, which would bring the price to about $1.60. To get this price, however, the farmer must buy it for his own use as feed. If he wants 200 sacks of bran, the mill can take a jobber's profit, which is $2.50 a ton cash, or 12½ cents a hundred. This raises the price to $1.72½ a hundred. In purchasing a smaller quantity than 200 pounds, the mill is entitled to a retailer's profit, which is 20 cents a sack, raising the retail price to $1.92½.

Very few mills choose to do a retail business. The retailer to whom they sell must pay them at the rate of $1.72½, this including the jobber's profit. In selling to his consumers he can take his 20 cents a sack profit. The important point in the new rules is that they regulate the profits which jobbers and brokers can make in handling mill feeds. The margin is fixed and it cannot exceed the fixed amount, no matter how many different jobbers may handle the product between the mill and the ultimate consumer. Read the rules as printed on pages eight and nine and if you are not getting the correct prices, report all the circumstances to the State Food Administrator at Wichita.

HOOVER MAKES INVESTIGATION

It was announced some two weeks ago by the Food Administration that an exhaustive investigation was to be made of the complaints coming in that extortionate prices were being charged for mill feeds in certain western states. Alfred Brandeis, brother of Associate Justice of the Supreme Court Brandeis, who has recently joined the Food Administration, was sent out to go into these matters co-operating with the state food administrators.

The initial investigations were held in Oklahoma, and in addition to the investigation of mill feed complaints Mr. Brandeis has also gone into the alleged practices of milling concerns in buying grain for their own use in such a manner as to discriminate against co-operative elevators which had to sell only through the grain corporation. We commented on these grain grading complaints in our issue of February 23, and in our issue of January 12 published a statement telling of an incident occurring at Byers, Kansas, which illustrated the practice it is charged it being followed by milling concerns.

We do not have at hand the official report of the results of Mr. Brandeis' findings in regard to this Byers incident, but have been told that the evidence submitted convinced him that there was a sound basis for the complaint made that the rules were being manipulated to the detriment of independent grain buyers, such as the farmers' elevators. A definite promise was made at one of the hearings that this sort of thing would not be permitted to happen in the future. We are glad to learn that the Food Administration is going into these matters in such detail.

STOCKMEN START WAR CHEST

The need of suitable representation in Washington was so forcefully brought before the recent meeting of the State Live Stock Association in Wichita that it was only the matter of a few minutes to raise a fund of over $15,000 to cover the necessary expenses of sending thoroughly informed representatives to confer with the Food Administration.

When the association came to the election of officers for the coming year, W. R. Stubbs, the retiring president, was nominated and re-elected by acclamation. He gracefully expressed his appreciation of the honor conferred upon him, but insisted upon offering his resignation, stating that the association had been free from all political entanglements the past year and he wanted it to continue that policy. George T. Donaldson, of Greensburg, who was up for vice president, was immediately placed in nomination and elected as president. The constitution had been amended to provide for several vice presidents and these offices were filled by electing John E. Edwards, Eureka; Dan Callahan, Kingman; James R. Plumb, Emporia, and Ed Root, Brookfield, first, second, third and fourth vice presidents, respectively. The offices of secretary and treasurer were combined by the constitutional amendment and filled by the appointment of the executive committee. J. H. Mercer, who has been secretary the past year, was appointed to this office of secretary-treasurer.

The meeting just closed was the fifth annual convention of this organization. Fully 1,200 of the members were in attendance. With the new members enrolling during the meeting, the membership is now about 2,400. Plans are under way which will make this a most powerful organization.

The raising of the $15,000 war fund is significant of the spirit which animates the membership of the association. Dr. H. J. Waters in his talk on price-fixing told his audience that when the wheat price-fixing committee was at work he had to send frantic telegrams to the farmers of the West in order to bring in letters and messages concerning the cost of wheat production. Not a farmer or farm representative was to be seen in Washington, while in another building where the coal price-fixing committee was at work it was impossible to get in to the room for coal men crowding the halls. This illustrates the way in which the Food Administration is compelled to do its work. Every interest except that of agricultural production is on hand in force. The statement appearing on another page of this issue, prepared and adopted at Wichita after a long discussion, indicates the feeling of those engaged in live stock production. While it rather sharply criticises the handling of the meat production question, it proposes to help the Food Administration in a constructive way by furnishing in definite form the real facts as they exist on the farms and in the feed lots and market places of the country.

The press notices simply announce that a committee is to be sent to Washington, but the importance of this action hinges around the systematic gathering of definite information from all over Kansas and on production costs. A committee armed with such information will be welcomed by the Food Administration because it will give them the basis for putting into effect such regulations as will stimulate and increase meat production. The President has announced the policy of a just price for all production, and that is all the live stock men ask or expect.

The secretary of the Live Stock Association, J. H. Mercer, Topeka, Kansas, who is also a member of the committee to be sent to Washington, will welcome any and all information on the actual cost of growing and marketing live stock products or any phase of this business. It is up to the producers to see that the Food Administration is informed. In the stress and strain of war the men working on these tremendously difficult problems cannot go out and gather the information themselves. Let us not aimlessly find fault, but do our part in furnishing constructive information which will enable them to get the correct viewpoint and so be able to do those things which will mean increased production and a just price to all.

NO TRACTOR DEMONSTRATION

Public plowing demonstrations of tractors have been a prominent feature of tractor development during the past few years. In view of present conditions it has been decided that no attempt will be made to hold a demonstration this year. The tractor demonstration committee of the tractor and thresher division of the National Implement and Vehicle Association held a meeting in Kansas City on February 13 and came to this decision. In considering plans for a demonstration it seemed to the committee that the problem of transportation was of most vital importance. After a thorough discussion of the question, the following resolution was unanimously adopted:

"On account of congested conditions of railroads and uncertainty of securing adequate railway equipment for shipping goods now required on farms, and in view of this critical transportation situation, it is the sense of this committee that it is questionable whether it is either patriotic or practicable to hold any national tractor demonstrations during 1918.

"Therefore, be it resolved, that consideration of the time and place of holding such demonstrations — if conditions should change to make it possible — must perforce be deferred until a future meeting of the committee."

NEBRASKA FARMER EXPANDS

The purchase of the Twentieth Century Farmer, Omaha, Nebraska, by the Nebraska Farmer Company, Lincoln, has just been announced. This consolidation will greatly strengthen the Nebraska Farmer, which is already recognized as the leading farm paper of Nebraska. The papers will be continued under the name Nebraska Farmer. The final consolidation will take place June 1. The sixty-four page two-color Hoe perfecting press and strictly modern electrotyping plant of the Twentieth Century Farmer will be moved to Lincoln. S. R. McKelvey, the editor in chief of the Nebraska Farmer, worked for the Twentieth Century Farmer for three years in the beginning of his career as a farm paper editor and publisher, leaving that publication to become editor and later principal owner of the Nebraska Farmer.

JARDINE NEW PRESIDENT K. S. A. C.

William M. Jardine, who for the past five years has been dean of the agricultural division of the Kansas Agricultural College and director of the experiment station, has been advanced to the presidency to succeed Dr. H. J. Waters, whose resignation took effect January 1, 1918.

This appointment comes to Dean Jardine as a well-earned promotion. He has become prominently identified with the agricultural interests of Kansas since he has been connected with our Agricultural College. He came to Manhattan in 1910 as professor of agronomy, after having spent three years as cercalist in the Federal Department of Agriculture. He is a graduate of the Utah Agricultural College and following his graduation was instructor in agronomy and later assistant professor of agronomy at this institution. He also spent a year as manager of the Utah Arid Farming Company. Doctor Jardine thus brings to his new duties as head of this great institution a varied experience in agricultural work and administration. He will have the full support of the agricultural interests of the state and the faculty of the institution which he now heads.

WICHITA LIVE STOCK SHOW

Wichita has just cause to be proud of the success attained in its second live stock show, which was held last week. The showing of draft horses was exceptionally strong. Some of the best draft horses in the country were on exhibition, there being herds from as far away as Illinois and Indiana. Some exceptionally strong herds of beef cattle were also shown. The Herefords were represented by eight exhibitors, over eighty animals being entered. There were also eight exhibitors of Shorthorn showing over ninety animals. In addition to these show cattle there were a good many Herefords and Shorthorns in the barn which were brought there for the sales which were conducted in connection with the show. Only two herds of Angus cattle were on exhibition, but they were all high-class animals. Only one herd of Galloways was shown. Considerably less money was offered in the Angus and Galloway classification, and this probably tended to keep down the showing in these breeds.

The Forum is a splendid place in which to show live stock. The ring is large and well lighted and there is plenty of seating capacity so visitors can see what is being done. The horse show being held in the evening was a feature which attracted a great deal of attention and was largely attended.

Wichita is located in the heart of the cattle country of the Southwest, and its importance as a live stock center will increase. Lack of space for showing the stock is a handicap here as in other large cities where live stock shows are attempted. In addition to the showing of horses and beef cattle there were several herds of dairy cattle, a strong exhibit of hogs, and some exceptionally good sheep.

Pocket gophers are among our most destructive farm pests. They destroy fully one-tenth of the alfalfa crop of Kansas each year. They can be destroyed by using a poison syrup or by sprinkling equal parts of powdered strychnine and common table soda on bits of sweet potato and placing the bait in their runs. The zoological department of the Agricultural College supplies the poison syrup at actual cost. The college farm has been cleaned of gophers several times, but they keep coming in from the outside so it is necessary to repeat the process of poisoning.

We have just received a small supply of tentative income tax return blanks for the year 1917 for the use of farmers. It is the opinion of the Revenue Department that a large number of persons liable to the tax under the law have failed to receive the proper forms. They are anxious that every probable income tax payer shall have full information and ample opportunity to make return. The time for filing returns has been extended to April 1, 1918. We will mail copies of these blanks to any who need them.

A WAR-TIME FARM PROGRAM

Must Maintain Efficiency Through Better and More Carefully-Made Plans

By P. E. McNALL, Farm Management Specialist, K. S. A. C.

YOUR war-time farm program should be planned to make every farm item and operation count for as much as possible. During peace times efficiency is often sacrificed for convenience—seed is plentiful, new machinery more satisfactorily handled than old, and labor is generally easily obtainable if wages are right.

The farmer who is intending to produce efficiently during this war, however, must realize that seed, implements, and human labor are all necessary not only for the production of food but also for production of the destructive agencies which are likewise essential for the winning of the war. His program must be planned so that he may not only do his bit by producing as much as usual, or a little more, but he should so plan his work as to be able to do it with a minimum of seed, new implements, and human labor. There should be as little competition as possible between the farmer and the manufacturers for these essential factors of both classes of industries.

The fundamental features of the farm program under these conditions should be clearly defined. The details, however, must be worked out by each individual farmer, and effective practices for one farm will not necessarily be adaptable in all details to another. Because of the extra demands made by war-time manufactures for the agencies which are also necessary for the raising of farm products, the farmer must get along with less than has been his custom. In order to do this he must either cut down his acreage of crops, use substitutes for human labor, or diversify his farming operations. To cut down the acreage of crops would mean loss to both the individual and the nation unless such reduction makes it possible to produce more effectively and in greater quantities than was done on the original acreage. This is seldom the case, and should not be suggested as a means of solving the problem.

The question of human labor is undoubtedly the most important problem of the farmer today. A small fraction of the regular help is now in the national army, the occasional itinerant hand will not be available, and the necessary importation of men at harvest time will have to be met by a definitely organized plan if the available man labor is to supply the visible harvest demands. The problem of transporting this army of men from the South to the North as harvest progresses should form a part of the Government program.

The general farmer will probably have to depend upon the local labor to meet his ordinary farm labor requirements. Any change in farming operations which will give the same or equivalent production with decreased labor will help in the solution of the labor problem. These changes may be in the form of fewer operations, combining of others, or eliminating as much as possible the chance of repetition work.

There is always a possibility of the farmer training some home labor during the early spring which will be available for his use later on during the busy season. There are many town boys who are willing and energetic but who need to be trained in the handling and care of horses and machinery. If a farmer who has the time during the spring and the required patience to give the boy the necessary training, this particular boy should in turn be available to the farmer when needed.

In ordinary years it is generally less inconvenient to plant what seed one has than to test for purity and vitality. If the season be good, seed of either fair or good vitality will make a fair stand, and the time for testing is considered lost. If, however, the season is not very favorable, the seed of fair vitality will fail to grow and replanting becomes necessary. This occasional replanting is ordinarily not considered to be as much trouble as testing. Now, however, because of the deficiency of good seed and decreased available help, it becomes necessary not to risk the planting of poor seed. The best insurance against replanting is to test long enough in advance of planting time to be able to replace with good seed that which shows poor vitality.

Another time and labor-saving habit is that of taking care of the machinery on the farm. A machine which rusts out and has to be replaced by a new one draws just that much human labor from some other necessary occupation. By going over all machinery before spring work opens up, needed repairs can be listed and ordered. The machinery will then be ready for use when needed without taking from one-half a day to two days during the very busy season for making necessary repairs.

Practically every machine has some part which wears much more rapidly than the others and is generally the cause of the trouble which develops while the machine is in use. It may be a canvas, a roller, a boxing, cycle plates, chain links, or reel posts, or trouble may arise from the loss of bolts or locknuts, the need of certain wrenches, punches, or other articles. Whatever it is, it is possible from previous experience with the machine or implement to be in position to know what the weakness probably is and order the new part before time for using the machine.

If one is planning upon the use of extra machinery, as a tractor, he should know what the possibilities and the probabilities of the machine are, what it will and will not do, whether it is adaptable to his particular farm and to the work for which he is getting it, and whether he sufficiently understands its operation and repair to run it effectively, or will be dependent upon a specialist in case it fails to do the work for which it was intended.

If he plans upon using a new type of machine for some necessary work he should have a substitute which can be used in case the machine fails to operate properly. After he becomes sufficiently acquainted with the particular machine, the substitute may be disposed of. A survey of the tractor owners of the state shows that tractors have replaced approximately two horses on each 300 acres of cultivated land. The results so far show it to be an extra machine and a desirable one only if the farmer can afford to own it.

There is also an opportunity of using available labor to better advantage by putting part of the acreage to a crop which will demand labor at a little different time during the season, thus giving the labor more continuous employment. This arrangement reduces the amount of labor needed at any particular time. It also gives a more constant demand for the labor continuously available. Such a program should not include new or untried crops. The safest farming is that which follows the best practices of local men. Any experimentation which is done either with stock or crops should be on such a scale that its failure will not seriously handicap the farm for the season.

Many labor-saving devices are being recommended for the farm. Some have real worth, while others need not receive a second's consideration. Many farmers will be able to efficiently add a self-feeder to their equipment, thus cutting down time and feed required for fattening the stock. Other farmers have several machines, as feed grinder, pump, churn, separator, washing machine, and other similar equipment with pulley for power use. They lose much time in moving the engine from place to place in order to do these various pieces of work. A line shaft would eliminate this waste of time.

There are those who could easily use a milking machine and thus remove one reason for the inability to keep a hand. This equipment is seldom recommended, however, for a dairy herd of less than fifteen cows.

It is not possible to make each operation and transaction count for the utmost unless some record is kept of the farm business. To do this requires either au unusual memory or some particular system of records. It is always questionable if any person should occupy his memory with records and figures which could conveniently be noted, thus leaving his mind free for plans concerning his work.

Some definite plans should be made for the keeping of certain accounts, those likely to be most valuable. Before deciding upon what records to keep, get a clear idea of what the records are to show. What is it you want to know or learn about your business? What is the question you ask yourself most frequently concerning your business? When this is decided you can determine what records are necessary for showing these particular points. It will become absolutely necessary to keep certain records and any additional or unnecessary records will not only take more time, but will not give information which will help in answering the specific question. A set of records, well thought out, will pay many times over for the time required to keep them. Likewise a farm business which is planned in advance will ordinarily give greater returns per unit investment than the same carefully managed farm with no working plans.

An Ideal Community Center

By SARA CHASE

THE value of a good school as a center of community interests is well illustrated by the Strong District School in Riley County, Kansas. In this little country neighborhood the school house is the center and wellspring of intellectual and social endeavor. The community boasts a welfare club, a thriving literary society and an annual community fair, all of which have their home in the school building. Aside from the social value of the school, the course of study is exceptionally good for a country district, since in addition to the eight grades usually taught, two years of high school work is given. This work includes domestic science and art for the girls and manual training for the boys.

Cash prizes and blue ribbons are given for poultry, live stock, butter and fancy work at the annual community fair. This fair is attended by the entire neighborhood, and every family enters several exhibits. The welfare club is maintained for the benefit of the teachers in the school, of which there are two, and the parents of the pupils, being a sort of parent-teacher association. The literary society, which meets fortnightly, is attended by both old and young. Socials are held at the school house once or twice a month, and school entertainments are given at certain times in the year. Gospel teams from the young people's societies of the different churches in the near-by town of Manhattan hold religious services every few weeks.

Strong school has been standardized. It is equipped with electric lights and furnace, and is piped for water. The building contains two class rooms, a small library, a rest room and two cloak rooms on the ground floor. In the basement are the rooms for domestic science and manual training as well as the furnace room and two toilet rooms.

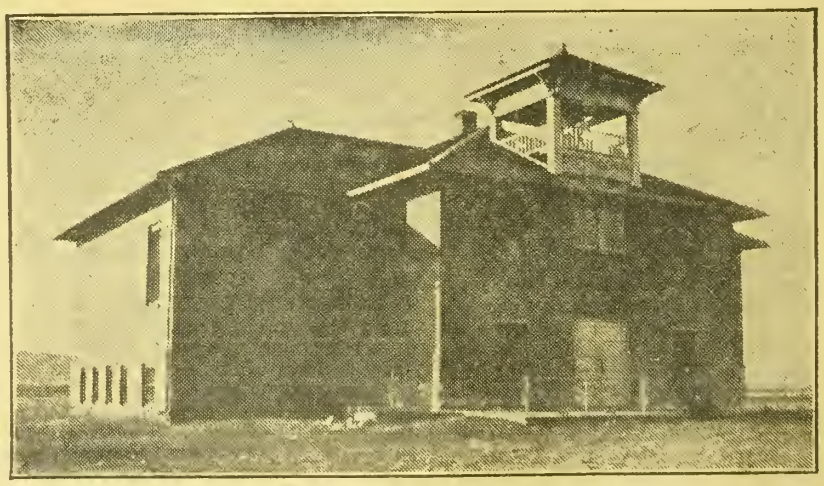
The library consists of 200 volumes of encyclopedias, histories, fiction and story books for children. There are also shelves in the library for the equipment necessary for school entertainments. The rest room, an innovation in the country school, contains a sanitary couch, a rocking chair and a straight chair. The sewing machine used by the girls in domestic art is also kept in the rest room.

The two class rooms are separated by a large door that can be raised. This throws the two rooms into one large one for socials and entertainments. These rooms are lighted by a row of large windows on the west. The class rooms are well equipped with wall maps and globes. There is a sand table in the primary room for the use of the smaller children. The walls are attractively decorated with a few well chosen pictures suitably framed, and are tinted in a restful shade of tan with a cream-colored ceiling.

Possibly the most interesting feature in the curriculum is the study of home economics and manual training. The girls have a good steel range, tables, and a cupboard for dishes, supplies and utensils. The tables were made by the boys in manual training, as were the rolling pin and bread board. The girls have a one-hour cooking period once a week when they serve warm lunch to all the pupils.

The boys made for themselves work benches, a rack for the squares, hammers and saws, and a wall chest for their other tools such as planes, braces, bits, and scrapers. The boys also made most of the playground equipment, teeter boards, horizontal bars and basketball goals. Other problems in woodworking have a definite relation to farm life, for they comprise the making of chicken coops, bird houses, step ladders and flower boxes, as well as the more intricate problems of small pieces of furniture.

The pupils in Strong school all appear to enjoy their school work and regard it with more zest than the average children do in the average rural school. They have the task of working out real problems in a practical way which is a source of pleasure to them although they do not know just why they like their studies. The patrons of the district take pride in the school and are in close touch and sympathy with the teachers.



STRONG SCHOOL, RILEY COUNTY.—TWO ROOMS, WITH MANUAL TRAINING AND DOMESTIC SCIENCE ROOMS IN BASEMENT.—HAS ELECTRIC LIGHTS, FURNACE, AND RUNNING WATER.

Some Wheat Killed

The snow is all gone in this section and some of the wheat seems to be starting up a little. I think quite a little of the wheat is killed, but it is too early to tell yet. It may come out later all right. Most of the stockmen will have feed enough to get through. The country is short on cattle.—E. G. HEMMERLING, Rooks County.

Seeding Sweet Clover

SWEET CLOVER, once considered a noxious weed, is now recognized as a valuable crop under certain conditions in Kansas. Until recently sweet clover was grown only as a honey plant. It is now grown for soil-improvement purposes and as a pasture and forage crop, and its utilization for these purposes is steadily increasing. As a crop for soil improvement sweet clover is unexcelled; for pasturing purposes it has given satisfactory results; as a forage crop it can often be utilized to good advantage where alfalfa or red clover can not be successfully grown. However, as a dry-land crop or as a crop to be grown on upland, where alfalfa can not be successfully grown, because of insufficient moisture, sweet clover is yet in the experimental stage.

There are several varieties of sweet clover, of which the common white sweet clover (Melilotus alba) and the large biennial yellow sweet clover (Melilotus officinalis) are the most important. The white variety is most extensively grown in Kansas. It grows more vigorously and more upright and larger than the yellow variety and is generally to be preferred for farm purposes. Another variety, yellow sweet clover (Melilotus indica), is an annual, and is of very little value in Kansas.

Practically all of the soils in the state are adapted to growing sweet clover; very sandy soils, poorly drained acid soil, and possibly the "white ash lands" of Southeastern Kansas, excepted. It thrives best on fertile land well supplied with lime, but will make a better growth on very poor soils than most other crops. When grown for hay it is best to plant on fairly fertile land. Where sweet clover is to be pastured it may be planted on the poorer soils and yet yield justifiable returns. It is not to be expected that sweet clover will make as great a growth on very sandy soils as on more fertile land. However, there are many places in Western Kansas where sweet clover is bringing larger returns, from sandy soils along river bottoms where the underflow is near the surface, than any other crop that could be grown.

Sweet clover has been overrated for growing on upland soils in Western Kansas. Results obtained during 1913 and 1914 in co-operative tests with sweet clover conducted throughout that portion of the state, under the direction of C. C. Cunningham, of the Kansas Experiment Station, have not been encouraging.

In Experiment Station Circular No. 44 Mr. Cunningham points out that under natural conditions sweet clover remains in the ground during the winter and germinates in the spring, although occasionally a few seedlings may be found in the fall. He states that it may be seeded any time from January to the last of May, with good chances of success. From the little data available it appears that early seeding is preferable in Eastern Kansas. In the eastern third of the state it may often be successfully seeded with a nurse crop of oats or barley, provided the seed bed is not too loose and open and a rather thin stand of grain is grown. In favorable seasons good stands of sweet clover may be obtained by seeding with fall wheat, the sweet clover being sown in the late winter or early spring in the same manner that red clover is usually seeded. Seeding sweet clover with a nurse crop may result in failure if the season is excessively hot and dry immediately after harvest or if the small grain makes too heavy a growth and completely shades the young plants.

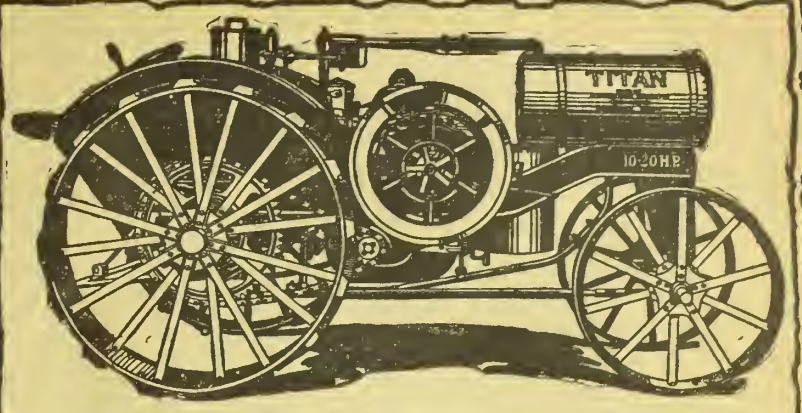
The amount of seed to use per acre varies with the quality of the seed and the per cent of "hard seed." Sweet clover may contain from 10 to 90 per cent of "hard seed" which, because of the excessively hard seed coat, does not germinate the first season, although it is good in vitality and will grow the second year. The amount of seed sown per acre should vary according to the per cent that will grow the first season. If 60 per cent or more of the sweet clover will germinate readily, from ten to fifteen pounds of seed should be sown per acre. If unhulled seed is used the amount should be increased about five pounds per acre.

Rough, wooded, or stony lands that are untillable may be seeded by sowing the sweet clover broadcast during the late fall or winter. The seed will be worked into the soil by the alternate freezing and thawing of the ground or washed under by rains. On very sandy soils sweet clover is often drilled into the thin native sod by using a disk drill, as any other preparation of the ground would make the seed bed too loose.

Sweet clover, to produce satisfactory results, should be inoculated with the proper bacteria. If the crop is not growing along roadsides and in fence corners or anywhere else in the locality in which it is to be seeded, it is very likely that inoculating will be essential. This may be done by obtaining soil from an alfalfa field or ground on which sweet clover is growing and spreading it over the field which is to be seeded, at the rate of 200 to 300 pounds of inoculated soil to the acre. This should be harrowed in immediately, as exposure to the sunshine and the drying out of the soil will kill the bacteria. Best results will be obtained by applying the soil on a cloudy day. If inoculated soil is not available within reasonable distance it may be more practical to inoculate with the pure cultures that are sold for this purpose. This method consists of treating the seed with a pure culture of the proper kind of bacteria, according to directions accompanying the material. The inoculated seed should be sown soon after it is treated, and should never be exposed to the sun.

Fortunately the only portion of Kansas where it is necessary to inoculate for sweet clover is in those parts of the eastern fourth of the state where the crop is not growing naturally. The soil in the remainder of the state is evidently well supplied with the proper kind of bacteria. In Missouri sweet clover usually needs inoculation. For early inoculation the Missouri Experiment Station recommends the soil method as the safer practice.

LOST—Yesterday, somewhere between sunrise and sunset, two golden hours, each set with sixty diamond minutes. No reward is offered, for they are gone forever.—Selected.



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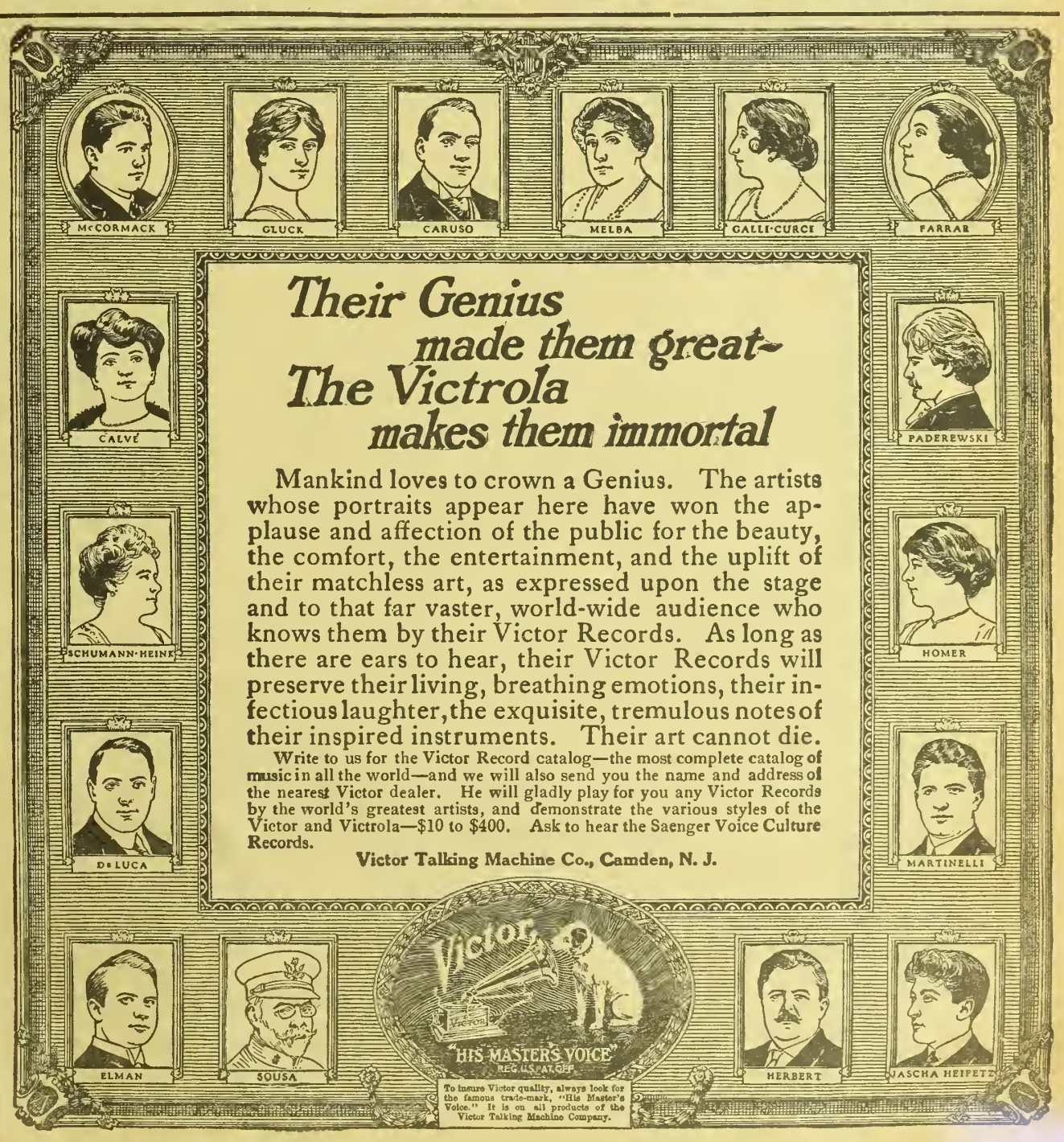

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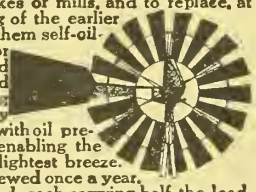

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Just Prices Necessary

NO INDUSTRY can long endure if the cost of production exceeds the price received for the product. This economic principle is recognized by President Wilson and was given public utterance in considerable detail in statements made last summer regarding the necessity for paying just prices for all necessary products. This principle is operative in the live stock business of the country, and it was apparent from the discussions at the recent meeting of the Kansas State Live Stock Association that the cattle and hog men of the state cannot maintain production under present conditions. No matter how patriotic they are or how much they may wish to produce the food required to carry on the war, they cannot go on if their working capital and equipment is being taken from them. It is all very well to talk about going on with production even at a loss, but live stock men cannot do this any more than can the railroads, coal operators, packers, millers, or other lines of industry.

In taking control of the packing business, the Government guaranteed them a profit of 9 per cent on the meat they handle and mich higher profits on the by-products. The railroads, now operated under Government control, are assured net returns equivalent to their earnings ,during the past three years which are admitted to have been the most profitable in the history of the railroads in the United States.

It is difficult to determine the actual cost of producing farm products, because they come from many small units and the conditions of production are so variable. Lacey Simpson, of McPherson, who spoke on the subject of increasing pork production, pointed out the fallacy of the arguments advanced by Mr. Greene of the Food Administration in his efforts to show that the $15.50 pork minimum was a just price. Mr. Greene maintained that, because the agricultural colleges and experiment stations over the country had shown that a hundred pounds of pork could be produced for ten and a half bushels of corn or its equivalent, the price was just and should stand. "The agricultural colleges and experiment stations are not producing the million pounds of pork which goes to market in the country," said Mr. Simpson. Much as we value the work of the experiment stations in pointing the way toward better methods, the fact stated by Mr. Simpson must be recognized in dealing with the pork production question. The bulk of the pork comes from the tenant farmers and the man on the quarter-section farm. Many of these tenants and small farmers must get along with inferior equipment. They cannot produce pork at minimum cost, even though they may have the example of the experimental work to guide them. Perhaps we should produce pork for less cost, but we must base our calculations on actual conditions and not on ideals. A study of the Chicago market for pork as related to the price of corn extending over a period of sixty years shows that the average price of pork per hundred pounds has been equal to the market price of eleven and one-half bushels of No. 2 corn. Whenever the average price of pork fell below the market price of about twelve bushels of No. 2 corn, its production decreased, and whenever it has exceeded that price it has expanded. When the $15.50 minimum was announced last fall it was assumed that we had a three billion bushel crop of corn. As conditions have actually developed, the packers have managed to keep the price of pork down fairly close to the minimum and corn, instead of being $1 to $1.10 a bushel, has been nearer to $1.50 to $1.75. The ratio between corn and pork has thus been about ten to one, and at the very time last fall when hog prices came down, meat meal, which is a packing house product, rapidly advanced in price.

Under such conditions nothing under the sun could keep brood sows from being sent to market and the general tendency has undoubtedly been to reduce instead of expand pork production. Mr. Hoover, in the message sent to Dr. H. J. Waters, claimed that hog men have thus far been able to realize on their soft corn which would have been unmarketable except as feed, but at prevailing pork prices Mr. Simpson in his talk maintained that those who had marketed their corn through hogs had received not to exceed eighty cents to a dollar a bushel for it, while their neighbors having no hogs, who had cribbed their corn and dried it out, are selling the grain for $1.25 a bushel. This discussion of the pork question by Mr. Simpson was fairly illustrative of the general trend of the meeting.

The counsel which finally prevailed at this meeting of the Kansas Live Stock Association was to the effect that the Food Administration must have presented to it real authoritative information direct from the producers of meat animals. Unless those in authority can be brought to realize conditions as they exist, we will soon be facing a serious shortage of meat. Much as he may wish to maintain maximum production as a war measure, the meat producer of the country cannot go counter to the economic law of a just price for his product.

The following resolution, or statement, was carefully prepared and after much discussion adopted at the final meeting of the Association:

The stockmen of the Middle West have conducted their feeding operations this winter at a loss of from $10 to $30 a head in cattle and from $5 to $15 a head on hogs, in the face of the assurance given them last fall by Herbert Hoover, United States Food Administrator, as follows: "It would be the nation's responsibility to see that a fair compensation is returned to the farmer for his labor and capital used in the production of food supplies, and that an abundance of food supplies should not mean their production at a loss to the farmer."

The fat cattle now being marketed were bought chiefly after this Government assurance, and at the prices then prevailing. They have been fed and handled as economically and efficiently as possible. The loss sustained cannot, therefore, be charged to any lack of business judgment or unscientific management on the part of the feeder.

As a result of this loss the feed lots of the country are not now being filled to their usual capacity, and there is a state of unrest and fear on the part of the feeders as to the future of the business. Contributing to the unrest and dissatisfaction of the meat producers is the further fact



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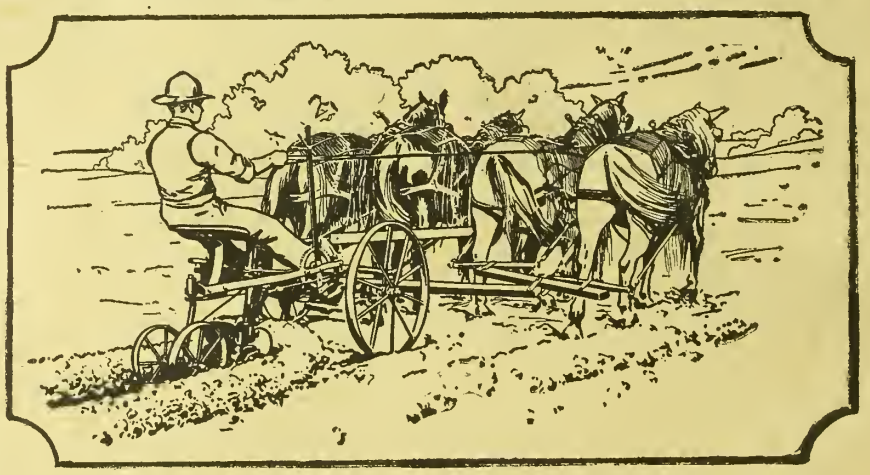

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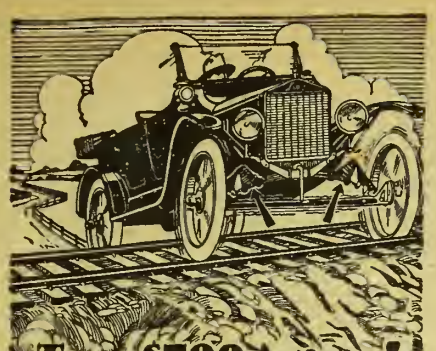

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that while they are sustaining a loss on their feeding operations, the packers are making the greatest profit in their history. Meat is now selling to the consumer at practically the same price at which it sold last summer when cattle were bringing from $2 to $3 a hundred pounds more than now. From many localities bred sows are being shipped to market for slaughter which under a normal state of the market would have been held for productive purposes.

The stockmen of Kansas feel that meat production will be greatly curtailed unless some assurance is given, in which they have confidence, that they will not meet with a loss similar to that which they have lately suffered in the production which the Government is calling on them to make.. The live stock producers are loyal to our Government both with their means and life blood, and with proper leadership we feel that we can double the production of meat, provided our Government furnishes a leader whose enthusiasm will cheer our countrymen to greater efforts. Our Government with her great purchasing power can stabilize prices and make them sufficientl high to encourage all producers to their utmost effort. All that the American people need is a just enthusiastic leader, whether in a battle for trenches or a battle for food.

The stockmen and farmers regret that in the organization of the Food Administration they have not been more adequately represented. They are positive in their views that the head of the meat committee of the Food Administration should be someone about whose interest and sympathies there can be no question. We also feel that the meat producers of the country should be represented on the committee of the meat counsels.

It is recommended that a committee of this Association be appointed to present these views to the head of the Food Administration, to the Secretary of Agriculture and to the President of the United States, with the view of assisting in bringing order out of the present chaotic conditions.

Recognizing that resolutions of this sort can accomplish little unless actively followed up, ex-Governor Stubbs, president of the Kansas State Live Stock Association, announced that they would have to immediately raise some money. This met with a prompt response and before the meeting adjourned $15,000 was collected and turned over to the treasurer. M. C. Campbell of Wichita, Pat Skinner of Medicine Lodge, and J. H. Mercer of Topeka, secretary-treasurer of the organization, were appointed to present the views set forth above to the Food Administration and the President. This committee has most wisely taken steps to get together a large amount of data on the cost of producing beef and pork under present conditions. This work is already under way. Men all over the state will furnish figures on the various points involved. These will come not only from the large operators, but from the small producer as well. It will cover the cost of feeding cattle and putting them on the market and will also go into the cost of maintaining cow herds and growing beef from the ground up. The same sort of information on maintaining brood sows and growing pigs will be gathered as will the operations of those who feed hogs on a large scale. This committee will go to Washington just as soon as it has gathered the necessary data to back up the statements to be made.

Why English Bread Is Cheap

Some are still asking why bread is cheaper in England than in America. In England a four-pound loaf of war-bread sells for 18 cents, a two-pound loaf for 9 cents, and a pound loaf for 5 cents. These low prices are maintained in England in spite of the fact that the wheat must risk the submarine zone.

The explanation is simple. English bread is heavily subsidized. It is cheap to the people but costly to the government. In Great Britain the government controls all the home-grown grain and imported wheat. This is sold to the mills at a price that, under rigid control, puts a cheap loaf on every man's table. England's cheap bread, however, costs the government $200,000,000 annually.

Another reason why the Englishman pays less lies in the quality of the bread. In Great Britain a much higher per cent of flour is extracted from the wheat than even the new regulations require in America. A substitution of 20 per cent of other cereals or potatoes is compulsory in bread making and 50 per cent is allowed.

The high per cent of substitution and government-controlled prices explain the cheap English bread. The yearly deficit of $200,000,000 on English bread production is paid by the government, but comes out of the people's pockets eventually in the form of general taxation.

Save All Your Chicks

E. J. Reefer, poultry expert, of 163 Reefer building, Kansas City, Missouri, is giving away free a new book which tells of a simple home solution that raises 98 per cent of all chicks hatched and cures white diarrhea over night. All poultry raisers should write for this valuable free book.—(Adv.)



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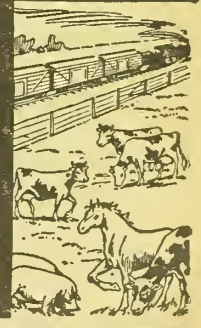

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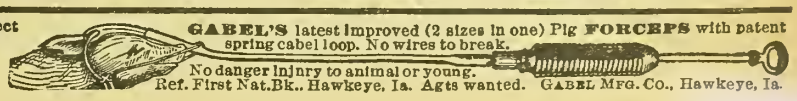

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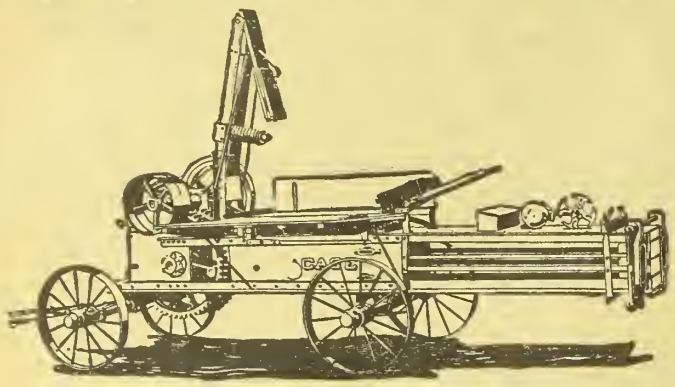

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Case Baling Presses have extraordinary features not found in other machines. Case Balers handle extra large feeds without danger of breakage.

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They are constructed entirely of the best steel, the frame extra heavy and hot riveted. This keeps all parts permanently in line, and eliminates an endless amount of trouble found in balers constructed of wood and cast iron.

In addition, we also manufacture a sweep power press for those who do not require the capacity of belt power balers. Write today for our booklet which describes Case Hay Balers in detail, with pictures. A copy will be sent free for the asking.

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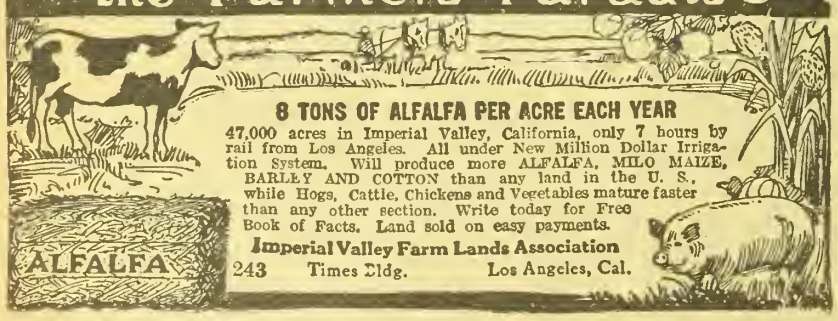

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BINKLEY MEDICAL CO., Dept. 15, Nappanee, Ind.

KANSAS FARMER DAIRY CLUB

Remember in making out your feed and milk records for February that this month has only twenty-eight days.

Member Has Herd of Cows

Harvey Russell, a Dairy Club member who lives in Scott City, now has quite a start as a dairyman. The following letter was received from Harvey in January:

"My Jersey had a heifer calf the twelfth day of December. The mother and sire are both registered. Please tell me how to go about it to have the calf registered.

"I now have a herd consisting of five head: the original grade Holstein, Daisy, that I bougbt from Mr. Romig with which to enter the first contest, and her two heifer calves, Bonnie and Tish; and my Jersey cow, Mary Frances W., and her heifer calf, Dorothy. As you know, of course, I borrowed the money to buy Daisy and have at this time my herd entirely clear, with alfalfa and cane enough to carry them through the winter. My two cows are bringing me in a net income at this time of about $45 a month."

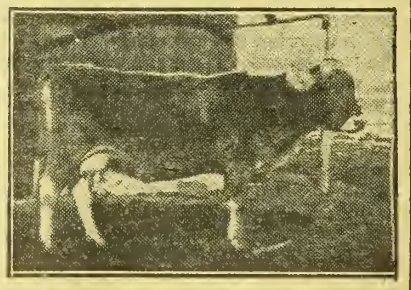
If both the sire and the dam of Harvey's heifer calf are registered and the transfer of the cow has been properly made to Harvey, as the present owner, all he has to do is to send in to the American Jersey Cattle Club, 375 West Twenty-Third Street, New York City, a properly filled blank. This blank is an application for the registry of the calf, and furnishes a description, the name given, and the name and register number of both sire and dam, with the names of their breeders and present owner. If the cow was bred when purchased, a certificate of breeding signed by the owner at that time must also be furnished.

We have just received some very good pictures of Harvey and his herd and will have cuts made of them for some future issue.

Brown Swiss Cattle

Probably very few people in Kansas have seen cattle of the Brown Swiss breed. A boy away out in Oklahoma, near the Kansas line, in writing to ask about the Kansas Farmer Dairy Club, mentions the Brown Swiss breed and asks if they are adapted to that section. It is not usually a good idea to start with a brand new breed simply because it is something different than anyone else in the community has. This comparatively unknown breed has much to commend it and in order that our boys and girls may be informed about them we give the following description, which was furnished by J. W. Cool, of Cherokee, Kansas:

"The Brown Swiss are natives of Switzerland. The first cattle were brought to the United States in 1869.



PURE-BRED BROWN SWISS COW, OWNED BY J. W. COOL, CHEROKEE COUNTY.

Since then quite a large number bave been brought over. The principal herds are in the Eastern States, though Missouri and Kansas have a few herds. In their native country these cattle are kept entirely on pasture and hay and are fed no grain at all. This makes the breed an ideal one for our state where we have so much pasture and cheap fodder.

"The cows are large and heavy-boned and are excellent milkers, their milk testing 4 per cent or better. Fifty mature cows, whose records are given in the Register of Production, made an average of 11,767 pounds of milk, containing 460 pounds of butter fat, for one year. Twenty-three five-year-old cows made an average of 12,431 pounds of milk and 499 pounds of butter fat. Twenty-one four-year-old cows made an average of 10,546 pounds of milk and 422 pounds of butter fat. Thirty three-year-old cows made an average of 9,657 pounds of milk and 387 pounds butter fat. Twenty-five two-year-old cows made an average of 8,298 pounds of milk and 345 pounds butter fat. The entire number of 149 cows averaged 10,690 pounds of milk and 427 pounds of butter fat. This shows that they stick to their job the whole year through, not giving a big yield for a few months, then 'boarding' and eating up the profits.

"In addition to a large amount of milk you also get plenty of beef from the Swiss. The calves are large at birth and grow very fast, which makes them desirable for veal. If the steers are kept for fattening, they make good feeders, and when butchered make excellent beef carcasses.

"These cattle are very hardy and active for their size and are of good disposition, gentle and quiet. Nothing excites a Brown Swiss cow. Centuries of careful breeding in Switzerland have produced an animal whose type is firmly fixed in shape, size, color, and disposition, and the power to transmit these qualities is so strong that even the grade animals show decidedly the shape and size of their ancestors. With a herd of common cows or Jerseys, and a Swiss bull, a man can soon build up a good dairy herd at small expense."

Cow Test Report

The Arkansas Valley Cow Testing Association has been a most helpful influence in promoting better dairy methods in tbe region about Wichita and Newton. We give below the report for January showing all cows producing more than forty pounds of butter fat during the month. The best herd of twenty-one cows, belonging to George Appleman, averaged 1,321 pounds of milk and 37.41 pounds of butter fat for the month. The poorest herd averaged 258 pounds of milk and 13.82 pounds of butter fat. C. G. Wehrman is the official tester for tbis association. The record cow was in the herd of P. W. Enns.

Owner—	Pounds Milk	Per Cent of Fat	Pounds Butter 80% Fat
P. W. Enns, H.	1,063	4.9	52.087
P. W. Enns, H.	1,262	3.8	47.918
P. W. Enns, H.	1,184	3.4	40.256
Bert Peck, H.	1,107	3.8	41.876
W. M. Spurlock, H.	1,172	4.0	46.880
W. M. Spurlock, J.	803	5.1	40.953
W. M. Spurlock, H.	1,017	4.4	44.748
F. H. Bock, H.	1,299	3.5	45.465
F. H. Bock, G.	980	4.9	48.020
F. H. Bock, H.	1,132	3.8	43.016
F. H. Bock, G.	1,023	4.3	43.989
F. H. Bock, H.	1,330	4.8	63.840
F. H. Bock, H.	1,674	3.0	50.220
Stubbs Farm, H.	1,141	3.9	44.499
Stubbs Farm, H.	1,714	3.0	51.420
Stubbs Farm, H.	1,779	3.8	67.602
Stubbs Farm, H.	1,417	4.5	63.765
Appleman Bros., H.	1,916	3.0	57.480
Appleman Bros., H.	2,015	3.3	66.495
Appleman Bros., H.	1,311	3.5	45.885
Appleman Bros., H.	1,653	3.0	46.590
Appleman Bros., H.	1,845	3.1	57.195
Appleman Bros., H.	1,643	3.0	49.290
Appleman Bros., H.	1,665	2.6	43.290
Appleman Bros., H.	1,197	3.4	40.698
Appleman Bros., H.	1,680	3.8	63.840
Appleman Bros., H.	1,872	3.0	56.160
J. R. Pringle	1,163	4.1	47.683
J. R. Pringle	1,079	3.8	41.002
Frank Babb, J.	872	5.3	46.216
Martin Ternes, H.	1,119	3.6	40.284
Martin Ternes, H.	1,485	3.2	47.520
Jake Leendertse, H.	1,259	3.7	46.583
Jake Leendertse, H.	1,094	5.0	54.700
Jake Leendertse, H.	952	4.5	42.840
P. C. McGilliard, H.	1,386	3.6	49.896
P. C. McGilliard, H.	1,318	3.6	47.448
Lon Turner, S. H.	880	4.9	43.120
Lon Turner, S. H.	939	4.8	45.072
Lon Turner, S. H.	865	5.0	43.250
Lon Turner, S. H.	1,016	4.0	40.640
Dr. Axtell, H.	1,262	3.0	42.908
Dr. Axtell, H.	1,770	3.7	65.490
P. W. Enns, H.	1,953	3.6	70.308

Note.—H stands for Holstein; J for Jersey; G for Guernsey; and S H for Shorthorn.

Profits in Feed Limited

Consumers of mill feeds have felt that prices were not in line with the prices being paid for wheat. It has looked as though the price of wheat was being carefully regulated, but that the lid was off in so far as the prices on mill feeds were concerned. The new regulations of the Food Administration just issued clamp down the lid on the jobbers where most of the trouble has originated. The mills were strictly regulated by the rules issued in December, these rules being printed in the February 29 issue of KANSAS FARMER. According to these rules a mill must sell its bran at not to exceed 38 per cent of the cost of the wheat from which it was made. The maximum price of shorts of different grades was also fixed, tbis ranging from two to nine dollars a ton more than bran, depending on its grade or quality. These were bulk prices at the mill. The price of sacks, amounting to about 25

cents a hundred pounds, was necessarily added, and before the products reached the consumer a good many other profits seem to have been added. While the ruling resulted in a lowering of quotations on mill feeds by the mills, the actual consumer usually had to buy of retailers who in turn bought of jobbers. The jobbers and brokers apparently were not included in the regulations, and they have been going on the old theory of rate making and charging all the traffic would bear. The demand for feed has been so strong that this has been possible.

Following a two days' conference in Washington between representatives of the wheat-mill-feed industry and the Food Administration, the new rules have been formulated and are now in the hands of local dealers. These rules make it very plain that only one jobbing profit can be taken between the mill and the retail dealer. Several jobbers may divide the allowed margin, but the sum must not exceed the fixed minimum, which is 25 cents a ton for a licensee selling mill feeds as a broker. Other rules definitely limiting the profits allowed between the producer and the consumer are as follows:

Rule 6.—No licensee selling wheat mill feed as a commission agent for the sale of consigned wheat mill feeds, making sale, delivery and collection, shall charge more than a reasonable commission not to exceed 50 cents per ton, and no licensee shall charge a commission on any wheat mill feed on which a commission has already been charged.

Rule 7.—No licensee buying and selling wheat mill feeds as a wholesaler or jobber shall charge more than a reasonable advance over the average bulk price at mill (plus brokerage, commission or inspection fees actually paid, freight and cost of sacks) of his stock of all such wheat mill feeds on hand or under contract not at that time contracted to be sold; such advance not to exceed the following:

Shipment from mill or in transit, payment cash, demand draft or sight draft —$1 per ton.

Shipment from mill or in transit, sale on arrival draft terms—$1.50 per ton.

Sale ex-jobbers warehouse, payment cash, sight draft or demand draft—$2.50 per ton.

Sale ex-jobbers warehouse, upon arrival draft terms $3 per ton.

In making sales on credit not to exceed $1 per ton may be added to the margin which could be charged if sold on arrival draft terms.

Rule 8.—No wholesaler or jobber shall sell wheat mill feed to any person other than a retail dealer, manufacturer or a consumer, provided that he may sell to another wholesaler or jobber if in making such sales he states to the buyer the price which was paid bulk mill for the particular wheat mill feeds sold in such case. The buyer shall not sell such mill feed at more than the advances specified in Rule 7 over the bulk mill price of the particular wheat mill feed so purchased from another wholesaler or jobber.

Rule 9.—Rules 5, 6, 7 and 8 shall not be construed to affect the validity of any contract made prior to February 15, 1918, unless invalid on other grounds. Every licensee shall, on or before April 1, 1918, file with the Feeding Stuff Section of the United States Food Administration, Washington, D. C., a memorandum of all unfilled and existing contracts for wheat mill feeds made prior to February 15, 1918, and remaining unfilled March 15, 1918, and of stock on hand March 15, 1918, purchased on such contracts.

Federal Food Administrators will be authorized to determine what is a fair and reasonable margin over average cost for retailers to charge on wheat mill feed in their particular state.

These new rules have already checked the upward trend of prices and should afford some measure of relief to dairymen, hog growers, and others dependent on mill feeds.

Watch Farrowing Sows

Farrowing time is the most critical season for the swine herd. At no other time will care and attention pay greater returns. The results of months of labor and care may be lost by neglect at this period. Emphasis is justly placed on prolificacy of brood sows, but the number of pigs which they farrow is not the most important consideration. The number they raise determines whether the sow has been kept at a profit or a loss. The sow which farrows five pigs and raises all of them is more profitable than the one which farrows fifteen and saves two or three. The disposition of the mother has much to do with the number of pigs she will raise. The way she is handled influences her disposition and, consequently, the results that may be expected. L. A. Weaver, of the Missouri College of Agriculture, offers the following suggestions on the care of sows at farrowing time:

Strict account should be kept of breeding dates and a week or so before a sow is due to farrow she should be removed from the other sows to the quarters where she is to farrow. The feed just before farrowing should be the same kind that will be fed while the sow is suckling her pigs. This feed should contain plenty of protein and should also be laxative in nature. A ration of corn 50 per cent, shorts 25 per cent, bran 15 per cent, linseed oil meal 10 per cent, should give good results; and while it is not recommended as the best ration, it can be taken as an example, and similar rations may be used successfully. A few days before the sow farrows the amount of the ration should be reduced some-



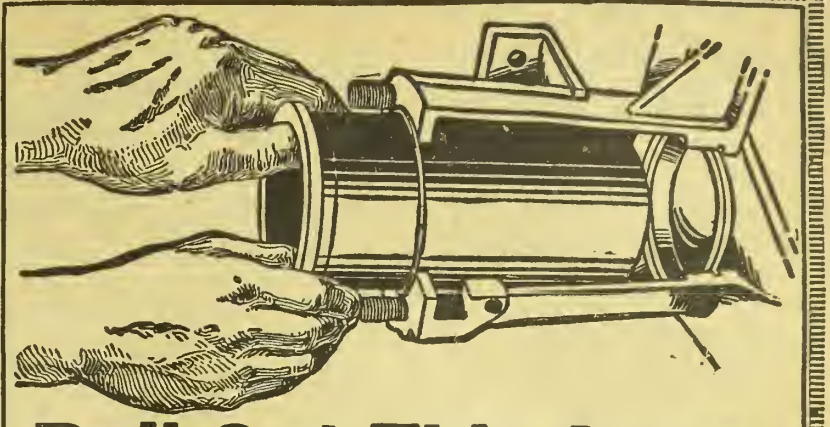
W. M. JARDINE, WHO HAS JUST BEEN APPOINTED PRESIDENT OF THE KANSAS STATE AGRICULTURAL COLLEGE

what. If this is done, and a laxative feed is fed, the sow will come up to farrowing time without fever, and will, for this reason, not be apt to injure the pigs by her own restlessness.

The quarters should be warm enough that excessive bedding will not be required. If too much bedding is provided the pigs may become hidden in it and smothered or crushed. A bushel or more of wheat chaff or cut straw will be sufficient. After the sow farrows it may be necessary to change the bedding, but the amount need not be increased. Dry bedding is more important than the amount of bedding. It should be changed often enough to maintain a dry bed.

Individual cots will be found valuable for keeping the sows away from other hogs at farrowing time. Usually the less the sow is disturbed when she is farrowing, the better. It is important that one be on hand, but unless she needs assistance, keep away from her. If the sow needs assistance, be as quiet as possible in giving it. The pigs should not become chilled before they have dried and suckled. If the weather is very cold, a lantern hung in the top of the cot will be of service. At such times, if the sow is gentle, it is well to place each pig as soon as it is farrowed in a barrel or box containing some warm bricks covered with old sacks. The pigs may be left here until they are dry and lively enough to be returned to the sow. If pigs do become chilled, there is no better way to revive them than to dip them in warm water.

The sow should not be fed much for twenty-four hours after farrowing. The pigs are not able to take much milk, and the milk flow should not be stimulated for the first few days. The sow will be more or less feverish and should have all the water she will drink but will not need feed for a day or so. If the weather is cold, it is well to take the chill off the water before giving it to her. The first feed should be the same kind that she received before she farrowed and should be fed in small amounts as a thin slop. The feed may be gradually increased as the pigs become able to take the milk until the sow receives all she will eat of a good laxative milk-producing feed. Ordinarily about two weeks should be taken to get her on full feed. After the pigs are old enough to take all the milk the sow can produce, she should be fed liberally, since there is no better way of feeding pigs than through the mother.



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Other tractor motors must be taken out of the frame and sent to a machine shop to be rebored, reground and fitted with oversize pistons, which means heavy expense, much work and long delays, or a complete new cylinder must be purchased.

When you have an Avery Tractor you can also adjust the crankshaft boxes which cannot be done with any other tractor. No need of tearing the motor down and rebabbitting the boxes when they wear a little, as they are bound to do on every tractor.

You can burn kerosene too, and more successfully than in any other tractor. The Avery Duplex Gasifier does the trick. No other tractor is equipped with it. Avery's are the tractors that burn ALL the kerosene.

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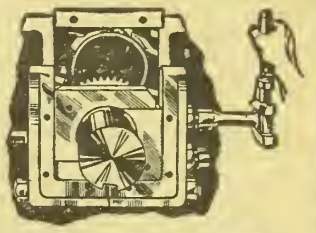

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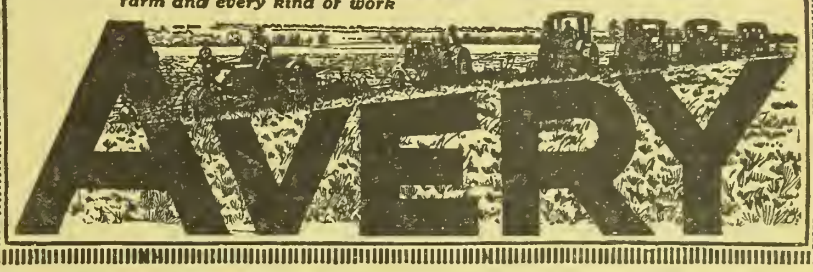

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The Food Controllers of United States and Canada are asking for greater food production. Scarcely 100,000,000 bushels of wheat can be sent to the allies overseas before the crop harvest. Upon the efforts of the United States and Canada rest the burden of supply.

Every Available Tillable Acre Must Contribute; Every Available Farmer and Farm Hand Must Assist.

Western Canada has an enormous acreage to be seeded but man power is short, and an appeal to the United States allies is for more men for seeding operations.

Canada's Wheat Production Last Year was 225,000,000 Bushels; the Demand from Canada Alone, for 1918, is 400,000,000 Bushels.

To secure this she must have assistance. She has the land but needs the men. The Government of the United States wants every man who can effectively help to do farm work this year. It wants the land in the United States developed first of course; but it also wants to help Canada. Whenever we find a man we can spare to Canada's fields after ours are supplied, we want to direct him there. Apply to our Employment Service, and we will tell where you can best serve the combined interests.

Western Canada's Help Will Be Required Not Later Than April 5th. Wages Competent Help, $50 a Month and Up, Board and Lodging.

Those who respond to this appeal will get a warm welcome, good wages, good board, and find comfortable homes. They will get a rate of one cent a mile from Canadian boundary points to destination and return.

For particulars as to routes and places where employment may be had, apply to

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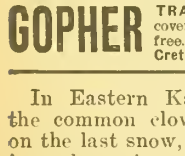

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(14)



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Sonderegger's Mammoth Wax Bean is a giant. Pods 8 to 10 inch. Absolutely stringless and enormously productive.

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Improved Reid's Yellow Dent and Iowa Silver Mine (white). Germination guaranteed. Catalog free.
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GOPHER TRAPS—Something the gophers can't cover up. Descriptive circular sent free. A. F. RENKEN, Box 602, Crete, Nebraska.

In Eastern Kansas and in Missouri the common clovers are usually seeded on the last snow, or on the frozen ground in early spring. Sweet clover may also be seeded in this manner. Such practice allows the seed to be covered by falling into the soil cracks and early seeding also aids in softening the hard hull to improve the low germination which is characteristic of sweet clover.



Care of Hatching Eggs

PROPER handling of eggs intended for batching is very essential to a good hatch. We often blame the incubator or the breeding stock for a poor hatch while the real trouble lies in the method of handling the eggs before and after they are placed in the incubator.

Gather the eggs as often as possible, make collections not more than two hours apart in freezing weather, while twice daily is sufficient for warm weather. Fifty to sixty degrees is the right temperature for eggs awaiting incubation, less than forty degrees will chill the eggs while more than seventy degrees will start incubation, then, because of insufficient heat, the germ will die. The average poultryman keeps the eggs for hatching in too warm a place. There is more danger of overheating the eggs than of chilling them. Hatching eggs are often kept in a living room on a shelf up near the ceiling where the temperature will stand at eighty or more. The germ will start to develop, then die, and a lot of dead germs on the first test will be the result.

Turn the eggs daily while saving them for hatching, which should not be for more than ten days. A convenient method where large numbers are incubated is to pack the eggs in the regular thirty-dozen case and tack the cover on, then turn the case one-quarter way around, thus turning thirty dozen eggs in two seconds. Smaller containers can be used the same way where a less number is saved for hatching. Eggs allowed to stand in one position will soon adhere to the shell, making the egg worthless for incubation.

A cool clean basement is the best place to store hatching eggs. There is usually enough moisture to prevent their drying out and the temperature is even as well. See that the room is free from any bad odors. Eggs absorb these injurious odors and a poor batch is the result.

When the eggs are ready to be placed in the incubator, let them warm up gradually. Place a little block under the heater wafer or cover and let the heat out and let it stay there for three or four hours. This will allow the eggs to heat up very gradually and it will be at least twelve hours before they have absorbed the heat sufficiently to regulate the temperature. Begin turning on the morning of the third day, turning twice daily and three times if possible. Take a few eggs out of one end of the tray and roll them around gently for two or three minutes. It is not necessary to turn the eggs half way over, as some suppose. The purpose of turning the eggs is to exercise the germ, and to merely turn the egg half way over does not so exercise it. The older the chick in the shell, the more exercise it needs. Twice daily is enough for the first ten days, but three times daily during the latter part of the hatch will produce more and larger chicks than if they were turned but twice daily.

Cool daily after the fifth day, cooling until all the animal heat seems to have left the egg. Most people do not cool the eggs sufficiently. The best hatching eggs ever placed in an incubator will produce inferior chicks unless special care is given the eggs both before and during incubation.—MELVIN F. UPHOFF, Leavenworth County.

Shipping Hatching Eggs

The most careful packing is necessary in shipping hatching eggs. Within the egg there is a tiny germ of life suspended by a mere thread. For this reason eggs for hatching should always be handled gently and most carefully protected from all jars and jolts. Where they are to be sent a long distance the safest package is made as follows: Use any of the regular parcel post egg cartons, wrap each egg separately in a piece of paper, and place in the carrier. They completely bury the sealed carrier in excelsior or cut straw in an ordinary market basket with handles. Sew a piece of cloth over the top of the basket and label, "Eggs for hatching; handle with care." Write very plainly the names of the purchaser and the sender on a card and securely attach to the package. The cost of packing may be increased a trifle by this careful packing, but the hatchability will be increased many fold.

It is sometimes suggested that eggs be allowed to rest twenty-four hours after arrival before incubation, to enable the contents to assume normal stable position. If the eggs were carefully packed I should risk the rest the first twenty-four hours in the incubator while the eggs were warming up. I have tried both ways, but if the eggs are carelessly packed and so jostled that the air cells are broken, no amount of rest either in or out of the incubator will help matters. It has been my experience that if an egg has been shaken badly enough to need rest, no amount of rest can mend it.—MRS. LIZZIE B. GRIFFITH, Lyon Co.

Producing Potatoes Early

If you would like to get some new potatoes as early as possible, you can speed up the spring crop by sprouting the seed tubers before planting. This results in quick growth after planting, produces an earlier crop and also a higher yield than is obtained when ordinary dormant seed are planted. The process of sprouting a small quantity of seed tubers is explained by J. T. Rosa, Jr., of the Missouri College of Agriculture. The seed should be obtained two or three weeks before planting time. Only sound healthy tubers should be used, but the size makes no difference. These tubers should be spread out in a single layer on the floor of a light room, or on the bottom of a hotbed where they can receive full light. Often a flat or shallow box can be placed in a living-room window, where a peck or two of seed can be sprouted. Under the influence of the warmth and light, the tubers start to grow, turning a dull green and sending out stubby sprouts from the eyes. If the room is too warm or poorly lighted, these sprouts will become long and slender. Such sprouts are likely to be broken off in planting, and for this reason are not so desirable as short stubby sprouts.

The seed should be planted when the sprouts are about one-half inch long. Cut the tubers in the usual way, with one sprout on each piece. These should be planted by hand, with the sprout pointed upward. Plants from sprouted seed reach the surface ten days earlier than from dormant seed and grow off rapidly. A better stand is generally secured from sprouted seed, and more tubers are formed on each plant.

Tells Why Chicks Die

E. J. Reefer, poultry expert, of 463 Reefer building, Kansas City, Missouri, is giving away free a new book which tells of a simple home solution that raises 98 per cent of all chicks hatched and cures white diarrhea over night. All poultry raisers should write for this valuable free book.—(Adv.)

C. W. Taylor, of Abilene, Kansas, owner of one of the famous herds of Shorthorn cattle in Kansas, reports his herd doing well. Mr. Taylor has succeeded in building up a herd of Shorthorns that for breeding and individuality ranks with the outstanding Shorthorn herds. A feature of his herd at this time is the choice lot of Scotch and Scotch-topped young stock, including some very fine young bulls.

The Southeast Kansas Breeders' Association has claimed April 5 and 6 as the date of their annual sale of Shorthorns and Hereford cattle. Their sales will be held at Coffeyville, Kansas. On April 5 a select offering of Shorthorns will be sold and on April 6 they will sell a choice offering of Herefords. The cattle that will go in these sales will be very carefully selected from the best herds of their respective breeds in Southeast Kansas. The cattle offered for consignment will be carefully inspected by competent judges and only high class individuals will be accepted.

The Poland China sale of Clarence Dean, of Dearborn, Missouri, February 25, resulted in the disposal of forty-two head of bred sows and bred gilts at an average price of $144.28. The top price of $335 was paid for No. 1 in the catalog, a Long Big Bone sow and bred to Dean's Big Timm for March 20 litter. Mr. Dean owns one of the good herds of Missouri and his offering merited the support given by farmers and breeders both from Missouri and Kansas. Nothing sold high or more than its worth. Every animal sold strictly on its merits and the prices received were very satisfactory to Mr. Dean.

For Style, Fit and Wear buy Mayer HONORBILT SHOES For all the Family



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They tell how thousands of others have won success on the virgin farm lands of

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where low priced land produces high priced crops. They show how you can win success. The U. S. Government has guaranteed the farmers of the Northwest upwards of $2.00 per bushel for their Wheat. With flax selling at from $3.00 to $3.40 per buehel, other farm products proportionately high, and live stock at higher prices than ever before, these fertile farm areas of the Northwest offer your biggest opportunity. Write today for one of these books. Name the state you are most interested in. Address,

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SAVES THE LITTLE ONES

Here it is—the one sure, safe, scientific chick feed. The feed that brings 'em through the first two weeks—the critical period. Don't permit roup, dysentery and other diseases to kill off your chicks when for a few cents you can keep them well.

You will lose hardly more than 5 or 10 chicks out of every hundred — if — right from the start — you will feed

OTTO WEISS CHICK FEED

For "new" chicks. A natural food, prepared by poultry raisers who know how to mix the right ration of cereals, beef, bone and grit.

A pound feeds 50 chicks one week. Ask your dealer for it.





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Your hens will pay for them in More Eggs



You will get 20 to 50 per cent more eggs with KNUDSON Galvanized Steel Lice Proof Nests

These wonderful sanitary nests last a lifetime. Satisfaction—Unlimited Guarantee.

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Over $5000 in use.

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Whatsoever thing thou doest
To the least of mine and lowest,
That thou doest unto Me.
—Milton.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

THE PRAYER OF THE NATION

God give us men! A time like this demands
Strong minds, great hearts, true faith, and ready hands.
Men whom the lust of office does not kill;
Wen whom the spoil of office cannot buy;
Men who possess opinions and a will;
Men who have honor, and who will not lie;
Men who can stand before a demagogue
And scorn his treacherous flatteries without winking.
Tall men, sun-crowned, who live above the fog
In public duty and in private thinking.
—J. G. Holland.

Conservation of Clothing

The Government up to the present time has been feeding man, now it has awakened to the fact that man must be clothed. We hear a great deal about conservation. What does the word mean to you? Does it mean closing our factories, stores, and places of amusement, or does it mean we must have business which will preserve America's wealth, the biggest asset in this world crisis? The Government says, "Keep our industries going." If this were not done, the idle masses would bring to this country a larger problem than it has to face at the present time.

Investigations which are being made show a shortage of textiles needed for army use. This shortage is due partly to the inability of factories to meet the demand and to the difficulty in transporting raw materials, wool and cotton. The world is, however, facing a wool famine.

"An army can subsist on half rations, but it cannot subsist on European soil in winter without wool clothing." No substitute has ever been found for wool. It is estimated that the European climate and cotton clothing have sent 50,000 French troops to death from tuberculosis, and consigned to hospitals and camps 100,000 more.

The latest estimate gives 25,000,000 men under arms in the world war. These men use an average of three or four uniforms yearly. Because of vermin and other unsanitary conditions these suits cannot be sent to the rag heap and made over into what we call "shoddy," but must be destroyed.

In the three years of the war every pound of visible wool has been brought into use, and since the animals can be sheared but once a year the clip this year in America is barely sufficient to meet the requirements of the American army and navy. The army has clothed its men in uniforms made from virgin wool. This means that civilian consumption of wearing materials must be of cotton and wool substitutes. England released to this country the raw wool we asked for immediate army needs, and warships dispatched to Australia brought back 45,000 bales. With this wool and the normal American clip, our supply for 1918 is estimated to be at least 105,000,000 pounds on a scoured basis; that is, clear usable wool. To this may of course be added some imports, but without addition the quantity is believed to be sufficient to meet all ordinary needs for 1918.

Woman can assist materially in the conservation of materials if before she purchases she will make a careful and intelligent investigation of the needs of the Government. It has been found that the extra material used on men's suits, such as cuffs on trousers, extra collars on vests, pocket flaps, belts, double-breasted coats, and wide facings, amounted to 150,000 yards of wool material—enough to make 4,760 uniforms for soldiers. We hear rumors of "standard clothes for women." This does not necessarily mean clothing all of one style or one color, but women may demand that certain lengths and widths of skirts be worn, that waists instead of Russian blouses be used, and that surplus materials be not put into collars, cuffs, and patch pockets. Styles formerly have been short skirts, short sleeves, and no draperies, and because Fashion decreed we all adopted them. If in years past these styles were the vogue, why not in 1919 save the Government all this extra yardage for its use?

Silk and cotton are also called upon to do their part in supplying raw materials. Millions upon millions of yards of silk are needed for the making of cartridge bags, and silk is also used to an enormous extent for aeroplane wings. In no way has silk manufacturing been arrested by European nations. France, Switzerland and Italy are manufacturing from 50 to 75 per cent of the normal amount.

Women must set aside all preconceived ideas and traditions of the past and make serious inquiry into the present status of silk as a substitute for other fabrics. Silk goods are not used by people of means alone. Silk has become a part of the clothing of the people. Its price has been constantly decreasing, and even in these days of war figures it has increased less, relatively, than any other textile, and probably less than any other commodity. Because of its utility and beauty it has become the favorite fabric of women. The silks labeled "Made in America" are expected to win a new field in the United States and to be used instead of wool. The expenditure of money is not entering into this present crisis. Silks are necessarily higher priced than cottons, but the price of cotton has increased until it is more than at any time since the Civil War. During that period calicos reached a dollar a yard. It is not a question of not buying, but of how and what we shall buy.

Many people ignorant of facts shouted, "Let's all wear cotton," thinking it was less expensive than silk and that the Government needed the wool to clothe its army. If this so-called "war cotton" propaganda had gone on, the war could not have been fought, as we need all the cotton we can get to make high explosives for ourselves and our allies.

"It has become a war duty that every woman make herself intelligent on all phases of the clothing situation during this period. To do this, read all reports furnished to the daily papers, and economize in material, but remember that the wise expenditure of money will help to keep our industries going and will aid the Government to win the war.

EDITOR'S NOTE.—The preceding article is condensed from an address on "The Relation of Clothing to the War Situation," given at Manhattan during Farm and Home Week in January by Mrs. Bessie Webb Birdsall, head of the domestic art department of the Agricultural College. Up to the present time the need for conservation of clothing materials has not been brought home to most of us with the same force as the need for saving food. The reason for this is that the Food Administration has appealed directly to the housewife, while the Commercial Economy Board has gone to the manufacturer of textiles. Many dressmakers, tailors, and fashion magazines have pledged their support toward the elimination of extra material in ready-to-wear garments. Many well-known worsted mills, with reputations for high standard all-wool fabrics, have consented to add cotton and reclaimed wool to their goods. The success of the movement now depends on the consuming public. Shoppers can co-operate in two ways: first, by accepting the new war standards for quality of cloth and style of garment; second, by shopping thoughtfully, so as to release man power, shipping space, and materials.

Uses of Peanut Butter

Peanut butter is a highly nutritious food, its value being that of three times its weight in round steak, four times in eggs, seven times in potatoes, and twice its weight in bread. Miss Flora Monroe, director of the cafeteria in the Kansas Agricultural College, believes its true worth has never been realized. It has generally been considered a difficult food to digest, but when properly masticated it is easily digested.

A prejudice against peanut butter is often caused by ignorance in its use. According to Miss Monroe the butter should be combined with twice the amount of thin cream or milk and stirred until it is of the creamy consistency of mayonnaise. The flavor can be varied by adding chopped pickles or olives, catchup, onion juice, cheese or fruits. Dates stuffed with peanut butter are appetizing. Whole wheat muffins, drop cakes, and salads are a few of the numerous ways in which this food may be used. The flavor of tomato soup is improved and its food value increased by the addition of peanut butter. It may also be used in puddings, soups, breads, and cakes, serving as both shortening and thickening and adding flavor and color.

Peanut butter may be made at home by simply grinding the roasted nuts in a food chopper.

Pilaf With Chicken

Pilaf is most popular among the Oriental people, and is frequently served at dinner as the principle dish. It is practically rice cooked in meat stock until the broth is absorbed. This broth or stock can be made from meat, chicken, turkey, or game. Pilaf with chicken is made as follows:

1 small, fat chicken
2 cupfuls rice
1 stick cinnimon
Salt and pepper to taste.

Boil the chicken in a small amount of water until a rich broth is formed. Strain through a colander. Add the rice to the broth, also the cinnamon, and after seasoning it to taste cook over a good fire until all the water is evaporated.

Among the different flavors and dressings used to give variety to this dish, tomato is generally the most acceptable. For pilaf with tomatoes the following ingredients are used:

5 cupfuls stock
2 cupfuls rice
2 tablespoonfuls fat
1 small onion
4 ripe—or 6 tablespoonfuls canned—tomatoes
Salt and pepper to taste.

Chop the onion very fine and heat in part of the fat until pink. Place in a deep vessel, add the juice of the tomatoes, also the broth and the rice, which must be well washed. Season to taste and boil until done; pour over the whole the heated fat and place the vessel in a moderately hot oven for ten to fifteen minutes.

Codfish Balls

½ cupful salted cod
1 egg
1 cupful potato
Salt if needed
Pepper

Wash the fish in cold water and break into small pieces. Wash and pare potatoes together and cut into pieces. Cook the fish and potatoes together in boiling water until potatoes are soft. Drain and shake over the fire until dry, mash with a fork, add the beaten egg and pepper. Add more salt if needed and beat until light. Take up by spoonfuls, mold slightly, and cook in deep fat; or, shape into croquettes, roll in egg and crumbs, and fry in deep fat.

Cereals cooked with dates and raisins and then molded make wholesome conservation desserts. Blancmange, a delicious old-fashioned dessert, is made by using corn starch. A recipe will be found on any package of corn starch. Other suggestions are: Tapioca with fruits, gelatin molded with nuts and fruit, ices sweetened with maple syrup or honey, date or fig pudding made with oatmeal or barley flour instead of white flour, spiced oatmeal cakes, oatmeal macaroons and war cake, and custards.

Delicious muffins and biscuits may be made by combining ground oatmeal with wheat flour, using equal parts of each.

Will Save Your Chicks

Any reader of this paper who writes P. J. Kelley, the Poultryman, at 78 N. 2nd St., Minneapolis, Minn., will receive a Free Copy of his new booklet "White Diarrhoea in Baby Chicks." It tells how to prevent, remedy and save the whole hatch. It's free and this paper urges you to write for it at once.—Adv.

Real Estate For Sale

COLORADO LAND BARGAIN

Dry goods merchant owns 3,000 acres choice land in the wheat and corn belt of Eastern Colorado. An ideal location for cattle, sheep, or hog raising. Fine proposition for some hustling farmers who are tired of paying rent and sick of working for the other fellow. I own the land and will let the right fellows in on a good deal. Write me.

C. E. MITCHEM, Harvard, Ill.

FOR SALE

Two Good 160-Acre Wheat Farms located within two miles of Parsons, Kansas. Price of each, $12,000. No trade considered.
F. H. PATTERSON, Owner, Fredonia, Kan.



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"FAVORITE" HOME CANNER
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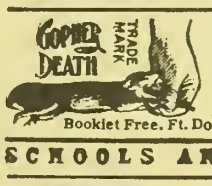

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We want to tell you how to prevent chicks from dying in the shell just at hatching time, how to save them from White Diarrhoea or Bowel Trouble; how to build the best Home Made Brooder in the world from an ordinary box or change your old one. Above information absolutely FREE, for names of 5 or 6 of your friends who use incubators. Send Names Today.
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Reliable Poultry Breeders

LEGHORNS.

EGGS (YOUNG'S STRAIN S. C. W. LEGhorns). Elsie Thompson, Mankato, Kansas.

S. C. BROWN LEGHORNS BRED 22 years. 222 to 266 egg lines. Eggs 15-$2; 50-$4; 100-$6. Gorsuch, Stilwell, Kansas.

L. B. RICKETTS, BREEDER OF PRIZE Winning Single Comb White Leghorns, Greensburg, Kansas.

SINGLE COMB BROWN LEGHORNS—Winners of the blue in four states. Eggs, $6.50 per hundred. Wm. Roof, Malze, Kan.

PURE-BRED BUFF LEGHORN COCKERels, $1.50 and $2. P. A. Wempe, Seneca, Kansas.

BARRON ENGLISH WHITE LEGHORN eggs, 100, $7.50; 100, $10, prepaid. Mrs. J. L. Todd, Route 8, Warrensburg, Mo.

FOR SALE — SINGLE COMB WHITE Leghorn cockerels at $2 each while they last. K. W. Talbott, Pratt, Kansas.

SINGLE COMB WHITE LEGHORN cockerels. Dave Baker, Conway Springs, Kansas.

PURE-BRED SINGLE COMB WHITE Leghorn cockerels, $1. Combs slightly frozen. Chas. McFadden, Morland, Kansas.

SINGLE COMB WHITE LEGHORN cockerels, $1 each. Eggs, $5 for 100. Mrs. Howard Elkins, Wakefield, Kansas.

SINGLE COMB WHITE LEGHORNS—First and third pullet at American Royal. Eggs, $1.50 per setting, $7 per hundred. H. A. Ketter, Seneca, Kansas.

SINGLE COMB BUFF LEGHORNS — Eggs, exhibition pen matings. Free range mating. Cockerels from 200-egg hens. Pearl Haines, Rosalia, Kansas.

PURE-BRED SINGLE COMB WHITE Leghorn eggs (Young strain), $1.50 per fifteen or $7 per hundred. Chicks, 20c. Mrs. David Christmann, Route 2, Oswego, Kan.

S. C. B. LEGHORN COCKERELS AND roosters, $1.50 and up. Paradise Poultry Farm, Corona, Kansas.

CHOICE HATCHING EGGS—SINGLE AND Rose Comb Brown Leghorns. Start with bred-to-lay strain. Delivery free. $2, fifteen; fifty, $3.50; hundred, $8. Plainview Farm, Lebo, Kansas.

ROSE COMB BROWN LEGHORN COCKerels, $2.90 each. Eggs, $5.90 per hundred; fifty, $3.50; thirty, $2.40. Chickens have taken five prizes, one state, none better. Rufus Standiferd, Reading, Kansas.

EXCELSIOR FARM SINGLE COMB White Leghorns. Yesterlaid Young strain cockerels, $2, three for $5. Eggs, $5 for 100. Baby chicks, 12c each. Mrs. C. C. Cole, Levant, Kansas.

PURE SINGLE COMB WHITE LEGHORN eggs from Famous Yesterlaid laying strain, mated to Tom Barron cockerels. Eggs that will hatch, securely packed, $7 per hundred. Shady Pine Leghorn Farm, Rossville, Kan.

FEW CHOICE S. C. WHITE LEGHORN cockerels from my combined egg contest and show room winners, reasonable. Eggs $7 hundred, chicks 15 cents. C. G. Cook, Lyons, Kansas.

S. C. B. LEGHORN BABY CHICKS, $12.50 per hundred. Eggs, $2.50 per setting and $5 per hundred. Sweepstakes and first prize cockerel Kansas State Fair; first pullet, first cockerel, Joplin, Mo. Paradise Poultry Farm, Corona, Kansas.

WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

RHODE ISLAND REDS.

ROSE COMB REDS, WINTER LAYERS. R. E. Mills, Lexington, Neb.

CRIMSON WONDER R. C. REDS.—LEE Darnell, Alta Vista, Kansas.

SINGLE COMB RED EGGS, $2.50 PER setting, $8 per hundred. Maple Hill Poultry Farm, Lawrence, Kansas.

ROSE COMB RED PULLETS, $2, $2.50. Chicks, 15c each. Eggs, 100, $5. Fred Leck, Yates Center, Kansas.

S. C. RHODE ISLAND RED COCKERels, excellent color. Laying strain. Eggs. Mrs. Geo. Long, St. John, Kansas.

FIFTY LARGE 6½-9½-POUND ROSE Comb Red utility cockerels. Stedem & Sons, Marshall, Mo.

STANDARD-BRED R. C. RED EGGS—Fifteen, $1.50; hundred, $6. Mrs. B. F. Weigle, Winfield, Kansas.

SINGLE COMB RHODE ISLAND RED eggs from my fine pen, Cyphers strain, $3 for fifteen eggs. Elmer Dovel, Auburn, Neb.

PURE-BRED R. C. R. I. R. COCKERELS, $2 and $3 each. Mrs. E. M. Wade, Burlington, Kansas.

ROSE COMB RED COCKERELS, CHICKS 20 cents. Booking orders now. Lily Robb, Neal, Kansas.

HEAVY BONED, DEEP BRILLIANT R. C. Reds, good combs, yellow legs, long back, low tail, high scoring. Satisfaction guaranteed. Highland Farm, Hedrick, Iowa.

HARRISON'S NON-SITTING SINGLE Comb Reds (250 egg strain). Mating list for customers. Robert Harrison, Lock Box, Lincoln, Nebraska.

BRED TO LAY SINGLE COMB REDS—Pure-bred, rich red, large, hardy, henhatched, free range, heavlest winter layers. Eggs, setting, $1.00; hundred, $5.00; guaranteed. Belmont Farm, Topeka, Kansas.

100 ROSE COMB RHODE ISLAND RED cockerels and cocks sired by roosters costing $15 to $50. $3.50, $5, $7.50, $10 each and up. 1918 matings, best ever. America's best breeding is represented here by birds of quality. W. R. Huston, Americus, Kansas.

ORPINGTONS.

BUFF ORPINGTON EGGS—HATCH guaranteed. Shipped prepaid. Leo Anderson, Juniata, Neb.

S. C. BUFF ORPINGTONS — EGGS, $2 for fifteen or $7 per hundred, postpaid. Mrs. S. S. Tate, Orlando, Oklahoma.

WHITE ORPINGTON COCKERELS, 3 and 5 dollars. Eggs for hatching. E. L. Gerardy, Americus, Kansas.

BUFF ORPINGTON COCKERELS, $2-$5 each. Mrs. Wm. Glen Davis, Route 5, Clay Center, Kansas.

GOLD-DUST S. C. BUFF ORPINGTON eggs, $2.50 setting or $10 hundred. Mary E. Price, Route 7, Manhattan, Kansas.

PURE-BRED WHITE ORPINGTON eggs for hatching, $1.50 per fifteen. Frank Hinson, Stockdale, Kansas.

EGGS FROM S. C. WHITE ORPINGTON state winners, 1917, at $3 per fifteen. Mating list free. H. B. Richardson, Greenfield, Oklahoma.

BUFF ORPINGTON EGGS, PREPAID. Pens, $2 and $1.50 per fifteen; extra quality farm flock, $1 fifteen, $5 hundred. A. M. Jordan, Route 4, Manhattan, Kansas.

WHITE ORPINGTONS FOR WINTER layers and qquality eggs, $7 hundred, $3.75 fifty, prepaid. Ideal Poultry Farm, Concordia, Kansas.

WHITE ORPINGTON EGGS FROM WINter layers. First pen headed by male from Chicago pen. Aldrich strain. $2 per fifteen. Good utility stock, $1 per fifteen, $5 per hundred. Mrs. Dora Ward, Ames, Kan.

WHITE ORPINGTON EGGS FROM FIVE grand pens containing Topeka and Kansas State Show winners. Few choice cockerels for sale. H. M. Goodrich, 712 Topeka Ave., Topeka.

PRIZE WINNING SINGLE COMB BUFF Orpingtons. Best of breeding and individuals. Splendid cockerels, $5 each. Eggs from excellent matings, $2, $3 and $5 for fifteen. Send for mating list. Sunflower Ranch, Ottawa, Kansas.

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BARRED PLYMOUTH ROCK EGGS, from well barred, large birds; 100 eggs for $5.50; 50 eggs $3. R. D. Ames, Walton, Kan.

WHITE ROCK EGGS—FIFTY, $3 PREpaid. Photo free. Mrs. John Ramsey, Ft. Scott, Kansas.

BARRED ROCK EGGS, FIFTEEN, $3.00; hundred, $10.00. 112 premiums. Mrs. Chris Bearman, Ottawa, Kansas.

PURE-BRED BARRED ROCK COCKERels, $2 and $2.50. S. A. Grindol, Perry, Kansas.

BARRED AND WHITE ROCK COCKERels and pullets from prize winners, $2, $3 and $5 each. H. F. Hicks, Cambridge, Kansas.

BARRED PLYMONTH ROCKS — PUREbred farm stock. Eggs, 6c each. Mrs. W. C. Bocker, Solomon, Kansas.

THE VERY BEST FANCY BRED PLYmouth Rocks for sale. Wm. Harrison, Marshall, Mo.

BARRED AND WHITE ROCK COCKERels and pullets. Write for prices. Nora Hill, Cambridge, Kansas.

EXTRA GOOD RINGLET BARRED ROCK eggs for hatching, $2 and $5 setting; $8 hundred. Mrs. W. E. Schmitendorf, Vassar, Kansas.

BUFF ROCKS—GET THE BEST. BAKER gold nugget proved layer strain—no guesswork. Eggs, fifteen, $2; fifty, $5. Order early. Abram Troup, Logan, Kansas.

WHITE ROCKS, SIZE AND QUALITY; good egg strain. Eggs, fifteen, $1.25; fifty, $3.50; hundred, $6. G. M. Kretz, Clifton, Kansas.

BARRED PLYMOUTH ROCK FREE range eggs (Ringlet strain), $1.25 per fifteen or $7 per hundred. E. M. Wayde, Burlington, Kansas.

LUCAS BUFF ROCKS—COCKERELS, $3, $5 and up. Eggs, best pens, $5 and $3 per fifteen; range flock, $6 per hundred. T. H. Lucas, Pattonville, Mo.

WHITE ROCKS — BEST ALL-PURPOSE fowls. As good as can be found anywhere. Eggs, $2 per fifteen, $5 per forty-five, $10 per hundred, expressage prepaid. Thomas Owen, Route 7, Topeka, Kansas.

EGGS FOR HATCHING FROM PRIZEwinning White Rocks, $1.50 per setting, $6.50 per hundred. Fishel and White Ivory strains. All orders handled promptly. A. H. Alpers, Hudson, Kansas.

BARRED ROCKS, BOTH LINES. STATE show winners. Good layers. Eggs, $1.50 per fifteen, $6 per hundred. Special matings, $5 per fifteen. C. C. Lindamood, Walton, Harvey County, Kansas.

BARRED ROCKS—EIGHTY PREMIUMS, 33 firsts, Topeka, Salina, Manhattan, Clay Center, Kansas City, Denver. Males and females. Eggs, fifteen, $5; thirty, $9. Mattie A. Gillespie, Clay Center, Kansas.

BARRED PLYMOUTH ROCKS, THOMPson Ringlet strain, cockerel and pullet mated, pen and utility flock eggs. Quality high. Priced low. Many satisfied customers in thirty-seven states. Circulars free. A. F. Siefker, Defiance, Mo.

BARRED ROCKS THAT PRODUCED 175 eggs each in 1916; 120 eggs seven months, 1917. Four ribbons, 1917. Pens standardized, Hogan system. eggs, $2 and $3 per fifteen, $10 and $15 hundred. Mating list free. Farnsworth, 224 Tyler St., Topeka.

"ROYAL BLUE" and "IMPERIAL RINGlet" Barred Plymouth Rocks. Twelve blue ribbons 1917, 203 to 218-egg production. Stock and eggs for sale. Free mating list. North Willow Poultry Ranch, A. L. Hook, Prop., Coffeyville, Kansas.

80 Head Dispersal 80 Head

of the Sunflower Herd Holstein's

FAIR GROUNDS CATTLE PAVILION

Topeka, Kans., Wednesday, March 27

My farm has been sold and immediate possession to be given. Included in this sale will be found:

Twelve daughters of Model Segis Butter Boy 115602, a grandson of King Segis and from the three times thirty-pound cow, Annie DeKol Butter Girl. These heifers are a mighty fine bunch and have calves by side by the great young sire, King Pontiac Concordia Konigen 130856, whose sire, King Pontiac Konigen 75348, recently sold for $10,000, and whose daughter, Lady Netherland Pontiac, recently has broken the world's records as a junior four-year-old with over forty-three pounds butter in seven days. King Pontiac Concordia Konigen has for dam the 31.46-pound cow, Nellie Concordia De Kol.

A. R. O. cows of splendid breeding and great individuals.

Thirty-three head now milking, heifers, heifer calves and a few choice young bulls.

WE HAVE ALWAYS USED GOOD HERD SIRES. Every animal in this dispersion will have been bred to either King Segis Pontiac Maia (a son of King Pontiac from a twenty-pound two-year-old daughter of King of the Pontiacs, his weight 2,300 pounds), or Sunflower King Walker 134166, a splendid grandson of King Walker from a 25-pound cow of great quality, his weight 2,000 pounds at four years.

SUNFLOWER KING WALKER will be sold. Arrange to attend this sale and see the finest lot of cattle ever sold by Sunflower Herd, and our many customers know that we have sold some mighty good ones. Send for catalog to

F. J. Searle, Oskaloosa, Kans.

NOTE.—Remember that my sale follows the Kansas Breeders' Sale; also remember that we are consigning granddaughters of King of the Pontiacs, King Segis Pontiac, Pontiac Jewel Butter Boy and King Pontiac Champion to the Breeders' Sale. A consignment of choice cattle from the herd of W. H. Mott, Secretary Holstein-Friesian Association of Kansas, will be included in the Sunflower Dispersion.

WYANDOTTES.

SILVER WYANDOTTE EGGS—FIFTEEN, $1.65; fifty, $3.75; hundred, $6.50. Hens. Mrs. Edwin Shuff, Plevna, Kansas.

WHITE WYANDOTTE COCKERELS, Fishel strain, $2.50. Eggs, $1.25, fifteen. Mrs. Clyde Meek, Route 3, Chapman, Kan.

WHITE WYANDOTTE COCKERELS AND hens, $1.50 to $2 each. Mrs. Joel Smith, Amorita, Okla.

SILVER WYANDOTTE EGGS, $1.50 PER fifteen; $6 per hundred. B. C. Hill, Route 2, LeRoy, Kansas.

LAYER-PAYER SILVER WYANDOTTE eggs, fifteen, $1.50; fifty, $3.50. Irve Wright, Clifton, Kansas.

WHITE WYANDOTTE EGGS FROM high scoring birds at $2 per fifteen (Martin strain). Frank Henderson, Solomon, Kan.

CHOICE WHITE WYANDOTTE COCKERels from winning laying strain; also eggs. Andrew Kosar, Delphos, Kansas.

WHITE WYANDOTTE EGGS, $1.25 PER fifteen, $6 per hundred, from good laying strain. Chilcott's Poultry Farm, Mankato, Kansas.

FIFTEEN CHOICE SILVER WYANdotte cockerels, $3 each; six for $15. Fifteen eggs, $1.25; fifty, $3.50; hundred, $6. Mrs. Philip Schuppert, Arrington, Kansas.

EGGS—WHITE WYANDOTTES LAYING strain. Utility, $1.25 fifteen; $3.50 fifty; $6 hundred. Pen headed by $15 cockerel direct from Keeler, $2 fifteen. M. M. Weaver, Newton, Kansas.

BRAHMAS.

LIGHT BRAHMA COCKERELS AND eggs. E. O. Strom, Shenandoah, Iowa.

CORNISH

DARK CORNISH EGGS. EAST LAWN Poultry Yards, Fairmount, Neb.

LANGSHANS.

EGGS—BEST LANGSHANS. JOHN LOVette, Mullinville, Kansas.

PURE-BRED BLACK LANGSHAN COCKerels, pullets. Eggs for hatching. James Hurst, Grove, Oklahoma.

BLACK LANGSHAN EGGS, 7c EACH; over 100, 6c. Baby chicks, 20c. Mrs. Geo. W. King, Solomon, Kansas.

WHITE LANGSHANS—LAYING STRAIN. Eggs, $6 per hundred; $1.50 for fifteen. A. F. Simmons, LaCygne, Kansas.

CHOICE PURE-BRED BLACK LANGshan cockerels, $3 and $5 each. Satisfaction guaranteed. Gertrude A. Black, Baldwin, Kansas.

CAMPINES.

PURE-BRED SILVER CAMPINES, $2.00 for fifteen eggs. A. C. Rice, Bacone, Okla.

BABY CHICKS.

SINGLE COMB WHITE LEGHORN BABY chicks, 15 cents. Orders booked now. Mrs. Anna Hege, Sedgwick, Kansas.

REDS, ROCKS, LEGHORNS;—15 CENTS. Request Folder. McCune Hatchery, Ottawa, Kansas.

YOU BUY THE BEST CHICKS FOR least money. Guaranteed alive or replace free. Shipped anywhere. Colwell Hatchery, Smith Center, Kansas.

COCHINS.

BUFF COCHIN BANTAM EGGS, 10c each; cockerels, $1.25 up. Lester Fagan, Minneapolis, Kansas.

SEVERAL BREEDS

TWENTY VARIETIES POULTRY — Stock and eggs. Royal Poultry Yards, Coffeyville, Kansas.

BUFF DUCKS, EMBDEN GANDERS, turkeys, Toulouse geese, one Buff Orpington cock, China geese. Emma Ahlstedt, Roxbury, Kansas.

FOR SALE—EGGS FROM ALL KINDS of pure-bred poultry, Geese, 7 kinds of ducks, Pearl and white guineas, Bantams, Fancy Pigeons, Canaries, Rabbits, Guinea pigs, Dogs. Write wants, D. L. Bruen, Platte Center, Nebr.

When Writing to Advertisers, Please Mention Kansas Farmer

DUCKS AND GEESE.

FAWN AND WHITE INDIAN RUNNER ducks. Eggs for hatching. Good layers. Fifteen, $1.50; forty-five, $4. H. Clay Shirky, Norborne, Missouri.

ANCONAS.

ANCONA EGGS CHEAP, BOTH COMBS, from extra good stock. G. D. Willems, Inman, Kansas.

TURKEYS.

BRONZE TURKEY TOMS WEIGHING 21 to 25 pounds, $7 each. R. W. Galloway, Jamestown, Kansas.

MAMMOTH BRONZE TURKEYS, NONE better. Flock headed by 53-pouud tom. Ten eggs, $4. C. R. Smith, Burnt Prairie, Ill.

QUALITY BOURBON RED TURKEYS—Write for prices. Mrs. Elmer Nicholson, Route 5, Wellington, Kansas.

MAMMOTH BRONZE TURKEYS, 62½-pound strain, none better. Also Mammoth Buff geese. Ten eggs, $4. Silas Carter, Burnt Prairie, Illinois.

POULTRY WANTED.

EGG CASES, CHICKEN COOPS LOANED free. Prices published in Topeka Daily Capital paid by the Copes, Topeka.

DUROC JERSEYS.

TAYLOR'S DUROCS

For Sale—A few choice herd boars, extra good. All sired by state fair champion boars. A lot of spring and fall yearling gilts and a few tried brood sows bred for March and April litters. Priced to sell quick. Come and see me.

Chas. L. Taylor - Olean, Mo.

DUROC BOARS

Thirty-five spring boars by G. M.'s Crimson Wonder, Crimson Wonder Again Jr., Critic D. and Great Wonder, out of my best herd sows. Priced to sell. Come and see my herd.

G. M. Shepherd, Lyons, Kansas

DUROC SOWS AND GILTS
Bred to Illustrator's Climax. Gilts bred to Gano. Boars 5 to 11 months old.
WOODS DUROC FARM, WAMEGO, KAN.

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on bred gilts and boars from champions, Defender, Illustrator, Crimson Wonder, Golden Model and Critic breeding.
JOHN A. REED & SONS, Lyons, Kansas.

Guaranteed Duroc Gilts

Immune, recorded Duroc gilts with size, bone and length. Guaranteed to farrow. Shipped to you before you pay for them.
F. C. CROCKER, BOX K, FILLEY, NEB.

HAGUE'S DUROCS

Fifteen choice fall boars and gilts for sale, sired by Kansas Pathfinder by Pathfinder. All immune. K. Hague, R. 6, Newton, Kan.

POLAND CHINAS.

DEMING RANCH QUALITY

BIG-TYPE POLAND CHINA HOGS

Breeding stock for sale at all times. All immuned. Come and inspect our herd or write us your wants.

H. O. Sheldon, Herd Manager
OSWEGO, KANSAS.

OLD ORIGINAL SPOTTED POLANDS

Stock of all ages, also bred gilts and tried sows, bred, ready to ship. Priced right. Write your wants to
CEDAR ROW STOCK FARM
A. S. Alexander, Prop. Burlington, Kansas

Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
J. EDW. PLILEY - GILMAN CITY, MO.

PURE-BRED POLAND SOWS AND GILTS
For Sale, above, bred to Gerstdale Jones Again and other extra good boars. All immune.
UPDEGRAFF & SON, TOPEKA, KANSAS

GRAND VIEW POLANDS

Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.
ANDREW KOSAR - DELPHOS, KANSAS

Langford's Spotted Polands. Last call for fall boars. Yours for Spotted Polands,
T. T. Langford & Sons, Jamesport, Missouri

REDFIELD'S SPOTTED POLANDS
Fall boars, large enough for spring service.
Chas. H. Redfield, Bucklin, Kansas.

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene, Peabody, Kan.**

MATTOX'S SPOTTED PDLANDS—Bred sows, serviceable boars, baby pigs, for quick sale. H. A. or Paul H. Mattox, Route 2, Burlington, Kansas.

POLAND CHINA HOGS 150 HEAD IN HERD

Breeding stock for sale. Immune. Satisfaction guaranteed. Come and see me.
V. O. JOHNSON - AULNE, KANSAS

RED POLLED CATTLE.

RED POLLED BULLS

For Sale—Thirty head coming yearling bulls. Come early and get the best. Our experience has been those that come late found us sold out. Write or come at once.

E. E. FRIZELL
FRIZELL, (Pawnee County), KANSAS

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.
CHAS. L. JARBOE - QUINTER, KANSAS

JERSEY CATTLE.

120 Jersey Cows and Heifers

Pure-bred and high grade. Forty bred yearlings, superior individuals, all from profitable dams, now for sale.
S. W. BERRY & SON, Jewell City, Kansas

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MULEFOOT HOGS.

KNOX KNOLL STOCK FARM

MULEFOOT HOGS SHORTHORN CATTLE
Registered stock for sale at all times. Am offering some bargains in bred sows, summer gilts and fall pigs. Write for prices and catalog to **S. M. KNOX, Humboldt, Kansas.**

GALLOWAY CATTLE.

GOOD GALLOWAY BULLS

Twenty-five Extra Good Yearlings
Extra breeding and quality. Priced to sell.
J. M. HILL, SEDGWICK, KANSAS
Route 4, Box 65A

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.
E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

POLLED DURHAM CATTLE

TRUE SULTAN POLLED DURHAMS

A few heifers bred or open are offered. Some by or bred to the champion $2,200 True Sultan and Sultan's Challenger.
ED STEGELIN
STRAIGHT CREEK - - - KANSAS

WILD WOOD STOCK FARM

POLLED DURHAM CATTLE
For Sale—Ten bulls of serviceable age, sired by Roan Acacia 9021. Dam, Golden Acacia by Acacia Victor, a double standard bull from D. C. Van Nice herd. Write at once. These bulls will sell.
T. M. ETHERINGTON, Hamilton, Kansas

FARM AND HERD.

Oakland Stock Farm, owner by Scott J. Miller, of Chillicothe, Missouri, is one of Missouri's noted pure-bred stock farms. This farm is famous for its herds of Percherons, also its great herd of jacks and jennets. A feature of the herds at this time is the great lot of young stallions and mares and the outstanding young jacks.

T. T. Langford & Sons, Jamesport, Missouri, the well known breeders of Spotted Poland Chinas, report their herd doing well and a big demand for Spotted breeding stock. Among recent sales reported are six yearling sows and three gilts and eleven fall pigs in one day at an average of $70 per head.

Richard Roenigk, of Morganville, Kansas, owner of one of the high-class Shorthorn herds in this state, announces a dispersion sale of his entire herd to be held at Clay Center, Kansas, April 25. The offering will consist of seventeen Shorthorn cows, five bulls, seven fall calves and several heifers. Then of the cows will have calves at foot. The offering will include his good pure Scotch bull, Cedar Dale 448518, a roan three-year-old weighing 2,200 pounds.

The Jefferson County Improved Live Stock Association has announced March 13 for a combination sale of pedigreed live stock, comprising twenty-five head of Shorthorn cattle, three registered Holstein bulls, three registered Percheron stallions, five jennets, and Hampshire and Poland China hogs. All the stock consigned will be first class. This is the first annual sale of this association.

F. J. Searle, of Oskaloosa, Kansas, has sold his farm and announces the dispersal of his entire herd of Holstein cattle at the Topeka Fair Grounds on March 27, following the Kansas Holstein Breeders' sale. The cattle will be at the cattle barns at the fair grounds several days before the sale and can be inspected.

The Standard Dairy Company, Wichita, Kansas, claims March 19 as the date of its public sale of registered Holstein cattle. They will catalog fifty head for this event and their offering will be one of the good lots of Holsteins sold this season.

The sale of Shorthorn cattle of H. E. Huber, Meriden, Kansas, February 26, resulted in the disposal of thirty head of cattle. Seventeen cows and heifers averaged $169.40. Thirteen bulls averaged $130.60. The thirty head sold at an average price of $152.60. About 200 farmers and breeders were present. The cattle were presented in good condition with the exception of a few aged cows. The competition was for sons and daughters of the great herd sire, Silk Goods, the eleven-year-old bull now at the head of the herd. Most of the offering was less than two years old and the prices received were very satisfactory to Mr. Huber.

A. J. Erhart & Sons, Ness City, Kansas, announce their next sale of Poland China bred sows and gilts to be held at Hutchinson, Kansas, on April 4, at the Kansas State Fair Grounds. The herd now comprises over 100 head of brood sows and from these they are selecting fifty head of choice fall and spring yearlings for this sale.

Ross & Vincent, of Sterling, Kansas, have announced April 3 for their next sale of Poland Chinas. They will catalog a select lot of fall and spring yearlings, and about fifteen tried brood sows will be sold with litters at side. The herd consists of the most popular breeding of strictly big-type Poland Chinas.

H. B. Walter & Son, of Effingham, Kansas, announce their next sale of Poland China bred sows to be held on April 1. The splendid herd maintained on the farm comprises more than a hundred head and from this number forty head of high-class sows and gilts will be selected for this sale. Several fall yearlings bred to Big Bob Wonder will be attractions in this sale.

The Duroc Jersey sale of R. A. Murphy, Dearborn, Missouri, February 27, resulted in the disposal of forty-one head of sows and gilts at an average price of $116.12. A large crowd of farmers and breeders from Missouri and Kansas was present and the bidding was snappy and at no time did the sale lack for interest. The top price was $195, paid for No. 1 in the catalog. Nothing sold high, but prices were very even. The sale returns were very satisfactory to Mr. Murphy.



SCOTT'S JACK AND JENNET SALE

AT SAVANNAH, MO. MARCH 14, 1918

Twenty-four extra good black Registered jacks, heavy-boned, thick-bodied kind, from three to six years old. These jacks are the right type and will make good. Will also offer three Percheron stallions and four Percheron mares. Write for catalog. Sale at Savannah, Mo., thirteen miles north east of St. Joseph, on the C. G. W. and C. B. & Q. Railroads. Interurban from St. Joseph arrives and departs every hour.
G. M. SCOTT, Route No 2 REA, MISSOURI



PERCHERONS AND BELGIANS

IMPORTED AND HOME-BRED PERCHERONS AND BELGIANS.
I have a good lot of horses to select from at very reasonable prices. I give a gilt edge guarantee of 60 per cent, good for two years.
Barns Four Blocks from Santa Fe Depot.
W. H. RICHARDS - EMPORIA, KANSAS

EWING BROS.' PERCHERON HORSES, SHORTHORN CATTLE, SHETLAND PONIES AND POLAND CHINA HOGS

FIFTY MARES—Weanlings to mature mares, weighing a ton or more, in foal. Herd headed by Imp. Meknes (106084) 106640, weighing 2,200 pounds.
SEVERAL MATCHED TEAMS—Fifteen head of stallions, from weanlings to six years old. The best lot of two-year-olds we have ever had. The kind to mature into ton horses or better—grays and blacks.
SHORTHORN CATTLE—A few cows for sale. Ten young bulls out of pure Scotch sire ready for service. Herd headed by Village Knight No. 398231 weighing 2,250 pounds and Choice Echo 393419, weighing 2,300 pounds, for sale.
SHETLAND PONIES at very low prices if taken soon—weanlings to broken fillies.
Phone to Ewing Bros., 903A5 or 903A12, Great Bend, or write us at R. F. D. No. 1, Pawnee Rock, Kansas. **EWING BROTHERS.**

HEREFORD CATTLE.

Hereford Bulls For Sale

One registered four-year-old Polled Hereford bull, weight 1,700 pounds. Also one registered Hereford bull calf, 8 months old, weight 865 pounds. Best blood lines.
F. A. LAWRENCE, Route 3, Meriden, Kan.

GUERNSEY CATTLE.

GUERNSEY BULLS.
Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to twelve months old. **ADAMS FARM, Gashland, Mo.,** 12 miles from K. C.

GUERNSEY BULLS
Three registered Guernsey bulls, 9 to 11 months old, tuberculin tested recently; best of breeding. Cows are good producers. For further information inquire of
FRED WILLE - COLUMBUS, NEBRASKA

GUERNSEY BULLS

For Sale—Two registered Guernsey bulls, one year old. Well bred and of good size.
L. W. GOSS - MANHATTAN, KANSAS

SHORTHORN CATTLE.

Shorthorns and Polled Durhams
In Big Four Day Sale

So. Omaha, Neb., March 26, 27, 28, 29

150 Shorthorns, 80 bulls and 70 cows and heifers sell on the first two days.
100 Double Standard Polled Durhams, 40 bulls and 0 females sell on the last two days.
50 Calves go free with dams in the four days. Car lot buyers will find this event attractive.
Write for illustrated catalog of the sale that you are interested in to
H. C. McKELVIE, SALE MANAGER
LINCOLN, NEBRASKA

THE SHORTHORN IS THE BREED FOR YOU
Shorthorn steers at the International, Chicago, made the highest dressed weight ercentage of any breed. Sixty yearlings averaged 65.3%.
Shorthorn steers were grand champions at Denver, Portland, Salt Lake City and Chicago.
Shorthorn cows are making records up to 17,564 pounds of milk and 569.7 pounds of butter fat per year.
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American Shorthorn Breeders' Ass'n
13 Dexter Park Ave. Chicago, Ill.

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Home of Shorthorn Cattle. Reds Exclusively.
A few choice young bulls for sale, from my best milking cows. All registered. Come and see me.
DR. M. F. MARKS, VALLEY FALLS, KAN.

SCOTCH SHORTHORNS

Twelve Choice Bulls, reds and roans, from seven to fifteen months old, sired by such bulls as Pioneer, Excelsior and Mistletoe King. Priced reasonable.
C. A. COWAN & SON, ATHOL, KANSAS.

Pearl Herd Shorthorns

Village Heir by Imported Villager and Orange Lovel by Victor Orange in service.
FOR SALE—Young bulls from 8 to 12 months old, reds, whites and roans. Scotch and Scotch topped. Inspection invited. Can ship on Rock Island, Union Pacific or Santa Fe Railway.

C. W. Taylor, Abilene, Kansas

SCOTCH SHORTHORNS

Bettie's Albion 399451 now for sale. Roan, weight 2,000 pounds if fat. Strong breeder. Also six bulls from 6 to 24 months old, reds, whites and roans. Write
C. E. HILL - - TORONTO, KANSAS

HORSES AND MULES.



JACKS AND JENNETS

15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.
PHIL WALKER
Moline, Elk County, Kansas

Malone Bros., Jacks and Percherons

We have 2 barns full of extra good jacks ranging in age from weanlings to 6 yrs. old, all over 2 yrs., well broke to serve. Several fine herd headers among them. Also jennets in foal to homebred and imported jacks. A few imported Percheron stallions royally bred. We can deal. Write or call on
J. P. & M. H. MALONE, CHASE, KAN.

Belgian Stallions

Registered Belgian Studs for Sale—Two 2-year-old Belgian stud colts, one 4-year-old Belgian stud. All ready for service.
W. J. Fitzgerald - Owner
DODGE CITY, KANSAS



PERCHERONS AND JACKS
FOR SALE—Four jacks, two coming three-year-olds, one four-year-old and one ten-year-old. All good size, sound and guaranteed. Will price a few good jennets. Also have five Percheron stallions and a few good mares, priced right. Come and see me.
M. G. BIGHAM & SON, OZAWKIE, KAN.
7 miles from Meriden, Kan. 10 miles from Perry, Kan. 20 miles northeast Topeka.



Percherons, Belgians, Shires
2, 3, 4 and 5-year stallions, ton and beavier; also yearlings. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.
Fred Chandler, R.7, Charlton, Ia.
Above Kansas City.

Choice Young Belgians, English Shires, Percherons, also Coach stallions, also mares. Many first prizes. Long time 6% notes.
Illinois Horse Co., Good Blk., Des Moines, Ia.

40 Percheron Stallions and mares, weanlings up. 20 Mammoth jacks, 10 jennets in foal. Priced reasonable. **Al E. Smith Lawrence, Kansas.**

JACK BARGAINS

The war makes me sell, your terms, your price, two colt jacks, three 3-year-olds, three 5-year-old jacks, 10 jennets under 10 years old. All big, black, white points.
E. E. LAUGHLIN - FOSTER, MISSOURI

Twenty-three jacks, 2's, 3's and 4's; our own raising, from $150 to $500. Young Percheron studs and mares. Reasonable. Sale or trade. Time or cash.

OAKLAND STOCK FARM

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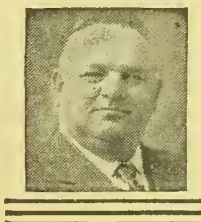

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Twelve years on the block.
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ANGUS CATTLE AND BERKSHIRES
For Sale—Registered Aberdeen Angus cattle and Berkshire swine, both males and females for sale now. Address
GEORGE M. McADAM - HOLTON, KAN.

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS
Best breeding, best type. Stock for sale.
GEO. W. ELA, Valley Falls, Kansas

HOLSTEIN CATTLE. HOLSTEIN CATTLE.

50 - Registered Holsteins at Auction - 50

TUESDAY MARCH 19, 1918

Included in the sale are 30 cows and heifers of milking age, 10 yearling heifers, 7 open heifers and heifer calves, 3 yearling bulls

All females to be sold bred by Sir Johanna DeKol 19th 64143, weight 2,500 pounds, who has six producing sons and eleven A. R. O. daughters.

Cedar Lawn Wit, 3½ years 28.63
Johanna Elmer Rue, 3½ years 27.15
Netherland Johanna De Kol 6th, 5½ years.....24.93

He is a half brother to the $7,000 cow, Johanna De Kol Van Beers, 40.07 pounds, whose two sons sold for $4,500. Here is an opportunity to buy cattle that are bred right and individually right. Sale starts at 1 p. m. sharp.

STANDARD DAIRY CO., WALNUT GROVE, WICHITA, KAN.

One Mile North of City. Auctioneers, Newcom and Temple

STUBBS FARM OFFERS

The bull, Gem Pietertje Delmar Korndyke, ready for service, seven-eights white, extra good individual. He has a 30-pound sister and two 29-pound sisters. His sire, both grandsires, both granddams and thirty sisters are in A. R. O. He is blackleg immune, tuberculin tested, and guaranteed to be a breeder. Price, $160, f. o. b. Mulvane. Write quick if you want him.

STUBBS FARM - - - - MULVANE, KANSAS

CLYDE GIROD, At the Farm F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

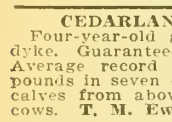
We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd.

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

SAND SPRING HOLSTEIN HERD



It undecided as to what dairy breed to select, investigate carefully the "BLACK AND WHITES"—the greatest food producers, soil builders, debt payers and money makers on the American farms today—HOLSTEINS.

Some farmers just keep Holsteins to sell and others just keep them to milk, but we want nothing to do with the Holsteins who will not keep us.

Our Aim—Individuality and Production.

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MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

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HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

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HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment. **Edgewood Farms, Whitewater, Wisconsin.**

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Heilo No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

REGISTERED HOLSTEIN BULLS

From A. R. O. cows. All our own breeding. Bred for milk and fat production.

LILAC DAIRY FARM
R. F. D. 2 Topeka, Kansas

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON, KANSAS

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. **Clover Valley Holstein Farm, Whitewater, Wisconsin.**

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wauwatosa, Wisconsin

Oak Hill Farm's

Registered Holstein Cattle

For Sale—Yearling and bred heifers, also young bull calves, mostly out of A. R. O. cows. Perfect satisfaction guaranteed.

BEN SCHNEIDER, NORTONVILLE, KAN.

CEDARLANE HOLSTEIN HERD

Four-year-old grandson of Pontiac Korndyke. Guaranteed sound and a sure breeder. Average record dam and sire's dam, 29.4 pounds in seven days. Special price on bull calves from above bull. Also several good cows. **T. M. Ewing, Independence, Kansas.**

$20.00—HOLSTEINS—$20.00

Fine heifer calves, seven-eighths pure, from high record registered sires and heavy producing dams. Two to four weeks old. More white than black, $20; more black than white, $19. Satisfaction guaranteed or your money back.

Harris Holstein Farms Sextonville, Wis.

CASTILLO'S HOLSTEINS

Two-year-old daughter of A. R. O. cow. Freshens March 29. Dam's 62 days county association record, 3,824 pounds, 165 pounds butter. Fine "Lilly" bull, 100% breeder. Pure-bred grade heifers freshen soon.

CASTILLO & SON, INDEPENDENCE, KAN.

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves. **H. B. COWLES, 608 Kan. Av., Topeka, Kan.**

Segrist & Stephenson, Holton, Kan. Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

Holsteins

HIGH GRADE COWS AND HEIFERS

Carload lots and less. Calves fifteen-sixteenths pure-bred for sale at all times. $20 crated for shipment.

MAPLE LAWN STOCK FARM
C. W. HODGE Milton Junction, Wis.

Holstein Calves

We offer for sale choice beautifully marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated, f. o. b. cars: One to two weeks old, $17 each; three to five weeks old, $20 each; six to eight weeks old, $25 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

CHESTER WHITE HOGS

Crystal Herd Chester Whites

Choice tried sows and spring gilts, bred to farrow March 8 to April 6. Gilts are sired by Achilles 58994 and are bred to "Billy the Kid," a grandson of Wm. A. One gilt by Scotlea Archie, bred to Achilles. Have some choice September boars. This is a choice offering, priced right for quick sale to make room for spring pigs.

DAN WILCOX, ROUTE 2, CAMERON, MO.

Breeders' Directory

ANGUS CATTLE.
D. J. White, Clements, Kan.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.

Pure-Bred Hog Sale

Polands and Durocs, at Solomon, Kansas, March 5, 1918.

A nice consignment of bred sows and gilts bred to outstanding good boars. Write for catalog to

J. G. BURT OR LOUIS KOENIG
Solomon - - - - Kansas

E. E. Laughlin, of Rich Hill, Missouri, owner of one of Missouri's good herds of jacks and jennets, reports his herd doing well. Some of the best jacks now in service were raised on the Laughlin farm near Foster, Missouri, and at this time a feature of his herd is the very fine lot of young stock.

Classified Advertising

HELP WANTED.

THOUSANDS GOVERNMENT POSITIONS open to farmers. $100 month. Easy clerical work. List positions free. Franklin Institute, Dept. N-82, Rochester, N. Y.

WANTED—ACTIVE MEN WITH FARMer acquaintances to sell pipeless furnaces. Splendid line. Good proposition to offer. Richardson & Boynton Co., 171 W. Lake St., Chicago, Ill.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE — A FEW VERY CHOICE Holstein calves, either sex. Prices reasonable. Ernest Dutcher, Whitewater, Wis.

FOR SALE — HIGH GRADE HOLSTEIN three-weeks-old heifer or bull calves, $25. Express prepaid to your town. John's Farm, Watertown, Wisconsin.

FOR SALE — A RED POLLED BULL, calved March 8, 1913. There are very few better bulls in the state. Geo. Haas, Route 6, Lyons, Kansas.

REGISTERED HOLSTEIN BULL CALVES $40. High grade heifer calves, $18, crated. Satisfaction guaranteed. Paul McFarland, Route 7, Watertown, Wisconsin.

HOLSTEIN BULL — HAVING DISPOSED of my cows, will offer my fifteen-months-old registered bull for sale, $150. Phillp C. McDonald, Princeton, Missouri.

TWENTY-FIVE TWO-YEAR-OLD HIGHgrade Holstein springers. A few Holstein heifer calves, four to six weeks old, $22.50 each. Oakwood Farm, Whitewater, Wis.

HOLSTEINS — HIGH - GRADE HEIFER calves crated at $20 each, from extra choice producing dams, sired by high-class registered sires with official record backing. Also fancy brick and limburger cheese by parcel post or express. Hyland Stock Farm, Monroe, Wisconsin.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

HORSES AND MULES.

FOR SALE OR TRADE—ONE IMPORTED Percheron stallion, also one 16-hand registered jack. T. P. Stryker, Hesston, Kan.

THREE REGISTERED SOUND BLACK jacks, 14¾ to 15 hands, standard. $375 to $475. The money-making kind. Lewis Cox, Concordia, Kansas.

FOR SALE—IDEAL JACK, 7 YEARS, 15 hands, 8-9 inch bone, inky black, light points, snappy, quick, sure. Perfect handler. Used only once daily. $700. Cash, time, trade. W. C. Moore, Box 166, Parsons, Kan.

ONE MAMMOTH JACK, ONE SPANISH jack, both sure breeders. Also one standard-bred two-year-old filley and one good eight-months-old draft colt. This lot will be priced right. Must close out. H. L. Summers, Twenty-third and Lincoln Sts., Topeka.

INCUBATORS.

BRAND NEW $5 RELIABLE INCUBAtor and $1 worth poultry remedies, $3.90. Introductory offer for quick acceptance. C. E. Wight, C-18, Lamoni, Iowa.

FARM LANDS.

YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

MISCELLANEOUS.

DR. PRUITT'S CHOLERA AND DIARrhea Treatment is guaranteed to stop your chickens and turkeys dying or your money back. A full treatment for ninety grown chickens sent prepaid for $1.50. Pruitt Remedy Co., Hays, Kansas.

COMPLETE DAIRY OUTFIT INCLUDING 1915 DeLaval separator, Twentieth Century bottle washer, double washing vat, Ideal filler and all other necessary articles. Write me what you want. Philip C. McDonald, Princeton, Missouri.

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PATENT BOOK SENT FREE TELLING how we protect and help market your invention. Also bulletins listing hundreds inventions wanted. Send sketches for free opinion. Lancaster & Allwine, 463 Ouray Building, Washington, D. C.

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SITUATION WANTED.

WANTED—WORK ON FARM BY THE month or year by man who understands all farm work and stock. Address A. Wagner, Route 1, St. Peter, Minn.

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LET US TAN YOUR HIDE: COW, HORSE or calf skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

DOGS.

FEMALE COLLIES, FOUR MONTHS, fancy, $7.50. Frank Barrington, Sedan, Kan.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

AIREDALE PUPS, $7.50 UP. PUREbred. Sire Imported Champion Cadet. Riverside Farm, Topeka, Kansas.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

VIOLINS.

VIOLIN FOR SALE—HAS SWEET TONE. Free trial. Easy payments if wanted. Write Miss Bertha Mardiss, Route 5, Rosedale, Kansas.

TREES, SEEDS AND PLANTS.

SEED CORN. — LAPTAD STOCK FARM, Lawrence, Kansas.

FOR SALE — GOOD RECLEANED ALfalfa seed at $8 per bushel. Write for free sample. C. Markley, Belle Plaine, Kansas.

FOR SALE—BY GROWER, SCHROCK Kafir Seed. Write for sample and prices. James D. Wilson, R. F. D. Parsons, Kansas.

WHITE SWEET CLOVER AND ALFALFA at farmers' prices. John Lewis, Madison, Kansas.

FOR SALE — ALFALFA SEED, CLEAN, home-raised, at $12 and $14 per bushel. Will send sample of either on receipt of 10 cents. S. Hunziker, Sutton, Nebraska.

SUDAN SEED—1917 RECLEANED CROP, free of Johnson grass. 22c pound, 50 pounds $10.50, 100 pounds $20. Cash with order. Herman Burdorf, Cheney, Kansas.

CHOICE SUDAN SEED, FREE FROM Johnson grass, 22½c for small quantities, 20c one hundred pounds or more. R. C. Obrecht, Route 28, Topeka.

SEED CORN — IOWA SILVER MINE, Diamond Joe and Hildreth at $3.25 per bushel f. o. b. cars Grove, Oklahoma. Sacks free. J. C. Starr, Vinita, Oklahoma.

SEND $1 AND WE WILL SEND YOU 12 Concord grapes, 2 years (postage prepaid). Catalog free. Welch Nursery, Shenandoah, Iowa.

HAVE LARGE SUPPLY OF SENATOR Dunlap strawberry plants. Will make special low price of $2.50 per thousand. G. W. Pollard, Jr., R. F. D. 5, Independence, Mo.

SWEET CLOVER SEED—SPECIAL SCARified, hulled and unhulled. Circular and prices on request. John A. Sheehan, Route 4, Falmouth, Kentucky.

SUDAN SEED RECLEANED, FREE FROM Johnson grass, test 47 pounds. $18 per cwt. Less, 20c per pound. H. Struebing, Winfield, Kansas.

SUDAN SEED, MY OWN RAISING, 1917 crop, 25c per pound. Sudan crosses with sorghums or Johnson grass if grown near—mine is pure. M. H. Loy, Milo, Kansas.

ALFALFA SEED FROM NORTHWEST Kansas, 95% pure; good germination; $7.50 per bushel. Order early. Freight will be slow. Geo. Bowman, Logan, Kansas.

FOR SALE, SEED — BOONE COUNTY White seed corn. Tested and picked. Will butt, tip and shell or ship on cob at $3 per bushel. About 200 bushels left. Tom Henley, Eureka, Missouri.

KAFIR SEED—PURE DWARF BLACKhulled white, well mataured. Graded, 5c per pound. Send self addressed stamped envelope for sample. J. C. Lawson, Pawnee, Oklahoma.

BLACK-HULLED WHITE KAFIR, 100% permination test at Manhattan; $3.50 per bushel in two-bushel lots. Order at once to be sure of your kafir seed. H. W. Chestnut, Kincaid, Kansas.

EAR SEED CORN — HILDRETH'S YELlow Dent, heavy yielding, big yellow kind, large select ears, 1917 crop; well matured, will germinate 80%. Will ship 100 big ears weighing about 85 pounds for one bushel. This allows surplus for testing out. $5 bushel crated, fifty ears $3. B. H. Pugh, R. F. D. 27, Topeka, Kansas.

OKLAHOMA DWARF AND STANDARD broom corn seed, cream and red dwarf maize and dwarf kafir, $7; red kafir, $8; feterita, $10; amber, orange and red top cane, $12; Sudan, $26; all per hundred pounds, recleaned, freight prepaid; prepaid express, $1 more. Claycomb Seed Store, Guymon, Okla.

WE HAVE SOME FINE WHITE BLACKhull kafir seed that tests over 90 per cent germination. We quote same at $3.65 per bushel in two-bushel sacks only of 112 pounds each. This is clean, well matured seed and it will be hard for you to find good seed like this this year. Don't take a chance by planting inferior seed because it may be a trifle cheaper. Brooks Wholesale Company, Fort Scott, Kansas.

FOR $1 WE WILL SEND YOU, ALL charges prepaid, twenty apple, pear, or apricot, or ten cherry trees all budded, or 25 grapes or 100 asparagus or 50 raspberry, blackberry or dewberry or 150 or 75 everbearing strawberry plants or 50 red cedar or Chinese arbor vitae seedlings or 10 transplanted evergreens, four years old. Many other bargains. Catalog free. Manhattan Nursery, Manhattan, Kansas.

WANTED—TO BUY.

WANTED—WHITE ESKIMO SPITZ PUPpies, six to eight weeks old. Brockway's Kennels, Baldwin, Kansas.

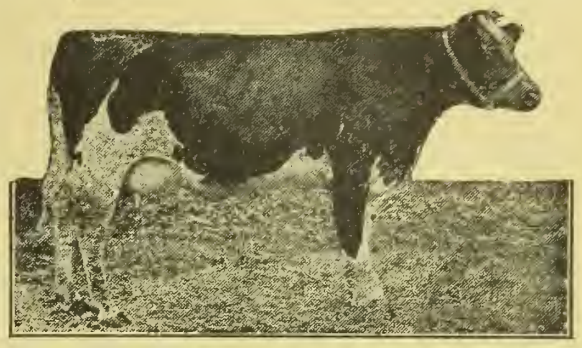
Kansas Breeders' Consignment Sale of 100 Head of Registered Holstein-Friesian Cattle, Consigned by 20 of the Leading Breeders of the State at

The Fair Ground Sale Pavilion

TOPEKA, KANSAS, on MARCH 26th, 1918



Don't miss this Sale, Mark on the date on your calendar now. and write at once for a catalog to W. H. Mott, Herington, Ks.



The sales management has had much difficulty in persuading the breeders to consign the class of cattle that will be offered in this sale, because they are the kind that every enterprising breeder wants to keep, but in order to make this the greatest event and sale ever held in Kansas, they are making a sacrifice and are offering you the opportunity to purchase the very cream of their herds. Every animal in this sale is tuberculin tested and without a blemish and positively guaranteed by the consignors, all of whom are members of the Kansas Holstein-Friesian Association and known by the sales committee to be men of integrity.

Resolve now to attend this sale of all Kansas sales, where you may buy a foundation herd and procure cattle of such outstanding breeding and individuality that will make you proud every day that you own them, and that will return dividends, not like your bank stock, annually or semi-annually, but each day, for the 365 days in the year.

Mr. F. J. Searles, proprietor of Sunflower Herd, Oskaloosa, Kansas, finds himself without a home, having sold his farm February 16, and he must give his possession March 1. This means the complete dispersal of his excellent herd of registered Holsteins, consisting of 75 head of cows and heifers of the most fashionable breeding and superb individuality. On March 27, following the Kansas Breeders' Sale, at the Fair Grounds barn, this entire herd will be dispersed. The cattle will be in the Fair Grounds barns and can be seen prior to the sale. For catalogs of this sale, write at once to F. J. SEARLES, OSKALOOSA, KANSAS.

Auctioneers—B. F. Kelly, Syracuse, N. Y.; J. E. Mack, Fort Atkinson, Wis.; J. T. McColloch, Clay Center, Kan.; Boyd Newcom, Wichita, Kan.; C. M. Crews, Topeka, Kan.

WE WOULD LIKE TO KNOW WHERE YOU SAW OUR ADVERTISING.

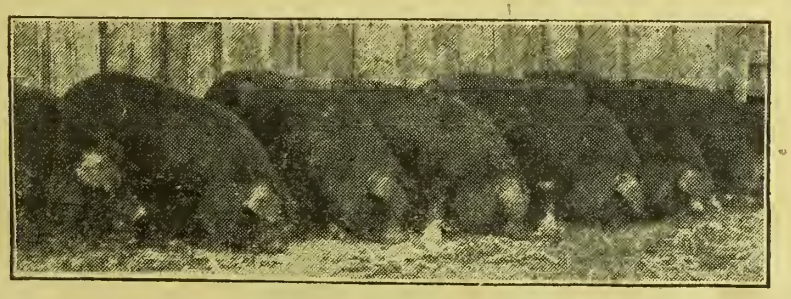
Myersdale Farms' Poland Chinas

First Annual Bred Sow Sale to be Held in Westminster Hall

Gardner, Kans, Friday, March 15

FORTY HEAD OF TRIED SOWS, FALL YEARLINGS AND SPRING GILTS

Sired by such boars as BIG DEFENDER, KING OF WONDERS, WEDD'S LONG KING, GIANT JOE, BRIDGES' BOB WONDER, MODEL BIG BOB, CHOICE GOODS, and others of prestige.



The offering is bred to Giant Joe, King of All 2d by John B. Lawson's King of All, and good sons of Big Timm and Storey's A Wonder. We used two young boars, one by Big Timm and the other by Storey's A Wonder. Have sold both pigs.

One Gilt Will Be Sold for the Benefit of the Red Cross.

Lunch by Red Cross ladies. O. W. Devine will represent Kansas Farmer.

H. E. Myers, Gardner, Kansas

Auctioneers—Cols. J. C. Price, W. F. Reed, and J. A. Marshall.

Jefferson County Improved Live Stock Association Sale

at Valley Falls, Kansas, Wednesday, March 13

Horses, Cattle and Hogs

25 HEAD OF SHORTHORNS

15 Bulls and 10 Females

Three registered Holstein bulls consigned by Ben Schneider.

Three registered Percheron stallions coming two years old.

Five jennets, five Hampshire hogs and one Poland China.

All stock registered and guaranteed as represented.

For catalog apply to

F. J. Zimmerman, Valley Falls, Kan.

REO

"THE GOLD STANDARD OF VALUES"

A Seven Passenger Six That You Can Afford

THE GOLD STANDARD OF VALUES

Salient Features of the Reo Six

50 HORSE POWER, Six-cylinder motor cast in threes.

REO DESIGNED, Reo made—throughout.

126 INCH Wheel Base.

CANTILEVER rear springs—Semi-elliptic front springs.

FULL FLOATING rear axle.

TIMKEN BEARINGS throughout.

NOISELESS spiral-bevel driving gears.

REO ONE-ROD centre control.

HYATT QUIET bearings in transmission—at all points.

MULTIPLE Dry-disc clutch.

BOTH BRAKES operated by foot levers and provided with ratchet locks. Extra large and both operating on rear hubs. No hand brake.

CLUTCH AND SERVICE brake are interconnected.

TWO UNIVERSAL Joints in drive shaft.

TORQUE SHAFT relieves driving mechanism of road stresses.

SUB FRAME carries motor and transmission.

EXTRA LARGE—and round—spokes in wheels.

OVER-SIZE TIRES—34 in. x 4½ in.

PERFECT LUBRICATION at every moving point.

REO RADIATOR—Reo designed, Reo made.

REO-REMY Electric Starting, Lighting and Ignition system.

REO STEERING GEAR—exclusively Reo. No back-lash—self-adjusting for wear. Positive.

50 PER CENT OVERSIZE in all vital parts—crank-shaft, axles, driving shafts, gears, frame, wheels, tires.

NET RESULT—Reo upkeep equalled by no other 7-passenger car.

PRICE IS F. O. B. LANSING AND SUBJECT TO INCREASE WITHOUT NOTICE

WE ARE NOT THINKING of the price—for that isn't the primary consideration in the selection of a car.

YOU KNOW YOUR OWN NEEDS—whether a five passenger car is sufficient; or if you really need, at times, room for more.

AND YOU KNOW better than anyone else can tell you, what your price limit is.

AND SURELY AT ITS PRICE this Reo Six is the greatest value obtainable in a car of established reputation.

AND REO REPUTATION is second to none.

WHEN WE SAY "Here is a seven-passenger Six that you can afford," we are thinking of the same item that you, an experienced motorist, are considering—

NAMELY—UPKEEP. That is the first thing to consider in the selection of an automobile.

CERTAINLY YOU CAN afford to own a seven-passenger car—and you can treat yourself to the luxury of a sweet-running, silent Six—if you can feel that not only in first cost but also in cost of upkeep it will be well within your means and accord with your ideas.

ASK ANY REO SIX OWNER to tell you of the upkeep cost of his Six—and the longer he has owned and the farther he has driven his Reo, the better will his answer sound.

HE WILL TELL YOU that, having compared notes with friends who own and drive other makes of cars—fours as well as sixes—of the same passenger capacity, he has never found one that compared with his Reo Six in low cost of upkeep.

AND HE'LL TELL YOU, too, that he has yet to find even a five-passenger car—four or six—the operation, repairs, replacements and general upkeep cost of which proved as low as his Reo Six—except one the five-passenger Reo.

NATURALLY a five passenger car ought to be cheaper to maintain than one of seven-passenger capacity—but most are not, when you look up the figures.

REO DEALERS TELL US that their records for the past three years show that Reo Six owners on the average have paid less than eight dollars per car per year for replacement parts.

JUST READ THAT AGAIN—with thousands of Reo Sixes running in all parts of the country, over all kinds of roads and handled by all kinds of skilled and unskilled drivers; most of them owner driven and owner cared for (or neglected)—

THE AVERAGE COST per car, per year; for replacement parts was less than eight dollars!

FRANKLY WE DON'T believe that record can be equalled by any other seven-passenger car on earth.

AND WE MAY ADD that the records on the five-passenger Reo show less than seven dollars per car.

THE SAME QUALITY—the same sound engineering; the same ripe experience; the same attention to little details and the same construction, inspection and testing of every car enter into the making of all Reo models.

COST OF UPKEEP is always uppermost in the minds of Reo engineers, when designing and when specifying materials. And since the same desire is uppermost in the minds of the most experienced buyers—we meet on a common ground.

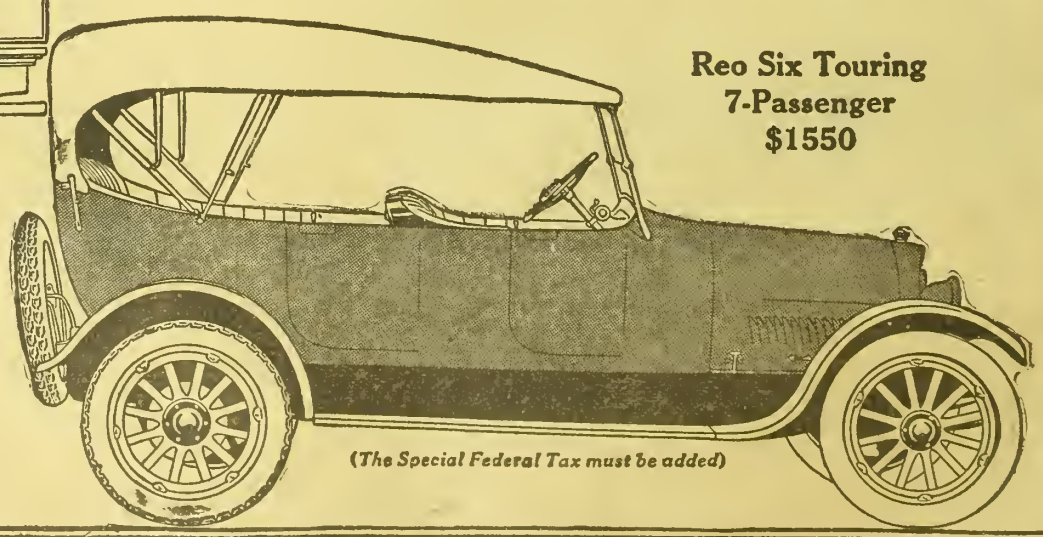
WE ARE FRANK TO ADMIT that to a large extent the phenomenally low cost of upkeep of Reos is due to the fact that Reo buyers are, as a class, better informed and more careful in their selection than the average.

REOS DO NOT APPEAL to those who look only to superficials—Reos are built for connoisseurs and Reo owners are mostly men of ripe experience in motoring. They, therefore, combine prudence with intelligence in their choosing of an automobile.

IF YOU ARE ONE of that kind, we say to you, here is a magnificent, luxurious, seven-passenger six that, both in first cost and cost of upkeep, you can well afford to own.

REO EFFICIENCY sets the price lower—Reo quality guarantees low upkeep.

Reo Motor Car Company, Lansing, Mich.



Reo Six Touring
7-Passenger
$1550

(The Special Federal Tax must be added)

630.5
KAF

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 11. TOPEKA, KANSAS, MARCH 16, 1918. Established 1863. $1 a Year

A YEAR IN THE DAIRY BUSINESS

Profit From Dairy Cows to Pay Expense of College Course

By THERESA O'MARA. Colony, Kansas

IN MAKING an inventory at the close of my year's work in the Kansas Farmer Dairy Club, I find that I have the following to my credit: A cow worth $135, a calf worth $75, or a total value of $210. My indebtedness is $56, leaving a balance of $154 as earnings for the year. My chief aim in entering the Kansas Farmer Dairy Club was to be the owner of a cow, and my goal is a college education. I feel sure that by the time I have finished my high school course my little herd of Holsteins will pay my way through the Kansas Agricultural College.

In the early part of the year 1916 KANSAS FARMER offered a chance for boys and girls to start in a business of their own by forming a dairy club. In writing this story of my year's work I am meeting the final requirement of club membership.

On May 23 I called on our banker and found him willing to loan the money to buy a cow, so the agreement was filled out and signed and I started my search for a dairy cow.

I have always had a preference for Holsteins, and the first thing I did was to write letters of inquiry to Holstein breeders. I also visited some near-by dairy farms and finally decided upon a four-year-old Holstein cow for $90. I felt that I was now ready to begin my records, but upon going to milk found that I had not only purchased a cow that kicked, but one that was a hard milker as well. Upon making complaint to her former owner he agreed to take her back provided that I pay him fifty cents a day for the time I had kept her. I gladly returned the cow, and after looking over three dairy herds at Towanda, Kansas, I selected from the J. C. Robison herd a high-grade Holstein of good dairy type, four years old, weighing about 1,400, more black than white, for which I paid $135. This cow was shipped to Iola and from there was led home, a distance of twelve miles. This was August 31, 1916. Before the evening was over I had decided on her name—Delphi of Whitewater Falls. The name Delphi was taken from her earmark, and Whitewater Falls is the name of the farm from which I purchased her.

Now that my cow was home, I first had her insured and again called on our banker and fixed up the note. The cost of insurance was included in this. On this same day, September 1, 1916, I began my feed records. I have arranged two separate files—one for the milk records and the other for the feed records. These are merely pieces of cardboard cut the size of the record blanks. I covered them with dark green paper such as we use in school for backgrounds for our drawings. On the front I pasted a label which is like the heading on our records, the only difference being that it is for the year instead of for the month. At the top I had holes punched and by running a cord through these it gives me a neat book form with my records in order. I have also kept on file all letters received pertaining to the Dairy Club and have copies of all the letters that I have written, in a note-book.

Delphi freshened September 4, but I was unable to start my milk record until September 11. This delay was on account of an inflamed udder. One quarter would give no milk at all and the inflammation seemed to spread. I called a veterinarian, and after treating her he advised feeding a bran mash and bathing the udder with hot water at least six times a day and then rubbing with olive oil. The one quarter has never given milk, but just recently the veterinarian stopped here and he tells me that he thinks the quarter can be saved when she freshens again. This trouble was my first lesson in handling a dairy cow.

I have also found that kindness pays and that comfortable, warm quarters in cold weather, good shade, and freedom from flies in warm weather are important in the dairy business.

In feeding I have tried to follow a balanced ration. For concentrates I have fed the following: Four parts corn chop, two parts bran, and one part oilmeal. The roughage consisted of bluegrass and clover pasture in season, silage, alfalfa, clover and timothy and prairie hay, stover and green corn fodder. I also fed sheaf oats for a short time this summer when pasture was short. Since there was no price given on sheaf oats, I stripped the grain from one bundle and found that it weighed four and one-half pounds. The straw weighed three pounds. On that basis I worked out the cost per bushel and ton, deducting the cost of threshing the amount of grain fed.

I did not keep a feed record for the calf, but in my second year's work I intend to do so. He was taken from the cow and taught to drink from the bucket. At first he was fed whole milk three times a day. When he was two weeks old I gradually changed to skim milk, feeding mush in the milk. I soon discontinued feeding the mush, since KANSAS FARMER informed me that meal contains a large amount of starch and that the digestion of starch requires that it be chewed. When he was seven weeks old he had learned to eat shelled corn. Along in the winter oats was mixed with his corn and silage added to his ration. When he was eight months old he weighed 600 pounds.

I tried so hard to get a picture of the cow and calf when the calf was small, but he refused to stand. Just recently I had them taken again, but 'Bullekin" is almost as large as his dam now. I have not yet disposed of him, but hope to be able to do so this fall.

Turning to my files, I find that Delphi has produced 8,913 pounds of milk and 307.17 pounds of butter fat in eleven months and twenty days. From this I figured that I sold my father 5,000 pounds of skimmed milk, or $16 worth. The manure I figured at $16.86, for the reason that these two products offset the cost of home-grown feeds, as you will note by the following statement:

Farm-grown feeds — Pasture, $6.87; silage, $8.85; other roughage, $17.14—total $32.86.

Purchased concentrates, $48.31.

Total feed cost for year, $81.17.

Credit for skim milk, $16; for manure, $16.86—total $32.86.

Butter and cream sold, $134.81, or a total credit of $167.67.

Deducting $81.17, the cost of feed, from the $167.67, gives $86.50, which is the amount of cash applied on my note to date. This month's cash has not yet been turned in to the bank, and as I still have a cream check coming, I cannot tell just what it will be. However, my records cover the entire year.

EDITOR'S NOTE.—The manure estimate is very reasonable. Various experimental tests have shown that barnyard manure gives a return of from $2 to $3 a ton. These values are computed by actual increase in crops produced in test periods covering five years. On this basis the manure produced in a year by a 1,000-pound cow would have a value of $25 to $30. If Theresa's father made good use of the skim milk and manure from this cow and her calf, he received good pay for the pasture, silage, and other roughage which came from the farm.

The discrepancy in feed costs between the table and the story is due to the fact that in preparing the summary all feeds were figured at a uniform price fixed at the beginning of the year. Theresa's figures on concentrates purchased, as given in her story, are the actual cost. Purchased feeds became abnormally high before the end of the year, but no changes were made in the uniform prices used in summarizing the records of the different members. While these prices are too low as conditions developed, they are alike to all.

Theresa was only sixteen years old when she began her year's work in the Kansas Farmer Dairy Club.



THERESA O'MARA AND HER COW, DELPHI OF WHITEWATER FALLS

Summary of Year's Records

Month—	Total Milk	Test	Total Butterfat	Average Elgin Market for Month	Value of Butterfat Based on Elgin Market	Total Cost of Feed	Profit for Month
Sept.—20 days ...	723.5	3.5	25.32	.3225	$ 8.17	$ 3.96	$ 4.21
October.	1,068.75	3.3	37.306	.3462	12.92	5.31	7.61
November.	844.06	3.3	27.85	.3862	10.76	6.07	4.69
December.	803.65	3.15	25.31	.385	9.74	7.37	2.37
January.	759.25	3.7	28.09	.3825	10.74	7.36	3.38
February.	714.63	4.0	28.59	.4033	11.53	6.66	4.87
March.	819.88	3.8	31.16	.4100	12.78	8.81	3.97
April.	781.25	3.6	28.125	.4275	12.02	8.14	3.88
May.	891.5	3.0	26.745	.3900	10.50	4.78	5.72
June.	672.125	3.2	21.508	.3825	8.23	1.69	6.54
July.	426.125	3.6	15.34	.3775	5.79	3.77	2.02
August.	319.75	4.3	13.749	.3987	5.48	1.26	4.22
Totals.....	8,824.47		309.093		$118.66	$65.18	$53.48

"Why Breed Draft Horses" is the title of a finely illustrated booklet recently issued by the Percheron Society of America. While we seem to be coming into a motor age, the material contained in this booklet shows that the good draft horse is by means a back number. There will be plenty of demand for draft horses of the right type for many years to come. The tractor will supplement horses but not supplant them. If interested in getting at some of the facts relative to the production of draft horses, write to the Percheron Society, Chicago, for a copy of this booklet.

When something seems drudgery, think of the trenches.



"No, sir— We'll have her ready the day after tomorrow"

YOU wonder why so much time is necessary to clean the carbon out of the combustion chambers?

As a matter of fact you were lucky in meeting a mechanic who really knew his business. It took him several hours to scrape out hard carbon which was caked behind the piston rings. Then he had to clean some more carbon out of the oil leads which carry oil to the bearings. To reach those parts he had to take down the engine.

What caused the trouble?

Largely incorrect lubrication. You used an oil of incorrect body or low quality. It supplied only a partial piston-ring seal.

So the oil reached the combustion chambers in excessive quantities and burned up. That meant extra carbon deposit.

Part of the carbon was forced down past the pistons on the power strokes. Some got in behind the rings and caked there. And some went down into the crank case and churned in with the oil.

Finally this carbon content choked up the oil leads.

* * *

CARBON TROUBLES have been largely minimized by advances in engine design.

But carbon in bearings, oil leads and piston-ring recesses is still common among motorists who buy oil carelessly or at low price per gallon.

Why do users of Gargoyle Mobiloils find comparative freedom from *all* kinds of carbon troubles?

Because the Vacuum Oil Company's engineers have analyzed the mechanical conditions and lubricating requirements of every make and model of engine. They have specified the correct grade of Gargoyle Mobiloils for each engine in a Chart shown in part on the right.

The correct grade of Gargoyle Mobiloils insures an efficient piston-ring seal, thus preventing excess oil working into the combustion chambers and preventing the products of incomplete combustion from being forced past the piston rings into the crank case.

Write for 56-page booklet containing complete discussion of your lubrication problems, list of troubles with remedies and complete Charts of Recommendations for Automobiles, Motorcycles, Tractors and Motor-boat Engines.

GARGOYLE

Mobiloils

A grade for each type of motor

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If your dealer has not the grade specified for your car, he can easily secure it for you.

VACUUM OIL COMPANY
New York, N. Y., U. S. A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world.

Domestic Branches:

Detroit, Boston, New York, Kansas City, Kan., Chicago, Philadelphia, Indianapolis, Minneapolis, Pittsburgh, Des Moines

Correct Automobile Lubrication

Explanation: The four grades of Gargoyle Mobiloils, for engine lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "E"
Gargoyle Mobiloil "Arctic"

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A," "Arc" means Gargoyle Mobiloil "Arctic" etc. The recommendations cover all models of both pleasure and commercial vehicles unless otherwise noted.

This chart is compiled by the Vacuum Oil Company's Board of Engineers and represents our professional advice on Correct Automobile Lubrication.

Model of CARS	1917 Summer	1917 Winter	1916 Summer	1916 Winter	1915 Summer	1915 Winter	1914 Summer	1914 Winter	1913 Summer	1913 Winter
Abbott-Detroit	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (8 cyl)	...	...	A	A	A	...	...	...	...	...
Allen	A	Arc	A	Arc	A	Arc	A	A	A	A
" (Mod. 33-34-35)	...	...	...	...	A	Arc	...	...	...	...
Apperson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	...	...	...	...	...	...
Auburn (4 cyl)	...	...	A	Arc	A	Arc	A	A	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	...	...
Autocar (2 cyl)	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Briscoe	A	Arc	A	Arc	A	Arc	A	Arc	...	...
" (8 cyl)	...	...	A	...	...	...	...	...	...	...
Buick	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	Arc
Cadillac	...	...	...	...	...	...	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	Arc	Arc	...	...	...	...
Case	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Chalmers	...	...	Arc	Arc	Arc	Arc	A	A	Arc	Arc
" (Mod. 6-40)	...	...	A	Arc	...	...	...	...	...	...
" (Mod. 6-30)	A	A	A	...	...	...	...	...	...	...
Chandler Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	...	...
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	A
Cole	...	...	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	...	...	...	...	...
Cunningham	...	...	...	Arc	Arc	Arc	Arc	Arc	A	A
" (8 cyl)	A	A	A	...	...	...	...	...	...	...
Dart	A	Arc	A	Arc	Arc	Arc	Arc	A	A	Arc
" (Mod. C)	A	Arc	A	Arc	A	Arc	A	A	...	...
Detroiter	Arc	Arc	Arc	Arc	A	Arc	A	A	A	Arc
" (8 cyl)	...	...	...	...	Arc	Arc	...	...	...	...
Dodge	A	Arc	A	Arc	E	E	...	...	...	...
Dort	A	Arc	A	Arc	A	Arc	...	...	...	...
Empire (4 cyl)	A	Arc	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	...	...	...	...	...	...
Federal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Fiat	B	A	B	A	B	A	B	A	B	A
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	A	A	A	A	A	A	A	A	A	Arc
Grant	A	Arc	A	Arc	Arc	Arc	Arc	Arc	...	...
Hal-Twelve	A	A	A	A	...	...	...	...	...	...
Haynes	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
(12 cyl)	A	A	...	...	...	...	...	...	...	...
Hudson	...	...	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (Super Six)	A	Arc	A	A	...	...	...	...	...	...
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Jeffery	A	Arc	A	Arc	A	Arc	A	A	...	...
" (6 cyl)	A	A	...	...	...	...	...	...	...	...
" Com'l	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Kearns	...	...	E	E	E	E	...	...	...	...
" Com'l	...	...	A	Arc	A	Arc	...	...	...	...
Kelly Springfield	A	A	A	A	A	A	A	A	Arc	Arc
King	...	...	...	A	Arc	A	A	A	E	...
" (8 cyl)	A	A	A	A	Arc	...	...	...	...	...
" Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	...	...
Kissel Kar	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" Com'l	A	Arc	A	Arc	A	Arc	A	Arc	Arc	Arc
" (Mod. 48)	...	...	A	A	A	A	A	A	...	...
" (12 cyl)	...	...	A	...	...	...	...	...	...	...
Lexington	Arc	Arc	Arc	Arc	Arc	Arc	...	...	...	...
Lippard Stewart	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod. M)	A	Arc	A	Arc	...	...	...	...	...	...
" (Mod. W)	A	Arc	...	...	...	...	...	...	...	...
Locomobile	E	E	E	E	E	E	E	E	Arc	Arc
McFarlan	A	Arc	A	A	A	Arc	A	A	A	Arc
Marmon	A	Arc	A	Arc	A	A	A	Arc	A	Arc
Maxwell	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Mercer	A	A	A	A	A	Arc	A	Arc	A	Arc
" (22-70)	...	...	...	...	Arc	Arc	...	...	...	...
Mitchell	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Mitchell (8 cyl)	...	...	A	A	...	...	...	...	...	...
Moline	...	...	...	...	...	...	...	...	A	Arc
" Knight	A	A	A	A	A	A	A	...	...	...
Moon (4 cyl)	...	...	...	...	Arc	Arc	A	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	...	...
National	Arc	Arc	A	Arc	A	Arc	A	A	A	A
" (12 cyl)	A	A	A	...	...	...	...	...	...	...
Oakland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (8 cyl)	...	...	A	A	...	...	...	...	...	...
Oldsmobile	...	...	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	...	...	...	...	...	...	...
Overland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Packard	...	...	...	...	A	Arc	A	Arc	Arc	Arc
" (12 cyl)	A	A	A	A	...	...	...	...	...	...
" Com'l	A	A	A	A	A	A	Arc	Arc	Arc	Arc
Paige	...	...	...	...	A	Arc	A	A	A	E
" (6-46)	Arc	Arc	Arc	Arc	Arc	Arc	...	...	...	...
" (6-36 & 38)	A	Arc	A	Arc	A	Arc	...	...	...	...
Pathfinder	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (12 cyl)	A	A	A	A	...	...	...	...	...	...
Peerless	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	...	...	...	...	...	...
Pierce Arrow	A	A	A	A	Arc	Arc	Arc	Arc	Arc	Arc
" Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Premier	A	A	A	Arc	A	Arc	A	Arc	A	Arc
Regal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	...	...	A	A	Arc	Arc	...	...	...	...
Renault (French)	...	...	A	Arc	A	Arc	A	Arc	A	Arc
Reo	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Richmond	Arc	Arc	Arc	Arc	A	Arc	A	Arc	Arc	Arc
Riker	E	E	...	...	...	...	...	...	...	...
Saxon	E	E	E	E	E	E	E	E	...	...
Selden	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Simplex	A	A	A	A	Arc	Arc	Arc	Arc	Arc	Arc
Stearns-Knight	A	A	B	A	B	A	B	A	A	A
" (8 cyl)	A	A	B	A	...	...	...	...	...	...
Studebaker	A	Arc	A	Arc	Arc	Arc	A	Arc	A	Arc
Stutz	A	A	A	A	A	A	A	A	Arc	Arc
Velie (4 cyl)	...	...	...	A	Arc	A	Arc	A	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	...	...
Westcott	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
White	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (16 valve)	A	A	...	...	...	...	...	...	...	...
Willys-Knight	A	A	B	A	B	A	A	A	...	...
Willys Sht	Arc	Arc	...	...	...	...	...	...	...	...
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc

YOUR TRACTOR

also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

THERE are many ways to avoid gasoline waste in using an automobile. One is not to allow the engine to run idle, except when absolutely necessary. Another is to run your car on as lean a mixture as possible. The car may not accelerate as rapidly, and may cough a little when cold; but if you will be patient with it you will get much higher mileage. Every car has an economical speed, usually between twelve and eighteen miles per hour. Try to drive at those speeds. Accelerate gradually, as this requires less gasoline than trying to reach top speed quickly. Anticipate your stops, close the throttle before you reach your stopping place and coast to a standstill.

Keep your car running at top efficiency. This means keeping the motor free from carbon, as a carbonized motor consumes an excessive amount of fuel. Use a good grade of oil in the motor and keep all moving parts well lubricated to reduce friction losses. Run the car on high as much as possible, as this is the economical speed. Keep the tires well inflated, as soft tires waste power. See that the brakes do not bind and cause friction when the car is running. Finally, use kerosene instead of gasoline for cleaning.—Milestones.

Machinery for Relief

The greatest relief from the farm labor shortage will evidently come through wider use of machinery. The United States Department of Agriculture, Bureau of Plant Industry, has collected data which show the labor-saving value of machinery. In Florida the value of implements for each farm is $30.43; the annual income of each worker in the same state is $119.72. In Alabama the value of implements on each farm is $23.40 and the annual income of each worker is $143.98. In Iowa the value of implements is $196.55 for each farm, and the corresponding annual income of each worker is $611.11. In North Dakota the value of implements for each farm is $238.84, and the annual income for each worker is $755.62. It is seen that the greater use of implements increases the income of each worker, which may be interpreted as an increase in the product of each man's labor.

According to E. W. Lehmann, of the Missouri College of Agriculture, 97 per cent of the people of the United States lived on farms in 1800 before the advent of modern equipment. By 1849 the rural population had decreased to 90 per cent of the total. According to the twelfth census the rural population was only 35.7 per cent.

It will be seen that the proportion of agricultural workers to the total population has gradually decreased. In spite of this fact the rural population is producing more and is feeding more people than the rural population of a hundred years ago. This has been made possible only through the use of machinery. It is capable of greater use and it is evident that considerable relief can be had from the present labor shortage by a wider use of machinery.

Automobile a Business Vehicle

Ten or twelve years ago it was perfectly proper to call the automobile a "pleasure vehicle," for 95 per cent of the people who owned them used them primarily for pleasure purposes and only incidently as an aid in business. Conditions now are different, and it is safe to say that 75 per cent of the cars are used primarily for business, and incidently for pleasure.

On the farm especially is this true. The farmer who keeps the $7,000 car for pleasure is as scarce as the man who takes his family out for an evening jaunt in a lumber-wagon. Most cars owned by farmers are small, light ones or the medium size, medium price variety, that can be maintained at a comparatively low expense for gasoline, oil and tires, and an observer of farm activities will readily see that they are employed mainly in the farm business.

When the farmer jumps into his car, and presses the button for a speedy trip to town to get some more check-wire, or an extra bundle of twine, or a new sickle for the mower; when he tears in after a veterinarian to doctor the cow sick with milk fever; when he has to get some more beef to feed the threshers staying for an unexpected extra meal; when he has to hunt up an extra man to take the place of the one who quit right in the middle of corn plowing; when he's doing the thousand and one things that he can do with his car—of course he looks pleased, because he can do these things so readily. But the point is, he's not doing it for pleasure, it's just plain business.

Even when the day's work is over, and the whole family is loaded into the car for a drive around the surrounding country, or to a pie social, or to a band concert in town, while perhaps only pleasure is thought of, it is good business, too; for the family is being helped to health, the efficiency is thereby increased, and better work and more of it will be done. Man is a social creature, and association with his fellows is as essential as drink, food, and rest, if he is to do his best work.

The logical thing to do, then, is to stop calling automobiles "pleasure vehicles," when they really are business aids. The ownership of a car simply indicates a sense of good business economy.—K. J. T. EKBLAW in Farmer's Review.

Scrap Metal on the Farm

The shortage in the supply of the iron and steel which this country must have in increasing amounts if the war is to be won, has developed a new source of income for the farmer, according to recent bulletins from the Department of the Interior. Attention is called to the fact that even at the recently fixed prices of iron and steel it should be possible for most farmers to reap an overlooked profit through the sale of the old iron and steel scattered about their premises; that the saving of such old scrap metal will help to meet the present serious deficiency in the supply of iron and steel; that the use of the old metal will accomplish savings in coke, which is now to be had only at unprecedented prices. The farmer who turns in his junk while the present prices prevail is likely not only to make a clear profit over the cost of hauling and freight, but, through increasing the iron and steel supply, he is contributing to the successful prosecution of the war.

Iron and steel are needed and must be had for innumerable things — for guns, shells, ships, bridges, buildings, docks, automobiles, aeroplanes, rails, cars, engines, pipe, oil-well casings, etc., and for export to the Allies, Italy in particular being badly in need of steel for all purposes. This is the main fact.

According to the census returns there were in 1910 about $1,265,000,000 worth of agricultural machinery alone on the 6,361,502 American farms. Farm implements not including stoves, chains, tools, etc., valued at about $165,000,000, are sold annually. A considerable part of the cost of manufacturing this farm machinery lies in the metals used, and the metals include not only iron and steel of various grades and values, but occasional small parts of brass or copper. Most binders and mowers have one or more bearings lined with babbitt metal, containing tin now worth about 60 cents and lead worth 10 cents a pound. On the whole, excluding the metals used in railroad construction and transportation, or in city engineering and building, by far the greater part of all the iron and steel produced in this country in normal years is shipped out to the farm.—Iron Tradesman.

Unless the steering gear is properly lubricated, the shafts and bearings may bind at a criticel moment and thus prevent the proper action of the mechanism.

The steering mechanism of the car should be frequently inspected. The breakage of such important parts as the steering arm or spindle can easily cause a serious accident and endanger those riding in the car.

Every food-saving kitchen takes three pot shots a day at the enemy.

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DR. SHELDON AND WAR PROGRAM

Since the return of Dr. C. M. Sheldon from his trip to England in the interests of the great prohibition campaign which is being conducted there, a movement has been started in this country to protect our soldiers from the temptations of the public houses of Great Britain. Statements made by Doctor Sheldon have been misquoted, and some people have wrongfully assumed that he is antagonistic to our food-saving campaign. Nothing could be further from the real facts. A letter written to Doctor Sheldon by Walter Burr, secretary of the speakers' bureau of the Council of Defense, and Doctor Sheldon's reply, will set right any wrong impressions which might have been created by the garbled accounts from the press.

In his letter to Doctor Sheldon, Mr. Burr says:

"The manner in which the newspapers have published statements credited to you concerning the use of foodstuffs in the manufacture of liquors in England has been a matter of considerable discussion on the part of some members of our speakers' bureau. You are quoted as having said: 'Kansas mothers are asked to send their boys to the front and are asked to save wheat through wheatless days, and that wheat is being used by England to make liquor with which to debauch our boys.' The logical conclusion on the part of the Kansas parent would be: 'Then I will not send my boy nor my wheat.' This conclusion is clearly in direct defiance to the Government draft law and to the laws of the Food Administration.

"Knowing you and your work for so many years past, I cannot do other than believe that you are being misquoted in this matter. I am the more sure of this since I know that you have sent your own boy into the army service with the knowledge that he will doubtless be sent to the front, and also that you yourself are abiding by the provisions of the Food Administration. I wish to ask you, however, directly this question:

"In your opinion do you consider that the facts to which you have given publicity should have any bearing whatever upon Kansas parents giving their sons for foreign service and obeying strictly the provisions of the Food Administration in the way of wheatless meals, wheatless days, and the substitution of other cereals?"

Doctor Sheldon's reply follows:

"The facts that I have made public concerning the conditions in Great Britain have no bearing whatever on Kansas parents giving their sons for the foreign service or sending food to Great Britain. The English people are just as eager for prohibition as we are. They are not allowed to vote on the question. The brewers, representing a small but powerful factor in British politics, are to blame for the unfortunate conditions in the sale of liquor to our soldiers. But the English people themselves are splendid people, and they are beseeching their government every day to pass a bill forbidding the sale of drink to our boys. I have never said that the British people take our wheat and make drink out of it. The papers have misquoted me. Our wheat is now sent to England in the form of flour. But it is true that the British people—i. e., the brewers—are using a great quantity of grain for drink. For that matter, so are we, and America is no better than England in that respect. I have said that repeatedly but the papers have not quoted that. It is the duty of American citizens to stand by Great Britain at this time, and send her every possible assistance in the matter of food and help, and at the same time ask our own Government to ask Great Britain to refuse to sell drink to our boys, and also close up our own breweries, and save the food that we are wasting. I have given my only son to the cause of the Allies. That is my answer to anyone who says we ought not to help Great Britain on account of the waste of grain for drink."

Parents of our boys in camp and others will be glad to learn that Secretary Baker has referred the petitions and statements regarding the lack of regulations in England governing the sale of liquor to our soldiers to Raymond Fosdick, in charge of training camp activities, and Mr. Fosdick reports that the matter is being taken up with the British government and will undoubtedly be satisfactorily arranged. The inference from his statement is that the government of Great Britain will give most respectful attention to the request that the same rule be made to apply to selling or giving liquor to United States soldiers as applies in this country."

POLICING METHOD PROPOSED

The millers of Wichita held a confertnce February 28 to discuss the enforcement of the rules and regulations governing the marketing of flour and feed in Kansas. At this meeting it was recognized that there must be a better understanding between the different interests involved. The producer, the feeder, the consumer, the miller, the wholesaler, and the retailer must all work to a common end and have greater confidence in each other. As a means of bringing this about they proposed that the Food Administrator of Kansas and the Secretary of the State Board of Agriculture select and employ two men in whom the people of our state have every confidence and that these men shall jointly, under the control and direction of the State Food Administrator and the Secretary of the Board of Agriculture, look after the marketing of flour and feed within our state.

The millers further proposed that from this time on these men have access at all times to the books and accounts of all concerns having to do with the marketing of these products and if at any time they find a miller, wholesaler, broker, or retailer who is not complying with all the rules and regulations of the United States Food Administration and who is not conducting his business in a fair way to promote the common cause, they shall report such party and such steps shall be taken as are necessary to apply the proper discipline in each and every case.

The millers of Wichita made these suggestions in their own behalf, feeling, however, that other millers and handlers of mill products over the state would welcome such a plan.

The urgent necessity for an early arrangement that would afford a practical system of policing the milling and mill feed business of the state led W. P. Innes, state food administrator, and J. C. Mohler, secretary of the State Board of Agriculture, to look with favor upon this proposition. Neither the Food Administration nor the Board of Agriculture, however, has appropriations available for carrying on the work as proposed. The millers in the conference offered to undertake the raising of the necessary funds. To this there may be some objection, as it puts the milling interests in the position of furnishing the money necessary to regulate their own business.

Mr. Mohler has selected Maurice McAuliffe, of Salina, president of the State Farmers' Union, as his man. Mr. Innes has been attending a meeting of state food administrators and at this writing has made no announcement of his plans. The appointing of two such men to work under the direction of the Food Administrator and the Secretary of the State Board of Agriculture ought to be the means of bringing about a measure of harmony in a most difficult situation, and we trust some way will be found whereby the two men appointed can be furnished with the necessary means for bringing all profiteers and slackers to terms.

REVISION OF GRAIN STANDARDS

The present grain grading standards are in for a revision. A draft of the proposed new standards has been prepared and will be presented to grain growers in a series of hearings over the country. Next Monday, March 18, representatives of the Department of Agriculture will meet grain men in this section at the Coates House, in Kansas City, Missouri.

In announcing these hearings to consider revising the grain standards, Secretary D. F. Houston calls attention to the eighteen public hearings which were held throughout the United States during November and December for the purpose of determining whether the standards for wheat now in force under the Grain Standards Act meet satisfactorily present marketing conditions. Advice and suggestions, received through letters, in personal conferenees, and at the hearings, developed the fact that the standards for wheat which were formulated for the requirements of trade under normal competitive conditions should be revised to meet present marketing requirements.

The war has brought about fixed prices for wheat and the substantial elimination of competition in wheat transactions. The whole milling and baking industries are now placed on a new basis. Under these abnormal conditions mixtures of different classes of wheat, mixtures of rye, and other factors which influence color, texture, and loaf volume of bread, do not play nearly so important a part in the marketing of wheat as they did when the grades were established. While some of the changes requested in the present standards are based on normal marketing conditions, most of them came from the application of new requirements to the milling and baking industries and the reorganization of grain marketing practices.

Before taking final action on these proposed new standards, Secretary Houston wishes to receive the further advice and suggestions of interested persons, and at the hearings, presided over either by himself of the Chief of the Bureau of Markets, will present the tentative revision of the standards.

We would urge that all wheat growers and others interested in the marketing of wheat take advantage of this opportunity to meet the Secretary of Agriculture and assist in establishing such grain grading standards as will be fair to all concerned.

Kansas has taken the leadership in observing the fifty-fifty rule and we expect to stay in the lead. Following is the official list of white flour substitutes: Barley flour, rice, rice flour, corn meal, corn flour, corn starch, hominy, grits, oatmeal, rolled oats, buckwheat flour, potato flour, sweet potato flour, soy bean flour, feterita flour and meals. There are no other substitutes. The President has asked us to buy these substitutes and eat them.

At the Missouri Experiment Station lambs sired by a pure-bred ram made better and cheaper gains and brought more than 60 per cent more per pound than lambs from similar ewes but from an inferior ram. The first five daughters of a bull now owned by the College of Agriculture, as two-year-olds, averaged 237 pounds of butter a year more than their dams at the same age. Keep proven sires as long as possible. Community breeding associations make possible a longer use of good sires and make such sires available on more farms.

Kansas leads all other states in the number of agricultural agents appointed since August, 1917, when an emergency appropriation was made to the United States Department of Agriculture for placing a county agent in every county in the United States.

CONSIDERATION FOR FARM LABOR

Future drafts under the selective service law will be made in accordance with the principle that every man owes his services to his country, but in different capacities. This assurance is given in a letter from President Wilson to Governor Capper in reply to a letter from the Governor which protested against the taking of so much farm help in this state. The President says in this letter:

"I have your letter of January 18, in which you call my attention to the labor situation in Kansas and in which you especially request that the skilled farmers in cantonments and training camps be given furloughs at planting and harvest time. I note also your statement that under the present drafting methods there is no intelligent selection possible between essential trained and experienced farmers and the unskilled, non-essential men of the farms and small towns.

"As to your latter suggestion, I am inclined to believe from the whole tenor of your letter that you do not refer to the new selective service regulations, under which the present classification of registrants is now progressing, since, in very specific terms in those regulations it is provided that skilled farm laborers essential to the continued and undiminished operation of our farms shall be deferred in Class 2. It is our present hope and belief that we shall be able to raise all the forces in immediate prospect without invading any deferred class, and therefore we can assume, I think, that future drafts will not interfere with your supply of skilled farm labor.

"I have also had very prominently in mind the advisability of furloughing selected men during planting and harvest time and to this end the War Department has asked of Congress authority to grant such furloughs without pay whenever, in the opinion of the Secretary of War, the military situation justifies such a step. Of course, it is impossible to say in advance what the changing conditions of warfare may impose upon us, but I can assure you that, if this authority is granted by Congress, we shall permit these furloughs whenever it is possible to do so.

"I take it that what I have said is precisely responsive to what you have in mind, and I hope and believe that the various selection boards composed of men of your choice will exercise the authority to defer skilled farm laborers in such a way as to meet the situation you present in the fullest way that it could be met under our present circumstances."

The suggestion made that possibly furloughs may be granted to men from the farms is qualified by the statement that this depends upon whether the military situation justifies such a step. We feel that the most serious consideration should be given to the question of taking even a single boy from the camp to the farm and thus depriving him of a certain amount of necessary military training. War is a deadly game. Our soldiers must kill or be killed. We are sending them to the front with a minimum of training, and we who stay at home in comparative security would not knowingly deprive them of an hour's training if we felt that it would result in making them less able to take care of themselves when they come in contact with the enemy on the firing line.

In examining a tract of land for alfalfa frequent borings should be made with a soil auger to determine the character of the soil and subsoil as well as the drainage conditions. This instrument will usually be of greater value in determining the adaptability of a particular tract to alfalfa than a chemical analysis of the soil. A common 1¾-inch auger with the shank lengthened and a suitable crossbar for a handle is practical for this use.

CO-OPERATIVE ADVERTISING

Is Necessary to Put Marketing Associations on the Map

By R. C. GANO

AN advertising man would be tempted to say that farmers' co-operative marketing associations are divided into two classes: those that are "on the map" and those that aren't. By this he would mean those that are known to the consumer through advertising, and those that are not. Mention to a housewife the California Fruit Growers' Exchange, and she might say: "Who are they?" But the minute you reply, "Why, the concern that sells Sunkist oranges," she would immediately say, "Of course I know them."

But to explain to her what a farmers' co-operative elevator is would be more difficult. If many of these elevators had banded together to market an advertised, trade-marked flour, she would know them "by their fruits," but as it is she isn't in the least aware of their existence.

But if advertising's function was merely to make things known, advertising wouldn't be worth the money it costs. The secret of advertising's reputation is that when people know about a given reputable concern and its product they begin to do business with it. This is a cold fact, not a theory. It explains why $700,000,000 a year is spent in this country for advertising, and it is the reason why twenty or so co-operative marketing associations have annexed advertising as a final, twentieth century factor in their merchandising programs. Most of these are just taking their first steps in advertising, but a few, such as the organizations behind California "Sun-Maid" raisins, Florida "Sealdsweet" oranges and grapefruit, Northwest "Skookum" apples, have been several years in the periodicals and newspapers and are not unknown in a national way.

Sunkist oranges and lemons were the pioneers in the advertising field, with years lead over the next comer. And the Sunkist campaign today furnishes an example of a scientific, thoroughgoing, up-to-date publicity campaign. Advertising manufacturers of long years standing, like the makers of Ivory soap, Pears' soap, Baker's cocoa, or Quaker oats, are not today more thorough in their publicity methods than is this organization of 8,000 farmers. The Sunkist advertising appropriation ranks among the country's large appropriations. In 1916-17 it was approximately half a million dollars. A few big manufacturers have reached the million mark in their yearly expenditures for advertising, but they are the exceptions.

SMALL BEGINNINGS

So the history of national advertising by farmers began back in 1902-04. President Story, of the California Fruit Growers' Exchange, was its first champion. The Exchange, when President Story began to urge advertising as a method of increasing consumption of citrus fruits, was about ten years old. It had been formed in 1893, when times were hard because 5,000 carloads of fruit annually appeared to be an overproduction. But that production, in the first ten years, had increased 300 per cent; yet co-operative merchandising methods had found a profitable market for the increase.

But, along about 1902, further market development was becoming difficult, in spite of the Exchange's modern sales organization. The citrus crop was increasing much faster than the population. To President Story advertising seemed to be the logical solution of the problem. By 1904 he had won his point, and in the next four years some newspaper advertising was done in a number of cities of the Middle West, announcing arrivals of carloads of prime California oranges and lemons. No general brand name had been adopted at the time. Each local association within the Exchange had its own local brand, so that instead of one general name for the fruit of all, there were probably a hundred different ones.

The advertising helped the sale of the fruit in a marked degree, and in 1907 a firm of advertising experts was called into consultation. They recommended a single brand name, "Sunkist," and a test advertising campaign in one state, to cost $5,000. This campaign, in Iowa, was a great success. The sum of $18,000 was appropriated for the next year. By 1914 the annual advertising expenditure had increased to $225,000. In 1915 a further increase to $375,000 was made, and the orange and lemon campaigns were made separate and distinct, no advertisement mentioning both fruits. The apportionment of this publicity fund may prove interesting. For orange advertising in publications, $230,000 was spent; $10,000 for lemon advertising, and the remaining money was spent for recipe booklets, premiums, store advertising material to send to retail dealers, etc. The circulation of the general magazines used aggregated 13,000,000, and of the newspapers 15,000,000. These circulations were, of course, used not merely one time, but constantly. Much of the magazine advertising was in full colors of the type with which the nation has become familiar in connection with Sunkist fruits.

This year, because of a short crop, the advertising schedule has been temporarily reduced. But food conservation, favoring as it does larger consumption of fruits, offers an advertising opportunity that will be taken as full advantage of as production warrants.

During the period in which the Exchange has been advertising, viz., 1914 to 1917, the California citrus crop has increased from five million boxes to over twelve million. Yet the advertising has constantly widened the market and increased the per capita consumption.

The Exchange thanks the advertising for the wider market which exists today, and plans to further increase its publicity program in the years to come, as new groves are continually coming into bearing and production may double again in the next six or seven years. A recent annual report of the Exchange said: "It is surely true that the Exchange advertising campaign has made millions of dollars for California citrus growers since it was inaugurated."

Back of the advertising, rendering it of maximum effectiveness, is of course a national sales organization, a department for special co-operative work with wholesale and retail trades, a market investigation staff, and all of the other factors that form a part of a thorough merchandising plan—a complex organization developed from very simple beginnings.

OTHER CAMPAIGNS

The Sunkist campaign has been dwelt on at length because it has been the inspiration and the example for later campaigns. These later campaigns largely repeat the experience of the California Fruit Growers' Exchange. Yet some of them, profiting from example, have shown a more rapid development and from a bigger start. For example, the Sun-Maid raisin campaign, though not yet four years old, is almost as big as the Sunkist campaign already. In its third year a quarter of a million dollars was spent on advertising. Its first big success was gained in promoting the raisin bread idea through advertising. In the first year of this advertising the sales of Sun-Maid raisins to bakers was increased from 62,000 twenty-five-pound cases to 583,000 cases, or almost tenfold.

The Florida Citrus Exchange was the first to follow the Sunkist lead, in 1911. Its crop control, however, is only 25 per cent, as compared with nearly 70 per cent control by the California Exchange, and its advertising expenditures have not yet reached $100,000 annually. The advertising has secured a lively trade for Sealdsweet fruits, particularly in eastern markets.

"Skookum" apples, the extra fancy grade of the Northwestern Fruit Exchange, were first advertised for two years in New York City. The campaign was educational, naming the twelve varieties packed under the brand and telling their proper seasons for use and new ways to serve apples. Success in New York led to extension of the campaign last year to national dimensions, $60,000 being spent in 1916-17, and the appropriation having been increased a little for the present year.

Lack of space forbids sketching of other campaigns, but the following organizations, comprising, with those mentioned above, about twenty in all, as so far as the writer knows all that have advertised to any appreciable degree: Southern Texas Truck Growers' Association, Bermuda onions; Canadian Government, apples; Farmers' Dairy, Toronto, milk; British Columbia Fruit Growers' Association, soft fruits; Hood River Apple Growers' Association; California Walnut Growers' Association; California Fruit Distributors, grapes; American Cranberry Association; Turlock Merchants and Growers, California, cantaloupes; National Dairy Council, dairy products; Peach Growers, Inc., California, a pretentious campaign on Blue Ribbon dried peaches, which began late in 1917; Prune and Apricot Growers' Association, Sunsweet prunes and apricots, beginning this year; Yakima Valley Fruit Growers' Association, Yakima, Washington, Big Y apples, in newspapers of selected cities, last fall; Soft Fruit Growers of Niagara Peninsula, Ontario; Spokane Chamber of Commerce, apples.

Some of the campaigns mentioned have been spasmodic, others consistent. For instance, the campaign on Sunsweet prunes and apricots, now getting under way, has been looked forward to by a huge industry for years, and is laid on a most solid foundation.

It is not necessary to call attention to the fact that these campaigns are something new in the age-old history of farming. The rapid development now being witnessed in advertising by farmers is surely significant. A new epoch in farm marketing methods is opening up, many believe, and farmers should watch the progress of these various campaigns with more than ordinary interest.



POULTRY-GROWING ON THE FARMS WOULD BE IMPOSSIBLE WITHOUT THE WORK OF THE WOMEN WHO MAKE THIS BRANCH OF PRODUCTION THEIR JOB

Sorghum for Syrup

We can remember when practically every farm had its patch of cane grown for sorghum syrup. Someone in the neighborhood operated a mill and all hauled their cane to the community mill and later got the sorghum in kegs or barrels. This syrup is a good wholesome food product and there might well be a revival of the early-day practice.

At the present time the manufacture of sorghum syrup in Kansas is a comparatively small industry. The average annual production during recent years is valued at between three and four million dollars. It is increasing, however, and may become important.

Sorghum for syrup is grown in the same way as sorghum for forage and silage, except that it is planted somewhat thinner. The plants should be from about five to seven inches apart in the row. The varieties to be recommended for Kansas, as given in the Kansas Experiment Station bulletin, "Growing Sorghums in Kansas," are the Kansas Orange and Red and Black Amber. Sumac, Collier, Coleman, and Black Gooseneck or Texas Ribbon cane are used to a slight extent. A number of strains with a high sugar content have been developed by firms making a specialty of sorghum syrup.

Several plantings, at intervals of a week or more, should be made when large acreages of sorghum are grown for syrup, or varieties maturing at different times should be used. This is advisable in order to lengthen the manufacturing period, which may be made to extend through August, September, and a part of October if the season permits.

Sorghum for syrup should be cut when the seed is in the late milk or dough stage. Ripe or overripe sorghum produces juice that is difficult to clarify, while the flavor of both overripe and green sorghum is poor. The sorghum crop should be cut with a corn binder and bound into bundles, though it may be cut by hand. The best grade of syrup is obtained when the leaves, head and suckers are removed and the main stalk only is used. When this practice is followed the stripping is done by hand. Harvesting should be managed so that the sorghum will be milled within two days after it is cut, since the juices are likely to ferment, particularly during warm weather. In cold weather the stalks may be kept for some time without injuring their value for syrup. Where there is danger of frost it is a good practice to cut the crop and store it in shocks or piles until it can be milled. Frosted sorghum is not injured for syrup if milled promptly, unless it is immature.

In Kansas sorghum yields vary from two to fifteen tons per acre. An average crop is about seven or eight tons. A ton of sorghum will furnish from 700 to 1,200 pounds of juice, from which eight to thirty gallons of syrup may be made, depending on the sugar content of the juice. The production of syrup per acre will vary from a few to as much as 300 gallons, depending on the variety grown, the season, soil, and method of growing and manufacturing. A fair average is about 100 gallons per acre.

If you wish information regarding the various processes involved in manufacturing sorghum syrup, write to your senator, representative, or delegate in Congress, and request a copy of U. S. Farmers' Bulletin No. 477, "Sorghum Syrup Manufacture."

Sheep in the United States averaged more than 51,600,000 head during the three years before the war, but since 1914 have gradually decreased to less than 48,500,000, a falling off of about a million a year. These figures emphasize the need for increased attention to sheep raising to meet the demand for mutton and wool.

A wider use of cheese, of which there is now a plentiful supply in the United States, is being urged by the Food Administration as a substitute for meat.

GOOD GARDENS A WAR MEASURE

Grow Fruit and Vegetables and Lessen Need for Purchased Foods

By H. C. DOYLE, Ass't Secretary Kansas State Board of Agriculture

THE home vegetable garden will pay greater returns in 1918 than ever before. This is true, in the first plaee, because high-priced seed and scarcity of hand labor is going to cut down the production of commereial gardens. The canneries, as a consequence, will likely suffer, as well as the consumers of vegetables in the fresh state. And of the produets of the eanneries a large proportion will be taken over by the Government for the use of our soldiers. In the second plaee, the greatly overtaxed and congested condition of railway transportation is bound to interfere with and limit the free distribution of both fresh and eanned vegetables that we have enjoyed in the past. The home production and eanning of vegetables therefore will this year be both patriotic and profitable.

For its size the vegetable garden has always been one of the most profitable areas on the farm. Yet many farmers have habitually slighted this area; yes, even ignored it altogether. Often, if there has been a garden at all, it has been plowed and harrowed, a few rows marked, and then left to the overburdened wife and the children. Such an attitude is entirely different from the attitude of our forefathers, who, isolated and independent, produeed nearly all of their needs. In those times the family garden was a reeognized institution. The modern farmer has developed into something of a specialist, and the crowding demands of his specialty, or specialties, in field and feed lot, have led him to leave vegetable growing to others. As a result, with his family as busy as he, with all the horses in the field, and with little time to go and buy vegetables of those who had them, many farm families have been aetually worse off for fresh vegetables than the people in town. The time has now eome for a revival in farm vegetable gardening.

The farm vegetable garden should be handy to the house. The soil should be rieh and well drained. A fertile sandy loam does best, but that is not always available. A soil that will grow eorn and potatoes will serve the purpose. If it is not in fertile eondition, barnyard manure will make it so. The manure is best applied as a top dressing in the fall of the year, at the rate of ten or twelve tons per acre. Plowed under in the spring the full benefit may then be had from it. In case the manure cannot be applied until spring it is better that it be well rotted.

If choice is possible, a site protected from northerly winds, by timber, buildings, or something, is very favorable to early stuff. But the garden itself should not be shaded. Cows and pigs and chickens and vegetables eannot be raised on the same plot of ground. For that reason the garden should be surrounded with a ehicken-tight fenee which is also strong enough to keep out the stock.

The preparation of the soil should be thorough. The best method is first to disk, then to plow deep and carefully, and finally to pulverize with repeated harrowing and floating. When the dirt is loose and mellow and fine it is ready for planting.

There are many things to plant, and since on the farm sufficient space is usually available the only limiting factors should be the appetites and tastes of the family. There are radishes, lettuce, onions, beets, eabbage, peas, beans, sweet corn, tomatos, eucumbers, Irish potatoes, sweet potatoes, celery, eauliflower, egg plants, peppers, muskmelons, watermelons, parsnips, carrots, turnips, squashes, pumpkins, asparagus, rhubarb, and various other vegetables to ehoose from, and hardly a one that cannot be grown in Kansas. A January issue of KANSAS FARMER carried suggestions about varieties, hence we shall not go into that subjeet here.

The size of the garden will depend upon the quantity and kinds of vegetables to be grown. On the average farm a plot of something like a half acre will be wanted, so that a main crop of potatoes as well as small fruits and some flowers may be raised in the same enclosure.

One of the greatest aids in cultivation is straight rows. It is not hard to make straight rows if you put forth a little effort. All you need to do is to make use of a garden line or cord, of the length of the rows, and a marker. Start the first row right, with the line, and use that row as a guide to mark the other rows. If possible run the rows north and south, for by that method the plants get better sunlight.

Now for a few ideas about grouping and arrangement. Perennial vegetables, such as rhubarb and asparagus, should be planted at one end or along one side of the garden, where they will not interfere with plowing and working the soil. Crops planted and maturing at about the same time should adjoin each other to make planting and cultivation easier. Two or more kinds of vegetables of like requirements may comprise a row. Where it is convenient the taller-growing plants should be grouped together, preferably to the north or west of the shorter kinds, so the shorter kinds will not be shaded. Rotate the erops each year as you would eorn or oats.

The time to plant varies somewhat in accordance with the earliness of the season. Annual vegetables may be divided, though, into three groups: the early or "eool weather" kinds, the medium kinds, and the late or "warm weather" kinds. "Cool weather" vegetables eonsist of beets, early eabbage, lettuee, onion sets, early peas, early Irish potatoes, radishes, and spinaeh. These are kinds that may be planted in eomparatively eool soil, and some of them will even stand light frosts. They may be planted in March as soon as the ground can be worked.

The medium kinds consist of such vegetables as Brussels sprouts, carrots, eauliflower, early eelery, kohl-rabi, parsley, parsnips, salsify, onions from seed, and some of the medium-early peas. They require a little warmer soil and are usually planted in the first two or three weeks of April. It is best that they be not touehed with frost.

Of the "warm weather" vegetables we have beans of all kinds, sweet corn, cucumbers, egg plants, endive, kale, muskmelons, okra, sweet potatoes, pumpkins, both winter and summer squashes, tomatoes, and watermelons. None of these should be planted until the soil is thoroughly warmed up and the danger of chilly weather is past. They are never planted before the last week of April and generally are planted during early May.

Sowings of some vegetables, such as peas and radishes, may be made at intervals of two weeks, up till the middle of June. As a rule, all spring-planted vegetables should be in the ground by the time summer is officially ushered in June 21. After that, aside from the planting of late cabbage, late eelery, and turnips, in mid-season, no further planting is done until fall, when some of the quieker-maturing early vegetables are sown.

One thing that must be more fully realized in farm gardening is the fact that the whole garden eannot be planted at one time. If a vegetables is a "cool weather" plant we must see that it is sown to grow in eool weather; and if it is a "warm weather" plant we must wait until the right temperatures of soil and air are likely to prevail. There should be at least three plantings; early, medium, and late—say March, April and May. This faet must be observed if we are to avoid such things as tough, woody peas, "hot" radishes, and spindly sweet corn.

The spacing of the rows in the farm garden should be adapted to horse cultivation — thirty or thirty-six inches apart. The rows of some vegetables, as cucumbers, melons, and squashes, that have long running vines, will need to be spaced about six feet apart. The distance apart in the row also depends upon the size of the top and habit of growth of the plant. Cucumbers, melons, and like plants, should be planted four to six feet apart in the row; tomatoes, egg plants, and cabbage at two and one-half to three and one-half feet; Irish potatoes, sweet potatoes, and sweet corn at twelve inches. Most other seeds are drilled in the row. The smaller seeds should be planted at a depth of one-half to three-fourths of an inch—larger seeds at from two to three inches, depending upon their size.

After devoting the land, the labor of preparation, and the seeds to planting a vegetable garden, it is folly to neglect cultivation. Other work is usually shrieking for attention at about the time when the garden is most in need of eultivation. The garden, eonsequently, often is neglected, the weeds get a start, and soon the whole patch is a veritable jungle. The thing to do is to have on hand a small, one-horse garden cultivator, and to take a little time each week to cultivate between the rows. Then with a little hoeing and a little hand weeding the vegetables will get a ehance to grow. It is easy to control the weeds if you kill them when small and keep ahead of them. And besides, you will at the same time be making a soil mulch to conserve the moisture for the use of the vegetables. Timely tillage in the garden patch pays wonderful dividends.

Sweet Clover on Gumbo

Sweet elover is giving the best of results in many parts of Eastern Kansas. Its use as a pasture and hay crop is increasing each year. There are conditions of soil where the sweet elover will give much better results than red clover or alfalfa. A Washington County farmer reeently asked Prof. S. C. Salmon if he could grow ordinary red clover on some tough gumbo soil. He was advised to try sweet elover instead. Sweet clover should be seeded early in the spring, usually the earlier the better, providing the ground is in good eondition. The best way to seed is to use an alfalfa drill, eovering the seed very lightly, sowing it at the rate of from fifteen to twenty pounds to the aere. On rather poor soil it is better to seed it alone. On fairly fertile soil it is often very suceessfully seeded with oats. In Washington County and in Eastern Kansas generally sweet elover seeded this spring should under favorable conditions yield a erop of hay this fall, or it can be used for pasture. Next season it can be used for pasture, or harvested for seed as a seed crop. Sweet elover does not as a rule make a very satisfactory hay erop the second year beeause of its tendency to make a rank, woody growth. Sweet clover plants die the second year, but as a rule there is enough seed shattered off to reseed the land if it is used for pasture or allowed to go to seed. If it is harvested the second year for hay, it is usually necessary to reseed the land.

The English are now receiving for household use only about half as much sugar as the amount to which they have been accustomed, and the French sugar ration sinee last October has been less per month than the Ameriean household use per week. Italy is on the same short sugar ration as France. It is to relieve these conditions that this country is now saving and sending sugar.

This war is a test of nations even more than of their material resources and strength. The issue of it depends on the relative intelligence, moral qualities and attitude of the people engaged.—SECRETARY HOUSTON.

VEGETABLE	Variety in order of production	Date of setting or planting	Amount of seed	Average price of seed	Depth of planting	Distance between rows	Distance apart in row	First picking	Last picking	Yield to 100 feet
Beans	Stringless Green Pod	May 10	1 pt. to 50 feet	1 qt., 30c	2 to 3 inches.	3 feet	6 inches	June 27	July 18	48 qts.
	Bush Lima	May 10	1 pt. to 50 feet	1 qt., 25c	2 to 3 inches.	3 feet	6 inches	June 27	July 18	46 qts.
Beets	Crosby's Egyptian	April 6	1 oz. to 50 feet	1 oz., 20c	½ inch	12 to 18 in.	2 to 4 inches.	June 11	Sept. 11	450 lbs.
Cabbage	Premium Flat Dutch	April 24	1 oz. to 1,500 plants	1 oz., 20c	½ inch	3 feet	2 feet	June 27	July 21	41 heads, 54 lbs.
	Early Jersey Wakefield	April 24	1 oz. to 1,500 plants	1 oz., 30c	½ inch	3 feet	2 feet	June 27	July 21	45 heads, 52 lbs.
Carrots	Early Chantenay	April 1	1 oz. to 100 feet	1 oz., 25c	½ inch	14 to 18 in.	2 to 4 inches.	July 20	Nov. 1	240 lbs.
	Half Long Danvers	April 1	1 oz. to 100 feet	1 oz., 25c	½ inch	14 to 18 in.	3 to 5 inches.	Aug. 10	Nov. 4	120 lbs.
Celery	Giant White Pascal	July 13	1 oz. to 3,000 plants	1 oz., 20c	⅛ inch	3 to 4 feet	6 inches		Sept. 28	180 heads
	White Plume	July 13	1 oz. to 3,000 plants	1 oz., 20c	⅛ inch	3 to 4 feet	5 inches		Sept. 15	220 heads
Cucumbers	Arlington White Spine	May 8	1 oz. to 50 hills	1 oz., 20c	½ inch	4 to 6 feet	4 to 6 feet	July 25	Sept. 20	1799, 150 lbs.
Lettuce	Black Seeded Simpson	April 12	1 oz. to 150 feet	1 oz., 15c	½ inch	14 inches	3 to 4 inches.	May 28		264 lbs.
	Improved Hanson	April 12	1 oz. to 1,000 plants	1 oz., 15c	½ inch	14 inches	3 to 4 inches.	June 1		244 lbs.
Onions	Giant Gibraltar	April 12	1 oz. to 100 feet	1 oz. 15c	½ inch	12 inches	3 to 4 inches.	Aug. 22		28 lbs.
	Prizetaker	April 12	1 oz. to 100 feet	1 oz., 15c	½ inch	12 inches	3 to 4 inches.	Aug. 22		21 lbs.
Parsnips	Hollow Crown	April 12	1 oz. to 200 feet	1 oz., 15c	½ to 1 inch.	18 inches	2 to 4 inches.		Oct. 9	56 lbs.
Peas	Nott's Excelsior	April 12	1 qt. to 100 feet	1 qt., 40c	3 inches	3 to 3½ feet.	1 to 2 inches.	June 8	July 19	21 lbs.
	Gradus	April 12	1 qt. to 100 feet	1 qt., 60c	3 to 4 inches.	3½ feet	1 to 2 inches.	June 8	July 19	20 lbs.
Radishes	Early Scarlet Turnip	March 22	1 oz. to 100 feet	1 oz. 10c	½ to 1 inch.	14 inches	1 to 2 inches.	May 1	May 20	3077 roots
	White Strassburg	April 10	1 oz. to 100 feet	1 oz., 10c	½ to 1 inch.	14 inches	1 to 2 inches.	May 20	June 1	2607 roots
Salsify	M. Sandwich Island	April 25	1 oz. to 70 feet	1 oz., 10c	½ to 1 inch.	18 inches	2 to 4 inches.		Sept. 4	50 lbs.
Spinach	Victoria	March 25	1 oz. to 100 feet	1 oz., 10c	1 to 2 inches.	12 to 18 in.	2 inches	May 11	June 17	75 lbs.
Squash	Summer Crookneck	May 16	1 oz. to 20 hills, or 8 to	1 oz., 15c	1 to 2 inches.	7 t o 8 feet.	7 to 8 feet.		Aug. 7	13 squash, 39 lbs.
	Hubbard	June 20	12 seeds per hill	1 oz., 15c	1 to 2 inches.	10 to 12 feet.	10 to 12 feet.		Sept. 9	9 squash, 35 lbs.
Sweet Corn	Mammoth White Cory	April 20	1 qt. to 200 hills, or	1 qt., 25c	2 inches	3 feet	2½ to 3 feet.	June 23	July 16	91 lbs.
	Stowell's Evergreen	April 20	¼-qt. to 100 feet	1 qt., 30c	2 inches	3 feet	2½ to 3 feet.	June 23	July 16	87 lbs.
Tomatoes	Earliana	May 12	1 oz. to 1,500 plants	1 oz., 30c	½ to 1 inch.	4 feet	4 feet	July 12	Sept. 18	420 lbs.
	Stone	May 12	1 oz. to 1,500 plants	1 oz., 25c	½ to 1 inch.	4 feet	4 feet	July 12	Sept. 18	405 lbs.
	Dwarf Champion	May 12	1 oz. to 1,500 plants	1 oz., 25c	½ to 1 inch.	4 feet	4 feet	July 12	Sept. 18	217 lbs.
	Trucker's Favorite	May 12	1 oz. to 1,500 plants	1 oz., 25c	½ to 1 inch.	4 feet	4 feet	July 12	Sept. 18	230 lbs.
Turnips	Early White Milan	July 3	½-oz. to 100 feet	1 oz., 10c	¼ to ½ inch.	18 inches	6 inches	Aug. 15	Oct. 1	150 lbs.

A Farm Garden Record Made at the Kansas Experiment Station, Manhattan. The Adaptation of Varieties Has Been Established by Numerous Tests. Save This Table for Future Reference.

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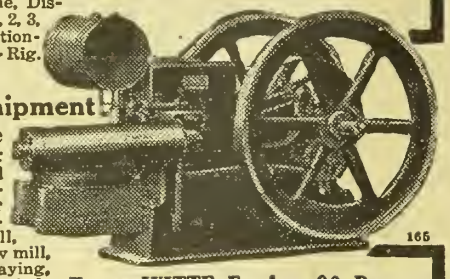

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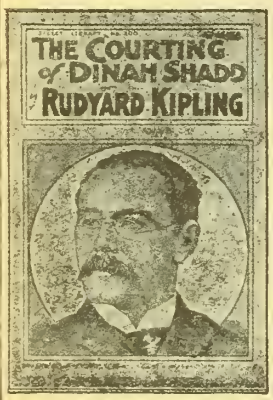

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2—Rosamond Layton, by Mary J. Holmes.
4—Beulah, by Augusta J. Evans.
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Meat Buying of Allied Nations

THE methods followed in buying meat for our allies are not very well understood. The meat division of the Food Administration has just issued the following statement:

On December 1, 1917, the U. S. Food Administration began an entirely new system of buying meats in the United States for the Allies. Before that time the allied nations had bought meat in this country as best they could—in competition with the domestic market and each other—often feverishly, and to meet emergencies.

As was inevitable, such buying was a large factor in the sky-rocketing process of meats last fall. Not only did that demand help put prices up, but it put prices up irregularly. The fat back of the hog, for instance, had been in special demand for France and Italy, and as a result of that demand the relative value of the fat back (as compared with other cuts of the hog) went up out of proportion. The English had been accustomed to a particular cure of lean hogs, and in consequence lean hogs were at a market premium as compared with fat hogs. This has had a bad effect because hogs were being killed before they were ready to market, and at a time when soft corn would be wasted unless it went into making weight on the hog.

The problem was to find a way to end these difficulties; first, to adjust the supply to the demand so that temporary shortages should not be used by speculators to boost the market or permit speculative profits; and, second, to stabilize prices so that the army and navy, the domestic trade and the allied nations should all buy on the same general price level and yet protect the producer.

As the first step, the allied nations all came together and established a single buying commission for handling meats and similar products. This commission pooled all the orders, standardized specifications and contracts, and adopted a system of regular buying so that the trade would know a reasonable time in advance what was required and be ready to meet the demands with the minimum of inconvenience to domestic business.

To handle the business the Food Administration established an executive organization which should place the orders and advise with the federal trade commission and other established organizations as to prices.

At the threshold of its work that organization had to meet and determine several questions.

The first question was prices. As to prices, one thing was obvious. There must be a standard price on each specified product to every packer and no discrimination between packers. What the price is to be is an expert question which differs in each case. I will speak of these prices later.

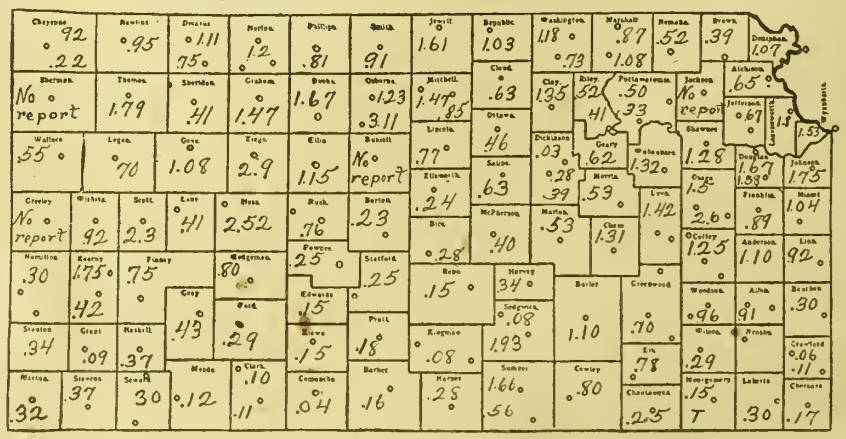
The second question was: Which packers shall get a share of foreign orders? The answer to that was somewhat difficult. The business could not go by favor. It must not unduly disturb the distribution of meats to the people of the United States; it must be divided on some sound fair theory which would produce results. On going over the trade it was found that the shipments must all be in carload lots, and of standard quality, which would meet foreign requirements. That meant that it was an absolute necessity to confine the foreign business to packers who had equipment enough and experience enough to handle the business economically and efficiently, and — above all — promptly. Then it was found that many of the packers, particularly the smaller ones, for a long time had had a substantial British business and made a specialty of the British trade. They had spent much money to establish—and had established—trade names and good will in Great Britain. It would be foolish to take them out of the British business and force them to find new markets in the United States for their product; that would mean new agents and new branches. Therefore the principle was adopted of placing the British business with those packers who had done the business before (who were approved as to efficiency by the Allied Purchasing Commission), in substantially the proportions that they had done the British business before. In general that principle has been followed, and results in the distribution of the business among about forty packing concerns. In regard to the French, Italian and Belgian business, and the needs of the Commission for Relief of Belgium, it was not found that any particular packing concerns had any particular established trade in those countries so that the business of them all is divided among those concerns (approved by the buyers as fit) in proportion to their share in the hog kill at the central markets in the past. This has resulted in dividing the business among about the same number—forty—of packing concerns.

The question of prices of the allied buying is determined on the following lines: Buying experts first ascertain the cost to the packers of the hogs, the cut-up value of the hogs (i. e., the per-

Precipitation of February 1918

Reports Furnished by S. D. Flora, Meteorologist, Weather Bureau, Topeka

(Amounts include moisture from rain and melted snow)



FEBRUARY was a very dry month in Kansas until the last two days, when heavy snows in the northwestern and north central counties and soaking rains in the eastern portion of the state effectually relieved the long drought in those localities. However, rain was still badly needed when the month ended in the south central and southwestern counties. Wheat made very little change, except to green up here and there in favored localities as the weather became warmer, but the outlook was decidedly improved by the rains the last two days.

centage of the hog which is meat) and the proportion of the value in the several cuts. These tables of figures are revised at least monthly. Then these prices are compared with other markets, with the army and navy competitive prices, until a price is finally made.

The price made as to any one item may be somewhat too high or too low; in handling so great a volume of orders nothing like precise or mathematical accuracy is obtainable as to each separate order, for in every month one or more million pounds of pork products must be shipped. But approximate fairness can be reached; and inasmuch as the packers' total profits are regulated, any error will be averaged up. Up to February 1, 1918, the packers have been able to answer all calls for product made upon them, and there has been no failure in prompt handling. The system has not been working long enough to form any final judgment and doubtless can be much improved, but it is working better than the old uncoördinated buying.

The new system of buying has been for the benefit of the allied nations in that their supply has been assured at not excessive prices.

It has benefited the American consumer in that the menace to the market of unrestricted foreign buying which tended to skyrocketing of prices has been removed.

It has benefited the producer:

First, in that the foreign buying orders thus held in a single hand have been used to uphold slumps in the markets when the run of hogs was heavy—and have protected the minimum of $15.50 per hundred pounds for the average of the packers' droves on the Chicago market. This minimum established by the Food Administration has made it possible for the producer to breed with confidence of a fair price when his hogs came to market, and has thus helped to keep up production.

Second, the producer is benefited in that the foreign buying in a single hand should furnish a protection from unduly high prices in time of scarcity of hogs. If you had told a farmer a year ago that high prices for hogs did not help him he would think you were trying to put something over on him; but he is beginning to realize that high varying prices are an evil to his business. High prices of hogs and cattle shoot up the feed prices so that they are out or reach. Sharp rises in the market are the speculators' paradise, and in every rapid market the speculator finds his way in and he reaps the reward—not the farmer. Sharp rises are followed by sharp falls that catch the unlucky. The American farmer takes enough chances with the weather without taking a chance in the market.

Third, for the reasons stated the producer of hogs is better able to do his bit in helping the war with confidence that he knows where he will come out.

Much as the Food Administration wants hogs, we do not urge every man, woman and child to go into the hog-raising business on a large scale. We do want each one to raise and send to market as many hogs as he can find feed for at a reasonable price.

The new system of foreign buying helps that producer to know what he can get for his hogs—so that he can know how far he can help in the war. And never before has the need of the Allies been so great.

Wheat Mill Feed Substitutes

Present demands for wheat mill feeds exceed the supply to such an extent that they can be only partly filled during the present season. The use of other by-product feeds such as rye feeds, barley feeds, oat feeds, rice feeds, hominy feeds, gluten feed, linseed meal, cottonseed meal, peanut meal, soy bean meal, dried grains and molasses feeds, will help to relieve this condition.

The by-products feeds mentioned are generally selling at lower prices than mill feeds produced from wheat, corn, or oats, and are generally of equal or higher feeding value.

Feeding Suckling Pigs

When little pigs are about three weeks old, sometimes less, they will begin to nose around for something to eat. If they are going to do as they should, this something must be supplied. One of the best feeds at this particular time is shelled corn. It should be in a self-feeder in a pen where the pigs can go to it and will not be bothered by any of the rest of the hogs. This can be arranged by a creep just large enough to admit the pigs handily. Don't forget that these little fellows grow quite rapidly and from time to time the creep must be made larger. After the pigs are four or five weeks old, especially if they do not have good grass pasture, the addition of some shorts, forage, or oil meal is advisable. Nothing would be better, however, than skimmed milk. The self-feeder in which is kept corn and other feeds should be maintained along up until weaning time, and so that if the pig is intended for market purposes. Pigs to be used for breeding purposes may be kept on a self-feeder all the time with splendid results, but in some cases they get too fat and logy and do not take the proper exercise.

Preparation of Hotbed

We have been asked to tell how to make a hotbed. M. F. Ahearn, associate professor of horticulture at our Agricultural College, furnishes the following instructions:

The heat for hotbeds is commonly supplied by the fermentation of horse manure. Material of practically the same age and from highly-fed horses is the best. Mix with about one-half litter or straw, as the manure will not heat well if too dense. It should be piled in a long narrow square-topped pile, slightly concave at the top in order to hold moisture. Allow it to ferment. If the weather is cold and fermentation is slow, the mixing of a little hen manure to one part of the pile, or wetting with hot water, will start the heating. In order to secure uniform fermentation, the pile should be turned occasionally and all lumps broken up. When the pile is steaming throughout, it is ready for the hotbed. This is usually from two to three weeks.

Hotbed frames are sometimes set on top of the pile of fermenting manure, in which case the pile should extend for about a foot around the edges of the frame, to hold the heat. It is best, however, to have a pit about two feet deep. If the bed is to be permanent, the pit may be a foot wider than the frame and be walled with stone or brick. Upon the bottom of the pit place a layer two or three inches deep of straw, leaves or any coarse material. Then place a layer of manure eighteen to twenty inches deep, a thin layer of leaf mold or other material above this, and lastly a layer of four to eight inches of loam in which the plants are to be grown.

The hotbed should be placed on the south side of a building or other good windbreak, and care should be taken to have good drainage. Three feet by six feet is a convenient size for the sash, and as many of them may be used as desired. The frame should be higher at the back, a very good proportion being twelve to fifteen inches at the back, and eight to ten inches at the front. The sash may be of glass, but many prefer muslin, and muslin is very much superior if the hotbed is to be used for sweet potato plants.

The hotbed may be made as early in the year as desired, but for common use—growing early tomatoes, lettuce, radishes, etc.—early in March is generally the best time.

Care must be taken not to water the bed too much, as this will cool the manure and stop fermentation. The bed should be ventilated frequently, during the warmest part of the day.

A cold frame has no bottom heat other than that derived from the sun. It consists of a frame of the desired size, with glass cover, so arranged that the bed may be ventilated. They are placed near the buildings in a sheltered spot or in the open field as desired, and the plants may be transplanted from them when the settled weather arrives, or the frame may be taken up and the plants left standing where started.

Silage Lessens Feed Cost

Because of the increased cost of finishing beef cattle in recent years it is necessary to utilize more roughness and less concentrates. The introduction of corn silage into fattening rations has made available a comparatively low-priced roughage. But it is necessary to carefully consider its maximum use and its proper combination with other feeds. An investigation to determine these problems was started in 1915 and has been conducted two years by the Missouri Experiment Station.

The cattle were grade Shorthorn steers which cost $8.25 a hundred on the Kansas City market in December. The average cost a hundred, at the feed lot was $8.45 and the average weight at the beginning of the test was 917 pounds. Five lots of eight steers each were fed. All the lots were given as much corn silage as they would eat. Lot 1 received cottonseed meal in the proportion of 1 pound of meal to 6 pounds of corn, and Lot 2 received old process linseed meal in the same proportion. Lots 3 and 4 received no corn other than that contained in the silage. Lot 3 received an average daily ration of 4.35 pounds of cottonseed meal and Lot 4 received the same ration of old process linseed oil meal. The other three lots received in addition to silage a full feed of shelled corn, while Lot 5 did not receive a high protein concentrate. From the results in 1917, it seems that the returns from cattle fed silage with or without the addition of corn to the ration will depend to a considerable extent upon the premium paid for fatter or heavier cattle. This year the market offered a premium for finish and weight, while in 1916 it did not. The increased returns from Lots 1 and 2 in 1917 more than justified the cost of the high protein concentrate which they received.

An average of Lots 3 and 4 (1917) shows that with 3.16 tons of corn silage, 750 pounds of hay and 503 pounds of cottonseed meal or old-process linseed oil meal, a choice three-year-old steer may make 322 pounds of gain in 130 days. A fairly satisfactory grade of beef is produced and much corn is saved by following this method of feeding.



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To secure this she must have assistance. She has the land but needs the men. The Government of the United States wants every man who can effectively help to do farm work this year. It wants the land in the United States developed first of course; but it also wants to help Canada. Whenever we find a man we can spare to Canada's fields after ours are supplied, we want to direct him there. Apply to our Employment Service, and we will tell where you can best serve the combined interests.

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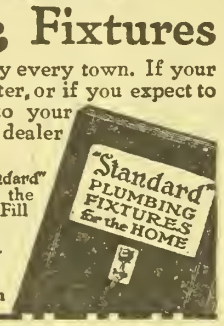

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Sweet Clover as Dairy Pasture

DURING the pasture season of 1917 sweet clover on the Kansas Experiment Station farm at Manhattan returned a value of $88.46 an acre, crediting milk produced at 20 cents a gallon and deducting the cost of all the grain fed at the rate of $50 a ton. On the basis of the butter fat produced, allowing 40 cents a pound for the fat, the acre of sweet clover pasture produced a net value of $40.85. This is a remarkable showing for a crop which has until recent years been regarded as a worthless weed.

This Kansas test was planned and conducted under the direction of Prof. O. E. Reed of the Agricultural College. A good many farmers who have pastured sweet clover have come to regard it most highly, but this carefully conducted test furnishes the first definite information as to its actual value in pasturing dairy cattle. The strongest point in its favor is the fact that it apparently does not produce bloat as does alfalfa or ordinary red clover. Neither of these crops can be safely used as a pasture for cattle of any kind. If later tests verify the results obtained by Professor Reed last summer, dairymen will have added a most valuable crop to those now available for milk production in Kansas.

In preparation for this test, a cheap open shed was built in one corner of the three and eight-tenths acre plot which was fenced off from the rest of the field. The cows had free access to fresh water pumped into a tank. Six grade Holstein cows were turned on the sweet clover May 7. These six cows were kept continuously on this pasture for forty days, or until July 16. By this time the dryness of the season had checked the clover growth so that it did not furnish enough forage for all the cows, and three were removed. Later in the season the pasture improved and August 5 one cow was returned and from this time on four cows were pastured continuously until October 1. They had the run of the pasture day and night, rain or shine. The only additional feed given was a portion of a grain mixture consisting of corn chop, bran, and linseed oil meal fed at the rate of one pound of the mixture to each four pounds of milk the cows were giving daily. This rule of feeding grain is the same that was followed with the rest of the dairy herd kept at the dairy barn.

The total amount of milk produced by the cows on the sweet clover pasture was 19,393.5 pounds. The milk from each cow was tested at regular periods and from these tests it was calculated that the milk contained 680.58 pounds of butter fat. Allowing 20 cents a gallon for the milk, the gross return amounted to $451.22. The cows consumed 4,602.8 pounds of grain, the cost of which at $50 a ton was $115.07. Dividing the remainder after deducting cost of grain, by the three and eight-tenths acres, gives the net return per acre which was credited to the sweet clover. On the butter fat basis of 40 cents a pound, the gross return for fat sold would have been $272.23. Deducting the cost of the grain fed and reducing the net return to the acre basis gives the net value of the sweet clover pasture per acre of $40.85. Of course in this amount of milk there would have been left 17,000 or 18,000 pounds of skim milk, which with the present high prices of grain would be worth for feeding purposes anywhere from $75 to $100.

Taking the whole season through, this three and eight-tenths acre plot furnished the equivalent of 618 days pasture for one cow, or an average of 154½ days for four cows. At this rate the pasture kept four cows for approximately five months. This means that one acre of sweet clover pasture grazed one cow six months.

Professor Reed reports that during the time the cows were on this sweet clover pasture there was no trouble whatever with bloat. The weather conditions were not always favorable, for on thirteen days during the period it rained either part of the day or the entire day.

In order to keep a check on the condition of the cows, they were weighed each ten days. The weights of the three cows that were on the pasture for the entire period serve best for a comparison. The average weights of these three cows before they were turned on the pasture was 1,284 pounds. At the close of the period their average weight was 1,304 pounds.

The sweet clover used in this test was the second year's growth. It had been seeded the year before with oats. After the oats were harvested the clover came on and was mowed and made into hay. The plants made an early start the following spring and had made quite a growth at the time the cows were turned in.

The cut here shown is from a photograph taken by the editor of KANSAS FARMER during the latter part of July. The clover was being cropped rather closely at this time, but the three cows were apparently getting all they needed. We noticed that a few plants here and there over the field had not been cropped close by the cows and blossoms were forming. They had sent up the woody stems upon which the flowers are borne, and indications were that even with this heavy pasturing there might be enough plants go to seed to reseed the field. If sweet clover pasture is not grazed too closely there will nearly always be scattering plants that will send up these seed shoots and mature seed to continue the stand.

There are several varieties of sweet clover. The one used in this pasture test was the common white sweet clover which is most extensively grown in Kansas. This variety is a biennial like red clover, the plants normally producing a seed crop the second year and then dying. It is quite possible, however, to maintain a fairly continuous pasture by allowing enough of the plants to go to seed each year.

Further tests with sweet clover as a pasture crop will be watched by dairymen with a great deal of interest. Lack of a dependable summer pasture is always a serious drawback in handling dairy cows.

Which of your cows is giving the most butter fat for a dollar's worth of feed? Better test than guess.



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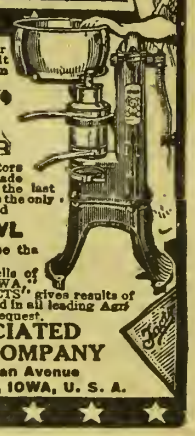

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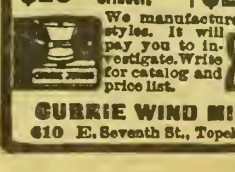

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No Substitute for Butter Fat

THERE has been an idea prevalent among dietists and chemists, as well as people in general, that all fats, regardless of their source, yield only energy and heat when consumed by the animal or human body, and until very recently no chemical or dietetic experiments had shown any real important difference between butter fat and other fats. It had, of course, been proved that fats of low melting point were more digestible than those of a high melting point. Aside from this, there was thought to be but little difference in their food value. In the estimation of many "fat was fat" and yielded only energy and heat.

The oleomargarine people often took advantage of this fact to exploit a cheap product as a substitute for butter. Whether or not this "just as good or better product" is at all worthy of the place they claim for it has always been seriously questioned by dairy and creamery men. In this connection experiments carried on by F. B. Osborne, of the Connecticut Experiment Station; Dr. Mendel, of Yale, and E. V. McCollum, of the Wisconsin Experiment Station, are peculiarly interesting and prove beyond doubt the real value of butter, viz., that butter fat not only yields energy and heat as do other fats, but that it contains something more vital than other fats—a principle which, like proteids, supplies the elements necessary for growth and life itself.

In experiments carried on with white rats, young rats were fed mixtures composed of chemically pure protein, starch, fat, sugar and various salts, and got along splendidly for the first three months, when they lost appetite, fell off in growth and finally starved. After numerous repetitions of this nature the investigators found that when milk was added to the ration the little animals began to regain normal condition, to thrive and grow to maturity. Many changes were made in their diet to make it more palatable, changes in salts used, the kinds and amounts of sugar, etc., but always the same result—growth ceased at the age of about four months. It was in an attempt to increase the palatability of the diet by substituting pure butter fat for the lard, which had been used as the fat in the ration, that the experimenters found these new facts, for the little animals immediately began to grow just as when milk was fed. It was evident that butter fat supplies something necessary for growth which lard could not supply. Other experiments were carried on to determine whether other fats from the animal or vegetable kingdom would produce the same effect as had butter fat. Experiments with tallow, olive oil, cottonseed oil and peanut oil proved futile, while the fat of eggs and fat extracted from the cells of pig's kidney produced the same result as did butter fat. Thus it seems evident that the fats obtained from the living protoplasm of the animal have this property of inducing growth after growth has ceased. Thus far no plant fat has been found to possess this power.

Experiments with pigs and calves gave results similar to those obtained with the rats. If records of experiments on man were available, it is reasonable to suppose that results fully as striking would be obtained. In this connection the editor of Hoard's Dairyman recalls two instances in which two public institutions had, in the interest of so-called economy, substituted oleomargarine for butter in the diet of the inmates. It was noted that when oleo was used the inmates were not in as good physical condition and that physicians were in greater demand than before. When oleo was replaced by butter it was reported that the health of the inmates was materially improved.

In the light of these experiments and observations it is reasonable to suppose that even more marked discrepancies would be apparent in the growth and general health of young children.

Just how much or how little butter fat can be used and still maintain growth has not yet been determined—but enough has been proved to give the dairyman sure footing in his claim that butter fat is a better food than butter substitutes composed of vegetable fats and oils. Facts and figures like these make it most embarrassing for the oleo manufacturer to claim hereafter that he has a "just as good as butter" article, and surely it behooves the housewife to give the most careful consideration to the results of these recent investigations and the conclusions which may logically be drawn from them, before she decides to eliminate butter from the diet of her family. — PROF. J. H. FRANDSEN, Nebraska University.

Save All Your Chicks

E. J. Reefer, poultry expert, of 163 Reefer building, Kansas City, Missouri, is giving away free a new book which tells of a simple home solution that raises 98 per cent of all chicks hatched and cures white diarrhea over night. All poultry raisers should write for this valuable free book.—(Adv.)

Potato Seed Diseases

The potato crop of Kansas was greatly damaged last season by blackleg, black scurf, "wilt," or dry rot, and scab. Besides these a number of other potato diseases are beginning to get a foothold in the state. Anywhere from 1 to 25 per cent of the crop in most fields was lost in 1917 on account of potato diseases.

This loss is due to two main causes, the shipping of infected seed and the failure to treat seed before planting so as to prevent these plant diseases. L. E. Melchers, plant pathologist at the Kansas Experiment Station, offers some valuable suggestions on controlling these potato diseases. Blackleg is a bacterial disease living over on the surface or inside of the seed. Infected seed produces blackened sprouts and stalks which kill the plants. This may be one of the causes for "missing hills." To control it, seed should be treated with corrosive sublimate or formaldehyde. Corrosive sublimate is to be preferred, since it kills other potato seed diseases which are not controlled by formaldehyde. Do not plant seed showing internal blackening, and remove all affected plants from fields. The methods of treating the seed follow:

Soak the uncut tubers for one and one-half hours in a solution prepared by mixing four ounces of corrosive sublimate in thirty gallons of water. Powdered corrosive sublimate is to be preferred and this should first be mixed with about one quart of hot water, since this allows it to dissolve more rapidly. Add this solution to the required amount of water to make thirty gallons. Corrosive sublimate can be secured in local drug stores.

Never use metal vessels or containers for this solution, since it corrodes metal. This is a poison and all liquid must be kept away from animals. It will not injure the hands.

Barrels, wooden tubs or vats can best be used. Place the uncut tubers in sacks and submerge in the solution for one and one-half hours. Remove and spread the seed to dry, after which it may be cut. Use a fresh solution after every third or fourth dipping, since this solution loses its strength rapidly.

Observe the following precautions: Use the correct strength of solution and see that the seed is neither given an overtime nor an under-time treatment. Do not use metal containers. Since this is deadly poison, it must be kept away from children and stock. Treat whole potatoes only, cutting the seed after it is treated. Seed treated is poisonous and should not be eaten or fed to stock.

The formaldehyde treatment is as follows: Place the uncut tubers in sacks and submerge in a solution made by mixing one pint of 40 per cent formaldehyde with thirty gallons of water. The tubers are allowed to soak for two hours. The same equipment is used as for the corrosive sublimate treatment. This solution does not lose its strength, but can be used indefinitely. It does not corrode metal, therefore any container will serve. This treatment is satisfactory for potato scab, but is not recommended for the more serious and prevalent black scurf and blackleg. Formaldehyde can be secured from local drug stores or bought in larger quantities from chemical supply houses.

Black scurf is a fungus disease causing young plants to die in the field. This disease is responsible for "missing hills." It rots the young sprouts. The diseased plants produce small potatoes. Tubers from such hills have small black specks on their surface. This is the fungus which carries the disease over from year to year.

To control black scurf, practice rotation, growing a legume or a cereal crop where possible. Disinfect the seed before planting, using corrosive sublimate solution.

In dry rot or "wilt" the infected seed shows blackened streaks in the flesh at the stem end. The leaves of the plants turn yellow, curl slightly, and the plants wilt and gradually die. To control dry rot it is very important to rotate crops for three or four years. This is necessary in fields having shown the disease. Treat uncut seed in corrosive sublimate or formaldehyde. Plant clean seed in disease-free soil. Remove and destroy diseased plants when they appear.

Potato scab is caused by a parasitic fungus attacking the skin of potato tubers. The disease carries over on the seed, in the soil, and in manure. To control it, practice crop rotation. Avoid using excessive amounts of manure or alkaline fertilizers, and treat seed with formaldehyde or corrosive sublimate before planting.

Special to Dairy Club Members

DO NOT fail to read the story on the front page of KANSAS FARMER. It tells of the year's work of one of our most faithful members, and will be an inspiration to every boy or girl who reads it. A number of these stories have been printed, several of them in more conspicuous places in the paper than the Dairy Club department.

We would also call your attention to the article in this issue about sweet clover as pasture for cows. This gives some most important results here given out for the first time. It supplies definite information on the value of sweet clover when grazed by milk cows. Perhaps the crop can be used with equal profit on your farm.

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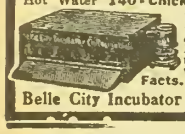

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GOPHER TRAPS—Something the gophers can't cover up. Descriptive circular sent free. A. F. RENKEN, Box 602, Crete, Nebraska.

In the Shorthorn auction sales during the year 1917, 550 animals sold for $1,000 or more per head. It is a significant fact that of this large number only twenty-six exceeded $2,500 and but three passed the $5,000 mark. Private transactions were more extensive than in any previous year in the breed's history, and yet there were no spectacular prices announced. Not only does this reveal the wholesome condition of the Shorthorn business, but it indicates also that Shorthorn breeders are not inclined to the spectacular, that they frown upon any attempt to attract attention to the merit of the breed by quoting fictitious values. Of the 250 sales held during the year, the average that fell below $200 was an exception and less than half a dozen reached or exceeded the $1,000 mark. The great majority ranged from $350 to $550 average price per head, with less than a handful in excess of $750. So far this year activity in Shorthorn affairs has far surpassed the record of 1917 and the prospect is that this trade will gather momentum as it increases in volume.



Culling Chicks Early

OUR incubators will soon begin to hatch, and then begins the task of raising the little motherless chicks. This is not hard if proper feed, care, and heat is applied.

The proper feed for the first ten days is most important. In most cases too much concentrated feed is given. The chick is supplied with its first feed in the form of the yolk of the egg, which is absorbed shortly before the chick leaves the shell. This is sufficient for seventy-two hours. It is best not to feed corn meal, cracked corn, or corn bread the first week. I have also found that the hard boiled eggs which have been tested from the incubator are not the best of food for little chicks.

It is wise to cull out chicks as they are placed in the brooders. If they are left in the incubator twenty-four hours after they hatch—as they always should be—I would put into the brooder no chick which could not stand upon its feet. Also discard all chicks which are crippled in any way, those which have crooked toes, blind or half-closed eyes, crooked beaks, etc. But do not discard the small, undersized chicks, as you may in so doing be discarding your finest pullets.

Some sunny hour at the end of the first week confine the chicks to the brooder with the cover removed and look them over for weaklings. Take out the hollow-eyed and long-beaked ones. Among the light breeds, such as Leghorns, Hamburgs, and Minorcas, discard all split and droopy-winged ones. Among the heavier breeds, as Brahmas, Orpingtons, and Rhode Island Reds, discard all hunch shoulders and short backs, as well as those which are knock-kneed and have pale, shrunken legs, and any others which peck at the food without picking up anything. Do not discard the small ones yet, provided they are lively and good eaters. If a chick is not growing, discard it; but if it maintains a steady growth, even if it is slow, give it a chance. The slow growers sometimes develop into the biggest and best chicks at five or six months of age.

In judging size it is well to take into consideration firmness of flesh and weight. Sometimes a chick at three weeks of age seems the largest of the bunch, but when picked up it is flabby instead of hard-muscled and often weighs less than the smaller ones.

The number of culls is often increased by overfeeding with no inducement for exercise, overheated brooders, and board floors instead of earth to scratch in. Many brooders are also given insufficient ventilation through fear of chilling the chicks. On the other hand, some flocks are underfed and underheated, and some poor, neglected ones live in unclean brooders and drink foul water from unclean drinking vessels. Is it any wonder that they develop into culls?

There is less danger in feeding the newly-hatched chick too early than there is in feeding too rich a ration for the first week. After the chicks have been in the brooder twelve to twenty-four hours, a light sprinkling of rolled oats or cracked wheat is about the safest food. A few stale bread crumbs are also good, but since we are to save the wheat it is hard to think of feeding the chicks good bread. If we begin when we set our incubator, we can by the end of the hatch have a supply of bread crumbs saved which would perhaps otherwise have gone to waste. Every time you cut bread for a meal just brush up the crumbs, dry, and place in a jar, and you will be surprised to see how they accumulate. Feed light and often the first week. Give no egg or beef scraps before they are a week old.

If in the last stage of hatching the yolk absorbed becomes hardened within the chick, it is sure to die. This is caused by too much heat at hatching time.

Little chicks require grit, but they have been known to eat too much, so it is best to sprinkle it sparingly in their runs.

Leghorns and other small varieties scratch vigorously and by the time they have been in the brooder a day they are capable of filling the drinking dish with straw or litter if the dish is set on the floor. Their drinking dish must be rinsed out over and over again the first few days. Any style of fount where the chicks can get wet is very dangerous. The vital question of fresh air night and day must be thoroughly considered. Account must be taken of the possibility of fumes from the kerosene lamp or gasoline burner reaching the chick. In most cases to recognize these dangers in time is to save the chicks from becoming culls. The best way is to test the pipes with a lighted match and not wait till the chicks are sick and their wings begin to droop before you look for trouble. In nine cases out of ten the remedy is merely to recognize the danger in time.

In culling, look at the eyes and discard sunken or dull-eyed chicks and those with partly closed eyes. The long-feathered, droopy-winged chicks will also show up if there is only one pair among a hundred. Slow feathering under proper food and heat conditions is a sign of lack of food assimilation. A Leghorn chick should at six weeks of age be so feathered as to have its whole body well covered.

In culling in the brooder it is well to remember that the pullets as a rule will not be as large as the cockerels and also that a certain raggedness of feathers at this age is natural. At three months of age the soiled-looking, ruffled, loose-feathered chick is the one lacking in vitality or care and is a cull, while at six weeks of age a ragged tail and ruffled wings may merely mean that the baby feathers are being shed and a new coat will appear in a short time.

The beginner very often begins to cull for type and color before his flock is matured sufficiently to make it safe, even for the experienced breeder. Chicks moult about four times in the first six months. Many a young Rhode Island Red will cast off its first white feathers and get rid of a considerable amount of smut in the under color Therefore four to six months of age is as young as it is safe to pass final judgment upon chicks. Often a chick which looks promising at four to five months of age develops a very undesirable characteristic at eight months to a year. I have even seen fine-looking cockerels at eight months of age develop white on the sickle feathers as they grew out, this being entirely hidden at eight months, but as the feathers grew out the white developed.

We cannot make the best specimens of pure-bred poultry out of our chicks, no matter how good the stock, unless they have proper care and proper feed to keep them growing. I once knew of a party purchasing a hundred extra fine Buff Orpington eggs. They hatched the eggs and raised the chicks in a very poor way and only about half fed them. They were the scrubbiest bunch I ever saw, and about one-fourth of the feathers were white, which was undoubtedly caused by poor feed and care, as another party with eggs from the same flock hatched and reared prize-winners and sold several cockerels scoring 92½ to 94, while the first party did not raise anything worth keeping. So much for good care.—MRS. LIZZIE B. GRIFFITH, Lyon Co.

Tells Why Chicks Die

E. J. Reefer, poultry expert, of 463 Reefer building, Kansas City, Missouri, is giving away free a new book which tells of a simple home solution that raises 98 per cent of all chicks hatched and cures white diarrhea over night. All poultry raisers should write for this valuable free book.—(Adv.)

Report to the nearest Food Administration officer the name and address of any person discouraging the production or saving of food.

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Big money for you in keeping bees this year. Full line of everything needed. Write for new 1918 catalog and full information about different size outfits and supplies.
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THE STRAY LIST.

TAKEN UP—BY AUGUST FEYH, OF Wabaunsee Township, Wabaunsee County, Kansas, on November 20, 1917, one red yearling steer, weight about 500 pounds; no marks or brands; appraised value $50. Katie L. Burt, County Clerk, Alma, Kansas.

Catalogs are out for H. T. Hineman & Son's annual jack and jennet sale to be held at Dighton, Kansas, March 26. This year they have catalogued twenty jacks and thirty jennets. A number of the jacks are by Kansas Chief, the world's grand champion jack at San Francisco, 1915. Others by Pharaoh, champion Tennessee, 1910, and champion Kansas State Fair, 1913. The jennets are bred to Kansas Chief and a number of them have colts at side by this great sire. Inquiries for catalogs indicate the usual widespread interest in Hineman & Son's annual sale.

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"WHY CHICKS DIE IN THE SHELL"

We want to tell you how to prevent chicks from dying in the shell just at hatching time, how to save them from White Diarrhoea or Bowel Trouble; how to build the best Home Made Brooder in the world from an ordinary box or change your old one. Above information absolutely FREE, for names of 5 or 6 of your friends who use incubators. Send Names Today. RAISALL REMEDY CO., Box 58, BLACKWELL, OKLAHOMA



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

So many gods, so many creeds,
So many paths that wind and wind;
When just the art of being kind
Is all the sad world needs.
—Ella Wheeler Wilcox.

Renovating Clothing

One session of the home economics program for women and girls given during Farm and Home Week at the Agricultural College in January was devoted to the conservation of clothing. Miss Marion Harrison, of the domestic art department of the college, a speaker on this program, discussed the need of caring for our clothes so as to make them last as long as possible. Some of the things she suggested as aids in making our garments look neater and wear longer were: The use of hangers to help keep them in shape, daily brushing of wool garments to prevent the accumulation of dust, cleaning spots as soon as they appear, promptly replacing lost hooks or other fasteners, and careful attention to pressing.

She said: "It is a little hard to press a coat, hut a skirt can he pressed in the home very easily. It should he done on the wrong side with a wet cloth. If we press on the right side, we often find that causes the material to shine. If you press without a cloth hetween the iron and the skirt, you will need to he very careful, as wool scorches easily. Ammonia water will remove the shine and also clean dress goods. A soaphark solution is also good for wool skirts. After sponging with soaphark go over the skirt with clear water and a clean cloth to remove the soap. Dry for a short time, then turn and press on the wrong side.

"In remodeling a wool dress, after it is ripped, look over what you have and see if it needs cleaning, which it prohahly does when it comes to the time for remodeling. If it is not faded, it can be made over satisfactorily. If it is faded, the thing that has to be done is to redye it. Before it is ready for re-dyeing, the goods must be perfectly clean and all spots must be removed. The best way of cleaning is by washing. Most materials that can be dyed can be washed. The hest thing to use is warm soft water with either a good soap or a soap flake solution. The soap flake preparations dissolve readily in hot water, if we want to save time. The most important part of the cleaning process is the rinsing. If wool is rinsed in water that is not of the same temperature as that in which it was washed, it hecomes hard. By washing and rinsing in water of the same temperature, you avoid a sudden change in temperature and your wool will become soft and fluffy.

"Crepe de chine, georgette, pussy willow, taffeta, and washahle satin, which are very popular now for waists, can he very easily washed and kept from turning yellow. Wash in cold water if not too dirty. Or if very dirty, use warm water. The soap flake is easier to use than soap. Rub spots between the hands. It does not take a great deal of ruhhing to remove the dirt. After the garment is washed well and all spots removed, the soap must be rinsed out thoroughly. Then roll in a Turkish towel for about an hour instead of hanging out to dry. If hung out to dry, crepe de chine shrinks. Iron silk on the wrong side to preserve the natural luster of the silk. Many of the silk materials that we have cannot be washed in soap and water, but can be satisfactorily dry-cleaned. Gasoline is hard to use and makes the hands uncomfortahle, but heating makes it very much easier to use and also more effective. Do not heat the gasoline over the fire, because it is liahle to catch. Set the vessel containing it in a pan of hot water, and the gasoline will soon heat. Some people use a pure laundry soap in gasoline. The specially prepared dry cleaner is also very good with gasoline. That removes the dirt and cleans the garment much more easily. After using soap or the dry cleaner, rinse the garment in clear gasoline.

"Velvet on dresses which are to be remodeled can usually he cleaned and used again. Remove the dust with a stiff whisk broom, dampen the velvet, put it over a hot iron, and brush with the stiff broom. To make panne velvet for trimming a dress, take any velvet that you have and dampen it on the wrong side, then with a cool iron press down on the nap."

We watched a friend making biscuits the other day. After she had them in the pan she moistened the tops with a little milk. When we saw the heautifully hrowned hiscuits taken from the oven we agreed with her that this was an improvement.

When you cut bread save all the crumbs. They can he used instead of flour in hread, in pancakes, or for thickening gravies and soups or the white sauce used in scalloped dishes. For thickening, crush the dry crumhs with a rolling pin and use twice as much as the amount of flour required.

The up-to-the-minute housewife will soon he using half a dozen new flours. For white breads, rice, mashed potato, or corn flour may he used to replace some of the wheat flour. If the darker hreads are preferred to "anemic-looking hread," as the German officer characterized the American wheat loaves, barley, rye, graham, oatmeal, or yellow corn meal will make a delicious product. Where is the hardship in saving wheat with breads like these?

White field corn may he parched in the oven, ground in a hand mill, and cooked like corn meal in a double hoiler. To one part parched corn add two parts water.

Home-Made Laundry Soap

The following is a reliable recipe for home-made soap given to the women attending the home economics lectures during Farm and Home Week at the Kansas Agricultural College in January by Miss Miriam Birdseye, of the States Relationship Service of the United States Department of Agriculture:

6 pounds fat
1 pound lye
6½ cupfuls cold water (rain water if possible)
2 tablespoonfuls borax
½ cupful hot water
½ cupful ammonia.

Strain the fat, and if it has many impurities clarify it hy adding water, hoiling vigorously, then allowing the mixture to cool, and scraping off the impurities that collect on the lower surface of the cake of fat. Put the lye in a stone or enamel vessel, and add the cold water. Let it stand until it cools. Dissolve the borax in the hot water and add it to the lye. Melt the fat, warm it slightly, and pour it gradually into the lye, stirring it constantly. Add the ammonia to the mixture hefore it quite cools. Continue stirring until the soap is as thick as pancake batter. Add a little oil of geranium or other perfume, if desired. Then pour the soap into wooden or paper boxes lined with greased paper. When it is cold, cut it into cakes. Let it stand a week to ripen, then take it from the hoxes and stack it in a warm, dry place. Well-dried soap can be used more economically than freshly made soap. Home-made soft soap saves time in laundering or dish-washing. Directions for making soft soap are found on the lye cans.

Corn Meal Griddle Cakes

½ cupful corn meal
1½ cupfuls hoiling water
1 teaspoonful salt
2 tablespoonfuls fat
1 egg
1¼ cupfuls sour milk
½ teaspoonful soda
2 cupfuls rye or barley flour
2 teaspoonfuls baking powder

Add corn meal and salt to the hoiling water and cook five minutes. Cool, add sour milk and soda dissolved in a little cold water, well beaten egg, and melted fat. Sift in flour and haking powder. Mix thoroughly and bake on hot griddle.

Classified Advertising

HELP WANTED.

THOUSANDS GOVERNMENT POSITIONS open to farmers. $100 month. Easy clerical work. List positions free. Franklin Institute, Dept. N-82, Rochester, N. Y.

WANTED—ACTIVE MEN WITH FARMer acquaintances to sell pipeless furnaces. Splendid line. Good proposition to offer. Richardson & Boynton Co., 171 W. Lake St., Chicago, Ill.

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120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

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TWENTY-FIVE TWO-YEAR-OLD HIGHgrade Holstein springers. A few Holstein heifer calves, four to six weeks old, $22.50 each. Oakwood Farm, Whitewater, Wis.

TWENTY AYRSHIRE COWS AND HEIFers and five heifer calves, all high grades, well marked, cows high producers, bred to Jean Armour's grandson. L. E. Johnson, Waldron, Kansas.

HOLSTEINS—HIGH-GRADE HEIFER calves crated at $20 each, from extra choice producing dams, sired by high-class registered sires with official record backing. Also fancy brick and llmburger cheese by parcel post or express. Hyland Stock Farm, Monroe, Wisconsin.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

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ONE MAMMOTH JACK, ONE SPANISH jack, both sure breeders. Also one standard-bred two-year-old filley and one good eight-months-old draft colt. This lot will be priced right. Must close out. H. L. Summers, Twenty-third and Lincoln Sts., Topeka.

MISCELLANEOUS.

DR. PRUITT'S CHOLERA AND DIARrhea Treatment is guaranteed to stop your chickens and turkeys dying or your money back. A full treatment for ninety grown chickens sent prepald for $1.50. Pruitt Remedy Co., Hays, Kansas.

COMPLETE DAIRY OUTFIT INCLUDING 1915 DeLaval separator, Twentieth Century bottle washer, double washing vat, Ideal filler and all other necessary articles. Write me what you want. Philip C. McDonald, Princeton, Missouri.

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PATENT BOOK SENT FREE TELLING how we protect and help market your invention. Also bulletins listing hundreds inventions wanted. Send sketches for free opinion. Lancaster & Allwine, 463 Ouray Building, Washington, D. C.

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YOUR FORD WILL USE HALF COAL oil if you use our 1918 carburetor. Thirty-four miles per gallon guaranteed. One-third more power. Use cheapest gasoline or one-half kerosene. Quickly starts cold motor even at zero and moves right off with full power. No spitting or popping. Slow speed on high. Fits exactly. Attach it yourself. 30 off list where no agent. Big profits selling our goods. We fit all motors. Write for 30-day trial offer and money-back guarantee. The Air-Friction Carburetor Company, 558 Madison St., Dayton, Ohio.

WANTED—TO BUY.

WANTED—WHITE ESKIMO SPITZ PUPples, six to eight weeks old. Brockway's Kennels, Baldwin, Kansas.

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WANTED—WORK ON FARM BY THE month or year by man who understands all farm work and stock. Address A. Wagner, Route 1, St. Peter, Minn.

TAKEN UP—ON THE 9TH DAY OF March, 1918, by Jacob Schuerman, in Whitewoman Township, Wichita County, two black mules, no marks or brands, about three years old. Dean Trueblood, County Clerk, Leoti, Kansas.

WHEN WRITING TO ADVERTISERS MENTION KANSAS FARMER

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AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

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VIOLIN FOR SALE—HAS SWEET TONE. Free trial. Easy payments if wanted. Write Miss Bertha Mardiss, Route 5, Rosedale, Kansas.

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SEED CORN—IOWA SILVER MINE, Diamond Joe and Hildreth at $3.25 per bushel f. o. b. cars Grove, Oklahoma. Sacks free. J. C. Starr, Vinita, Oklahoma.

SEND $1 AND WE WILL SEND YOU 12 Concord grapes, 2 years (postage prepaid). Catalog free. Welch Nursery, Shenandoah, Iowa.

SWEET CLOVER SEED—SPECIAL SCARified, hulled and unhulled. Circular and prices on request. John A. Sheehan, Route 4, Falmouth, Kentucky.

SUDAN SEED, MY OWN RAISING, 1917 crop, 25c per pound. Sudan crosses with sorghums or Johnson grass if grown near—mine is pure. M. H. Loy, Milo, Kansas.

SUDAN SEED RECLEANED, FREE FROM Johnson grass, test 47 pounds. $18 per cwt. Less, 20c per pound. H. Struebing, Winfield, Kansas.

WHITE SWEET CLOVER AND ALFALfa at farmers' prices. Sow clover on oats and get pasture crop after cutting. John Lewis, Madison, Kansas.

ALFALFA SEED FROM NORTHWEST Kansas, 95% pure; good germination; $7.50 per bushel. Order early. Freight will be slow. Geo. Bowman, Logan, Kansas.

FOR SALE—HULLED WHITE SWEET clover seed. Few bushels of red clover seed. Write for samples. Also 31-32 Holstein bull calf from heavy milking dam. H. M. Diffenbacher. Kearney, Missouri.

FOR SALE, SEED—BOONE COUNTY White seed corn. Tested and picked. Will butt, tip and shell or ship on cob at $3 per bushel. About 200 bushels left. Tom Henley, Eureka, Missouri.

KAFIR SEED—PURE DWARF BLACKhulled white, well mataured. Graded, 5c per pound. Send self addressed stamped envelope for sample. J. C. Lawson, Pawnee, Oklahoma.

BLACK-HULLED WHITE KAFIR, 100% permination test at Manhattan; $3.50 per bushel in two-bushel lots. Order at once to be sure of your kafir seed. H. W. Chestnut, Kincaid, Kansas.

SUDAN SEED, 25c POUND; RED TOP, 12c; orange cane or African millet, 11c; red dwarf maize red and white kaflr, 7c; hygeria, 10½c; feterita, 10½c. All seed recleaned. Guaranteed free Johnson grass. No orders accepted less than fifty pounds. Wire, write. Prices larger amounts. Robinson Bros., Lubbock, Texas.

EAR SEED CORN—HILDRETH'S YELlow Dent, heavy yielding, big yellow kind, large select ears, 1917 crop; well matured, will germinate 80%. Will ship 100 big ears weighing about 85 pounds for one bushel. This allows surplus for testing out. $5 bushel crated, fifty ears $3. B. H. Pugh, R. F. D. 27, Topeka, Kansas.

WE HAVE SOME FINE WHITE BLACKhull kafir seed that tests over 90 per cent germination. We quote same at $3.65 per bushel in two-bushel sacks only of 112 pounds eaeh. This is clean, well matured seed and it will be hard for you to find good seed like this this year. Don't take a chance by planting inferior seed because it may be a trifle cheaper. Brooks Wholesale Company, Fort Scott. Kansas.

FOR $1 WE WILL SEND YOU, ALL charges prepaid, twenty apple, pear, or apricot, or ten cherry trees all budded, or 25 grapes or 100 asparagus or 50 raspberry, blackberry or dewberry or 150 or 75 everbearing strawberry plants or 50 red cedar or Chinese arbor vitae seedlings or 10 transplanted evergreens, four years old. Many other bargains. Catalog free. Manhattan Nursery, Manhattan, Kansas.

Reliable Poultry Breeders

LEGHORNS.

EGGS (YOUNG'S STRAIN S. C. W. LEGhorns). Elsie Thompson, Mankato, Kansas.

CHOICE S. C. BUFF LEGHORNS, FARM range, 100 eggs, $6. J. A. Reed, Lyons, Kan.

S. C. BROWN LEGHORNS BRED 22 years. 222 to 266 egg lines. Eggs 15-$2; 50-$4; 100-$6. Gorsuch, Stilwell, Kansas.

L. B. RICKETTS, BREEDER OF PRIZE Winning Single Comb White Leghorns, Greensburg, Kansas.

SINGLE COMB BROWN LEGHORNS—Winners of the blue in four states. Eggs, $6.50 per hundred. Wm. Roof, Maize, Kan.

SINGLE COMB BUFF LEGHORNS, FREE range selected birds. Eggs at reasonable prices. H. H. Hadel, Hillsboro, Kansas.

BARRON ENGLISH WHITE LEGHORN eggs, 100, $7.50; 100, $10, prepaid. Mrs. J. L. Todd, Route 8, Warrensburg, Mo.

TWELVE S. C. BROWN LEGHORN roosters and cockerels left. Good ones of our heavy egg lines. Gorsuch, Stilwell, Kan.

FOR SALE—SINGLE COMB WHITE Leghorn cockerels at $2 each while they last. K. W. Talbott, Pratt, Kansas.

S. C. B. LEGHORN COCKERELS AND roosters, $1.50 and up. Paradise Poultry Farm, Corona, Kansas.

PURE-BRED SINGLE COMB WHITE Leghorn cockerels, $1. Combs slightly frozen. Chas. McFadden, Morland, Kansas.

BUFF LEGHORNS, BEST LAYERS ON earth. Eggs, $5 per hundred; cockerels, $2 each. G. N. Buchanan, Pond Creek, Okla.

ROSE COMB BROWN LEGHORN EGGS—Exhibition and laying strains. Mrs. John Holzhey, Bendena, Kansas.

SINGLE COMB WHITE LEGHORN cockerels, $1 each. Eggs, $5 for 100. Mrs. Howard Elkins, Wakefield, Kansas.

S. C. W. LEGHORN EGGS FOR HATCHing from extra selected good laying strain, $5 and $7 per hundred. I. H. Gnagy, Hutchinson, Kansas.

ROSE COMB BROWN LEGHORN EGGS, $5.90 hundred, $3.40 fifty, $2.30 thirty. Taken state prizes. Rufus Standiferd, Reading, Kansas.

PURE-BRED SINGLE COMB WHITE Leghorn eggs (Young strain), $1.50 per fifteen or $7 per hundred. Chicks, 20c. Mrs. David Christmann, Route 2, Oswego, Kan.

ROSE COMB BROWN LEGHORNS, BRED to lay. Twelve years experience. Range flock, winter layers. Selected eggs, $6 per hundred. W. C. Gilmore, Oneida, Kansas.

CHOICE HATCHING EGGS—SINGLE AND Rose Comb Brown Leghorns. Start with bred-to-lay strain. Delivery free. $2, fifteen; fifty, $3.50; hundred, $8. Plainview Farm, Lebo, Kansas.

PURE SINGLE COMB WHITE LEGHORN eggs from Famous Yesterlaid laying strain, mated to Tom Barron cockerels. Eggs that will hatch, securely packed, $7 per hundred. Shady Pine Leghorn Farm, Rossville, Kan.

FEW CHOICE S. C. WHITE LEGHORN cockerels from my combined egg contest and show room winners, reasonable. Eggs $7 hundred, chicks 15 cents. C. G. Cook, Lyons, Kansas.

YOUNG, FRANTZ, FERRIS, YESTERlaid S. C. White Leghorns. Heavy layers. Eggs, $6 per hundred. Sold 10,000 eggs for hatching last season. No complaint. L. O. Wiemeyer, Route 1, Anthony, Kansas.

S. C. B. LEGHORN BABY CHICKS, $12.50 per hundred. Eggs, $2.50 per setting and $5 per hundred. Sweepstakes and first prize cockerel Kansas State Fair; first pullet, first cockerel, Joplin, Mo. Paradise Poultry Farm, Corona, Kansas.

ORPINGTONS.

S. C. WHITE ORPINGTON EGGS, $6 PER hundred. C. L. Hill, Filley, Neb.

BUFF ORPINGTON EGGS—HATCH guaranteed. Shipped prepaid. Leo Anderson, Juniata, Neb.

S. C. BUFF ORPINGTONS — EGGS, $2 for fifteen or $7 per hundred, postpaid. Mrs. S. S. Tate, Orlando, Oklahoma.

GOLD-DUST S. C. BUFF ORPINGTON eggs, $2.50 setting or $10 hundred. Mary E. Price, Route 7, Manhattan, Kansas.

PURE-BRED WHITE ORPINGTON eggs for hatching, $1.50 per fifteen. Frank Hinson, Stockdale, Kansas.

BUFF ORPINGTON EGGS, PREPAID. Pens, $2 and $1.50 per fifteen; extra quality farm flock, $1 fifteen, $5 hundred. A. M. Jordan, Route 4, Manhattan, Kansas.

WHITE ORPINGTON EGGS FROM FIVE grand pens, containing Topeka and Kansas State Show winners. H. M. Goodrich, 712 Topeka Ave., Topeka, Kansas.

WHITE ORPINGTONS FOR WINTER layers and qquality eggs, $7 hundred, $3.75 fifty, prepaid. Ideal Poultry Farm, Concordia, Kansas.

CORNISH

DARK CORNISH EGGS. EAST LAWN Poultry Yards, Fairmount, Neb.

LANGSHANS.

EGGS—BEST LANGSHANS. JOHN LOVette, Mullinville, Kansas.

BIG BLACK LANGSHANS, SCORED. H. Osterfoss, Hedrick, Iowa.

BLACK LANGSHAN EGGS, 7c EACH; over 100, 6c. Baby chicks, 20c. Mrs. Geo. W. King, Solomon, Kansas.

WHITE LANGSHANS—LAYING STRAIN. Eggs, $6 per hundred; $1.50 for fifteen. A. F. Simmons, LaCygne, Kansas.

PLYMOUTH ROCKS.

WHITE ROCK EGGS, $4 PER HUNdred. Nora Lamaster, Hallowell, Kansas.

BARRED PLYMOUTH ROCK EGGS, from well barred, large birds; 100 eggs for $5.50; 50 eggs $3. R. D. Ames, Walton, Kan.

WHITE ROCK EGGS—FIFTY, $3 PREpaid. Photo free. Mrs. John Ramsey, Ft. Scott, Kansas.

BUFF ROCKS — SIXTEEN YEARS SUCcessful breeding. Eggs, $6 per hundred, $3 per fifty. Mrs. Homer Davis, Walton, Kan.

BARRED ROCK EGGS, FIFTEEN, $3.00; hundred, $10.00. 112 premiums. Mrs. Chris Bearman, Ottawa, Kansas.

BARRED AND WHITE ROCK COCKERels and pullets from prize winners, $2, $3 and $5 each. H. F. Hicks, Cambridge, Kansas.

BARRED PLYMONTH ROCKS — PUREbred farm stock. Eggs, 6c each. Mrs. W. C. Bocker, Solomon, Kansas.

THE VERY BEST FANCY BRED PLYmouth Rocks for sale. Wm. Harrison, Marshall, Mo.

BARRED ROCK EGGS — WINTER LAYers, $1.50 for fifteen, $6 per hundred, delivered. Geo. Marshall, Basehor, Kansas.

SIMS' BARRED ROCKS — STATE WINners. Get my free mating list. Geo. Sims, LeRoy, Kansas.

BARRED ROCK EGGS, $1.50 PER FIFteen, prepaid within state. Choice farm flock. G. P. Wells, Formosa, Kansas.

BARRED AND WHITE ROCK COCKERels and pullets. Write for prices. Nora Hill, Cambridge, Kansas.

EGGS FROM PRIZE WINNING BARRED Rocks. Large, thrifty farm range, $1 and $2 per fifteen, $5 per hundred. Mrs. A. M. Shipley, Coffeyville, Kansas.

BARRED ROCK EGGS, FARM FLOCK headed by "Aristocrat" birds. $1.25 setting, $5 hundred. Mrs. B. A. Scofield, Route 8, Ottawa, Kansas.

EXTRA GOOD RINGLET BARRED ROCK eggs for hatching, $2 and $5 setting; $8 hundred. Mrs. W. E. Schmitendorf, Vassar, Kansas.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swaim, Geuda Springs, Kansas.

WHITE ROCKS, SIZE AND QUALITY; good egg strain. Eggs, fifteen, $1.25; fifty, $3.50; hundred, $6. G. M. Kretz, Clifton, Kansas.

BARRED ROCK EGGS—PARKS 200-EGG strain. Best pens, $3 fifteen, $5 thirty, $12 hundred; utility flock, $8 hundred. Gem Poultry Farm, Haven, Kansas.

BARRED PLYMOUTH ROCK FREE range eggs (Ringlet strain), $1.25 per fifteen or $7 per hundred. E. M. Wayde, Burlington, Kansas.

WHITE ROCKS — BEST ALL-PURPOSE fowls. As good as can be found anywhere. Eggs, $2 per fifteen, $5 per forty-five, $10 per hundred, expressage prepaid. Thomas Owen, Route 7, Topeka, Kansas.

BARRED ROCKS, BOTH LINES. STATE show winners. Good layers. Eggs, $1.50 per fifteen, $6 per hundred. Special matings, $5 per fifteen. C. C. Lindamood, Walton, Harvey County, Kansas.

BARRED ROCKS—EIGHTY PREMIUMS, 33 firsts, Topeka, Salina, Manhattan, Clay Center, Kansas City, Denver. Males and females. Eggs, fifteen, $5; thirty, $9. Mattie A. Gillespie, Clay Center, Kansas.

BARRED PLYMOUTH ROCKS, THOMPson Ringlet strain, cockerel and pullet mated, pen and utility flock eggs. Quality high. Priced low. Many satisfied customers in thirty-seven states. Circulars free. A. F. Siefker, Defiance, Mo.

TURKEYS.

BRONZE TURKEY TOMS WEIGHING 21 to 25 pounds, $7 each. R. W. Galloway, Jamestown, Kansas.

MAMMOTH BRONZE TURKEYS, NONE better. Flock headed by 53-pound tom. Ten eggs, $4. C. R. Smith, Burnt Prairie, Ill.

MAMMOTH BRONZE TURKEYS, 62½-pound strain, none better. Also Mammoth Buff geese. Ten eggs, $4. Silas Carter, Burnt Prairie, Illinois.

SEVERAL BREEDS

TWENTY VARIETIES POULTRY — Stock and eggs. Royal Poultry Yards, Coffeyville, Kansas.

SINGLE COMB ANCONA AND SILVER Wyandotte eggs, $1.25 per fifteen, parcel post prepaid. Mrs. Cecile McGuire, Pratt, Kansas.

BUFF DUCKS, EMBDEN GANDERS, turkeys, Toulouse geese, one Buff Orpington cock, China geese. Emma Ahlstedt, Roxbury, Kansas.

FOR SALE—EGGS FROM ALL KINDS of pure-bred poultry, Geese, 7 kinds of ducks, Pearl and white guineas, Bantams, Fancy Pigeons, Canaries, Rabbits, Guinea pigs, Dogs. Write wants. D. L. Bruen, Platte Center, Nebr.

BABY CHICKS.

SINGLE COMB WHITE LEGHORN BABY chicks, 15 cents. Orders booked now. Mrs. Anna Hege, Sedgwick, Kansas.

YOU BUY THE BEST CHICKS FOR least money. Guaranteed alive or replace free. Shipped anywhere. Colwell Hatchery, Smith Center, Kansas.

CAMPINES.

PURE-BRED SILVER CAMPINES, $2.00 for fifteen eggs. A. C. Rice, Bacone, Okla.

RHODE ISLAND REDS.

ROSE COMB REDS, WINTER LAYERS. R. E. Mills, Lexington, Neb.

CRIMSON WONDER R. C. REDS.—LEE Darnell, Alta Vista, Kansas.

SINGLE COMB RED EGGS, $2.50 PER setting, $8 per hundred. Maple Hill Poultry Farm, Lawrence, Kansas.

ROSE COMB RED PULLETS, $2, $2.50. Chicks, 15c each. Eggs, 100, $5. Fred Leck, Yates Center, Kansas.

FIFTY LARGE 6½-9½-POUND ROSE Comb Red utility cockerels. Stedem & Sons, Marshall, Mo.

ROSE COMB REDS—PURE-BRED, FINE winter layers. Eggs, $1.25 per setting, $6 per hundred. J. O. Spencer, Hesston, Kan.

STANDARD-BRED R. C. RED EGGS—Fifteen, $1.50; hundred, $6. Mrs. B. F. Weigle, Winfield, Kansas.

EGGS FROM TWO SPLENDID PENS, R. C. Reds, $3 and $5, fifteen; baby chicks, 25c. Mrs. R. G. Lambert, Anderson, Mo.

SINGLE COMB RHODE ISLAND RED eggs from my fine pen, Cyphers strain, $3 for fifteen eggs. Elmer Dovel, Auburn, Neb.

BRAMAN POULTRY YARD—S. C. RHODE Island Red eggs for sale, $2 a setting of seventeen; $7.50 per hundred. S. B. Rawlings, Braman, Oklahoma.

PURE-BRED R. C. R. I. R. COCKERELS, $2 and $3 each. Mrs. E. M. Wade, Burlington, Kansas.

ROSE COMB RED COCKERELS, CHICKS 20 cents. Booking orders now. Lily Robb, Neal, Kansas.

HARRISON'S NON-SITTING SINGLE Comb Reds (250 egg strain). Mating list for customers. Robert Harrison, Lock Box, Lincoln, Nebraska.

BRED TO LAY SINGLE COMB REDS—Pure-bred, rich red, large, hardy, henhatched, free range, heaviest winter layers. Eggs, setting, $1.00; hundred, $5.00; guaranteed. Belmont Farm, Topeka, Kansas.

ROSE COMB REDS, BRED TO LAY AND win in shows. Heads of pens direct from Meyer, owner of champion Reds in American laying contest. Fifteen eggs, $2.50; thirty, $4. M. L. Van Ornam, Superior, Nebraska.

FOR SALE — ROSE COMB RHODE Island Red cockerels, $4, $5 and $6. Laying strain. Money back if not satisfactory, I pay return charges. Only ten left. Chas. Reeble, Emporia, Kansas.

SEVEN GRAND PENS ROSE COMB REDS headed by roosters costing $15 to $50. Fifteen eggs, $3; thirty eggs, $5; fifty eggs, $8. Special utility eggs, $7.50 per hundred. Baby chicks. Roosters cheap. Catalog. W. R. Huston, Americus, Kansas.

SINGLE COMB REDS—LARGE, EXCELlent type and color, heavy layers. First cock, hen and pullet at Parsons Big 1917 Show. Breeding birds carefully selected for size, type and color. Eggs, first pen, $3.50; second, $2. O. E. Jones, Route 6, Parsons, Kansas.

WYANDOTTES.

SILVER WYANDOTTE EGGS—FIFTEEN, $1.65; fifty, $3.75; hundred, $6.50. Hens. Mrs. Edwin Shuff, Plevna, Kansas.

SILVER WYANDOTTE COCKERELS, $2. Eggs, same per setting. J. M. Edgar, Deer Creek, Oklahoma.

WHITE WYANDOTTE COCKERELS, Fishel strain, $2.50. Eggs, $1.25, fifteen. Mrs. Clyde Meek, Route 3, Chapman, Kan.

WHITE WYANDOTTES, GOOD STOCK. Eggs, $1.25 fifteen, $3.50 fifty. Effie Achison, Paico, Kansas.

GOLDEN WYANDOTTE EGGS. FIFTEEN, $1.25; fifty, $3.50; hundred, $6. Louis Bruning, Phillipsburg, Kansas.

WHITE WYANDOTTE COCKERELS AND hens, $1.50 to $2 each. Mrs. Joel Smith, Amorita, Okla.

SILVER WYANDOTTE EGGS, $1.50 PER fifteen; $6 per hundred. B. C. Hill, Route 2, LeRoy, Kansas.

LAYER-PAYER SILVER WYANDOTTE eggs, fifteen, $1.50; fifty, $3.50. Irve Wright, Clifton, Kansas.

WHITE WYANDOTTE EGGS FROM high scoring birds at $2 per fifteen (Martin strain). Frank Henderson, Solomon, Kan.

CHOICE WHITE WYANDOTTE COCKERels from winning laying strain; also eggs. Andrew Kosar, Delphos, Kansas.

WHITE WYANDOTTE EGGS, $1.25 PER fifteen, $6 per hundred, from good laying strain. Chilcott's Poultry Farm, Mankato, Kansas.

FIFTEEN CHOICE SILVER WYANdotte cockerels, $3 each; six for $15. Fifteen eggs, $1.25; fifty, $3.50; hundred, $6. Mrs. Philip Schuppert, Arrington, Kansas.

PURE-BRED PARTRIDGE WYANDOTTE cockerels, Doolittle-Wolverine strain (extra fine), $3; hatching eggs, $2.50 for twenty-four. R. F. Ayres, 711 West Alton Ave., Independence, Mo.

EGGS—WHITE WYANDOTTES LAYING strain. Utility, $1.25 fifteen; $3.50 fifty; $6 hundred. Pen headed by $15 cockerel direct from Keeler, $2 fifteen. M. M. Weaver, Newton, Kansas.

POULTRY WANTED.

EGG CASES, CHICKEN COOPS LOANED free. Prices published in the Topeka Daily Capital paid by "The Copes," Topeka.

ANCONAS.

ANCONA EGGS CHEAP, BOTH COMBS, from extra good stock. G. D. Willems, Inman, Kansas.

DUCKS AND GEESE.

FAWN AND WHITE INDIAN RUNNER ducks. Eggs for hatching. Good layers. Fifteen, $1.50; forty-five, $4. H. Clay Shirky, Norborne, Missouri.

MINORCAS.

SINGLE COMB BLACK MINORCAS, BIG white eggs, $1.50 per setting. H. H. Hadel, Hillsboro, Kansas.

DUROC JERSEYS.

TAYLOR'S DUROCS

For Sale—A few choice herd boars, extra good. All sired by state fair champion boars. A lot of spring and fall yearling gilts and a few tried brood sows bred for March and April litters. Priced to sell quick. Come and see me.

Chas. L. Taylor - Olean, Mo.

DUROC BOARS

Thirty-five spring boars by G. M.'s Crimson Wonder, Crimson Wonder Again Jr., Critic D. and Great Wonder, out of my best herd sows. Priced to sell. Come and see my herd.

G. M. Shepherd, Lyons, Kansas

Guaranteed Duroc Gilts

Immune, recorded Duroc gilts with size, bone and length. Guaranteed to farrow. Shipped to you before you pay for them.

F. C. CROCKER, BOX K, FILLEY, NEB.

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on fall boars and gilts, from Crimson Wonder, Golden Model, Illustrator, Defender breeding.

JOHN A. REED & SONS, LYONS, KANSAS

HAGUE'S DUROCS

Fifteen choice fall boars and gilts for sale, sired by Kansas Pathfinder by Pathfinder. All immune. **K. Hague. R. 6, Newton, Kan.**

GALLOWAY CATTLE.

GOOD GALLOWAY BULLS

Twenty-five Extra Good Yearlings

Extra breeding and quality. Priced to sell.

J. M. HILL, SEDGWICK, KANSAS
Route 4, Box 65A

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

GUERNSEY CATTLE.

GUERNSEY BULLS.

Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to twelve months old. **ADAMS FARM, Gashland, Mo.,** 12 miles from K. C.

GUERNSEY BULLS

Three registered Guernsey bulls, 9 to 11 months old, tuberculin tested recently; best of breeding. Cows are good producers. For further information inquire of

FRED WILLE - COLUMBUS, NEBRASKA

GUERNSEY BULLS

For Sale—Two registered Guernsey bulls, one year old. Well bred and of good size.

L. W. GOSS - MANHATTAN, KANSAS

Breeders' Directory

ANGUS CATTLE.
D. J. White, Clements, Kan.
George McAdam, Holton, Kansas.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.

RED POLLED CATTLE.

RED POLLED BULLS

For Sale—Thirty head coming yearling bulls. Come early and get the best. Our experience has been those that come late found us sold out. Write or come at once.

E. E. FRIZELL

FRIZELL, (Pawnee County), KANSAS

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.

CHAS. L. JARBOE - QUINTER, KANSAS

Edgewood Farm, Whitewater, Wisconsin, is one of the great dalry stock farms in that state. Orrie Coburn, manager, reports a good demand for pure-bred and high-grade Holsteins. Recent shipments of Holsteins from this farm were to buyers in Alabama, Louisiana, North Carolina, Texas, Utah and Colorado.

C. F. Blake, Glasco, Kansas, owner of Idylwild Stock Farm and one of the heavy producing richly bred Jersey herds in the Southwest, reports his herd making a good record. This is one of the herds that is backed by record breeding and a feature of the herd at this time is the choice lot of young stock backed by production records that insure profitable Jerseys.

John D. Ziller, of Hiawatha, Kansas, a well known grower of seed corn, is also owner of one of the high class herds of Poland China hogs in Kansas. Mr. Ziller has been breeding Polands for thirty years and has built up a herd of the big early-maturing easy-feeding type. A feature of his herd at this time is the choice lot of young stock sired by some of the good sires of the breed and out of the choice big-type sows in his herd.

HOLSTEIN CATTLE. HOLSTEIN CATTLE.



IOWA HOLSTEIN BREEDER'S ASSOCIATION SALE

At the State Fair Grounds

Des Moines, Iowa

MARCH 27 and 28

140 HOLSTEINS OF VERY BEST QUALITY 140
HEAD Sons and Daughters of World's Record HEAD

SIRES

A. R. O. Cows up to 29 pounds, and two-year-olds up to 22 pounds. Daughters of cows with records up to 29 pounds and 776 pounds a year.

Daughters of Sir Johanna Fayne, Homestead Jr. De Kol, Prince Segis Korndyke, Johanna McKinley Segis and King Piet. Ormsby Piebe, etc.

Sons of Sir Ormsby Skylark, the $10,000 King Korndyke Pontiac Lass, Oak De Kol Ollie Homestead, King Segis Pontiac, and of the youngest cow in the world to produce 700 pounds butter a year.

Every Animal is Guaranteed a Breeder.

S. T. WOOD R. E. HAEGER
B. V. KELLEY
Catalogs ready now. Send for one to

Everything Over Six Months Tuberculin Tested.

IOWA HOLSTEIN BREEDERS' ASSN., F. C. BARNEY, SECY., CHAPIN, IOWA

50 - Registered Holsteins at Auction - 50

TUESDAY MARCH 19, 1918

Included in the sale are 30 cows and heifers of milking age, 10 yearling heifers, 7 open heifers and heifer calves, 3 yearling bulls

All females to be sold bred by Sir Johanna DeKol 19th 64143, weight 2,500 pounds, who has six producing sons and eleven A. R. O. daughters.

Cedar Lawn Wit, 3½ years 28.63
Johanna Elmer Rue, 3½ years 27.15
Netherland Johanna De Kol 6th, 5½ years.....24.93

He is a half brother to the $7,000 cow, Johanna De Kol Van Beers, 40.07 pounds, whose two sons sold for $4,500. Here is an opportunity to buy cattle that are bred right and individually right. Sale starts at 1 p. m. sharp.

STANDARD DAIRY CO., WALNUT GROVE, WICHITA, KAN.

One Mile North of City. Auctioneers, Newcom and Temple

Some of Dr. Axtell's Consignments to the Kansas Breeders' Association Sale, Topeka Fair Grounds, March 26

PUSSY WILLOW OF RUSSELL FARM, a fine, large cow. A. R. O. 26.79. Heavy with calf, or fresh. "The best cow ever offered at public auction in Kansas."
NORTH STAR CHAMPION LAD, a fine 30-pound bull calf, 10 months old. Wonderful individual, large, straight as a line, and just what you would like to head your herd.
BELLEMORE LADY HENGERVELD, a beautiful A. R. O. cow, heavy with calf.

Dr. J. T. Axtell - - - - - - Newton, Kansas

CLYDE GIROD, At the Farm F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young hulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a hull and improve your herd.

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

Tuberculosis -- No!

WE GUARANTEE a retest on any stock you buy from us SIXTY DAYS after date of sale.

Before buying write us about our extensive herd of absolutely first-class Holsteins and Guernseys. Anything you want. Carloads or lots. Nearly pure-bred calves from famous bulls and good cows, $20 to $25.

EDGEWATER STOCK FARM
Fort Atkinson, Wis.

Holstein Calves

We offer for sale choice beautifully marked heifer or male calves, 15-16ths pure-hred, and all from extra large heavy-milking dams, as follows, crated, f. o. b. cars: One to two weeks old, $17 each; three to five weeks old, $20 each; six to eight weeks old, $25 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

BRAEBURN HOLSTEINS—Senlor herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.
H. B. COWLES, 608 Kan. Av., Topeka, Kan.

REGISTERED HOLSTEIN BULLS

From A. R. O. cows. All our own breeding. Bred for milk and fat production.

LILAC DAIRY FARM
R. F. D. 2 Topeka, Kansas

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.
J. P. MAST - - SCRANTON, KANSAS

Watch for Our Consignment in Kansas Holstein Breeders' Sale at Topeka, March 26.
Segrist & Stephenson, Holton, Kansas.

CEDARLANE HOLSTEIN HERD

Four-year-old grandson of Pontiac Korndyke. Guaranteed sound and a sure breeder. Average record dam and sire's dam, 29.4 pounds in seven days. Special price on bull calves from above bull. Also several good cows. **T. M. Ewing, Independence, Kansas.**

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, heautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.
FERNWOOD FARM, Wauwatosa, Wisconsin

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. **Clover Valley Holstein Farm, Whitewater, Wisconsin.**

HOLSTEIN COWS

For Sale—High grade Holsteln cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.
GEO. F. DERBY, CAMERON, MISSOURI

HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment.
Edgewood Farms, Whitewater, Wisconsin.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Heilo No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.
W. E. BENTLEY, MANHATTAN, KANSAS

CASTILLO'S HOLSTEINS

Aaggie Walker Longfield 2d, 341211, for $200. Dam's 7 day A.R.O., 15.38 pounds butter; 90-day County Testing Ass'n record, 5,316 pounds milk, 242 pounds butter. We offer her sire, Sire Jessie Tritonia Tilly son, cousin to Tilly Alcartra, at $125.
CASTILLO & SON, INDEPENDENCE, KAN.

HINEMAN & SONS JACK SALE

World's Champion Blood at Auction

Tuesday, March 26th



Twenty Jacks and Thirty Jennets — the Rugged, Heavy-Boned Kind

A number of the jacks are by KANSAS CHIEF 9194, our world's grand champion jack at San Francisco, Cal., 1915; and by PHARAOH 5861, champion at the Tennessee State Fair, 1910, and champion in Kansas in 1913.

All jennets bred to Kansas Chief.
A number of jennets with Kansas Chief colts by their sides.
Pharaoh jennets carrying Kansas Chief colts.

We can truthfully say that this is the best lot of jacks and jennets we have ever offered for sale, and we think them as good an offering as will be sold this year.

Why go East to buy a jack when you can buy the best of blood a home from a firm that is reliable?

THERE WILL ALSO BE INCLUDED THREE YOUNG PERCHERON STALLIONS.

Our drayman here will haul any animal sold, by truck, a reasonable distance for the same as freight rates.

Sale will be held on the farm, three and one-half miles south and one mile east of Dighton, Kansas, in new sale pavilion, regardless of weather.

Come early and look them over.

Write for fine, illustrated catalog.

H. T. HINEMAN & SONS - DIGHTON, KANSAS

AUCTIONEERS

Col. F. M. Holtsinger, Moberly, Missouri
Col. Floyd Yocum, St. John, Kansas
Col. John D. Snyder, Hutchinson, Kansas
Col. Wiley Clouston, Ness City, Kansas

The ROSS & VINCENT Poland China Sale

That Will Be Held in New Sale Pavilion on the Farm Adjoining

STERLING, KANSAS

Wednesday, April 3

Will be found to include Polands of exceptional merit only. Great care has been used in the selection of the animals for sale and you'll be pleased with the fine lot that you can choose from.

Blood lines that are of the best predominate. All immune.

TRIED SOWS, YEARLINGS AND SPRING GILTS

50 Head

Sired by
Improved King Jr., Mammoth Orange, Big Type Jr., Douglas Jr., Receiver's Wonder, and Big Logan.

Out of Dams by
Big Jim, Improved King Jr., Shattuck's Lad, Cowles' Orange, Black Joe, and others of note.

50 Head

Fifteen Tried Sows, Several with Litters. Fifteen Bred Gilts. Twenty Fall Gilts. Five Boars.

Bred to

MODEL WONDER, one of Big Bob Wonder's best sons; Big Mint, by Joe Young's noted sire, The Mint, and Douglas Ex.

When writing for catalog please mention Kansas Farmer.
Send mail bids to O. W. Devine, Fieldman, in care of the undersigned.

ROSS & VINCENT, Sterling, Kansas

Cols. J. C. Price and Fred Groff, Auctioneers

The Sunflower Herd

HOLSTEINS

Will Be Dispersed at Fair Grounds Cattle Pavilion

TOPEKA, KAN., WED., MARCH 27th

I have sold my farm and immediate possession must be given, and must sell my herd of

HOLSTEIN CATTLE.—Twelve daughters of Model Segis Butter Boy 115602, a grandson of King Segis and from the three times thirty-pound cow, Annie DeKol Butter Girl. These heifers are a mighty fine bunch and have calves by side by the great young sire, King Pontiac Concordia Konigen 130856, whose sire, King Pontiac Konigen 75348, recently sold for $10,000, and whose daughter, Lady Netherland Pontiac, recently has broken the world's records as a junior four-year-old with over forty-three pounds butter in seven days. King Pontiac Concordia Konigen has for dam the 31.46-pound cow, Nellie Concordia De Kol.

A. R. O. COWS OF SPLENDID BREEDING AND GREAT INDIVIDUALS.

Thirty-Three Head Now Milking, Heifer Calves and a Few Choice Young Bulls.

WE HAVE ALWAYS USED GOOD HERD SIRES. Every animal in this dispersion will have been bred to either King Segis Pontiac Maia (a son of King Pontiac from a twenty-pound two-year-old daughter of King of the Pontiacs, his weight 2,300 pounds), or Sunflower King Walker 134166, a splendid grandson of King Walker from a 25-pound cow of great quality, his weight 2,000 pounds at four years.

SUNFLOWER KING WALKER will be sold. Arrange to attend this sale and see the finest lot of cattle ever sold by Sunflower Herd, and our many customers know that we have sold some mighty good ones. Send for catalog to

F. J. SEARLE, - Oskaloosa, Kansas

(Mention Kansas Farmer.)

NOTE.—Remember that my sale follows the Kansas Breeders' Sale; also remember that we are consigning granddaughters of King of the Pontiacs, King Segis Pontiac, Pontiac Jewel Butter Boy and King Pontiac Champion to the Breeders' Sale. A consignment of choice cattle from the herd of W. H. Mott, Secretary Holstein-Fresian Association of Kansas, will be included in the Sunflower Dispersion.

AYRSHIRE CATTLE.



Don't "Keep Cows"—
Let your cows keep you

Anyone who has really investigated will tell you that the Dairy Cow for PROFIT is—

The Ayrshire

Milk is STANDARD—96.4% grade—and lots of it. Passes all State and City requirements.
Don't start a herd or buy a bull till you have AT LEAST written us for information regarding this Hardy, Vigorous, Prolific, Productive, Profitable breed.

AYRSHIRE BREEDERS' ASSOCIATION
C.M. Winslow, Sec'y. 33 Park St., Brandon, Vt.

HORSES AND MULES.



PERCHERONS AND BELGIANS

IMPORTED AND HOME-BRED PERCHERONS AND BELGIANS.
I have a good lot of horses to select from at very reasonable prices. I give a gilt edge guarantee of 60 per cent, good for two years.

Barns Four Blocks from Santa Fe Depot.

W. H. RICHARDS - EMPORIA, KANSAS

EWING BROS.' PERCHERON HORSES, SHORTHORN CATTLE, SHETLAND PONIES AND POLAND CHINA HOGS

FIFTY MARES—Weanlings to mature mares, weighing a ton or more, in foal. Herd headed by Imp. Meknes (106084) 106640, weighing 2,200 pounds.
SEVERAL MATCHED TEAMS—Fifteen head of stallions, from weanlings to six years old. The best lot of two-year-olds we have ever had. The kind to mature into ton horses or better—grays and blacks.
SHORTHORN CATTLE—A few cows for sale. Ten young bulls out of pure Scotch sire ready for service. Herd headed by Village Knight No. 398231 weighing 2,250 pounds and Choice Echo 393419, weighing 2,300 pounds, for sale.
SHETLAND PONIES at very low prices if taken soon—weanlings to broken fillies.
Phone to Ewing Bros., 903A5 or 903A12, Great Bend, or write us at R. F. D. No. 1, Pawnee Rock, Kansas.

EWING BROTHERS.

POLLED DURHAM CATTLE.

Shorthorns and Polled Durhams

In Big Four Day Sale

So. Omaha, Neb., March 26, 27, 28, 29

150 Shorthorns, 80 bulls and 70 cows and heifers sell on the first two days.
100 Double Standard Polled Durhams, 40 bulls and 0 females sell on the last two days.
50 Calves go free with dams in the four days. Car lot buyers will find this event attractive.
Write for illustrated catalog of the sale that you are interested in to

H. C. McKELVIE, SALE MANAGER
LINCOLN, NEBRASKA

WILD WOOD STOCK FARM
POLLED DURHAM CATTLE
For Sale—Ten bulls of serviceable age, sired by Roan Acacia 9021. Dam, Golden Acacia by Acacia Victor, a double standard bull from D. C. Van Nice herd. Write at once. These bulls will sell.
T. M. ETHERINGTON, Hamilton, Kansas

SHORTHORN CATTLE.

550 Shorthorns sold at auction in 1917 for **$1,000 or more per head.** Only 26 exceeded $2,500 and but three passed the $5,000 mark. It is the uniformity of prices that indicates the stability of the trade.
The Shorthorn is the breed for you.
Address Department W

American Shorthorn Breeders' Association
13 Dexter Park Ave. CHICAGO, ILL.

PARKER'S SHORTHORNS

Bulls for Western Kansas. Growthy, thick-made kind, eight to eighteen months old. Two with quality and breeding to head pure-bred herds. One out of an extra heavy milking dam.

Wm. B. Parker
Lakin, Kearney County - - Kansas

MARKS' LODGE

Home of Shorthorn Cattle. Reds Exclusively.
A few choice young bulls for sale, from my best milking cows. All registered. Come and see me.
DR. M. F. MARKS, VALLEY FALLS, KAN.

SCOTCH SHORTHORNS

Twelve Choice Bulls, reds and roans, from seven to fifteen months old, sired by such bulls as Pioneer, Excelsior and Mistletoe King. Priced reasonable.
C. A. COWAN & SON, ATHOL, KANSAS.

Pearl Herd Shorthorns

Village Heir by Imported Villager and Orange Lovel by Victor Orange in service.
FOR SALE—Young bulls from 8 to 12 months old, reds, whites and roans. Scotch and Scotch topped. Inspection invited. Can ship on Rock Island, Union Pacific or Santa Fe Railway.

C. W. Taylor, Abilene, Kansas

SCOTCH SHORTHORNS

Bettle's Albion 399451 now for sale. Roan, weight 2,000 pounds if fat. Strong breeder. Also six bulls from 6 to 24 months old, reds, whites and roans. Write
C. E. HILL - - TORONTO, KANSAS

TWO BULLS FOR SALE
One roan Shorthorn 11 months old, one red Double Standard Polled Durham, 12 months old. **E. E. FISHER, Stockton, Kansas.**

JACKS AND JENNETS



15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.

PHIL WALKER
Moline, Elk County, Kansas

Malone Bros.,
Jacks and Percherons

We have 2 barns full of extra good jacks ranging in age from weanlings to 6 yrs. old, all over 2 yrs., well broke to serve. Several fine herd headers among them. Also jennets in foal to homebred and imported jacks. A few imported Percheron stallions royally bred. We can deal. Write or call on
J. P. & M. H. MALONE, CHASE, KAN.

Belgian Stallions

Registered Belgian Studs for Sale—Two 2-year-old Belgian stud colts, one 4-year-old Belgian stud. All ready for service.

W. J. Fitzgerald - Owner
DODGE CITY, KANSAS



PERCHERONS AND JACKS
FOR SALE—Four jacks, two coming three-year-olds, one four-year-old and one ten-year-old. All good size, sound and guaranteed. Will price a few good jennets. Also have five Percheron stallions and a few good mares, priced right. Come and see me.
M. G. BIGHAM & SON, OZAWKIE, KAN.
7 miles from Meriden, Kan. 10 miles from Perry, Kan. 20 miles northeast Topeka.



Percherons, Belgians, Shires
2, 3, 4 and 5-year stallions, ton and heavier; also yearlings. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.
Fred Chandler, R.7, Charlton, Ia.
Above Kansas City.

Choice Young Belgians, English Shires, Percherons, also Coach stallions, also mares. Many first prizes. Long time 6% notes.
Illinois Horse Co., Good Blk., Des Moines, Ia.

40 Percheron Stallions and mares, weanlings up. 20 Mammoth jacks, 10 jennets in foal. Priced reasonable. **Al E. Smith Lawrence, Kansas.**

JACK BARGAINS

The war makes me sell, your terms, your price, two colt jacks, three 3-year-olds, three 5-year-old jacks, 10 jennets under 10 years old. All big, black, white points.

E. E. LAUGHLIN - FOSTER, MISSOURI

Twenty-three jacks, 2's, 3's and 4's; our own raising, from $150 to $500. Young Percheron studs and mares. Reasonable. Sale or trade. Time or cash.

OAKLAND STOCK FARM
BOX 207 CHILLICOTHE, MISSOURI

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS
Best breeding, best type. Stock for sale.
GEO. W. ELA, Valley Falls, Kansas

MULEFOOT HOGS.

KNOX KNOLL STOCK FARM

Now taking orders for spring pigs, $20 each at weaning time. Thrifty pigs from big litters. A few fall boars and gilts. All stock registered free. For prices and catalog address **S. M. KNOX, Humboldt, Kansas.**

POLAND CHINAS.

DEMING RANCH QUALITY

BIG-TYPE POLAND CHINA HOGS
Breeding stock for sale at all times. All immuned. Come and inspect our herd or write us your wants.

H. O. Sheldon, Herd Manager
OSWEGO, KANSAS.

OLD ORIGINAL SPOTTED POLANDS

Stock of all ages, also bred gilts and tried sows, bred, ready to ship. Priced right. Write your wants to
CEDAR ROW STOCK FARM
A. S. Alexander, Prop. Burlington, Kansas

Pliley's Spotted Polands
All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
J. EDW. PLILEY - GILMAN CITY, MO.

WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

PURE-BRED POLAND SOWS AND GILTS
For Sale, above, bred to Gerstdale Jones Again and other extra good boars. All immune.
UPDEGRAFF & SON, TOPEKA, KANSAS

GRAND VIEW POLANDS
Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.
ANDREW KOSAR - DELPHOS, KANSAS

Langford's Spotted Polands. Last call for fall boars. Yours for Spotted Polands.
T. T. Langford & Sons, Jamesport, Missouri

Ziller's Big-Type Poland Chinas
Thirty Years a Breeder.
Choicest breeding boars and gilts ready for service. Catalog free.
John D. Ziller, Hiawatha, Kan.

REDFIELD'S SPOTTED POLANDS
Fall boars, large enough for spring service.
Chas. H. Redfield, Bucklin, Kansas.

TOWNVIEW HERD
Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene, Peabody, Kan.**

MATTOX'S SPOTTED POLANDS—Bred sows, serviceable boars, baby pigs, for quick sale. H. A. or Paul H. Mattox, Route 2, Burlington, Kansas.

POLAND CHINA HOGS 150 HEAD IN HERD
Breeding stock for sale. Immune. Satisfaction guaranteed. Come and see me.
V. O. JOHNSON - AULNE, KANSAS

JERSEY CATTLE.

B. C. SETTLES

MAKES A SPECIALTY OF MANAGING JERSEY SALES.
Write for catalogs.
Palmyra - - Missouri

Longview Jerseys

(Register of Merit Herd)
Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.

Longview Farm
LEE'S SUMMIT - - MISSOURI

120 Jersey Cows and Heifers

Pure-bred and high-grade. Forty bred yearlings, superior individuals, all from profitable dams, now for sale.
J. W. BERRY & SON
Jewell City - - - Kansas

BROOKSIDE JERSEYS
Registered Jersey Bulls, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.
THOS. D. MARSHALL, SYLVIA, KANSAS

REGISTERED JERSEY BULLS
Butter-Bred, from High-Producing Cows.
Photo furnished.
MAXWELL'S JERSEY DAIRY
Route 2 Topeka, Kansas

FINE YOUNG JERSEY BULLS
From Register of Merit and tested cows; Register of Merit sire.
Dornwood Farm, Topeka, Kan.

J. B. PORTER & SON
MAYETTA, KANSAS
Breeders of High-class Jerseys. Stock for sale at all times.
Write Us Your Wants.

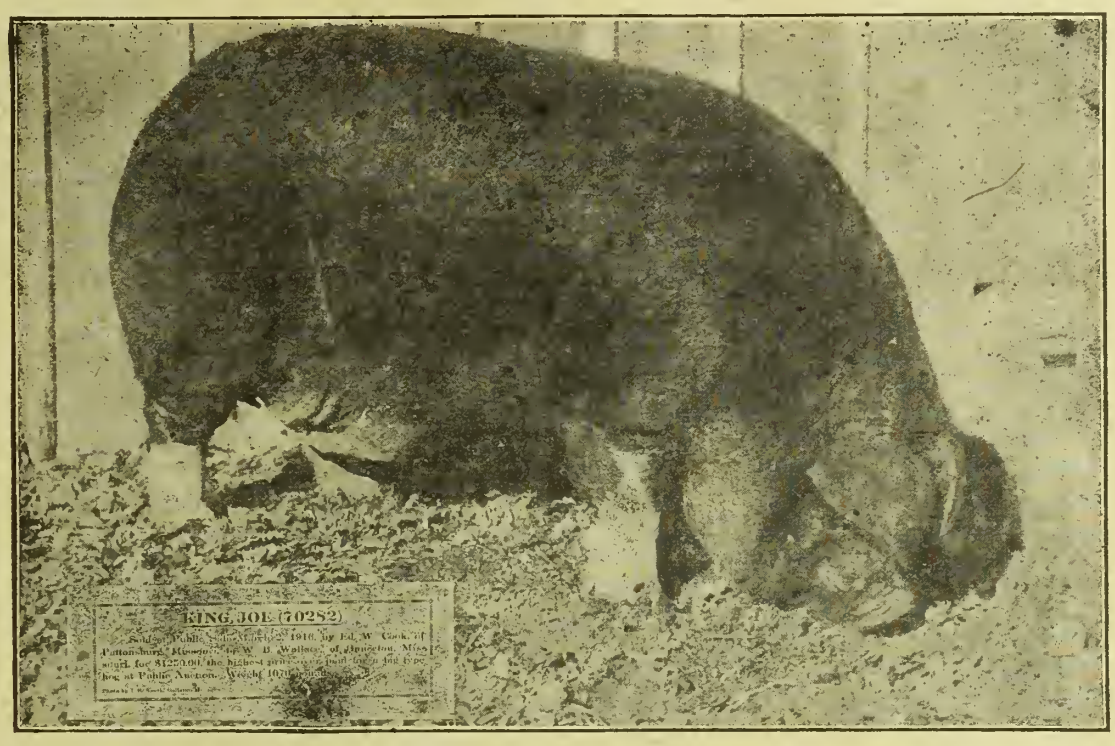
Allen Center Stock Farm
Registered bull calves—some ready for service. Sale or exchange for bull or heifers.
TREDWAY & SON, LA HARPE, KANSAS

IDYLWILD STOCK FARM
Place your order for a Sophie Tormentor, Jacoba Irene, spring bull calf to increase your production.
C. F. Blake - Glasco, Kansas

When Writing to Advertisers, Please Mention Kansas Farmer

Wallace's Famous Herd
In Big Dispersion Sale

OVER 200 HEAD WILL SELL. NOTHING FROM THE FAMOUS ELLERSLIE STOCK FARM HERD IS RESERVED.
This is the biggest event of the year. It is the greatest opportunity that you will have to secure *real* bargains.



Two World-Renowned Boars, King Joe and Wonder Buster, Go in This Sale

BUNCETON, MO., MONDAY, MARCH 25th

The farmer and breeder who is desirous of adding to his herd at reasonable cost should not fail to take advantage of this remarkable dispersion.

Herd Boars, Bred Sows, Open Gilts, Summer Boars, Fall Boars and Gilts will be found in rich profusion, and anyone interested in the Poland China breed will find opportunity to SELECT just what is most wanted from a great number of highly desirable animals. Remember that when so many head sell in one day, a great number of real bargains will be sold.

The Wallace herd is one of the largest and best in the country. W. B. Wallace, the owner, has joined the Aviation Corps of the United States Army and is thus subject to call at any time. Hence the entire herd must be sold. This is the very herd that, by actual production, has enabled the saying, "More Size, More Quality, More Hog Than Ever," to spring into existence, and is the result of untiring efforts on the owner's part in regard to both selection of material and care of the herd. The strictest attention has always been paid to securing the best of blood lines—so you can see what this sale holds in store for you.

Be sure to get the catalog of this important event, and mention Kansas Farmer when writing.

W. B. WALLACE, Bunceton, Mo.

AUCTIONEERS—Col. Jas. F. Delaney, Col. H. S. Duncan, Col. R. L. Harriman

20---JACKS---20



FINLEY'S BIG JACK SALE

HIGGINSVILLE, MISSOURI MARCH 28th

All of serviceable age, including a number of herd jacks such as DR. LOGAN by Gen. Logan by Dr. Wood; an extra good four-year-old by Dr. Long; Choice McChord by Dr. McChord; a good four-year-old by Dr. Leo 2d; one extra good young jack by Choice McChord, and a lot of first-class mule jacks. Will also sell a good yearling by Dr. Nelson, the jack that sold in my last year's sale at $1,200; one jack colt by Choice McChord and one by Dr. McChord 3d. Also four good saddle horses three and four years old.

THIRTY JENNETS BRED TO DR. WOOD

If you are looking for herd jacks or the jacks that sire those good mules, you will find them in this sale. Write for my big catalog.

W. J. FINLEY, - - - HIGGINSVILLE, MISSOURI

Kansas Breeders' Consignment Sale of 100 Head of Registered Holstein-Friesian Cattle, Consigned by 20 of the Leading Breeders of the State at

The Fair Ground Sale Pavilion

TOPEKA, KANSAS, on MARCH 26th, 1918



Don't miss this Sale, Mark on the date on your calendar now, and write at once for a catalog to W. H. Mott, Herington, Ks.



The sales management has had much difficulty in persuading the breeders to consign the class of cattle that will be offered in this sale, because they are the kind that every enterprising breeder wants to keep, but in order to make this the greatest event and sale ever held in Kansas, they are making a sacrifice and are offering you the opportunity to purchase the very cream of their herds. Every animal in this sale is tuberculin tested and without a blemish and positively guaranteed by the consignors, all of whom are members of the Kansas Holstein-Friesian Association and known by the sales committee to be men of integrity.

Resolve now to attend this sale of all Kansas sales, where you may buy a foundation herd and procure cattle of such outstanding breeding and individuality that will make you proud every day that you own them, and that will return dividends, not like your bank stock, annually or semi-annually, but each day, for the 365 days in the year.

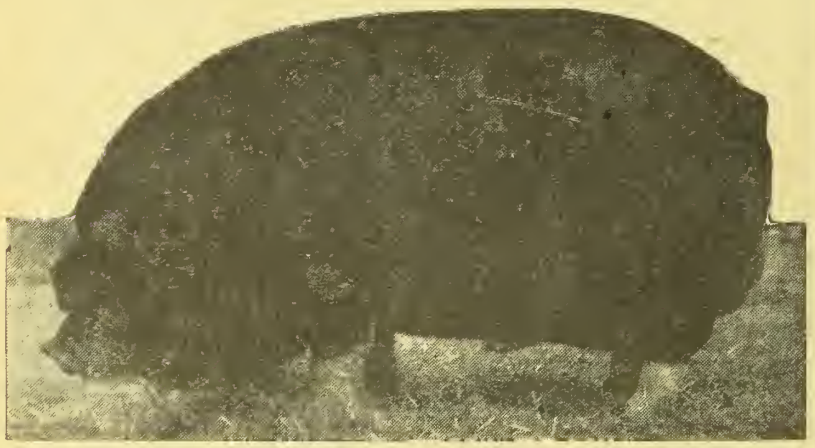
Mr. F. J. Searles, proprietor of Sunflower Herd, Oskaloosa, Kansas, finds himself without a home, having sold his farm February 16, and he must give his possession March 1. This means the complete dispersal of his excellent herd of registered Holsteins, consisting of 75 head of cows and heifers of the most fashionable breeding and superb individuality. On March 27, following the Kansas Breeders' Sale, at the Fair Grounds barn, this entire herd will be dispersed. The cattle will be in the Fair Grounds barns and can be seen prior to the sale. For catalogs of this sale, write at once to F. J. SEARLES, OSKALOOSA, KANSAS.

Auctioneers—B. F. Kelly, Syracuse, N. Y.; J. E. Mack, Fort Atkinson, Wis.; J. T. McColloch, Clay Center, Kan. Boyd Newcom, Wichita, Kan.; C. M. Crews, Topeka, Kan.

WE WOULD LIKE TO KNOW WHERE YOU SAW OUR ADVERTISING.

Poland China Bred Sow Sale

HUTCHINSON, KANSAS
APRIL 4, 1918



BIG HADLEY JR.

In this sale fifty head will be sold, including ten tried sows and yearlings and forty of the classiest spring gilts that ever passed through a sale ring. These will be bred along the same lines as the first sale offering that averaged $208.30. The offering will be bred to the massive A Big Wonder, the champion Big Hadley Jr., Long Bob, and Col. Bob Wonder, a classy young son of Big Bob Wonder out of the great breeding sow, May Queen by Moore's Halvor.

Forty Top Spring Gilts
Ten Tried Sows and
Fall Yearlings

50 Head ALL Immune

SOWS AND GILTS
Bred along same lines as our ribbon winners

BIG HADLEY JR., the greatest Hadley-bred boar of the breed.
A BIG WONDER, the 1,250-pound son of King of Wonders.
LONG BOB by Big Bob 2d, junior champion Kansas State Fair.

A useful lot for farmers and breeders to make them plenty of money. Send today for catalog. Please mention Kansas Farmer.

O. W. Devine will represent Kansas Farmer at sale.

A. J. ERHART & SONS, Ness City, Kan.

Auctioneers—Col. J. C. Price, Col. J. D. Snyder.

H. B. Walter & Son

Poland China Sale

Effingham, Kansas
Monday, April 1st

The Offering Will Be Bred to

BIG BOB WONDER

The Renowned Sire, and

AND

WALTER'S JUMBO TIMM

The Sensational Yearling

40——HEAD——40

Be guided by the satisfactory experience of others who have purchased from this great herd in times past. The high quality of the Polands that will be found in this sale can readily be seen from the splendid average that the former sale commanded.

Blood lines that are of the best are represented. You will find among the forty head listed, bred sows and gilts that will be worthy additions to any herd.

ALL ARE IMMUNE

When writing for catalog please mention Kansas Farmer.
Send mail bids to O. W. Devine, Fieldman, in my care.

H. B. WALTER & SON, Effingham, Kansas

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 12. TOPEKA, KANSAS, MARCH 23, 1918. Established 1863. $1 a Year

INVESTMENT IN ROAD BUILDING

Bad-Roads-Tax Equivalent to Ten Days' Work Each Year

By ANTON S. ROSING

THE American farmer's misfortune to be separated from town by bad roads is costing him the equivalent of ten days' work every crop-hauling season. Not ten days of leisure within the comforts of his parlor, or of relaxation and recreation in the company of congenial friends, but ten days of hard and strenuous farm work, without interruption except for meals, from before sun-up until long after the cows come home.

This represents bis annual loss on account of being prevented by bad roads from getting his crops to market when the prices are right. For speed and immediate action are required if you are following the market and have somcthing to sell. Tbe market's price quotations are for the moment only and, like death and taxes, wait for no man's convenience. If this morning's reports show that wbeat is selling for a few cents per bushel more than yesterday and you get your wheat on the road to market today, you will have an opportunity to make an extra and bandsome profit out of your day's work. Tomorrow may be too late and tbe extra profit lost. This has been the experiencc, often repeated, of many American farmers. There was an opportunity to dispose of the crops at increased prices but the bad condition of the roads prevented the movement of the crops until the prices had again declined. What tbis loss amounts to from year to year has been determined by the U. S. Department of Agriculture, which is keeping a careful tab on crop movements and market prices.

This is a heavy tax to have to pay for bad roads. The American citizen is accustomed to insist on getting something for his money. If he is induced to pay more for an articlc, then it is because he has found a greater value for his money tban he got before. But what do we get for this bad-roads tax? We get higher cost of living, farm inefficiency, loss of market opportunities, periodical isolation. Is it wortb the price?

On the other hand, what do good roads cost in comparison? Where the cost of permanent road improvements is paid for out of the sale of bonds running over a period of years, the annual cost to the farmer for sinking fund, interest and maintenance is relatively insignificant. Twenty years is a common life for bonds of this character, and it has been found that the total cost to the owner of the average-sized farm for all the charges mentioned, distributed over this period, is the equivalent of about three days' work per year. If the road improvement is of a permanent naturc, then it is completely paid for at the end of the twenty-year period and thereafter will require only a small outlay for what little maintenance may be needed. A particular instance is in mind of an Illinois county which has installed a system of concrete roads at an average cost to the farmers of the equivalent of two and a half days' work per year during the twenty-year period.

The bad-roads tax is the equivalent of ten days' work, the good-roads tax is three days' work. So there is actually a profit on this good-roads investment. A clear saving every year for twenty years of the equivalent of seven full days' work. And thereafter the road is clear and all profit.

The only difference between the good-roads tax and the bad-roads tax is that the former is a definite amount paid out of your cash funds every year while the latter is sometimes intangible, being hidden in profits that you could have had but didn't get. But it is a none the less certain and real loss to every farmer situated on bad roads. Occasionally he will escape it, but his average annual loss is the amount above stated, as ascertained by careful investigation.

If you want to know what this tax is likely to be in dollars and cents, figure your total earnings, in crops and animals, for a year, and divide this by the number of working days in a year. That will be the value of one working day. It varies somewhat, of course, with the locality and the size of the farm.

But the worst part of bad roads is the loss they cause in other departments of your life—losses that are real, but which will never be figured in dollars and cents. Bad roads in front of your gate are responsible for bad methods behind your barn. No one can walk well with a thorn in his sboe, nor can anyone be an efficient worker in any line of work when conscious of a certain and constant wastage of effort in any direction. A loose connection in any part will rattle the entire machine and make it ineffective and inefficient. And so bad roads breed inefficiency throughout the farm, from the barnyard to the farthest pasture gate.

A farm to be efficient and capable of the greatest possible production and the largest possible profit must have good roads, good equipment, good buildings. If the attainment of any of these must be delayed, let it not be in the first two. For a good road is a more necessary part of the farm than a barn or other structure. Temporary makeshifts in farm buildings do not affect the efficiency of the farm work like a bad road does. They do not entail a constant loss of effort and profit like a bad road does. Nor do they so effectively retard the farmer's ultimate success like a bad road does.

Productive efficiency is tbe measure of a man's work, and the effect of roads on this in a farmer's life can not be overestimated. But social efficiency is the measure of a man's life, and in tbis the effect of roads is no less than in the former. Good roads permit of social intercourse in the largest measure at all times. Bad roads, on the other hand, prohibit social intercourse at those times when it is most needed—during periods of enforced suspension of farm activities. The farmer's family should at all times maintain the closest social contact with its neighbors in all directions. And a serious loss is sustained when this contact is broken by constant or intermittent bad road conditions.

From a business standpoint, from the standpoint of profits and bank accounts no farmer can afford to do without good, permanent roads. He is justified in spending time, money and energy to secure such co-operation in the community as will result in action leading to the building of permanent roads. From the standpoint of the general welfare of every member of his family he is justified in going the limit to secure for them these great arteries of social intercourse, education and progress.





TWO METHODS OF PAYINO ROAD TAX

Increasing Use of Mutton

The removal of tbe ban on mutton as a meat for meatless days will undoubtedly result in causing many people to eat mutton wbo have not been in the habit of doing so. Americans are not mutton eaters, although the consumption of mutton has been gradually increasing during recent years. Mutton is an ideal meat food and if this order results in causing more people to acquire a taste for lamb and mutton the sheep industry will receive a boost in the years to come. On many a farm a few sheep could be profitably used in turning into meat considerable material now absolutely wasted.

We have observed that in the restaurants and botels lamb and mutton is on the bill of fare on the meatless days each week. This is almost certain to result in many people finding that their prejudice against this meat can easily be overcome. They will eventually acquire a taste for this palatable and nutritious food which is foreed to their attention on meatless days when beef and pork are tabooed. As the order now stands, mutton can be eaten, at least until April 15, anywhere and at any time with tbe sanction of our Food Administration.

This should bc a hint to those who might get into the game of growing some sheep and thus be in position to help supply the demand for this meat, which is almost certain to bc permanently increased.

Remedy for Thumps

When pigs are farrowed early they frequently do not get enough exercise. As a result of their being confined too closely to their houses they get fat and lazy and the disease called "thumps" develops. This is caused by the fat getting so thick around the heart and lungs that the pigs find it difficult to breathe. The best way to prevent it is to avoid over-feeding and make the young pigs take plenty of exercise. Little pigs sbould not be allowed to run out during cold rains, but they should be turned out for exercise whenever the weather is pleasant.



This Concrete Feeding Floor

Prevents waste of high-priced corn—it delivers the bacon.

In these days you can't afford to feed grain to mud-holes. It's pork we need.

Concrete feeding floors mean permanent floors—no filth, no disease, no place for rats to nest.

You can build one by following the directions in our Bulletin 137.

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CONCRETE for PERMANENCE

Win the War by Preparing the Land Sowing the Seed and Producing Bigger Crops

Work in Joint Effort the Soil of the U. S. and Canada—Co-operative Farming in Man Power Necessary to Win the Battle for Liberty.

The Food Controllers of United States and Canada are asking for greater food production. Scarcely 100,000,000 bushels of wheat can be sent to the allies overseas before the crop harvest. Upon the efforts of the United States and Canada rest the burden of supply.

Every Available Tillable Acre Must Contribute; Every Available Farmer and Farm Hand Must Assist.

Western Canada has an enormous acreage to be seeded but man power is short, and an appeal to the United States allies is for more men for seeding operations.

Canada's Wheat Production Last Year was 225,000,000 Bushels; the Demand from Canada Alone, for 1918, is 400,000,000 Bushels.

To secure this she must have assistance. She has the land but needs the men. The Government of the United States wants every man who can effectively help to do farm work this year. It wants the land in the United States developed first of course; but it also wants to help Canada. Whenever we find a man we can spare to Canada's fields after ours are supplied, we want to direct him there. Apply to our Employment Service, and we will tell where you can best serve the combined interests.

Western Canada's Help Will Be Required Not Later Than April 5th. Wages Competent Help $50 a Month and Up, Board and Lodging.

Those who respond to this appeal will get a warm welcome, good wages, good board, and find comfortable homes. They will get a rate of one cent a mile from Canadian boundary points to destination and return.

For particulars as to routes and places where employment may be had, apply to

U. S. Employment Service, Dept. of Labor.
St. Louis, Kansas City and St. Charles, Missouri.

Spraying Doubles Apple Crop

PROPER spraying of the apple trees of Kansas would more than double this year's apple crop. This has been amply demonstrated in many of the orchards of the state. We can no longer grow apples successfully without systematically fighting the many insect pests and diseases. "Even in the face of increased cost of materials and labor it will pay to spray orchards this year," said Prof. Albert Dickens, horticulturist at the Agricultural College, in commenting on the fruit-growing question recently. He points out that not only will the production from the sprayed trees be more than double that from unsprayed trees, but the apples will be better quality and there will be fewer worms in the fruit from the sprayed trees. A wormy apple is a cull, and is unsalable or brings a low price. In unsprayed orchards last year a large part of the crop dropped before maturity.

In order to reduce the cost as much as possible, many are anxious to reduce the number of sprayings to the minimum. Professor Dickens advises that at least four sprays be applied. The first or cluster bud spray for curculio, canker-worm, and scab, should be put on just as the buds begin to show pink. Lime-sulphur containing four pounds arsenate of lead paste to each hundred gallons should be used.

With arsenate of lead at 18 cents a pound and lime-sulphur costing 60 cents for three gallons of the concentrate, which makes a hundred gallons when diluted, the spray will cost 1.32 cents a gallon. Using four gallons to the tree the cost will be 5.28 cents a tree.

The second or blossom-fall spray may consist only of the lead poison—four pounds to a hundred gallons of water—for the codling moth. As there are more leaves on the trees at this time, five gallons will be required to the tree at a cost of 3.6 cents a tree. This is put on just as the blossoms fall.

The third spray should be applied nineteen days later, and the fourth six to ten weeks after the blossoms fall. These are for blotch and codling moth. Using four pounds arsenate of lead to a hundred gallons of Bordeaux mixture—six pounds copper sulphate and eight pounds quicklime to a hundred gallons of water—the cost would be 1.5 cents a gallon. The application of seven gallons to the tree each time would bring the cost to 21 cents for the two applications.

Cutting Back Peach Trees

Fruit men report that practically all the fruit buds of our peaches have been killed. In most cases the sap wood of the trees has also been injured by the cold of the past winter. To preserve the vigor of peach trees it is a good plan to cut them back severely before they start growth this spring. This is sometimes called "dehorning."

Peach trees tend to become tall and straggling. It is much better to have low- wide-spreading tops, and whenever the fruit buds are found to be killed the opportunity should be taken advantage of to cut them back and renew the head lower down. This cutting back is also necessary when the wood itself has been injured. This can be determined by cutting in and examining the sap wood of the smaller limbs. If the wood throughout the newer branches is white, it is uninjured. If it shows a yellowish or brownish stain, it is an indication of injury.

If trees so injured are allowed to grow this year without cutting back, they will be in rather poor condition next season. They will make a weak, puny growth and only a thin layer of new wood will be laid on the tree under the bark for next year. The injured wood will be weak and will not hold up subsequent crops of fruit.

By cutting these weakened trees back severely they will make a strong, vigorous set of new limbs lower down and build on a strong, thick layer of new growth over the main limbs and trunk.

The branches should be cut back as low down as possible and still leave new wood that will readily sprout new limbs. New growth will usually come quite readily from two or three-year-old wood. Wood that is old enough to have a dry, curling, shelly bark is not likely to sprout new branches readily, so in cutting back the limbs at least the upper ends must have rather smooth, fresh-looking bark. This pruning can be done any time up to the time when the buds start in the spring. The life of a peach tree can be considerably extended by following this practice, and likewise more and better fruit produced in the years when peaches are not killed by the cold of winter.

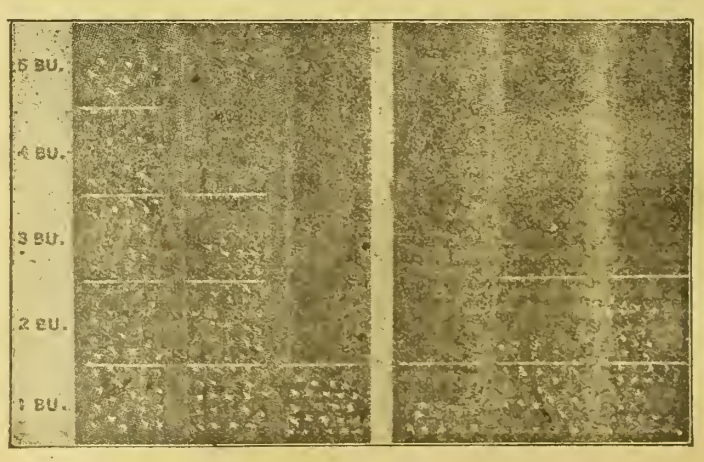
Hays Round-Up April 10

The various live stock experiments under way at the Fort Hays Experiment Station will close April 10 and on that date the fifth annual round-up meeting will be held. The station is doing fundamental work in helping to solve some of the problems peculiar to farming under Western Kansas conditions. Each year people of that section of the state are coming to a greater appreciation of the value of the work of this great experimental farm.

At the time of this round-up meeting the various experiments will be explained to the visitors and they may see the results themselves. Present indications are that the attendance will be larger than ever before. Among the speakers on the program will be E. E. Frizell, of Larned, state labor administrator, and several men of national reputation. The complete program will be announced soon.

One of the experiments which is of particular interest at this time is that on the development of breeding heifers. Three years ago eighty Hereford heifer calves were purchased for this experiment. Forty of these were fed in the best way possible, and forty were fed just as ordinary farmers feed their breeding stock in that section of the state. Twenty of the heifers in each lot were bred to calve for the first time at the age of two years. These heifers will calve again this spring, and the other heifers in the two lots will drop their first calves this spring at the age of three years. The object of the experiment is to see whether it is possible to get enough growth in developing breeding cows and enough more and better calves to pay for the extra feeding. It will be worth a trip to Hays to study at first hand this particular experiment, and this is only one of the many being conducted.

Any food consumer over and above the needs of the human body is wasted.



AVERAGE YIELD PER TREE OF MARKETABLE FRUIT IN EXPERIMENTAL ORCHARD

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CATTLE MAN TO MEAT DIVISION

A practical live stock man is to he appointed to the meat division of the Food Administration. The strongest protest made at the recent meeting of the Kansas Live Stock Association was that directed against the policy of having the meat division headed hy a man having no touch whatever with the producing end of the business. Following a conference held in Washington last Thursday with the live stock representatives from Illinois, Indiana, Iowa, Missouri and Nebraska, Mr. Hoover made the following announcement:

"The Food Administration has, from its initiation, and does now, heartily subscribe to the principle that the producers of food necessary to the carrying on of the war, the feeding of our armies, the armies of the allies, our civil population and the civil population of the allies, should have, in addition to the cost of production, a fair and reasonable profit. The food administration recognizes and has recognized the difficulties that surround the industry of feeding cattle during the next few months and will do what it properly can through the huying agencies of the Government to relieve the situation hy increasing the proportion of purchases of higher grades of heef and the employment of such other agencies as may be at its command. In stating the principle above, it must he recognized that it is not in the practical powers of the Food Administration to give guarantees to producers without legislative action.

"The Food Administration will select a man to be added to the staff of the chief of the meat division who shall have practical knowledge of meat production, such person to be selected from a list of names to be suhmitted by the gentlemen present in Washington representing the live stock feeders in the corn belt.

"The Food Administration suggests that for demonstration of the situation and guidance of the Government, an independent trihunal should determine the cost of producing meat."

The man is to he selected from a list of twenty names suhmitted hy the live stock representatives, and will serve with Mr. Cotton, whose removal was at first demanded hy the delegations from the states mentioned. Live stock producers have scored a distinct victory in ohtaining a place for a practical representative of their interests in the meat control division.

The Kansas committee appointed two weeks ago had not at this writing reached Washington. As we have already stated, this committee is collecting a formidable array of facts bearing on the meat-producing business, to present to Mr. Hoover. In suhstantiation of their claim that there is rank profiteering in the meat business they will present, in addition to a large amount of data on production costs, figures showing prices for meats in the large Kansas City markets over a period of some months. This is to combat the claim made hy packers that wholesale prices have been materially reduced. This committee will have presented its findings to the Food Administration before this issue of KANSAS FARMER is in the hands of our readers.

WAR CONFERENCES

Agricultural war conferences will be conducted at five points April 1 to April 5. These conferences will be held for the purpose of giving those who attend a comprehensive and intimate view of the national and world situation with regard to agricultural production and the need for food.

The national program for food production will be presented by Dr. C. F. Curtiss, dean of the Iowa State Agricultural College. Dr. Curtiss has been meeting with other agricultural men in Washington for the purpose of ohtaining the latest information in regard to the agricultural needs of the countries at war with Germany.

J. C. Mohler, secretary of the Kansas State Board of Agriculture, will discuss the accomplishments of Kansas along lines of agricultural production and its possibilities. E. C. Johnson, dean of the division of college extension of the Agricultural College, will discuss some of the problems of the farmers of Kansas at the present time and will explain the organizations and co-operative work in the state which are most helpful in economical production. No special appeal will he made at these meetings for increased production, but the facts will be presented and each one present may draw his own conclusions.

These conferences will be held under the joint auspices of the Kansas State Council of Defense, the United States Department of Agriculture, and the Kansas State Board of Agriculture. Locally the county farm bureaus, farmers' institutes and county councils of defense will co-operate in arranging for the conferences.

The five points at which these conferences will be held, and the dates, are: Seneca, April 1; Concordia, April 2; Cottonwood Falls, April 3; Larned, April 4; and Coffeyville, April 5. At Seneca the annual meeting of the Nemaha County Farm Bureau will be held in connection with the conference, and at Coffeyville the meeting of the Southeast Kansas Live Stock Association and its first annual sale will he combined with the conference.

MEAT RESTRICTIONS REMOVED

The modification of the restrictions on meat eating should have a stimulating effect on the market for cattle, hogs, sheep, and lambs. There are now no restrictions whatever on eating mutton and lamb. The Food Administration under the new rules only asks that we refrain from eating beef and pork on Tuesdays. Mr. Hoover's statement in explaining these new rules is as follows in part:

"The farmers of the United States are responding to the national call to increase hog production. Their increase, to all appearances, is being attained most rapidly. Of more immediate importance, however, are several complex factors which have effected an immediate increase in meat supplies.

"The transportation shortage before the Government took over the railroads, the bad weather in January and early in February, the large percentage of immature corn in the last harvest, and the necessity of feeding this corn as soon as possible to save it from decay, resulted in a great increase in the average weight of hogs. The weight of hogs coming to the market for the last two weeks indicates an increase in weight of from an average of 203 pounds last year to the almost unprecedented average of 232 pounds, or a net increase in their meat value of over 15 per cent.

"This is a distinct addition to the nation's meat supply. It, therefore, now seems certain that we have such enlarged supplies for at least some months to come that we can not only increase our export to the Allies to the full extent of their transportation facilities, but at the same time we can properly increase our domestic consumption.

"The Allies have made increased demands for foodstuffs, these enlarged demands heing caused to some degree by shortage in arrivals from the Argentine. It is, therefore, necessary for the food administration to urge a still further reduction in the consumption of bread and breadstuffs generally, if we are to meet our export necessities.

"Experience shows that the consumption of hreadstuffs is intimately associated with the consumption of meat. For various reasons our supplies of meat for the next two or three months are considerably enlarged and we can supply the Allies with all of the meat products which transportation facilities render possible and at the same time somewhat increase our own consumption. In these circumstances the food administration considers it wise to relax the voluntary restrictions on meat consumption to some extent with a view to further decreasing bread consumption.

"Conservation of food must be adjusted to meet necessities from time to time, for neither production nor allied demands are constant factors, nor can any of these factors he anticipated for long periods in advance in the disturbed relations in which we at present live. While the world situation is not one that warrants any relaxation in the efforts to eliminate waste or to relax economy in food, the administration desires to secure better adjustment in food balances.

"The response of the public to our request for reduced consumption of meat during the last few months has been most gratifying, and this service alone has enabled the Government during this period to provide such supplies as transportation to the Allies permitted. The enlarged supplies are likely to last for two or three months, after which there will he the usual seasonal decrease in the amount of animals coming to the markets."

FEEDING FLOORS SAVE WASTE

No other material is so satisfactory and convenient for making feeding floors and foundations as cement. The man who once gets started in making such farm devices of cement gets the habit, and from time to time adds new equipment as he can afford to put it in. The fine thing about such work is that it is permanent and does not have to be renewed. If made right the job is done for an average lifetime at least. One must be careful in doing this kind of work to have well matured plans, looking into the future far enough to avoid getting things located in the wrong place.

The Ohio Experiment Station recently reported that the manure from every thousand pounds weight of steers was increased $4.48 in value annually by feeding the cattle on cement floors. The comparisons were made with the ordinary methods of feeding on the ground. The floors cost at the rate of $4.50 a steer. The increased value of the manure in one year thus paid for the floor.

In feeding hogs, concrete feeding platforms will save a great deal of grain, and in these days of high-priced corn it will not take long to save the cost of such a platform. A farm where hogs are grown is not fully equipped until it has a good cement floor where the hogs can be fed their grain.

Owing to the tremendous volume of work in the office of the internal revenue collector, W. H. L. Pepperell, he announces that receipts will not he issued for income tax payments made hy check, draft or money order. All checks must be collectible at par. Consult with your bank before mailing check in payment of your income tax. It may be necessary to include a collection fee.

Farm lahorers are now being listed by E. E. Frizell, state farm lahor director, at his office in Manhattan. Every post office has been designated as a labor bureau and it thus hecomes the duty of the postmasters to file and handle requests for farm lahor or names of those who may wish to be listed for such work. Plenty of machinery has been created for helping out in the farm labor situation. It remains to be seen whether there is any lahor to he handled. A real effort is being made and in the spirit of true co-operation it is up to the people needing labor to meet the Government half way. The more team work we can have, the better.

FARMERS WILL DO THEIR PART

Farmers are rightfully protesting against a good many things growing out of the war which are placing them at a disadvantage in their efforts to do their hest in the fight. These complaints, however, are not to he interpreted to mean that the farmers of Kansas are going to sulk and let up on the hig job of feeding our armies and our allies. No one ever heard of a farmer striking hecause he could not have an eight-hour day. The men and boys from the farms have always had a large share in fighting the wars of this country. No one need fear that the producers of food are not going to do their part in this war. Herhert Quick made the statement recently that the people of the farms could not only feed our armies, but furnish a good share of the fighting men and, if ahsolutely necessary, the money to pay the hills as well.

It takes an immense quantity of food, clothes and munitions to carry on war as this war is heing conducted. We are told that it requires thirty tons of these necessary things for every soldier we have in France. The crying need of the hour is for ships and more ships, hut it is up to farmers to furnish the food to load these ships. If we are to do our part there can be no letting up until the joh is done and a peace through victory assured.

Even though we have lost to the army and to competitive industries a large amount of farm lahor, the farmers will never let it be said that they failed to do their best in backing up the boys we have sent to France. They are absolutely dependent upon us and if we fail in this, they will fail. If there is any failure anywhere along the line, we feel sure it will not be charged to the people of the soil, who have ever been to the forefront in every contest that has been waged for human liherty.

RESULTS OF SEED CANVASS

An extensive seed list is now being prepared, through the co-operation of the Council of Defense, Agricultural College, and State Board of Agriculture. The completed list will he published ahout April 1 in pamphlet form and will he given widespread distribution throughout the state, and is available to all who may request it. The names of parties having seed can now be obtained by addressing Prof. L. E. Call, at Manhattan.

The canvass has developed that there is plenty of good seed corn and plenty of other seeds for spring planting in the state with the exception of certain localities where it will he necessary to secure seed from other sections of the state. Tests of 20,000 samples or more have been made for germination by the college, and of course in a season of this kind when much of the seed is poor, it is absolutely necessary to know that viahle seed is planted. The tests have shown that there is a great deal of seed that will not grow at all, and anyone planting seed not tested this year is taking extra long chances.

JUNIOR STOCK FEEDING CONTEST

The Junior Live Stock Feeding Contest will again be a feature of the International Live Stock Exposition. The purpose is to encourage young people on the farms in the feeding of cattle, hogs and sheep. Cash prizes amounting to $600 are offered by the Union Stock Yards Company of Chicago. The feeding period for calves begins April 1, so application must be made at once to B. H. Heide, secretary of the International, Union Stock Yards, Chicago. Boys and girls ten to nineteen years of age can compete. Blanks to be filled out and returned will be furnished. Here is a chance for some of the boys and girls of Kansas who have been taking part in state contests to get into a little deeper water.

GAS ENGINE A WILLING SERVANT

Makes the Hard Jobs Easy and Lowers Cost of Farm Work

EVERY farming community in this country has its particular power requirements, but it is safe to say that the gasoline or kerosene engine, properly selected for the work to be done, will do it quicker, better and at less cost than by any other method. Although the demand for gasoline, kerosene and other fuels is likely to be considerable for the period of the war, it is notable that Kansas added 75,000 barrels of production daily during 1917, and many new wells in oil-producing states were brought in. Old wells that were thought pumped out have been cleaned out and are now producing profitably if not liberally.

Eminent scientists agree that there is undoubtedly oil enough yet in the ground to last as long as the world needs it. New fields are being opened up, and the oil industry is making greater strides than probably any other industry at this time. So the future of the farm engine as a means of low cost power is practically assured for all time, and farmers will continue to reduce the expense of labor, turn out more products, have more to sell, increase their capacity, and what is more to the point, live better and have more of the comforts of life purchasable with the money saved and earned.

Wherever the soil is tilled for gainful purposes the gasoline or kerosene engine should always be a part of the farming outfit, because one man with an engine is practically as good as several men without one. The hard jobs on a farm are made easy, time saved, food products made ready for feed that would be unsalable or a dead loss, all the work being done with a few cents' worth of gasoline or kerosene. Once this power is installed on the farm the cost of doing all farm work is less, and when two or three jobs demand immediate attention it can be given without disastrous delay.

This applies to the farmer in every locality and to every farm condition, as aside from preparing the soil and putting in crops no other implement has such a wide range of usefulness the year through. Every day the farm engine will earn its board and keep, does its work without pay, asks only decent care and attention, consumes nothing unless it pays in power.

The dairy farmer having a gasoline engine of suitable size may, at low cost for fuel, provide daily throughout the year all the water necessary for stock, grind the feed for his animals so as to have a well-balanced ration, operate milking machines, break ice to cool the milk if he sells his product, or he may operate cream separator and churn if he makes butter for the market. When it comes time to put in crops the gas engine will sharpen his plows and grind his disks, and it will grind his sickles for haying and harvesting. Later on when the silos need filling it will cut his silage, put it into the silo, or it will elevate his matured corn crop and put it in the crib, or it will shell the crop or crush it, cob and all, for feed.

If there is a timber lot on the farm an engine will operate a saw-rig, cutting up the dead and down timber, work up the winter's supply of wood, or cut wood for the market.

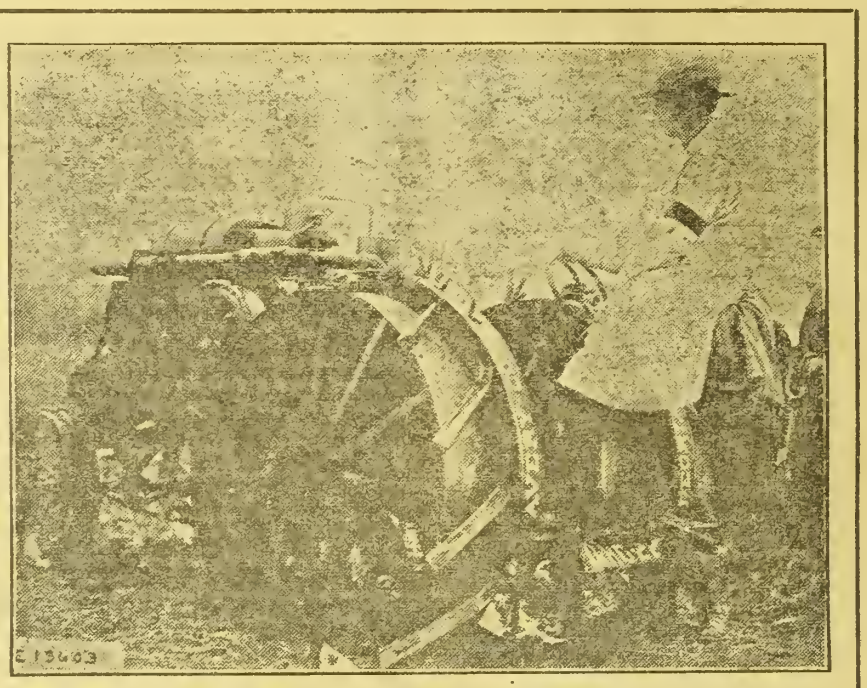
Conservation of rough feed and unsalable food products is a question easily solved by the gas engine. It is easy to chop up roughage, mix it with ground oats, corn, kafir, feterita, or other grains. All stock relish a mixture. Even hogs will thrive on chopped or ground grain feeds, and alfalfa, the size engine required depending on the amount of work to be done and the horsepower of the machines used.

In sections where water is necessary to growing crops and fields, the gasoline or kero-oil engine pays for itself in a few weeks. The engine can be attached to a drilled well. The ordinary pump is easily utilized by providing a pump jack, and water from streams can be raised by the use of a centrifugal. These methods are in common use throughout the dry-farming sections of the West and Southwest, some ranches having as many as ten engines of different sizes for their work. When grain is ready to cut it is not unusual for the farmer to attach his small engine to the harvester.

Machines have been brought into use for threshing and saving bean crops, peanut crops and peas, the most useful and economical power being the gas engine. The engine may be, and often is, mounted on special portable steel trucks and taken from farm to farm to do the work, in the same manner saw-rigs are transported. Extension trucks carry the special machine instead of a saw and the operator charges for his services by the hour.

In cleaning grain for seed, or in grading corn for seed, a gas engine does the work quicker, better and at less cost. The orchard farmer operates his sprayer as well as his cider mill with a gas engine. The cane farmer, who wishes to make his own brand of syrup or sorghum, and custom cane mill operators find the gas engine economical as well as efficient in handling cane crushing machinery.

The hay crop in some sections constitutes the leading product, and in these localities hay balers take the new-made hay fresh from the fields and press it into shape for easy handling and shipping. Gas engines are largely used to



TRACTOR OPERATED BY MRS. GUEST, BIRMINGHAM, ENGLAND, AT WOMEN'S FARM WORKERS' TEST MEETING, OCTOBER 4, 1917.—PHOTO COPYRIGHT BY UNDERWOOD & UNDERWOOD

furnish the power on all makes of such hay presses or balers.

The stock farmer, dairy farmer and horse breeder find it profitable to keep their animals in condition for show or sale by clipping. The power clipper is now generally used for taking the wool from sheep, especially in the western states where large flocks predominate. The saving of labor and time on all the different kinds of work mentioned is well worth the effort, and the only economical power for the purpose is the gasoline engine of suitable size.

Honey extractors are operated by engine power, as are power milk bottle washers in the dairy, milk can washers, root cutters and washing machines for the farm home. Operating manure pumps, bone cutters for poultry farms, chop mills for making poultry feed, are not uncommon jobs for the farm engine.

The question of water for farm stock ponds and fish ponds is readily solved by attaching an engine to the source of supply and letting gasoline or kerosene do the work. Any farmer could have his own fish pond if he cared to bother with it. In fact, some make more money from the acreage thus utilized than they could from any other crop, besides having a large supply of excellent food always at hand.

Many farmers find it necessary or desirable to have concrete fence posts, concrete feeding tables for hogs, concrete floors in pens and stables, and perhaps concrete silos and hog wallows where animals may do their own disinfecting and dislodge vermin. The farm concrete mixer is of course operated by a gas or oil engine, the size depending on the mixer.

For renewing the soil, limestone may be crushed in rock mills, using the gas engine for power; waste land may be brought into use, dead trees and down timber removed and made to pay a profit by cutting it and either burning it at home or selling it for fuel. Otherwise worthless hedge fences, overgrown willows, catalpa and other farm trees planted primarily as "wind breaks" are available as fuel whenever the gas engine and saw are put to work.

The farmer having a blacksmith shop and power tools needs engine power for turning drills, sharpening mower sickles, grinding and sharpening hoes, hay knives and other farm tools. The corn meal mill on the farm is not a luxury, but a necessity—as one may not only grind his own corn meal but have some for sale.

No matter what power the farmer may have for turning over his soil and putting in a crop, the gas engine is absolutely necessary because it delivers its power at low cost. The gasoline or kerosene engine is usually selected for the work it is to do, with a liberal surplus, and it saves developing a large excess above the ordinary needs or operating a high-power, high-priced machine on a small job. Generally it does not pay to operate a two horsepower machine with a twenty-horsepower outfit because the extra fuel required would make the job cost too much and there would be danger of ruining the smaller machine. Cost of fuel is too large an item if the engine power is too great. Enough power is always desirable, however, and it can be had at a favorable cost in the average farm engine.

From reports sent in by engine users, to a large engine manufacturer, it is estimated that 25 cents' worth of fuel will do the following kinds of work:

Will cut twelve tons of silage, elevating it thirty feet.

Will cut 200 to 250 feet of poplar lumber.

Will cut 150 to 200 feet of oak lumber.

Will cut ten to twelve cords of wood.

Will run drag saw, cutting six to eight cords of wood.

Will grind forty to fifty bushels of shelled corn.

Will grind twenty to twenty-five bushels of ear corn.

Will grind twenty to thirty bushels of wheat.

Will make 2,000 to 3,000 pounds milk into cheese.

Will pump 1,200 to 1,600 gallons of water.

Will pump water for eighty to a hundred head of horses.

Will pump water for 400 to 500 hogs.

Will pump water for 500 to 700 sheep.

Will shell 300 to 350 bushels of corn.

Will cut twenty-five to thirty tons of silage.

Will cut twenty-five to thirty tons of silage.

Will cut twenty to twenty-five tons of hay fodder.

Will furnish eighty hours of electric light.

Will make four to six barrels of flour.

Will do five weeks' washing at two hours a week.

Will furnish lights for eight rooms for ten evenings.

Will grind from 125 to 180 pounds of green bone.

Will run rip saw, band saw and joiner all eight to ten hours.

Will turn the grindstone, run the emery wheel, forge, lathe and drill for twenty-four hours.

Will run emery wheel, drilling machine and forge for eight to ten hours.

Will pump 30,000 gallons of water with centrifugal pump.

Will pick twenty to thirty bags of peas.

Will pump water from 150-foot well all day.

Will run a medium cutter half a day.

Will run a medium size saw nine hours.

Will handle a 500-foot well machine four to five hours.

Will pull average broom corn thresher half a day.

Will bale five tons of straw.

Will run a 750-pound drill half a day at 250 to 300 feet.

Will run a home water system, furnishing water for an eight-room house ten days.

Will save your horses two-thirds of the work on a binder for a day.

Will grind 1,000 to 1,200 pounds of alfalfa meal.

Will grind 1.200 to 2,000 pounds of kafir in head per day.

Will mix twenty to thirty yards of concrete.

Will elevate 2,000 to 3,000 bushels of corn.

Will run auto-mower eighteen hours.

Will run sprayer and handle two or three leads of hose all day.

Will handle a 600-pound gross weight hoist a day of ten hours.

Will run a diaphragm pump, handling 2,500 to 3,000 gallons per hour for a day.

Will cut 1,000 to 2,000 shingles.

There are countless other uses to which the gasoline and kerosene engine may be put. Every farmer has his particular need, depending on his surroundings, his crops, and the machinery he possesses. Some require power for corn husking, picking peanuts, threshing grain, timothy and clover, some drill wells, many operate saw-mills, and make money. The demand for farm electric lighting plants requires the use of a gas engine.

No matter what machinery a farmer may have, the gas engine is an economical source of power all through the year, available in summer heat or winter's cold, requiring little fuel, ever ready to work, asking no pay, but doing its best at whatever job is given. It is a machine anyone can learn to operate and understand, if they know how to judge engines, and not a few farm women and boys are able to operate them easily and successfully.

American Royal Date Set

The American Royal Live Stock Exposition for 1918 will be held this year at the Kansas City Stock Yards, November 18 to 23. The directors at a recent meeting came to this decision. Many of those who have in years past visited the Royal will welcome its return to the stock yards district. M. A. Judy, of West Lebanon, Indiana, was elected president, succeeding M. H. Genry, of Sedalia, Missouri. Other officers elected were: R. H. Hazlett, El Dorado, Kansas, vice president; H. C. Duncan, Osborne, Missouri, treasurer, and W. H. Weeks, assistant general manager of the Kansas City Stock Yards Company, secretary. The committees for arranging and perfecting the plans for the 1918 show were appointed and have already begun their work.

While you're wearing a flag in your coat lapel, be sure and have a Liberty bond receipt in your coat pocket.

GENERAL FARM AND STOCK ITEMS

Something of Interest For All—Overflow From Other Departments

ONE of our Ellis County readers asks about growing beans as a farm crop. There was quite a propaganda in Kansas last year on bean growing. Beans are such a valuable food that increased production is of course greatly to be desired. The idea seemed to be that a great deal of valuable food might be grown in Kansas by increasing our bean acreage. It requires some special skill and knowledge to grow beans successfully and Kansas people generally are not very familiar with handling the crop. We felt last year that it would be a mistake to go extensively into the growing of beans and advised that those who tried them put out only comparatively small fields.

A few quite striking results were reported from various sections of the state, especially in the growing of the Mexican pinto bean. There were probably a great many failures also which were not reported at all. Since beans are so valuable as food, we believe it would be a good plan to put out a small acreage this year, but would not consider it wise to plunge in this crop.

The navy, or white bean, while quite drouth-resistant, does not seem to set well owing to the blasting effect of the hot wind on the flowers. The Mexican beans are the kind to plant for most of Kansas. Those who plant beans must expect to give them careful cultivation, as they cannot contend successfully against weeds. The Mexican beans have not commanded as high prices as the white beans, but that is due somewhat to prejudice against the colored beans on the part of those who have been in the habit of using only white beans. This will gradually disappear, and in fact the market for the pinto beans was quite widely extended the past season and the demand will probably be greater the coming year.

The State Horticultural Society, Topeka, Kansas, published a pamphlet giving some of the reports on bean growing in Kansas last year. The secretary will be glad to send a copy of this pamphlet to those interested in growing beans the coming year.

Early Grain for Hogs

R. S. T., Phillips County, asks what is best to plant to produce early grain for hogs. Corn and other feeds are so high in price that he is anxious to grow something that will supply farm-grown grain as early in the season as possible.

A good plan on every farm where live stock is grown is to plant every year a small patch of the very earliest maturing corn obtainable. Some of the northern varieties, such as Northwestern Dent, or Minnesota 13, or some of the very early varieties developed in the extreme northwest part of Kansas, are good for this purpose. Some of these varieties will mature grain as early as July.

Barley is also a good crop to plant for early grain in that section of the state. In fact in any part of Kansas it would be a good crop to plant to supply some early grain for hogs. In Phillips County barley has yielded fully 50 per cent more than oats as an average of a five-year period. It is not as good a grain for fattening hogs as corn, but is really better for growing hogs or breeding stock.

Barley should be sown just as soon as the ground can be properly prepared. If sown late it is apt to be injured by the dry weather of the summer. In the regions of light rainfall barley should not be planted unless there is some moisture in the ground. It must have moisture during the early part of the season and will not do very much if planted in fields where there is no reserve of moisture.

Dodder in Alfalfa

F. Q., Pottawatomie County, writes that a yellow climbing vine seems to be taking one of his alfalfa fields.

This is undoubtedly the parasitic plant, dodder, of which there are two species growing on alfalfa. Dodder starts from seed but requires a host plant to feed upon and as soon as it is established its roots die and lives entirely upon the alfalfa. It is a most serious pest since it will soon choke out the alfalfa entirely, gradually spreading over the whole field. If seed is sown containing dodder seed it will start over the whole field. Alfalfa seed containing the seed of the dodder should neither be bought or sold. The dodder seed is only slightly smaller than the alfalfa seed and it is almost impossible to separate it from the alfalfa seed. In buying alfalfa seed it is the safest plan to have a sample examined for purity. A seed-testing laboratory is maintained at the Kansas Experiment Station for doing this work. Samples will be tested both for germination and purity, free of charge.

Where only a small patch of the dodder has appeared in an alfalfa field, it can be destroyed by mowing the patch and burning it before the alfalfa blossoms. If the whole field is affected, about the only way to get rid of it is to plow it up and start a new field, being sure the seed sown is free from dodder seed.

The Tame Grass Question

A. S. H., Republic County, asks for suggestions on suitable pasture grasses for that section of the state. He wants pasture for cattle and horses and also for horses alone, and asks if brome grass or Sudan grass would be suitable. Prof. L. E. Call of our Agricultural College offers the following suggestion:

"It is difficult to establish a satisfactory pasture of tame grasses in the central part of Kansas. Most of the tame grasses require a larger annual rainfall than we have in this section.

"For Republic County, brome grass, or bromus inermis, is the best perennial pasture grass that can be sown. It would be better, however, to mix a few other grasses with it. The best mixture for this county would he twelve to fifteen pounds of brome grass, four or five pounds of orchard grass, one to two pounds of Kentucky bluegrass, four or five pounds of sweet clover, and three or four pounds of alfalfa.

"The early fall is the best season of the year to sow the seed. The ground should be prepared by plowing early in the summer, not later than the middle of July. It should be worked thoroughly from the time of plowing until about the middle of August, when the seed should be sown, providing weather conditions are suitable. If weather conditions are not suitable it would be better to seed the ground to wheat and wait until another year to sow the grass seed. This mixture of grass seed is expensive and should not be sown unless conditions are very favorable for its making a good catch.

"Sudan grass is a good annual pasture grass for cattle or hogs. It is one of the sorghums, and so some precautions should be taken because of the danger of sorghum poisoning. However, Sudan grass has been extensively pastured in this state and very few cases of poisoning reported. Sudan grass is an annual, and of course it is necessary to seed it each year.

"Bulletins on Sudan grass and on other grasses can be furnished by the Department of Agronomy of the Agricultural College."

Varieties of Kafir

W. A. M., Greenwood County, asks for a description of pink kafir, also for the difference between the ordinary black-hulled kafir and the dwarf black-hulled. The pink kafir is a variety which was developed at the Hays Experiment Station from a mixed lot of seed obtained from William Rockefeller, of Russell County. Mr. Rockefeller's seed came from some kafir which was probably introduced into that county in 1905 by the United States Department of Agriculture.

This pink variety of kafir matures from one to two weeks ahead of the ordinary black-hulled variety. This makes it somewhat better adapted to shorter seasons. It also seems to grow better than other varieties when cool weather prevails during the early stages of its growth. It is a variety that is to be recommended for growing in the section from Smith, Phillips, and Norton counties south and west to Clark, Meade, Seward and Stevens counties. It has also given more favorable results than the ordinary black-hulled kafir on poor upland soils in Eastern and Central Kansas.

The plants are somewhat more slender than the black-hulled kafir. The heads are longer and not so compact. The seeds are tinged with pink, and the seed hulls are pink, this characteristic giving the name to the variety. The seeds shatter somewhat more readily than the black-hulled variety, and in thin stands the heads quite often do not fully extend from the boot.

The dwarf black-hulled kafir is simply an early-maturing strain of the standard black-hulled variety. This characteristic has been developed by careful selection. About the only difference in appearance is that the plant is smaller, being only about four feet in height. Under favorable conditions it will mature seed in about a hundred days. This early maturing characteristic makes it especially adapted to sections where the later-maturing varieties will not mature seed before frost.

Grain Sorghum for Gove County

A Gove County reader asks what kind of grain sorghum is best to grow for grain alone.

From Gove and Logan counties south probably dwarf milo is the best of the sorghums if grain is the chief object. The dwarf black-hulled kafir is also a good variety, being better than the milo from the standpoint of grain and forage combined. Feterita is also a good grain crop for the western part of the state. Freed's sorgo, or white cane, as it is frequently called, is the earliest of all and will produce grain when all other kinds fail. In twenty-six tests made in the western fourth of the state, reported by C. C. Cunningham, who has charge of the co-operative experiments, Freed's sorgo has produced as an average of a five-year period 14.2 bushels of grain to the acre, as compared with milo 11.5 under the same conditions.

Seed of all the grain sorghums is very scarce this year, and if planted for grain we would advise that less seed be used than is the common practice. Mr. Cunningham recommends seeding the grain sorghums for grain at the rate of four to five pounds per acre. If grown for silage, use twice this amount.

Rotation Increases Corn Yield

W. S. L., Nemaha County, asks for suggestions on planning a rotation for his farm and also whether he can hope to increase his corn yield by following a definite rotation plan in his cropping.

No positive rules can be laid down that will fit all circumstances. Every farmer must figure out his own rotation scheme based on the crops best adapted to his land and to some extent the amount of stock he is handling and the labor available. In a general way a rotation in that section should include a small grain crop, a row crop, and some kind of a legume. Corn, oats and alfalfa or clover may perhaps fit conditions on many farms. On others perhaps wheat can be used for the small grain. Sweet clover or the ordinary red clover can be used as the legume in the rotation. These are in some ways better adapted to a short rotation than alfalfa.

Corn yields can most assuredly be increased by following a definite rotation plan, especially one in which considerable live stock is kept to consume the crops grown and the manure returned to the soil. Tests at the Kansas Experiment Station during the past seven years show some interesting results in comparing corn grown continuously with corn grown in rotation with legumes. In 1917 the corn yields from three of the different treatments were as follows: Corn continuously grown, 17.6 bushels an acre; corn in rotation with cow peas and wheat, 32.8 bushels; and corn in rotation with alfalfa and wheat, 44.9 bushels.

The wheat yields have also been materially increased when grown in a rotation with other crops. In these same tests land continuously in wheat since 1910 yielded at the rate of 11.8 bushels an acre in 1917, the seven-year average being 14.8 bushels. Wheat in rotation with the corn and cow peas yielded 15.6 bushels an acre in 1917, and an average of 15.8 bushels for the seven-year period.

A Message From the New President

Dr. William M. Jardine

FOR eight years I have been familiar with the work of the Kansas State Agricultural College. During that time there has been a wonderful and steady growth in every department of the college. The institution has come to play a vital part in the agriculture of the state and, under the wise and distinguished leadership of Doctor Waters, has set a new standard of excellence for similar institutions the country over.

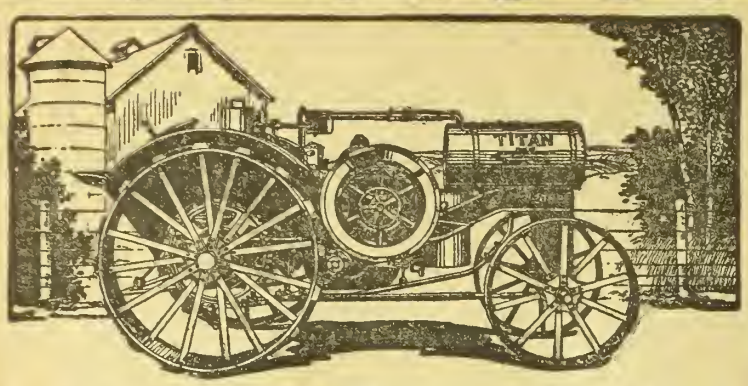
Now, while the nation rests under the shadow of war, the guidance of this great Agricultural College in one of the great food-producing states of the Union has been intrusted to my hands. I am not without a sense of the heavy responsibility that has been placed upon me. I have seen the steady stream of young Kansans leave college, farm, and factory for the army training camps or the front. I am aware of the great number of those who must follow. I am aware that unless those of us who are left behind play the parts assigned to us, these boys will give up their lives as a vain sacrifice. Our part is to produce the food which is to sustain our boys in the trenches, and assume cheerfully the task of economizing in food consumption. It is here that the Agricultural College finds its natural field of work in the great emergency. This work must be carried forward in the same efficient way in which it has been begun.

While we take part in this remarkable work, in common with other agricultural colleges throughout the country, we must not forget this is emergency work. We must not forget that there is intrusted to us not only in large part of the food situation of the nation, but also the welfare of hundreds of boys and girls who come to us for instruction and guidance. While it performs its full patriotic duty in the special fields incident to this time of crisis, the college must not fail in the patriotic duty which it owes constantly—the duty of preparing leaders. We must iontinue to provide for the highest good of the young men and women of Kansas. We must fit them to be not only efficient farmers, but, more than all else, good citizens—leaders in the life of the community, the state, and the nation. Kansas seeks sound leadership, and to sound leadership its every community is certain to respond.

The close of the war will be followed by a great period of reconstruction. Such a period has followed the close of every great war in history. Trained workers, honest citizens, clear-minded leaders, will be the need of the hour. Whether this hour is early or late in striking, it must find the college ready.

Cut Out Black Teeth

Before placing newly farrowed pigs with the sow it is a good plan to cut out the eight small tusk-like teeth. There are four of these on each jaw in the rear of the mouth. They are very sharp and if left in the pig's mouth they quite often result in making the sow's teats sore, due to the little pigs fighting for a teat. These teeth can he removed with bone forceps, wire nippers, or with a knife. Do not pull them out. Always cut or break them off.



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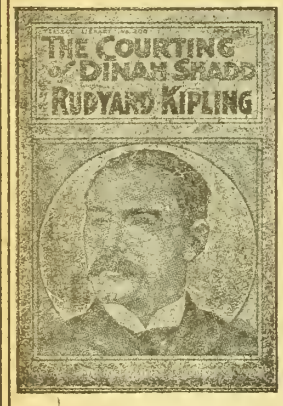

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36—Beyond the City, by A. Conan Doyle.
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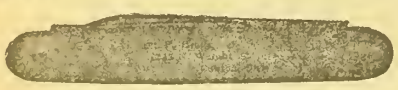

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WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

KANSAS FARMER DAIRY CLUB

Raising Calves Without Skim Milk

MOST of the dairying in Kansas consists in selling cream skimmed by the hand separators. Some of our Dairy Club members have felt handicapped because they did not have a market for their whole milk. They should never forget, however, that where cream is sold, that most valuable feed, skim milk, remains on the farm, and in these days of high-priced grains it can be made to return a high value.

The raising of heifer calves is a most important part of dairying, for this is the ideal method of building up and improving the herd. It is far ahead of buying cows to replace those culled out and sold. It is almost impossible to buy really good dairy cows without paying high prices. If you practice the right methods of breeding, you can be almost sure to raise cows that will be better than their mothers. It is comparatively easy to raise calves if you have skim milk to feed.

Dairymen who sell whole milk are up against the problem of raising their calves without skim milk. The practice in many sections where whole milk is sold to condenseries or cheese factories has been to sell the calves and depend on buying cows to keep up the herds. But dairy cows are getting scorce in this country, and we must plan to raise all the heifer calves possible in order to keep up the supply. If dairymen generally do not do this, milk cows will become even more scarce in the next few years.

With the introduction of condenseries into Kansas this problem of raising calves without much if any milk becomes increasingly important. At the twenty-sixth annual meeting of the Wisconsin Holstein Breeders' Association held last January, Bruce P. Wolcott, a practical dairy farmer of that state, gave some valuable suggestions on raising heifer calves on farms where the milk is sold. He was speaking particularly for those who keep high-grade herds and use good pure-bred sires. Of course those having high-class pure-breds can afford to raise the heifer calves even though they have to feed them whole milk for some time. In his address Mr. Wolcott said:

"I have always lived in the cheese-producing locality of Wisconsin, where skimmed milk is not known on the general run of dairy farms and where the raising of our dairy calves have been a very important and sometimes trying problem.

"I have made this thing a study for fifteen years and have raised all my heifer calves without milk; namely on calf food. I have raised good calves that made good cows. Others can do as well or better if they will be sure to get a good, standard brand advertised in the farm and dairy papers, and follow directions very carefully. Or they can use home-prepared calf foods, such as have been tested out and found economical and efficient by the state experiment stations.

"Give the calf whole milk for about two weeks, then decrease the milk and add a very little gruel made from the calf food. Thereafter continue to gradually increase the calf food gruel and to decrease the milk until the calf is receiving a full feed of this gruel. Now this is the critical time, and, if you can make this change without the calf realizing it, you have won the battle.

"Get the calves to eating alfalfa, silage, and a grain ration just as young as you can. Do not over-feed on the calf food gruel and be very careful to keep all pails sweet and clean. I find that one of the best preventives for indigestion in calves is keeping fresh water where they can drink often. It is surprising how much water they will drink. Most farmers fail to realize that the calf requires water at this young age.

"Do not misunderstand me, and think your calves will be quite as fat and sleek as those fed on milk; but take good care of them and when they are three months old they will be just as growthy as though they had been fed on milk. At least such has been my experience.

"Use a pure-bred sire, and try to have the cows freshen in the early winter, as you will then have more time to take care of the calves. Then when spring comes, they can be turned out to pasture, and with a very little grain additional, will make a fine growth.

"I have never had a case of scours when calves were fed calf food, but young calves that have contracted the ailment can be cured by taking away all the milk and feeding nothing but this food. The germ cannot live without milk. It has been my experience that calves raised in this way develop into cows with splendid digestive organs. They have good, large barrels and will consume a large amount of rough feed.

"The Indiana Experiment Station recommends that unless its market value is above 30 cents per hundred pounds, the use of skim milk as a feed for young calves should be encouraged, and that so long as skim milk is available as a feed for live stock, milk substitutes for dairy calves are of comparatively limited value. I have no objection to encouraging the larger use of skim milk for feeding calves and would like to have it myself to feed; but as I have already said, I have always lived in the cheese-producing locality of Wisconsin, where skim milk is not known on the general run of dairy farms and where the raising of our dairy calves has been a very important problem.

"There are many other farmers over a large part of Wisconsin in the same situation. Like myself, they simply do not have the skim milk. Our monthly milk check is our chief income, and it comes from the disposition of our whole milk. We cannot afford to keep back enough of this whole milk to skim, so we can have the skim milk for the calves; for then we would be confronted with the additional problem and trouble of disposing of the cream so left on our hands. To us the calf foods, or so-called milk substitutes, have an important mission to fill and a very considerable value.

"While the Indiana station takes the view referred to, it also realizes that there are those conditions existing in some dairy farming communities, such as my own, in which a prepared calf food



HAZEL SHRIVER, LYNDON, AND HER COW AND CALF.—ONLY PURE-BRED AYRSHIRE COW IN CLUB

is an economical item in calf feeding. And so it has carried on some experimental tests along this line and succeeded in preparing a home-mixed calf meal, which it has found satisfactory in producing a good growth and condition of thrift in calves.

"This calf meal so prepared by this station contains equal parts by weight of hominy feed, linseed meal, red dog flour, and dried blood, all of which may be purchased on the feed markets and the mixing be done at home. The advertised brands of calf meal usually contain, in addition to some such combination of feeds as this, a combination of two or more condimental drugs, or so-called appetizers and tonics.

"However, let me say in conclusion, get busy and raise a lot of good dairy calves. In that way you can establish a better herd of dairy cattle, as you can be constantly weeding out the poor ones and need keep only the best in the herd. What can you raise that is more profitable on the farm today than a few extra dairy cows at the present high prices? I believe prices will go much higher than they are now."

At the Pennsylvania Experiment Station trials have been made of substitutes for skim milk, the one giving the best results being made as follows: Wheat flour, 30 pounds; cocoanut meal, 25 pounds; nutrium, 20 pounds; oil meal, 10 pounds, and dried blood 2 pounds. Nutrium is a soluble milk powder now manufactured commercially. In feeding this milk substitute it was first mixed with warm water at the rate of one pound to six pounds of water. The calves received their mothers' milk for from five to seven days, when the milk substitute gradually replaced the milk until at the end of ten days or two weeks no milk was given. The first five or six weeks the calves were given about two pounds of the mixture daily and after that two pounds and a half daily until weaning time.

Year-Round Feeding of Cows

To be most profitable, dairying must be a year-round business. Plans must be made that will provide feed in abundance for the cows throughout the year. It would be folly to get high-producing dairy cows and not be able to provide them with plenty of feed at all times. It is important to have cows that inherit a strong tendency to give milk, for no amount of skill in feeding and handling can make a profitable cow of one lacking in these essential characteristics. This is the reason success in dairying is so dependent upon the individual animals and the keeping of milk and butter fat records. It does not matter how good a cow we may have, we cannot expect results without proper feed and management.

We all welcome the time when we can turn the cows out to pasture, because at no other season of the year do cows produce milk more abundantly and at less expense. The immature grass, such as we have early in the spring, however, does not contain a very large amount of nutriment, and it is easily possible for a high-producing cow to fall off when first turned on pasture in the spring, simply because she cannot eat enough grass to supply the necessary amount of nutrients.

A cow will always produce more milk if fed grain while on pasture. This does not necessarily mean that it is always profitable to feed grain when cows are on good grass. The yield might be increased, but the extra amount produced would be at too great a cost. For example, a cow that is giving only a comparatively small quantity of milk on grass alone will give only a little more if fed grain. If you have a very heavy-producing cow, however, the case is somewhat different, and it will be almost necessary to give some grain or she will not continue to produce a large amount. Professor Eckles, of the Missouri Agricultural College, says that a Jersey cow giving as much as twenty pounds a day, or a Holstein giving twenty-five pounds, should be given some grain when on grass. He advises feeding as much as nine or ten pounds of grain to a cow that will give forty or fifty pounds of milk a day, even when they are on good pasture.

The pasture season, however, does not last very long. Along about the middle of the summer it is almost certain to get dry and hot and when this occurs the pastures will become short and not supply grass enough to keep up the milk flow. Of course heavy grain feeding will make up the deficiency, but it is expensive. One way of overcoming this and having cheaper feed is to plant some early-maturing crops, such as early varieties of corn or possibly a patch of Sudan grass, and feeding this green forage to the cows when the pasture shortage comes. Green oats can be fed in the same way.

The best provision for this pasture shortage is a summer silo. There is hardly a farm in Kansas where live stock is kept that could not make good use of a summer silo. A summer silo must of necessity be considerably smaller than the one used for winter feeding, because a good deal thicker layer of silage must be taken off each day to keep it from spoiling.

If you expect your cow to keep up her milk flow during this most trying period of the year, you must make plans for supplying green feed of some kind, and these plans must be made now, for the crop must be planted some time before it is to be used.

Cow Test Report

One of the strong, active cow test associations in Kansas is that of Montgomery County. We give below the names and records of the cows in this association which produced more than forty pounds of butter fat during the month of January. This is a good list of cows for one association and is an indication that the members are making considerable progress in developing high-producing herds. George H. Eichler is the official tester for this association.

Owner—	Pounds Milk	Per Cent of Fat	Pounds Butter 80% Fat
Castillo & Son, PH....	1,869.0	3.51	65.60
Robinson & Shultz, PH	1,652.3	3.9	64.44
A. H. McConnel, GH..	1,378.1	4.0	55.12
T. M. Ewing, PH.....	1,546.9	3.55	54.91
W. N. Banks, PJ.....	1,238.8	4.42	54.75
Robinson & Shultz, PH	1,593.4	3.45	54.18
Robinson & Shultz, PH	1,630.0	3.3	53.81
A. H. McConnel, GH..	1,013.5	5.0	50.67
A. H. McConnel, GH..	1,150.0	4.4	50.30
A. H. McConnel, GH..	1,089.6	4.6	50.12
Robinson & Shultz, PH	1,332.2	3.68	48.78
Robinson & Shultz, PH	1,537.7	3.04	46.75
D. M. Cahill, GH.....	1,168.7	4.0	48.75
D. M. Cahill, GH.....	1,129.4	3.9	44.00
P. S. Campbell, GH...	909.0	4.6	41.81
Castillo & Son, PH...	964.4	4.2	40.50
T. M. Ewing, PH.....	1,246	3.25	40.30
D. M. Cahill, PH. ...	1,060	3.80	40.28

NOTE.—PH stands for pure-bred Holstein; GH, grade Shorthorn; PJ, pure-bred Jersey.

Harold Bentz reports his cow did not give so much milk in February as in January, but he is looking forward to her doing better when grass comes. Dairymen always look forward anxiously to the pasture season. Better plan to have some of the choicest feed on the farm saved to use about the time you are tempted to turn your cow on the grass. The first grass is not very nutritious and if cows are turned on grass too early they lose their appetite for hay and other feed and do not get enough from the grass to keep up their milk. It is a critical time and calls for careful management and the use of the most palatable feed you can get in order to keep the cows contented a little longer until the grass is well started. If you have good silage, the problem is comparatively easy, for cows do not tire of silage as they do of dry fodder.

Helen Shriver, whose picture with her cow and calf is reproduced in this issue, writes that she thinks the club work is getting more interesting all the time. She says there is always something new to learn.

Dairy Club Honor Roll

It is no small achievement to do all the work of the Dairy Club and have every record complete and in on time. The following members are up to date on all their reports. If your name is not on the list, it means you are behind or in some way have not furnished the reports as prescribed in the rules of the club.

Thelma Adams
Harold Bentz
Claude Carter
Gary Cook
Alfred G. Davis
Carlito Griswold
Marion Melvern Lee
Thereso O'Mara
Lucile Radcliffe
Clarence Radcliffe
Elise Regier
Glen Romig
Roland E. Roney
Harvey Russell
Hazel Shriver
John Voorhees, Jr.

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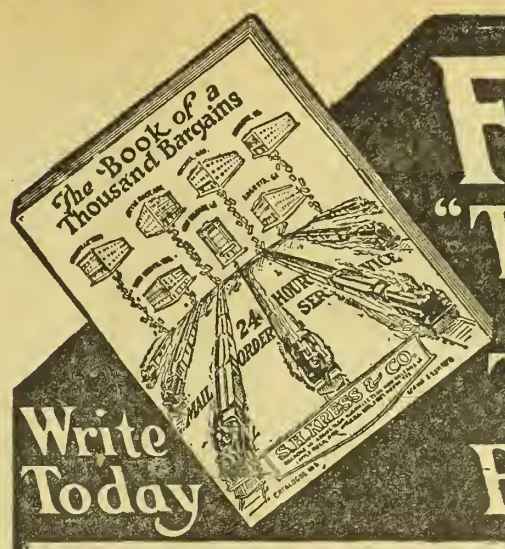

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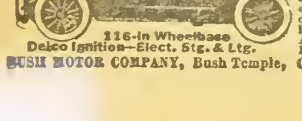

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Hogs Without Corn

FEEDING oats to hogs is a subject about which one of KANSAS FARMER's Montgomery County readers makes inquiry. He refers to a statement in an article last fall entitled "Pushing the Fall Pigs." This was to the effect that finely-ground oat meal could be substituted for corn in the ration with equally satisfactory results on rape pasture. This referred to the feeding of brood sows and pigs during the suckling period and was based on results obtained at the Iowa Experiment Station.

The use of alfalfa, clover, or rape pasture saves a great deal of grain in the growing of hogs and especially the supplementary grain, such as shorts, tankage, etc. One should not attempt to grow hogs without plenty of pasture. It requires considerable grain to finish hogs for market, but every hog man knows that a minimum of grain is required in the growing of pigs, provided they have the run of good pacture.

Our correspondent asks of oats are equally satisfactory with alfalfa pasture. He says: "We can raise any amount of alfalfa and oats here, and also have some access to wheat middlings at market prices, and to skim milk, but corn is a very uncertain crop, and that is the only thing standing in the way of greatly increasing our hog production. Last fall I sold over a hundred head of hogs, averaging 125 pounds, raised on alfalfa pasture without grain. Of course there was not a fat hog in the bunch. They were sold mostly to farmers who had raised enough corn to fatten them out

"Can oats in any form or any combination be fed so as to equal corn for fattening hogs? Would oat meal, hulls and all, take the place of corn as the sole grain feed on alfalfa pasture?"

Hogs cannot be successfully fattened on oats alone. A combination of one-third ground oats and two-thirds corn makes a good fattening ration, but owing to the hulkiness of oats this proportion cannot be increased in feeding hogs in the fattening pen. Oats, however, are very valuable in feeding breeding stock and young pigs. They must be ground for pigs. Ground oats with the hulls sifted out is an ideal grain feed for young pigs just beginning to eat. For growing shoats, brood sows, or other breeding stock, the whole oats can be scattered on a feeding floor or clean ground with the best of results.

Where corn is an uncertain crop we would suggest the substitution of kafir or others of the grain sorghums for corn in fattening hogs. Kafir can be substituted for corn almost pound for pound, and is a far more sure grain crop than corn over much of Kansas. Kafir or milo grain with alfalfa can be satisfactorily used in finishing hogs for market.

There are farmers in Montgomery County and in many other sections who have been especially successful in growing kafir. The agricultural agent can tell who they are and pass on their methods to those who have not learned how to succeed with this crop.

Of course hogs can be grown and passed on to those who have the corn to fatten them, as was done by our correspondent last fall. Under some conditions this is perhaps more profitable than attempting to grow the grain required to fatten them for market. A great many more hogs, however, could be grown and finished for market in Kansas by using the grain sorghums as a substitute for corn.

Principal Feed	Daily Feed—Pounds	Daily Gain—Pounds	Concentrates for 100 Lbs. Gain—Pounds
Lot 1—Ground kafir	4.9	1.4	534
Lot 2—Ground milo	4 9	1.43	523
Lot 3—Ground feterita ..	4.9	1.36	549
Lot 4—Ground koaliang .	4.9	1.31	572
Lot 5—Ground corn	4.9	1.46	514

A great many experiments have been conducted at the Kansas Experiment Station to determine the value of the grain sorghums as a feed for fattening hogs. In one of the recent tests five lots of [illegible] pigs each were fed corn, kafir, milo, feterita, and koaliang, respectively. These grains were supplemented with 2.3 pounds of shorts and .4 pound of tankage daily for each pig. The results are shown in the table:

Kafir and others of the grain sorghums cannot be grown successfully without giving them a far better chance than is the ordinary practice. The bulletin on growing grain sorghums in Kansas, recently published by the Kansas Experiment Station, should be in the hands of every farmer in the state who counts corn an uncertain crop in his locality. It will be sent free on request. Address Kansas Experiment Station, Manhattan.

Care of Mares Before Foaling

Carelessness and lack of knowledge are responsible for a large number of losses which occur during foaling. This is doubly true because in case of trouble, aid must be given quickly and accurately. The loss of foals before weaning time has been estimated from 10 per cent to 25 per cent of the crop, and the greater part of this loss occurs before the foals are two weeks old. Much of it can be avoided by attention and care.

Prior to the birth of the foal, mares should have enough of good wholesome food and water; plenty of exercise; clean, light and altogether sanitary quarters along with regular attention directed or given by a man who likes the horses and who looks after this matter not from a sense of profit and loss alone, but because of human interest and duty.

On the average farm the problem of exercise is not troublesome. The great difficulty is to find help that will handle brood mares carefully. Brood mares may work up to within two or three days of the date of foaling, and be benefited by it. They should be given moderate but steady work. Such mares should not be given work which requires backing heavy loads, or where there is a chance of slipping. But they can be and should be worked.

E. A. Trowbridge, of the Missouri College of Agriculture, an acknowledged authority on feeding and handling horses, suggests the following ration as satisfactory for brood mares: Oats four parts, bran one part, mixed clover and timothy hay; oats two parts, corn two parts, bran one part, mixed clover and timothy hay.

Mr. Trowbridge points out that the feed for brood mares should always be of the best quality and of such a composition that it will not cause digestive trouble. As a general rule mares doing light work should eat approximately one pound of hay and one pound of grain per day per thousand pounds live weight. This matter should be governed, however, by the condition of the mares, and they should be gaining in condition with digestion in best of condition as the critical time approaches.

Mares should be given a box stall at least four weeks before they are due to foal, in order that they become accustomed to it, and may also have a place large enough to be comfortable during the night. The stall should be at all times kept clean and well bedded, but particular care should be taken regarding these details when the foal is born. If truly known, the source of navel trouble in foals is generally a dirty stable or yard. As a safeguard against "navel disease," besides the scrupulously clean stall, the navel should be tied and treated with a strong disinfectant, such as a solution of carbolic acid.

If the season of the year and other existing conditions permit, mares may well be allowed to foal on grass, which lessens the danger of infection.

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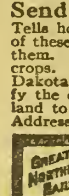

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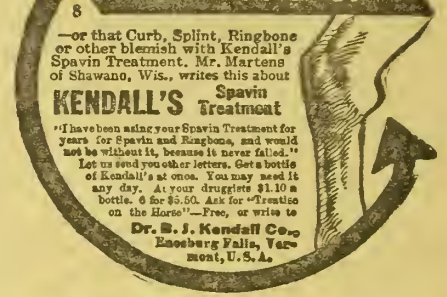

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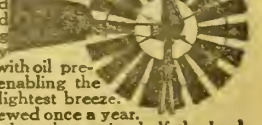

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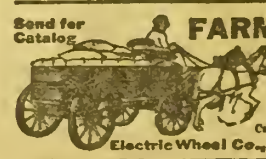

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worth of popcorn from his sixty-two-acre farm.

The farmers of this community have made a business of raising popcorn. It is their principal product. All the business and industry of the community depends upon the popcorn crop, but popcorn will grow anywhere that field corn will grow and it is planted and cultivated in about the same manner. Other farms in other sections can raise this grain as well as those of this particular section. About the only restriction on raising popcorn is that it should not be grown adjoining a field of field corn. The rotation plans and the cultivation of the crop are practically the same as for field corn. There is no reason why the commercial supply of popcorn should be raised in only one or two communities. Any part of the so-called corn belt will grow a crop successfully. In this particular community one followed the example of another until the entire community is a popcorn center. They have been raising popcorn for years.

The enormous increase in demand and a short crop last year have almost completely exhausted the reserve supply of popcorn. Heretofore a reserve has always been maintained. In 1916 the popcorn grower sold his 1915 crop. In 1915 he sold his 1914 crop, but now that the reserve is gone, the 1917 crop is already on the 1918 market months before it would be marketed normally. It is apparent there is room for greatly increased production. Popcorn that brought about 2 cents a pound in the field two years ago is now bringing 5 or 6 cents and may double in price next year.

We probably do not realize how rapidly the consumption of popcorn has increased. Great changes have come over the popcorn business in recent years. Drug stores, confectionery stores, grocery stores, restaurants, general stores, motion picture theaters, and in fact almost all classes of business houses now consider their equipment incomplete without a popcorn machine serving freshly-popped corn buttered with pure creamery butter. Within almost a year the demand for popcorn has doubled and trebled in volume.

People are demanding popcorn and popcorn confections. The Government is urging us to eat more corn and throughout the country articles are being printed on the food value of popcorn. It is being urged as a patriotic confection, one that will help conserve other foods.

Here is an opportunity that the corn growers of Kansas should investigate. The United States Department of Agriculture has issued several bulletins on the growing and marketing of popcorn. These are Farmers' Bulletins Nos. 202, 553, and 554.

Bees and Fruit

Honey production as associated with fruit growing was the subject of a talk by Charles D. Mize during Farm and Home Week at the Agricultural College. Mr. Mize is an experienced bee man. He reminded his audience that one of the principal food shortages we have is sugar. This has become so serious that the sale and consumption of sugar has been restricted by the Food Administration and we are urged to use every substitute that we can to the end that we may spare more for our allies in this war.

"Honey is Nature's own sweet," said Mr. Mize. "It is a delicious and nutritious food, and yet millions of pounds go to waste for lack of bees to gather and store it for man's use. Every pound of honey produced will take the place of at least one pound of sugar. It has the added advantage of being better and more healthful than sugar.

"One of the best of the honey-producing plants is sweet clover. Sweet clover is almost equal to alfalfa as a forage plant; it will grow in almost any soil and is one of the greatest soil builders we have. I have noticed in young fruit orchards various crops being grown between the rows of trees. Why not sow sweet clover, which will give you a good crop of hay the first year, another cutting of hay the second year, and a valuable seed crop. In addition, if you have bees, they will do their part in saving the nectar for your use and the soil will have been greatly enriched.

"I know that not every fruit grower wants to be a commercial honey producer, but every fruit grower and farmer—large or small—can have a colony or two of bees and produce at least enough honey to supply his own family. Having a few colonies of bees does not mean that you are required to have an extensive technical knowledge of handling them, though, like anything that is worth while, the more you know, the better.

"The few fundamentals that it is necessary to know can be learned from the free bulletins issued by the Department of Agriculture, Washington, D. C., or from Dr. J. H. Merrill, of the Kansas Agricultural College. Every bee keeper in your neighborhood will be glad to give you help in any way he can.

"To avoid being stung by the bees, use veils and gloves for protection. With this precaution and by the judicious use of the smoker the bees can be handled without danger.

"You should not overlook the value of the honey bee in the pollination of fruit blossoms, especially in self-sterile varieties that require cross pollination. In this respect I take it for granted you consider the bees your valuable friends, and this being true you will do nothing to injure them. Thousands of colonies of bees have been killed by poisonous spray applied while the trees were in bloom and the bees working thereon. In spraying, remember the bees and wait until the blossoms fall.

"On the value of the bees in the orchard, E. E. Yaggy, of the Yaggy Plantations near Hutchinson, Kansas, states that for the past three seasons he has had a bee keeper place his bees—eighty colonies in 1917—throughout the orchards while in bloom, for pollinization purposes, and that for this period of three years he has had splendid crops. He does not attribute this result altogether to the bees, but he does state that he considers the honey bee the best and most indispensable means of cross pollinization in the orchard, and that if he could not secure bees from a bee keeper he would have his own.

"In conclusion let me say, Get some bees. Use the ten-frame hive. For home use in either comb or extracted honey, use the shallow extracting frame, five and three-eighths inches deep. Have two of these supers with each hive. Three would be better. Use full sheets foundation in hive body or brood chamber, and starters or full sheets in super frames. Set hive on level from side to side. The back can be one inch higher than the front. This makes for straight combs. Put on one super when honey flow is near. When this super is nearly full, add another. Give the bees some attention, as you would anything else on the farm. I believe I am safe in asserting that for the capital invested and labor required, there is nothing on the farm that will give greater returns than the bees."

Bee supplies will be scarce and hard to get, and those needing equipment should order at once.

Western Kansas Bean Culture

Since writing of our experience with Tepary beans, I have received several inquiries in regard to the preparation of the ground and care of beans in Western Kansas. I find that nearly all kinds of beans shed their blooms to a greater or less extent during the dry, hot weather of July and August. This not only is a loss in that the vines lose much vitality while this is going on, but they are using much moisture which should be utilized in the production of seed. The more moisture one can have stored up for the use of the crop during the period when conditions are best for the setting of the seed pods, the larger will be the yield, the shorter the period when the vines are forced by uncongenial conditions to shed their bloom, and the more vitality they will be able to put into the production of seed.

In order to bring about the desired conditions, we must take into consideration some primitive facts. First, under normal conditions we must conserve as much moisture as possible to produce a crop of beans. Second, a long growing period is less conducive to the production of seed than a short growing period. Third, not only beans but most plants grow and mature much more rapidly when planted moderately late than when planted early.

In order to conserve moisture, we should plow for beans as soon as the first crop of weeds is well sprouted and before the ground gets green. If the ground is sandy and apt to drift as soon as the weeds sprout again, list it, and when the next crop of weeds shows up split the ridges and in this way keep the weeds constantly subdued until June 15 or 20. If the season is dry, plant three to five beans in a hill, thirty inches apart each way, immediately after a rain. Teparys can be planted as late as July 15, and Pintos June 15 to 30. Hard land that will be too lumpy to drift should be kept clean by means of a disk harrow. A thick growth of Russian thistles two inches high will take up more moisture in a day than beans in rows will use in two weeks. Don't let the weeds get a start. If you can irrigate, plant in thick, drilled rows, thirty inches apart, otherwise in hills and spaced in accordance with the amount of moisture you have stored. If the ground is well saturated and rain prospects are good plant three or four beans to the hill, fifteen inches apart in the row, and in rows thirty inches apart, otherwise space the hills twenty-four to thirty inches apart. Hills are better than thinly drilled plantings, as the denser growth protects the flowers from sun and wind. Yellow Tepary or Pima beans, do best on hard land. Pinto or Mexican beans do best in mixed sandy soil. White cowpeas do best in sandy soil. The two latter are very good for food.—H. Willis Smith, Garden City.

A real money-back bargain—a Liberty bond.

Do you know what it is costing to run your farm? Keep an account for a season and know what it costs.



The Miracle of the Marne

The battle of the Marne halted the rush of the Germans towards Paris. It aroused the French to superhuman bravery. They fought as if led by the spirit of the Maid of Orleans herself.

The Marne was a demonstration of the power of patriotism with its back against the wall. The same sacrifice of self, the same love of country and unity of purpose that inspired the French people must inspire us, and we must win the war.

We are sending our best manhood to fight for us. They must be armed, fed and clothed, cared for through sickness and wounds. This is the work of every individual as well as the Government.

It is the proud duty of the Bell System to coordinate its purpose and equipment to the other factors in our national industrial fabric, so that the manufacture and movement of supplies to our boys abroad be given right of way.

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We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

The Bridge Builder

An old man going a lone highway,
Came at the evening, cold and gray,
To a chasm vast and deep and wide.
The old man crossed in the twilight dim—
The sullen stream had no fear for him—
But he turned when safe on the other side
And built a bridge to span the tide.

"Old man," said a fellow pilgrim near,
"You are wasting your strength with building here.
Your journey will end with the ending day.
You never again will pass this way.
You've crossed the chasm deep and wide,
Why build you this bridge at evening tide?"

The builder lifted his old gray head—
"Good friend, in the path I have come," he said,
"There followeth after me today
A youth whose feet must pass this way.
This chasm that has been as naught to me
To that fair-haired youth may a pitfall be.
He, too, must cross in the twilight dim—
Good friend, I am building this bridge for him."
—Selected.

Y. M. C. A. at Front

In more than 150 centers in France, Y. M. C. A. accommodations have been provided for the soldiers in Pershing's expedition. At the present time there are more than 1,300 American Y. M. C. A. secretaries in the war zone promoting for Uncle Sam's boys the same program they have enjoyed in the big camps in this country.

When the American troops took over their section of the French fighting front there were eight Y. M. C. A. dugouts waiting for their exclusive use. These provided chocolate, sweets of all kinds, biscuits and knicknacks. The last thing American troops will get before they go over the top will be a cup of hot coffee or tea, a biscuit or two, some chocolate for emergency rations, and a word of cheer and inspiration from the Y. M. C. A. secretaries.

One More Call

There have been many insistent calls that have rung out on the clear air of our native land in the past few months—calls from those who know the greatest needs of our people today, tomorrow, and next year.

There is a call for our best and most stalwart young men to go and defend us on the battlefield. There is a call for men and women everywhere to make a greater effort to feed these men and all others who need food in the coming year. So the farmer, the dairyman, the cattleman, and the city dweller who has a few feet of earth are planting and tending with care the garden and field and are caring for their live stock and milk supply.

There is a call for cotton and wool that the nation may have clothes. There is a call for means to carry on the Red Cross movement, that our wounded soldiers may be cared for, and a call for women to nurse these wounded and dying men and to sew and knit for those who are on the battlefield. There is also a call for those who manage households and those who prepare food to stop the waste everywhere, so that the supply may be sufficient for present needs.

These are all noble calls and the response has been very gratifying. There is still another call which comes from the mothers, wives, and sisters of the men of our country, asking that the corn and rye and barley be made into flour that the world may be fed, asking that the vats of our distilleries may lie idle and empty, for a time at least, and not waste the grain that the farmer with toil and care has raised. Why this offering to John Barleycorn when the world's progress is only hindered thereby?

May our nation, our lawmakers, respond to this call. Would that I could make it ring out that all the world might hear and take heed.—MRS. LUCY L. FERGUSON, Wisconsin.

Peace in Troublous Times

The report of the chaplain of the Kansas State Grange, Mrs. Mabel Pomeroy, as given in the Journal of Proceedings of the Forty-Sitxh Annual Session, just published, contains the following thought, which is so true, so beautifully expressed and so comforting in these times of stress that we wish to pass it on to those of our readers whom it would not otherwise reach.

"We are all seeking happiness in this world, and many are the phantoms that men have pursued in search of it, only to be disappointed at last. Only two things lead to permanent happiness. These are love and work. God's love must be in our hearts. We must render first our allegiance to our Divine Master and then will come all these other things that lead to happiness. Let us remember the words found in Ezra 8:22: 'The hand of our God is upon all them for good that seek him, but his power and his wrath is against them that forsake him.' To those that love and serve Him first, will come happiness and peace, the peace of God which passeth all understanding, that peace which Christ meant when He said: 'Peace I leave with you. My peace give I unto you.' This peace will not keep away from us the clouds and storms that must gather and break in every life, but it will be shown in keeping us, deep down in the recesses of our secret souls, in perfect peace, still stayed on Him and His eternal strength, because underneath are His everlasting arms.

"It is as when a tempest has risen on the sea and lashed the waves to fury and driven great ships before it, but underneath, a hundred fathoms deep on the ocean bed, there is quict, rest, perfect peace. Just now when the war storm has lashed to fury so many of the nations of earth and driven others before it, let us turn our thoughts to God's perfect peace and remember that underneath all the rage and tumult are God's everlasting promises, His everlasting love, and His everlasting arms."

A Food Plan

It is well to check over from time to time the amounts and the costs of the different kinds of food consumed by the family and to investigate carefully to see that the menu includes everything each individual should have, that the foods of the season are used to best advantage, and that a one-sided diet has been avoided. For the average family of six with four children under ten, aged one, three, six, and nine, some of the important points to consider are:

Milk for all the children.

Orange juice for the one-year-old.

One kind of fruit for the others in the family.

Cooked cereals for all the family.

A mild green vegetable for the three- and six-year-old.

One green vegetable for all the others except the baby.

Eggs for the three younger children.

Meat or a meat substitute for the others.—JULIA VANCE, Nebraska College of Agriculture.

Why Not Rye?

The consumer should know that rye is about as valuable a bread material as wheat. It is not regarded as a wheat substitute, but in bread making is put on a parity with wheat, because it is needed for export to the Allies and is in demand among American bakers who supply bread to certain groups of foreigners. It can be bought from the grocers "straight," but is not in the fifty-fifty combination as a substitute for wheat.

In bread-making rye is usually combined with wheat flour. Housekeepers who make their own rye bread should use at least 20 per cent of corn flour or other wheat substitutes, to produce a "victory" loaf.

Honey Cookies

3 cupfuls steel cut oats
¼ teaspoonful salt
2 eggs, well beaten
2 teaspoonfuls baking powder
1 cupful strained honey
2 cupfuls dates, cut fine.

Drop from teaspoon. Bake in moderate oven. Makes about forty-four cookies.

Classified Advertising

HELP WANTED.

THOUSANDS GOVERNMENT POSITIONS open to farmers. $100 month. Easy clerical work. List positions free. Franklin Institute, Dept. N-82, Rochester, N. Y.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE—RED POLLED BULL, HERD header, A-1. Yearling bulls ready for service. R. C. Browniee, Holden, Mo.

FOR SALE—ABERDEEN-ANGUS BULL, one year old, extra quality. J. W. Alexander, Burlington, Kansas.

FOR SALE — A RED POLLED BULL, calved March 8, 1913. There are very few better bulls in the state. Geo. Haas, Route 6, Lyons, Kansas.

REGISTERED HOLSTEIN BULL CALVES $40. High grade heifer calves, $18, crated. Satisfaction guaranteed. Paul McFarland, Route 7, Watertown, Wisconsin.

TWENTY-FIVE TWO-YEAR-OLD HIGH-grade Holstein springers. A few Holstein heifer calves, four to six weeks old, $22.50 each. Oakwood Farm, Whitewater, Wis.

HOLSTEINS — HIGH - GRADE HEIFER calves crated at $20 each, from extra choice producing dams, sired by high-class registered sires with official record backing. Also fancy brick and limburger cheese by parcel post or express. Hyland Stock Farm, Monroe, Wisconsin.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

HORSES AND MULES.

BLACK REGISTERED PERCHERON stallion, three years old. Three Aberdeen-Angus bulls, eligible to registry, one year old. All good individuals. Satisfaction guaranteed. E. B. Saylor, St. John, Kansas.

ONE MAMMOTH JACK, ONE SPANISH jack, both sure breeders. Also one standard-bred two-year-old filley and one good eight-months-old draft colt. This lot will be priced right. Must close out. H. L. Summers, Twenty-third and Lincoln Sts., Topeka.

MISCELLANEOUS.

FOR SALE — ONE NEW ASPINWALL potato planter, one Pugh potato digger, good condition. Inquire at Belvue State Bank, Belvue, Kansas.

DR. PRUITT'S CHOLERA AND DIARrhea Treatment is guaranteed to stop your chickens and turkeys dying or your money back. A full treatment for ninety grown chickens sent prepaid for $1.50. Pruitt Remedy Co., Hays, Kansas.

HOGS.

FOR SALE—SPOTTED POLAND CHINA sows and gilts, open and bred. J. W. Alexander, Burlington, Kansas.

WANTED—TO BUY.

WANTED—WHITE ESKIMO SPITZ PUPpies, six to eight weeks old. Brockway's Kennels, Baldwin, Kansas.

SITUATION WANTED.

WANTED—WORK ON FARM BY THE month or year by man who understands all farm work and stock. Address A. Wagner, Route 1, St. Peter, Minn.

When Writing to Advertisers, Please Mention Kansas Farmer

THE STRAY LIST.

TAKEN UP—ABOUT THE MIDDLE OF December, 1917, by Alois G. Basgall, residing north of Bison, in Rush County, Kansas, on Route A, one bay mare colt about two years old, cut in left ear. Appraised at $100. Chas. Hopper, County Clerk, LaCrosse, Kan.

TAKEN UP — BY AUGUST FEYH, OF Wabaunsee Township, Wabaunsee County, Kansas, on November 20, 1917, one red yearling steer, weight about 500 pounds; no marks or brands; appraised value $50. Katie L. Burt, County Clerk, Alma, Kansas.

TAKEN UP—ON THE 9TH DAY OF March, 1918, by Jacob Schuerman, in Whitewoman Township, Wichita County, two black mules, no marks or brands, about three years old. Dean Trueblood, County Clerk, Leoti, Kansas.

FARM LANDS.

YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

TANNING.

LET US TAN YOUR HIDE: COW, HORSE or calf skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

DOGS.

FEMALE COLLIES, FOUR MONTHS, fancy, $7.50. Frank Barrington, Sedan, Kan.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

FOR SALE — SCOTCH COLLIE PUPS, farm raised, from good workers. I. P. Kohl, Furley, Kansas.

AIREDALE PUPS, $7.50 UP. PUREbred. Sire Imported Champion Cadet. Riverside Farm, Topeka, Kansas.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

VIOLINS.

VIOLIN FOR SALE—HAS SWEET TONE. Free trial. Easy payments if wanted. Write Miss Bertha Mardiss, Route 5, Rosedale, Kansas.

TRACTORS.

I HAVE FOUR "STEEL MULE" TRACtors at Grainfield, Kansas, that I will sell cheap or trade for land. They are equipped to use coal oil. F. D. Sperry, Ellsworth, Kansas.

TREES, SEEDS AND PLANTS.

BROOM CORN, EARLY DWARF, $3 PER bushel. L. Sanders, Atlanta, Kansas.

SEED CORN. — LAPTAD STOCK FARM, Lawrence, Kansas.

NICE CLEAN PINTO BEANS FOR FOOD or seed, ten cents pound. Send check with order. Fred Hines, Elkhart, Kansas.

FOR SALE — GOOD RECLEANED ALfalfa seed at $8 per bushel. Write for free sample. C. Markley, Belle Plaine, Kansas.

SEED CORN, OATS, COWPEAS. WRITE today for prices. Southwestern Seed Co., Dept. G, Fayetteville, Arkansas.

ONE HUNDRED FIFTY BUSHELS GOOD recleaned alfalfa seed for sale, $9 per bushel if a quantity is taken. V. O. Johnson, Auine, Kansas.

SUDAN SEED—1917 RECLEANED CROP, free of Johnson grass. 22c pound, 50 pounds $10.50, 100 pounds $20. Cash with order. Herman Burdorf, Cheney, Kansas.

FOR SALE — OLD CORN FOR SEED (Boone County White), in the ear or shelled, $4 per bushel at the farm or station. C. H. Bacon, R. F. D. 2, Hutchinson, Kansas.

SWEET CLOVER AND ALFALFA — Farmer's prices. Sow sweet clover on oats. Pasture after cutting. Thin wheat is ideal seed bed. John Lewis, Madison, Kansas.

EVERBEARING STRAWBERRY PLANTS —Progressive, Superb; thrifty, pedigreed, state inspected. Per hundred, $1.25 postpaid. Sycamore Nursery, North Bend, Neb.

SEED CORN — IOWA SILVER MINE, Diamond Joe and Hildreth at $3.25 per bushel f. o. b. cars Grove, Oklahoma. Sacks free. J. C. Starr, Vinita, Oklahoma.

SWEET CLOVER SEED—SPECIAL SCARified, hulled and unhulled. Circular and prices on request. John A. Sheehan, Route 4, Falmouth, Kentucky.

SUDAN SEED, MY OWN RAISING, 1917 crop, 25c per pound. Sudan crosses with sorghums or Johnson grass if grown near—mine is pure. M. H. Loy, Milo, Kansas.

SUDAN SEED RECLEANED, FREE FROM Johnson grass, test 47 pounds. $18 per cwt. Less, 20c per pound. H. Struebing, Winfield, Kansas.

KAFIR SEED—PURE DWARF BLACKhulled white, well matured. Graded, 5c per pound. Send self addressed stamped envelope for sample. J. C. Lawson, Pawnee, Oklahoma.

BLACK-HULLED WHITE KAFIR, 100% permination test at Manhattan; $3.50 per bushel in two-bushel lots. Order at once to be sure of your kafir seed. H. W. Chestnut, Kincaid, Kansas.

SEED CORN — MY OWN GROWING, picked especially for seed. White, shelled, graded, tests 98 and better. Two bushels, $5 per bushel; over two bushels, $4 per bushel. Sacks free. Fred Perkins, president Oswego State Bank, Oswego, Kansas.

SUDAN SEED, 25c POUND; RED TOP, 12c; orange cane or African millet, 11c; red dwarf maize red and white kafir, 7c; hygeria, 10½c; feterita, 10½c. All seed recleaned. Guaranteed free Johnson grass. No orders accepted less than fifty pounds. Wire, write. Prices larger amounts. Robinson Bros., Lubbock, Texas.

WE HAVE SOME FINE WHITE BLACKhull kafir seed that tests over 90 per cent germination. We quote same at $3.65 per bushel in two-bushel sacks only of 112 pounds each. This is clean, well matured seed and it will be hard for you to find good seed like this this year. Don't take a chance by planting inferior seed because it may be a trifle cheaper. Brooks Wholesale Company, Fort Scott, Kansas.

FOR $1 WE WILL SEND YOU, ALL charges prepaid, twenty apple, pear, or apricot, or ten cherry trees all budded, or 25 grapes or 100 asparagus or 50 raspberry, blackberry or dewberry or 150 or 75 everbearing strawberry plants or 50 red cedar or Chinese arbor vitae seedlings or 10 transplanted evergreens, four years old. Many other bargains. Catalog free. Manhattan Nursery, Manhattan, Kansas.

WHEN WRITING TO ADVERTISERS MENTION KANSAS FARMER

Hot Water Gingerbread

½ cupful sugar
1 cupful molasses
½ cupful fat
1 cupful boiling water
1 teaspoonful ginger
2 teaspoonfuls soda
2½ cupfuls flour
2 eggs
1 teaspoonful cloves
Pinch salt.

Sift flour with the soda and spices. Add the melted fat to the water and molasses. Combine with the sugar. Add the flour mixture, and lastly the well beaten eggs. Bake in a moderate oven.

Loyalty in little things is the foundation of the national strength. Disloyalty in little things gives aid to the enemy. If we are selfish or even careless, we are the enemy at home. Now is the hour of our testing. Let us make it the hour of our victory; victory over ourselves; victory over the enemy of freedom.—HERBERT HOOVER.

Twilight Animal Stories

Bumper The White Rabbit

By George Ethelbert Walsh

(Copyright, 1917, by George E. Walsh)

STORY XIV.—BUMPER MEETS MR. BEAR

BUMPER spent a quiet, restful night after Dr. Crane had removed the trouble that was causing his sickness; but he was very weak and faint and he slept long after the birds were up and singing. He was a little afraid at first to eat anything when he finally crawled from his hole in the decayed tree branch; but, recognizing some sweet birch trees, he ate moderately of the leaves and bark.

This seemed to put new life in him, and by early noon he felt quite himself again. Rusty the Blackbird, who had taken quite an interest in him, brought him the cheering news that his country cousins were living in a burrow a few miles back in the thick woods.

"Take this deer trail back about a mile, and you'll find them," he said. "You can't miss their home. It's under a big rock which you'll come to."

Bumper thanked him, and decided to begin his journey at once. He was very anxious to find a home with the wild rabbits, for his chance of getting back to the garden where the red-headed girl lived was very slim. He had no idea how far down the river he had floated, nor in what direction to take to find the garden.

"Is there any danger of meeting Mr. Fox on the trail?" he asked a little anxiously.

"No," replied Rusty, "for Buster the Bear frequents the trail, and Mr. Fox is dreadfully afraid of him."

"But how about Buster the Bear eating me up?"

"He might," admitted Rusty, "if he caught you, and was very hungry, but you don't want to let him catch you."

"That's true," replied Bumper, "but I might not be able to avoid him. Is he as quick as Mr. Fox?"

"Oh, dear, no! You can easily outrun him. He's so clumsy he falls over his own big feet sometimes, and he makes such a noise you can hear him coming a mile away."

"Then I don't believe I'm afraid of him," replied Bumper, in a voice of relief.

When he started out on his travels he felt pretty good, and on the way he stopped to eat every time he found something he knew was good for him. He avoided all strange plants, and ate only those re recognized.

In a short time he came to such thick woods that if it hadn't been for the deer trail he would have been lost, but he followed Rusty's directions, and kept strictly to the well-worn path. When he grew tired, he rested by the wayside, always hiding in the thick bushes, and keeping one eye and both ears open. There were many strange and wonderful noises in the woods, and more than once Bumper started up with fright.

But nothing happened to him until he was so far in the woods that he thought the big rock must be near. He kept a sharp lookout for it. Just then he heard a noise so different from anything that had startled him before that he stopped to listen. It seemed as if some one was in great pain, and needed help.

Now Bumper was very tender-hearted, and any one in distress made him feel very sad. So instead of keeping on the trail, he wandered off to find out who was moaning so loudly.

And what he beheld was enough to make any rabbit laugh! It was Buster the Bear fast asleep, snoring as if he enjoyed it. Bumper was frightened at first by the sight of the big, shaggy head and body, but when he recalled Rusty's words, and saw that Buster was sleeping, he stopped and laughed. It was a sight to make any one laugh.

Buster's big shaggy body rose and fell with every breath, and each time a loud snore came from his half open mouth. It sounded like a wheezy pair of bellows trying to play a tune. Bumper had never heard anything like it in his life.

While he stood off at a safe distance watching, a bumblebee lighted on Buster's nose and tickled it. The bear brushed it off with a paw, and rolled over to renew his sleep. But, unfortunately for Buster, he whacked the bee so hard that he must have hurt it.

Anyway, the bumblebee resented it, and gave him a sharp sting on the nose. The effect was startling. Buster came to life with a jump, and let out a loud:

"B-r-r-r! Whoof!"

The ground seemed to tremble as he struggle to his feet, and swung his huge paws at the bee. But the bumblebee, having accomplished its purpose, calmly flew away. Buster rubbed his smarting nose, and growled angrily.

Suddenly he caught sight of Bumper grinning at him. He stopped rubbing his nose to stare and blink at the white rabbit. Bumper, now that he was discovered, ceased grinning, and began to feel afraid.

"You think it very funny, don't you?" growled Buster, his little eyes flashing. "I wish he'd stung you instead of me. Drat the old bumblebees! I wonder what they're made for!"

"I'm sure I couldn't tell you," replied Bumper in an unsteady voice.

"What do you suppose you're made for?" continued Buster, eyeing him queerly.

"Why—to—make little boys and girls happy, I suppose," Bumper stammered.

Buster grinned at this stammering remark. Then, with a leer, he added: "No, that isn't the reason. It's for something else. Want me to tell you?"

"Why, yes, I'd like to know."

"Well, then, it's to give Mr. Fox right back of you a good meal."

Bumper gave a jump of nearly three feet when he heard this. He didn't suppose the fox was anywhere near, and the thought that he was right behind, ready to spring upon him sent the blood racing through his body. But when he turned, expecting to see dripping jaws about to close upon his neck, he was surprised and then puzzled. There was no fox in sight. However, he wasn't to be deceived, if Mr. Fox was hiding, and he stood ready to spring away, his body quivering with fright, and his pink eyes dilated.

"Ha! Ha! Ha!" laughed Buster the Bear in a deep rumble, rolling over on his fat sides. Ho! Ho! Ho! What a scare I gave you! Now we are quits. The joke's on you!"

It took Bumper some time to realize that it was only a joke, and not a near tragedy for him. Finally he turned a shamed, embarrassed face toward Buster, and grinned good-naturedly.

"The next time I see any one in trouble," he said, "I won't laugh at him, Mr. Bear. You've taught me a good lesson."

"Well, that's what I call taking a joke in the proper spirit," smiled Buster. "I'm sorry I gave you such a shock."

"And I'm sorry I laughed when the bee stung your nose."

"Oh, as for that, I didn't mind the sting so much as the interruption of my sleep." Buster rubbed his nose as he spoke. Then he added, addressing the white rabbit:

"Where are you bound? You must be lost. I never saw a white rabbit out of the city before."

"Were you ever in the city?" asked Bumper, eagerly.

"Sure! I was in the Zoo for a whole year until I escaped."

"Then you know something how I feel. The country's very strange to me, and I feel a bit lonesome. Could you tell me where my country cousins live—the wild rabbits?"

"Yes," replied Buster, "but I'm not sure they'll welcome your coming. However, you can find them by following that trail a little further until you come to a big rock. They live under it where Mr. Fox can't get them."

"Thank you," replied Bumper. "I think I'll be going, then. I must find them before night."

Save All Your Chicks

E. J. Reefer, poultry expert, of 163 Reefer building, Kansas City, Missouri, is giving away free a new book which tells of a simple home solution that raises 98 per cent of all chicks hatched and cures white diarrhea over night. All poultry raisers should write for this valuable free book.—(Adv.)

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Get a Good Male Bird

THE ordinary farm hen lays from fifty to seventy-five eggs a year. If everything she eats had to be paid for in these days of high feed prices, she would hardly pay for her board. If her egg production could be increased three or four hundred fold, would it not be good policy to pay a good round sum for the means of doing it? We think it would. What's the use of keeping things on a farm that do not pay a profit?

The great influence that the sire exerts over his progeny is not generally known or understood by the people that raise poultry. Expert dairymen have known for many years that the male at the head of the dairy herd has a wonderful influence on the milk production of his daughters, and the cash value of the male is often calculated on the milk capacity of such daughters. When a male produces daughters that have unusual capacity for milk production the owner uses and keeps him at the head of his herd as long as he can. We see this emphasized on reading the pedigrees of dairy cattle when attention is called to the fact that the male is the sire of so many daughters that have made especially good records of milk production and have entered the Register of Merit class.

The poultry breeder is being gradually educated along these same lines and a series of experiments at the Kansas State Agricultural College has called special attention to the influence of the poultry sire on the egg production of his daughters. The experimenters took a common barnyard hen laying seventy-five eggs per year and mated her with a cockerel from a high-producing strain of hens, and the first year they had pullets from that mating laying 157 eggs a year, thus increasing the egg production over a hundred fold the first year. These pullets again were mated to cockerels from high-producing strains, and the progeny laid 225 eggs a year. These again were mated to fine males and the third year some of the pullets laid 260 eggs in a year. Thus the egg production in three years was increased more than three hundred fold. Now there is nothing hit or miss or haphazard about this. The pullets were all trapnested, an accurate account kept of all transactions, and all things worked on a scientific basis. It behooves us poultrymen, therefore, to take advantage of these scientific facts to augment the productiveness of our hens. Many poultry raisers, especially among the farming class, have a habit of changing roosters every season, but this is done more from a dread of inbreeding than from a desire to increase egg production. When they introduce new males into their flocks they should endeavor to get such from a high egg-producing strain of hens. The outlay of a few dollars for a good male would be paid back in one season. If you cannot readily find a good male for sale, then buy eggs from high-producing hens and save the males from these eggs for next season's use. There are many advertisers in KANSAS FARMER who have such males and eggs for sale, for they have been increasing the egg-producing qualities of their flocks for years.

If your hens are of a certain standard breed of fowls, you should get a male of the same breed to mate with your hens. If your hens are nondescrips or mongrels it does not matter so much what breed the male belongs to, so long as he comes from a high egg-producing line of females. Probably we ought to qualify that phrase, "it does not matter so much what breed the male belongs to," for it does matter if you desire to increase the size of your pullets as well as to increase their egg productiveness. For the male certainly influences the size of the pullets as well as augments their egg production. It would, therefore, be better to procure males from the larger-sized breeds rather than the small-sized ones, for by doing this you could kill two birds with one stone: increase the size of all the progeny and especially increase the laying qualities of the pullets. From the market standpoint it is very desirable to have good-sized hens when you come to sell them by weight. Nearly all the packing houses pay three or more cents a pound for a hen weighing over three and one-half pounds than for those under that weight. If the average weight of the mongrel farm hen is only four pounds, you can see what effect the mating of a ten-pound roosted with such hens would have on the weight of the progeny—an increase of over 100 per cent the first generation. The purchase of a good male bird will pay for itself in one season in more ways than one.—THOMAS OWEN.

Portable Poultry Houses

The idea of scattering poultry over the farm is suggested by a Pennsylvania poultryman. He points out that a small flock of good hens will glean a large part of their living from materials that would otherwise be a total loss, hence the farmer is better able to keep a flock of hens than the poultry specialist who must buy all the fowls eat.

Forty hens can be kept in a light-weight house built on a pair of 4 x 6-inch runners. This building can be 8 x 10 feet in size and just high enough to work in with comfort. A poultry house of this kind can be moved about the farm with a two-horse team at any time of the year. By the use of such portable houses the fowls can be moved out in pasture fields where grass and insects will form a considerable part of their food. After harvest the house with fowls in it can be drawn to grain fields, where the birds will gather scattered grain and insects and lay a lot of eggs with but little food or attention. The house can again be drawn to a convenient location for winter.

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Poultry Statistics

Uncle Sam says, "Hens must help win the war." Now, Biddy didn't raise her chicks to feed a soldier, but when duty calls, she's game. What can she do? Statistics gleaned from census reports, departmental and semi-official estimates show what she has done. From these it is easy to deduce what she is capable of doing on the laying line this year.

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BARRED ROCKS THAT PRODUCED 175 eggs each in 1916; 120 eggs seven months, 1917. Four ribbons, 1917. Pens standardized. Hogan system, eggs, $2 per fifteen, $10 hundred. Mating list free. Farnsworth, 224 Tyler St., Topeka.

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PURE-BRED SILVER CAMPINES, $2.00 for fifteen eggs. A. C. Rice, Bacone, Okla.

MINORCAS.

SINGLE COMB BLACK MINORCAS. BIG white eggs, $1.50 per setting. H. H. Hadel, Hillsboro, Kansas.

S. C. BLACK MINORCAS — EXTRA heavy layers. Eggs from pen birds, $2 for fifteen. Mrs. E. G. Tharp, Protection, Kan.

BABY CHICKS.

REDS, ROCKS, LEGHORNS;—15 CENTS. Request Folder. McCune Hatchery, Ottawa, Kansas.

YOU BUY THE BEST CHICKS FOR least money. Guaranteed alive or replace free. Shipped anywhere. Colwell Hatchery, Smith Center, Kansas.

RHODE ISLAND REDS.

ROSE COMB REDS, WINTER LAYERS. R. E. Mills, Lexington, Neb.

CRIMSON WONDER R. C. REDS.—LEE Darnell, Alta Vista, Kansas.

SINGLE COMB R. I. RED COCKERELS. E. J. Manderscheld, Seward, Kansas.

SINGLE COMB RED EGGS, $2.50 PER setting, $8 per hundred. Maple Hill Poultry Farm, Lawrence, Kansas.

ROSE COMB RED PULLETS, $2, $2.50. Chicks, 15c each. Eggs, 100, $5. Fred Leck, Yates Center, Kansas.

FIFTY LARGE 6½-9½-POUND ROSE Comb Red utility cockerels. Stedem & Sons, Marshall, Mo.

ROSE COMB REDS—PURE-BRED, FINE winter layers. Eggs, $1.25 per setting, $6 per hundred. J. O. Spencer, Hesston, Kan.

STANDARD-BRED R. C. RED EGGS—Fifteen, $1.50; hundred, $6. Mrs. B. F. Weigle, Winfield, Kansas.

EGGS FROM TWO SPLENDID PENS, R. C. Reds, $3 and $5, fifteen; baby chicks, 25c. Mrs. R. G. Lambert, Anderson, Mo.

SINGLE COMB RHODE ISLAND RED eggs from my fine pen, Cyphers strain, $3 for fifteen eggs. Elmer Dovel, Auburn, Neb.

BRAMAN POULTRY YARD—S. C. RHODE Island Red eggs for sale, $2 a setting of seventeen; $7.50 per hundred. S. B. Rawlings, Braman, Oklahoma.

HARRISON'S NON-SITTING SINGLE Comb Reds (250 egg strain). Mating list for customers. Robert Harrison, Lock Box, Lincoln, Nebraska.

KANSAS STATE SHOW, FIRST PRIZE S. C. Red cock and other winners in my pens. Eggs, $1.50, $3, $5 setting. W. G. Lewis, 622 N. Market, Wichita, Kansas.

ROSE COMB RED EGGS FROM GOOD colors and good layers, $1 fifteen, $6 hundred. Sam Putnam, Route 4, El Dorado, Kansas.

PURE RANGE-BRED ROSE COMB Rhode Island eggs, $1.50 per setting; $5 per hundred. Cockerels, $3. Delia Schultze, Melvern, Kansas.

BRED TO LAY SINGLE COMB REDS—Pure-bred, rich red, large, hardy, henhatched, free range, heaviest winter layers. Eggs, setting, $1.00; hundred, $5.00; guaranteed. Belmont Farm, Topeka, Kansas.

ROSE COMB REDS, BRED TO LAY AND win in shows. Heads of pens direct from Meyer, owner of champion Reds in American laying contest. Fifteen eggs, $2.50; thirty, $4. M. L. Van Ornam, Superior, Nebraska.

FOR SALE — ROSE COMB RHODE Island Red cockerels, $4, $5 and $6. Laying strain. Money back if not satisfactory, I pay return charges. Only ten left. Chas. Reeble, Emporia, Kansas.

SEVEN GRAND PENS ROSE COMB REDS headed by roosters costing $15 to $50. Fifteen eggs, $3; thirty eggs, $5; fifty eggs, $8. Special utility eggs, $7.50 per hundred. Baby chicks. Catalog. W. R. Huston, Americus, Kansas.

SINGLE COMB REDS—LARGE, EXCELlent type and color, heavy layers. First cock, hen and pullet at Parsons Big 1917 Show. Breeding birds carefully selected for size, type and color. Eggs, first pen, $3.50; second, $2. O. E. Jones, Route 6, Parsons, Kansas.

ORPINGTONS.

S. C. WHITE ORPINGTON EGGS, $6 PER hundred. C. L. Hill, Filley, Neb.

BUFF ORPINGTON EGGS FROM PRIZE winners. Write for mating list. Nora Hill, Cambridge, Kansas.

WHITE ORPINGTON EGGS, $1.50 PER fifteen. William Radschlag, Sioux City, Ia.

PURE-BRED S. C. BUFF ORPINGTON eggs for hatching, $2 for fifteen. W. J. Musch, Hartford, Kansas.

WHITE ORPINGTON EGGS FOR HATCHing, from good matings. $2 per fifteen, $8 per hundred. E. L. Gerardy, Americus, Kan.

S. C. BUFF ORPINGTON EGGS, $1.50 per fifteen, postpaid. Big boned, range raised stock. Mrs. H. M. Long, Relfe, Mo.

BUFF ORPINGTON EGGS—HATCH guaranteed. Shipped prepaid. Leo Anderson, Juniata, Neb.

S. C. BUFF ORPINGTONS — EGGS, $2 for fifteen or $7 per hundred, postpaid. Mrs. S. S. Tate, Orlando, Oklahoma.

GOLD-DUST S. C. BUFF ORPINGTON eggs, $2.50 setting or $10 hundred. Mary E. Price, Route 7, Manhattan, Kansas.

PURE-BRED WHITE ORPINGTON eggs for hatching, $1.50 per fifteen. Frank Hinson, Stockdale, Kansas.

WHITE ORPINGTON EGGS FOR SALE, $2 and $3 per setting. Trapnests used. Extra fine stock. Buy now. H. F. Eisele, Bonner Springs, Kansas.

BUFF ORPINGTON EGGS, PREPAID. Pens, $2 and $1.50 per fifteen; extra quality farm flock, $1 fifteen, $5 hundred. A. M. Jordan, Route 4, Manhattan, Kansas.

WHITE ORPINGTONS FOR WINTER layers and qquality eggs, $7 hundred, $3.75 fifty, prepaid. Ideal Poultry Farm, Concordia, Kansas.

LANGSHANS.

EGGS—BEST LANGSHANS. JOHN LOVette, Mullinville, Kansas.

BLACK LANGSHAN EGGS, 7c EACH; over 100, 6c. Baby chicks, 20c. Mrs. Geo. W. King, Solomon, Kansas.

BIG BLACK LANGSHAN COCKERELS and eggs, score cards furnished. Guaranteed satisfaction. H. Osterfoss, Hedrick, Iowa.

ANCONAS.

ANCONA EGGS CHEAP, BOTH COMBS, from extra good stock. G. D. Willems, Inman, Kansas.

WYANDOTTES.

SILVER WYANDOTTE EGGS—FIFTEEN, $1.65; fifty, $3.75; hundred, $6.50. Hens. Mrs. Edwin Shuff, Plevna, Kansas.

WHITE WYANDOTTE COCKERELS, Fishel strain, $2.50. Eggs, $1.25, fifteen. Mrs. Clyde Meek, Route 3, Chapman, Kan.

GOLDEN WYANDOTTE EGGS, FIFTEEN, $1.25; fifty, $3.50; hundred, $6. Louis Bruning, Phillipsburg, Kansas.

WHITE WYANDOTTE EGGS FROM high scoring birds at $2 per fifteen (Martin strain). Frank Henderson, Solomon, Kan.

WHITE WYANDOTTE EGGS AT $1.50, fifteen; $3.25, fifty; $6 hundred. Winning, laying strain, fertility and satisfaction guaranteed. Andrew Kosar, Delphos, Kansas.

WHITE WYANDOTTE EGGS, $1.25 PER fifteen, $6 per hundred, from good laying strain. Chilcott's Poultry Farm, Mankato, Kansas.

FIFTEEN CHOICE SILVER WYANdotte cockerels, $3 each; six for $15. Fifteen eggs, $1.25; fifty, $3.50; hundred, $6. Mrs. Philip Schuppert, Arrington, Kansas.

EGGS—WHITE WYANDOTTES LAYING strain. Utility, $1.25 fifteen; $3.50 fifty; $6 hundred. Pen headed by $15 cockerel direct from Keeler, $2 fifteen. M. M. Weaver, Newton, Kansas.

TURKEYS.

QUALITY BOURBON RED TURKEYS—Write for prices. Mrs. Elmer Nicholson, Route 5, Wellington, Kansas.

BRONZE TURKEY TOMS WEIGHING 21 to 25 pounds, $7 each. R. W. Galloway, Jamestown, Kansas.

CORNISH

DARK CORNISH EGGS. EAST LAWN Poultry Yards, Fairmount, Neb.

FOR SALE — FEW FINE DARK CORnish pullets, $2.50 and $3.50. Eggs, $2.50 setting. L. C. Horst, Newton, Kansas.

POULTRY WANTED.

EGG CASES. CHICKEN COOPS LOANED free. Prices published in the Topeka Daily Capital paid by "The Copes," Topeka.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

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CLAIM SALE DATES.

Jacks and Jennets.

March 26—H. T. Hineman & Sons, Dighton, Kansas.

Holsteins.

March 26—Kansas Holstein Breeders' sale, Topeka, Kan.
March 27-28—Iowa Holstein-Friesian Breeders' Association. Sale at the State Fair Grounds, Des Moines. F. C. Barney, Secretary, Chapin, Iowa.
April 6—Southeast Kansas Breeders' Association. Sale at Coffeyville, Kan.

Shorthorns and Polled Durhams.

March 26, 27, 28 and 29—South Omaha, Neb. H. C. McKelvie, Lincoln, Neb., sale manager.

Shorthorns.

April 5—Southeast Kansas Breeders' Association. Sale at Coffeyville, Kan.

Jerseys.

March 26—Stirling Farm Dairy, Des Moines, Iowa. B. C. Settles, Palmyra, Mo., sales manager.
B. C. Settles, Palmyra, Mo., sales manager.
April 30—Ralph Baliou, Paris, Mo. B. C. Settles, Palmyra, Mo., sales manager.

Poland Chinas.

April 1—H. B. Walter & Son, Effingham, Kansas.
April 3—Ross & Vincent, Sterling, Kansas.
April 4—A. J. Erhart & Sons, Ness City, Kansas. Sale at Hutchinson.
April 9—Herman Gronninger & Son, Bendena, Kansas.
April 24—Laptad Stock Farm, Lawrence, Kansas.

Durocs.

April 24—Laptad Stock Farm, Lawrence, Kansas.

Chester White Hogs.

April 27—C. E. Ross, Morrowville, Kansas. Sale at Washington, Kansas.

C. E. Ross, of Morrowville, Kansas, has announced a sale of pure-bred Chester White hogs to be held at Washington, Kansas, April 27. Mr. Rose will catalog a choice offering of sows for this sale, also a number of outstanding boars.

T. M. Ewing, of Independence, Kansas, owner of the famous Cedarlane herd of Holsteins, reports his herd making a good record. Mr. Ewing has built up a herd of record-bred Holsteins and his herd is noted for heavy production. A feature at this time is the fine lot of record-bred young stock.

The Jefferson County Improved Live Stock Breeders' Association held their first annual sale on Wednesday, March 13. A large crowd of farmers and breeders was present and the keen competition was on the Shorthorn and dairy breeds of cattle. The draft horses and jack stock did not bring their value. This association is contemplating building a new sale barn convenient for holding sales each spring. Valley Falls is well situated on three railroads and is located in the center of one of the best stock sections in Kansas.

POLAND CHINAS.

DEMING RANCH QUALITY

BIG-TYPE POLAND CHINA HOGS

Breeding stock for sale at all times. All immuned. Come and inspect our herd or write us your wants.

H. O. Sheldon, Herd Manager

OSWEGO, KANSAS.

OLD ORIGINAL SPOTTED POLANDS

Stock of all ages, also bred gilts and tried sows, bred, ready to ship. Priced right. Write your wants to

CEDAR ROW STOCK FARM

A. S. Alexander, Prop. Burlington, Kansas

Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.

J. EDW. PLILEY - GILMAN CITY, MO.

PURE-BRED POLAND SOWS AND GILTS

For Sale, above, bred to Gerstdale Jones Again and other extra good boars. All immune.

UPDEGRAFF & SON, TOPEKA, KANSAS

GRAND VIEW POLANDS

Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.

ANDREW KOSAR - DELPHOS, KANSAS

Langford's Spotted Polands. Last call for fall boars. Yours for Spotted Polands,
T. T. Langford & Sons, Jamesport, Missouri

Ziller's Big-Type Poland Chinas

Thirty Years a Breeder.
Choicest breeding boars and gilts ready for service. Catalog free.

John D. Ziller, Hiawatha, Kan.

REDFIELD'S SPOTTED POLANDS

Fall boars large enough for spring service.
Chas. H. Redfield, Bucklin, Kansas.

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. Chas. E. Greene, Peabody, Kan.

MATTOX'S SPOTTED POLANDS—Bred sows, serviceable boars, baby pigs, for quick sale. H. A. or Paul H. Mattox, Route 2, Burlington, Kansas.

POLAND CHINA HOGS

150 HEAD IN HERD

Breeding stock for sale. Immune. Satisfaction guaranteed. Come and see me.

V. O. JOHNSON - AULNE, KANSAS

JERSEY CATTLE.

120 Jersey Cows and Heifers

Pure-bred and high-grade. Forty bred yearlings, superior individuals, all from profitable dams, now for sale.

J. W. BERRY & SON

Jewell City - - - Kansas

IDYLWILD STOCK FARM

Place your order for a Sophie Tormentor, Jacoba Irene, spring bull calf to increase your production.

C. F. Blake - Glasco, Kansas

DUROC JERSEYS.

Crow's Big Smooth Durocs

Herd headed by the

Grand Champion Potentate

Assisted by three other grand champion boars. We also have five grand champion sows in herd.

FOR SALE — Sixty-five tried sows and spring gilts to farrow in April and May. All immune. All bred to our grand champion boars. Everything guaranteed and priced reasonable. Write or come and see our herd. We can please you.

W. R. CROW & SONS

HUTCHINSON - - KANSAS

TAYLOR'S DUROCS

For Sale—A few choice herd boars, extra good. All sired by state fair champion boars. A lot of spring and fall yearling gilts and a few tried brood sows bred for March and April litters. Priced to sell quick. Come and see me.

Chas. L. Taylor - Olean, Mo.

Guaranteed Duroc Gilts

Immune, recorded Duroc gilts with size, bone and length. Guaranteed to farrow. Shipped to you before you pay for them.

F. C. CROCKER, BOX K, FILLEY, NEB.

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on fall boars and gilts, from Crimson Wonder, Golden Model, Illustrator, Defender breeding.

JOHN A. REED & SONS, LYONS, KANSAS

HAGUE'S DUROCS

Fifteen choice fall boars and gilts for sale, sired by Kansas Pathfinder by Pathfinder. All immune. K. Hague, R. 6, Newton, Kan.

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS

Best breeding, best type. Stock for sale.

GEO. W. ELA, Valley Falls, Kansas

140 HEAD — Iowa Holstein Breeders' Association Sale — 140 HEAD

A FEW MORE FACTS CONCERNING THE

At the State Fair Grounds, DES MOINES, IOWA



A few of the features:

Dora Feikje—A 29-pound granddaughter of King Segis.
Tidy Neth. Heng.—A 28-pound granddaughter of Plebe D. K. Burke.
Beauty Bau. Heng. 2d—The 26-pound cow from a 29-pound dam.
Cora Magda Pauline—26.16 pounds butter seven days.

And another granddaughter of King Segis with 25.98 pounds.; a 25-pound daughter of Sir Joh. D. K. Rue; the yearling daughter of the famous Sir Johanna Fayne; three daughters of King Piet. Ormsby Piebe (a world's record sire), and a dozen others over 23 pounds.

They are bred to sons of FIVE WORLD'S CHAMPION COWS and to Oak D. K. Ollie Homestead and Sir Ormsby Skylark.

Send for one of the beautifully illustrated catalogs.

2 BIG DAYS
March
27-28

IOWA HOLSTEIN BREEDERS' ASSOCIATION, F. C. BARNEY, SECY., CHAPIN, IOWA

GALLOWAY CATTLE.

GOOD GALLOWAY BULLS

Twenty-five Extra Good Yearlings
Extra breeding and quality. Priced to sell.
J. M. HILL, SEDGWICK, KANSAS
Route 4, Box 65A

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

Breeders' Directory

ANGUS CATTLE.
D. J. White, Clements, Kan.
George McAdam, Holton, Kansas.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.

ANGUS CATTLE

Edgewood Farm Angus

I have for sale

40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.

D. J. WHITE, Clements, Kan.

SHORTHORN CATTLE.

550 Shorthorns sold at auction in 1917 for $1,000 or more per head. Only 26 exceeded $2,500 and but three passed the $5,000 mark. It is the uniformity of prices that indicates the stability of the trade.

The Shorthorn is the breed for you.
Address Department W

American Shorthorn Breeders' Association

13 Dexter Park Ave. CHICAGO, ILL.

PARKER'S SHORTHORNS

Bulls for Western Kansas. Growthy, thick-made kind, eight to eighteen months old. Two with quality and breeding to head pure-bred herds. One out of an extra heavy milking dam.

Wm. B. Parker

Lakin, Kearney County - - Kansas

MARKS' LODGE

Home of Shorthorn Cattle. Reds Exclusively.

A few choice young bulls for sale, from my best milking cows. All registered. Come and see me.

DR. M. F. MARKS, VALLEY FALLS, KAN.

Pearl Herd Shorthorns

Village Heir by Imported Villager and Orange Lovel by Victor Orange in service.

FOR SALE—Young bulls from 8 to 12 months old, reds, whites and roans. Scotch and Scotch topped. Inspection invited. Can ship on Rock Island, Union Pacific or Santa Fe Railway.

C. W. Taylor, Abilene, Kansas

SCOTCH SHORTHORNS

Bettie's Albion 399451 now for sale. Roan, weight 2,000 pounds if fat. Strong breeder. Also six bulls from 6 to 24 months old, reds, whites and roans. Write

C. E. HILL - - TORONTO, KANSAS

TWO BULLS FOR SALE

One roan Shorthorn 11 months old, one red Double Standard Polled Durham, 12 months old. E. E. FISHER, Stockton, Kansas.

AUCTIONEERS.



P. M. GROSS
Live Stock Auctioneer

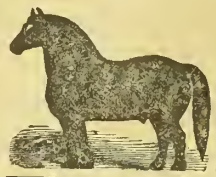
Twelve years on the block.

Pure-bred sales a specialty. Sales made anywhere.

4230 Paseo
Kansas City, Mo.

Volume 92 of the American Shorthorn Herd Book is out. The volume contains pedigrees of animals calved prior to November 1, 1916, numbered from 487001 to 517000.

HORSES AND MULES.



PERCHERONS AND BELGIANS

IMPORTED AND HOME-BRED PERCHERONS AND BELGIANS.

I have a good lot of horses to select from at very reasonable prices. I give a gilt edge guarantee of 60 per cent, good for two years.

Barns Four Blocks from Santa Fe Depot.

W. H. RICHARDS - EMPORIA, KANSAS

EWING BROS.' PERCHERON HORSES, SHORTHORN CATTLE, SHETLAND PONIES AND POLAND CHINA HOGS

FIFTY MARES—Weanlings to mature mares, weighing a ton or more, in foal. Herd headed by Imp. Meknes (106084) 106640, weighing 2,200 pounds.

SEVERAL MATCHED TEAMS—Fifteen head of stallions, from weanlings to six years old. The best lot of two-year-olds we have ever had. The kind to mature into ton horses or better—grays and blacks.

SHORTHORN CATTLE—A few cows for sale. Ten young bulls out of pure Scotch sire ready for service. Herd headed by Village Knight No. 398231 weighing 2,250 pounds and Choice Echo 393419, weighing 2,300 pounds, for sale.

SHETLAND PONIES at very low prices if taken soon—weanlings to broken fillies.

Phone to Ewing Bros., 903A5 or 903A12, Great Bend, or write us at R. F. D. No. 1, Pawnee Rock, Kansas.

EWING BROTHERS.

POLLED DURHAM CATTLE.

WILD WOOD STOCK FARM

POLLED DURHAM CATTLE

For Sale—Ten bulls of serviceable age, sired by Roan Acacia 9021. Dam, Golden Acacia by Acacia Victor, a double standard bull from D. C. Van Nice herd. Write at once. These bulls will sell.

T. M. ETHERINGTON, Hamilton, Kansas

FARM AND HERD.

D. J. White, of Edgewood Farm, Clements, Kansas, owner of one of the best herds of Aberdeen-Angus cattle in Kansas, reports his herd doing well. This is one of the Angus herds that has been built from the foundation with the best blood lines of the breed and carefully selected individuals. A feature of the herd at this time is the fine lot of young stock of the type and breeding that make herd improvers.

W. R. Crow & Sons, of Hutchinson, Kansas, have just returned from the winter show circuit held at Denver, Colorado; Wichita, Kansas; and Oklahoma City, Oklahoma. They collected in premiums from these three shows $475, including two silver trophies valued at $75 each. This herd of Durocs has won at the leading fairs and shows for several years. Crow & Sons have bought the best foundation stock they could find and they know how to feed and develop the right type. A feature of the herd at this time is sixty-five head of spring yearling sows and gilts bred for April and May farrow to prize winning boars.

E. S. Engle & Son, Abilene, Kansas, owners of the famous Sand Spring Holstein herd, report a good demand for high class Holsteins. Among recent sales reported is the sale to C. E. Glaze, of Larned, Kansas, of the fine bull calf, Sand Spring Korndyke Mooie Reka Lad. His sire is Sir Genevra Korndyke and his dam is Reka Mooie Tulieta, who produced last year in nine months 9,000 pounds of milk, 350 pounds butter, with her first calf. This youngster will be heard from later on.

Farm Diary and Record Book

A most valuable farm dairy and record book has just come from the press of the World Book Company, Yonkers, New York. It was prepared by E. H. Thomson, assistant chief of the Office of Farm Management, United States Department of Agriculture, with an introduction by W. J. Spillman, chief of the same office. This book is the result of several years of experimenting on the part of the Office of Farm Management as to just what was the kind of a record book, account book and diary which would do the average farmer the greatest amount of good. It is designed for general use by farmers, stock raisers, fruit growers, poultry keepers, and all persons in the business which is allied to farming, and carries complete records and accounts for helping to make farm accounting easier. It will help to make the farm business pay.

This farm diary can be made an intimate family record, as well as a business account book. It will soon be highly prized by everyone and have value as a family history. It thus becomes a human document.

Nearly all farmers will find it necessary to make income tax reports to the Government this year. Most farmers will find it necessary to make their report to the Government for the first time this year. There is very little question that a large number will report as having received a larger income than they really did receive, and thus pay taxes on an amount which they should not pay. The careful and easy keeping of records which would result from the use of one of these books would enable them to keep the kind of an account necessary for making out their income tax returns, and properly. It sells for $1.50, postpaid.

Wherever practical it is better to move manure right from the stable to the field. Where this can't be done, take good care of the manure for future use.

HORSES AND MULES.



JACKS AND JENNETS

15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.

PHIL WALKER
Moline, Elk County, Kansas

Malone Bros., Jacks and Percherons

We have 2 barns full of extra good jacks ranging in age from weanlings to 6 yrs. old, all over 2 yrs., well broke to serve. Several fine herd headers among them. Also jennets in foal to homebred and imported jacks. A few imported Percheron stallions royally bred. We can deal. Write or call on

J. P. & M. H. MALONE, CHASE, KAN.



PERCHERONS AND JACKS

FOR SALE—Four jacks, two coming three-year-olds, one four-year-old and one ten-year-old. All good size, sound and guaranteed. Will price a few good jennets. Also have five Percheron stallions and a few good mares, priced right. Come and see me.

M. G. BIGHAM & SON, OZAWKIE, KAN.

7 miles from Meriden, Kan. 10 miles from Perry, Kan. 20 miles northeast Topeka.



Percherons, Belgians, Shires

2, 3, 4 and 5-year stallions, ton and heavier; also yearlings. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.

Fred Chandler, R.7, Charlton, Ia.
Above Kansas City.

Choice Young Belgians, English Shires, Percherons, also Coach stallions, also mares. Many first prizes. Long time 6% notes.
Illinois Horse Co., Good Blk., Des Moines, Ia.

40 Percheron Stallions and mares, weanlings up. 20 Mammoth jacks, 10 jennets in foal. Priced reasonable, Al E. Smith Lawrence, Kansas.

JACK BARGAINS

The war makes me sell, your terms, your price, two colt jacks, three 3-year-olds, three 5-year-old jacks, 10 jennets under 10 years old. All big, black, white points.

E. E. LAUGHLIN - FOSTER, MISSOURI

GUERNSEY CATTLE.

GUERNSEY BULLS.

Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to twelve months old. ADAMS FARM, Gashland, Mo., 12 miles from K. C.

GUERNSEY BULLS

Three registered Guernsey bulls, 9 to 11 months old, tuberculin tested recently; best of breeding. Cows are good producers. For further information inquire of

FRED WILLE - COLUMBUS, NEBRASKA

RED POLLED CATTLE.

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.

CHAS. L. JARBOE - QUINTER, KANSAS

MULEFOOT HOGS.

KNOX KNOLL STOCK FARM

Now taking orders for spring pigs, $20 each at weaning time. Thrifty pigs from big litters. A few fall boars and gilts. All stock registered free. For prices and catalog address S. M. KNOX, Humboldt, Kansas.

HOLSTEIN CATTLE.

TO HOLSTEIN BREEDERS.

My consignment to the Kansas Holstein Breeders' Sale at Topeka, March 26, consists of the following:

First, Sir Elzevere DeKol Vale, male calf. His dam, Princess Elzevere DeKol Vale, is the first cow in Kansas to make 26 pounds butter in seven days. She is absolutely the heaviest and the most persistent milker I have ever owned. She gave birth to six calves without ever being dry and has given as high as 60 pounds of milk a day two months before freshening. She not only is a good producer but she transmits these qualities to her offspring, which is shown by the records of her two young daughters, one with 22.5 pounds butter at three years of age and the other with 23.82 pounds at four years. Look up the pedigree of this calf and ask those who have seen his dam what they think of her. You simply can't go wrong on this calf, no matter what you pay for him. Two daughters of Canary Butter Boy King, Aaggie Wayne Beryl 2d with 13.77 pounds butter at 2½ years and 20.24 pounds at 4½ years. She is a very promising young cow and I look for her to improve her record considerably at maturity.

Third, Milkmaid Favorite 2d, a promising daughter of Canary Butter Boy King and Milkmaid Favorite with 17.13 pounds butter at four years of age.

Four, Aaggie Wayne Beryl Walker, a daughter of Aaggie Wayne Beryl and Sunflower King Walker. This is absolutely one of the finest heifers ever produced on my farm. Be sure and look her up.

HARRY W. MOLLHAGEN, BUSHTON, KANSAS.

Some of Dr. Axtell's Consignments to the Kansas Breeders' Association Sale, Topeka Fair Grounds, March 26

PUSSY WILLOW OF RUSSELL FARM, a fine, large cow, A. R. O. 26.79. Heavy with calf, or fresh. "The best cow ever offered at public auction in Kansas."
NORTH STAR CHAMPION LAD, a fine 30-pound bull calf, 10 months old. Wonderful individual, large, straight as a line, and just what you would like to head your herd.
BELLEMORE LADY HENGERVELD, a beautiful A. R. O. cow, heavy with calf.

Dr. J. T. Axtell - - - - - - - Newton, Kansas

CLYDE GIROD, At the Farm — F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd.

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

Tuberculosis -- No!

WE GUARANTEE a retest on any stock you buy from us SIXTY DAYS after date of sale.

Before buying write us about our extensive herd of absolutely first-class Holsteins and Guernseys. Anything you want. Carloads or lots. Nearly pure-bred calves from famous bulls and good cows, $20 to $25.

EDGEWATER STOCK FARM
Fort Atkinson, Wis.

Holstein Calves

We offer for sale choice beautifully marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated, f. o. b. cars: One to two weeks old, $17 each; three to five weeks old, $20 each; six to eight weeks old, $25 each. First check takes them. Write
W. C. KENYON & SONS, ELGIN, ILLINOIS

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.
H. B. COWLES, 608 Kan. Av., Topeka, Kan.

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.
J. P. MAST - - SCRANTON, KANSAS

Watch for Our Consignment in Kansas Holstein Breeders' Sale at Topeka, March 26.
Segrist & Stephenson, Holton, Kansas.

CASTILLO'S HOLSTEINS

Aaggie Walker Longfield 2d, daughter of A.R.O. cow, freshens March 29, $200. **Sir Jessie Tritonia Tilly Lou,** fine all round bull, four years old, $125. **Some pure-bred grades,** good strain, six months to three years old, $75 to $160. **Castillo & Son, Independence, Kan.**

CHOICE HOLSTEIN CALVES

High grade, beautifully marked, sired by registered bulls and from heavy milk producing dams, ten days old, $15; three weeks, $17; six months, $40. For thirty days only. First draft takes them.
Mt. Pleasant Stock Farm, Gilberts, Illinois.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.
W. E. BENTLEY, MANHATTAN, KANSAS

Cedarlane Holstein Herd

Four-year-old grandson of Pontiac Korndyke, guaranteed sound and a sure breeder. Average record dam and sire's dam, 29.4 pounds in seven days. Special price on bull calves from above bull. No females.
T. M. EWING, INDEPENDENCE, KANSAS

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.
GEO. F. DERBY, CAMERON, MISSOURI

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.
FERNWOOD FARM, Wauwatosa, Wisconsin

HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment. **Edgewood Farms, Whitewater, Wisconsin.**

FARM AND HERD.

H. E. Myers, of Gardner, Kansas, held one of the successful sales of the season. Forty head were dispersed at an average of $117.50 with a top price of $350 paid for No. 2 in the catalog. The offering was presented in ordinary breeding condition and the prices received were very satisfactory to Mr. Myers. The premier herd boar, Giant Joe, attracter representative breeders from Kansas, Missouri and Oklahoma, and sows bred to him were in demand at good prices. A much higher average could have been made had more of the sows been bred for earlier litters.

Catalogs are out for the Southeast Kansas Breeders' Sale to be held at Coffeyville on April 6 under the management of J. H. Keith of that city. Ninety head of very carefully selected Herefords have been catalogued for this sale. They have been consigned from the very best herds in Southeast Kansas and Northeast Oklahoma. There will be forty bulls and fifty females. The best blood lines of the breed will be represented in this offering.

The Holstein cattle catalogued for the Iowa Holstein Breeders' Association sale to be held at Des Moines, Iowa, March 27 and 28, have been selected from the very best herds in Iowa. Iowa Holsteins won more money at the 1917 National Dairy Show than those from any other state and this show was pronounced by Holstein authorities the best in quality and type that has ever been held. In the catalog for this sale will be found the blood lines of the animals that represented Iowa's Holsteins in Columbus, also more high record cows, both short and long-time test than have ever before been brought together in that state, and more sons of world's champion cows represented than ever before in the Holstein history of Iowa.

Herman Gronninger & Sons, Bendena, Kansas, have announced April 9 for a bred sow and bred gilt sale. This firm is widely known to the Poland China fraternity. They need no introduction, having been breeding Poland Chinas for more than forty years on one farm. They have catalogued sixty head of spring yearling gilts, sired by Futurity Rexall, Big Bob 2d and Expansion Wonder. They will be bred for April and May litters to Wonder Price, Big Hadley and Expansion Wonder. These gilts are not fat, but have been cared for in a way that they will go out and make good. They are bred to farrow in April and May, a time when a large per cent of the litters can be saved.

Catalogs are out for the Southeast Kansas Breeders' Shorthorn sale to be held at Coffeyville, Kansas, April 5, under the management of H. M. Hill, of LaFontaine, Kansas. Seventy-five head of carefully selected bulls, cows and heifers have been catalogued for this sale, largely the blood of Imported Collynie. A large per cent of the offering comes from the famous herd of H. M. Hill and all of the females consigned from his herd are either bred to Master of Dales or have calves at foot by him, and fully one-third of the entire offering are by good bulls sired by Mistletoe Archer by Prince Royal by Imported Collynie. All of the consignors are consigning some of the very best individuals in their herds to this sale.

H. W. Mollhagen, of the Pioneer Dairy and Stock Farm, Bushton, Kansas, owns one of the heavy producing herds of Holsteins in Kansas. This herd was started with record bred foundation stock and from its foundation to the present time all additions to the herd have been from the heaviest producing families of the breed, and it is one of the profitable herds now assembled. Mr. Mollhagen has consigned some choice animals to the Kansas State Holstein Breeders' sale to be held in Topeka on March 26.

Edgewater Stock Farm, Fort Atkinson, Wis., is one of the great pure-bred stock farms in that state. It is located in Southern Wisconsin and is the home of fine herds of Holstein and Guernsey cattle, Percheron horses and Duroc Jersey hogs. The farm has up-to-date equipment and they can easily house 400 head of cattle under the most sanitary conditions. Their equipment includes a modern hospital, barn, and a full set of modern dairy buildings. All milk is pasteurized. All milking is done by automatic milkers and their plant throughout is one of the best in the country.

J. A. Reed & Sons, of Valley View Stock Farm, Lyons, Kansas, report their great herd of Durocs doing fine. They already have a fine lot of spring pigs and their litters up to this time average twelve pigs to the litter. Another feature of their herd is the fine lot of fall boars and gilts. They are sired by their undefeated champion herd boar, Reed's Gano, Crimson Golden Model and Reed's Illustrator 2d and out of the 500 to 600-pound Golden Model 34th, Illustrator, Critic B, Defender and Crimson Wonder sows.

Ed Stegelin, of Straight Creek, Kansas, owner of Bonanza Stock Farm and one of the famous herds of Polled Durhams now assembled, reports a good demand for high-class Polled Durham breeding stock. Among recent sales reported was the great young bull, Sultan's Chalienger, ten months old, for $1,500, to Karl A. Koch, of Denton, Kansas; also four fine cows to Carl P. Thompson, of Manhattan, Kansas, and three cows to Reeves & Son, Netawaka, Kansas.

William B. Parker, of Lakin, Kansas, owner of one of the good Shorthorn herds in the state, reports his herd doing well. Mr. Parker has built up a herd of ideal type Shorthorns and has the best blood lines of the breed. His cows include some very heavy milkers and at this time a feature of his herd is the choice lot of young stock, including some extra good young bulls.

Segrist & Stephenson, Holton, Kansas, owners of one of the high record herds of Holstein cattle in the Southwest, report their herd making a fine record again this year. One of their recent records made by a four-year-old cow was 503 pounds milk and 25 pounds butter in seven days. This is the state record for a cow under mature age. They have consigned a son of this cow in the Holstein Breeders' Sale to be held at Topeka March 26. Their consignment will also include the dam of this 25-pound heifer and in this cow all the show and production qualities are combined. A 27-pound cow from their herd will also go in this sale.

W. B. Wallace, of Bunceton, Missouri, has sold his fine stock farm and has announced a complete dispeesion sale for Monday, March 25, 1918. Mr. Wallace has joined the aviation corps and is subject to call at any time. For this reason the herd must be closed out. The offering of more than 200 head of Poland Chinas will be one of the largest ever made in the West. The wallace herd has at its head two of the greatest Poland China boars known to the breed—King Joe and Wonder Buster. There will be seventy head of tried brood sows bred to these two great herd boars; 100 head of open gilts that are splendid herd sow prospects; thirty spring and fall boars, and a number of herd boar prospects.

The Poland China sale advertised by C. S. Nevius & Sons at Chiles, Kansas, was held at the farm on March 5, and forty-five head of bred sows and gilts were dispersed at an average of $82.57, with a top price of $160 paid for No. 1 in the catalog. Nothing sold high. Every animal sold on its merits, going to farmers and breeders in Kansas and Missouri. The offering was presented in good sale condition and the returns were very satisfactory to Messrs. Nevius & Sons.

The sale of Poland China bred sows of J. R. Young, Richards, Missouri, resulted in the dispersal of fifty-one head at an average of $210.93. About 200 breeders and farmers were present. They were royally entertained by Mr. Young. On account of the breeding and show record of the sensational litter by Caldwell's Big Bob and out of the great show sow, A Rose, the outstanding gilt, Liberty Belle was the strong factor in attracting representative breeders from several states. The bidding was keen, with open competition by breeders from Indiana to Kansas on Liberty Belle. Ezra F. Warren, Conway Springs, Kansas, was the purchaser at $1,225. The entire offering was presented in splendid breeding condition and the returns received for the fifty-one head were very satisfactory to Mr. Young.

F. J. Searle, of Oskaloosa, has sold his fine farm near that city and is compelled to disperse his splendid herd of Holstein cattle at the Fair Grounds, Topeka, Kansas, on Wednesday, March 27. The offering comprises more than eighty head of A. R. O. cows of splendid breeding and real producers, thirty-three head of heifers now in milk. Mr. Searle has always used good sires. Every animal in the offering will be bred to a son of the King of the Pontiacs or Sunflower King Walker, a splendid grandson of King Walker.

S. M. Knox, of Knox Knoll Stock Farm, Humboldt, Kansas, owner of good herds of Shorthorn cattle and Mulefoot hogs, reports his herds doing well. He also reports a splendid demand for Shorthorn breeding stock and also for Mulefoot hogs. Mr. Knox bred a large number of sows for spring farrow and already has a lot of early litters ranging from eight to thirteen pigs to the litter.

Southeastern Kansas Breeders' Association Sale

Shorthorn Cattle

COFFEYVILLE, KANSAS

APRIL 5, 1918

THE DAY FOLLOWING THE CENTRAL SHORTHORN ASSOCIATION SALE AT KANSAS CITY.

SEVENTY-FIVE HEAD OF CAREFULLY SELECTED BULLS, COWS AND HEIFERS

The consignors are taking pride in selling some of their best, and buyers will find not only good cattle but royally bred ones. Pedigrees in the catalog show almost without exception much of the blood of Imported Collynie. One-third of the entire offering are by good bulls of H. M. Hill's breeding sired by Mistletoe Archer, whose sire was Prince Royal by Imported Collynie and out of Imported Princess Royal 62d. Almost half of the entire number consigned is from the herd of H. M. Hill. This lot will include a number of young things by Kansas Archer, a line-bred Collynie bull. A number of the females consigned by him are bred to the great young bull, Sagamore Dale, shown locally by Mr. Hill last year. This bull is by Master of the Dales, a full brother to the $5,000 Lord Avondale. Sagamore Dale is out of a line-bred Imported Collynie dam.

The Sycamore Springs consignment of females are either bred to Master of the Dales or have calves at foot by him. One young Imported Canadian cow has her first calf at foot, a roan heifer by Master of the Dales, and cow bred back to same sire.

Mr. Massa's consignment is largely the get of Kansas Prince of Mr. Hill's breeding and also by Mistletoe Archer. These young things will again show the value of a good bull.

Mr. Swinney sells a great show cow. Also a very showy heifer. The other consignors are listing good cattle and all the consignors to this sale are good men and reliable.

Does not that tell the tale?

For catalog, apply to

H. M. HILL - - - LAFONTAINE, KANSAS

HEREFORD SALE NEXT DAY, APRIL 6, SAME PLACE.

SOUTHEASTERN KANSAS BREEDERS' HEREFORD SALE

Coffeyville, Kan., APRIL 6, 1918

Sale Under Auspices of R. J. Kinzer, Secretary Hereford Association.

90—HEAD CAREFULLY SELECTED HEREFORDS—90

FIFTY FEMALES AND FORTY BULLS.

There will be sons and grandsons of such famous sires as Prince Rupert 22d, Beau Gallant, Beau Caido 14th, Advertiser 5th. In fact a superb collection of Anxiety and Perfection blood. There will also be a number of animals by Spellbinder by Imported Britisher, Tom Woodall's bull. A part of these cows will be carrying calves which are sired by the great Fred Real, Prince Rupert 52d, Earl Rupert, General Rupert, Rupert Donald 2d, Roehampton 1st. The cattle are mostly young animals, and this is a combination sale, the contributions coming from the herds of the breeders of Southeastern Kansas and Northeastern Oklahoma.

Send for catalog. Address

J. H. KEITH, Sales Mgr., Coffeyville, Kan.

COL. FRED REPPERT, AUCTIONEER. SHORTHORN SALE APRIL 5.

Poland China Bred Sow Sale

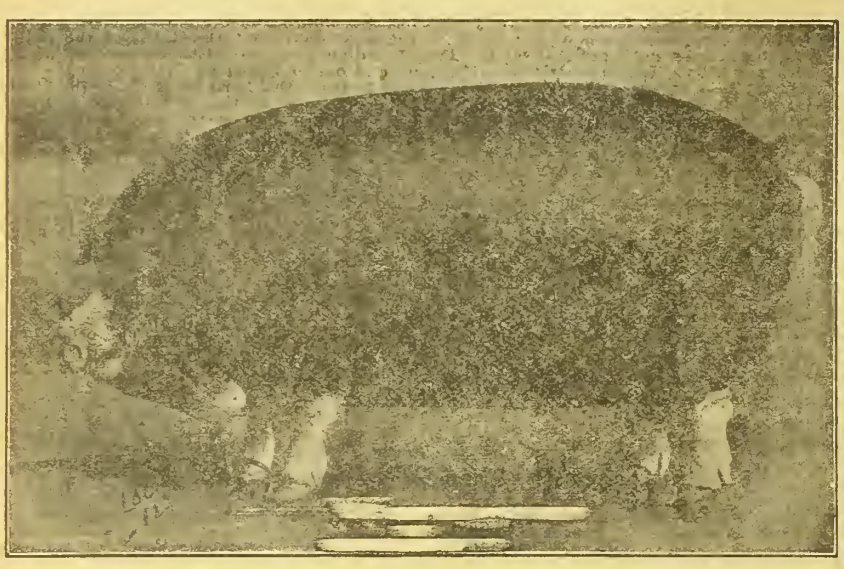
AT FARM

Bendena, Kan., April 9, 1918

SIXTY HEAD LARGE SPRING YEARLING GILTS

Sired by the great Futurity Rexall, he by Orphan Wonder by Big Orphan. Futurity Rexall is a boar with great size. He weighs 950 pounds and has proven a great sire. Several are sired by Big Bob 2d, he by Big Bob Wonder. This hog has also proven a sire of lots of size and quality. A few gilts in this lot are sired by Expansion Wonder by A Kansas Wonder.

Forty head are bred for April litters and twenty head bred for May litters to the following herd boars: Big Hadley, Expansion Wonder, Wonder Price 2d, and Big Bob 2d.



I am selling one boar pig, a herd boar prospect.
ALL IMMUNE.

I am selling a lot of extra good gilts and your inspection of this offering is invited. I do not expect high prices. I will not mail out any catalogs unless requests are made for them. I will be pleased to send them on request. A post card or letter will insure one delivered to you. Please write today for catalog to

HERMAN GRONNINGER & SONS, Bendena, Kan.

Scott, Foster, Kistner, Auctioneers. O. W. Devine represents Kansas Farmer at sale.

The ROSS & VINCENT Poland China Sale

That Will Be Held in New Sale Pavilion on the Farm Adjoining

STERLING, KANSAS

Wednesday, April 3

Will be found to include Polands of exceptional merit only. Great care has been used in the selection of the animals for sale and you'll be pleased with the fine lot that you can choose from.

Blood lines that are of the best predominate. All immune.

TRIED SOWS, YEARLINGS AND SPRING GILTS

50 Head

Sired by
Improved King Jr., Mammoth Orange, Big Type Jr., Douglas Jr., Receiver's Wonder, and Big Logan.

Out of Dams by
Big Jim, Improved King Jr., Shattuck's Lad, Cowles' Orange, Black Joe, and others of note.

50 Head

Fifteen Tried Sows, Several with Litters. Fifteen Bred Gilts. Twenty Fall Gilts. Five Boars.

Bred to

MODEL WONDER, one of Big Bob Wonder's best sons; Big Mint, by Joe Young's noted sire, The Mint, and Douglas Ex.

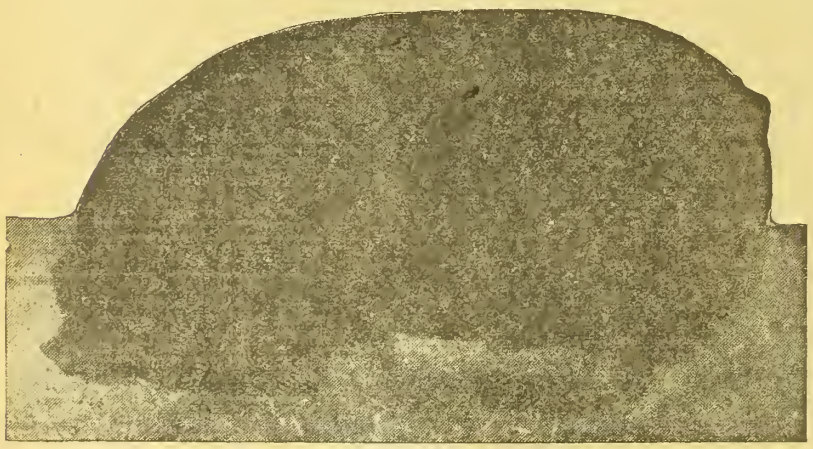
When writing for catalog please mention Kansas Farmer.
Send mail bids to O. W. Devine, Fieldman, in care of the undersigned.

ROSS & VINCENT, Sterling, Kansas

Cols. J. C. Price and Fred Groff, Auctioneers

Poland China Bred Sow Sale

HUTCHINSON, KANSAS
APRIL 4, 1918



BIG HADLEY JR.

In this sale fifty head will be sold, including ten tried sows and yearlings and forty of the classiest spring gilts that ever passed through a sale ring. These will be bred along the same lines as the first sale offering that averaged $208.30. The offering will be bred to the massive A Big Wonder, the champion Big Hadley Jr., Long Bob, and Col. Bob Wonder, a classy young son of Big Bob Wonder out of the great breeding sow, May Queen by Moore's Halvor.

Forty Top Spring Gilts
Ten Tried Sows and
Fall Yearlings

50 Head ALL Immune

SOWS AND GILTS
Bred along same lines as our ribbon winners

BIG HADLEY JR., the greatest Hadley-bred boar of the breed.
A BIG WONDER, the 1,250-pound son of King of Wonders.
LONG BOB by Big Bob 2d, junior champion Kansas State Fair.

A useful lot for farmers and breeders to make them plenty of money. Send today for catalog. Please mention Kansas Farmer.

O. W. Devine will represent Kansas Farmer at sale.

A. J. ERHART & SONS, Ness City, Kan.

Auctioneers—Col. J. C. Price, Col. J. D. Snyder.

H. B. Walter & Son

Poland China Sale

Effingham, Kansas

Monday, April 1st

The Offering Will Be Bred to

BIG BOB WONDER

The Renowned Sire, and

AND

WALTER'S JUMBO TIMM

The Sensational Yearling

40——HEAD——40

Be guided by the satisfactory experience of others who have purchased from this great herd in times past. The high quality of the Polands that will be found in this sale can readily be seen from the splendid average that the former sale commanded.

Blood lines that are of the best are represented. You will find among the forty head listed, bred sows and gilts that will be worthy additions to any herd.

ALL ARE IMMUNE

When writing for catalog please mention Kansas Farmer.
Send mail bids to O. W. Devine, Fieldman, in my care.

H. B. WALTER & SON, Effingham, Kansas

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 13. TOPEKA, KANSAS, MARCH 30, 1918. Established 1863. $1 a Year

GOVERNMENT DISTRIBUTES SEED

Seed of Grain Sorghums and Cane Being Bought and Sold at Cost

SINCE February 12, H. A. Vinall, an agent of the committee of seed stocks of the U. S. Department of Agriculture, has been engaged in buying seed of kafir, milo, feterita, sorgo (cane) and Sudan grass for distribution to farmers of Kansas and Oklahoma. This seed is being stored at Wichita, and is now ready for distribution.

Owing to the unusually short rainfall of last season and severe frost early in the fall, many localities were left almost destitute of good viable seed for this spring's planting. In order to provide for such needs and make effective a campaign for a maximum acreage of staple crops in 1918, a fund was created by Act of Congress providing as follows:

"That whenever the Secretary of Agriculture shall find that there is or may be, special need in any restricted area for seeds suitable for the production of food or feed crops, he is authorized to purchase or contract with persons to grow such seeds, to store them, and to furnish them to farmers for cash at cost including the expense of packing and transportation."

A portion of this fund has been made available by the Secretary of Agriculture for the purchase of sorghum seed in Kansas and Oklahoma and Mr. Vinall, who is one of our Kansas boys, has been placed in charge of the work of selecting and assembling the seed. Only seed of standard varieties will be handled and such seed will be recleaned and sacked and sold to farmers in limited amounts at actual cost, including the expense of buying, cleaning and storage.

All the different lots of seed are being tested for germination at the seed laboratory, Manhattan, and each buyer will be furnished with a statement regarding the approximate viability of the seed he buys. The germination tests, while not infallible, are made under the direction of Prof. L. E. Call, at the Kansas Agricultural College, and are as accurate as such tests can reasonably be made in an extensive way.

Mr. Vinall points out that it is not intended that the distribution of seed from this reserve shall take the place of the customary distribution through the ordinary channels of trade, nor is it advised that those who can obtain good seed locally attempt to secure their supply from this reserve. Locally-grown seed is usually more desirable than seed shipped from distant points; however, most of the seed which has been collected to supply Kansas needs has been purchased in either Kansas or Oklahoma and care will be used in selling the seed to supply different localities with varieties adapted to their respective conditions.

It is hoped that the accumulation and distribution of this quantity of seed will tend to encourage the planting of a larger acreage of these sorghum crops which are proving more and more each year their right to consideration as the foundation stone of agriculture in the semi-arid portion of Kansas, Oklahoma and Texas.

In the distribution of this seed the United States Department of Agriculture will co-operate with the Division of Extension of the Kansas Agricultural College, the State Board of Agriculture, at Topeka, and the State Council of Defense. Farmers should send in their orders as far as possible through their county agents and if the county has no agricultural agent, the chairman of the county council of defense will usually be found ready to look after their orders. In this way the orders for each county may be grouped and the seed sent to some central distributing point in car lots, thus effecting a considerable saving in freight charges. Either the agricultural agent or the chairman of the county council of defense will be expected to make arrangements with some agency in the county such as an elevator company or milling company to receive the seed and distribute it to farmers in that locality, receiving payment in cash or bankable paper.

Those ordering seed should always state at what time they wish the seed delivered, but some average for the community must be recognized in order to provide for combining the orders in a bulk shipment. In most if not all parts of Kansas nothing is gained by planting the sorghums before May 1, and in Central Kansas May 15 is not too late.

County agricultural agents and other agencies in each county where a need for sorghum seed exists will be provided with cards for recording the order of each farmer separately and these cards will be returned to the United States Department of Agriculture for their permanent records. No seed will be shipped in less than two-bushel or 100-pound lots, but where a less amount is desired by any farmer it will be easy for him to combine his order with that of his neighbors.

H. N. Vinall, 815 East Second Street, Wichita, Kansas, has supervision of the distribution in both Kansas and Oklahoma, and individual orders for seed can be sent direct to him, but the purchaser must pay the freight on such shipments if he desires his order forwarded separately, and cash or certified check covering the purchase price of the seed must accompany the order. No credit will be granted on any such sales. Where a local agency is handling the distribution, arrangements may often be made with the local banker or elevator company to finance the purchase of seed. Prices will be mailed on application or can be obtained from the county agent or chairman of the county council of defense, and additional information regarding other matters can be obtained from Mr. Vinall at any time.

In order to make the reserve serve as many people as possible the amount any one individual may buy is limited as follows: Blackhull kafir, ten bushels; dwarf kafir, four bushels; pink kafir, two bushels; feterita, four bushels; dwarf milo, four bushels; sorgo (cane), six bushels; and Sudan grass 100 pounds. When larger quantities of seed are desired, permission must be obtained from the county agent or chairman of the county council of defense and satisfactory proof given them that all the seed purchased will be planted by the purchaser.

This government assistance in assembling and distributing seed of the sorghums should help materially in extending the usefulness of these valuable crops. They are much better adapted to most of Kansas than is corn. They withstand long dry periods and hot winds better than other crops. This adapts them to the severe seasonal conditions which occur from time to time. The grain sorghums are the surest crops that can be grown under such conditions and will produce more feed value per acre than any other crop that can be grown. They can be grown on a large scale with the minimum amount of man labor, compared with other cultivated crops, and usually with profit to the farmer.

The grain sorghum acreage is gradually increasing, but the increase will be more rapid when the value of these crops is better understood. In 1917 the estimated acreage was 5,153,000 acres with a yield of 75,866,000 bushels in the six states, Kansas, Texas, Oklahoma, Colorado, New Mexico and Arizona. This is an increase of 1,209,000 acres and 22,008,000 bushels over the 1916 crop. The largest crop on record in this country was produced in 1915, under very favorable conditions. That crop totaled 114,460,000 bushels, though the area grown was 1,000,000 acres less than it was in 1917.

In the six states mentioned, during the three years from 1915 to 1917, inclusive, the average acre value of the grain sorghums, including both grain and stover, was larger than that of most other crops. In Kansas, Texas and Oklahoma, the three leading states in the production of grain sorghums, the average acre value of the grain alone in this same period was $17.72, while that of corn was $14.74, oats $14.44, barley $16.58, and of rye $15.79. These figures show that the acre value of sorghum grain was $2.98 more than that of corn, $3.28 more than that of oats, $1.14 more than that of barley, and $1.93 more than that of rye. The grain sorghum crops are, therefore, the most profitable ones on the basis of acre value.

Sorghum grain comes into direct competition with corn as a feeding grain. It is with corn, then, that the grain sorghums will have to be compared. The grain, pound for pound, is considered slightly inferior to corn for fattening stock. It is conceded, however, that the stover is better than that of corn and will furnish more feed value per acre, due both to larger yields and better quality.

Kafir, milo and feterita are the best varieties to grow. Local conditions determine largely which of these varieties should be grown. The variety which has given the best results through a series of years in any given locality is the safest to grow in that locality.

Kafir requires a longer season and more rainfall than does milo or feterita. It is, therefore, best adapted to lower altitudes and to localities where the annual rainfall ranges from 20 to 25 or more inches, well distributed over a long growing season.

Milo is adapted to conditions such as exist on the plains of Texas and Western Oklahoma, where the altitude ranges as high as 3,000 or 4,000 feet and the annual rainfall is about twenty inches or less.

Feterita appears able to stand more heat but less cold, and to make a crop with less moisture than milo. When conditions are favorable for milo, it will usually outyield feterita. As a late-sown or catch crop feterita is better than milo and should be used principally for that purpose.

A well-prepared, mellow seed bed, and good, clean cultivation, are essential to the highest yield of grain sorghums. If a good seed bed is prepared, the seed can be sown at a uniform depth and the young plants will emerge to a good stand at about the same time. Such cultivation should be given the crop as is necessary to destroy all weeds. Weeds choke out the plants and rob them of moisture.

A sod crop usually does not require much cultivation, because weeds are not troublesome and the decaying vegetable matter keeps the soil loose. Old land is different and requires cultivation for best results. In some cases the failure of the crop is due directly to lack of proper cultivation. The very low average yield is due in part to the same cause. On most farms where both grain sorghum and corn are grown, the best land is devoted to the corn crop and is given attention first. The grain sorghum is put on less desirable land and given such cultivation as time will permit. Change this around once and see what will happen.



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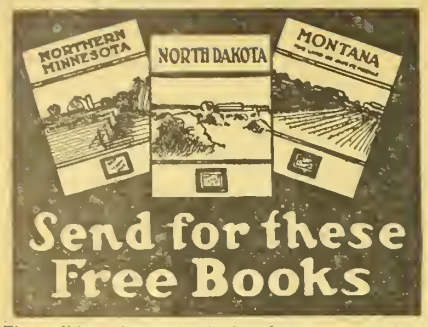

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FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

THE gas engine has been a great boon to the women of the farms. It is even more difficult to get household help than field help, and only by seizing upon every possible labor-saving device can women of the farm get their work done. In these war times when there is such a great shortage of labor, the usefulness of the gas engine in helping Kansas women with their daily work should be greatly extended.

A good many kinds of household and other work ordinarily done by hand can be done much more easily with the aid of the gas engine. Running the washing machine, wringer, grindstone, cream separator, churn, dishwasher, bread mixer, and pump, are some of the uses to which an engine may be put. If the engine is connected with an electric generator it will run a sewing machine and other electric appliances. Even gas-driven garden tools are now on the market.

The automobile is a great time saver for the women of the farms, enabling them to deliver promptly many of their products, such as butter, cream, eggs, and chickens. In addition to this use of the automobile it is a means of furnishing diversion from the steady grind of household work on the farm.

Women are not as strong physically as men, and for that reason it is even more important that they should have the help of machinery in doing their work. Engines for such use if of any size should be equipped with self-starters and other devices to reduce the labor of starting them. There is really a field for trained engineers in perfecting machines which will be practical and of maximum efficiency in lightening all kinds of farm work.

Since women as power machines are less effective than men, every possible aid should be given to make their work easier and more productive. Such equipment should be considered as actually adding to the productive capacity of the farm as a whole. Women will in all probability have a considerable part in helping to solve the farm labor problem, and too much thought cannot be given to increasing their efficiency.

In discussing the relative efficiency of hand and machine power, W. W. Carlson, superintendent of shops at the Kansas Agricultural College, says:

"It has been proved by tests that a man as a power machine when turning a crank for eight hours a day can develop only one-eleventh of a horsepower. A wage of 25 cents an hour means a cost of $2.75 a horsepower hour. A gas engine will develop one horsepower hour for one cent at the present cost of coal oil.

"The total output for a man's work—eight hours a day, 300 days in the year for forty years—is 8,712 horsepower hours. His life value as a power plant at one cent an hour in other words would be $97.12. A man could not earn enough in a lifetime as a power plant to pay his board for six months at the present cost of living. The gas engine should be more generally used by persons in their daily work."

Hints on Kerosene Burning

To burn kerosene successfully, the motor or engine must be in good condition and correctly adjusted. The valves must be made of material that will stand heat, and must be carefully ground and adjusted; the piston rings must fit correctly, and the cylinder walls must be smooth and true. Many engines fail in this because the ignition system does not furnish a spark of sufficient strength and unless the spark is excellent, the motor will require such a rich mixture that smoke and a bad odor will come from the exhaust pipe at almost every exhaust stroke. Also the governor action should be the best that can be secured.

Lubrication is an important part that often causes failure in using the heavy fuels. Oil that gives first class results when burning gasoline may fail utterly when kerosene is used; it may not have sufficient body although it may appear to be thick enough while cold or at moderate temperatures.

One of the most important requirements for burning kerosene is that the rings do not leak on account of the oil becoming too thin. Graphite fed through the intake pipe in moderate quantities will help in either a gasoline or kerosene engine, but especially in a kerosene engine, as heat does not affect graphite as it does oil.

An engine using kerosene should run at a higher temperature than one using gasoline, and the spark should be timed earlier, using a water spray, of course, to prevent knocking or pre-ignition. The valve push-rods should be adjusted as closely as possible without preventing the valves from closing properly.

It is more important, in using kerosene as fuel, to have all adjustments as nearly correct as possible, than when gasoline is used; for instance, the timing of the valves and spark, using the correct amount of water spray (I prefer the hot water) and setting the lubricator. My advice is to follow the manufacturer's directions as to the amount of lubrication, although a little extra will often do good where kerosene is used.

If the motor runs too cool, cover a small part of the radiator or arrange in some other way to raise the temperature.

If there is any smoke coming from the enhaust pipe, you may be sure that the engine is wasting fuel and that it needs attention.—WILLIAM MARROW in Power Farming.

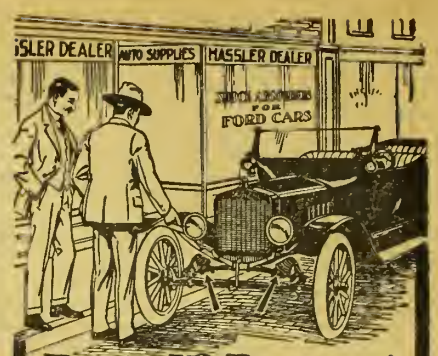
Between 300 and 600 men from Camp Funston are to receive intensive instruction in gas engines and tractors at the Kansas Agricultural College. Thirty men from truck companies and supply trains will come to the college for a full day's practical instruction daily until the total number have had the training. The groups will then return in order for further teaching. Six instructors in the engineering division have offered their services in this work as an act of patriotism. They are Dean A. A. Potter and Professors W. H. Sanders, S. L. Simmering, E. V. Collins, A. J. Mack and G. R. Stoker.

The hand forge is an almost indispensable piece of equipment in the farm workshop. Much time and money can be saved by being able to make repairs quickly. The principles of welding are simple and the cost of the outfit is well within the range of any farmer. No farm shop should be without a set of taps and dies for making nuts and bolts. Without these it often is necessary to make a trip to town simply to get a bolt which could be made or fitted in a few minutes in a shop having suitable taps and dies.

The wear on the bushings of the tie rod and other linkage may be remedied by replacing the bushing with one slightly larger to take the additional clearance.



The world is short of wool. Requirements in the United States are approximately 600,000,000 pounds this year, while the production in the last year has been but 238,000,000 pounds. Some wool can be had from Australia, but the rest must be produced here.



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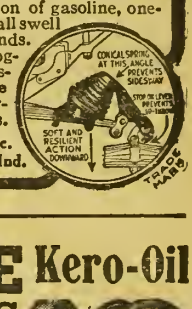

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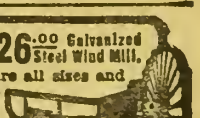

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PRODUCERS MEET HOOVER

The appointment of the committee of practical stockmen and producers to confer with the Food Administration on all phases of live-stock production should be taken as indicating the willingness and desire of Mr. Hoover to get in closer touch with the live-stock situation. We refer to the appointment of this advisory committee on another page of this issue. These men, who represent the producers of the whole country, should systematically assemble a large amount of exact data bearing on production and marketing costs. The conference between Mr. Hoover and the live stock representatives should bring about a better feeling than has existed. Mr. Hoover has not understood the real problems of the producers of food, and could not be expected to sense the real situation. Agricultural interests have not been prepared to furnish facts and figures upon which to base any fundamental principles. We seem to be making some progress. At the present time increased production is a most vital need and we feel sure that no matter what happens, all patriotic farmers will do all they possibly can in production. The recognition having been given to producers' problems will have a heartening effect.

S. T. Simpson, secretary of the Missouri Live Stock Producers' Association, summarizes the features brought out in the conference as follows:

The Government wants cattle weighing from 1,000 to 1,200 pounds.

Little attention is given quality in beef purchased by the Government.

Foreign orders are seldom received over thirty to sixty days in advance. Many are received by wire. Mr. Hoover has the promise of the war council to purchase a higher grade, and heavier beef. He took this matter up with the council in behalf of the producers.

Packers will be required to furnish cost accounts with each order filled.

Meat for our army and navy is purchased on bids received on certain specified grades. This plan of purchasing is fixed by law.

The demands for pork by the army, navy, allied armies and foreign civilians average about 200,000,000 pounds per month. Beef orders seldom exceed 60,000,000 pounds per month.

Argentine is furnishing the allies as much, or more, beef as they purchase in this country.

Government beef purchases for all purposes represent about 5 per cent of the receipts in this country.

British orders for beef have recently increased 50 per cent.

Present supplies of pork in this country exceed 1,300,000,000 pounds.

The Food Administration will furnish price lists of meat on request. Same are quoted on certain foreign cuts packed, wrapped or frozen, delivered at seaboard, and are not readily understood without some study.

Mr. Hoover thinks the administration can maintain the thirteen-to-one ratio on hogs if corn does not go to unprecedented levels. He doubts if this is possible on two-dollar corn.

The majority of those in the conference were opposed to fixing prices on corn or meats.

The Food Administration showed a desire to co-operate with the producers.

The Food Administration promised to add one practical live stock man to the meat division, and give him a voice in determining the policies of that division.

The Food Administration welcomes information from the producer.

The producer of live stock who keeps accurate record of the cost of producing meats will be in position to render his government a valuable service in furnishing data to determine the cost of producing meat.

Further legislation will be necessary before the Food Administration can absolutely guarantee a price or profit to the producer. The administration can influence the market somewhat by exercising its buying power and has promised to do what it can to insure the producer a profit.

The delegation from the Missouri Live Stock Producers' Association was given consideration in determining the policies which the administration agreed to.

WHEAT GROWERS' CONFERENCE

More than two hundred wheat growers in conference in Kansas City Thursday of last week voted in favor of urging that all wheat still held be made available for use at once, not even excepting wheat held back for next year's seed. This conference was called by Maurice McAuliffe, president of the Farmers' Union of Kansas. In the call the principal point emphasized was support of the amendment to the agricultural appropriation bill providing for fixing a higher price on wheat than that fixed by the President. A resolution supporting the $2.50 price was passed, but the real test of the stand of wheat producers on the prosecution of the war centered around the resolution calling for immediate marketing of all available wheat. The final vote was taken in the form of a reconsideration of action which had practically tabled any consideration of this point. Representatives of the State Board of Agriculture were present and were urging the adoption of resolutions similar to those passed at its quarterly meeting, which was held the day preceding. The large majority in favor of this resolution came largely as a result of the bold stand taken by C. H. Hyde, of Alva, Oklahoma, who declined to become a member of the committee to present the resolutions in Washington after this section had been tabled. Mr. Hyde said in declining this appointment: "I am a member of the State Council of Defense in Oklahoma. I have not approved of the plan followed by the Government in fixing prices, but I could not go down to Washington and represent you when this meeting has refused to respond to the Government's appeal to send all its wheat to our soldiers and the soldiers of our allies. When I was last in Washington I learned how critical the food situation is. Unless wheat is sent to Italy and to France at once, there is liable to be a breakdown. If we as farmers cannot forget our personal interests and respond to this situation, I cannot represent this organization in fairness to you or myself."

The final vote on the proposition was practically unanimous. This should make it clear that wheat producers can rise above their personal interests and come to the rescue of our Government in this time of great need.

FARM LABOR DEFERRED

Farmers actually engaged in producing crops of value in prosecuting the war will be the last men called in filling the next quota. An emergency call of 95,000 men will be mobilized during the five-day period beginning March 29. Eighty thousand of these are a part of the first draft of 687,000.

The significant feature of this call is the recognition given to agricultural work. Draft boards are instructed to pass by or give deferred classification to genuine farmers actually at work producing food. In making the call, General Crowder says:

"It is requested by the President that men actively and completely engaged in the planting or cultivation of crops should be deferred, at least until the end of the new quota.

"The situation arising from the scarcity of farm labor demands that the call of men actively and completely engaged in the planting or cultivation of crops, but who are in Class 1, and within the new quota, should be deferred until the end of the new quota. Please instruct your local boards that the President directs that in filling this emergency call, they shall pass the order numbers of such men, and defer their call for the present. It must be borne in mind that this step is taken solely in the need of the nation, and not for the benefit of any individual."

It is our understanding that farmers desiring this deferred classification for themselves or their farm hands must make application to the draft boards, supported by affidavits. This is very important. The boards have no authority to defer the call of men unless the applications come to them in this way.

LIVE STOCK CONFERENCE

The Southeast Kansas Live Stock Association is doing much to promote the adoption of a permanent type of agriculture for that section of the state. The third annual meeting of this organization will be held in Coffeyville this year April 5 and 6. The program is an exceptionally strong one. One of the agricultural war conferences has been merged with this meeting of the Southeast Kansas organization. One of the features of the program will be an address by Dr. C. F. Curtiss, dean of agriculture of the Iowa State College, on the subject, "The Agricultural Situation of the Warring Nations." Dean Edward C. Johnson, of the division of extension of the Kansas Agricultural College, will speak on the subject, "Keeping Our Balance and Forging Ahead."

Live stock judging demonstrations will be features of the morning sessions on both days. In addition to the regular speakers of the war conference series, there will be addresses by Prof. W. A. Cochel and Prof. L. E. Call of the Kansas Agricultural College; also short talks by L. S. Edwards, of Oswego; J. H. Keith, Coffeyville; H. I. Gaddis, McCune; W. W. O'Bryan, St. Paul; W. J. Brown, Fall River; Samuel Drybread, Elk City, and C. G. Elling, formerly district agricultural agent for Southeast Kansas.

This year this live stock organization has introduced a feature which is of exceptional value to breeders of pure-bred stock who are in the business only in a small way. This consists of an association sale in which about eighty head of Hereford cattle and an equal number of Shorthorns will be sold. The Shorthorns will be sold the afternoon of April 5 and the Herefords the afternoon of April 6. Small breeders often find it difficult to dispose of any small surplus they may have to the best advantage. By pooling their offerings in this way, they can enjoy all the advantages of a larger breeder. Howard M. Hill, of Lafontaine, is now president of this organization, and C. G. Elling is secretary. It has already done good work in building for better agricultural conditions in this section of the state and is growing in strength and will be able to do even more in the future.

This is the last call for the agricultural war conferences to be held in five Kansas communities during the week of April 1 to 5. The purpose of these conferences is to acquaint those in attendance with the national and the world situation with regard to agricultural production and the world's food requirements. They are regional in character. All farmers' organizations, such as farmers' institutes, granges, farmers' unions, and farm bureaus, should be represented by large delegations. The programs will be equally interesting and instructive to unorganized farmers and people of the towns. The dates are as follows: Seneca, April 1; Concordia, April 2; Cottonwood Falls, April 3; Larned, April 4; Coffeyville, April 5. You should not miss these meetings.

DISLOYAL TO HOLD BACK WHEAT

THE vital need that every grain of wheat be made available for immediate consumption before the first of May was voiced by the Kansas State Board of Agriculture at its first quarterly meeting, held in Topeka last week. The resolution on this point cannot be otherwise interpreted than as pointing out any man as a slacker who holds back wheat at this time when our allies and our own handful of men at the front are ready to make the supreme sacrifice in the cause of human liberty and justice. Even in Kansas there is evidently wheat which should be moving into consumptive channels or such a resolution would not have found favor with this body of men, comprising as it does in its membership big, broad-gauge farmers representing every section of the state.

The Board also recognizes the great need of encouraging increased wheat production as a war measure, and, to protect the man who might suffer serious loss in his efforts to grow wheat through conditions over which he has no control, passed a resolution suggesting a bonus plan for reimbursing a wheat grower who had lost his whole crop. The resolutions in full are as follows:

"We, the members of the Kansas State Board of Agriculture, in quarterly meeting assembled, representing the farmers of the State of Kansas, do hereby declare our patriotic support to the Government of the United States in this time of stress, and do pledge to our country all the resources that we have.

"We desire to express our approval and satisfaction with the present interpretation and administration of the draft law with respect to deferred classification.

"We endorse the policy of fair price regulation of wheat. But in order to maintain a just equilibrium as between other agricultural products and wheat, we feel that it is necessary to extend such regulation to all substitute products. We believe that a fair price on agricultural products should be determined by the cost of the factors entering into production.

"We realize the necessity of encouraging the wheat grower to continue in the production of wheat, and suggest that corn and wheat at approximately the same price means a larger acreage of corn and a smaller acreage of wheat. Furthermore, it is practical to encourage greater production of wheat by the Federal Government paying a bonus for every acre of wheat as the administration may deem best, or reimbursing the grower who loses his entire crop from agencies over which he has no control, to the extent of the cost of his seed.

"We recommend that 1917 wheat, and all other wheat produced previous to this time, that is now at the command of the Food Administration, should be made available for consumption immediately."

NATION'S WAR-TIME DAIRYING

No Laborer Rendering More Patriotic Service Than Dairymen

By J. H. FRANDSEN, University of Nebraska

SINCE the beginning of the world war in August, 1914, many a prediction has been made as to the duration of the war and its effect on the industrial and agricultural situation in America. Possibly because they were based on imagination, but largely because accurate information was not obtainable, these predictions are in need of more or less modification. However, statistics are now available indicating that over 60,000,000 men have been withdrawn from productive fields to take up actively some phase of war work. These men are not only not producing but are entirely dependent on the efforts of others for their food supply. This situation will aid us in understanding the food shortage existing at the present time.

As a nation we bad formerly been concerned only with feeding our own population and, with seemingly a good balance for export, we had not considered it as a problem. Statistics, however, show that even in normal times tbe rate of food production in America had not kept pace with the increase in population so that, tbough we prided ourselves on being a land of plenty—and rightly so—we seemed to have been approaching the time when we, like the peoples of older nations, would have to meet the question of food production squarely, and work out our own salvation as older nations bave been forced to do.

This problem has been rushed upon us by our entry into tbe war. Not only has our producing population been reduced by the number of our soldiers in the field and in training camps, but our consuming population has been greatly increased, for not only have we to feed our soldiers and ourselves, but we must help more than ever to meet the distress of our allies. We must send them immense quantities of wheat and meat, fat and sugar, and dairy products.

It has suddenly been discovered tbat our immense surplus bas disappeared and that now our efforts must be bent toward a much greater production as well as toward conserving the limited supply now on hand.

According to statistics compiled by tbe United States Food Administration, the production of dairy products in the United States did not in the years just preceding the war keep pace with the increase in population, to say nothing of the enormous additional demands on account of the war. The further fact that, according to Mr. Hoover, the cattle of Europe have been reduced some 28,000,000 since the war began, indicates an alarming decrease in dairy products abroad. This decrease is further emphasized by the enormous increase in dairy exports of the United States.

INCREASE IN DAIRY EXPORTS

Government statistics recently compiled show that the exports of butter increased from 3,693,597 in 1914 to 26,835,092 pounds in 1917. For the same period the cheese exports increased from 2,427,577 pounds to 66,087,213 pounds. The increase in the export of condensed milk is even more striking, the exports in 1914 being 16,209,082 pounds and in 1917 259,102,213 pounds.

On account of the depletion of European food resources and of the constantly increasing number of American soldiers in Europe, it is absolutely certain that, at least, until the end of the war we may expect a constantly increasing demand for dairy products abroad. In addition, it is safe to assume that this marked demand will continue for at least a period after the war, for naturally the first action of the peoples of devastated Europe toward reconstruction will be directed toward the growing of such crops as will bring at least partial relief to the shortage of bread. It is reasonable to suppose that it will take them years to bring up their depleted dairy herds to the place they held before the war. In the meantime the people must have milk and butter and cheese, and it will fall to America to supply a large part of these, at least, for years to come.

Then, too, Europe will look to us for breeding stock to replenish her impoverished herds which it will take time to develop. Cows cannot reacb maximum production in less than four or five years, therefore it seems fairly safe to assume that there will be an unusual demand for dairy products and breeding stock for export for years to come.

HOME CONSUMPTION INCREASED

It is reasonable to assume also that the home consumption of dairy products will show a marked increase especially in the form of milk and soft cbeeses, since, under general conditions, these are not capable of export but can be used at home and tbus release for export meat and fat which are of more concentrated form and of better keeping quality. Add to this the further fact that we are just in the beginning of a nation-wide campaign to educate tbe consumer to the real merit of dairy products—that milk is not only food for infants but that it contains nutrients whicb should form a part of the diet of everyone; that butter is not a luxury simply to make bread taste better, but is one of tbe cheapest and most desirable sources of energy; that cheese is a valuable muscle builder and one of the best substitutes for meat.

Those bebind the food conservation movement and those who have made a real study of the food situation do not advise the limiting of the consumption of dairy products. They rather urge a liberal, tbough not wasteful, use of milk and soft cheese, especially, in order that less bulky and better keeping foods may not take place, and the one wbich should be available to the weakened soldier and hard-working civilian.

WHY INCREASE PRODUCTION?

Having recognized tbe bigb food values of dairy products and tbeir relative cheapness when compared with other food articles, wbich tbey can in large measure replace and release for export, let us see what must be done to keep up an ever-increasing supply of these products, in the face of the constantly mounting production costs.

Enough data on milk production has been gathered to prove conclusively that the dairy cow produces human food cbeaper than any otber animal on the farm; that no otber animal can take the roughage, hay, grasses, corn fodder and corn silage and the by-products from our food factories and mills and in return give so much nourishing human foodstuff. For example, it has been sbown that one cow, if slaughtered, will provide sufficient meat for two soldiers for one year, while the milk from tbe same cow will yield equivalent food material for twenty soldiers for one year. To show further the economy of the dairy cow, it is of interest to know that Katy Gerben, University of Nebraska dairy cow, has, in seven consecutive milking periods produced as much digestible food material as is contained in the carcasses of forty-seven steers. To tbis might be added the fact that she has raised seven calves whose value has not been computed. Also the fact should not be overlooked that dairying contributes in large measure to the direct beef output of the nation by the slaughter of superannuated dairy animals and the baby beef not needed for breeding purposes. Statistics tell us that practically all of Denmark's beef supply is furnisbed in this way, we have no figures to prove, but it is safe to say that it is large enough to count as an important factor at the present time.



WHEN THE COWS COME HOME.—SCENE ON IRA ROMIG'S FARM, SHAWNEE COUNTY

go in increased quantity to our allies.

The warring countries of Europe are in dire straits for fat. Through the press we note the constant urgent appeal of tbe German leaders for fat, fat and more fat for the soldiers and civilians alike. The same is true of our own allies, and we must not let them suffer for want of fat so long as we have abundant supply of coarse, bulky feeds that cannot otherwise be used for human consumption, to produce the best of all fats—butter fat.

FOOD VALUES OF DAIRY PRODUCTS

We are getting away from tbe idea which formerly was prevalent among dietitians and chemists as well as among people in general, that all fats, regardless of their source, yield only heat and energy when consumed by the animal or human body. Just recently investigators like Dr. Mendel of Yale and Dr. McCollum of Johns Hopkins have made discoveries of vital importance in regard to the value of the milk fats. Tbey bave found that, unlike other fats, butter fat has the ability or power to produce growth after growth had ceased in young animals used in their experiments. In other words milk fat has been found to contain a vital principle necessary for growth and life itself.

In the light of their experiments and observations made upon young animals it is reasonable to suppose that as great or greater discrepancies would be found in the growth and general health of young children. Just how mucb or how little butter fat can be used and still maintain growth has not yet been determined, but enough has been proved to give the dairyman sure footing to bis claim that butter fat is a better food than butter substitutes composed of vegetable oils and fats. And the dairyman's duty becomes the more imperative when he realizes that by increasing his herds he will be able to supply economically the finest of all fats—the one without which normal growth in children does

HOLD ON TO THE GOOD COWS

To help supply the demand for dairy products practically every farmer can eare for a few more good cows. It has been estimated that at the present time the excess pasture and roughage in Nebraska alone would easily care for 200,000 additional cows. Nebraska with its ordinarily cheaper forage and grain offers special opportunity for the dairyman engaged in the manufacture of a high-priced concentrated article, like butter, cheese or condensed milk which can readily be transported to any part of the world where tbe best markets prevail, giving him an opportunity to take advantage of the demands and larger profits that are not possible to the man simply engaged in the production of a bulky coarse product, the bulk and freight rates operating to sbut off demands of distant markets. Now, more than ever before, is the time to weed out the poor dairy cow and replace her with a good cow. With feed high and labor scarce it is very important that every cow should be yielding the highest possible returns and that more attention be paid to the selection, feeding and breeding of dairy cattle.

The most reliable guide in selecting a dairy cow is to determine her actual butter fat record. This can be done by determining the per cent of butter fat through frequent tests of the milk by means of the Babcock milk tester.

HELP FOR LABOR PROBLEMS

Tbere is no denying that tbe steadily growing list of drafted men is making the labor problem more and more serious. However, the milk machine and other labor-saving devices will do much to reduce the amount of man labor required as well as reduce the drudgery of the work. Men who are now using the milking machine are convinced that it bas now been so perfected as to be practical, when the dairy herd is of such size that time wbicb may be profitably employed otherwise is saved by the machine milking and where intelligent care is used in its operation. Fortunately, while dairy work is somewhat confining, it is not bard work. In Europe a large per cent of the work bas, in tbe past, been done by women. Under present emergencies when women and children may be called upon to do much of man's work, dairying presents a field of service that can hardly be equalled in any otber line of agriculture.

It is true that abnormal conditions, the uncertainty of war, the higb prices of feeds, the scarcity of good labor, and the fact that many dairymen are temporarily not getting an adequate price for their product, is severely testing their courage as it has not been tested before. Admitting that existing conditions present many problems, tbe writer, nevertheless, feels that, from conferences with food administrators, it is fairly safe to predict that sucb price adjustments will soon be made as will give the dairyman more fair returns for his labors. The writer feels strongly that tbese prices must be sufficiently remunerative to stimulate the dairyman to larger production.

CONSUMER'S RESPONSIBILITY

There should be nothing but contempt for the sensational politician who maliciously or otherwise attempts to misrepresent matters pertaining to the milk situation in the hope that he may temporarily curry sucb favor as may carry him to some much desired public office. Neither can we sympathize too strongly with certain consumers who, not having a full knowledge of the food value of milk and milk products, have allowed themselves to become the tool through which housewives have been urged to boycott dairy products. Undoubtedly they do not realize that milk in one form or another is practically a necessity for the growing child. Without its use he may suffer in a way tbat cannot be overcome in later years.

It is also certain that the thoughtful consumer does not sympathize with tbe boycotting system even though it migbt create a temporary relief, for he realizes by this time that everything that has gone into the production of milk has raised in price in a mucb more striking way than has been the case with milk itself.

The following figures indicate tbe increase in prices of feedstuffs for the past three and one-balf years:

	1914	1917
Corn	$ 0.60 bu.	$ 1.26 bu.
Alfalfa	10.00 ton	30.00 ton
Oats	.35 bu.	.40½ bu.
Bran	20.00 ton	40.00 ton
Cottonsced meal	30.00 ton	61.00 ton
Oil meal	29.00 ton	61.00 ton

Besides these figures, labor in this time has iuereased at least 30 per cent. Building material bas increased approximately 60 per cent. Milk, on an average, has increased in price for the same period approximately 40 per cent. Moreover, the high price of beef is constantly tempting the dairyman to sell his animals for beef purposes. A careful analysis of the whole situation will, without doubt, convince any consumer that though he might succeed in arbitrarily forcing a lower price of milk, it would soon result in such decreased production as would eventually mean a higher price than would have been the case witbout such interference.

Legal prosecution of dairymen or sensational boycotts can ultimately have but one result—that of driving the too frequently overworked dairyman into other fields of agriculture, resulting in a sbort supply and a still higber price. A full realization of the favorable comparison of dairy products with other food

(Continued on Page Eight.)

GENERAL FARM AND STOCK ITEMS

Something of Interest For All—Overflow From Other Departments

PROBLEMS of soil fertility are constantly coming up in the minds of men who are farming on land which has been under cultivation for a good many years. It is easily to be seen that these soils are losing their fertility and do not yield as they did when first broken up. A great many have the impression that a chemical analysis of the soil will answer the question as to what is needed to make the crop grow better. A man came into the office of KANSAS FARMER only a few days with a little sample of soil and where he could get it analyzed so ld tell whether he could grow al- a that particular field There are any points involved that actual pping tests are necessary to determine just what a soil needs. Actual cropping tests are constantly being made by our Kansas Experiment Station in co-operation with farmers all over the state for the purpose of finding out just what kinds of plant food can be profitably used.

On the Experiment Station farm at Manhattan it has been found that phosphorus is a profitable fertilizer to apply. Prof. R. I. Throckmorton states that phosphorus in the form of acid phosphate has been tried for seven years on corn, wheat, and alfalfa. Each crop was grown continuously on the same land, and the phosphorus applied each year. Wheat yields have been increased on an average three and a half bushels to the acre by annual applications of eighty pounds of acid phosphate to the acre. An increase of 6.7 bushels to the acre of corn has resulted from the application of seventy-five pounds of this form of fertilizer each year. Annual applications of 190 pounds of acid phosphate per acre annually to alfalfa produced average yields of 2.05 tons to the acre, which was .36 ton more than alfalfa produced on untreated land.

Phosphorus is about the only commercial fertilizer that as a rule pays on Kansas soils. Applications of potassium have not given paying returns on any of the crops. The use of nitrogen has sometimes been followed by slight increases in yield, but hardly enough under good conditions of tillage and rotation to justify the expense.

Mr. Throckmorton states that phosphorus should be applied to the crop just as it is ready to start growth. On wheat the usual time to apply it is in the fall, but a quickly available form of phosphorus, such as the acid phosphate, may be applied to wheat early in the spring.

In answering inquiries concerning the use of commercial fertilizer, no one who heally understands the subject in Kansas would venture to say just what kind of fertilizers to apply on any particular farm without having some definite information based on a study of the actual conditions and the results of fertilizer trials on soils of the same type in the particular locality in question. In some instances absolutely contradictory results have followed the application of commercial fertilizers on farms only a few miles apart. Conditions are so variable that each fertilizer question must be studied in the light of the particular farm involved.

The sort of information necessary in offering helpful suggestions in the use of fertilizers can only come from farm trials such as are being conducted in co-operation with farmers all over the state. The agricultural agent of a county will know what has been done in his county and can pass the information along. One of the helpful things he can do is to arrange with members of the farm bureau to conduct fertilizer tests.

Partnership Farming

One of our Labette County readers asked us about the proper division of profits between two partners in a farming proposition. This man and his partner own an equal interest in a farm and the partner is going to farm it this year, boarding himself. Our correspondent expects to furnish the horses, tools, and seed, and also feed for the horses. The problem is, what share should each receive of the profits? They expect to raise corn, wheat, and oats.

In entering into such a deal, it is important that there be an absolutely clear understanding between the two partners as to just what are the duties and obligations of each. It always leads to a clearer understanding of all the points involved to put the agreement in writing. Many misunderstandings later will be avoided by following this practice.

We asked W. E. Grimes, assistant professor of farm management at the Agricultural College, to offer some suggestions on the proposed plan of our correspondent. In the teaching of farm management, the experience and observations of students from all over the state are utilized. In addition a good many field studies are made of farm management methods. Mr. Grimes writes as follows:

"In our farm management studies we have found many farmers who have worked out partnership propositions similar to the one outlined, with the exception that the man working the farm rarely owns an interest in the land. Where the operator or man farming the land does not own an interest in the farm, it is usually assumed that the labor of the tenant will offset the value of the use of the land owned by the landlord and other things are usually shared equally. This applies to farming in Eastern and Central Kansas.

"Where each owns a half interest in the farm, and horses, machinery, and seed are to be furnished by the nonworking partner, a fifty-fifty proposition would not be fair. The share to be received by the operator should be nearer two-thirds or three-fourths. It would be advisable, if possible, for the operator to furnish the horses and machinery and all the labor, and receive three-fourths of the returns and pay three-fourths of the expenses. It is better for the operator to own the horses and machinery because he is using them and is directly responsible for their care. He would have to stand the full loss due to carelessness in handling teams and machinery, and get the full advantage resulting from good care.

"The operator would be entitled to three-fourths of the return under such a plan inasmuch as he would be furnishing the labor, teams, and equipment, and one-half of the land, which is usually assumed to constitute about three-fourths of the business. Such a proposition would probably be more satisfactory and successful than the one outlined under average conditions, as the part of each partner in the business is more easily understood and there is less opportunity for disagreement."

Geese Profitable Farm Fowls

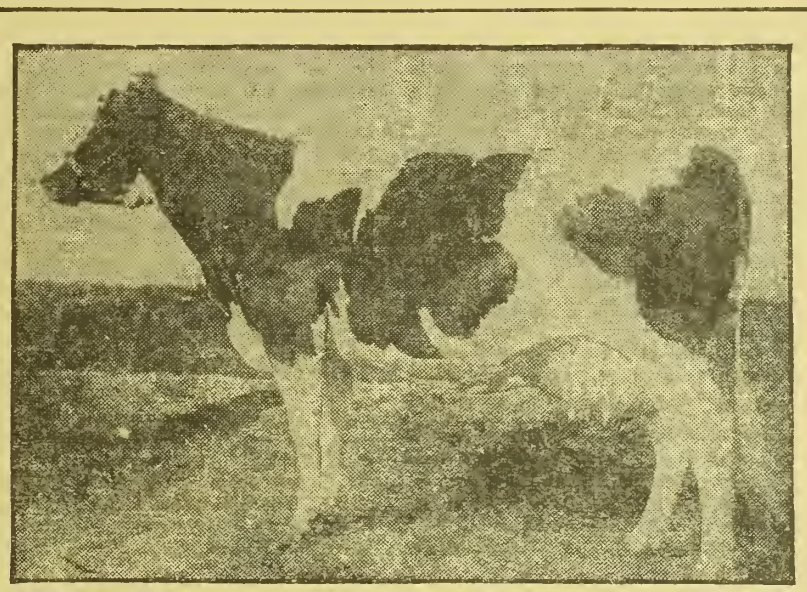
We are being urged to increase meat production, and geese can do their part if given a chance. I find an incubator ideal for hatching goose eggs. It takes longer to incubate goose eggs than duck eggs, usually thirty to thirty-three days. They are also slow to get out after they have once pipped the shell. But just leave them alone and they will come out all right. The reason for this is that they are larger and it takes longer to absorb the yolk of the egg.

Do not feed the little goslings until they are about fifty-six hours old. For the first feed give bread soaked in milk and squeezed quite dry, or a little bran mixed with soaked bread and a little onion or dandelion cut up. Feed sparingly for about three days. Keep them warm and dry at night. Give plenty of water to drink, but don't let them get wet and chill.

After the goslings are four or five days old, if you have a small movable wire enclosure that you can set out on the grass, just put them out and they will eat the fresh green grass and will need little else. If the weather is damp and cold just dig up a bunch of green grass or some lettuce or some sort of greens and bring in to them, as they will scarcely eat anything but the green pasture after they are a week old. The goose is the one barnyard bird that proudly says: "No, I thank you for your high cost of living, but I will take mine in green pasture." There is not a bird I know of more easily raised or more cheaply fed through the summer than the goose. — MRS. LIZZIE B. GRIFFITH, Lyon County.

Long Distance Record

Tilly Alcartra, the famous Holstein cow, is now past nine years of age, but is still in the ring and still making records. She has just dropped her sixth calf and has made a new seven-day mark of 40.56 pounds of butter. She is starting this lactation period with such promise that her owner has decided to put her on the year's official test. This cow has to her credit the production of 30,451.4 pounds of milk yielding 1,189.03 pounds of butter in 365 days. In two years she produced 60,278 pounds of milk; in three years 86,678, in four years 103,099.3, and her five-year production of milk is 123,351 pounds, and butter 4,856.5.



TILLY ALCARTRA, FAMOUS HOLSTEIN COW, STARTS ANOTHER A. R. O. YEAR'S RECORD

Flour Stored on Farm

The order from the Food Administration against storing more than enough flour for current needs places some of our farm people in peculiar circumstances. A KANSAS FARMER subscriber has just written as follows:

"How about the farmer who raised two or three thousand bushels of wheat in 1917, sold every bushel of it in November and December, and bought flour to last until the next harvest? Has he laid himself liable to the law now in force?"

Probably a good many who sold their wheat last fall laid in their year's stock of flour just as this reader did. We have read in our newspapers of some who have returned flour so stored in order that the supply be justly apportioned to all. We took this question up with the milling division of the Food Administration, and A. J. Hunt, the divisional chairman located at Kansas City, writes as follows:

"In my opinion the farmer who has not already put in store on his own premises the flour bought in November and December should not expect to receive more than his proportion of all the flour available for human consumption. If he has such flour in store on his premises, he should be willing as a patriotic duty to divide this flour with others who are not able to obtain as great a production as he may have.

"I do not think it at all likely that the Food Administration will endeavor to interfere with farmers who have stored flour against the future, or not at least unless conditions become very much more acute than they have been up to this time. The very great majority of farmers with whom I have personal acquaintance — and I have lived among them and dealt with them more or less all my life—are patriotic, and if their attention is called to the fact that part of their extra supply of any food commodity is needed for the relief of someone else, they will divide up cheerfully."

It would seem from this statement that it is largely a matter of personal conscience with those who laid in a year's supply of flour last fall. Their actions under the circumstances will depend largely upon their sense of obligation to the program the Food Administration is endeavoring to carry out in order to make it possible to supply our allies and fighting men with the food they need to maintain their efficiency in carrying on the war.

In the effort to save wheat, retailers have been notified to sell wheat flour only with an equal weight of specified substitute cereals. This order has some complications as applied to people on the farms who may have farm-grown substitute cereals on hand. To prevent misunderstanding of the order and the necessity for it, the following statement has just been made by Mr. Hoover:

"The Food Administration recognizes that the problem of saving by the farmers of the country will probably have to be handled in some cases in a somewhat different manner than in cities where ease of delivery and wide variety of food stocks make wider latitude in diet possible. The farmer frequently grows a considerable portion of his cereal grains and in using these at home he performs a patriotic service in not only effecting a substitution for wheat but also in relieving the railroads of the burden of transporting his foods. Farmers naturally do not desire any immunity from rules applicable and necessary to the community as a whole. But where the enforcement of the pound-to-pound rule seems to demand an unusually heavy sacrifice, persons having farm-raised substitute cereals on hand in considerable quantity should write or consult their county or state food administrator as to proper method of procedure."

The statement makes it clear that on a proper showing the federal food administrator of the state may approve a modification of the fifty-fifty plan. Special rulings have also been made where farmers exchange wheat for flour. We would suggest that those who are in doubt as to the proper thing to do write to the Kansas Food Administrator, Walter P. Innes, Wichita.

Impressive Beef Figures

The necessity for beef conservation in the United States is strikingly evident from these facts about home consumption and war requirements.

Exports of beef from the United States to the Allies the last two years have averaged about 22,000,000 pounds per month compared with less than one million pounds per month before the war.

Our own army apparently uses about 10,000,000 pounds per month more than was normally consumed by these men before they took up the hard work of being soldiers. Our cattle have not increased notably, and yet domestic beef consumption in the United States has risen from about seventy pounds per person annually to about eighty pounds during the past five years. The practical immediate solution to the problem as a nation-wide measure is to reduce the use of beef at least an eighth, thus getting back to pre-war consumption

PASTURES ON HIGH PRICED LAND

Make Every Acre of Farm a Permanent Revenue Producer

THE average farmer does not appreciate permanent pasture anywhere near as much as he should. This statement is made by William D. McKee, owner of Alfalfa Blossom Farm, Ray County, Missouri, in an article appearing in one of the monthly bulletins of the Missouri State Board of Agriculture. Mr. McKee constantly practices what he preaches in this matter of pasture maintenance. Many a farmer of Kansas, especially those located in the eastern part of the state, can profit by studying the array of facts presented by this Missouri champion of the pasture on high-priced land. Too often when the average man is about persuaded to convert some more of his farm into pasture he is deterred from doing so by the thought of the constantly increasing price of the land. He goes on trying to grow corn and grain or what are commonly known as the "money crops."

"We should not lose sight of the fact," says Mr. McKee, "that we should plan our farming not for this year or next year, but for a long series of years. With very few exceptions wherever I have had an opportunity to observe the methods and carefully study the farm practices of those farmers who farm in a diversified way in the Missouri and Mississippi Valley states, I have found the farmers standing by permanent pastures with a vengeance, and let it be emphasized that the more fertile and the higher-priced the land, the greater the acreage of pasture land.

"There is, and should be, a well-grounded reason for the practice of these successful farmers who adhere to such methods, year in and year out — good seasons and bad seasons alike. It has been said that upon that side of any proposition in which the greatest number of free minds concur, the presumption of right lies.

"These farmers have not adopted these methods to spite anyone, or to seek revenge, or to subject themselves to public ridicule or shame. They have clung to these practices with a bull-dog tenacity, because they have discovered after long years of experience that by keeping a large per cent of their farms in grass—whether these farms have been small or large—they have been able to derive more dependable income and at the same time they have been able to maintain in a more certain way the fertility of their lands, the latter accomplishment in my judgment being of vastly more importance than any temporary revenue obtained at the expense of the fertility of the soil.

"Millions of acres of farm lands in the live stock districts consist of rolling lands. Cultivation is highly conducive to washing. I have in mind hundreds of concrete examples as proof positive of the correctness of this contention. Two farms side by side: one free from gullies, the other a series of ditches, ravines, and gorges! The one farmer believed in the efficacy of grass roots binding the soil and preventing irretrievable and irreparable loss. The other labored under the delusion that the way to make money was to stick to a constant unbroken, damaging practice of continually cultivating his fields. This is only one reason why the average farmer should keep from 50 to 75 per cent of his acres in permanent pasture or meadow grasses.

"There should be written upon the 'foremast' of every farm an inscription that could be seen and read from every nook and corner, this motto: 'We will make every acre of this farm a revenue producer.' Ways and means should be discussed every morning, noon and night, until this slogan could be amended by striking out the words 'will make' and inserting in lieu thereof the words 'have made,' thus converting a declaration or prophesy into a full and complete fruition, a flag of hope and expectation into a banner of resplendent glory and realization, so as to read: 'We have made every acre of this farm a revenue producer.'

"It is surprising the number of acres of good land that are devoted to the production of worthless weeds and brush —land upon which the owner is paying taxes and from which he is not deriving one penny of income. This land, high in price and going higher each year, certainly deserves better care and management by the owner. It does seem to me that no farmer should be so unobserving as not to know that he could not afford to keep such acres inclosed for the sole and exclusive purpose of growing weeds and brush. Weeds and brush are badges of shiftless and slovenly methods of farming and should cause the owner of such premises to hang his head in shame.

"If the plant food and the soil moisture could be converted into nutritious grasses and these grasses in turn converted into pork, beef, mutton, wool, and other useful products, it would go a long way toward providing food and raiment for people living on these farms. The thousands of acres of sour dock, wild carrot, buckhorn, red sorrel, buck brush, briars and rose bushes, rag weeds and iron weeds, should be sufficient incentive to cause the farmer to marshal all his forces and available resources, to bow his neck, to grit his teeth and wage a war, desperate and relentless, such as could lead to at least a partial extermination of these vegetable trespassers.

"One of the most effective weapons of warfare at the farmer's command is a flock of sheep, the size of the flock depending upon the size of the farm and weeds or brush to be destroyed. Why 'a flock of sheep' before recommending the mattock and spud or the mowing machine? Because the sheep will do a better job and at the same time bring in a handsome return to the farmer. Sheep can work, and gladly too, where the mowing machine cannot go and where the land is too stony to use the grubbing hoe or spud satisfactorily.

"The mowing machine can be brought into service by those who have not the sheep, for repeated close mowing of annuals and biennials will greatly hold in check, if it does not work a complete destruction of the money-losing beggars. Sprouts must be pastured by sheep, mules, horses, or cattle, or cut in June and September. Buck brush can be dealt a death blow by grubbing, plowing, or pulling with a team and a small-linked chain. The very best time to pull with a chain is in the spring just after the frost has gone out of the ground, before the grass roots start or begin to grow. At this choice season of the year place a chain around the bushes and with a steady-pulling team the work is done successfully. In keeping with the law of compensation, fortunately and happily, the buck brush is a surface-rooted plant, and the treatment prescribed above will dispatch it in a hurry and it disappears forever to the great joy and consolation of the owner of the premises.

"So much for the pastures infested with brush and weeds. The pastures that are not infested with either one or the other need attention and treatment along with all permanent pastures.

"The one pronounced and outstanding abuse that nearly all pastures receive alike is that which comes from the almost universal and ruinous practice of over-pasturing. The blades of the plant constitute its vital organs, and grazing too closely for long periods of time weakens the plants, allows the sun to burn and destroy the root system, and reduces the quantity of pasture to a disastrous degree. How foolish and short-sighted is such a procedure, too often exemplified all over the whole country. You can't get something for nothing!

"A simple, cheap, and satisfactory method of adding stability to your permanent pasture is a system of renovation by sowing with a disk drill with grass seeder attachment, plenty of red clover, timothy, and other pasture grasses. This must be done in the spring just as the frost is leaving the ground. You can, by setting your drill properly, cut a gash or wound in the toughest sod or turf into which the seeds will fall, and with the first rain these small furrows will close and cover the seeds at the proper depth where they will be ready to come forth at the first solicitation of spring.

"Here again we repeat with double emphasis, 'You can't get something for nothing.' Don't pasture these young tender plants until they become established. They must develop sufficient root system to enable them to compete with the rugged plants already there and in possession. You can afford to make any and all kinds of sacrifices in order to establish these new plants. Just think what they will accomplish. They will increase the pasturing capacity from 20 to 50 per cent, depending upon the condition of the permanent or old pasture. They will increase the palatability as well as the feeding quality by adding variety. They will occupy the spaces hitherto held by weeds.

"The clover plants will add nitrogen to the land and in result help to resist some of the ravages of such pests as grub worms and will grow and furnish a pasture greatly relished by all live stock at the time bluegrass is taking its summer rest or vacation.

"All these things here mentioned can be done at small expense of labor and money and not necessitate a single extra rod of fence, the digging of a well, nor the adding of a single dollar's worth of farm improvement or equipment.

"In this era of world war, and with prices for meat animals having broken all high records, the importance of permanent pasture as the foundation feed for all live stock can hardly be overestimated. Bluegrass is one of Missouri's mightiest crops from the final accounting point of view. The successful farmer and splendid permanent pastures seem to be found together so generally that it is hardly necessary to urge the importance of the matters here discussed."

Farmers and the War

IT TAKES longer to get the people of the soil to answer the call to arms than it does the people of the cities and towns. Town people are sometimes disposed to criticise and take country people to task as being not alive to the situation. The facts are, however, that the farmer has always been a warrior when war was the only thing which would make and keep him free, and since the dawn of history no other class has suffered more from the results of war. In discussing the farmer's attitude toward the war, Herbert Quick, of the Federal Land Bank Board, said:

"It is impossible to set the farmers of the United States on fire by means of any sudden spark of rumor, or to blow a chance catch of flame among them into a conflagration with any handbellows of artificial agitation; but when the farmers do ignite, they burn with a slow, hot fire which nothing can put out. They are sometimes the last to heat up, but they stay hot; and in a long fight they are always found sturdily carrying the cattle across No Man's Land to the foe in the last grim struggle. They fight the slow rear-guard action that covers retreat in disaster; and their stubborn valor always helps to turn the tide toward victory in the final triumph. The American farmer will give all that he has and all that he is to win this great war against war, this enormous struggle to win again the victory which we fondly believed we had twice won in the past."

According to Mr. Quick, the farmers of the country could carry the war to a victorious conclusion even if all the rest should quit. Of course we knew the rest will not quit, but we could win it without them if we had to do it. Here is what Mr. Quick says on this point:

"The farmers of the United States can whip Germany.

"We can whip them with guns.

"We can whip them with our products.

"We can whip them with our money.

"Every farmer in the United States must remember that the war has a first mortgage on every cent he has. The last spare cent in the pockets of every farmer in America should be devoted to the war.

"The kaiser began foreclosing his mortgage on our farms when he declared ruthless submarine warfare, and the war is our answer to his bill of foreclosure.

"Our contribution is, first, our sons and brothers for the trenches; second, the last pound of food products which we can grow by mobilizing our scanty labor supply, utilizing the men, women, children, and the townspeople about us; and third, money for Liberty Bonds.

"This is the crucial year of the war. Our soldiers are at the front, hundreds of thousands of them in the trenches, and a million more ready to go. The whole burden of carrying on our own part in the war and of aiding our sister nations in arms, rests on the United States Treasury.

"If the Treasury fails or falters or finds itself unable to respond to every call upon it, the war is lost. Do you realize that?

"Your son and all the nation's sons are relying on the United States Treasury to furnish things with which they may fight.

"Their lives are lost if the Treasury fails. Our country is lost if the Treasury fails.

"Germany wins if the Treasury fails.

"Therefore every cent you can rake and scrape together belongs to the Treasury that our soldiers may come back to us alive and victorious. This is literally true. We can whip the Germans with our money; but not with the money in our pockets or bank accounts. It must go into the United States Treasury in subscriptions to Liberty Bonds.

"While Gerard was our ambassador in Berlin, the kaiser said to him one day that he would stand no nonsense from America after the war.

"In von Tannenberg's book, 'Grossdeutscheland,' he says—and in saying it he voiced the orthodox official view—'It is Germany's task today to pass from the position of a European power to that of a world power. * * * A policy of sentiment is folly. Enthusiasm for humanity is idiocy. Right and wrong are notions needed in civil life only. The German people is always right because it is the German people and because it numbers 67,000,000.'

"If the people of the United States should ever go insane enough to think such things of itself, it would be the duty of the rest of the world to crush the United States the moment it drew its sword and started out to establish itself on that superman basis. It would be its duty to crush us, not only for the sake of the world, but for our own sakes. Until this thing is crushed out of Germany, all other nations will be looked upon by Junkerdom, as they now look upon us, as 'servient elements' in the development of German kultur, as 'passive races' while they are the active ones, as 'mentally inferior,' as peoples in dealing with whom Germany will never be so foolish as to be guided by those notions of right and wrong which are needed in 'civil life only.'

"This summer the support of the war is up to the farmers; and Uncle Sam has never called upon the farmers in vain!"

Don't save at the bunghole and waste at the spigot. A big Liberty bond to stop the big wastes—a little one for the petty extravagances.

Mutton and lamb may be eaten on meatless Tuesdays until April 15 in all states, by a ruling recently issued by the Food Administration. This ruling was put into effect in all states west of the Mississippi and in Wisconsin and Illinois February 21 and has now been extended to include the eastern states.

KANSAS FARMER DAIRY CLUB

Western Kansas Dairy Club Story

IN Western Kansas, only about thirty-five miles this side of the Colorado state line, lives a twelve-year-old boy who milked a Brown Swiss cow in the Dairy Club last year and sold $105.64 worth of cream. He sold her first calf, which was a bull, to his father for $15. Before the year closed she dropped a fine heifer calf sired by a pure-bred Brown Swiss bull. This boy, Leslie Linville, lives at Winona, Kansas. People who milk dairy cows are not very numerous in that section. Buffalo grass is the only native pasture and because of the short rainfall a great many think that the country is not adapted to dairying. As a matter of fact, nothing is more dependable than milking a few cows. No matter what the season, there is always some feed that will produce milk. The experience of this boy shows that producing butter fat is a profitable business under Western Kansas conditions. Here is what he says in writing of his year's work:

"Papa used to be a dry goods merchant in Beloit, Kansas. Then he went to selling real estate in Western Kansas. All the time we were buying milk and butter and finding it harder and harder to get and higher in price all the time. He subscribed for KANSAS FARMER and Kimball's Dairy Farmer, and the more he read of dairying, the more he was convinced that it was a business Kansas farmers ought to follow more closely. He bought this farm about six years ago and we moved out here and began to build up our herd of dairy cows.

"Of course papa hoped I would take an interest in the work. When KANSAS FARMER organized a dairy club, he wanted me to join, as he thought if I had a cow of my own I would take more interest. I had two heifer calves of my own, and I thought the Dairy Club work a good way to earn a cow.

"We could not get our banker interested, so papa sold me one of his cows and I have kept the records of her milk and feed. I have kept the records faithfully and have always read the Dairy Club notes in KANSAS FARMER.

"I have not learned very much in feeding, because I never could get the right feeds. Last year our alfalfa was woody and was not a good cow feed. We had it only up to the first of March. I feel one must not neglect his cow if he would get the best results.

"I let my milk be separated with the rest and estimated the value of my cream by the cow's butter fat test and the pounds of milk she gave. Papa considered the skim milk worth 25 cents a hundred pounds as feed for his hogs.

"The feed for my cow cost $65.39, breeding fee $2, interest $3.97, other expenses, such as postage, etc., $1.75. I got for the butter fat $105.64, skim milk $18.07. My cow cost me $125. She was appraised at this price by two of our neighbors. I sold her first calf, which was a bull, to papa for $15. It was dropped August 20. July 1, this year, she had a fine heifer calf. I have taken care of this calf myself. I fed her seven pounds of whole milk twice a day until she was a month old, then I commenced to mix her milk gradually with separated milk. I kept increasing the separated milk until by the middle of August I was feeding all separated milk. She also runs on buffalo grass pasture. She is the very nicest calf we have had this year except two pure-bred bull calves.

"My cow lacked $61.63 of paying for herself in the year that I was in the Dairy Club."

In spite of the fact that Leslie could not get the feeds he thought he ought to have to feed his dairy cow, it is evident from the record that she has made good use of such feeds as could be obtained under Western Kansas conditions.

Good School Record

Lucile and Clarence Radcliffe, who live at Carbondale, started their Dairy Club records in April, 1917. They have been exceedingly busy in taking care of these cows and their calves, but Lucile has to date made a perfect record in school attendance, not having been tardy or absent a single day. They each have a cow and two calves that they are paying for themselves. Lucile has just written to tell us about a mistake in her February record. She says:

"I used Clarence's butter fat test instead of mine. Mine was 3 per cent, and Clarence's was 3.2. It makes a little over two pounds difference in the total butter fat, which should be 35.031 instead of 37.3664.

"I have not written about my cow since she has been fresh again, as we have had so much to do getting ready for the spring work and school. We are going to have a dinner and a large program to close our school, but that is not telling about my cow. She was dry about two months. When she was first fresh she gave from twenty to twenty-four pounds at each milking, but now it is from eighteen to twenty. Clarence and I bought a ton of alfalfa hay for $20. I believe it paid me but not Clarence. He is getting only from eight to eleven pounds of milk now. Several men have been around here wanting to buy our cows. One man came when papa was gone. We wanted to know what we priced them at and I said 'Two hundred dollars apiece.' He laughed and said he would give $230 for both. We told him 'No.' Clarence will keep his cow until the club record is done, then he may sell her if he can get a good price.

"We have just about got our notes paid. We each have two calves and a cow. My calves are both steers. Clarence has one heifer and the other a steer."

Butter Fat Not Butter

The amount of butter fat a cow produces is an absolute quantity, and we have always favored reporting records in pounds of butter fat instead of butter. Butter is not pure butter fat. Some figure standard butter to contain 80 per cent fat and others figure 85 per cent. By reporting all records in butter fat, we have a positive, definite basis of comparison.

Some of the cow test associations report their records in pounds of butter. We were very glad to note that the Arkansas Valley Cow Testing Association and the Montgomery County Association decided to report butter fat and not butter, and commended this action in KANSAS FARMER. In spite of this, however, a mistake has been made in publishing a report of the Arkansas Valley Association in our issue of March 9, and one of the Montgomery County Association in issue of March 23. The column that should have been headed "Pounds butter fat" was headed "Pounds butter, 80 per cent fat." This makes considerable difference in the result and is not fair to the cows so reported. For example, in the case of the record of the first cow given in the February report printed below, 48.36 pounds of butter fat would make 60.45 pounds of butter, 80 per cent fat. We make this explanation so that those interested will know that these cows made better records than would appear from the reports having the wrong heading at the top of the butter fat column.

We have just received the February report from the Arkansas Valley Cow Testing Association. The table gives the names and records of the cows which have produced more than forty pounds of butter fat during the month of February:

Owner	Pounds Milk	Per Cent of Fat	Pounds Butter Fat
J. Corfman, H.	930	5.2	48.360
Fred Harvey, H.	1,193	3.7	44.141
Fred Harvey, H.	1,890	3.6	68.040
Fred Harvey, H.	1,403	2.9	40.687
Fred Harvey, G.	1,408	3.8	53.504
Fred Harvey, G.	1,190	3.6	42.840
Fred Harvey, H.	1,221	4.2	51.282
E. V. Swinehart, H.	1,585	4.2	66.570
E. V. Swinehart, H.	1,576	3.0	47.280
Stubbs Farm, H.	1,187	3.5	41.545
Stubbs Farm, H.	1,299	3.1	40.269
Stubbs Farm, H.	1,495	3.3	49.335
Appleman Bros., H.	1,840	3.1	57.040
Appleman Bros., H.	1,442	3.2	46.144
Appleman Bros., H.	1,327	3.1	41.137
Lon Turner, J.	991	5.2	51.012
Martin Ternes, H.	1,229	3.4	41.786
Martin Ternes, H.	1,218	4.0	48.720
W. M. Spurlock, H.	1,056	3.9	41.184
W. M. Spurlock, H.	941	5.2	48.932
Bert Peck, H.	1,078	5.6	60.368
F. H. Bock, H.	1,310	3.1	40.610
F. H. Bock, H.	1,501	3.0	45.030
F. H. Bock, H.	1,252	3.3	41.316
Dr. J. T. Axtell, H.	1,478	3.6	53.208
Dr. J. T. Axtell, H.	1,702	3.0	51.060
Dr. J. T. Axtell, H.	1,078	3.8	40.964
Dr. J. T. Axtell, H.	1,408	3.1	43.648
P. W. Enns, H.	1,005	4.1	41.205
P. W. Enns, H.	1,467	3.7	54.279
Appleman Bros., H.	1,560	3.0	46.800
Appleman Bros., H.	1,512	2.7	40.824
J. R. Pringle, S H.	1,154	3.7	42.698
J. R. Pringle, S H.	1,327	3.9	51.753

Note.—H. stands for Holstein; G., Guernsey; J., Jersey; S. H., Shorthorn.





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GREATER CAPACITY: Without increasing the size or weight of the new bowl, its capacity has been increased.

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EASIER TO WASH: Simpler bowl construction and discs, caulked only on the upper side, make the bowl easier to wash.

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EASIER TO TURN: The low speed of the De Laval bowl, the short crank, its unusually large capacity for the size and weight of the bowl, and its automatic oiling throughout, make it the easiest and least tiring to the operator.

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If you haven't the spare cash right now, that need not stand in the way of your getting a New De Laval at once. We have an arrangement with De Laval agents which makes it possible for any reputable farmer to secure a De Laval on the partial payment plan—a small payment at the time of purchase and the balance in several instalments—so that your De Laval will actually pay for itself while you are using it and getting the benefit from it.

Why not see the nearest De Laval agent at once? If you do not know him, write to the nearest office for new catalog or any desired information.

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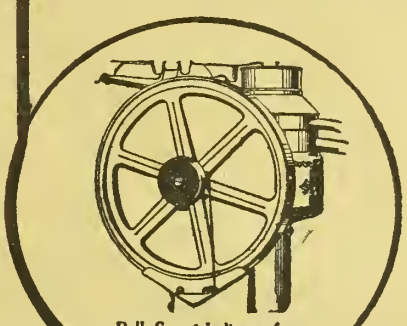

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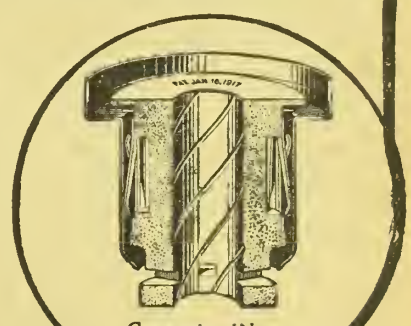

Cross-section of New De Laval self-oiling top spindle bearing

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Floyd Gerardy, of Americus, who is making a fine record with his Dairy Club cow, writes that one of the things he has learned from experience is that plenty of fresh water is very essential to milk production, along with good shelter and care. Those who are milking cows should never forget that a cow giving milk needs considerably more water than a dry cow. It is astonishing how much water a cow giving a heavy flow of milk will drink. Be sure your cow gets all the fresh water she wants.

The Island of Guernsey is just about the size of one-half of a government township, six miles square and very much the same shape if divided diagonally, say, from the northwest corner to the southeast corner. On this small territory 40,000 people and 6,000 Guernsey cattle find subsistence. There's farming for you.

To get a maximum of wool of high quality, sheep should be properly fed and handled. As soon as the animal has been sheared in the spring, it should be dipped. Dipping kills the external parasites, makes the skin of the animal more healthy, and causes a more luxuriant growth of wool.

Persons who buy white flour substitutes and feed them to the chickens or give them away are enemies of this Government and of our boys in France. Buying of Liberty bonds and subscribing to the Red Cross cannot atone for waste of corn meal or other wheat substitutes.

More care is necessary in fattening calves than in feeding grown cattle, but, whenever possible, it is best to raise and finish beef cattle on the same farm.

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Then you know positively that you are skimming clean, right down to the last drop, if y new 1918 separator is not just a warm weather skimmer. When your cows are on dry feed it will skim just as close as when the cows are pasturing. In cold weather you are not so particular if your separator doesn't skim up to rated capacity. But in the spring and summer when the grass is green and the milk flow is heavy you want a separator like the Galloway. A few minutes saved in the morning and evening mean just that much more time in the fields.

Sold Direct to You from My Factory!

And the best thing about my wonderful New Sanitary, next to its perfect skimming qualities, is that the price is right. A too cheap separator is not economy. It's just as bad to pay too little as too much. My Sanitary is in the class of the best machines, but is sold at a fair price because you can buy one direct from my immense factories at Waterloo. This plan saves you the difference in price. I cut out all waste and sell you at the rock bottom factory price. Examine the Galloway Sanitary thoroughly. Test one for 90 days. Note its strong, sturdy base. Big, roomy, seamless supply tank of pressed steel; Heavy tinware; Sanitary bowl; its self-centering neck bearing and simple but effective two-piece lower bearing. Then look at the discs which separate from each other for easy cleaning. Takes only a few of them to skim a lot of milk. Cream pail shelf and bowl wise combined in one, with hinge for lowering. Examine its helical drive gear; high crank shaft (just 50 r. p. m.); its high carbon steel worm wheel shaft; oil bath and sanitary drip pan.

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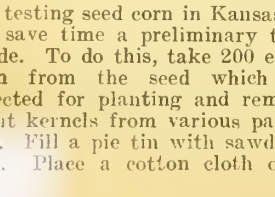

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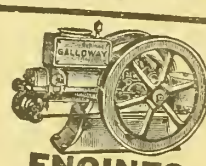

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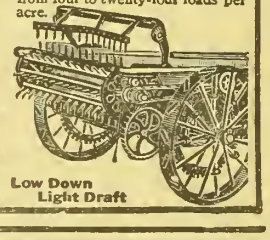

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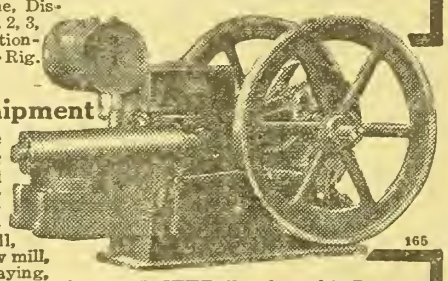

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Preliminary Seed Corn Test

A careful test of all the corn you expect to use for seed will detect the poor seed. There is more than the usual need for testing seed corn in Kansas this year. To save time a preliminary test can be made. To do this, take 200 ears at random from the seed which has been selected for planting and remove six or eight kernels from various parts of each ear. Fill a pie tin with sawdust or fine soil. Place a cotton cloth on the soil and spread the kernels on the cloth. Then place a second piece of cloth over the seed and wet it. Invert a second pie tin over the first, thus providing a moist chamber for the seed. Set the tins in a warm place and wet the top cloth each day. If the seed is good, at least 90 per cent of the kernels should show good strong sprouts in six days. If a smaller per cent of sprouts appear it probably will be the safer plan to give the ear test so as to be able to reject each ear that is not fit for seed.

Why We Send Our Wheat to Europe

NO QUESTION is more frequently asked than why we send wheat to Europe and stint our own people. The first answer is that we send wheat to furnish a foundation for the mixed cereal bread that the Allies have eaten for three years and a half, and not to supply them with a straight wheat bread. We are now eating Victory bread, a bread that calls for only 20 per cent wheat substitute, while Europe since the outbreak of the war has eaten a war bread which contains from 25 to 50 per cent substitute. They are asking us for wheat enough to make this war bread.

Wheat flour is the only known foundation for a bakery loaf. Corn meal and buckwheat can be used in making corn bread and batter cakes, but these breads cannot be looked on as bakery products, as they will not stand twenty-four hours' handling between the oven and the table. American women who do their own baking can make good use of corn meal, rice and oatmeal, but wherever women work in factories or long hours in the field, whether in America or Europe, bakery bread must be within their reach.

Dr. Alonzo Taylor, representative from the United States Food Administration to the recent Allied Conference in Paris, and an expert on the food needs of the world, answers the question in this way:

"We receive many letters at Washington as to why we want to send so much wheat to Europe when we are told that corn, oatmeal, rice and barley and rye are just as good. They ask, 'Why don't we keep the wheat and send them the corn and rye and barley and rice?' I will answer that: We want to send wheat to Europe because you can make bread of wheat, and you can't make bread out of rice and oats and corn. And nobody bakes domestic bread in Europe. You can go to any town in France and you will find that there are no individual bakers there. There will be employed probably two or three men in one place, who will have one large hearth, and who will be able to bake 2,000 loaves of bread together, with a minimum amount of coal.

"The bread is delivered to the home; and this is one-half of the diet of that home. It was in peace time and it is now. In peace times there was considerable sugar, and dairy products were plentiful. Now these things are scarce and the bread largely takes the place of these foods. So the bread becomes of added importance from every point of view. Now just visualize this peasant home. Remember that the peasantry in France live in villages, not on farms, and they subsist on the small local store and bakeshop.

"Please remember that the coal in France today is $110 and $135 per ton, and they have a good coal supply this year.

"Just visualize an American woman saying: 'If the corn, rye, oatmeal and barley are just as good, I will accept the wheat and send the wheat substitutes to Europe.' Remember that bread is made from wheat.

How much work is it for her to prepare rice or oatmeal or make corn bread? How much of a burden does it impose upon the overtime of the American woman today, either with or without servants? Very little. But it is a burden to a French woman, who is working sixteen hours a day and taking care of a maimed soldier, or a tubercular person, to deliberately put an hour or an hour and a half on her day at boiling rice or making corn bread. Shall we put this burden upon her? This is the concrete situation."

War-Time Dairying

(Continued from Page Four)

articles, together with the definite knowledge of the increased cost of producing dairy products, will convince the consumer of the justness of the dairyman's demands for such increase in price as will give him reasonable returns for his dairy investment and stimulate him to further production.

Looking beyond the economic and financial considerations it must be admitted that no laborer in the field of agriculture is rendering a more patriotic service than the dairyman in adding to the supply of a much-needed food product. He feels partially repaid for his efforts, I am sure, in the thought that he is doing his share to help win the war and lessen the sufferings of his fellow man.

HEROIC WOMEN OF FRANCE



MY WORDS are not powerful enough to do even scanty justice to the most heroic figure in the modern world, and of ages past—the woman of France. Of the healthy men who are engaged in the military service in France, practically all are engaged either in transportation or in the manufacture of munitions, leaving the agriculture absolutely to the women. Not only this, but they have stepped into the place of work animals; you can go into any section of France today and see women of magnificent, noble womanhood hitched to the plow and cultivating the soil. All of the agriculture rests upon their shoulders. The home, always an extremely efficient home, maintains a few old men, the wounded, and the tubercular. Uncomplainingly, with high devotion, with an attitude that amounts almost to religious exaltation, the woman of France bears the burden.

Now, conditions being as they are, does it lie within the heart of the American people to preserve and hold to every convenience of our life at the expense of adding an additional burden to the womanhood of France? This is the exact question that is involved in our substitution of other cereals in place of wheat.

The women of France must be enabled to hold up the morale of the French soldier until next spring. The morale of the house decides the morale of the soldier in the fighting line. We can do this by giving them the greatest possible freedom in their food supply, and of this, wheat is the chief factor.—DR. ALONZO TAYLOR.



Plant Adapted Crops

PLANTING only such crops as are known to be adapted to conditions is the wisest policy in any year, but it is even more important in a year when we must make every lick count. For example, it has been conclusively demonstrated that sweet sorghum, or cane, will produce greater tonnage yields of silage in all parts of Kansas than corn, regardless of rainfall, soil, elevation, or length of growing season. The increased tonnage is enough to much more than overcome the slight inferiority of cane silage in feeding value.

On fertile bottom land at Manhattan, sweet sorghum has averaged 13.02 tons of silage to the acre for the five-year period 1912 to 1916. Over the state in nineteen co-operative tests made by farmers during the years 1914, 1915 and 1916, sweet sorghum has averaged 12.3 tons of silage to the acre; kafir has averaged 9.6 tons, and corn 8.4 tons.

The Kansas orange and the sumac varieties have made the largest yields in Eastern and Central Kansas, and the red amber in Western Kansas.

It is well worth while to study closely the adaptability of all crops and varieties. It may have surprised some to learn that barley had done so well in Kansas as was shown in the article in our issue of March 2. Some might be tempted this year to try spring wheat if it had not long since been learned that it is a very poor crop for Kansas. It is up to every individual farmer to study most closely the local conditions, seeking all the outside help possible but weighing all carefully in the light of his intimate knowledge of his own farm.

There is no better way to learn the adaptability of crops and methods than to systematically study what the most successful farmers in a given locality have been doing. As a rule it will be found that these men have worked out plans and developed or introduced varieties particularly well adapted to the local conditions. One of the opportunities to realize quickly on the service of your agricultural agent is to learn through him what other farmers in your county are doing. These men have frequently learned that some of the very best methods developed in various localities are unknown and have not generally been adopted by people of the community generally.

Growing Pinto Beans

The Federal Department of Agriculture is suggesting that growers of pinto beans should not be discouraged because the beans they grew last year did not bring quite as much as the white navy beans did. They feel certain that the demand for the pintos will greatly increase.

The general experience with new food crops is that when their production is suddenly greatly enlarged some time is required to convince consumers of their merit in contrast with the longer known competing crops. The somewhat lower prices for pintos that have prevailed this season are regarded as certain to produce greatly enlarged consuming demand next year as the inherent merit of the pintos becomes more widely recognized both at home and abroad. As the demand is steadily increasing, it is the view of the department that it would be to the advantage of pinto bean producers as well as of the country to maintain or enlarge their acreage wherever this has been found a fairly safe crop.

Need for Garden

The need for a garden and for the canning and storing of surplus garden products this season is made most emphatic as a result of a recent announcement of the Food Administration that for the present the products of commercial canneries are to be commandeered for war purposes. This means that domestic consumers will probably not be able to draw as largely upon the commercial plants as formerly. If you have been in the habit of depending on a store for your canned corn, tomatoes, peas, beans, etc., this is a notice of what to expect if you do not plan to have a good garden this year and lay in your own supply of vegetables for use during the winter season.

It is evident the Government is needing these commercial supplies, and the need will increase as the men under arms increase. The home garden will supply these products for local consumption and thus release the commercial product for war purposes. According to the announcement made, the Government proposes to take the commercial product, whether there is enough to supply both Government needs and local needs or not. Growing such products locally also greatly relieves the railroads from the necessity of transporting large food supplies from the various commercial factories.

The Food Administration gives the positive assurance that under no circumstances will home-canned products be seized for Government use, but the Government needs will draw heavily on the commercial plants, and that will mean a cutting off of the usual supply for home consumption.

Farmers' Advisory Committee

It has just been announced that the Secretary of Agriculture and the Food Administration have formed an advisory committee of representative producers of farm products and live stock. There are twenty-four men on this committee and they have been selected with reference not only to the larger agricultural interests but also according to geographical location. The men most directly representative of the interests of Kansas, Oklahoma, and Missouri, are W. L. Brown, of Kingman, Kansas, and N. H. Gentry, of Sedalia, Missouri. Oliver Wilson, Peoria, Illinois, master of the National Grange, is a member; also C. S. Barrett, president of the National Farmers' Union.

These men, representing the agricultural interests of the whole country, will be called into conference by Mr. Hoover and Secretary Houston from time to time to discuss national agricultural problems. The first meeting was called for March 28 in the office of the Secretary of Agriculture.

Get All Manure Out

This is a year in which it will pay to get every bit of manure possible out on the fields. Barnyard manure is worth more than ever before, for every increase in yield will bring unusual prices, and commercial fertilizers are hard to get at any price. The following figures from the Kansas Experiment Station show what may be expected from light applications of barnyard manure on typical Eastern Kansas upland soils. These tests covered a period from 1911 to 1917, inclusive. Wheat top-dressed with manure each winter at the rate of two and one-half tons to the acre has produced an average of 22.1 bushels an acre on land continuously cropped. Only 14.9 bushels was produced to the acre from similar land not manured. The average yield of corn on unmanured land was 19.8 bushels, and on land to which was applied two and one-half tons of manure to the acre each year, 27.7 bushels to the acre.

Alfalfa yielded 1.6 tons of hay to the acre on unmanured land, 2.9 tons when manured each year at the rate of two and one-half tons to the acre, and 4.2 tons of hay to the acre when five tons of manure to the acre was applied annually.

Tells Why Chicks Die

E. J. Reefer, poultry expert, of 463 Reefer building, Kansas City, Missouri, is giving away free a new book which tells of a simple home solution that raises 98 per cent of all chicks hatched and cures white diarrhea over night. All poultry raisers should write for this valuable free book.—(Adv.)

Feeding alfalfa hay to horses in limited quantities has been proved a desirable practice, but this crop should be looked upon as a concentrate rather than a roughage. One pound of alfalfa hay contains 35 per cent more available protein than does a pound of shelled corn.

Win the War by Preparing the Land Sowing the Seed and Producing Bigger Crops

Work in Joint Effort the Soil of the U. S. and Canada—Co-operative Farming in Man Power Necessary to Win the Battle for Liberty.

The Food Controllers of United States and Canada are asking for greater food production. Scarcely 100,000,000 bushels of wheat can be sent to the allies overseas before the crop harvest. Upon the efforts of the United States and Canada rest the burden of supply.

Every Available Tillable Acre Must Contribute; Every Available Farmer and Farm Hand Must Assist.

Western Canada has an enormous acreage to be seeded but man power is short, and an appeal to the United States allies is for more men for seeding operations.

Canada's Wheat Production Last Year was 225,000,000 Bushels; the Demand from Canada Alone, for 1918, is 400,000,000 Bushels.

To secure this she must have assistance. She has the land but needs the men. The Government of the United States wants every man who can effectively help to do farm work this year. It wants the land in the United States developed first of course; but it also wants to help Canada. Whenever we find a man we can spare to Canada's fields after ours are supplied, we want to direct him there. Apply to our Employment Service, and we will tell where you can best serve the combined interests.

Western Canada's Help Will Be Required Not Later Than April 5th. Wages Competent Help, $50 a Month and Up, Board and Lodging.

Those who respond to this appeal will get a warm welcome, good wages, good board, and find comfortable homes. They will get a rate of one cent a mile from Canadian boundary points to destination and return.

For particulars as to routes and places where employment may be had, apply to

U. S. Employment Service, Dept. of Labor.

St. Louis, Kansas City and St. Charles, Missouri.



Our Navy FREE

"Our Navy"

A BOOK SHOWING EVERY TYPE OF VESSEL IN THE U. S. SERVICE

Every type of vessel in the navy is shown in a book just compiled for KANSAS FARMER. The superdreadnaught and the submarine, the torpedo boat destroyers, hospital ships, as well as photographs of the life of the sailor-soldier on board, are shown.

The book is 10 by 13 inches, bound permanently in heavy bristol boards and beautifully printed. A copy of "Our Navy" should be in every patriotic American home, for, besides the naval photographs,

IT CONTAINS THE FULL TEXT OF THE PRESIDENT'S GREAT WAR MESSAGE

There is absolutely no charge for the book. IT'S FREE. Merely send in your subscription for one year with One Dollar to KANSAS FARMER, and a copy of "Our Navy" will be sent you ABSOLUTELY FREE.

USE THE COUPON

KANSAS FARMER, Topeka, Kansas.

Gentlemen: Inclosed is One Dollar. Mail me at once a copy of "Our Navy" and enter my subscription for one year to KANSAS FARMER.

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TOWN .....

R. F. D..... BOX NO..... STATE.....

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted free of charge for two weeks, for bona fide seekers of employment on farms.

HELP WANTED.

THOUSANDS GOVERNMENT POSITIONS open to farmers. $100 month. Easy clerical work. List positions free. Franklin Institute, Dept. N-82, Rochester, N. Y.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE—RED POLLED BULL, HERD header, A-1. Yearling bulls ready for service. R. C. Brownlee, Holden, Mo.

FOR SALE—ABERDEEN-ANGUS BULL, one year old, extra quality. J. W. Alexander, Burlington, Kansas.

FOR SALE — REGISTERED HOLSTEIN bull, seven months old. G. E. Berry, Garnett, Kansas.

FOR SALE — A RED POLLED BULL, calved March 8, 1913. There are very few better bulls in the state. Geo. Haas, Route 6, Lyons, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

HORSES AND MULES.

FOR SALE — IMPORTED PERCHERON pure-bred horse, seven years old, dark gray, weight 1,700 to 1,800 pounds. Sound and O. K. at farm. Otto Meyer, Basehor, Kan.

BLACK REGISTERED PERCHERON stallion, three years old. Three Aberdeen-Angus bulls, eligible to registry, one year old. All good individuals. Satisfaction guaranteed. E. B. Saylor, St. John, Kansas.

ONE MAMMOTH JACK, ONE SPANISH jack, both sure breeders. Also one standard-bred two-year-old filley and one good eight-months-old draft colt. This lot will be priced right. Must close out. H. L. Summers, Twenty-third and Lincoln Sts., Topeka.

MISCELLANEOUS.

DR. PRUITT'S CHOLERA AND DIARrhea Treatment is guaranteed to stop your chickens and turkeys dying or your money back. A full treatment for ninety grown chickens sent prepaid for $1.50. Pruitt Remedy Co., Hays, Kansas.

HOGS.

FOR SALE—SPOTTED POLAND CHINA sows and gilts, open and bred. J. W. Alexander, Burlington, Kansas.

WANTED—TO BUY.

WANTED—WHITE ESKIMO SPITZ PUPpies, six to eight weeks old. Brockway's Kennels, Baldwin, Kansas.

THE STRAY LIST.

TAKEN UP—ABOUT THE MIDDLE OF December, 1917, by Alois G. Basgall, residing north of Bison, in Rush County, Kansas, on Route A, one bay mare colt about two years old, cut in left ear. Appraised at $100. Chas. Hopper, County Clerk, LaCrosse, Kan.

TAKEN UP — BY AUGUST FEYH, OF Wabaunsee Township, Wabaunsee County, Kansas, on November 20, 1917, one red yearling steer, weight about 500 pounds; no marks or brands; appraised value $50. Katie L. Burt, County Clerk, Alma, Kansas.

TAKEN UP—ON THE 9TH DAY OF March, 1918, by Jacob Schuerman, in Whitewoman Township, Wichita County, two black mules, no marks or brands, about three years old. Dean Trueblood, County Clerk, Leoti, Kansas.

TAKEN UP—BY VINCENT KLEYMANN, Edwards Township, Wichita County, on the 18th day of March, 1918, one light bay mare three years old, four white feet, white stripe in face, no marks or brands. Dean Trueblood, County Clerk, Leoti, Kansas.

GOPHER TRAPS.

CLEAN YOUR ALFALFA. POCKET GOpher trap. Send me $3 for one-half dozen. Guaranteed or money refunded. Success Gopher Trap Co., Harlan, Iowa.

TRACTORS.

I HAVE FOUR "STEEL MULE" TRACtors at Grainfield, Kansas, that I will sell cheap or trade for land. They are equipped to use coal oil. F. D. Sperry, Ellsworth, Kansas.

VIOLINS.

VIOLIN FOR SALE—HAS SWEET TONE. Free trial. Easy payments if wanted. Write Miss Bertha Mardiss, Route 5, Rosedale, Kansas.

TANNING.

LET US TAN YOUR HIDE: COW, HORSE or calf skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

FOR SALE — SCOTCH COLLIE PUPS, farm raised, from good workers. I. P. Kohl, Furley, Kansas.

AIREDALE PUPS, $7.50 UP. PUREbred. Sire Imported Champion Cadet. Riverside Farm, Topeka, Kansas.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

TREES, SEEDS AND PLANTS.

BROOM CORN, EARLY DWARF, $3 PER bushel. L. Sanders, Atlanta, Kansas.

NICE CLEAN PINTO BEANS FOR FOOD or seed, ten cents pound. Send check with order. Fred Hines, Elkhart, Kansas.

ONE HUNDRED FIFTY BUSHELS GOOD recleaned alfalfa seed for sale, $9 per bushel if a quantity is taken. V. O. Johnson, Aulne, Kansas.

SUDAN SEED—1917 RECLEANED CROP, free of Johnson grass. 22c pound, 50 pounds $10.50, 100 pounds $20. Cash with order. Herman Burdorf, Cheney, Kansas.

NO. 1 SWEET CLOVER, FARMERS' prices. Sow on oats or fall wheat (rain will cover) and get two crops. John Lewis, Madison, Kansas.

FOR SALE — OLD CORN FOR SEED (Boone County White), in the ear or shelled, $4 per bushel at the farm or station. C. H. Bacon, R. F. D. 2, Hutchinson, Kansas.

EVERBEARING STRAWBERRY PLANTS —Progressive, Superb; thrifty, pedigreed, state inspected. Per hundred, $1.25 postpaid. Sycamore Nursery, North Bend, Neb.

SEED CORN — IOWA SILVER MINE, Diamond Joe and Hildreth at $3.25 per bushel f. o. b. cars Grove, Oklahoma. Sacks free. J. C. Starr, Vinita, Oklahoma.

BLACK-HULLED WHITE KAFIR, 100% permination test at Manhattan; $3.50 per bushel in two-bushel lots. Order at once to be sure of your kafir seed. H. W. Chestnut, Kincaid, Kansas.

WHITE SEED CORN ON COB—LARGE select ears, five dollars bushel. Bin run, good ears, three dollars. Long grain, small white cob. Patterson's Jersey Farm, Fort Scott, Kansas.

SEED CORN — MY OWN GROWING, picked especially for seed. White, shelled, graded, tests 98 and better. Two bushels, $5 per bushel; over two bushels, $4 per bushel. Sacks free. Fred Perkins, president Oswego State Bank, Oswego, Kansas.

THOUSAND BUSHELS OF WHITE SEED corn at $3.50; 1,100 bushels of black-hulled white kafir at $3 per bushel; German millet at $2.75; cane seed at $4.50; barley at $2.25. All of this is of good quality. J. S. Friesen, Hillsboro, Kansas.

SUDAN SEED, 25c POUND; RED TOP, 12c; orange cane or African millet, 11c; red dwarf maize red and white kafir, 7c; hygerla, 10½c; feterita, 10½c. All seed recleaned. Guaranteed free Johnson grass. No orders accepted less than fifty pounds. Wire, write. Prices larger amounts. Robinson Bros., Lubbock, Texas.

AUTO TIRES.

TIRES — FORD, $6.50. LARGER SIZES equally low. "Wear like iron." Booklet free. Economy Tire Co., Kansas City, Mo.

AUTOMOBILE ACCESSORIES

FORDS CAN BURN HALF COAL OIL OR cheapest gasoline, using our 1918 carburetor; 34 miles per gallon guaranteed. Easy starting. Great power increase. Attach it yourself. Big profit selling for us. Thirty days trial. Money back guarantee. Styles to fit any automobile. Air-Friction Carburetor Company, 558 Madison St., Dayton, Ohio.

Anyone buying and holding a larger supply of food now than in peace time, except foods canned, dried, or preserved in the home, is helping to defeat the Food Administration in its attempt to secure a just distribution of food and the establishment of fair prices. The food hoarder is working against the common good and even against the very safety of the country. Hoarding food in households is both selfish and unnecessary. The Government is protecting the food supply of its people.

Corn flour may be used to replace one-third of the wheat flour used in light bread without detracting from the quality. If a larger percentage of the corn flour is used, the loaf is not quite so light.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

Life may be given in many ways,
And loyalty to truth be sealed
As bravely in the closet as the field.
So generous is fate.
—James Russell Lowell.

Then shall the righteous answer him, saying: "Lord, when saw we thee an hungered, and fed thee? or naked, and clothed thee? Or when saw we thee sick or in prison, and came unto thee?" And the King shall answer and say unto them, "Verily I say unto you, inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto me."—Matt. 25:37-40.

Your Present Task

The Food Administration congratulates you on your response to the call to save the meat. An acute famine in Europe has been prevented by the narrowest margin. Meat shipments fell behind in January, increased heavily in February, but failed to reach the minimum of foodstuffs asked by the Allies. It is hoped that March shipments will make up the deficiency and relieve the strain.

A change has now been asked. Instead of a meatless Tuesday and a porkless Saturday each week and one meatless meal every day, Tuesday has been announced as a beefless and porkless day and the ban against other meat and other days has been lifted. This means simply that the situation has changed. In America today we have enough meat so that we can increase somewhat the present portion for our own table and still save all that can be transported to the Allies during the next few months. Hence the restriction on meat except on meatless Tuesday has been removed temporarily.

New conditions will arise and call for a new program, and again the women must be ready to "carry on," realizing that success at the front depends on the response of the people at the rear. The thirteen million women in America who are members of the Food Administration must be ready to change kitchen tactics as food conditions change.

The wheat situation is still acute. The cry of the Allies is for bread, and the Food Administration urged further reduction in the consumption of bread and breadstuffs. The present situation demands not only mixed cereal bread but free use of such bread substitutes as potatoes, hominy and rice, and above all less bread. With an increased allowance of meat, housekeepers can readily decrease the allowance of bread. Soldiers of the commissary, this is your present task, and the Food Administration relies on your loyal response.

Kindergarten Games at Home

The stimulus of co-operative work and play, so vital a feature of the kindergarten, is not so apt to be found in the smaller group at home and is entirely lacking in the case of the only child. Nevertheless, many of the activities provided in the kindergarten can be carried on not only by the small group but by the lonely child as well.

"Come, let us live with our children!" is the old familiar slogan. We might paraphrase it by saying, "Come, let us sing with our children."

Why shouldn't children sing morning greetings to father and mother as well as to teacher? Even two-year-olds that I know can sing them and delight in doing so. The good morning songs to various members of the family, to the new day, to sun or clouds, sung while dressing, do much to create a sunny morning atmosphere. There are songs to accompany many of the home duties, besides a wealth of nature songs. At bedtime, the devotional spirit of the evening prayer may be enhanced by the singing of a child's hymn. Songs such as these can be found in many kindergarten song books. Any good library would have some of these, or it would be possible to buy copies through a bookstore.

Games train the senses at the same time that they afford keen pleasure. A mother can play many games with her child without interrupting her work. Dramatization is a wonderful stimulus to the imagination, and numberless stories lend themselves to this form of reproduction. "Barbara Fritchie" was enthusiastically played by the children of one kindergarten. A chair formed the patriot's house. She leaned over the back waving her flag solemnly; Stonewall led his army past, the dialogue was fervently spoken, and the army marched on. The Uncle Remus and "Just So" stories, which children find so delightful, furnish good material for dramatization. Of course the spirited interpretation of a tale presupposes a close acquaintance with it.

Games which help to relate the limited world of the small person to the larger world about him, to quicken his appreciation of parents and all world-workers, to deepen his wonder and reverence for natural phenomena, furnish much more than mere amusement.—Written by Mrs. Alice Wingate Frary for United States Bureau of Education.

Chew Your Food Well

The following suggestions are taken from an article in the September issue of Good Health:

"Chew your food well. The biggest waste of food in this country grows out of hasty eating. Half-chewed food is half digested. The other half is wasted. The people of the United States waste enough food by neglecting to chew to feed France and Belgium.

"If you bolt your food, you swallow twice as much as you need before your body's food dictator finds out what you've done. If you will eat considerable dry, hard food, and take care to avoid hurry, and will chew each morsel of food thoroughly, your food dictator will work automatically and will shut the appetite gate at just the right time—when you have eaten all you need.

"Chew, and chew as long as there is any taste in the food. That's one thing we chew for—to crush and soften the food so that we can detect and enjoy its flavor. Food hurriedly eaten is only half appreciated. The flavor is carried off before the "taste buds" on the tongue have felt the tang and the thrill of it. There are no taste buds in the stomach.

"Horace Fletcher, who pioneered a renaissance of chewing, has proved that a man can live on half as much food if he chews well, and will enjoy his food immensely more than when he gulps it down without half tasting it. So don't have any fear of a food famine. Just chew and get everybody else to chew, and there will be a surplus of food. If you sit down to the table and say to yourself, 'Well, it's war time, and Mr. Hoover says we must economize,' and begin to try to 'scrimp,' you'll get more hungry every minute and end up by eating twice as much as usual. But if you forget Mr. Hoover and the war and just go in for a good time with your palate by chewing each morsel as long as it has any taste in it, you will enjoy eating as you never did before and eat only half as much.

"And what is more, you will be better nourished, stronger, more enduring, and more efficient. So our advice is to chew, chew, and be an epicure of the real sort. And you'll eat all you want to and save half you used to eat without tasting or digesting it."

Start the Day Right

Begin the day with a good breakfast. Fruit, cereal, and milk make a meal nourishing, good, easy to cook, cheap, and composed of foods the Government asks us to eat.

Use Fruit—Fruit helps to keep your body in good health and to prevent constipation. Use fresh fruit when possible. In winter, use canned fruits, prunes, dried apples, or dried apricots. Soak them in water over night and cook long enough to make them tender. Prunes soaked in warm water over night, dried with a cloth and served without cooking

resemble fresh fruit. Dates or raisins may be added to the cereal ten minutes before taking it from the stove. Then you will not need sugar. Select ripe bananas with dark skins. Bananas with greenish-yellow skins are hard to digest unless cooked.

Use Cereals—Corn-meal mush, oatmeal, rice, or hominy. These are much cheaper than the "ready-to-eat" breakfast foods. A "ready-to-eat" breakfast food may cost fifteen cents for a big package, but if the package contains only one-quarter pound, that means sixty cents a pound for cereal! This is eight or ten times as expensive as corn meal at six or seven cents a pound. Look for the weights printed on the package and get the most for your money.

Corn-meal mush or oatmeal are good only when well cooked. Many people use too little salt and do not cook them long enough. To cook corn-meal mush for five people, use one and one-half cups of corn meal, two teaspoons salt—level—and five or six cups of water. Bring salted water to a boil. Stir in the corn meal slowly. Do not let it lump. Cook at least thirty minutes. It is better if cooked for three hours or overnight. Use a double boiler on the back of the stove, or a fireless cooker.

Eat the cereal with milk or syrup or butter. You will not need bread beside.

A large amount of corn meal or oatmeal may be cooked at one time. The unused part, placed in a greased bowl, may be kept for a few days in a cool place. Do you know how good sliced and fried oatmeal is? Bread—preferably one of the war breads—may be used instead of breakfast food. Corn bread and milk or hot corn-meal muffins and butter are delicious.

Use Milk—Milk is an excellent food. A quart of whole milk gives as much nourishment as one pound of lean meat, Children especially need it to make them grow strong and keep well. It is good for grown people, too. Give each child at least a glassful for breakfast. Drink it hot or cold, or use it on the cereal, or make it into cocoa. Even at a high price, milk is a cheap food for children. Coffee and tea are not foods. Let the grown people have them if they want them, but do not give the children even a taste. The children's drink is milk. —United States Food Leaflet No 1.

Potato Pie

To one quart of hot boiled potatoes add enough hot milk or cream to moisten. Season with butter if milk was used. Salt. Mash in kettle in which they were boiled and beat with a fork until light. Stir in one-half cupful of minced ham. Have ready four hard-boiled eggs and one-half cupful of stock or gravy. Arrange potatoes and sliced eggs in dish in alternate layers with potato forming top and bottom layers. Moisten with the gravy. Brush over the top with milk or egg and brown in hot oven.

This dish may be arranged in three layers, the middle layer consisting of some kind of meat hash bound together with egg or thickened gravy.

Spinach Loaf

You can make a small can of spinach, chard, or beet tops serve seven or eight people by making into a loaf combined with rice or bread crumbs. Asparagus or string beans are also good served this way.

1 can chopped spinach
4 cupfuls boiled rice
2 cupfuls white sauce
1 red pepper.

Make a thick white sauce of two cupfuls skim milk, four tablespoonfuls flour, four tablespoonfuls butter or other fat, and one teaspoonful salt. Melt fat and mix with flour, add to milk and stir over fire until it thickens. Mix with the rice, chopped spinach and pepper. Form into a loaf and bake twenty or thirty minutes.

In using recipes calling for butter, it is well to remember that cereals, legumes, nuts, chocolate, cream, cheese, and egg yolks, are rich in fat. If any of these are added to the mixture, the amount of butter or other fat used may be reduced. One tablespoonful of oleomargarine, commercial fat compound, chicken fat, or beef suet may be used to replace a tablespoonful of butter. Fourteen tablespoonfuls of lard or hardened vegetable fat will replace sixteen tablespoonfuls of butter; one cup of grated chocolate or of thin cream, three tablespoonfuls of butter, and one cupful of whipping cream, six tablespoonfuls of butter.

Twilight Animal Stories

Bumper The White Rabbit

By George Ethelbert Walsh

(Copyright, 1917, by George E. Walsh)

STORY XV.—BUMPER FINDS HIS COUNTRY COUSINS.

AFTER leaving Buster the Bear, Bumper did not have far to go before he stumbled upon the rock under which the wild rabbits had their burrow. It was a big, towering rock right in the middle of the woods, with trees trying to grow on top of it, and under it, as if they were determined to lift it and roll it away.

When the white rabbit first saw it his heart beat high with expectation. This was to be the end of his journey. When he found it impossible to get back to the garden where the red-headed girl lived, he concluded the best he could do was to join the wild rabbits and live with them. They would teach him the ways of the woods, and perhaps, in time he would be happy and content as a member of their family.

In spite of the dangers and ventures that had marked his progress, he was greatly pleased with the woods, and the freedom he enjoyed appealed to him. But to make his happiness complete he needed companions and friends of his own kind. The friendship of the birds was all right, but they had their own families to look after, and besides, he could not always depend upon having them near.

It was natural that he should be a bit homesick and lonely without other rabbits to associate with. He often thought of Jimsy and Wheedles, and of his mother and of Topsy. Any one of them would be welcome. In his newly-acquired knowledge of the woods and its inhabitants, he felt that he could give Jimsy and Wheedles pointers that would make their eyes open.

When he reached the big rock, he hopped all around it, looking for the entrance to the rabbit burrow, and sniffing the ground expectantly. There were many signs that rabbits had recently been there, but he could find nothing that looked like a burrow. Around and around the big rock he hopped, sniffing, pounding with his hind feet, and calling to his cousins. But there was no response.

"Perhaps they're all out," he reflected finally, "and I'd better rest on the top of the rock until they return."

He scrambled to the summit of the rock and sprawled out full length to watch and wait. From his high position he could see anyone approaching from any direction. The sun found its way down through the trees and lit up the top of the rock, and, feeling very tired, Bumper fell asleep.

He was aroused from this suddenly by the breaking of a twig near by. He raised his head and looked around. Not a dozen feet away from him was a wild rabbit, one of his country cousins. Now, Bumper had never met a wild rabbit before, and this one certainly looked very dirty and uncouth compared to himself. The only white he had was under his throat and belly. The rest of him was a dull gray and brown.

"Hello, Cousin!" Bumper called softly.

The approaching rabbit stopped and looked around, his two ears straight up in the air. Then his quick eyes saw Bumper on the top of the rock. Whether he took him for a ghost or some strange, dangerous animal, no one could say; but he turned swiftly and disappeared in the bushes.

"Don't be afraid, Cousin!" Bumper called loudly. "I'm Bumper the White Rabbit, and I've come to visit you!"

But this had no effect whatever on the wild rabbit. Bumper could hear him scurrying away in the bushes. Then all was quiet. For a long time Bumper watched and waited. Once he caught a glimpse of his cousin on the right of the rock, then on the left, then behind, and again in front. The amazing rapidity with which the wild rabbit changed his position surprised Bumper.

It was not until after he had caught sight of two heads simultaneously peeping above the bushes did he realize that the rabbit was not alone. Then he caught sight of a third head, then of a fourth, and of a fifth. The whole burrow of rabbits was circled around him, watching him either in fear or curiosity. Bumper thought it was a good time to make a speech.

"Cousins," he began, rearing up on his hind legs, "I've come a long distance to visit you. I've always lived in the city, but I got lost, and if it hadn't been for the birds and Buster the Bear I would never have found my way here. I hope you will welcome me, and let me live with you. I'm lonesome and homesick for friends and companions."

He supposed this speech would have a good effect, and he waited eagerly for one of the wild rabbits to respond. But they were quiet for so long that he felt despondent. Then, to his surprise, a big rabbit rose near by, and turned to his companions.

"Beware!" he said. "It's a trick of Mr. Fox! We must run for it all together!"

Bumper didn't know just what the speaker meant by this last sentence. But he soon found out. There was a rush and scramble in the bushes all around him, and then a dozen or more rabbits appeared. They came toward the rock like an army closing in upon the enemy, leaping over bushes or crawling through the underbrush.

For a moment Bumper was startled. He had a vision of being attacked on all sides by his country cousins and driven ignominiously from the woods. But his anxiety was of short duration. The rabbits reached the side of the rock, and disappeared as if by magic.

Then Bumper understood. They had made a simultaneous rush for their burrow, knowing that this was the safest place for them. When the last rabbit had disappeared, Bumper hopped down, and began looking for the entrance. There was certainly an entrance to the burrow, or his cousins couldn't have disappeared so quickly.

Bumper searched on every side for over an hour, but so artfully concealed was the entrance to the burrow that he was unsuccessful. There was no noise under the rock—nothing to indicate that there were rabbits there.

Discouraged and downhearted, he was nearly ready to give up when he happened to poke his head in the hollow end of a tree whose roots were pinioned down by the huge rock. The small heart of the trunk had decayed, offering an entrance just large enough for a rabbit to squeeze through.

Bumper thought this would be a safe place for him to spend the night, and he began crawling through. The hole followed the trunk of the tree downward for some distance. Then suddenly it turned sharply to the right.

At this point Bumper met an unexpected challenge. A big gray rabbit at the other end of the hollow trunk thumped hard with his two hind feet, and instantly there was an uproar. Bumper had accidentally found his way into the burrow through the hollow tree trunk!

"Stop where you are!" the rabbit guarding the hole shouted. "What do you want in here?"

"I want to greet my cousins. If you don't let me come in Mr. Fox will catch me after dark. I have no other home."

"You're not a rabbit!" replied the other. "We have no white cousins. There are no white rabbits in the world."

"But I'm one," returned Bumper, amused by the same cry that had been made by the crow and birds.

There was silence inside, followed by a buzz of many voices. Finally a weak, trembling voice said authoritatively:

"Admit him! It can't be Mr. Fox in disguise, for he could never crawl through that hole. Admit him so I can talk to him."

Evidently the speaker was one in authority, for the other instantly obeyed, and Bumper was allowed to hop through the hole into the burrow.

The skin of baked potatoes may be kept tender and edible by rubbing with fat and then baking slowly in moderate oven fifty to sixty minutes. The potatoes should be broken open as soon as tender. On account of the confined steam, too much cooking will make the starch sticky and the potato soggy.

If mashed potatoes have to stand until the family is ready for them or until other foods finish cooking, pile them lightly into a baking dish and brown the surface in the oven. This may be varied by putting the mashed potato through a potato ricer before browning. Baked potatoes may be cut in halves and the mealy centers removed, beaten smooth with cream or fat, returned to the shells, and kept warm in the oven.

Casserole Dish

4 cupfuls cooked hominy
¼ pound cheese
3 cupfuls thin tomato sauce

Mix tomato sauce with hominy. Put alternate layers of this mixture and grated cheese into oiled baking dish. Bake in a moderate oven until slightly browned. Green peppers or onions chopped fine may be added if desired.

Tomato sauce:

4 tablespoonfuls fat
5 tablespoonfuls barley flour
3 cupfuls strained tomato
½ teaspoonful salt
¼ teaspoonful pepper

Melt fat, add barley flour, salt and pepper. When thoroughly mixed, add strained tomato and cook until thickened, stirring constantly.

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A Page of Fashions





No. 7718—Ladies' Shirtwaist: Cut in sizes 36 to 44 inches bust measure. Modesty meriting praise is shown in this model. The collar lending itself to revers is formed of contrasting goods and the sleeve cuffs are in harmony. Narrow braid or banding is a neat trimming and used in a way to give novelty to the front of the blouse. **No. 8248—Girls' Dress:** Cut in sizes 6 to 14 years. A strong argument for this popular style of dress is its long straight lines produced by the box plaits. This dress has an applied yoke and fastens at center front. The belt slips under the plaits. Sleeves may be long or short, according to preference. **No. 8268—Ladies' Shirtwaist:** Cut in sizes 36 to 42 inches bust measure. This waist is an exceptionally good example of the semi-tailored waist. The double-breasted closing effect follows a new line and fastens with three large pearl buttons. The square hemstitched collar is very quaint and girlish-looking. **No. 8273—Ladies' Dress:** Cut in sizes 36, 40 and 44 inches bust measure. Dress has three side plaits which fall straight from the shoulders on each side, the inner ones forming the panel. This panel makes the dress double-breasted, the closing being on the left side of the panel. A deep shawl collar follows the line of closing to the belt. **No. 8269—Ladies' Skirt:** Cut in sizes 24 to 32 inches waist measure. You'd never guess from the appearance of this skirt how wonderfully easy it is to make. In the first place, there is nothing to the cutting of it, as it only has one seam, which is straight. The broad tucks add much to the style of the skirt, besides helping to hold it out from the figure. **No. 8267—Misses' Dress:** Cut in sizes 16, 18 and 20 years. One of the many developments of the popular basque effects is shown in the waist of this dress. The closing is at center back, allowing softly draped lines in the front. The collar looks like a sailor from the front, but develops into the fish-tail style in the back. The skirt is cut in two pieces.

No. 7353—Girls' Dress: Cut in sizes 2, 4, 6 and 8 years. This simple frock is made in sacque style, body and sleeves cut in one and with only a short opening at the top so that it may be slipped on over the head. The neck may be high or low and the sleeves long or short. With the dress bloomers are provided and these are made with each half in one piece, joined by center seam. **No. 8024—Ladies' Blouse:** Cut in sizes 36 to 44 inches bust measure. For practical purposes this is a waist that will give full measure of satisfaction. Contrasting goods is used to face the fronts that roll back to form "point revers," and the broad collar is in matching tone. The full-length sleeves are gathered into band cuffs. **No. 7392—Boys' Suit:** Cut in sizes 2, 4, 6 and 8 years. This model offers a variation of the Dutch suit. The waist buttons in the front, with a small collar as a finish to the high neck. The sleeves are long with band cuffs. The trousers are made with side openings and button to the blouse. **No. 7565—Ladies' Apron:** Cut in one size. This one-piece garment is remarkable in taking very little material. Body and sleeves are in one and the fullness is gathered on a tape or an elastic at the waistline. The opening of the neck allows of slipping on the waist over the head. **No. 8234—Ladies' Skirt:** Cut in sizes 24, 26 and 28 inches waist measure. The original barrel skirt as it was sent to us from Paris, was too extreme for the average American woman, so it has been changed and modified to suit her. One of the most successful adaptations is the slightly draped effect, which is shown in this group. The upper section is a smoothly fitting yoke, which is rounded in front and back, and square on the sides. **No. 8031—Ladies' Dress:** Cut in sizes 36 to 42 inches bust measure. A model that just snaps with smartness, and one having plenty of utility value. A handsome collar is displayed, in contrasting goods, adding style to the blouse gathered to shoulder yokes and which has a decorative front closing. The belt and patch pocket correspond in tone to the collar and fitted cuffs on wrist-length sleeves.

No. 7354—Ladies' Shirtwaist: Cut in sizes 34 to 46 inches bust measure. This smart waist has yoke and front panel in one piece, the material of the front being plaited or gathered below the yoke. The back is plain. The neck is finished with a flare collar, worn either standing or turned down, as preferred. **No. 7823—Girls' Dress:** Cut in sizes 6 to 14 years. This design recalls the suspender style buttoning on the shoulder over a separate guimpe that has charming sleeves finished with frills. Scalloping finishes the front of the dress and shoulder straps. The plaited skirt is in two gores and has panel front. **No. 8233—Ladies' Waist:** Cut in sizes 36, 38, 40 and 42 inches bust measure. This model is a particularly pleasing illustration of what is being worn this spring. Though it looks very dainty and fluffy in the sketch, the construction is very simple. Long or short sleeves may be used. Any sheer material which combines well with lace may be used for this blouse. **No. 7429—Ladies' Dress:** Cut in sizes 34 to 44 inches bust measure. Simple and smart, this dress has a plain waist with center front closing and with a wide collar at the low neck. The sleeves may be long or short. The three gores of the skirt are quite full and are gathered at the top and attached to the lower edge of a deep rounded yoke. **No. 7669—Ladies' Skirt:** Cut in sizes 24 to 32 inches waist measure. This skirt has the sensible smart lines of the garment for practical wear, yet it blends the beauty of one fit for wear on any occasion and is cut in three gores. The closing is made by the right front gore lapping the left, as the tailored seam suggests. **No. 8260—Ladies' Combination:** Cut in sizes 34, 48 and 42 inches bust measure. Many women do not care for the regulation corset cover which pulls up on a string or ribbon, and for those who hold this objection the surplice corset cover was designed. The armholes are cut very deep for the comfort of the wearer. In this case a three-gored petticoat is attached at the waistline.

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Incubator Hatching Hints

SEVERAL years' experience in poultry raising has taught the writer a number of points often overlooked in current articles on poultry topics. Mention of a few of them may be of interest to those who are planning to raise chickens by artificial methods on a larger scale than is practical with only biddy as a brooder.

Unless one has unlimited time, it is cheaper to raise 200 or more chicks with incubators and brooders than with hens. The size of machines to be used is determined largely by the number of chicks to be raised. The beginner will do well to hatch 50 per cent of the eggs set. A medium size, or 250-egg incubator, is usually the best. It requires much less space, time and oil than is required to care for two smaller machines.

Run a new incubator according to the manufacturer's directions unless you know trials in your vicinity have shown that better results can be secured by variation in operation. Location of house and room in the house, as well as weather, do influence results. If the incubator is a second-hand one and the directions are lost, write the manufacturer for a new copy. It is to his interest as well as yours to have the machine do satisfactory work. Don't use coal oil or kerosene to disinfect an incubator. It is hard on the chick germs. In hot-air machines see that cloth linings, if any, are renewed or cleaned. In hot-water machines have any thin, rusted spots of the heater resoldered. If the case is not air-tight on top and sides, add another temporary or a permanent cover. Several thicknesses of newspaper tacked on the outside will aid materially in holding an even temperature if nothing better is at hand. The bottom may be more open, as some circulation of air is needed. Test the corners and center of the egg tray with a thermometer. If a difference of two or more degrees is found, it may be advisable to place triangular blocks in the corners to keep the eggs away from them.

Use medium-sized hen eggs, not pullet eggs. Stronger and better chicks can be grown from mature hens. Have the temperature at 102 degrees for the first week, with the thermometer laid on top of the eggs; 103 degrees for the second week, and 104 degrees the third week. Too low a temperature is the most common mistake. Be regular in tending the machine and always do things in the same order. Always cool or turn the eggs before filling the lamp. Next pinch or trim the wick, rounding the top with the fingers. Keep corners of wick at an angle of about 45 degrees to prevent smoking. Turn the wick up too far and then draw it down to height which outside weather indicates as right. This will prevent flame growing too high and smoking. Examine flame and temperature an hour or so later. If all right then the regulation is fairly safe, unless there is an unexpected change in outside weather conditions.

Do not turn the eggs within forty-eight hours after placing them in an incubator. After the fourth day they can be cooled longer than the time needed to turn them. It is doubtful if cooling during the first week or ten days aids incubation in any marked degree. Have the hands warm when handling the eggs. If the room is cool when test for fertility is made, return the egg tray to the incubator to rewarm the eggs and finish the test later. Always do the testing quickly and return the doubtful eggs for a later test. If the weather has been dry, sprinkling the eggs with warm water daily for several days previous to the nineteenth day will be beneficial. Some prefer to use a wet sand tray or sponge standing in water pan in the nursery tray for the second half of the incubation period.

Don't turn the eggs after the eighteenth day or the chick cannot turn into the best position for pipping. The operator should continue to air the eggs until they begin to pip. Then open the chick trap, shut the door, and leave it shut until at least three-fourths of the hatch is out. Should the chicks pant much, they may be given a little more air than the construction of the incubator provides. Be very careful not to chill the chicks while transferring them to a warmed brooder or placing them under hens.

The very interesting matter of colony brooding may be discussed in a later issue. By the judicious use of several incubators and modern colony brooders, large numbers of chicks can be raised with the same labor that will raise a small number with hens. It requires close attention to the heating problem and more care in feeding. The matter should be well studied before being attempted. A study of bulletins from the state experiment stations and the United States Department of Agriculture will be a great help. If possible, visit the poultry yards of people who have succeeded in raising chicks by wholesale.—FRANK UHL, Manhattan.

Artificial Brooding of Chicks

The word "incubator" still possesses in the minds of many breeders of poultry a most mysterious sound. To hatch eggs by means other than the setting hen appears to some to be a wonderful and intricate undertaking. Yet if the requirements for producing a chick from a fertile egg be duly considered it will be seen to be most simple—at least for the poultry breeder. For the incubator manufacturer it may be different; but why should the farmer or breeder worry about that? It is up to the manufacturer to "produce the goods" in the shape of an incubator that will hatch—an incubator that will do so even in the hands of a novice who has had no previous experience. The incubator manufacturer has done, and is still doing, his part in making the hatching of chicks easy and profitable. He has produced a machine that gives less trouble than a setting hen; and which on the average will hold as many eggs as a dozen hens can cover. If any eggs are broken in course of incubation, that is the fault of the operator—or the hen. The incubator does not break eggs.

What is there about the operation of an incubator that is difficult?

Nothing. It is just a question of exercising ordinary care, and the thing is done.

What does a hen do in order to hatch chicks?

Simply applies the necessary heat, and leaves the nest now and again, which affords ventilation to the eggs.

And that is all that is necessary to provide in an incubator in order that it also may hatch chicks—apply the proper heat and ventilation to the eggs. The manufacturer has provided the means. It is up to you to take advantage of it if you wish to hatch chicks profitably—numerously.

If you have an incubator, what do you do when you wish to operate it?

Simply light the lamp to heat the machine to the right temperature (102 or 103 degrees); place the eggs on the tray as soon as the temperature remains stationary; cool the eggs each day as directed by the manufacturer; and that is all.

You cannot prevent eggs hatching in a properly constructed machine (assuming they are fertile) unless you do some fool trick, or leave undone one or more of the few things you are instructed to do.

The incubator puts it all over the hen when it comes down to commercial hatching.

The brooder, like the incubator, is a simple machine. It is intended to raise the chicks that have been hatched either by an incubator or by hens. If the chicks have been hatched by hens, great care must be taken to thoroughly dust them with insect powder, so that they shall not carry into the brooder the lice which they have inherited from the hens. For they always get a few or many, and lice multiply rapidly. If the chicks are hatched in an incubator they are free from lice when placed in the brooder, and that is nearly half the battle in raising chicks. Start with a clean sheet. In any case it is easier to drive lice out of a brooder, or a brooder chick, than it is from a hen, or a hen-raised chick; and economizing of labor counts in the "chicken business." The brooder can be fumigated; every vestige of life removed (move the chicks first of course), while it is next to impossible to get rid of every louse on a hen.

There is nothing very wonderful about the fact that to raise chicks requires similar methods to those required to hatch them, namely the utilization of heat and ventilation; the only difference being in the quantity of each that is required to be applied. For that reason brooders are constructed simply, and are easy to operate.

When preparing to raise chicks in a brooder all you need to do is to "heat up" to the correct temperature, and when it is heated up put in your chicks direct from the incubator. Of course, you will have spread chaff, or a substitute, over the floor of the brooder—and it is a good idea to add a little sand for the chicks to pick at.

Don't bother your head about furnishing feed for the chicks for a couple of days after they are hatched. They need no feed at that time and are better off without it.

When the little wing feathers begin to appear, which will be within a week, drop the heat in the brooder to 85 degrees; and in a few more days to 80 degrees, and increase the ventilation.

Now all this appears very simple, and it is. The brooder will do its part if you do yours. And your part is to use your good judgment with the chicks in a brooder, as you would have to do if they were under a hen; only with the brooder you have less to do and less to worry about.—HUBERT D. WHITE.

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SINGLE COMB BROWN LEGHORNS—Winners of the blue in four states. Eggs, $6.50 per hundred. Wm. Roof, Maize, Kan.

SINGLE COMB BUFF LEGHORNS, FREE range selected birds. Eggs at reasonable prices. H. H. Hadel, Hillsboro, Kansas.

PURE-BRED SINGLE COMB WHITE Leghorn cockerels, $1. Combs slightly frozen. Chas. McFadden, Morland, Kansas.

SINGLE COMB BUFF LEGHORNS—Eggs, six dollars hundred. Thomas D. Davis, Avard, Oklahoma.

ROSE COMB BROWN LEGHORN EGGS—Exhibition and laying strains. Mrs. John Holzhey, Bendena, Kansas.

EGGS (YOUNG'S 288 S. C. W. LEGhorns, costing $20 setting), $7 hundred. Elsie Thompson, Mankato, Kansas.

S. C. W. LEGHORN EGGS FOR HATCHing from extra selected good laying strain, $5 and $7 per hundred. I. H. Gnagy, Hutchinson, Kansas.

ROSE COMB BROWN LEGHORN EGGS, $5.90 hundred, $3.40 fifty, $2.30 thirty. Taken state prizes. Rufus Standiferd, Reading, Kansas.

PURE-BRED ROSE COMB BROWN LEGhorn eggs, $2.50 per setting, $7 per hundred. Mrs. Griswold, Tecumseh, Kansas.

PURE-BRED SINGLE COMB WHITE Leghorn eggs, hundred, $5. Chas. McFadden, Morland, Kansas.

ROSE COMB WHITE LEGHORNS—EGGS, six years' breeding, $5 per hundred. Mrs. Joe Streeter, Route 5, Hamilton, Mo.

FOR SALE—EGGS FOR HATCHING from the "Hardscrabble" strain of S. C. W. Leghorns. Write for prices. E. M. Wheeler, Jefferson, Kansas.

CHOICE HATCHING EGGS—SINGLE AND Rose Comb Brown Leghorns. Start with bred-to-lay strain. Delivery free. $2, fifteen; fifty, $3.50; hundred, $8. Plainview Farm, Lebo, Kansas.

FEW CHOICE S. C. WHITE LEGHORN cockerels from my combined egg contest and show room winners, reasonable. Eggs $7 hundred, chicks 15 cents. C. G. Cook, Lyons, Kansas.

EXCELSIOR FARM SINGLE COMB White Leghorns, Yesterlaid-Young strain. Eggs, $5 for 108. Orders filled promptly. Baby chicks, 12c. Mrs. C. C. Cole, Levant, Kansas.

YOUNG, FRANTZ, FERRIS, YESTERlaid S. C. White Leghorns. Heavy layers. Eggs, $6 per hundred. Sold 10,000 eggs for hatching last season. No complaint. L. O. Wiemeyer, Route 1, Anthony, Kansas.

ROSE COMB BROWN LEGHORNS, BRED to lay. Twelve years' breeding. Range flock, winter layers. Selected eggs, $6 per hundred. Blue Grass Stock Farm, Oneida, Kansas.

S. C. B. LEGHORN BABY CHICKS, $12.50 per hundred. Eggs, $2.50 per setting and $5 per hundred. Sweepstakes and first prize cockerel Kansas State Fair; first pullet, first cockerel, Joplin, Mo. Paradise Poultry Farm, Corona, Kansas.

SINGLE COMB WHITE LEGHORNS—Oldest and best strain in the West. Trapnest egg record, 268 eggs. Our strain has won at Kansas City, Topeka, Wichita, Hutchinson, etc., silver cups, specials. Few surplus hens and three fine cockerels left at $2 each. Eggs, $7.50 per hundred; fertility guaranteed. Mating list free. Mrs. Grace Ackerman, Stewartsville, Mo.

SEVERAL BREEDS

SINGLE COMB ANCONAS AND WHITE Leghorns, $1.25 per sixteen eggs. J. B. Harrington, Bucklin, Mo.

SINGLE COMB ANCONA AND SILVER Wyandotte eggs, $1.25 per fifteen, parcel post prepaid. Mrs. Cecile McGuire, Pratt, Kansas.

FOR SALE—EGGS FROM ALL KINDS of pure-bred poultry, Geese, 7 kinds of ducks, Pearl and white guineas, Bantams, Fancy Pigeons, Canaries, Rabbits, Guinea pigs, Dogs. Write wants. D. L. Bruen, Platte Center, Nebr.

DUCKS AND GEESE.

MAMMOTH PEKIN DUCK EGGS, $1.50 setting Mrs. A. Brower, Rinehart, Mo.

FAWN AND WHITE INDIAN RUNNER ducks. Eggs for hatching. Good layers. Fifteen, $1.50; forty-five, $4. H. Clay Shirky, Norborne, Missouri.

EMBDEN AND TOULOUSE GEESE—Stock and eggs. Will take Runner ducks or Leghorns in trade. Emma Ahlstedt, Roxbury, Kansas.

FAWN WHITE RUNNER DUCK EGGS—$1.50, thirteen; $3.50, fifty; $6, hundred. Prize winners. White eggs. Mrs. Ben Miller, Newton, Kansas.

TURKEYS.

BOURBON RED TURKEY EGGS—PRIZE winning two-year-old hen, 44-pound tom; $3 setting. S. Peltier, Concordia, Kansas.

CAMPINES.

PURE-BRED SILVER CAMPINES, $2.00 for fifteen eggs. A. C. Rice, Bacone, Okla.

When Writing to Advertisers, Please Mention Kansas Farmer

PLYMOUTH ROCKS.

BARRED PLYMOUTH ROCK EGGS, from well barred, large birds; 100 eggs for $5.50; 50 eggs $3. R. D. Ames, Walton, Kan.

BUFF ROCKS—SIXTEEN YEARS SUCcessful breeding. Eggs, $6 per hundred, $3 per fifty. Mrs. Homer Davis, Walton, Kan.

BARRED ROCK EGGS, FIFTEEN, $3 00; hundred, $10.00. 112 premiums. Mrs. Chris Bearman, Ottawa, Kansas.

BARRED PLYMONTH ROCKS—PURE-bred farm stock. Eggs, 6c each. Mrs. W. C. Bocker, Solomon, Kansas.

THE VERY BEST FANCY BRED PLYmouth Rocks for sale. Wm. Harrison, Marshall, Mo.

WHITE ROCK COCKERELS, $3. EGGS, $5 per hundred. Nora Lamaster, Hallowell, Kansas.

BARRED AND WHITE ROCK EGGS—Write for mating list. Nora Hill, Cambridge, Kansas.

SIMS' BARRED ROCKS—STATE WINners. Get my free mating list. Geo. Sims, LeRoy, Kansas.

BARRED ROCK EGGS, $1.50 PER FIFteen, prepaid within state. Choice farm flock. G. P. Wells, Lyons, Kansas.

WEIGHER-LAYER BARRED ROCK eggs. Pens, $3 to $6; utility, $6 hundred. C. F. Fickel, Earlton, Kansas.

HILLCREST BARRED ROCKS—EGGS, $1.25 for fifteen, $6 per hundred. D. T. Gantt, Crete, Nebraska.

PARTRIDGE ROCK COCKS AND COCKerel, $3.50 each. Mrs. Frank Neel, Beverly, Kansas.

EGGS FROM PRIZE WINNING BARRED Rocks. Large, thrifty farm range, $1 and $2 per fifteen, $5 per hundred. Mrs. A. M. Shipley, Coffeyville, Kansas.

WHITE PLYMOUTH ROCK EGGS FROM fine birds, farm range flock, selected eggs, $5 per hundred, 75c per fifteen. Mrs. C. G. Steele, Barnes, Kansas.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swaim, Geuda Springs, Kansas.

WHITE ROCKS, SIZE AND QUALITY; good egg strain. Eggs, fifteen, $1.25; fifty, $3.50; hundred, $6. G. M. Kretz, Clifton, Kansas.

PURE-BRED BARRED AND WHITE Rocks, bred for layers. Eggs, $1 per fifteen, $6 per hundred; chicks, 12½c. Mrs. Dora Beeton, Peabody, Kansas.

EGGS FROM MY PRIZE WINNING Barred and White Rock pens. Write for mating list and show record. H. F. Hicks, Cambridge, Kansas.

BARRED ROCK EGGS—PARKS 200-EGG strain. Best pens, $3 fifteen, $5 thirty, $12 hundred; utility flock, $8 hundred. Gem Poultry Farm, Haven, Kansas.

BARRED PLYMOUTH ROCK FREE range eggs (Ringlet strain), $1.25 per fifteen or $7 per hundred. E. M. Wayde, Burlington, Kansas.

BARRED ROCKS, EIGHTY PREMIUMS, entire stock and supplies for sale at a sacrifice. Meantime eggs, fifteen, $3; thirty, $5. Mattie A. Gillespie, Clay Center, Kansas.

BARRED ROCK EGGS FROM BARRED to skin kind and heavy laying, $7 hundred, $3.50 forty-eight, prepaid. Ideal Poultry Farm, Concordia, Kansas.

BARRED ROCKS, BOTH LINES. STATE show winners. Good layers. Eggs, $1.50 per fifteen, $6 per hundred. Special matings, $5 per fifteen. C. C. Lindamood, Walton, Harvey County, Kansas.

WHITE ROCKS—BEST ALL-PURPOSE fowls. As good as can be found anywhere. Eggs, $2 per fifteen, $5 per forty-five, $10 per hundred, expressage prepaid. Thomas Owen, Route 7, Topeka, Kansas.

BRED-TO-LAY BARRED ROCKS—FINE, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, $1 setting, $5 hundred; guaranteed. Belmont Farm, Topeka, Kansas.

BARRED PLYMOUTH ROCKS, THOMPson Ringlet strain, cockerel and pullet mated, pen and utility flock eggs. Quality high. Priced low. Many satisfied customers in thirty-seven states. Circulars free. A. F. Siefker, Defiance, Mo.

BARRED ROCKS THAT PRODUCED 175 eggs each in 1916; 120 eggs seven months, 1917. Four ribbons, 1917. Pens standardized, Hogan system, eggs, $2 per fifteen, $10 hundred. Mating list free. Farnsworth, 224 Tyler St., Topeka.

BARRED PLYMOUTH ROCK.—EVERY egg is produced by straight line barred, carefully mated stock, the kind that satisfies, at $1.50 per fifteen; $8 per hundred. Show matings, $3 per fifteen straight. Eighty per cent fertility and quality guaranteed. J. A. Thomas, R. R. 3, Sapulpa, Okla.

MINORCAS.

SINGLE COMB BLACK MINORCAS, BIG white eggs, $1.50 per setting. H. H. Hadel, Hillsboro, Kansas.

S. C. BLACK MINORCAS — EXTRA heavy layers. Eggs from pen birds, $2 for fifteen. Mrs. E. G. Tharp, Protection, Kan.

POULTRY WANTED.

PAYING FOR COCKERELS 25c, OLD roosters 18c, No. 1 capons and turkeys 28c. Coops loaned free. Ship now. The Copes, Topeka.

Your dollar in a Liberty bond eventually comes back to you as a dollar, but in the meantime visits your farm to buy your products.

RHODE ISLAND REDS.

ROSE COMB REDS, WINTER LAYERS. R. E. Mills, Lexington, Neb.

CRIMSON WONDER R. C. REDS.—LEE Darnell, Alta Vista, Kansas.

SINGLE COMB R. I. RED COCKERELS. E. J. Manderscheid, Seward, Kansas.

SINGLE COMB RED EGGS, $2.50 PER setting, $8 per hundred. Maple Hill Poultry Farm, Lawrence, Kansas.

ROSE COMB RED PULLETS, $2, $2.50, Chicks, 15c each. Eggs, 100, $5. Fred Leck, Yates Center, Kansas.

ROSE COMB REDS—PURE-BRED, FINE winter layers. Eggs, $1.25 per setting, $6 per hundred. J. O. Spencer, Hesston, Kan.

STANDARD-BRED R. C. RED EGGS—Fifteen, $1.50; hundred, $6. Mrs. B. F. Weigle, Winfield, Kansas.

EGGS FROM TWO SPLENDID PENS, R. C. Reds, $3 and $5, fifteen; baby chicks, 25c. Mrs. L. G. Lambert, Anderson, Mo.

SINGLE COMB RHODE ISLAND RED eggs from my fine pen, Cyphers strain, $3 for fifteen eggs. Elmer Dovel, Auburn, Neb.

EGGS AND LARGE RED ROSE COMB utility cockerels. Stedem & Sons, Marshall, Missouri.

RED, VELVETY, DARK, BOTH COMBS. Eggs, fifteen, $1.25; hundred, $6. Mrs. Forrest Peckenpaugh, Lake City, Kansas.

BRAMAN POULTRY YARD—S. C. RHODE Island Red eggs for sale, $2 a setting of seventeen; $7.50 per hundred. S. B. Rawlings, Braman, Oklahoma.

KANSAS STATE SHOW, FIRST PRIZE S. C. Red cock and other winners in my pens. Eggs, $1.50, $3, $5 setting. W. G. Lewis, 622 N. Market, Wichita, Kansas.

ROSE COMB RED EGGS FROM GOOD colors and good layers, $1 fifteen, $6 hundred. Sam Putnam, Route 4, El Dorado, Kansas.

PURE RANGE-BRED ROSE COMB Rhode Island eggs, $1.50 per setting; $5 per hundred. Cockerels, $3. Della Schultze, Melvern, Kansas.

BRED TO LAY SINGLE COMB REDS—Pure-bred, rich red, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, setting, $1.00; hundred, $5.00; guaranteed. Belmont Farm, Topeka, Kansas.

ROSE COMB REDS, BRED TO LAY AND win in shows. Heads of pens direct from Meyer, owner of champion Reds in American laying contest. Fifteen eggs, $2.50; thirty, $4. M. L. Van Ornam, Superior, Nebraska.

SEVEN GRAND PENS ROSE COMB REDS headed by roosters costing $15 to $50. Fifteen eggs, $3; thirty eggs, $5; fifty eggs, $8. Special utility eggs, $7.50 per hundred. Baby chicks. Catalog. W. R. Huston, Americus, Kansas.

ORPINGTONS.

S. C. WHITE ORPINGTON EGGS, $6 PER hundred. C. L. Hill, Filley, Neb.

BUFF ORPINGTON EGGS FROM PRIZE winners. Write for mating list. Nora Hill, Cambridge, Kansas.

WHITE ORPINGTON EGGS, $1.50 PER fifteen. William Radschlag, Sioux City, Ia.

PURE-BRED S. C. BUFF ORPINGTON eggs for hatching, $2 for fifteen. W. J. Musch, Hartford, Kansas.

BUFF ORPINGTON EGGS, $1 FIFTEEN, $6 hundred. Mrs. Frank Neel, Beverly, Kansas.

WHITE ORPINGTON EGGS FOR HATCHing, from good matings. $2 per fifteen, $8 per hundred. E. L. Gerardy, Americus, Kan.

S. C. BUFF ORPINGTON EGGS, $1.50 per fifteen, postpaid. Big boned, range raised stock. Mrs. H. M. Long, Relfe, Mo.

GOLD-DUST S. C. BUFF ORPINGTON eggs, $2.50 setting or $10 hundred. Mary E. Price, Route 7, Manhattan, Kansas.

PURE-BRED WHITE ORPINGTON eggs for hatching, $1.50 per fifteen. Frank Hinson, Stockdale, Kansas.

WHITE ORPINGTONS FOR WINTER layers and quality eggs, $7 hundred, $3.75 fifty, prepaid. Ideal Poultry Farm, Concordia, Kansas.

S. C. BUFF ORPINGTON EGGS—EXTRA farm raised egg producing flock, culled to the limit. Orpingtons fourteen years. $2.50 fifteen, ten dollars hundred. Patterson's Jersey Farm, Fort Scott, Kansas.

LANGSHANS.

EGGS—BEST LANGSHANS. JOHN LOVette, Mullinville, Kansas.

BLACK LANGSHAN EGGS, 7c EACH; over 100, 6c. Baby chicks, 20c. Mrs. Geo. W. King, Solomon, Kansas.

BIG BLACK LANGSHAN COCKERELS and eggs, score cards furnished. Guaranteed satisfaction. H. Osterfoss, Hedrick, Iowa.

QUALITY BLACK LANGSHAN EGGS—Fifteen, $1.60; 100, $6.50. J. M. Bond, Enterprise, Kansas.

PURE-BRED BLACK AND WHITE Langshan eggs for hatching, seventeen for $1.25 or 100 $4.75. Mrs. M. Bear, Advance, Missouri.

BLACK LANGSHANS — EXCELLENT range stock. Eggs, fifteen, $1.25; 100, $6. Baby chicks, 16c each. Mrs. J. B. Stein, Smith Center, Kansas.

MAMMOTH SIZE BLACK LANGSHANS—260 egg strain, 14-pound cockerels, hens 12. Eggs, fifteen, $3.50. English Penciled Runner ducks, lay all winter, eggs $2 fifteen. E. Stewart, Henderson, Iowa.

BABY CHICKS.

YOU BUY THE BEST CHICKS FOR least money. Guaranteed alive or replace free. Shipped anywhere. Colwell Hatchery, Smith Center, Kansas.

WYANDOTTES.

WHITE WYANDOTTE COCKERELS, Fishel strain, $2.50. Eggs, $1.25, fifteen. Mrs. Clyde Meek, Route 3, Chapman, Kan.

WHITE WYANDOTTES, GOOD STOCK. Eggs, $1.25 fifteen, $3.50 fifty. Effie Achison, Palco, Kansas.

GOLDEN WYANDOTTE EGGS, FIFTEEN, $1.25; fifty, $3.50; hundred, $6. Louis Bruning, Phillipsburg, Kansas.

ROSE COMB WHITE WYANDOTTE eggs, extra good; hundred, $5. Mrs. Geo. Rankin, Gardner, Kansas.

FOR SALE—ONE DOZEN PURE-BRED Golden Wyandottes. Address Mrs. A. B. Grant, Emporia, Kansas.

SILVER WYANDOTTE EGGS—FIFTEEN, $1.65; fifty, $3.75; hundred, $6.50. Mrs. Edwin Shuff, Plevna, Kansas.

CHOICE SILVER LACED WYANDOTTE eggs, fifteen $1.25, fifty $3.50, hundred $6. Mrs. Philip Schuppert, Arrington, Kansas.

PURE-BRED WHITE WYANDOTTE eggs, fifteen, $1.25; 100, $5.50. Stephenson Bros., Cawker City, Kansas.

SILVER WYANDOTTE EGGS—FIFTEEN, $1.50; fifty, $3.65; hundred, $6. Baby chicks, 20c each. Lawrence Blythe, White City, Kansas.

WHITE WYANDOTTE EGGS AT $1.50, fifteen; $3.25, fifty; $6 hundred. Winning, laying strain, fertility and satisfaction guaranteed. Andrew Kosar, Delphos, Kansas.

EGGS—SILVER LACED WYANDOTTES, fifteen, $1.50; fifty, $4; hundred, $6.50. Five kinds of ducks, eggs. Circular free. Fred Kucera, Clarkson, Nebraska.

WHITE WYANDOTTE EGGS, $1.25 PER fifteen, $6 per hundred, from good laying strain. Chilcott's Poultry Farm, Mankato, Kansas.

EGGS—WHITE WYANDOTTES LAYING strain. Utility, $1.25 fifteen; $3.50 fifty; $6 hundred. Pen headed by $15 cockerel direct from Keeler, $2 fifteen. M. M. Weaver, Newton, Kansas.

CORNISH

DARK CORNISH EGGS. EAST LAWN Poultry Yards, Fairmount, Neb.

DARK CORNISH EGGS, $1.75 FIFTEEN. Faith Olmsted, Route 1, Lawrence, Kansas.

FOR SALE—FEW FINE DARK CORnish pullets, $2.50 and $3.50. Eggs, $2.50 setting. L. C. Horst, Newton, Kansas.

ANCONAS.

ANCONA EGGS CHEAP, BOTH COMBS, from extra good stock. G. D. Willems, Inman, Kansas.

WANTED

WANTED—FIFTY WHITE WYANDOTTE pullets and two cockerels. Wm. Mielenz, 97 Wisconsin, Milwaukee, Wis.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

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CLAIM SALE DATES.

Holsteins.

April 6—Southeast Kansas Breeders' Association. Sale at Coffeyville, Kan.
April 25—Howell Consignment Sale Co., Howell, Mich. Mark B. Curdy, Secy.

Shorthorns.

April 5—Southeast Kansas Breeders' Association. Sale at Coffeyville, Kan.

Jerseys.

April 30—Ralph Ballou, Paris, Mo. B. C. Settles, Palmyra, Mo., sales manager.
May 24—Glenwells Farm, Grandview, Mo. B. C. Settles, Palmyra, Mo., sales manager.

Poland Chinas.

April 1—H. B. Walter & Son, Effingham, Kansas.
April 3—Ross & Vincent, Sterling, Kansas.
April 4—A. J. Erhart & Sons, Ness City, Kansas. Sale at Hutchinson.
April 9—Herman Gronninger & Son, Bendena, Kansas.
April 24—Laptad Stock Farm, Lawrence, Kansas.

Durocs.

April 24—Laptad Stock Farm, Lawrence, Kansas.

Chester White Hogs.

April 27—C. E. Ross, Morrowville, Kansas. Sale at Washington, Kansas.

Glenwells Farm, Grandview, Missouri, announces May 24 as the date of their public sale of Jersey cattle. This sale will be under the management of B. C. Settles, of Palmyra, Missouri, and a very high class offering of Jerseys will be catalogued for the event.

We have just received Volume 93 of the American Shorthorn Herd Book, containing pedigrees from No. 517001 to 547000, the pedigrees of animals calved prior to March 14, 1917.

Fred Chandler, Charlton, Iowa, owner of herds of Percheron, Belgian and Shire horses that are among the greatest herds of the respective breeds, reports his horses doing fine. The Chandler herd is one of the largest breeding herds in the world and many of the best herds in the country were started with foundation stock from the famous Chandler farms.

POLAND CHINAS.

DEMING RANCH QUALITY

BIG-TYPE POLAND CHINA HOGS

Breeding stock for sale at all times. All immuned. Come and inspect our herd or write us your wants.

H. O. Sheldon, Herd Manager
OSWEGO, KANSAS.

Poland China Baby Pigs FOR SALE

I am booking orders for baby pigs from large-type, heavy-boned, prolific sires and dams. Also have a few choice August and September boars and bred gilts for sale. All immuned.
A. J. SWINGLE, Leonardville, Kansas

OLD ORIGINAL SPOTTED POLANDS

Stock of all ages, also bred gilts and tried sows, bred, ready to ship. Priced right. Write your wants to
CEDAR ROW STOCK FARM
A. S. Alexander, Prop. Burlington, Kansas

Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
J. EDW. PLILEY - GILMAN CITY, MO.

GRAND VIEW POLANDS

Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.
ANDREW KOSAR - DELPHOS, KANSAS

Langford's Spotted Polands. Last call for fall boars. Yours for Spotted Polands,
T. T. Langford & Sons, Jamesport, Missouri

Ziller's Big-Type Poland Chinas

Thirty Years a Breeder.
Choicest breeding boars and gilts ready for service. Catalog free.
John D. Ziller, Hiawatha, Kan.

FASHIONABLE STOCK PLACE POLANDS

Herd headed by Big Wonder. This outstanding son of Big Bob Wonder was first in junior yearling class at Topeka and second at the Natational Swine Show in competition with the world. Breeding stock for sale at all times. Immune. Satisfaction guaranteed.
V. O. JOHNSON - - AULNE, KANSAS

REDFIELD'S SPOTTED POLANDS

Fall boars, large enough for spring service.
Chas. H. Redfield, Bucklin, Kansas.

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene, Peabody, Kan.**

DUROC JERSEYS.

Crow's Big Smooth Durocs

Herd headed by the
Grand Champion Potentate

Assisted by three other grand champion boars. We also have five grand champion sows in herd.

FOR SALE — Sixty-five tried sows and spring gilts to farrow in April and May. All immune. All bred to our grand champion boars. Everything guaranteed and priced reasonable. Write or come and see our herd. We can please you.

W. R. CROW & SONS
HUTCHINSON - - KANSAS

TAYLOR'S DUROCS

For Sale—A few choice herd boars, extra good. All sired by state fair champion boars. A lot of spring and fall yearling gilts and a few tried brood sows bred for March and April litters. Priced to sell quick. Come and see me.

Chas. L. Taylor - Olean, Mo.

Otey's Durocs

Hercules 3d, a giant 900-pound boar in breeding flesh, and Pathfinder Chief 2d, the largest and smoothest of all the sons of the mighty Pathfinder, head our herd. Fifteen gilts bred for May litters for sale. Write or come and see them.

W. W. OTEY & SONS, WINFIELD, KAN.

Guaranteed Duroc Gilts

Immune, recorded Duroc gilts with size, bone and length. Guaranteed to farrow. Shipped to you before you pay for them.
F. C. CROCKER, BOX K, FILLEY, NEB.

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on fall boars and gilts, from Crimson Wonder, Golden Model, Illustrator, Defender breeding.
JOHN A. REED & SONS, LYONS, KANSAS

HAGUE'S DUROCS

Fifteen choice fall boars and gilts for sale, sired by Kansas Pathfinder by Pathfinder. All immune. **K. Hague, R. 6, Newton, Kan.**

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS
Best breeding, best type. Stock for sale.
GEO. W. ELA, Valley Falls, Kansas

GUERNSEY CATTLE.

GUERNSEY BULLS.

Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to twelve months old. **ADAMS FARM, Gashland, Mo.**, 12 miles from K. C.

GUERNSEY BULLS

Three registered Guernsey bulls, 9 to 11 months old, tuberculin tested recently; best of breeding. Cows are good producers. For further information inquire of
FRED WILLE - COLUMBUS, NEBRASKA

MULEFOOT HOGS.

KNOX KNOLL STOCK FARM

Now taking orders for spring pigs, $20 each at weaning time. Thrifty pigs from big litters. A few fall boars and gilts. All stock registered free. For prices and catalog address **S. M. KNOX, Humboldt, Kansas.**

GALLOWAY CATTLE.

GOOD GALLOWAY BULLS

Twenty-five Extra Good Yearlings
Extra breeding and quality. Priced to sell.
J. M. HILL, SEDGWICK, KANSAS
Route 4, Box 65A

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.
E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

Breeders' Directory

ANGUS CATTLE.
D. J. White, Clements, Kan.
George McAdam, Holton, Kansas.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.

ANGUS CATTLE

Edgewood Farm Angus

I have for sale

40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.

D. J. WHITE, Clements, Kan.

SHORTHORN CATTLE.

550 Shorthorns sold at auction in 1917 for $1,000 or more per head. Only 26 exceeded $2,500 and but three passed the $5,000 mark. It is the uniformity of prices that indicates the stability of the trade.
The Shorthorn is the breed for you.
Address Department W
American Shorthorn Breeders' Association
13 Dexter Park Ave. CHICAGO, ILL.

SHORTHORN BULLS

Eight Scotch-topped yearling Shorthorn bulls, reds and roans, ready for service. Price, $150. First check gets choice. Come and see them. I can please you.

J. R. ELY - - MARION, KANSAS

PARKER'S SHORTHORNS

Bulls for Western Kansas. Growthy, thick-made kind, eight to eighteen months old. Two with quality and breeding to head pure-bred herds. One out of an extra heavy milking dam.

Wm. B. Parker
Lakin, Kearney County - - Kansas

MARKS' LODGE

Home of Shorthorn Cattle. Reds Exclusively.
A few choice young bulls for sale, from my best milking cows. All registered. Come and see me.
DR. M. F. MARKS, VALLEY FALLS, KAN.

Pearl Herd Shorthorns

Village Heir by Imported Villager and Orange Lovel by Victor Orange in service.
FOR SALE—Young bulls from 8 to 12 months old, reds, whites and roans. Scotch and Scotch topped. Inspection invited. Can ship on Rock Island, Union Pacific or Santa Fe Railway.

C. W. Taylor, Abilene, Kansas

SCOTCH SHORTHORNS

Bettle's Albion 399451 now for sale. Roan, weight 2,000 pounds if fat. Strong breeder. Also six bulls from 6 to 24 months old, reds, whites and roans. Write
C. E. HILL - - TORONTO, KANSAS

TWO BULLS FOR SALE
One roan Shorthorn 11 months old, one red Double Standard Polled Durham, 12 months old. **E. E. FISHER, Stockton, Kansas.**

RED POLLED CATTLE.

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.
CHAS. L. JARBOE - QUINTER, KANSAS

PURE-BRED CHESTER WHITE HOG SALE

SATURDAY, APRIL 27, 1918 20 — HEAD — 20
Consisting of Fourteen Sows and Six Boars Sired by Wiiam A 3d and Hero, a Get of Bode's Combination 24147. Four Boars in This Sale Sired by the Latter.
These are the top choice of my October pigs, the big type, smooth and snow white, representing the best of bone, size and quality. The hog that is quiet and gentle, along with a profitable feeder. Every hog eligible. Every hog guaranteed a breeder. Come be my guest. Sale under cover at sale barn at Washington, Kansas, in Washington County on B. & M. and M. P. railroads.
C. E. ROSE, MORROWVILLE, KANSAS.

HORSES AND MULES.

HORSES AND MULES.



PERCHERONS AND BELGIANS

IMPORTED AND HOME-BRED PERCHERONS AND BELGIANS.
I have a good lot of horses to select from at very reasonable prices. I give a gilt edge guarantee of 60 per cent, good for two years.
Barns Four Blocks from Santa Fe Depot.
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EWING BROS.' PERCHERON HORSES, SHORTHORN CATTLE, SHETLAND PONIES AND POLAND CHINA HOGS

FIFTY MARES—Weanlings to mature mares, weighing a ton or more, in foal. Herd headed by Imp. Meknes (106084) 106640, weighing 2,200 pounds.
SEVERAL MATCHED TEAMS—Fifteen head of stallions, from weanlings to six years old. The best lot of two-year-olds we have ever had. The kind to mature into ton horses or better—grays and blacks.
SHORTHORN CATTLE—A few cows for sale. Ten young bulls out of pure Scotch sire ready for service. Herd headed by Village Knight No. 398231 weighing 2,250 pounds and Choice Echo 393419, weighing 2,300 pounds, for sale.
SHETLAND PONIES at very low prices if taken soon—weanlings to broken fillies.
Phone to Ewing Bros., 903A5 or 903A12, Great Bend, or write us at R. F. D. No. 1, Pawnee Rock, Kansas. EWING BROTHERS.

FARM AND HERD.

The Stubbs Farm, Mulvane, Kansas, is demonstrating in a practical way the value of good herd sires used in their fine herd of Holstein cattle. Gem Pietertje Paul De Kol 3d is the sire of twenty-four A. R. O. daughters, and Canary Paul Fobres Homestead is the sire of twenty-six A. R. O. daughters. These two great sires have been used with great success at the head of this herd of sixty-five fine cows, several of them with daily records of more than eighty pounds of milk. A feature of the herd at this time is a fine lot of young stock including young registered bulls.

E. S. Engle & Son, of Abilene, owners of Sand Springs Holstein herd, report their herd doing well. This firm is building up a Holstein herd for production and is certainly succeeding. During the past twenty-four months one cow in their herd produced 36,000 pounds of milk and 1 280 pounds of butter. This cow also has three promising daughters to her credit, in addition to her milk and butter record.

Mr. B. Curdy, secretary of the Howell Consignment Sale Company, Howell, Michigan, announces April 25 as the date of their next sale of registered Holsteins. They will catalog eighty head of record bred Holsteins for this sale.

W. W. Otey & Sons, Winfield, Kansas, are making a success with their herd of Durocs. Two great Duroc boars are used in this herd, Hercules 3d by Crimson Wonder 4th and out of the great show sow, Lady Good Enuff by the Kansas grand champion boar, Good Enuff Again King. Pathfinder Chief 2d by the noted Pathfinder and out of a good sow by Cherry Chief, is also used in the herd. This boar will make his mark and be heard from later among the prize winners of our state fairs. The Otey herd is among the best in the Southwest. A feature of the herd at this time is the fine lot of spring gilts bred for May farrow.

J. R. Ely, Marion, Kansas, has made a great success with his herd of Shorthorn cattle. Mr. Ely has bred along the lines of the milk strains and has grown a herd of cattle that are not only beef producers but are heavy milkers and of the real dairy type of the milking Shorthorn. A feature of the herd at this time is the fine lot of young stock.

J. S. Wilson & Son, Hamilton, Kan., built up one of the good herds of Hereford cattle in Central Kansas. The herd now numbers about 100 head, comprising seventy-five cows and heifers with a number of calves at foot and twenty-five head of yearling and two-year-old bulls. The herd is in good condition and is descended from the most fachionable breeding.

STATEMENT OF THE OWNERSHIP

and management of Kansas Farmer, published weekly, at Topeka, Kan. For April 1, 1918. Required by the Act of August 24, 1912.
State of Kansas } ss.
County of Shawnee }
Before me, a notary public in and for the state and county aforesaid, personally appeared W. J. Cody, who, having been duly sworn according to law, deposes and says that he is the manager of Kansas Farmer and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management of the aforesaid publication for the date shown in the above caption.
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Business Manager—W. J. Cody, Topeka, Kan.
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(Signed) W. J. CODY, Business Manager.
Sworn to and subscribed before me, this 20th day of March, 1918.
S. H. PITCHER, Notary Public.
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My commission expires March 17, 1919.



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15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.
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We have 2 barns full of extra good jacks ranging in age from weanlings to 6 yrs. old, all over 2 yrs., well broke to serve. Several fine herd headers among them. Also jennets in foal to homebred and imported jacks. A few imported Percheron stallions royally bred. We can deal. Write or call on
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Percherons—Belgians—Shires
2, 3, 4 and 5-year stallions for sale or let on shares. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.
FRED CHANDLER, Route 7, Chariton, Ia., Above Kas. City.



Choice Young Belgians, English Shires, Percherons, also Coach stallions, also mares. Many first prizes. Long time 6% notes.
Illinois Horse Co., Good Blk., Des Moines, Ia.

40 Percheron Stallions and mares, weanlings up. 20 Mammoth jacks, 10 jennets in foal. Priced reasonable. **Al E. Smith Lawrence, Kansas.**

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100 GOOD JERSEYS FOR SALE

We are offering some fine young cows and heifers, now fresh or to freshen in April and May. The best blood lines and good individuals.
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Place your order for a Sophie Tormentor, Jacoba Irene, spring bull calf to increase your production.
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MAKES A SPECIALTY OF
MANAGING JERSEY SALES.
Write for catalogs.
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Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.
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Registered Jersey Bulls, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.
THOS. D. MARSHALL, SYLVIA, KANSAS

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Butter-Bred, from High-Producing Cows.
Photo furnished.
MAXWELL'S JERSEY DAIRY
Route 2 Topeka, Kansas

FINE YOUNG JERSEY BULLS

From Register of Merit and tested cows; Register of Merit sire.
Dornwood Farm, Topeka, Kan.

J. B. PORTER & SON

MAYETTA, KANSAS
Breeders of High-class Jerseys. Stock for sale at all times.
Write Us Your Wants.

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Registered bull calves — some ready for service. Sale or exchange for bull or heifers.
TREDWAY & SON, LA HARPE, KANSAS

Poland China Bred Sow Sale

AT FARM

Bendena, Kan., April 9, 1918

SIXTY HEAD LARGE SPRING YEARLING GILTS

Sired by the great Futurity Rexall, he by Orphan Wonder by Big Orphan. Futurity Rexall is a boar with great size. He weighs 950 pounds and has proven a great sire. Several are sired by Big Bob 2d, he by Big Bob Wonder. This hog has also proven a sire of lots of size and quality. A few gilts in this lot are sired by Expansion Wonder by A Kansas Wonder.

Forty head are bred for April litters and twenty head bred for May litters to the following herd boars: Big Hadley, Expansion Wonder, Wonder Price 2d, and Big Bob 2d.



I am selling one boar pig, a herd boar prospect.
ALL IMMUNE.

I am selling a lot of extra good gilts and your inspection of this offering is invited. I do not expect high prices. I will not mail out any catalogs unless requests are made for them. I will be pleased to send them on request. A post card or letter will insure one delivered to you. Please write today for catalog to

HERMAN GRONNINGER & SONS, Bendena, Kan.

Scott, Foster, Kistner, Auctioneers. O. W. Devine represents Kansas Farmer at sale.

SOUTHEASTERN KANSAS BREEDERS' HEREFORD SALE

Coffeyville, Kan., APRIL 6, 1918

Sale Under Auspices of R. J. Kinzer, Secretary Hereford Association.

90—HEAD CAREFULLY SELECTED HEREFORDS—90

FIFTY FEMALES AND FORTY BULLS.

There will be sons and grandsons of such famous sires as Prince Rupert 22d, Beau Gallant, Beau Caldo 14th, Advertiser 5th. In fact a superb collection of Anxiety and Perfection blood. There will also be a number of animals by Spellbinder by Imported Britisher, Tom Woodall's bull. A part of these cows will be carrying calves which are sired by the great Fred Real, Prince Rupert 52d, Earl Rupert, General Rupert, Rupert Donald 2d, Roehampton 1st. The cattle are mostly young animals, and this is a combination sale, the contributions coming from the herds of the breeders of Southeastern Kansas and Northeastern Oklahoma.

Send for catalog. Address

J. H. KEITH, Sales Mgr., Coffeyville, Kan.

COL. FRED REPPERT, AUCTIONEER. SHORTHORN SALE APRIL 5.

Hereford Cows For Sale

WE ARE OFFERING OUR ENTIRE HERD FOR SALE PRIVATELY

Comprising sixty-six head of cows, ages from two years old to aged cows. A number have young calves and all are bred. Will price one or a carload.

We Have the Most Popular Blood Lines

All cattle are registered and bred to registered herd bulls. We also offer twenty-five Hereford bulls, yearlings and two-year-olds; two imported Percheron mares, and two home-bred Percheron mares, all in foal. Come and see us.

J. S. WILSON & SON

HAMILTON, KANSAS

READ KANSAS FARMER'S CLASSIFIED ADVERTISING PAGE FOR READY BARGAINS

Southeastern Kansas Breeders' Association Sale

Shorthorn Cattle

COFFEYVILLE, KANSAS

APRIL 5, 1918

THE DAY FOLLOWING THE CENTRAL SHORTHORN ASSOCIATION SALE AT KANSAS CITY.

SEVENTY-FIVE HEAD OF CAREFULLY SELECTED BULLS, COWS AND HEIFERS

The consignors are taking pride in selling some of their best, and buyers will find not only good cattle but royally bred ones. Pedigrees in the catalog show almost without exception much of the blood of Imported Collynie. One-third of the entire offering are by good bulls of H. M. Hill's breeding sired by Mistletoe Archer, whose sire was Prince Royal by Imported Collynie and out of Imported Princess Royal 62d. Almost half of the entire number consigned is from the herd of H. M. Hill. This lot will include a number of young things by Kansas Archer, a line-bred Collynie bull. A number of the females consigned by him are bred to the great young bull, Sagamore Dale, shown locally by Mr. Hill last year. This bull is by Master of the Dales, a full brother to the $5,000 Lord Avondale. Sagamore Dale is out of a line-bred Imported Collynie dam.

The Sycamore Springs consignment of females are either bred to Master of the Dales or have calves at foot by him. One young imported Canadian cow has her first calf at foot, a roan heifer by Master of the Dales, and cow bred back to same sire.

Mr. Massa's consignment is largely the get of Kansas Prince of Mr. Hill's breeding and also by Mistletoe Archer. These young things will again show the value of a good bull.

Mr. Swinney sells a great show cow. Also a very showy heifer. The other consignors are listing good cattle and all the consignors to this sale are good men and reliable.

Does not that tell the tale?

For catalog, apply to

H. M. HILL - - - LAFONTAINE, KANSAS

HEREFORD SALE NEXT DAY, APRIL 6, SAME PLACE.

HOLSTEIN CATTLE.

HOLSTEIN CATTLE.

CLYDE GIROD, At the Farm F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer especial attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd.

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment. **Edgewood Farms, Whitewater, Wisconsin.**

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We offer for sale choice beautifully marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated, f. o. b. cars: One to two weeks old, $17 each; three to five weeks old, $20 each; six to eight weeks old, $25 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves. **H. B. COWLES, 608 Kan. Av., Topeka, Kan.**

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON, KANSAS

CHOICE HOLSTEIN CALVES

High grade, beautifully marked, sired by registered bulls and from heavy milk producing dams, ten days old, $15; three weeks, $17; six months, $40. For thirty days only. First draft takes them.

Mt. Pleasant Stock Farm, Gilberts, Illinois.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

Cedarlane Holstein Herd

Four-year-old grandson of Pontiac Korndyke, guaranteed sound and a sure breeder. Average record dam and sire's dam, 29.4 pounds in seven days. Special price on bull calves from above bull. No females.

T. M. EWING, INDEPENDENCE, KANSAS

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HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. **Clover Valley Holstein Farm, Whitewater, Wisconsin.**

WHEN WRITING TO ADVERTISERS MENTION KANSAS FARMER

CALVES

We are offering our

SELECT HIGH GRADE CALVES

From Large Producing Dams and Famous Herd Sires

for $20 and $25, aged one to two months. Give us your order for any amount, and we will guarantee satisfaction on what we send you. Write at once. We have some dandies.

EDGEWATER STOCK FARM

FORT ATKINSON - WISCONSIN

CALVES

STUBBS FARM HOLSTEINS

A few young bulls ready for service at reasonable prices. Fine individuals, best of breeding, guaranteed right in every way. Write for prices or come and see them.

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Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

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Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wauwatosa, Wisconsin

Tuberculosis -- No!

WE GUARANTEE a retest on any stock you buy from us SIXTY DAYS after date of sale.

Before buying write us about our extensive herd of absolutely first-class Holsteins and Guernseys. Anything you want. Carloads or lots. Nearly pure-bred calves from famous bulls and good cows, $20 to $25.

EDGEWATER STOCK FARM
Fort Atkinson, Wis.

POLLED DURHAM CATTLE.

WILD WOOD STOCK FARM

POLLED DURHAM CATTLE

For Sale—Ten bulls of serviceable age, sired by Roan Acacia 9021. Dam, Golden Acacia by Acacia Victor, a double standard bull from D. C. Van Nice herd. Write at once. These bulls will sell.

T. M. ETHERINGTON, Hamilton, Kansas

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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 14. TOPEKA, KANSAS, APRIL 6, 1918. Established 1863. $1 a Year

FUTURE OF THE DRAFT HORSE

European Countries Seeking Increased Numbers of Heavy Drafters

By WAYNE DINSMORE in Percheron Review

MORE land must be put in small grain, and less left in grass, during the next few years. The world's food requirements, in this emergency, can only be met by increasing the acreage of grains immediately available as food for man. More power will be required on the farm to plant and harvest these crops. Labor is scarce. Increased horse power, and implements which will permit one man to do as much as two or three formerly did, is the only solution of the problem.

Factories are running at top speed. Transportation is being taxed to the utmost. Powerful teams are an essential factor in transportation. They link factory with railroad, and one factory with another. They haul the material needed for new structures, and aid in building the same. Throughout the whole network of transportation from producer to manufacturer to consumer, heavy draft teams play a most important part. Truck and transfer companies, guided solely by the balance sheet, declare draft horses are more efficient in short hauls than motors. Evidence that they will hold their place in the cities is overwhelming; but they must be massive, of maximum draft character, and of such structure in feet and legs as to last for a decade and a half in city service.

Farm and city alike will require large numbers of powerful drafters. The demand for the next five or six years will be greater than at any time in the last twenty years.

Armies require horses. Experience has shown they are indispensable. In the allied armies the proportion has been approximately one horse to every four men, exclusive of cavalry. The British Lord of the Admiralty, speaking before Parliament in December, 1917, reported that British fleets had transported more than two million horses and mules to Europe for the use of the allied armies. Figures from the Department of Foreign and Domestic Commerce, U. S. A., show that more than 1,300,000 of these were purchased in the United States. The demand from our allies continues. To this is added the needs of the United States armed forces, in the proportion of one horse or mule to each four men, exclusive of cavalry. The horses most sought for by all armies are artillery, siege gun and transport kinds. These take horses weighing from 1,150 to 1,700 pounds, sometimes more. The British, in the fall of 1917, undertook to buy one hundred thousand transport horses—which must weigh over 1,500 pounds after arriving at central markets—and were frankly told by one of the leading dealers that they could not possibly be bought at the price—$220. They have, however, been purchasing as many of these as possible.

In 1914, at the outbreak of the war, the United States had a vast surplus of horses ranging from 1,000 to 1,500 pounds. That surplus is now nearly exhausted. Horse buyers who formerly had no trouble in buying two carloads per week, now come in with half a car, because they cannot buy more in a week's time. Farmers sold themselves short last summer and fall because of the high price of feed They are now searching for teams with which to do their spring work in 1918. As a result, prices have advanced appreciably in the last thirty days. Grade draft mares of good type, and sound, are fifty dollars per head higher than they were in December, and are increasing in value. Men who lack teams will pay so much for them this season that they will conclude it is cheaper to raise work horses than to buy them.

Failure to sow a large acreage of wheat in the spring means a limited yield in the autumn. Failure to breed mares makes a short horse crop; but the effects are not noticeable within six months, as in the case of wheat. The shortage in horses does not become manifest till five years later. In 1916 and 1917 less than 40 per cent of the mares of breeding age—excluding pure-bred draft mares—were bred. Well informed horsemen estimate that yearling colts have decreased in number from 1,732,000—the number shown by the 1910 census—to approximately a million for the spring of 1918. This decrease will be felt most acutely in 1920 and 1921. Every effort should be made by well-informed horsemen to guard against this by urging the farmers in their respective sections to breed all suitable mares in 1918.

The greatest obstacle to improvement is the small horse and the unsound horse of any size. Such animals are not marketable. They are not efficient in work. They are present in the United States in millions. Every real horseman would be delighted to see the country rid of these undesirable equines. They are a drug on the market. Prices range from $20 to $125 on such animals. Their complete elimination would be a godsend to the industry. Breeders of drafters are not particular regarding the mode of exit taken by small and unsound horses.

The man who owns and works horses under 1,100 pounds is standing in the way of his own financial betterment. If he cannot dispose of them and buy mares that are at least in excess of 1,200 pounds, his only chance is to breed some better ones. Doing this from a foundation of small mares is slow. The process may be hastened by breeding to a very prepotent, heavy-boned, Percheron stallion that is 16-2 to 17 hands in height, with weight in excess of 1,900 pounds when in breeding condition. The half bloods from such a horse will, if well nourished during the growing period, mature at weights of 1,400 or better. Small mares carrying some Percheron blood have produced progeny from such crosses that closely approximated real draft size and character. More rapid progress, however, financially and otherwise, will be made by selling very small horses at any price they will bring, and then buying good grade, or pure-bred, draft mares.

Some farmers are fearful of the tractor. What effect will it have on the need for heavy horses on our farms? Will it eliminate or materially reduce the number of horses in farm use? Developments to date indicate that tractors may supplement, but not displace, heavy draft horses. In fall plowing, when horses are needed in the harvest field, the tractor can be used to advantage; and where there is enough need for belt power to make the tractor pay interest and depreciation charges for the balance of the year it may be well to buy one. The fact remains, however, that the horse is a self-repairing, self-reproducing motive power, and the tractor is not. The horse utilizes roughage, such as corn fodder, straw and pasturage, produced on the farm, as a considerable share of his fuel, and all fuel for the tractor must be bought. Aside from this, naval and military needs promise to drive internal combustion oils to prices ranging from 90 cents to $1.25 per gallon, with most stringent regulations regarding its use. Horses can be produced where needed. Tractors require much steel, coal, and labor in their production, and tax our transportation systems heavily, both in the shipment of raw material and the finished engines, supplies therefor, and repair parts.

There are thousands of men who can use tractors to advantage on farms, but the majority cannot, and the comment of a widely traveled and shrewd observer still holds true—"that the tractor will not pay generally until the farmer can raise his own repairs, gas, and oil." Bankers with long experience in the Northwest are unanimously of the opinion that the man who farms with big draft horses, especially mares, is a good risk, while the tractor farmer is not; and these men come as near knowing the financial side of the situation as anyone. The exceptional farmer can use tractors advantageously to supplement horse power, but the vast majority cannot.

In conclusion, we can only say from facts now available that the breeding of small horses, under 1,200 pounds, should be entirely stopped, save for such special types as race horses and saddle horses. Mares between 1,200 and 1,500 pounds should be bred to the best available draft stallions, with a view to increasing the size of their descendants to 1,600 pounds and over as soon as practicable, and all mares over 1,500 pounds should be bred to selected draft stallions to make sure that the resulting progeny is as perfect as possible and to reduce the proportion of heavy horses which, because of faulty conformation or unsoundness, are not as efficient in work as their size and weight warrants. Subsidies given to especially perfect draft stallions which have demonstrated themselves to be good stock sires will hasten the improvement of our draft horses greatly, and there is every reason in favor of such a policy. Funds already accruing from stallion licenses should by all means be used, and additional appropriations might well be made for this purpose.

Aside from our own farm and city needs, foreign countries will unquestionably be heavy buyers of draft horses in American markets after the war. Foreign governments are already seeking to obtain an increased number of horses over 1,500 pounds for transport work, with the idea that those which are left can be used on farms at the close of hostilities, and they are especially desirous of obtaining all the heavy mares they can secure. These are significant items to practical horsemen.

No hesitancy should be felt respecting the future of the draft horse industry. Every effort should be made to increase the breeding of all mares over 1,200 pounds to good draft sires, and special attention should be given to encouraging those farmers who, through lack of knowledge of all factors, are discouraged respecting the breeding of heavy draft horses. The man who persists in breeding good ones will reap a rich harvest. The quitter will pay a good price for work animals in the future, and regret that he failed to grasp the opportunity that lay within his reach.



GROUP OF DRAFT COLTS—THE KIND THAT ARE IN DEMAND AT HIGH PRICES

The season of surplus production of mutton and lamb raised for meat purposes in the Western States is now on and we now remove our former recommendation against the eating of mutton and lamb on the voluntary meatless Tuesdays. This will be in effect in the State of Kansas until April 15.

Waste of food is disloyalty, economy of food is patriotism, and production of food is national service.

REO
"THE GOLD STANDARD OF VALUES"

All the Former Excellence Plus Many Refinements

THIS NEW REO LIGHT FOUR is, in all mechanical essentials, the same as its famous predecessor—Reo the Fifth, "The Incomparable Four."

THAT IS TO SAY, those principles of design and of construction which made that great Reo famous the world over for dependability and low upkeep, have all been retained.

WHEN YOU CONSIDER that that Reo Four remained standard in practically the same form for eight seasons (longer than any other automobile ever built save one);

IT MUST HAVE BEEN wonderfully right at every point; must have been. For during those years an host of rivals and imitators came and went.

AND ALWAYS REO maintained its supremacy.

SO WE FEEL that the best possible recommend for this latest Reo—this new Light Four—is to say that all those principles of design and that same quality have been retained.

REFINEMENTS have been made at many points however.

WE PREFER THE TERM "refinements" rather than improvements. For, truth to tell, no owner of a Reo Four could suggest an improvement in that great car.

REO ENGINEERS, at the same time the most experienced and the most progressive, are always seeking opportunities to refine details of Reos.

AND THEY FOUND WAYS to make parts of this chassis, always the most accessible ever built, still more accessible.

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THE OILING SYSTEM has not been improved—no use trying to improve on what was already perfection.

ODDLY ENOUGH when we begin to talk about this new Reo Light Four, we feel an inclination to emphasize rather those features in which no changes have been made, than those where they have!

SUCH WAS THE QUALITY—such the dependability—such the low upkeep—such the satisfaction of 100,000 owners, that a better could be made only by refining details of the original model.

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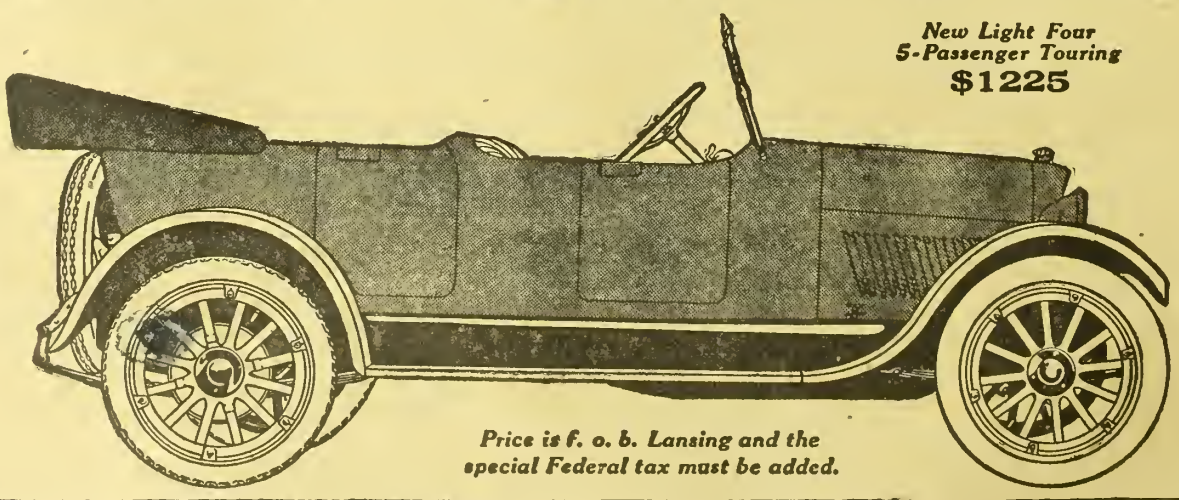

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PRICE OF OLEOMARGARINE

Have you ever tried to figure out what regulates the price of oleomargarine? We have never seen any attempt to give this point publicity on the part of the oleomargarine interests. There is only one answer to the question, "What regulates the price of oleomargarine?" and that answer is, "The price of butter."

It is pointed out in a recent issue of the Chicago Dairy Produce that ever since its introduction into trade channels, oleomargarine has been sold from two to five cents below the price at which butter was selling. It has never had a staple value; its price has never been based upon the prices of the many ingredients that enter into its makeup. The sole aim of its manufacturers has been to sell it up close to the butter price, they try to convince the consumer that it is just as pure, just as cleanly and just as nutritious as butter. They have never tried to set its standard above butter, nor its price above the price of butter, all of which is a practical admission ou their part that they recognize its inferiority.

This brings the question prominently up to us: Upon what basis does the Government figure the price they shall pay for it to feed our soldiers? Its price, as we said before, has always oeen based upon the price of butter and we believe the same contitions still exist. The Government fixes certain butter prices, tells the creameryman how much moisture he must put in butter, how much salt it must contain and how much casein. Also it fixes the butter fat content. Even to the smallest detail the Government makes regulations for butter and enforces them. But how about oleomargarine? What rules and regulations govern its manufacture? How does the Government, which is buying millions of dollars worth monthly to feed our soldiers, arrive at a conclusion as to what its cash value is as a food product?

"We are not disputing that the Government knows all of this," says this writer, "but we have never heard or seen any rule or regulation governing the amount of moisture, salt, or any other ingredient that enters into oleomargarine. It would seem that the dairymen in this case are at a disadvantage. Everything is in favor of the would-be substitute. It would be wise to ask someone who knows on what the Government bases the price it pays."

SUDAN GRASS FOR FORAGE

Sudan grass has now fully established itself as one of the standard crops of Kansas. When first grown the seed was so high in price that it could not profitably be used as a standard forage crop. The seed is now fairly plentiful and many might well consider substituting Sudan for sweet sorghum or cane where the crop is to be grown for forage. In discussing the seed situation with Prof. L. E. Call recently he made this suggestion, basing his advice on the high value of Sudan as a forage crop and the relatively high price of cane seed. Sweet sorghum seed is so high in price that it cannot be profitably sown broadcast for forage. If it is to be grown for rough feed it should be planted in rows and cultivated rather than sown broadcast. When planted in this way it is coarser and for many purposes is not as satisfactory.

Sudan grass can be used in place of cane for feed. When it is grown for hay or roughage it is ordinarily drilled in close rows with a grain drill at the rate of twenty pounds of seed to the acre. A good yield of satisfactory hay can be produced with less seed. Experimental results at the Hays station and at Manhattan have shown that Sudan grass planted in rows twenty-two inches apart, sowing not to exceed eight pounds of seed to the acre, will produce a heavy tonnage of excellent feed. The hay is a little coarser when planted in this way than when planted in close drill rows, but not coarse enough to make an undesirable feed.

The ground for Sudan grass should be prepared by plowing early in the spring and cultivating sufficiently after plowing to keep down weed growth. The seed should be planted the latter part of May after the ground is thoroughly warm, and precaution should be taken to see that the ground is clean and free from weeds at the time the crop is planted. If this is done the Sudan grass will grow so fast that the crop will not need cultivating even though the rows are twenty-two inches apart.

Sudan grass can be planted with a grain drill, stopping up the necessary number of holes to place the seed in rows the right distance apart, or it may be planted with an ordinary corn planter by straddling the rows.

KANSAS GRANGE MONTHLY

Kansas grangers now have a state paper devoted exclusively to Grange interests. The first issue appeared in February and we have just received the March number, which is full of material interesting and valuable to Grange members. The editor in chief, B. Needham, state master, and Ernest McClure, associate editor, are to be commended for the fine start they have made in giving Kansas grangers an official publication. It will be a most important factor in promoting Grange activities throughout the state. Through it many members will be awakened to the possibilities of the order for uplifting the great industry in which they are engaged. It will serve to visualize Grange ideals in a large way. KANSAS FARMER extends a welcome to this new publication and wishes it a most successful career.

Following the urgent appeal that all wheat be marketed by May 1, the United States Food Administration announces that wheat being wilfully held will be requisitioned by the Government. State food administrators have been asked to carefully investigate such cases and where they find the owners will not respond to a request to put it on the market, they are to requisition such parcels of wheat on behalf of the Government. No general order has been issued for the taking over of wheat, but specific cases will be handled as indicated and it will be done without undue publicity. The Kansas Council of Defense, which met in Topeka on Friday of last week, passed a resolution calling on the farmers of this state to sell all of their 1917 crop at once in order that it go to the mills and be converted into flour to supply the urgent needs of our allies. It is estimated that there is nearly two million bushels still in bins in the state. Walter P. Innes, the state food administrator, reported to the council on the order from Washington and stated that he already had informatiou as to the location of most of the wheat in Kansas. He also stated that the expense of drayage would be charged in cases where it was necessary to requisition the wheat.

PASTURE FOR HOGS

If you have any feed lots or waste patches of ground about your barn and buildings, put them into some pasture crop for the hogs. Plenty of pasture for hogs is always important, but is doubly so this year when grain is so high and there is such need for all the meat we can raise. Let us grow hogs in a way that requires a minimum of grain and labor. The hog pasture and some grain crop for hogging off early in the season should be the first crops planted this spring.

Dwarf Essex rape is one of the best of the spring-sown pasture crops for hogs. Sow at the rate of four or five pounds of seed to the acre in a mellow, well-prepared seed bed. Turn the hogs on when it is about twelve inches high. They may not like it at first, but will soon acquire a taste for it and eat it greedily. If it is allowed to get too old and tough, they are more apt to refuse to eat it. Rye, oats, barley, or winter wheat can be sown for spring pasture. A patch of rye or wheat sown in the spring will stay green all summer. A small field of flint or squaw corn to be hogged off as soon as the ears are fairly matured will help out in saving grain.

Don't overlook the fact that the members of your family need plenty of fruit to keep them in health. The old saying, "A barrel of fruit, or a barrel of medicine," is never more true than in the spring. In addition to being a good appetizer, the fruit acids meet a real need of the body.

THE THIRD LIBERTY LOAN

NO MORE fitting reply could be made to the gigantic German offensive than a spontaneous over-subscription of the third Liberty Loan, which was launched April 6, the anniversary of our entry into the war. The great events of the past week or two in France fire our souls with a new determination to furnish every dollar and every material resource needed to win in this fight against the mightiest foe that has ever risen to menace human liberty. The kaiser is facing defeat, but we can hasten the day by backing our men at the front with our money to the last cent if necessary. No sacrifice is too great. Loaning money to the Government is one of the lowest forms, but it is as necessary as the offering of lives. All can have a share in this form of service. Those who cannot buy bonds can buy thrift stamps.

Mrs. Burnett Smith, an English woman who recently addressed the conference of food administrators in Washington, brought tears to the eyes of more than one of her auditors as she told of the tragedy of living in the war zone. "We do not talk about thsee things as sacrifices in my country," she said. "We accept them as our contribution to the great cause of humanity and civilization." Mrs. Smith would eliminate the word "sacrifice" from our war vocabulary. Her own home was destroyed by a Zeppelin bomb in 1915 and all her people are in the thick of the fight.

Secretary McAdoo is asking that the third Liberty Loan be made more of an agricultural loan than the two preceding. Special appeals will be made to growers of grain and live stock. The actual expenditures of the Government have been much less than had been indicated by the estimates, and only three billion dollars is being asked. This loan will bear 4¼ per cent interest.

Back of every soldier in Europe should be a worker and a bond-buyer at home. Theirs is the braver part, but we at home can be no less useful if we consecrate our dollars to the cause to which they have consecrated their lives.

BOYS FOR FARM WORK

There is such a serious shortage of farm labor that it may be necessary to accept the service of boys who have had little or no experience in farm work. Farmers generally have not taken very kindly to the idea of employing city-raised boys. So much work is done by machinery these days, which involves the handling of a number of horses together, that many are seriously considering whether it is safe to even try to use such inexperienced help. A lot of money is tied up in teams and machinery, and a great deal of damage can easily be done through improper handling.

A systematic effort is being made to enroll high school boys all over the country for farm work. It is of course recognized that they will be very ignorant of many of the most simple things associated with farm life. A circular furnishing practical instructions on the handling of horses, the use of farm machinery, and the care of dairy cows and milk has been prepared by William M. Jardine, president of the Kansas Agricultural College, to help the boys in the start.

No matter how ambitious a boy may be to succeed, he must have certain very definite, distinct directions for doing a great many things which are so simple that one raised on the farm cannot realize how anyone could be unfamiliar with them. A harness looks like a Chinese puzzle to a city boy who has never learned the names of the various parts. Pains must be taken to teach him these simple, elementary things, from the very start, and he must have impressed upon him that he must always play safe in handling horses. He must be repeatedly told to keep the lines safely in reach all the time and never attempt to do them up on the harness until the horses are loose from the wagon or machine. To help them in getting some of the important points clearly in mind, a brief summary of the things to do might be worked out and printed or written on a card and kept hanging in the stable or wherever most convenient for reference. For instance, getting a double team ready for work might be summarized as follows after the boy has learned the names of the different parts: Collar on; back band, breeching, and hames in place; buckle hames; adjust crupper and breeching; adjust breeching straps; buckle bellyband; put bridle on. To unharness the horse, all he has to do is to simply reverse the order given above. In hitching up the double team the procedure might be briefed as follows: Lines down, snaps in bridle rings; neckyoke up; tongue in place; traces hitched. To unhitch, reverse this order.

A similar set of rules can be formulated for harnessing and hitching up a single horse.

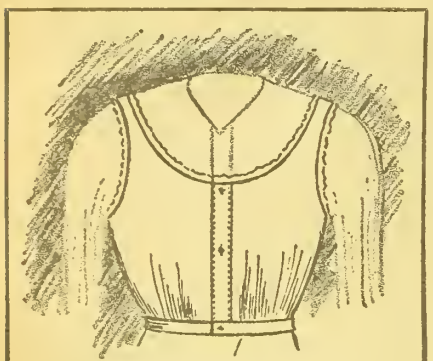
It was recently stated by the Food Administration that its temporary order prohibiting brewers from buying grain is saving bread grains at the rate of sixty million bushels a year. Another order restricting browers to 70 per cent of last year's consumption of grains is also in effect. It is hard for grain growers who are constantly urged to grow more, to understand why the temporary order should not be made permanent. The Grange and other representative farm organizations have repeatedly gone on record against using any of our grain for the manufacture of liquors, and they would like to see the Government use the authority given it by the Food Control bill and stop it altogether. Beer may have some food value, but a man would have to take in a lot of alcohol and water in order to get any appreciable amount of nutrient material. Its manufacture destroys food and there is no controverting that fact. Brewers are not hurt yet, but they admit that if the order remains in effect many weeks a good many breweries will have to close.

NEW GARMENTS FROM OLD

Patriotic and Economical to Make Over Discarded Clothing

WE SOMETIMES feel that it takes considerable thought and planning to make a becoming garment from uew material, but still more care and skill is required to make a good looking garment out of an old one. There is a great deal of satisfaction in taking a discarded article of clothing and making a garment that cannot at first glance be told from new. The woman who is skillful in making old clothes into new is always able to dress better for less money than those who have not this ability. A very practical lecture showing ways of doing this was given by Miss Ina F. Cowles, assistant professor of domestic art at the Kansas Agricultural College, as a part of a program devoted to the conservation of clothing during Farm and Home Week at Manhattan in January. Some of Miss Cowles' suggestions are contained in the following paragraphs:

We must first consider how much time and work the making over process is going to take, and whether the cloth itself is worth it. In the case of wool, it is not so hard to decide, because you have paid more for this than you would



WHITE WAIST MAKES DAINTY CORSET COVER

for cotton and in some cases for silk, and in many cases the wool will wear longer than silk. After we have decided that the goods is worth making over, the next question is whether we can make the garment wholly from the old material or whether we shall combine new goods or some other old goods with it. If we are going to get new, we do not want to get anything too expensive, because the material is old already and will not wear as long as expensive new material. Trimming of new material may be used to brighten up children's garments.

Before taking the garment apart you should have a very definite idea as to what you are going to do with it. If you have a very full skirt, for instance, and you are going to make a smaller garment from it, cut the goods away from the seams instead of ripping them. Be very sure before doing this, however, that you are not going to need the part to be cut off. If it is necessary to rip the seams, you will find a safety razor blade effective. It will not cut the goods if you are careful.

Another point to consider in remodeling clothing is the amount of finishing up you are going to put on the made-over garment. It may not pay you to take as much time for this as you would if making a new one.

Skirts may be made over for growing girls. Children are usually larger around the waist than women and wear their clothing more loosely, so the belt will probably need to be made larger. By cutting off the top of a woman's skirt and fastening the lower part on a band, a good skirt can be made for a little girl. From a two-piece skirt, which is cut up very little, can be made a little girl's dress or a suit for a little boy. Gored skirts can often be used for little boys' trousers or for a child's one-piece dress or coat, turning the material the other side out if it is the same on both sides. The illustrations on this page show some ways of laying the patterns.

School girls who carry books a great deal sometimes find that their skirts are worn around the top. In that case a yoke can be put in. If the skirt is short, a facing can be put on. Sometimes a skirt can be made a little wider around the bottom by doing that very thing.

Sometimes thin shirtwaists are worn out around the neck and around the armholes. If those are the only worn places, you can cut out the neck and the sleeves and make very pretty corset covers, as shown in the illustration. Of course you have to consider whether they are strong enough to last for any length of time after you make them.

It usually does not pay to put time or energy into making over nainsook or muslin undergarments, because they do not wear well. Once in a while you will find that the long nightgowns wear out on the shoulders and around the neck while the lower part remains good. These may be used for teddy bears, but you will not often find that it pays to spend time on this.

Knit underwear may be cut over for children, as shown in the illustration. In doing this, be careful to make the seams as flat as possible.

Men's madras or silk shirts can all be used to good advantage. They usually wear out on the shoulder and the sleeve, perhaps the elbow, and the lower part is often very good when the rest is past wearing. You can use these for aprons and dresses for little girls. Many times you can make the shirts over into little boys' waists, the sleeves coming out of the sleeves of the original shirt, and the front and back out of the original front and back. Sometimes you can make a little shirtwaist by using a collar of contrasting material and cutting the sleeves off. That would require very little remodeling in most cases.

Men's heavy suits can be made into coats for little girls or overcoats for little boys, while women's cloaks can often be cut down for girls from eight to eleven.

Miss Martha M. McDonald, of the same department of the college, preceded Miss Cowles on the program. She called attention to the fact that some garments have faded and must be dyed before remodeling, and stated that this may be satisfactorily done in the home.

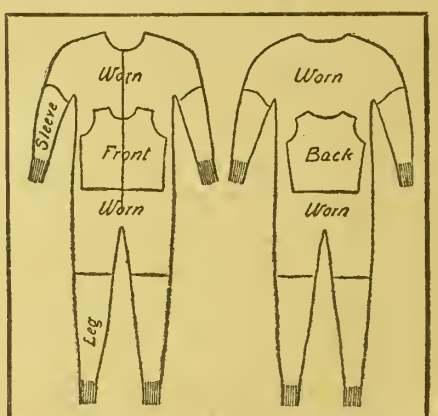
The small package dyes Miss McDonald considers the simplest and easiest for the person who is not accustomed to this work. In using these we have to consider the kind of fiber, whether wool, cotton, silk, or linen, and the texture of the material. These different textile fibers do not take the dye in the same way. With some dyes a different preparation is used for the animal fibers—the silk and wool—from that used for the vegetable fibers—the cotton and linen. There is a difference in the chemicals used which is responsible for the difference in the results. We find that the animal fibers will take the dye a little more quickly than the vegetable fibers. If you have material that is a mixture, say of cotton and wool, there is a question as to whether your material will come out a solid color. It is apt to be a mixed color on account of the material not taking the color evenly.

"Another type of dye," said Miss McDonald, "is that used for putting a light tint on a silk waist. Often a white silk waist has grown yellow, or a light waist has faded until it is too light, and it is desirable to dye it. For this purpose crepe paper may be used, coloring the rinse water the shade desired. Another thing you can get on the market now is a colored soap which may be had in many colors and is used simply as you would use any soap in washing a white waist. Dissolve it in water and wash the waist as usual. It will take on an even tint. This possibly does not give as permanent a color as those dyes that are boiled into the material. It is not necessary to use it every time the waist is washed, but it will probably be needed about every other time. This type of dye is used more for light tints than for the darker colors.

"If one knows a little about color combinations, there will be no trouble in deciding which colors can be used. If your material is white or a light shade, you can use almost any color you choose. If your material is dark, you have to consider the original color to know what color you can combine with it. If you have a light color to dye, you will get the best results by using a darker shade of the same color; for instance, a light blue will take a dark blue color better than any other. In combining colors, of course you must remember that blue with yellow will give you green, or blue with red will give you purple, the shade varying with the amount of dye you use. Of course you know that a red cannot be colored blue. That is an impossibility. Be sure the combination you use will give you the shade you desire. In all dyeing the safe way is to try a piece of goods first and be sure the dye will give the shade you desire.

"The amount of dye needed will depend, of course, on the amount of material that you wish to dye. You will find on the package a statement of the amount of material which may be colored by the contents of the package. The texture of the material will make a little difference, and also the surface of the material. If the goods is coarsely woven it will take up the dye more quickly than if it is tightly woven.

"Follow directions carefully. Most dyes will call for salt to be added, and some for vinegar. Those things are to set the dye, so do not neglect these points. The dye bath should be strained before using it, so that there is no danger of any undissolved dye being left in the water and making spots on the material. Have your material clean when you put it into the dye bath and wet it before putting it in, so that all the material that goes into the bath has the same chance of taking up the dye. Dye all the material that you wish to make

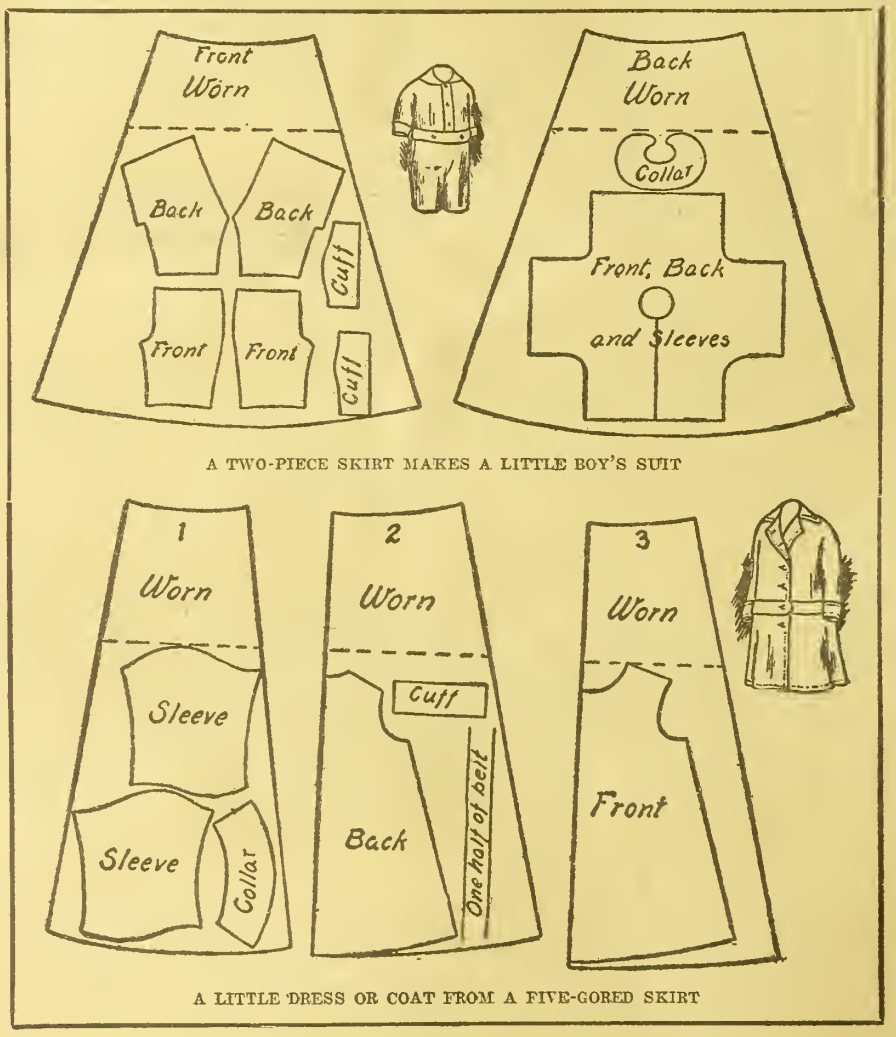


CHILD'S SUIT OF UNDERWEAR FROM UNWORN PART OF AN ADULT'S

the same color at one time. Do not think that you will dye one piece first and the other afterward, because you would have to make a new batch of dye for the second, as a part of the strength would be taken up by the first piece, and you might not get it just the same shade. For this reason it is better to put both in together. Your dye should boil for some time. Follow directions in regard to that.

"Be sure you have a utensil large enough to hold your material well and allow it to move around freely in the water. If you have just enough water to wet the material well, there is danger of spotting it. Stir the goods while dyeing, not briskly, but just keep it moving so that all parts will take the dye evenly. It is interesting to note how the material will not take the dye evenly unless it is free. In fact carpet rags are sometimes tied tightly at intervals purposely to give them a mottled color."

In these times of high prices, it will pay us to spend more time and effort in renovating clothing than when new goods could be purchased at less expense. Many of our discarded garments also contain better material than can be obtained at the present time. Besides the advantage to ourselves in making the best use of what we already possess, we can feel that we are helping to conserve the supply of wool, cotton, and silk, which are all needed by the Government.



A TWO-PIECE SKIRT MAKES A LITTLE BOY'S SUIT

A LITTLE DRESS OR COAT FROM A FIVE-GORED SKIRT

There will be no porkless Saturday until the United States Food Administration learns that such a rule is again needed. Neither is the food administration asking for meatless meals on any day except Tuesday. Tuesdays are to be beefless and porkless in the homes of the patriots as before.

Save energy by doing farm work with a gasoline engine whenever it is possible. A good engine will perform any work to which it is adapted much cheaper than it can be by hand or frequently by horsepower.

Measuring Hay In Stack

THOUSANDS of tons of hay are sold annually by measurement in the stack or rick instead of hy weight. To determine the most accurate methods for measuring hay the Department of Agriculture, through its Farm Management office, made a somewhat extended investigation covering a period of several years. T results have recently heen given in Circular 67 from the office of the Secretary of Agriculture. The formulas given are prohably the nearest approach to accuracy in measuring hay that have as yet heen worked out.

The first difficulty in ohtaining an accurate formula results from the great variation in the shape of ricks or stacks, but even if it were possihle to ascertain accurately the numher of cuhic feet in a rick, there is still another difficulty hecause there are wide variations in the compactness of hay in bulk.

The numher of cuhic feet in a hay rick is equal to its length multiplied hy the area of its cross section. The length is easily measured. Getting the area of the cross section is more difficult. If the top of the rick were perfectly flat and the two sides straight up and down, the area would he simply the width multiplied hy the height. If it were a perfect triangle in cross section so that the sides represented straight lines from the top to the hottom on each side, the area of the cross section would he one-half the product of the base or width and the height. The actual area is somewhere hetween these two.

It is difficult to measure accurately the vertical height of a rick, but it is comparatively easy to measure the "over," which is the distance from the ground on one side over the top to the ground on the other side. This measurement is always somewhat more than twice the height. It has heen found hy actual measurement that the area of the cross section of a rick is the product of this over measurement and the width multiplied by a fraction varying from .25 to .37, depending on the height and fullness of the rick. If it is low and nearly triangular in outline the fraction is small. If it is tall in comparison to its width and the sides are very full so that the top is well rounded, the larger fraction is used. In order to rememher this formula the Department specialists have called it the Fowl formula. F represents the fraction, O the over, W the width, and L the length. The resulting product is the volume or cubical contents of the stack. In order to know what fraction to use for the F, the nine different shaped stacks illustrated in the cut are given, each one having its F value indicated. If the shape is intermediate between two of these shapes, a fraction intermediate may be used. To illustrate the application of the rule, let us assume a hay rick measuring 30 feet over, 14 feet wide, and 30 feet long, and of the general shape of No. 8 in the cut. The volume, then, would he .34 × 30 × 16 × 30, or 4,284 cuhic feet.

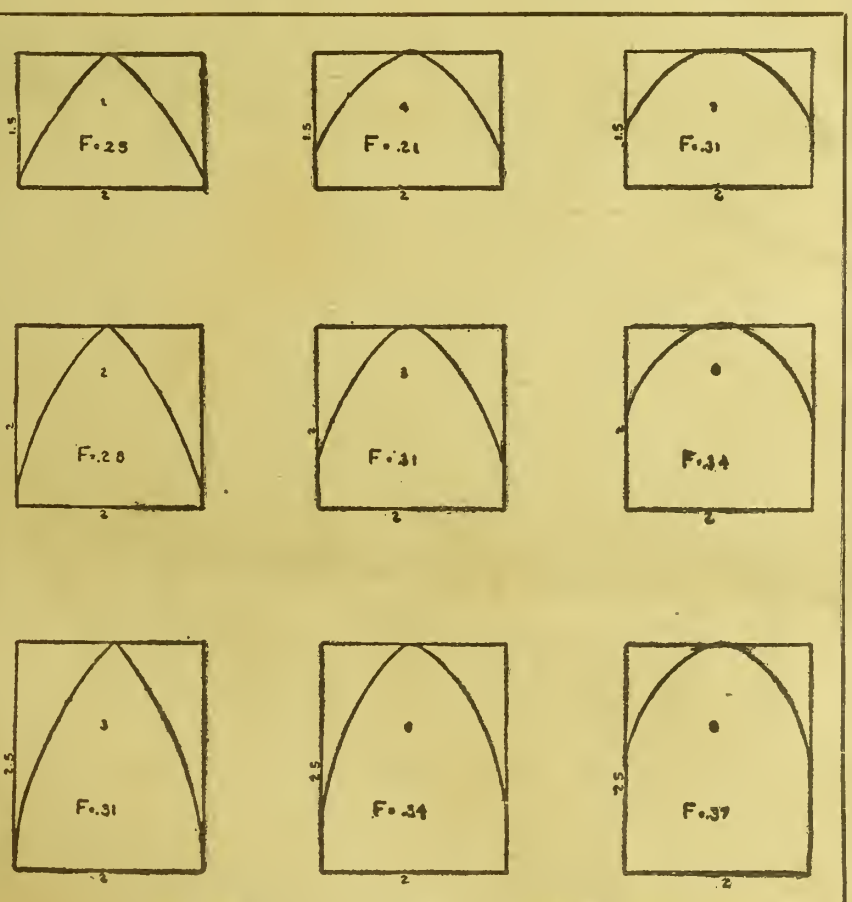
Measurements must he made as accurately as possihle. Ricks are more often measured short than long, hecause the corners are not square. There is less danger of measuring the over wrong than either of the other two measurements. A method suggested hy the author of the circular for measuring width and likewise length is to use two stakes stuck in the ground at the sides of the stack. By sighting along the side of the stack at a distance of fifty or a hundred feet, the stakes can easily be placed at the exact point desired to indicate the dimensions of the stack.

In measuring a round stack, it is necessary to get the height accurately. This can be done as illustrated in the cut. The two points A and B are marked on the ground on opposite sides of the stack at as nearly equal distances from its center as possihle. The cord is then thrown over the stack, stretched gently, and marked to show its length from A to B. It is then placed on the ground as shown in the cut, the points A′ and B′ being exactly the same distance apart as A and B. By placing the cord in the same shape which it had when drawn over the stack, the height can be measured on the ground.

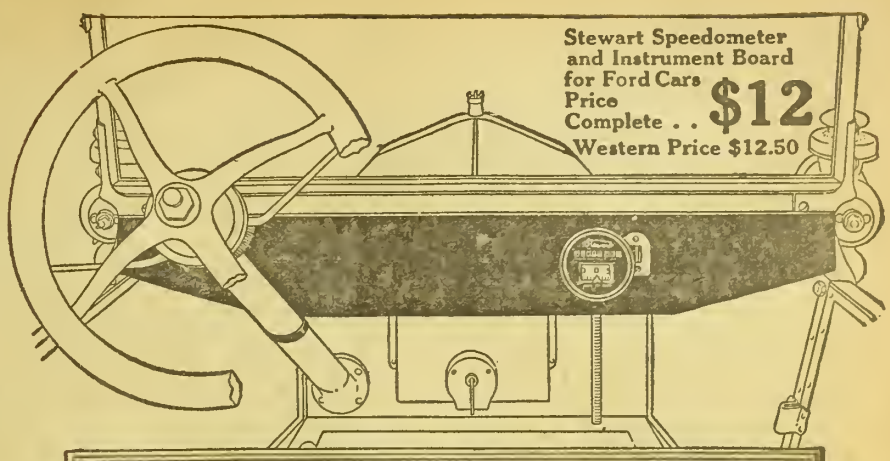
The fundamental formulas for calculating the volume of the round stack are necessarily rather complicated. These are given in the circular, but since its publication its authors have developed from the formulas a somewhat simpler working rule that serves all practical purposes. This rule is as follows: Multiply the circumference of the stack at the ground hy the height of the shoulder, or "hulge." Multiply the circumference at the shoulder hy half the height above the shoulder. Add these two products together and multiply the sum by one-twelfth of the circumference at the shoulder. This will give the numher of cuhic feet in the stack.

In connection with this study which the Department made of measuring hay, ninety-two stacks were measured and later weighed out in order to determine the average number of cuhic feet in a ton. The stacks were mainly timothy or a mixture of timothy and clover in which the timothy predominated. They were measured just before haling and the hay was weighed just as it was baled from the stacks. Fifty-five of the

(Continued on Page Twelve)



CROSS SECTIONS OF HAY RICKS OF DIFFERENT SHAPES



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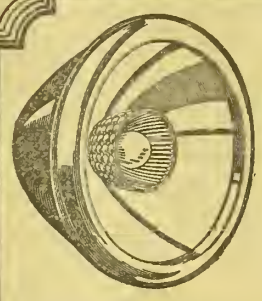
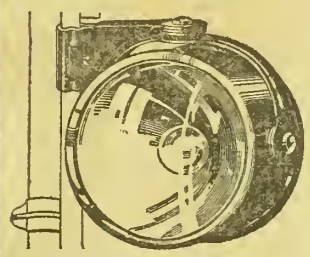


Stewart Lens per pair $2.00



Stewart V-Ray Searchlight $5.00

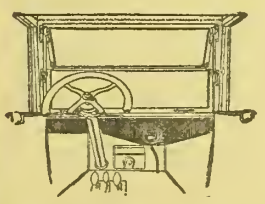


Special Ford Model

Stewart V-Ray Spark Plug $1.00



Stewart Warning Signal Hand-operated $3.50
(Motor-driven type $6)



Stewart Speedometer and Instrument Board for Ford Sedan and Coupelet models Price, complete $15.00
Western Price $15.50

Stewart Accessories For Ford Cars

When you buy accessories for your Ford car, get the best. Insist on having Stewart Automobile Accessories.

Costs you no more to get the best, in the first place. And, in the long run, it is cheapest.

Stewart Accessories for Ford cars are the best that your money can buy. There are none better sold at any price.

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Back of Stewart Accessories stands the world's greatest accessory manufacturers—an organization with unlimited resources and manufacturing facilities. This fact alone insures the continued superiority of Stewart Accessories.

You need Stewart Accessories on your Ford car. They enable you to get more pleasure, better service, and greater satisfaction out of your motoring.

The Stewart line for Ford cars is complete. Note how varied it is. Examine the illustrations on this page. Each shows an accessory you need — an accessory that will make your Ford a better car.

Take the Stewart Speedometer and Instrument Board for example. This Stewart Product is an absolute necessity on any car.

You are depriving yourself of half the pleasure of motoring if you have no Stewart Speedometer. You need it to tell you how far and how fast you drive; to avoid arrest for speeding; to check your gasoline and oil consumption and your tire mileage. You need it for following road guides. You need it wherever and whenever you drive.

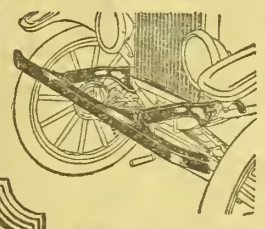
The Stewart Instrument Board will "dress up" your car — adds to its appearance. Fills up that unsightly gap below the windshield. Brings the speedometer up into position where it can be easily seen Rests tight against the steering column Elliminates vibration from the steering wheel Easily installed in a few minutes. No bolts, screws or brackets to fuss with. Clock, headlight switch, starter control and other accessories can be easily added. Made of wood with black satin egg-shell finish. Speedometer is mounted flush. Adds a finishing touch of elegance to the Ford car.

Then there are the other Stewart Accessories for your Ford. The Stewart Autoguard for the front and rear are needed for your car's protection. The Stewart V-Ray Searchlight is indispensable. Stewart Lens makes every road bright and clear as day The Stewart Warning Signal warns and clears the way for you in any traffic. Stewart V-Ray Spark Plugs put an end to your spark plug troubles.

Each of these Stewart Accessories is a motoring necessity. Don't be without them another day.

Stewart Accessories are sold by leading jobbers, accessory dealers and garages everywhere.

Stewart-Warner Speedometer Cor'n
CHICAGO, U. S. A.



Stewart Autoguard for Ford cars $7.50
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Stewart Autoguard Tire-carrier for Ford Cars $11.50
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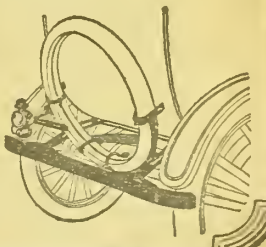
With Nickel Rail, $12.50
(Western Price $13.50)





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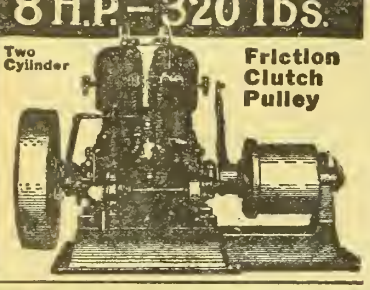

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KANSAS FARMER DAIRY CLUB

More Dairy Club Prizes

IN THE first year's work of the Kansas Farmer Dairy Club seven grand prizes were awarded. The names of the winners of these prizes were published last December. Since that time we have received $10 in cash to be used as an additional prize. This comes from a man who has been prominently identified with dairy interests of the state for a good many years and who has been an officer in the Kansas State Dairy Association. Max Hollister, of Sedgwick, and Theresa O'Mara, of Colony, were tied for eighth place, and we have decided to split this $10 cash prize between them, giving each $5 and the honor of winning eighth place in the contest.

Early in the year's work, in order to encourage the members to write letters and send interesting photographs, we offered some special prizes, the first being a cash prize of $3 and a year's subscription to KANSAS FARMER to be awarded to the member writing the largest number of letters containing interesting statements of the work and sending photographs. We have received a large number of letters from different club members, and some most interesting photographs illustrating the work of the club. Many of these letters have been printed from time to time in the Dairy Club Department. Cuts have also been made from such photographs as were clear enough to be used for that purpose. These have been used to illustrate the letters received from members telling of their work.

It has not been an easy matter to award the prizes for these letters and pictures. After considering them all carefully, however, we have awarded the first five places as follows: First, Ernest Asbury, Easton, $3 cash and one year's subscription to KANSAS FARMER; second, Paul Studdard, Leavenworth, $2 and one year's subscription; third, Dora Brader, Oswego, $1 and one year's subscription; fourth, Lela Mae Haynes, Atwood, one year's subscription to KANSAS FARMER, and fifth, Theresa O'Mara, one year's subscription.

Seal Your Cream Cans

Do you carefully seal your cream cans before starting them on the road to the creamery? If you ship your cream yourself, you may suffer a considerable loss by not observing this precaution. A good many things can happen to cream between the time it leaves your wagon and the time it reaches the creamery. One of the large creameries buying cream in Kansas is now prosecuting a vigorous campaign urging all its customers to seal their cans carefully. They are doing this with the idea of protecting their patrons from the pilfering and spilling of cream en route.

If you prepare your own cans for shipment, run the wire through the hole in the lid and can twice and then through the lead seal and mash the seal carefully. Simply twisting the wires together, as is so frequently done, does not constitute an effective seal. Unless there is a link on the can to hold the lid from getting lost, both sides should be sealed.

State in Dairy Business

The State of Kansas owns a dairy herd of 850 cows, sixty of which are pure-bred animals. These are exclusive of the dairy cattle belonging to the dairy department of the Agricultural College. They are the cattle kept at the various state institutions to supply milk and other dairy products to the inmates. There are twelve of these institutions in Kansas having dairy herds, and all but one have cattle of the Holstein breed.

The State Board of Administration has placed the supervision of these dairy cattle in the hands of the dairy department of the Agricultural College. Before this move was made a great deal of assistance had been rendered the different institutions by Prof. O. E. Reed and others of his department in getting together the cattle at the different institutions. Looking after these different herds is a job big enough to keep one man busy. To L. H. Fairchild, assistant in dairy husbandry, has been assigned the duty of supervising the care and management of the various herds. He will look after the breeding and feeding, the handling of products, and the sale of the young stock. The herds of these institutions have been visited twice this year. At least four inspections of the herds will be made annually.

Kansas is the first state to adopt a plan of this kind. The state institution herds, through the help of the dairy department, can be built up in such a way as to be a great benefit to the state as a whole. They can be especially helpful in the communities where the various institutions are located. With this sort of supervision there is no reason why these various herds should not become the best bred and best developed herds in the various sections of the state where they are located. The plan of having them supervised in this way facilitates the exchange of herd sires and should make it possible to use the very best of animals at a minimum of expense.

The State Hospital at Topeka has the largest herd—125 head. Accurate daily milk records are kept at all the institutions. Other herds included in this supervision are: Boys' Industrial School, Topeka; Orphans' Home, Atchison; State Prison, Lansing; State Hospital, Osawatomie; Hospital for Epileptics, Parsons; State Home for the Feeble-Minded, Winfield; State Industrial Reformatory, Hutchinson; State Hospital, Larned; Soldiers' Home, Dodge City; State Sanitarium for Tuberculosis, Norton, and the Girls' Industrial School, Beloit.

Kansas College Ayrshires

Seven Ayrshire heifers sired by the Kansas Agricultural College senior herd bull, Melrose Good Gift, have just completed yearly advanced registry records as two-year-olds. The seven heifers have all produced more butter fat than their dams produced at the same age. The average record of the dams with their first calves was 6,511.7 pounds of milk and 253.5 pounds of fat, as compared with 10,394 pounds of milk and 404.4 pounds of fat, the yearly records of the daughters with their first calves.

The best heifer, Melrose Canary Bell, is out of Canary Bell, the Ayrshire that holds the state record for all breeds in Kansas for a living cow. This heifer produced 13,785 pounds of milk and 502.91 pounds of butter fat last year as a two-year-old. With this record of production she won the French prize cup offered by Miss C. A. French, of Boston, for the best record of a two-year-old Ayrshire. This record places Melrose Canary Bell in third place among the two-year-old Ayrshires of the world.

Another heifer, Bangora Melrose, holds seventh place among the two-year-old Ayrshires. Her record for the year is 12,562 pounds of milk and 482 pounds of butter fat.

The records certainly show the prepotency of the herd sire Melrose Good Gift. He is still in active service in the college herd. The heifers referred to are his first seven daughters to freshen.

Plows Eight Acres in One Day

The Prairie Dog Tractor is a wonder. It is a small, light tractor with great strength and speed. It will do your plowing, harrowing, listing, planting, drilling. It pulls your binder, mower, corn harvester, manure spreader, and is equipped with belt pulley with 18 horsepower under the belt that will grind your feed, pump your water, saw your wood, and do every kind of farm work. The Prairie Dog is a time-saver and a money-maker. The price is surprisingly low. There is some satisfaction in this machine, as you can run it on high or low speed, handle it like an automobile, and it is full spring mounted and rides as easy as a buggy.

The Prairie Dog Tractor will do the work in one day that a team will do in four, and you can plow your ground and work it while it is in good shape to work—ahead of the drouths and ahead of the floods. Remember the price is right. Send for free circular and full information today. It will pay you big.

Kansas City Hay Press Company, Kansas City, Mo.—(Advertisement.)

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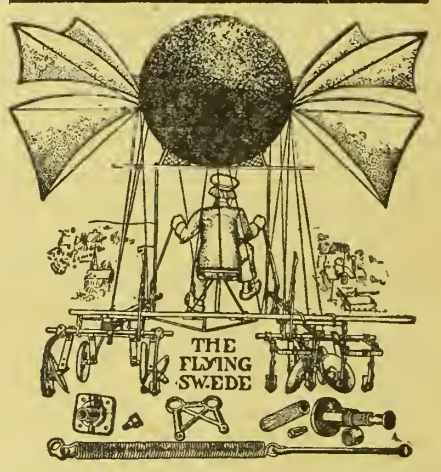

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WEEKLY EAGLE
WICHITA KANSAS
65 CENTS FOR 3 YEARS
KANSAS' GREATEST FARM WEEKLY



Silo and Beef Production

THE silo is absolutely essential to tbe re-establishment of the beef industry on a profitable basis. This is the conclusion reached by Howard M. Hill, one of the prominent cattle breeders and feeders of Southeastern Kansas. It is the opinion of Mr. Hill that it is no longer possible to feed cattle economically without the use of silage. In the March news letter sent to Montgomery County Farm Burcau members by E. J. Macy, county agent, Mr. Hill makes the following statements:

"Necessity demands that we use every ounce of tbe corn crop in the form of silage, and long trials have demonstrated that it is a safe and sane feed for cattle and almost entirely eliminates risk of loss. Ten tons to the acre is not an unusual yield. With that yield and the use of other roughness that would largely be wasted, and only a small amount of concentrates in the shape of linsced meal or cottonseed meal, we can fatten well-bred feeders profitably at present prices. With twenty pounds a day of silage and only a small amount of other roughages, and witb a little alfalfa bay or concentrate, young cattle can be profitably grown and breeding cows maintained.

"By the use of the silo the beef problem will be solved and the grain of the corn will be released to fatten hogs, thus solving the pork production problem and eliminating the competition between these two meats as far as production is concerned.

"Tbe silo will not only re-establisb tbe beef industry on a profitable basis, but through the use of the resulting animal manure in great quantities will restore the fertility to our depleted soils and increase our yields without expensive commercial fertilizers.

"The silo is the big gun of the farm for winning the war, and every farmer who builds a silo will be doing more than he could possibly do in the trenches toward winning the war.

"High feed costs are also making us more appreciative of the value of grass, and good grass land will increase materially in value and with that increase will come more careful use of much grass tbat goes to waste every year on almost every farm. But the man without good bottom land can maintain and grow cattle profitably on silage the year around if he cares for the resulting manure. The farmer or the community that now prepares to maintain increased live stock will be taking out absolute insurance against loss from depression in values when the war is over."

This is a strong endorsement of the silo, and coming from a man who is recognized as one of the most successful live stock men of the state, should carry much weight.

J. M. Keitbley, owner of a 2,000-acre farm in St. Charles County, Missouri, makes the statement that all that saved him last winter was his silos. Mr. Keithley fed 200 steers, 1,500 sheep, and several carloads of hogs the past season. He has two silos with a total capacity of 350 tons. As soon as they were emptied he refilled them with corn fodder from the sbock. This he ran through a cutter and wet it thoroughly as it went into the silo. It makes fairly good silage if enough water is used and it is well tramped. It makes it possible to effect quite a saving in the use of the roughage. Mr. Keithley says: "I am unable to understand why farmers and stockmen generally do not build silos. Silage is the cheapest of all feeds, and the most easily handled. It enables the live stock farmer to carry cattle of all kinds tbrough the winter at less expense than that for which they could possibly be wintered in any other way."

Breeders' Sale a Success

The eighty-two Holstein cattle sold last week in the breeders' sale of the Holstein Association of Kansas were the finest lot of Holstein cattle ever assembled in Kansas. They were the cream of the herds from which the consignments came. The men who made this sale possible deserve a good deal of credit for making such fine selections. They were determined to make some Holstein history for the state in this first Association sale, and the results certainly justified the effort. The young breeder or dairyman looking for foundation stock could not go amiss in purchases made at this sale.

The cattle were sold largely in the cattle barn at the fair grounds. This is a fine barn in which to display cattle while in tbe stalls, but the crowd was so large that only a few could get around the sale ring so as to see the animals as they were led in. The sale ring arrangements were most inadequate for such an event. A good deal of the value of the sale, especially from an educational standpoint, was lost because of this lack of seating arrangements for the large number of people present. We trust the managers of the next sale will take steps to correct mistakes made in tbis initial sale of the Association.

Fair prices were paid, the average of the eighty-two head sold being $326.76. There were no unusually high prices nor were there any animals that sold for low prices. The buyers got their money's worth in every animal going through the sale ring. In some few instances tried cows could safely and profitably have been bought higher than the final bid.

Only a few bulls were sold. The top of the sale was the yearling bull, North Star Champion Lad, consigned by Dr. J. T. Axtell, of Newton. This bull's dam is a tbirty-pound cow and all his close-up ancestors have high production records. He went to Edward Fitzgerald, Jamestown, for $910. The top cow was from the herd of Lee Bros. & Cook, Harveyville. She went to Herman Baum, of Newton, for $605. Harry W. Mollhagen, of Bushton, sold a fine cow for $500 and her five-months-old heifer calf for $350. Considering age, this heifer calf might almost be called the top female of the sale. Segrist & Stephenson, Holton, sold one of the outstanding cows of the sale, Lady Maude De Kol Pietertje. This animal is not only a high producer, but a show cow. She has won eight blue ribbons out of ten shows and also won a grand championship. Space will not permit enumerating the full list of sales, but every breeder had put in cows and heifers he would have left to the very last if he had been culling his herd. Tbese men who had the nerve to make such consignments and risk the chance of there being buyers who were willing to pay what they were worth, deserve special mention and the thanks of every dairyman in the state, and particularly those interested in Holstein cattle. The list of consignors is as follows: J. T. Axtell, Newton; H. D. Burger, Seneca; D. M. Cahill, Coffeyville; David Coleman & Sons, Denison; Ira F. Collins, Sabetha; L. F. Cory & Son, Belleville; T. M. Ewing, Independence; Lee Bros. & Cook, Harveyville; J. P. Mast, Scranton; Harry W. Mollhagen, Bushton; Mott & Seaborn, Herington; Robinson & Shultz, Independence; Ben Schneider, Nortonville; F. J. Searle, Oskaloosa; Segrist & Stephenson, Holton, and Otto Stuewe, Alma.

The annual meeting of the Holstein Association of the state was held the day preceding the sale, and in the evening some of the business men of Topeka entertained the visiting breeders at a banquet in the Chamber of Commerce rooms. There were 125 present at the banquet. In the election of officers, which took place in the afternoon, Ben Schneider was re-elected to the office of president; A. B. Wilcox, who has recently purchased a farm near Topeka and moved his herd from Abilene, was elected vice president, and A. S. Neale, of Manhattan, was elected secretary-treasurer. The terms of three of the five directors having expired, their places were filled by the election of George Lenhert, Abilene; T. M. Ewing, Independence, and Harry W. Mollhagen, Bushton, Mr. Mollhagen succeeding himself. By vote of the Association a sales committee was named by tbe board of directors, this committee to handle future Association sales. The secretary and the president were made advisory members of the sales committee. The board named as this sales committee George Appleman, Mulvane; W. H. Mott, Herington, and C. W. Dingman, Clay Center.

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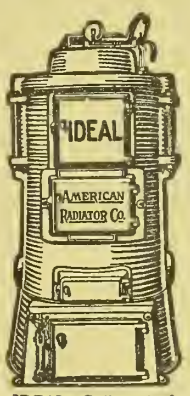

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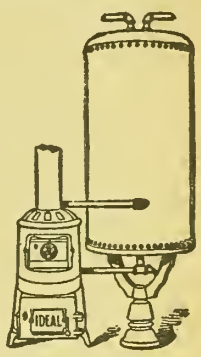

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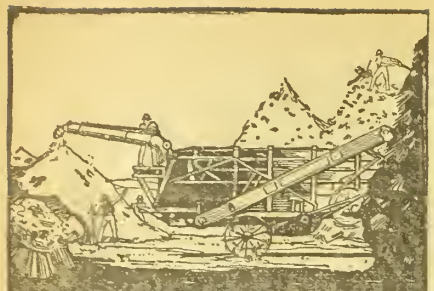

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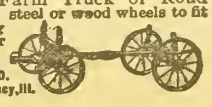


Electric Wheel Co.
34 Elm St., Quincy, Ill.

FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

KEROSENE as a fuel is coming into general use for farm tractors. To use this most successfully, J. B. Bartholomew, president of one of the large tractor and farm machinery companies, states that the following principles of design and construction are necessary:

First—A double carburetor with one side connected to the gasoline supply tank, which can be properly adjusted and used for starting and heating up the motor.

Second—The other carburetor connected to the kerosene or distillate supply tank and properly adjusted so that the intake air lines to the motor may be instantaneously switched from communication from one carburetor to the other as the circumstances may require.

Third—The pipe lines from the kerosene or distillate tank must be through some portion receiving heat from the exhaust that will raise the temperature of this low grade fuel to a point not above 90 nor below 75.

Fourth—The kerosene carburetor must have its inlet connected to a housing around the exhaust pipe so that when the exhaust pipe becomes heated the air passes into the carburetor at a temperature not below 80.

Fifth—With the air and the fuel at the temperatures above given, meeting in the carburetor, the mixture is readily formed.

Sixth—The mixture thus formed must be turned into gas (air charged with kerosene is not yet gas) therefore in traveling through the intake pipe it must now be brought in contact with surfaces of the intake pipe made hot on the exhaust pipe (called a gasifier). Passing over these heated corrugated surfaces in a circular path and finally traveling upwards into the cylinder the centrifugal action throws the heavier particles of kerosene against the heated wall and the heat transforms the kerosene-charged air into a dry gas which will instantaneously explode and burn up completely.

In this method, observe that it is the heavier part of the mixture that comes in closest contact with the heated portion of the corrugated walls, while the lighter portion, and consequently the more perfect part of the mixture, comes less in contact and therefore absorbs less of the heat, thus the lighter and better form of mixture is relieved from overheating. To over-heat the lighter portion of the mixture destroys its power, for the reason that the hotter the mixture gets, of course, the less expansion there is left in it.

Seventh—In the passageway between the gasifier and the intake valve must be provided a valve through which outside air can be taken in which will temper this gas mixture and reduce the temperature of it and thereby prevent the loss of expansion due to the temperature required to gasify the mixture.

Eighth—Provision for injecting water with kerosene and low grade fuel is necessary to prevent carbon deposits and pre-ignition. It is not necessary to start the water for a few minutes and in some conditions of temperature very little water is required. When pre-ignition takes place water is required, but just enough to prevent it. Too much water is evidenced by a white vapor through the exhaust.

Ninth—The thermo-syphon system of circulating the cooling water is important in burning kerosene because it automatically starts the water circulating as soon as sufficient heat has accumulated in the motor for burning kerosene. A circulating pump is objectionable because at certain seasons of the year the cooling water is circulated too fast and keeps the temperature of the motor too low, causing condensation in the cylinder and when the mixture is not thoroughly gasified, or becomes condensed, the passage of fuel by the piston is sure to be the result.

Tenth—The motor parts must be thoroughly lubricated. Oil must be automatically supplied to them while in operation. The mechanical oiler dropping small quantities of oil on these cylinder parts is inadequate and yet would be too expensive if the oil only passed once over these parts and then went to the bottom of the crank case and drained out on the ground. The importance of thoroughly lubricating the connecting rods, main bearings, pistons and all working parts of the motor cannot be over-stated. The necessity therefore of so handling the kerosene and other low grade fuels as to prevent blowing it by the piston rings is not only the most economical in the use of fuel but also in the use of lubricating oil. Any motor passing the lubricating oil through the working parts and then on to the ground without making any further use of it, is an admission that kerosene passes the piston.

Eleventh—The four-cylinder opposed type of motor not only lends itself admirably for motor work generally because it can be applied to a tractor without the employment of a bevel gear drive, without making the machine excessively wide and without throwing the weight too much forward or too much rearward but placing it central where it belongs—but in addition to that it possesses features that are very advantageous in the use of kerosene and low grade fuels because two of the cylinders are far removed from the other two, thereby the heat accumulation in one center is not excessive and permits of the use of two gasifiers, one for each pair of cylinders, which if not entirely impossible would be very difficult to accomplish were all four side by side.

Twelfth—It also possesses another feature of great importance in a kerosene-burning tractor and that is that only two main bearings are required. A rugged crank shaft can be provided and the main bearings made adjustable by the use of ordinary tools and without dismantling any piece or part of the motor. A crank shaft with three or more bearings is not only hard to keep in alignment but incapable of ready adjustment.

Thirteenth—It is clearly apparent that the valve in the head and the removable cylinder walls are important elements in the construction of a kerosene-burning tractor motor. The valve in the head eliminates the dead pocket in the combustion chamber. The greatest economy can not be established when useless dead pockets filled with explosive material at each explosion stroke are wasted. Removable cylinder walls can be made of a harder and more dense casting, which gives longer wear, and it is also important to remove the lime and scale that will accumulate on the cylinder wall, to prevent over-heating. The removable cylinder wall provides a means by which this can be readily and successfully accomplished.

Tractors for War Service

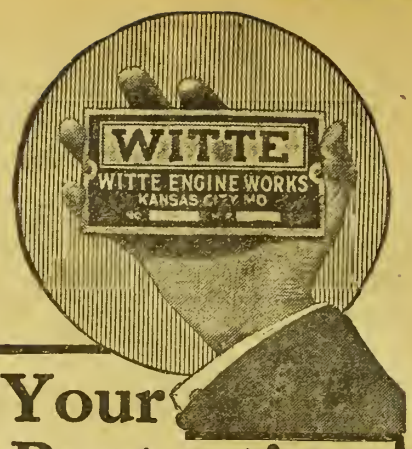
Forty tractors will be used in Pennsylvania under the direction of the Pennsylvania Committee of Public Safety and Defense. Owing to the serious labor shortage, this committee received an appropriation for the purchase of these tractors. Each tractor is to be operated by two trained men and will work in two shifts of nine hours each daily, thus giving eighteen hours of continuous service on the farm where they are engaged. They will be sent into nearly every county in the state, going especially to localities where they are needed to insure the planting of large corn and oats acreages.

The charge for this tractor service to those taking advantage of it has been placed at $3 an acre for plowing, $1.50 for disking, and 60 cents an acre for harrowing. This charge covers all expenses incidental to the work except the hoarding and lodging of the operator. A good many applications have already been received. In order to get a tractor in any specific district, it is necessary to have enough farmers co-operate to contract for at least 120 acres of work.

The State of Ohio is financing the purchase of tractors by farmers to the extent of one million dollars. This is in the form of loans handled through local banks. In order to give instruction in the use of tractors, a school has been opened up on the state fair grounds at Columbus. Twenty tractors have been furnished by manufacturers for use in teaching.

"Food will win the war—don't waste it. Produce more with power," says Power Farming, which prints this slogan on the cover in bold type that looks like the handwriting on the wall for the kaiser.

We must meet sacrifice at the front with sacrifice at home.



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Are made in the largest exclusive engine factory in the world, selling direct to user. Standardized construction in all sizes, all parts interchangeable, easy to understand, install, use, operate and own. I can save you $15 to $200, can make immediate factory shipment. My new copyrighted book, "How to Judge Engines" tells the whole story, FREE on request. Write for it—read it before you buy any engine.—ED. H. WITTE, Pres.

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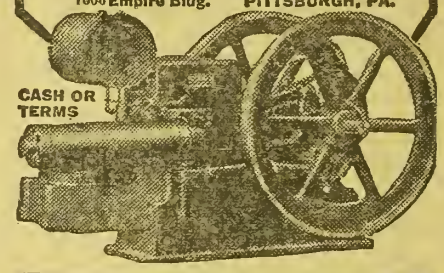



¶There are thousands of splendid opportunities for you in these three states to either rent good farm land or buy it, paying down no more than the $7 to $10 per acre you are now paying in yearly rental. Farm products of all kinds, wheat, oats, barley, rye, corn, cattle, hogs, chickens, all command top prices.

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¶We will send you our free Minnesota, North Dakota or Montana booklets, telling how others have succeeded in those states with small capital, and showing where and how you can do as well. We have no land to sell, but are interested in the development of these great states. Your chance is here. Just write today, telling which state you are most interested in. Address

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Save the Chicks

MILLIONS of baby chicks will break the shell to step forth into life this month. How many of these little fellows shall grow into a marketable chicken to increase the supply of meat needed badly by the whole world? How many will grow into pullets that will help fill the egg basket next fall and winter? This is a serious question—one to which every business-like man and woman should give some very grave thought. Here is the situation. There are eight or more chicks hatched for every one raised to market size. What is the reason? Is there any good reason? No; positively no! Thousands of good people are going ahead right now hatching our scores and hundreds of baby chicks without any well-laid, well-thought-out plans for their care, housing, yarding, etc., two months from now. The first few days—the first few weeks of a chick's life, are vitally important.

If mistakes are made now your plans for future months will not be needed. The first thing then is to be certain you are hatching, brooding and feeding the chicks in a correct manner now. This in itself is a big problem, but a very simple one if you will only take it seriously. Look ahead. Ordinary brooders large enough for 100 chicks when first hatched will be too small within a month. Chicks need to get their feet upon the ground—good fresh earth, not soggy, damp, filthy, foul earth. Continually keeping chicks upon a board floor till two weeks or a month old is a poor practice. They may start growing well and look fine for ten days or two weeks only to develop leg weakness, grow thin and "snaky" in appearance about the head; their wing feathers will grow long and begin to droop slightly; the skin and flesh on their toes and legs willl become pale in color and will dry up till they appear like two small bones with skin stretched tight over them. Once a chick is in this condition it is only a matter of days or hours before it has crossed the Great Divide.

A baby chick reproduces its own weight over and over during the first eight weeks, more often than you would think on first thought. To do this it must have correct nourishment, correct bedding, warmth, fresh air and regular attention.

Green food, mineral food, grit and animal food in correct portions and clean quarters are necessary to the best possible growth of baby chicks. We cannot keep their quarters too clean or pure. Mites and lice cause the death of as many chicks each year as there are raised to maturity.

Baby chicks need variety if possible. Baby chick scratch grains besides mash food should be supplied. Food furnished that is not properly balanced is feed wasted and possibly chicks too. Many feed too much of one thing and not enough of another. Under present conditions we must face the situation of high-priced feeds. Certain grains and ground foods are either not available in different localities or so high in price poultrymen cannot afford their use. Situations like these are what make it necessary for you to plan ahead—to take your work, your responsibility of raising the youngsters, seriously. There is a way around each and every difficulty. This is no time to quit. It certainly is no time to say "I can't do it under present conditions and prices of feeds." Say you can and that you will. Be 100 per cent efficient. Your own lack of doing the things that should be done, when they should be done and in the minner in which they should be done is a greater drain on your pocketbook than high-priced feeds. Experience is a great teacher but it costs a lot of time and money to experiment. Don't waste time, eggs, feed and money. Look ahead and do it right. Decide what you should do and how you should do it, and then do it. Keep ahead of yourself. It's really too late to plan on what work should be done today. That is quite like mending the roof after the rain. What shall be done later? That is the question. Look ahead days, weeks, months, to insure your success. Be sure you are right, then go ahead and, as the great Grant said, "Fight it out on these lines if it takes all summer." — RUSSEL F. PALMER, American Poultry School, Leavenworth.

Tankage for Hens

When tankage of good quality is more readily available than meat scrap, it can likely be combined with corn to make a satisfactory ration for laying hens, conclude poultrymen at the Ohio Experiment station who have tested the two feeds. The two materials were of practically equal value in a test extending over two years when they were fed with bran and corn in a mash. Shelled corn was fed twice daily in a litter to each lot of thirty hens.

The tankage had a slightly higher value per pound than meat scrap. It constituted 9½ per cent of the ration and the meat scrap 11 per cent. Ordinarily tankage is a little cheaper and contains about a fifth more protein than meat scrap does. Often tankage is used in hog feeding and the same feed can also be used for poultry.

Other feeding tests at the Experiment Station have shown that a simple ration, like corn and meat scrap, is more profitable than a mixture containing a large number of different feeds, at usual market prices. As a supplement to corn for laying hens skim milk may be used instead of tankage or meat scrap if it is available in sufficient quantities.

Buying a Brooder

With increased poultry production this spring and summer, there comes the question of adding certain equipment for rearing the chicks. Where hen-hatching is practiced it is usually best to rear chicks with hens, but where incubators are used for hatching, a good brooding device is indispensable.

If chicks are to be hatched or purchased in lots of less than 150, it will undoubtedly be more economical, both from the standpoint of initial cost and cost of operation, to buy the portable, oil-burning hovers. These have a capacity of from fifty to a hundred chicks each. Where chicks are to be brooded in lots of 150 or more, it is undoubtedly more economical as to both first cost and operation to buy a coal stove colony brooder. These stoves will usually furnish heat for many more chicks than can be successfully fed and cared for in one flock. For good results, not over 400 chicks should be allowed for each stove, and the beginner is safer with 200 to 300 chicks per stove.

Healthy Chicks

Raising chicks is a delightful as well as a profitable pastime. It is a pleasure to see them grow and thrive. There is money in it, too, in these days of high prices. Proper care is the essential thing. Mr. E. J. Reefer, noted poultry expert, has written a Baby Chick Book entitled "White Diarrhea and How to Cure It." He is sending this book free to all raisers of baby chicks. Mr. Reefer has made a fortune in the chick and poultry business and is qualified to give advice. Being a success himself, he tells others how to succeed. Send him your name and address today and he will mail you a copy of this valuable book absolutely free. It certainly pays to read this remarkable book. Address E. J. Reefer, Poultry Expert, 4634 Reefer Bldg., Kansas City, Mo.—(Adv.)

If the scratching litter is becoming too dusty and fine to hide the grain ration as it falls, or if it is getting damp and musty, it should be renewed for the good of biddy's health and the filling of the egg basket. Any clean material, not too coarse or easily broken up, will do for litter. The kind is not so important at this time of the year. On chilly or rainy days when the hens cannot be outside, fresh alfalfa or clover leaves or a little fresh litter will add pep for the day's work and be well repaid in eggs. Forking the litter into piles will help keep the hens interested in life during inclement weather.



Win the War by Preparing the Land Sowing the Seed and Producing Bigger Crops

Work in Joint Effort the Soil of the U. S. and Canada—Co-operative Farming in Man Power Necessary to Win the Battle for Liberty.

The Food Controllers of United States and Canada are asking for greater food production. Scarcely 100,000,000 bushels of wheat can be sent to the allies overseas before the crop harvest. Upon the efforts of the United States and Canada rest the burden of supply.

Every Available Tillable Acre Must Contribute; Every Available Farmer and Farm Hand Must Assist.

Western Canada has an enormous acreage to be seeded but man power is short, and an appeal to the United States allies is for more men for seeding operations.

Canada's Wheat Production Last Year was 225,000,000 Bushels; the Demand from Canada Alone, for 1918, is 400,000,000 Bushels.

To secure this she must have assistance. She has the land but needs the men. The Government of the United States wants every man who can effectively help to do farm work this year. It wants the land in the United States developed first of course; but it also wants to help Canada. Whenever we find a man we can spare to Canada's fields after ours are supplied, we want to direct him there. Apply to our Employment Service, and we will tell where you can best serve the combined interests.

Western Canada's Help Will Be Required Not Later Than May 5th. Wages Competent Help, $50 a Month and Up, Board and Lodging.

Those who respond to this appeal will get a warm welcome, good wages, good board, and find comfortable homes. They will get a rate of one cent a mile from Canadian boundary points to destination and return.

For particulars as to routes and places where employment may be had, apply to

U. S. Employment Service, Dept. of Labor.

St. Louis, Kansas City and St. Charles, Missouri.



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—nothing has solved household problems like Calumet Baking Powder. It has brought happiness into millions of homes—made expert cooks of millions of housewives who never had much bake day "luck."

Its unequalled leavening and raising powers mean big, tempting bakings. The never-varying quality of its wonderful ingredients means the same good results *every* bake day.

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Those who located in Central Kansas 20 years ago are the big farmers today. Their land has made them independent.

Your chance *now* is in the five Southwestern Kansas counties adjacent to the Santa Fe's new line, where good land is still cheap.

With railroad facilities this country is developing fast. Farmers are making good profits on small investments. It is the place today for the man of moderate means.

Wheat, oats, barley, speltz, kaffir and broom corn, milo and feterita grow abundantly in the Southwest counties referred to. Chickens, hogs, dairy cows and beef cattle increase your profits.

You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6 per cent—price $10 to $15 an acre.

Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy-purchase contract. Address

E. T. Cartlidge,
Santa Fe Land Improvement Co.,
1892 Santa Fe Bldg., Topeka, Kansas.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

What the World Needs Most

What are the most important things today, in a world that is emphasizing a multitude of things it calls important? When all things are abnormal, and life itself has to be defined in terms that we have not used before, what shall we say is the greatest task of the Soul of man?

The greatest thing each one of you can do is to conserve and increase your inner spiritual life. You are exhorted, urged and in some cases commanded to conserve food, fuel, time, energy and money. These things are important, but they are not so important as the saving and conserving of the Soul's real life. If that is lost, there is nothing left worth conserving food and fuel for. The very things the world needs most today are the things that money and food and fuel cannot get. If you want to do something that will be a real contribution to the making of a new and better world, you must make of your own life a spiritual reality, at the heart of which is a real passion to love God and keep His commandments, and a love of mankind with a passion to serve its needs.

When Love goes out of the program of life, there is nothing left worth while. It is all that holds the bewildering web of life together. Whatever else you do this Year of your Lord, never let Love go. It is your most important need. It is the greatest need of the poor, distracted, tormented world today. — Dr. Charles M. Sheldon.

How to Use Less Wheat

"Remember that Mr. Hoover expects everyone to eat three good meals a day. If there are children or aged people or invalids, they are not expected to do these things that are asked. It is only meant for people who have normal health." These are the words of Miss Mary F. Rausch, extension lecturer for the home economics department of the University of Washington. In answer to the question, "What does the Government mean when it asks us to use less wheat; what can we substitute?" Miss Rausch makes the following suggestions:

"The Government means just this: Instead of eating white bread, baking powder biscuits, rolls, cake, or pastry made from white flour, that in each of these foods as you make them you take out some of the white flour and use graham, whole wheat, corn meal, potatoes, rye, barley, or any kind of flour or meal that is not white flour. For instance, when you are making pastry, you could use two cupfuls of white flour and one cupful of graham flour or soy bean flour, either of the two making excellent pastry. When you make white bread, use some boiled potatoes so as to save some of the flour, but remember that potatoes are much more moist, so you must use less of your milk or milk and water or whatever liquid you are using. Unless you are a very expert bread-maker, do not try to put more than 25 per cent of the coarser flours into your bread. After you become accustomed to making graham or corn or rye bread you can increase the proportion to about 50 per cent, and you will have good results.

"When you are making cake, if your recipe calls for four cupfuls of white flour, use three cupfuls of white flour and one cupful of graham flour. When making gingerbread, put in a little graham and a little rye flour with the white flour. You will find that the mixture of the flours usually gives very excellent results. For baking powder biscuits use three-fourths of a cupful of white flour and one-fourth cupful of corn meal, and you will have very good results.

"Do not eat any wheat cereals, but use instead any of the corn cereals, rice, barley, or oats. If you have any left-over cereals from breakfast, add them when you are making bread, and use less flour. If you happen to have stale bread, dry it, roll it out, and use it either in making bread or as a substitute for part of the flour in making cake. It is also excellent mixed with an egg and seasoning and used for stuffing chicken. Use some wheat flour in your corn bread, as it is difficult to make good corn bread of corn meal alone.

"Instead of using pancakes made from white flour, use rice, corn meal, oatmeal or bread crumb pancakes. Barley pancake flour is now on the market and is really excellent. If you have stale bread crumbs from any kind of bread, soak them in cold water, squeeze them dry, and use instead of flour.

"Be sure that corn meal or any of the coarser breads are thoroughly cooked. When you use corn meal for a pudding or for a porridge, if you will beat it with an egg beater so that air gets in contact with it, you will find that it has a much better flavor. In adding rolled oats to the flour for bread making, soak them in the hot liquid for half an hour or more. One cupful of boiled mashed potato to two cupfuls of flour makes a good bread.

"All the Government asks you to do is to take some of the other flours in place of white flour. You are not asked to give up wheat bread or to give up the use of white flour entirely. If each family will accede to this very modest request, there will be plenty of wheat flour to take care of the nations we have promised to help, to keep them from starvation, and also for our own soldiers."

What Can We Do for You?

It is the aim of this department to be of practical help to the housewife in adjusting herself to war conditions. The recipes printed each week are in line with the suggestions of the Food Administration.

Bulletins and other material issued by home economics experts at our own Agricultural College and at similar institutions in other states are received regularly at this office, as well as almost daily suggestions from specialists employed by the Food Administration. It is obviously impossible for us to publish anywhere near all the material contained in these that would be helpful to our readers. We give in each issue what seems most timely, but we may have omitted the very thing someone has been looking for. "If you don't see what you want, ask for it"—whether it is a recipe or help with any household problem. If we ourselves are not able to solve your particular problem, we will get in touch with someone who can.

Prune Conserve

2 dozen prunes
½ pound raisins
2 oranges
½ cupful corn syrup
½ cupful water
¼ cupful nut meats

Dried apricots, peaches, or canned plums may be used in this recipe. Wash and cut prunes in pieces. Add chopped raisins and orange pulp and peel, cut very fine, then add corn syrup and water. Cook slowly until it is the consistency of marmalade. Add chopped nuts five minutes before removing from fire.

Liquid Yeast

4 medium-size potatoes
1 quart hot water
¼ cupful corn syrup
1 teaspoonful salt
1 cake dry yeast, softened in ¼ cupful warm water, or
1 cake compressed yeast

Wash, pare, and cook the potatoes in the water. Drain, mash, and return to the water. Make up to one quart. Add the syrup and salt and allow the mixture to cool. When lukewarm add the yeast. Keep at room temperature—sixty-five to seventy degrees Fahrenheit—for twenty-four hours before using. If kept for a longer time it should be poured into a sterilized jar and put in a dark cool place. In making bread a cupful of liquid yeast may be used in place of one cake of dry yeast and one cupful of liquid.

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The Washington Homeseeker's Guide

should be in the hands of every person who is thinking of going West to farm or to raise live stock.

"The Evergreen State" is full of opportunities. Let me tell you about them. If interested, write today for a copy of the above publication, which is ABSOLUTELY FREE.

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Made better, last longer no waste, gives best results, uses less fuel, easy to operate. Prices, $4.50 and up. We furnish cans and labels. Write for FREE BOOKLET.

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A man's armor is never well set to the soul until a woman's hand has braced it.—John Ruskin.

In Germany the use of fried food has been forbidden since almost the beginning of the war. To be really efficient in guarding the food supply in America, we should also give the preference to other methods of cooking.



Plant Only Tested Seed

NO ONE should think of planting any of the grain sorghums this year without a germination test. Not for a good many years has the seed of these grains been as much injured as during the past season. H. A. Vinall, of the Department of Agriculture, who has been buying grain sorghum and cane seed in Kansas and Oklahoma for government distribution, gave the above warning in a letter we have just received. He stated that it was impossible to tell from its appearance whether a given sample of kafir or other grain sorghum will grow or not. Some of the seed which from appearance he ranked high in vitality has shown germination tests as low as 20 per cent. The only way to account for this is that all these grains contained an abnormal amount of moisture last fall when the first heavy freezes came and their vitality was seriously injured at that time.

We were told at the seed testing laboratory in Manhattan recently, where over fifty people, mostly women and girls, are now employed, that the samples sent in for testing my Mr. Vinall were averaging much higher in germination than those being sent in as a result of the seed survey made through the schools. He is an expert in selecting seed, and this might have been expected. But in spite of his skill he is placing no dependence upon his ability to pick seed that will grow without first submitting it to the test. It is because of this experience that he is urging the importance of planting only seed which has been carefully tested to determine its viability.

Seed which is weakened in vitality, even though still able to germinate, will be more apt to fail to produce a strong plant as a result of poor conditions at planting time. A great many stands of kafir lost every year due to this cause. This is one of the drawbacks in planting the grain sorghums and we can look for more than the usual amount of trouble of this kind this year unless the most rigid precautions are taken to plant only strong, viable seed which has shown its vitality as a result of a germination test.

Spring Grain Crops

Too much emphasis cannot be placed on growing the crops best adapted to a given locality. This year the patriotic thing to do is to plant as largely as possible grains which can be substituted for wheat. Spring wheat is suitable only for Northwestern Kansas. In all other sections such crops as corn and the highest-yielding types of the grain sorghums should be grown.

The best war crop for spring planting for 1918 will be governed by locality and type of soil. On fertile soil in the eastern half of Kansas corn is the most profitable grain crop grown. On the thinner uplands of East Central and Southeast Kansas the best adapted grain sorghum will usually outyield corn.

Black-hulled kafir is best in the eastern half of the state except on very poor soils. On the poorer types of soil in this section of Kansas where difficulty is experienced in getting this variety to mature, pink kafir is more satisfactory. In Western Kansas corn is not a reliable crop because of limited rainfall and danger from hot winds in July and August.

Since the grain sorghums, especially the early-maturing varieties, are much more resistant to heat and drouth than corn, they are better producers of grain in Western Kansas than corn, except on some sandy soils on creek and river bottoms.—C. C. CUNNINGHAM.

Pork for Our Soldiers

If we don't win this war it will make little difference whether we raise hogs or anything else in America. We are at war because the kaiser said he would sink all the boats caught by his submarines carrying the product of our farms and factories to our European markets; that the men operating the boats carrying our products would be left to drown where the boats sunk. When he made that threat there was one of two things for us to do—quit shipping our farm products on the sea, let them rot, or take what we could get for them in less profitable markets. We could not afford to close our shops and factories, so we decided to fight. It is our fight and we must send soldiers and feed and clothe and arm them and stay right behind them or get licked and let the kaiser run America. Now which shall it be? It is up to us—you and me.

We can't have soldiers fighting for us unless we furnish the meat. Pork is the best meat and the safest and easiest to ship because it can be cured, and reach them in better condition.

The boys can't fight and also raise hogs. It is up to us to raise the hogs and the wheat and anything else that will help win this war. Pork can be shipped to our army and the armies of our allies to better advantage than any other meat. When working in our fields, or digging ditches, or doing other hard work, we need pork, and miss it seriously if we do not have it. The boys who are fighting our battles at the front, and those who are in training at home, are working hard and at the same time risking their lives that we may enjoy our homes and remain a part of our own government, instead of living under the autocratic domination of a kaiser.—A. E. CHAMBERLAIN.

Barley for Hogs

We have been asked if barley is a good grain for hogs.

Barley will probably supply grain for hogs earlier than any other crop. It is not quite equal to corn for fattening hogs and must be ground. The grains are too small and hard to be chewed and digested properly when fed whole. Pigs do not like barley very well at first, but they will soon become accustomed to it. They will do much better if the ground barley is mixed about half and half with shorts or middlings.

Some have asked whether barley could be hogged off. As a rule hogs do not harvest small grains as satisfactorily as they do corn. In the case of barley there might also be some trouble with the beards, since bearded varieties are the ones commonly grown in Kansas.

Save Your Chicks—Free

Send two names to the Wight Co., 18 Main, Lamoni, Iowa, and they will send you enough Iowite Remedy, absolutely free, to save forty chicks from white diarrhea.—(Adv)

Prices for 1918 Binder Twine

After investigating the cost of manufacturing binder twine, the U. S. Food Administration has announced that the price to the dealers of standard and sisal twine, 500 feet to the pound, should not exceed the present price of sisal fiber, which is 19 cents a pound, by more than 4 cents per pound f. o. b. factory, when sold in carload lots of 20,000 pounds or more. An additional increase of one-eighth cent is allowed for lots of 10,000 pounds and one-fourth cent in smaller lots.

Prices for other grades of twine should not exceed the prices of standard and sisal twine by more than the following amounts: For twine running 550 feet to the pound, 1¾ cents increase; 600 feet to the pound, 3 cents; 650 feet to the pound, 4¼ cents; 650 feet to the pound (pure manilla), 6 cents.

About 80 per cent of the entire output of the binder twine factories of the United States is standard or sisal twine. The retail price should be not more than 1½ cents, with freight added, above price paid manufacturer.

In arriving at manufacturing costs, the Food Administration considered the increased weight of binder twine over its sisal content. This increase in weight is due largely to the cordage oil which it is necessary to use in the process of manufacture. The fact was also recognized that manufacturers have on hand sisal purchased at lower prices or twine manufactured from lower-priced sisal.

While the price of standard and sisal twine this year is about 4 cents above the price prevailing at the end of last season, it is explained that the price of sisal fiber advanced during the manu-

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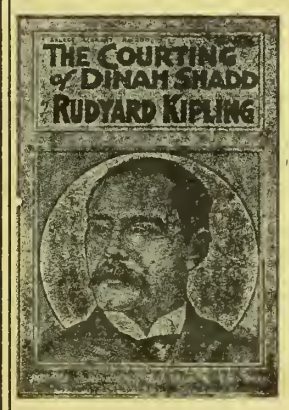

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120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE — REGISTERED HOLSTEIN bull, seven months old. G. E. Berry, Garnett, Kansas.

FOR SALE — A RED POLLED BULL, calved March 8, 1913. There are very few better bulls in the state. Geo. Haas, Route 6, Lyons, Kansas.

REGISTERED HOLSTEIN BULL CALVES, $45; heifer calves, $65, delivered; King Segis breeding. Pond View Dairy, Hutchinson, Kansas.

SHORTHORN BULLS—BULLS OF GOOD quality and good breeding, tracing back to Choice Goods. Just what you want and priced for quick sale. Paul Cashatt, Oskaloosa, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

GOPHER TRAPS.

CLEAN YOUR ALFALFA. POCKET GOpher trap. Send me $3 for one-half dozen. Guaranteed or money refunded. Success Gopher Trap Co., Harlan, Iowa.

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NICE CLEAN PINTO BEANS FOR FOOD or seed, ten cents pound. Send check with order. Fred Hines, Elkhart, Kansas.

ONE HUNDRED FIFTY BUSHELS GOOD recleaned alfalfa seed for sale, $9 per bushel if a quantity is taken. V. O. Johnson, Aulne, Kansas.

FOR SALE—PURE TENNESSEE EVERgreen broom corn seed, $8.50 per bushel. Donald Pierce, Moran, Kansas.

NO. 1 SWEET CLOVER, FARMERS' prices. Sow on oats or fall wheat (rain will cover) and get two crops. John Lewis, Madison, Kansas.

SEND $1 AND WE WILL SEND YOU 12 Concord grapevines, 2 years (postpaid), guaranteed to reach you in good condition. Welch Nursery, Shenandoah, Iowa.

FOR SALE — OLD CORN FOR SEED (Boone County White), in the ear or shelled, $4 per bushel at the farm or station. C. H. Bacon, R. F. D. 2, Hutchinson, Kansas.

WHITE SEED CORN ON COB—LARGE select ears, five dollars bushel. Bin run, good ears, three dollars. Long grain, small white cob. Patterson's Jersey Farm, Fort Scott, Kansas.

RECLEANED, FULLY MATURED RED Top Cane, 10c; Orange, 7½c; kafir, red and white maize, 6c; feterita, 7c; Sudan, 23c per pound here. Send bank draft or money order. Shaw Seed Co., Thomas, Oklahoma.

FROST-PROOF FIELD-GROWN CABbage plants, ready for shipment now. Prices, $1.50 for 500, $2.50 per thousand delivered by mail or express. Orders shipped same day received. Jenkins Plant Co., Sumner, Ga.

PURE SUDAN SEED, GUARANTEED free from Johnson grass. Ten pounds, $2.20; $20 per hundred. Black-hulled kafir, $5.50 per hundred. Schrock kafir, $9 per hundred. All seeds high grade. Recleaned 1917 crop. H. A. Foster, Cleo Springs, Oklahoma.

STRAWBERRY PLANTS FOR SALE—Progressive (Everbearer), 75 cents 100; $6, 1,000; $5 1,000 in 5,000 lots. Dunlap, 30 cents 100; $2.25, 1,000; $2 1,000 in 5,000 lots. Hundred and thousand lots prepaid by parcel post. G. W. N. Howden, 726 Walnut St., Lawrence, Kansas.

SEED CORN RAISED IN EDWARDS County, Kansas, in year 1917. White tests 100 per cent, yellow 99 per cent. Test made by Kansas State Agricultural College. White, $5 per bushel; yellow, $4. If you want the best seed you will have to hurry. P. O. Box 278, Belpre, Kansas.

MISCELLANEOUS.

FOR SALE — ONE NEW ASPINWALL potato planter, one Pugh potato digger, good condition. Inquire at Belvue State Bank, Belvue, Kansas.

HORSES AND MULES.

FOR SALE — IMPORTED PERCHERON pure-bred horse, seven years old, dark gray, weight 1,700 to 1,800 pounds. Sound and O. K. at farm. Otto Meyer, Basehor, Kan.

VIOLINS.

VIOLIN FOR SALE—HAS SWEET TONE. Free trial. Easy payments if wanted. Write Miss Bertha Mardiss, Route 5, Rosedale, Kansas.

THE STRAY LIST.

TAKEN UP—ABOUT THE MIDDLE OF December, 1917, by Alois G. Basgall, residing north of Bison, in Rush County, Kansas, on Route A, one bay mare colt about two years old, cut in left ear. Appraised at $100. Chas. Hopper, County Clerk, LaCrosse, Kan.

TAKEN UP—BY VINCENT KLEYMANN, Edwards Township, Wichita County, on the 18th day of March, 1918, one light bay mare three years old, four white feet, white stripe in face, no marks or brands. Dean Trueblood, County Clerk, Leoti, Kansas.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

Treatment for Worms in Hogs

The popular opinion that soda lye possesses preventive and remedial properties against worms and other intestinal parasites has, by a recent experiment carried out by the United States Department of Agriculture, been proven false. Hogs were fed soda lye for a period of two and one-half months and according to the report the extent of infestations increased during the course of the experiment.

The Department further points out that since soda lye has no effect on parasites in the comparatively simple digestive tract of hogs, in the complex alimentary canal of cattle and sheep its opportunity to influence parasites is further lessened.

A safe and effective hog tonic and worm remedy is offered by the Missouri College of Agriculture as follows: Sal soda, 3 pounds; Glauber's salts, 3 pounds; copperas, 3 pounds; sulphur, 1 pound; charcoal, 4 pounds; and common salt, 3 pounds.

Mix thoroughly and keep in a trough in a conveniently dry place. When the herd is seriously infested with worms it is well to use santonin 6 grains; calomel 4 grains, per hundred pounds weight of hog. Feed in a thin slop after hogs have had no food for a day or two.

In the event that santonin cannot be obtained, satisfactory results may be expected from finely powdered copper sulphate, at the rate of a level teaspoonful to the hundred pounds weight of hogs, given in the manner recommended for the use of the santonin and calomel.

It is advisable to confine the hogs for a period of two days following the administration of the drug, in rather limited quarters apart from the regular hog lots. After the hogs are released from the pen the live worms and eggs expelled by the treatment may be destroyed by a strong stock dip solution or a coating of freshly-slacked lime to prevent reinfestation.

It is a good practice to plow the hog lots and sow the rape or other forage crops at least once during the season. An abundance of wholesome forage is thus procured and the fresh soil surface furnishes conditions almost equal in cleanliness to that of a new hog lot.

FARM AND HERD.

H. L. Michaelis, Kinsley, Kansas, owns one of the good herds of pure-bred Ayrshire cattle in this state. He has the best blood lines of the breed and a very fine lot of individuals. This herd has a good production record and a feature of the herd at this time is the choice lot of record-bred young stock.

C. A. Brock, of Nortonville, Kansas, has made a great success with his herd of Holstein cattle. He is the owner of a splendid dairy farm adjoining the town of Nortonville, and has on hand ninety head of both registered and grade Holstein cows and heifers, comprising forty head of two-year-old heifers that will freshen in Man and June; ten yearling heifers, and forty cows old heifers that will freshen in May and Brock is planning on reducing his herd.

facturing year 1916-17 from 7¾ cents to 16½ cents. In August, 1917, it advanced again to 19 cents per pound, where it has remained to date.

Reports are received every two weeks from the nineteen binder twine establishments of the country, all of which are co-operating with the Food Administration. These reports show that there will be an ample supply of twine for the 1918 harvest.

Feed the Colts

You cannot grow a well-bred draft colt into a big horse without feeding it liberally from birth. Early maturity is necessary and besides if it is not well fed while young, it probably never will develop into as big a horse as if pushed from the start.

Colts should be encouraged to eat early. Whenever they begin to nibble at the mare's feed a low feed box should be provided out of reach of the mother, and in this the colt should be fed regularly. A mixture of ground oats and bran or a mixture of ground oats, ground corn and bran or oil meal is good feed for them during the summer and early fall. Colts must also be encouraged to exercise. If the mare and foal are running in the pasture, exercise and rest are provided naturally. Even though they are on grass, however, the grain mixture should be supplied to the colts once or twice daily, either in a creep at the pasture or in the barn.

If the mare must work, which is usually the case on most farms, the best way to handle the colt is to have a well-fenced lot or paddock or a well-ventilated box stall where the colt can be left while the mare is in the field. The most successful horsemen never think of allowing the colts to follow the mares while at work.

The care and feeding of the mare must be watched closely while she is suckling the colt. She should not be given feed that is too rich and turned out on pasture without making the change gradually. When the mare comes in from the field hot and tired it is sometimes actually dangerous to permit the colt to suck at once. Allow the mare to cool off, and if she is very warm it is safer to draw a part of the milk before allowing the colt to her. In order to keep up the mare's milk flow she should be well fed and there should be no sudden changes. She should also be spared as much as possible from doing the hardest of the work.

By weaning time the colt should be eating a liberal ration of grain and grass or hay. It will be little trouble at this time if the colt has been encouraged to eat early.

Jefferson County Pig Club

The Bank of McLouth, Kansas, was successful recently through its cashier, Eric C. Steeper, and the co-operation of Earl Bower, a breeder of big-type Poland China hogs, in organizing the first pig club in Jefferson County with a membership of thirteen.

Mrs. McCafferty, county club leader, was present and organized the boys into a state pig club.

Poland China bred gilts were selected from the Greenfield herd of Earl Bower and were eagerly taken by the boys. The bank took their notes for the price of the gilts at 6 per cent for one year. The boys signed an agreement to abide by the rules of the club and fulfill the contract specified in the note, and the parents signed an agreement giving their consent to the boys' acceptance of the contract and promised not to appropriate the property assumed by their sons.

The age limit was from ten to eighteen years. The members of the club are Arthur Edmonds, Gleason Freeman, Godfrey Kurasek, president; Charles Kuckera, vice president; Howard Miller, Edgar Miller, Edgar Shrader, Dwight Williams, secretary; George McBroom, Frank Newby, Lewis Lange, Theodore Lange, and Elmer Lange.

Mrs. Jessie Stevens McCafferty, county club leader, and P. R. Imel, state pig club agent, recently called on most of these boys, advising them and inspecting their start in pork production.

Several of the boys gave the hog-rearing proposition very deep and thorough consideration. Their pigs got out the first night and were gone from one to two days. No apparent damage was done except loss of weight and appetite, but that was lost by the boys.

All members of the club were greatly pleased with their big smooth gilts and more would have been taken if they had been available.

The boys are enthusiastic and promise a good showing at the contest to be pulled off next fall on the best pigs raised from these gilts. The amount of pork produced in proportion to amount of feed consumed will be a big factor in winning.

Substantial premiums are to be given by the promoters and an expert is expected to be secured to do the judging.

Mr. Steeper and Mr. Bower are greatly pleased by the results of their first efforts along this line, which are sure to be a big stimulus to the production of pork and pure-bred swine in their community.

Consolidate Hog Records

An effort is being made to consolidate the National Duroc Jersey Record Association and the American Duroc Jersey Swine Breeders' Association. Committees from these two associations met in Chicago January 29 and after due deliberation prepared a written statement covering the various points involved in consolidation. This is now being submitted to all members and a post-card vote is asked on a number of points. One of the points at issue is whether the office of the combined association shall be in Peoria or Chicago, Illinois.

This is a progressive movement and should be backed by Duroc Jersey hog breeders generally. There is always more or less confusion connected with having two record associations performing the same function and such consolidations are always in order when they can be brought about with perfect harmony. The joint committee is urging that all members give prompt attention to the returning of the post cards with the votes properly filled in.

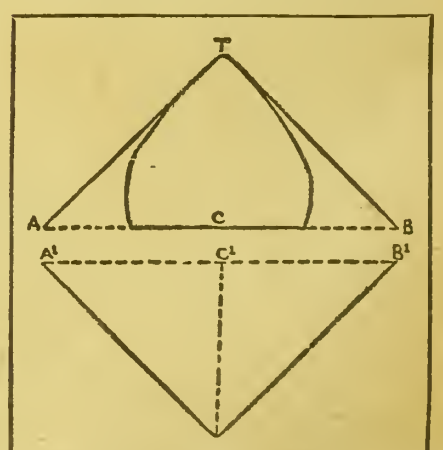
The National Association has just recently constructed a very fine building at Peoria. It would seem that in the consolidation this building should be utilized if possible. The proposition of going to Chicago would involve selling the Peoria building and accepting the offer of the Chicago Stock Yards Company to furnish quarters free, including light, heat, and janitor service. We believe breeders of the Middle West would regret to see the Peoria building sold. It would seem better for the association to keep free and independent of such obligations as accepting the Stock Yards Company's offer would involve.

We hope the Kansas membership will vote 100 per cent. If you are a member and failed to get the ballot or have lost it, write to the National Duroc Jersey Association at Peoria for a copy. It is most important that there be a full expression of all members on the points involved.

Measuring Hay in Stack

(Continued from Page Five)

stacks so measured and weighed had settled less than thirty days, and in these the average number of cubic feet to the ton was 589.6. Of the thirty stacks which had settled sixty days, the average number of cubic feet to the ton was 581.5. The remaining seven stacks had settled from 74 to 155 days and the average number of cubic feet to the ton was 514.9.



MEASURING VERTICAL HEIGHT OF STACK

Alfalfa hay settles much more compactly than timothy hay. The common rule in Kansas is to allow 512 cubic feet as a ton in alfalfa hay which has been stacked thirty days. When it has stood five or six months, the number of cubic feet allowed is 422, and in old fully-settled stacks it is usual to allow 343 cubic feet to a ton.

Reliable Poultry Breeders

LEGHORNS.

CHOICE S. C. BUFF LEGHORNS, FARM range, 100 eggs, $6. J. A. Reed, Lyons, Kan.

L. B. RICKETTS, BREEDER OF PRIZE Winning Single Comb White Leghorns, Greensburg, Kansas.

SINGLE COMB BROWN LEGHORNS—Winners of the blue in four states. Eggs, $6.50 per hundred. Wm. Roof, Maize, Kan.

SINGLE COMB BUFF LEGHORNS, FREE range selected birds. Eggs at reasonable prices. H. H. Hadel, Hillsboro, Kansas.

SINGLE COMB BUFF LEGHORNS—Eggs, six dollars hundred. Thomas D. Davis, Avard, Oklahoma.

SINGLE COMB WHITE LEGHORN EGGS reasonable, from heavy winter layers. Mrs. Ed Lehman, Newton, Kansas.

ROSE COMB BROWN LEGHORN EGGS—Exhibition and laying strains. Mrs. John Holzhey, Bendena, Kansas.

EGGS (YOUNG'S 288 S. C. W. LEGhorns, costing $20 setting), $7 hundred. Elsie Thompson, Mankato, Kansas.

EXHIBITION HIGH EGG RECORD S. C. White Leghorns, $2 per setting, $5 hundred. Egg circular. O. L. Robey, Maryville, Mo.

S. C. W. LEGHORN EGGS FOR HATCHing from extra selected good laying strain, $5 and $7 per hundred. I. H. Gnagy, Hutchinson, Kansas.

ROSE COMB BROWN LEGHORN EGGS, $5.90 hundred, $3.40 fifty, $2.30 thirty. Taken state prizes. Rufus Standiferd, Reading, Kansas.

PURE-BRED SINGLE COMB WHITE Leghorn eggs, hundred, $5. Chas. McFadden, Morland, Kansas.

ROSE COMB WHITE LEGHORNS—EGGS, six years' breeding, $5 per hundred. Mrs. Joe Streeter, Route 5, Hamilton, Mo.

FOR SALE — EGGS FOR HATCHING from the "Hardscrabble" strain of S. C. W. Leghorns. Write for prices. E. M. Wheeler, Jefferson, Kansas.

CHOICE HATCHING EGGS—SINGLE AND Rose Comb Brown Leghorns. Start with bred-to-lay strain. Delivery free. $2, fifteen; fifty, $3.50; hundred, $8. Plainview Farm, Lebo, Kansas.

EGGS FOR HATCHING—PURE-BRED S. C. Brown Leghorns. Fifty eggs, $3.50; one hundred, $6. Mrs. L. H. Hastings, Thayer, Kansas.

FEW CHOICE S. C. WHITE LEGHORN cockerels from my combined egg contest and show room winners, reasonable. Eggs $7 hundred, chicks 15 cents. C. G. Cook, Lyons, Kansas.

EXCELSIOR FARM SINGLE COMB White Leghorns, Yesterlaid-Young strain. Eggs, $5 for 108. Orders filled promptly. Baby chicks, 12c. Mrs. C. C. Cole, Levant, Kansas.

YOUNG, FRANTZ, FERRIS, YESTERlaid S. C. White Leghorns. Heavy layers. Eggs, $6 per hundred. Sold 10,000 eggs for hatching last season. No complaint. L. O. Wiemeyer, Route 1, Anthony, Kansas.

ROSE COMB BROWN LEGHORNS, BRED to lay. Twelve years' breeding. Range flock, winter layers. Selected eggs, $6 per hundred. Blue Grass Stock Farm, Oneida, Kansas.

S. C. WHITE LEGHORNS, "ENGLISH" strain, eggs $8 per hundred; baby chicks $16 per hundred; two-months-old cockerels, $10 per dozen. Sarver's Poultry Farm, Hastings, Nebraska.

S. C. B. LEGHORN BABY CHICKS, $12.50 per hundred. Eggs, $2.50 per setting and $5 per hundred. Sweepstakes and first prize cockerel Kansas State Fair; first pullet, first cockerel, Joplin, Mo. Paradise Poultry Farm, Corona, Kansas.

SINGLE COMB WHITE LEGHORNS—Oldest and best strain in the West. Trapnest egg record, 268 eggs. Our strain has won at Kansas City, Topeka, Wichita, Hutchinson, etc., silver cups, specials. Few surplus hens and three fine cockerels left at $2 each. Eggs, $7.50 per hundred; fertility guaranteed. Mating list free. Mrs. Grace Ackerman, Stewartsville, Mo.

SEVERAL BREEDS

WHITE LANGSHAN, BUFF ROCK AND Ancona eggs. Ellis, Beaver Crossing, Neb.

SINGLE COMB ANCONA AND SILVER Wyandotte eggs, $1.25 per fifteen, parcel post prepaid. Mrs. Cecile McGuire, Pratt, Kansas.

EGGS—BLUE ANDALUSIANS, $6 HUNdred; Blue Orpingtons, $3 fifteen; Buff Leghorns, $5 hundred; Buff Ducks, $7 hundred; Bourbon Red Turkeys, $3 eleven. Circular. John A. Huber, LaCrosse, Kansas.

FOR SALE—EGGS FROM ALL KINDS of pure-bred poultry, Geese, 7 kinds of ducks, Pearl and white guineas, Bantams, Fancy Pigeons, Canaries, Rabbits, Gulnea pigs, Dogs. Write wants. D. L. Bruen, Platte Center, Nebr.

DUCKS AND GEESE.

FAWN AND WHITE INDIAN RUNNER ducks. Eggs for hatching. Good layers. Fifteen, $1.50; forty-five, $4. H. Clay Shirky, Norborne, Missouri.

EMBDEN AND TOULOUSE GEESE — Stock and eggs. Will take Runner ducks or Leghorns in trade. Emma Ahlstedt, Roxbury, Kansas.

DUCK EGGS — EXTRA LARGE MAMmoth Pekin, pure-bloods, excellent layers, $2 dozen, postpaid. Albert Schindler, Nebraska City, Nebraska.

FAWN WHITE RUNNER DUCK EGGS—$1.50, thirteen; $3.50, fifty; $6, hundred. Prize winners. White eggs. Mrs. Ben Miller, Newton, Kansas.

PLYMOUTH ROCKS.

BUFF ROCKS — SIXTEEN YEARS SUCcessful breeding. Eggs, $6 per hundred, $3 per fifty. Mrs. Homer Davis, Walton, Kan.

BARRED PLYMONTH ROCKS — PUREbred farm stock. Eggs, 6c each. Mrs. W. C. Bocker, Solomon, Kansas.

THE VERY BEST FANCY BRED PLYmouth Rocks for sale. Wm. Harrison, Marshall, Mo.

WHITE ROCK COCKERELS, $3. EGGS, $5 per hundred. Nora Lamaster, Hallowell, Kansas.

BARRED AND WHITE ROCK EGGS—Write for mating list. Nora Hill, Cambridge, Kansas.

SIMS' BARRED ROCKS — STATE WINners. Get my free mating list. Geo. Sims, LeRoy, Kansas.

BARRED ROCK EGGS, $1.50 PER FIFteen, prepaid within state. Choice farm flock. G. P. Wells, Lyons, Kansas.

WEIGHER-LAYER BARRED ROCK eggs. Pens, $3 to $6; utility, $6 hundred. C. F. Fickel, Earlton, Kansas.

HILLCREST BARRED ROCKS — EGGS, $1.25 for fifteen, $6 per hundred. D. T. Gantt, Crete, Nebraska.

WHITE ROCK EGGS (IVORY STRAIN), $1.50 for fifteen. Mrs. Alfred Vollmer, Bronson, Kansas.

PARTRIDGE ROCK COCKS AND COCKerel, $3.50 each. Mrs. Frank Neel, Beverly, Kansas.

REDUCTION ON BARRED ROCK HENS and eggs. Write me. Mrs. Chris Bearman, Ottawa, Kansas.

PURE BARRED ROCK EGGS, $1.25 PER fifteen, $6 per hundred; farm range. Mrs. H. Buchenan, Abilene, Kansas.

PURE BARRED ROCKS—EGGS, $5 PER hundred. Baby chicks, 12½c. Mrs. Lillian Marshall, Raymond, Kansas.

EGGS FROM PRIZE WINNING BARRED Rocks. Large, thrifty farm range, $1 and $2 per fifteen, $5 per hundred. Mrs. A. M. Shipley, Coffeyville, Kansas.

WHITE PLYMOUTH ROCK EGGS FROM fine birds, farm range flock, selected eggs, $5 per hundred, 75c per fifteen. Mrs. C. G. Steele, Barnes, Kansas.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swaim, Geuda Springs, Kansas.

WHITE ROCKS, SIZE AND QUALITY; good egg strain. Eggs, fifteen, $1.25; fifty, $3.50; hundred, $6. G. M. Kretz, Clifton, Kansas.

RINGLET BARRED ROCKS, PRIZE WINners. Eggs from exhibition pens, $2 and $3; utility, $1.25. Write wants. Satisfaction pledged. Hiram Patton, Hutchinson, Kan.

BUFF ROCKS—GET THE BEST. BAKER gold nugget proved layer strain—no guesswork. Eggs, fifteen, $2; fifty, $5. Order early. Abram Troup, Logan, Kansas.

PURE-BRED BARRED AND WHITE Rocks, bred for layers. Eggs, $1 per fifteen, $6 per hundred; chicks, 12½c. Mrs. Dora Beeton, Peabody, Kansas.

EGGS FROM MY PRIZE WINNING Barred and White Rock pens. Write for mating list and show record. H. F. Hicks, Cambridge, Kansas.

BARRED ROCK EGGS—PARKS 200-EGG strain. Best pens, $3 fifteen, $5 thirty, $12 hundred; utility flock, $8 hundred. Gem Poultry Farm, Haven, Kansas.

WHITE ROCKS — PRIZE WINNERS, farm raised. Eggs, $1.50 fifteen, $3.50 fifty, $6 hundred. Special pen, $3.50 fifteen. Mrs. Ben Miller, Newton, Kansas.

BARRED ROCKS, EIGHTY PREMIUMS, entire stock and supplies for sale at a sacrifice. Meantime eggs, fifteen, $3; thirty, $5. Mattie A. Gillespie, Clay Center, Kansas.

BARRED ROCK EGGS FROM BARRED to skin kind and heavy laying, $7 hundred, $3.50 forty-eight, prepaid. Ideal Poultry Farm, Concordia, Kansas.

RINGLET BARRED ROCKS—EGGS, $2 to $5 fifteen, $8 hundred. Reduction on incubator orders. Mrs. W. E. Schmitendorf, Vassar, Kansas.

BARRED ROCK EGGS FOR HATCHING, from stock winning at Topeka and Wichita, 1916; also first at Topeka, 1918; $7.50 hundred, $1.25 fifteen; first pen, $3 fifteen, $5 thirty. Mrs. Myrtle Henry, Lecompton, Kan.

BARRED ROCKS, BOTH LINES. STATE show winners. Good layers. Eggs, $1.50 per fifteen, $6 per hundred. Special matings, $5 per fifteen. C. C. Lindamood, Walton, Harvey County, Kansas.

BRED-TO-LAY BARRED ROCKS—FINE, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, $1 setting, $5 hundred; guaranteed. Belmont Farm, Topeka, Kansas.

BARRED PLYMOUTH ROCKS, THOMPson Ringlet strain, cockerel and pullet mated, pen and utility flock eggs. Quality high. Priced low. Many satisfied customers in thirty-seven states. Circulars free. A. F. Siefker, Deflance, Mo.

BARRED ROCKS THAT PRODUCED 175 eggs each in 1916; 120 eggs seven months, 1917. Four ribbons, 1917. Pens standardized, Hogan system, eggs, $2 per fifteen, $10 hundred. Mating list free. Farnsworth, 224 Tyler St., Topeka.

BARRED PLYMOUTH ROCK. — EVERY egg is produced by straight line barred, carefully mated stock, the kind that satisfies, at $1.50 per fifteen; $8 per hundred. Show matings, $3 per fifteen straight. Eighty per cent fertility and quality guaranteed. J. A. Thomas, R. R. 3, Sapulpa, Okla.

RHODE ISLAND REDS.

ROSE COMB REDS, WINTER LAYERS. R. E. Mills, Lexington, Neb.

SINGLE COMB R. I. RED COCKERELS. E. J. Manderscheld, Seward, Kansas.

SINGLE COMB RED EGGS, $2.50 PER setting, $8 per hundred. Maple Hill Poultry Farm, Lawrence, Kansas.

ROSE COMB RED PULLETS, $2, $2.50. Chicks, 15c each. Eggs, 100, $5. Fred Leck, Yates Center, Kansas.

ROSE COMB REDS—PURE-BRED, FINE winter layers. Eggs, $1.25 per setting, $6 per hundred. J. O. Spencer, Hesston, Kan.

STANDARD-BRED R. C. RED EGGS—Fifteen, $1.50; hundred, $6. Mrs. B. F. Weigle, Winfield, Kansas.

EGGS FROM TWO SPLENDID PENS, R. C. Reds, $3 and $5, fifteen; baby chicks, 25c. Mrs. L. G. Lambert, Anderson, Mo.

EGGS AND LARGE RED ROSE COMB utility cockerels. Stedem & Sons, Marshall, Missouri.

RED, VELVETY, DARK, BOTH COMBS. Eggs, fifteen, $1.25; hundred, $6. Mrs. Forrest Peckenpaugh, Lake City, Kansas.

BRAMAN POULTRY YARD—S. C. RHODE Island Red eggs for sale, $2 a setting of seventeen; $7.50 per hundred. S. B. Rawlings, Braman, Oklahoma.

KANSAS STATE SHOW, FIRST PRIZE S. C. Red cock and other winners in my pens. Eggs, $1.50, $3, $5 setting. W. G. Lewis, 622 N. Market, Wichita, Kansas.

ROSE COMB RED EGGS FROM GOOD colors and good layers, $1 fifteen, $6 hundred. Sam Putnam, Route 4, El Dorado, Kansas.

BRED TO LAY SINGLE COMB REDS—Pure-bred, rich red, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, setting, $1.00; hundred, $5.00; guaranteed. Belmont Farm, Topeka, Kansas.

ROSE COMB REDS — ALL YEARLING hens. Harris strain. Eggs, $1.50 fifteen, $3.50 thirty, $6 hundred. James A. Harris, Poultry Farm, Latham, Kansas.

ROSE COMB REDS, BRED TO LAY AND win in shows. Heads of pens direct from Meyer, owner of champion Reds in American laying contest. Fifteen eggs, $2.50; thirty, $4. M. L. Van Ornam, Superior, Nebraska.

SEVEN GRAND PENS ROSE COMB REDS headed by roosters costing $15 to $50. Fifteen eggs, $3; thirty eggs, $5; fifty eggs, $8. Special utility eggs, $7.50 per hundred. Baby chicks. Catalog. W. R. Huston, Americus, Kansas.

ORPINGTONS.

S. C. WHITE ORPINGTON EGGS, $6 PER hundred. C. L. Hill, Filley, Neb.

S. C. BUFF ORPINGTON EGGS, $5 PER hundred. Mrs. Wm. Falkner, Belvue, Kan.

PURE-BRED BUFF ORPINGTON EGGS—Circular free. Mrs. Biermann, Wisner, Neb.

BUFF ORPINGTON EGGS FROM PRIZE winners. Write for mating list. Nora Hill, Cambridge, Kansas.

PURE-BRED S. C. BUFF ORPINGTON eggs for hatching, $2 for fifteen. W. J. Musch, Hartford, Kansas.

BUFF ORPINGTON EGGS, $1 FIFTEEN, $6 hundred. Mrs. Frank Neel, Beverly, Kansas.

WHITE ORPINGTON EGGS FOR HATCHing, from good matings. $2 per fifteen, $8 per hundred. E. L. Gerardy, Americus, Kan.

GOLD-DUST S. C. BUFF ORPINGTON eggs, $2.50 setting or $10 hundred. Mary E. Price, Route 7, Manhattan, Kansas.

PURE-BRED WHITE ORPINGTON eggs for hatching, $1.50 per fifteen. Frank Hinson, Stockdale, Kansas.

WHITE ORPINGTONS FOR WINTER layers and quality eggs, $7 hundred, $3.75 fifty, prepaid. Ideal Poultry Farm, Concordia, Kansas.

BUFF ORPINGTONS, ONE DOLLAR PER setting; five dollars per hundred. This pen won ten ribbons last year, six firsts, four seconds. J. L. Moorhead, Blue Rapids, Kan.

S. C. BUFF ORPINGTON EGGS—EXTRA farm raised egg producing flock, culled to the limit. Orpingtons fourteen years. $2.50 fifteen, ten dollars hundred. Patterson's Jersey Farm, Fort Scott, Kansas.

LANGSHANS.

EGGS—BEST LANGSHANS. JOHN LOVette, Mullinville, Kansas.

BLACK LANGSHAN EGGS, 7c EACH; over 100, 6c. Baby chicks, 20c. Mrs. Geo. W. King, Solomon, Kansas.

BIG BLACK LANGSHAN COCKERELS and eggs, score cards furnished. Guaranteed satisfaction. H. Osterfoss, Hedrick, Iowa.

QUALITY BLACK LANGSHAN EGGS — Fifteen, $1.60; 100, $6.50. J. M. Bond, Enterprise, Kansas.

PURE-BRED BLACK AND WHITE Langshan eggs for hatching, seventeen for $1.25 or 100 $4.75. Mrs. M. Bear, Advance, Missouri.

BLACK LANGSHANS — EXCELLENT range stock. Eggs, fifteen, $1.25; 100, $6. Baby chicks, 16c each. Mrs. J. B. Stein, Smith Center, Kansas.

MAMMOTH SIZE BLACK LANGSHANS—260 egg strain, 14-pound cockerels, hens 12. Eggs, fifteen, $3.50. English Penciled Runner ducks, lay all winter, eggs $2 fifteen. E. Stewart, Henderson, Iowa.

BABY CHICKS.

YOU BUY THE BEST CHICKS FOR least money. Guaranteed alive or replace free. Shipped anywhere. Colwell Hatchery, Smith Center, Kansas.

WYANDOTTES.

GOLDEN WYANDOTTE EGGS, FIFTEEN, $1.25; fifty, $3.50; hundred, $6. Louis Bruning, Phillipsburg, Kansas.

ROSE COMB WHITE WYANDOTTE eggs, extra good; hundred, $5. Mrs. Geo. Rankin, Gardner, Kansas.

FOR SALE—ONE DOZEN PURE-BRED Golden Wyandottes. Address Mrs. A. B. Grant, Emporia, Kansas.

SILVER WYANDOTTE EGGS—FIFTEEN, $1.65; fifty, $3.75; hundred, $6.50. Mrs. Edwin Shuff, Plevna, Kansas.

CHOICE SILVER LACED WYANDOTTE eggs, fifteen $1.25, fifty $3.50, hundred $6. Mrs. Philip Schuppert, Arrington, Kansas.

SILVER WYANDOTTE EGGS—FIFTEEN, $1.50; fifty, $3.65; hundred, $6. Baby chicks, 20c each. Lawrence Blythe, White City, Kansas.

WHITE WYANDOTTE EGGS AT $1.50, fifteen; $3.25, fifty; $6 hundred. Winning, laying strain, fertility and satisfaction guaranteed. Andrew Kosar, Delphos, Kansas.

EGGS—SILVER LACED WYANDOTTES, fifteen, $1.50; fifty, $4; hundred, $6.50. Five kinds of ducks, eggs. Circular free. Fred Kucera, Clarkson, Nebraska.

WHITE WYANDOTTE EGGS, $1.25 PER fifteen, $6 per hundred, from good laying strain. Chilcott's Poultry Farm, Mankato, Kansas.

EGGS—WHITE WYANDOTTES LAYING strain. Utility, $1.25 fifteen; $3.50 fifty; $6 hundred. Pen headed by $15 cockerel direct from Keeler, $2 fifteen. M. M. Weaver, Newton, Kansas.

MINORCAS.

SINGLE COMB BLACK MINORCA EGGS, thirty, $3.50. Sarah Peters, Nashville, Kan.

SINGLE COMB BLACK MINORCAS, BIG white eggs, $1.50 per setting. H. H. Hadel, Hillsboro, Kansas.

S. C. BLACK MINORCAS — EXTRA heavy layers. Eggs from pen birds, $2 for fifteen. Mrs. E. G. Tharp, Protection, Kan.

SINGLE COMB BLACK MINORCAS — Eggs, $2 per fifteen, $3.50 per thirty; utility, $6 per hundred, prepaid. Dan Oberheilmann, Holstein, Missouri.

TURKEYS.

WHITE HOLLAND TURKEY EGGS.—Winnie Litton, Peabody, Kansas.

BOURBON RED TURKEY EGGS—PRIZE winning two-year-old hen, 44-pound tom; $3 setting. S. Peltier, Concordia, Kansas.

SARVER'S FAMOUS NARRAGANSETT turkey eggs, $5 per ten. Sarver's Poultry Farm, Hastings, Nebraska.

BOURBON RED TURKEYS—EGGS FROM choice stock in size, color and markings, $5 and $4 per eleven. Free catalog. Mrs. Clyde Meyers, Fredonia, Kansas.

CORNISH

DARK CORNISH EGGS. EAST LAWN Poultry Yards, Fairmount, Neb.

FOR SALE — FEW FINE DARK COPnish pullets, $2.50 and $3.50. Eggs, $2.50 setting. L. C. Horst, Newton, Kansas.

ANCONAS.

ANCONAS — THE GREATEST LAYERS. Eggs, $7 per hundred, $2.50 for thirty. Joe Partsch, Humphrey, Nebraska.

ANCONA EGGS CHEAP, BOTH COMBS, from extra good stock. G. D. Willems, Inman, Kansas.

WANTED

WANTED—FIFTY WHITE WYANDOTTE pullets and two cockerels. Wm. Mielenz, 97 Wisconsin, Milwaukee, Wis.

FARM AND HERD.

A. J. Swingle, of Leonardville, Kansas, has made a success with the big Poland China hog. His herd is richly bred along the lines of Mouw's Black Jumbo 2d and Shurley's Wonder. A number of sows in the herd are Black Expansion, Orange Price 2d, Mollie Surprise and Jumbo Standard. Mr. Swingle has saved over a hundred spring pigs. He recently purchased to head his herd Miller's Smooth Wonder by Miller's A Wonder and his dam was Miller's Smooth Queen, one of the best sows on the Miller farm.

Castillo & Son, Independence, Kansas, owners of one of the good herds of registered Holsteins in Kansas, report a good demand for high-class Holstein breeding stock. Among recent sales made by them was a number of choice animals to J. S. Perry, of Rest, Kansas, who is building up a registered herd.

W. R. Crow & Sons, Hutchinson, Kansas, the well known breeders and showmen of Duroc Jersey swine, have just returned from the winter show circuit held at Denver, Colorado; Wichita, Kansas, and Oklahoma City, Oklahoma, and report the premium and sales money received from these shows amounted to $4,757. This herd of Durocs have been leading winners at the state fairs and shows for several years. They own one of the best herds in Kansas and develop the right type of profitable hog for both the farmer and breeder. A feature of the herd at this time is the large number of spring yearling gilts bred to prize-winning boars for April and May farrow.

Ben Schneider, of Nortonville, Kansas, is the owner of one of the high-class herds of Holstein cattle in Eastern Kansas. Mr. Schneider never buys a cheap cow or heifer to go in his herd and by adding only choice animals with good pedigrees to the herd, he has today one of the best small herds of producing cows in Kansas. The demands for females from this herd have drawn on them so heavily that Mr. Schneider has of late refused to price any females. A feature of the herd at this time is a number of choice young bulls.



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Hereford Cows For Sale

WE ARE OFFERING OUR ENTIRE HERD FOR SALE PRIVATELY

Comprising sixty-six head of cows, ages from two years old to aged cows. A number have young calves and all are bred. Will price one or a carload.

We Have the Most Popular Blood Lines

All cattle are registered and bred to registered herd bulls. We also offer twenty-five Hereford bulls, yearlings and two-year-olds; two imported Percheron mares, and two home-bred Percheron mares, all in foal. Come and see us.

J. S. WILSON & SON
HAMILTON, KANSAS

FARM AND HERD.

The April number of The Shorthorn in America, published by the American Shorthorn Breeders' Association, is now in the mails. It begins the third year of its publication and will be generally regarded as one of the most interesting and informing numbers yet issued. As an educational force and through its close co-operation with the agricultural and live stock press, this magazine has accomplished wonderful results for Shorthorn unity and progress and furnishes an object lesson for other breed associations. This number contains the powerful address of Hon. Frank O. Lowden, governor of Illinois, given before the National Shorthorn Congress. The author of "Shorthorn Cattle," Alvin H. Saunders, reviews in a most entertaining and instructive style his forty years' contact with Shorthorn affairs. H. G. McMillan, veteran breeder and editor, draws some valuable conclusions as to the worth of a good sire. Captain Dan Casement, a prominent Hereford breeder, gives expression to his appreciation of the progressive work of the Shorthorn forces. The celebrated writer, Mrs. Virginia C. Meredith, presents a story of fascinating interest, "Shorthorns in Home Pastures." A. C. Halliwell, editor of The Shorthorn World, makes interesting reference to the cattle trade, covering a period of forty years, under the title, "Yesterday, Today and Tomorrow." F. J. Curtin, noted Milking Shorthorn authority, discusses "The Milking Shorthorn in Action." Many other contributions from authoritative sources and the addresses before the National Shorthorn Congress in condensed form add to the value and interest of this publication. In addition to this are tabulations of an informing nature that are of untold value for reference purposes.

We have just received Volume 54 of the National Duroc Jersey Swine Record. This volume contains the pedigrees of males from No. 220501 to 227499 and the pedigrees of females from 549000 to 571998, and other information of value to Duroc breeders.

HOLSTEIN CATTLE. HOLSTEIN CATTLE.

HOLSTEIN DISPERSION

AT TONGANOXIE, KANSAS, WEDNESDAY, APRIL 10, 1918

100——HIGH GRADES——100

Having decided to disperse my Holstein herd of cows, I will sell at public auction commencing at 11 o'clock on above date and place as follows:

Twenty Fresh Cows. Twenty Heavy Springers. Forty Heavy Milkers. Twenty Two-Year-Old Heavy Springers.

Junior Herd Bull, Sir Henry Skylark DeKol 2d

The above cattle are better known as the F. F. Fairchild herd. Mr. Fairchild started his foundation herd fifteen or sixteen years ago and has established one of the best money-making herds of cows in Kansas. A continuation of the best pure-bred sires was Mr. Fairchild's motto. These are large, well developed cows and heifers, every one a real cow and just in their prime, three to seven years of age. These cows were sired by A. R. O. bulls of DeKol, Korndyke and Pontiac breeding. The majority of these cows are bred to my herd bull, Queen of the Pines Aggie Hendrika, whose dam's sire is a brother to King of the Pontiacs, who has twice as many 40-pound daughters as any other sire; the only sire in the world with two 40-pound daughters and two 40-pound granddaughters; is first sire of 44-pound cow; first sire to have two 30-pound three-year-old daughters; has more 20-pound daughters than any sire has A. R. O. daughters; only sire with ninety-six of his get to average over $1,000 in public sales. Fifteen world records have been held by his daughters. If you want good breeding and large production, then you will not fail to attend this sale. New Ford Runabout will be sold.

ARCHIE KNOX.
W. J. O'Brien, Sale Manager.
O'Brien & McCullough, Auctioneers. J. C. Laming, Clerk. Lunch on the Ground.

HOLSTEIN SALE

The eighth annual sale of the Howell Consignment Sale Company, of Howell, Michigan, will sell eighty head of Registered Holsteins, April 25, 1918. These cattle are all young and of excellent breeding and fine individuals. Welcome to our old Kansas customers. Catalogs April 15. Write if interested.

Mark B. Curdy, Sec. Howell Consignment Sale Co., Howell, Mich.
Col. Perry, Auctioneer.

CLYDE GIROD, At the Farm — F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd.

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

HOLSTEIN COWS FOR SALE

NINETY HEAD REGISTERED AND HIGH GRADE:

Forty two-year-old heifers bred to freshen May and June. Ten yearlings. Forty cows three to six years old. Priced to sell. Farm adjoins town. Come and see me.

C. A. BROCK - - - NORTONVILLE, KANSAS

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment. Edgewood Farms, Whitewater, Wisconsin.

Holstein Calves

We offer for sale choice beautifully marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated, f. o. b. cars: One to two weeks old, $17 each; three to five weeks old, $20 each; six to eight weeks old, $25 each. First check takes them. Write
W. C. KENYON & SONS, ELGIN, ILLINOIS

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves. H. B. COWLES, 608 Kan. Av., Topeka, Kan.

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.
J. P. MAST - - SCRANTON, KANSAS

CHOICE HOLSTEIN CALVES

High grade, beautifully marked, sired by registered bulls and from heavy milk producing dams, ten days old, $15; three weeks, $17; six months, $40. For thirty days only. First draft takes them.
Mt. Pleasant Stock Farm, Gilberts, Illinois.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.
W. E. BENTLEY, MANHATTAN, KANSAS

Cedarlane Holstein Herd

Four-year-old grandson of Pontiac Korndyke, guaranteed sound and a sure breeder. Average record dam and sire's dam, 29.4 pounds in seven days. Special price on bull calves from above bull. No females.
T. M. EWING, INDEPENDENCE, KANSAS

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.
GEO. F. DERBY, CAMERON, MISSOURI

CALVES — We are offering our — CALVES

SELECT HIGH GRADE CALVES
From Large Producing Dams and Famous Herd Sires

for $20 and $25, aged one to two months. Give us your order for any amount, and we will guarantee satisfaction on what we send you. Write at once. We have some dandies.

EDGEWATER STOCK FARM
FORT ATKINSON - WISCONSIN

STUBBS FARM HOLSTEINS

A few young bulls ready for service at reasonable prices. Fine individuals, best of breeding, guaranteed right in every way. Write for prices or come and see them.

STUBBS FARM - MULVANE, KANSAS

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.
FERNWOOD FARM, Wauwatosa, Wisconsin

Tuberculosis -- No!

WE GUARANTEE a retest on any stock you buy from us SIXTY DAYS after date of sale.

Before buying write us about our extensive herd of absolutely first-class Holsteins and Guernseys. Anything you want. Carloads or lots. Nearly pure-bred calves from famous bulls and good cows, $20 to $25.

EDGEWATER STOCK FARM
Fort Atkinson, Wis.

REGISTERED HOLSTEIN BULLS

I have a few choice young bulls from my best record cows. They are splendid prospects for herd bulls and priced to sell.
BEN SCHNEIDER, NORTONVILLE, KAN.

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

POLAND CHINAS.

DEMING RANCH QUALITY

BIG-TYPE POLAND CHINA HOGS

Breeding stock for sale at all times. All immuned. Come and inspect our herd or write us your wants.

H. O. Sheldon, Herd Manager
OSWEGO, KANSAS.

Poland China Baby Pigs FOR SALE

I am booking orders for baby pigs from large-type, heavy-boned, prolific sires and dams. Also have a few choice August and September boars and bred gilts for sale. All immuned.
A. J. SWINGLE, Leonardville, Kansas

OLD ORIGINAL SPOTTED POLANDS

Stock of all ages, also bred gilts and tried sows, bred, ready to ship. Priced right. Write your wants to
CEDAR ROW STOCK FARM
A. S. Alexander, Prop. Burlington, Kansas

Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
J. EDW. PLILEY - GILMAN CITY, MO.

GRAND VIEW POLANDS

Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.
ANDREW KOSAR - DELPHOS, KANSAS

Langford's Spotted Polands. Last call for fall boars. Yours for Spotted Polands,
T. T. Langford & Sons, Jamesport, Missouri

Ziller's Big-Type Poland Chinas

Thirty Years a Breeder.
Choicest breeding boars and gilts ready for service. Catalog free.
John D. Ziller, Hiawatha, Kan.

FASHIONABLE STOCK PLACE POLANDS

Herd headed by **Big Wonder.** This outstanding son of **Big Bob Wonder** was first in junior yearling class at Topeka and second at the National Swine Show in competition with the world. Breeding stock for sale at all times. Immune. Satisfaction guaranteed.
V. O. JOHNSON - - AULNE, KANSAS

REDFIELD'S SPOTTED POLANDS

Fall boars, large enough for spring service.
Chas. H. Redfield, Bucklin, Kansas.

TOWNVIEW HERD

Boars ready for service, sired by **King Wonders Giant 77326.** A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene, Peabody, Kan.**

DUROC JERSEYS.

Crow's Big Smooth Durocs

Herd headed by the

Grand Champion Potentate

Assisted by three other grand champion boars. We also have five grand champion sows in herd.

FOR SALE — Sixty-five tried sows and spring gilts to farrow in April and May. **All immune.** All bred to our grand champion boars. Everything guaranteed and priced reasonable. Write or come and see our herd. We can please you.

W. R. CROW & SONS
HUTCHINSON - - KANSAS

Otey's Durocs

Hercules 3d, a giant 900-pound boar in breeding flesh, and **Pathfinder Chief 2d,** the largest and smoothest of all the sons of the mighty Pathfinder, head our herd. Fifteen gilts bred for May litters for sale. Write or come and see them.

W. W. OTEY & SONS, WINFIELD, KAN.

Duroc Hogs : Shorthorn Bulls

Two 1-year-old Shorthorn bulls recorded, one 1-year-old Duroc Jersey herd boar. Also I am booking orders for spring pigs, pairs or trios, no relation.
R. C. WATSON - ALTOONA, KANSAS

DUROC PIGS AND BRED GILTS, Immune. Size, vigor, quality, breeding. Priced right.
W. J. BARNES - - OSWEGO, KANSAS

Guaranteed Duroc Gilts

Immune, recorded Duroc gilts with size, bone and length. Guaranteed to farrow. Shipped to you before you pay for them.
F. C. CROCKER, BOX K, FILLEY, NEB.

DUROC BOARS FOR SALE

A few choice fall boars by Kansas Critic and W. W. Valley Chief, out of large dams of Good E Nuff and Graduate Col. breeding.
W. W. Zink - Turon, Kansas

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on fall boars and gilts, from Crimson Wonder, Golden Model, Illustrator, Defender breeding.
JOHN A. REED & SONS, LYONS, KANSAS

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS
Best breeding, best type. Stock for sale,
GEO. W. ELA, Valley Falls, Kansas

RED POLLED CATTLE.

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.
CHAS. L. JARBOE - QUINTER, KANSAS

MULEFOOT HOGS.

KNOX KNOLL STOCK FARM

Now taking orders for spring pigs, $20 each at weaning time. Thrifty pigs from big litters. A few fall boars and gilts. All stock registered free. For prices and catalog address **S. M. KNOX, Humboldt, Kansas.**

GALLOWAY CATTLE.

GOOD GALLOWAY BULLS

Twenty-five Extra Good Yearlings
Extra breeding and quality. Priced to sell.
J. M. HILL, SEDGWICK, KANSAS
Route 4, Box 65A

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.
E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

Breeders' Directory

ANGUS CATTLE.
D. J. White, Clements, Kan.
George McAdam, Holton, Kansas.
RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.

ANGUS CATTLE

Edgewood Farm Angus

I have for sale

40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.

D. J. WHITE, Clements, Kan.

ABERDEEN ANGUS BULLS

Big growthy two-year-olds from $125 to $200. Registered. F.O.B. Longford, Kansas.
E. J. Sampson, Oak Hill, Kan.

SHORTHORN CATTLE.

550 Shorthorns sold at auction in 1917 for $1,000 or more per head. Only 26 exceeded $2,500 and but three passed the $5,000 mark. It is the uniformity of prices that indicates the stability of the trade.
The Shorthorn is the breed for you.
Address Department W
American Shorthorn Breeders' Association
13 Dexter Park Ave. CHICAGO, ILL.

HERD BULL FOR SALE

My herd bull, Baron Prince 362371, sired by Star Goods, second sire Victor Orange. Dam traces to Imp. Rose of Sharon. Weighs 1,800 pounds in breeding condition. A sure breeder and priced to sell.
Arthur W. Jacob
Valley Center, Sedgwick County, Kansas.

SHORTHORN BULLS

Eight Scotch-topped yearling Shorthorn bulls, reds and roans, ready for service. Price, $150. First check gets choice. Come and see them. I can please you.
J. R. ELY - - MARION, KANSAS

PARKER'S SHORTHORNS

Bulls for Western Kansas. Growthy, thick-made kind, eight to eighteen months old. Two with quality and breeding to head pure-bred herds. One out of an extra heavy milking dam.
Wm. B. Parker
Lakin, Kearney County - - Kansas

SCOTCH SHORTHORNS

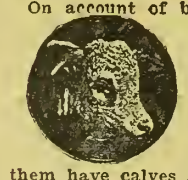
Bettie's Albion 399451 now for sale. Roan, weight 2,000 pounds if fat. Strong breeder. Also six bulls from 6 to 24 months old, reds, whites and roans. Write
C. E. HILL - - TORONTO, KANSAS

TWO BULLS FOR SALE
One roan Shorthorn 11 months old, one red Double Standard Polled Durham, 12 months old. **E. E. FISHER, Stockton, Kansas.**

HEREFORD CATTLE.

WEST BRANCH HEREFORDS

On account of being short on pasture I



offer at a low price Fortune Anxiety 637449, twenty-two months old, choice large horned bull; three Polled bulls twelve months old, extra good ones, sired by Polled Dexter 4747, also six Polled cows three to five years old, four of them have calves at foot.

J. H. GOERTZEN, HILLSBORO, KANSAS

HORSES AND MULES.

EWING BROS.' PERCHERON HORSES, SHORTHORN CATTLE, SHETLAND PONIES AND POLAND CHINA HOGS

FIFTY MARES—Weanlings to mature mares, weighing a ton or more, in foal. Herd headed by Imp. Meknes (106084) 106640, weighing 2,200 pounds.
SEVERAL MATCHED TEAMS—Fifteen head of stallions, from weanlings to six years old. The best lot of two-year-olds we have ever had. The kind to mature into ton horses or better—grays and blacks.
SHORTHORN CATTLE—A few cows for sale. Ten young bulls out of pure Scotch sire ready for service. Herd headed by Village Knight No. 398231 weighing 2,250 pounds and Choice Echo 393419, weighing 2,300 pounds, for sale.
SHETLAND PONIES at very low prices if taken soon—weanlings to broken fillies.
Phone to Ewing Bros., 903A5 or 903A12, Great Bend, or write us at R. F. D. No. 1, Pawnee Rock, Kansas. **EWING BROTHERS.**

FARM AND HERD.

Harry T. Forbes, of Cedar Heights Stock Farm, Topeka, owner of one of the choice herds of Shorthorn cattle in this state, reports his herd doing fine and a good demand for high-class Shorthorns. Among his recent sales of breeding stock was nine head of choice cows and heifers to James A. Pringle, of Eskridge, Kansas, who is building up a good herd; six head of cows and heifers to the Valley Shorthorn Farm, Nampa, Idaho; one bull out of a Ruby dam, sire Cedar Dale 448518, to Thomas McComb, Auburn, Kansas, and one bull out of an Elizabeth dam, sire Cedar Dale, to Leo H. Farrell, Delia, Kansas.

Herman Gronniger & Sons, Bendena, Kansas, have catalogued sixty head of spring yearling gilts that they will offer to the public on April 9. These gilts are sired by Rexall Bob 2d and Expansion Wonder and will be bred for April and May litters to Big Hadley, Expansion Wonder and Futurity Rexall.

E. J. Sampson, Oak Hill, Kansas, owner of one of the high class herds of pure-bred Angus cattle in this state, reports his herd doing well. Mr. Sampson has the best blood lines of the Angus breed in his herd and the individuals are an outstanding lot. A feature of the herd at this time is the extra fine lot of young stock, including some outstanding young bulls.

J. H. Goertzen, of Hillsboro, Kansas, owns one of the good Hereford herds in Kansas. His herd includes a very fine lot of Polled Herefords. Mr. Goertzen has been breeding Herefords for twenty years. The Horned Herefords in his herd all trace to Anxiety 4th. The Polled Herefords in the herd are sired by Polled Dexter 4747. This bull was sired by Polled Prince 9th, he by King Francis 290. A feature of the herd at this time is the fine lot of young stock.

Secretary F. W. Harding of the American Shorthorn Breeders' Association is now on the Pacific Coast in order to get in closer personal touch with the Pacific Slope Shorthorn activities. He will be in attendance at the California Shorthorn Breeders' annual meeting and sale and will visit various breeding establishments in the coast country in other states. The frequent trips which Secretary Harding has made to all sections of the country, east and west, north and south, and the activities of the regular field force have had the effect of stimulating local trade and developing a spirit of co-operation that is of far-reaching value in general Shorthorn progress.

Archie Knox has announced a sale of high grade Holsteins to be held at Tonganoxie, Kansas, April 10. The offering for this sale will consist of 100 head of choice high grades, twenty head of fresh cows, twenty heavy springers, forty heavy milkers, and twenty head of two-year-old springers. The sale will be under the management of W. J. O'Brien, of Tonganoxie.

W. J. Barnes, Oswego, Kansas, owns one of the good herds of pure-bred Duroc hogs in Kansas. Mr. Barnes has the best blood lines of the breed in his herd and has succeeded in developing the big high-quality type that matures early and are easy feeders. A feature of his herd is the choice lot of bred gilts and a very fine lot of pigs. He also owns a good herd of Holstein cattle.

J. W. Meyers, of Nortonville, Kansas, has built up a good herd of registered and high-grade Holstein cattle. Mr. Meyers has for several years engaged in dairying in connection with general farming, and his Holsteins have proven a source of sure profit. A feature of his herd at this time is the good producing cows and a very fine lot of yearling and two-year-old heifers that are fine prospects.

W. R. Crow, of Hutchinson, Kansas, has been appointed deputy state live stock sanitary commissioner for Kansas. Mr. Crow is widely known among stockmen and is well fitted for the position, having been a breeder and feeder of registered live stock for many years.

H. C. LaTourette, of Hillsdale Ranch, Oberlin, Kansas, and owner of one of the finest flocks of Horned Dorset sheep in the Southwest, reports his flock doing fine and a very heavy demand for Horned Dorset breeding stock. Among his recent sales was a trio of very fine Dorset yearlings to the New Mexico Agricultural College. He was unable to supply the demand for Dorset ewes during the past winter. This spring he has a large number of early lambs that are growing out fine.

Oliver & Doran, of Dornwood Farm, Topeka, and owners of one of the best herds of Jersey cattle in the Southwest, report their herd making a fine record this year. This herd is famous for its heavy producers and Register of Merit cows. The herd is made up entirely of record-bred individuals representing the greatest producing families of the breed. A feature of the herd at present is the choice lot of record-bred young bulls.

H. T. Corson, of Bethel, Kansas, has announced a dispersal sale of Jersey cattle to be held April 18. Mr. Corson will catalog his entire herd of twenty-nine head of choice Jerseys for this sale.

R. C. Watson, Altoona, Kansas, owner of good herds of Shorthorn cattle and Duroc hogs, reports his herds doing well. Mr. Watson has the best blood lines in both his Shorthorn and Duroc herds. His Shorthorn herd is headed by Golden Lad 2d, one of the good sires of the breed, and his Duroc herd is headed by R. C.'s Buddy 123427 by Buddy K 4th 20861; Watson's Model by Giant Model, and Watson's Dream by Otey's Dream. A feature of the herds at this time is the great lot of young stock, including young Shorthorn bulls and a choice lot of Duroc spring pigs.

HORSES AND MULES.



JACKS AND JENNETS

15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.
PHIL WALKER
Moline, Elk County, Kansas

Malone Bros.,
Jacks and Percherons

We have 2 barns full of extra good jacks ranging in age from weanlings to 6 yrs. old, all over 2 yrs., well broke to serve. Several fine herd headers among them. Also jennets in foal to homebred and imported jacks. A few imported Percheron stallions royally bred. We can deal. Write or call on
J. P. & M. H. MALONE, CHASE, KAN.

Percherons—Belgians—Shires
2, 3, 4 and 5-year stallions for sale or let on shares. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.



FRED CHANDLER, Route 7, Chariton, Ia., Above Kas. City.

Choice Young Belgians, English Shires, Percherons, also Coach stallions, also mares. Many first prizes. Long time 6% notes.
Illinois Horse Co., Good Blk., Des Moines, Ia.

40 Percheron Stallions and mares, weanlings up. 20 Mammoth jacks, 10 jennets in foal. Priced reasonable. **Al E. Smith Lawrence, Kansas.**

JERSEY CATTLE.

100 GOOD JERSEYS FOR SALE

We are offering some fine young cows and heifers, now fresh or to freshen in April and May. The best blood lines and good individuals.
J. W. BERRY & SON, Jewell City, Kansas.

IDYLWILD STOCK FARM

Place your order for a Sophie Tormentor, Jacoba Irene, spring bull calf to increase your production.
C. F. Blake - Glasco, Kansas

Jersey Cattle Dispersal Sale

Twenty-Nine Head Choice Jerseys
April 18, 1918, 1 P. M.
Write for catalog. **H. T. Corson, Bethel, Kan.**

FINE YOUNG JERSEY BULLS

From Register of Merit and tested cows; Register of Merit sire.
Dornwood Farm, Topeka, Kan.

AUCTIONEERS.



P. M. GROSS
Live Stock Auctioneer
Twelve years on the block.
Pure-bred sales a specialty. Sales made anywhere.
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Kansas City, Mo.

FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. **VALLEY FALLS, KANSAS**

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri

POLLED DURHAM CATTLE.

WILD WOOD STOCK FARM

POLLED DURHAM CATTLE

For Sale—Ten bulls of serviceable age, sired by Roan Acacia 9021. Dam, Golden Acacia by Acacia Victor, a double standard bull from D. C. Van Nice herd. Write at once. These bulls will sell.
T. M. ETHERINGTON, Hamilton, Kansas

AYRSHIRE CATTLE.

AYRSHIRE BULLS
Ten to twelve months old. Also herd bull and heifer calves five to six weeks old. All out of extra good cows. Priced right.
H. L. MICHAELIS - KINSLEY, KANSAS

GUERNSEY CATTLE.

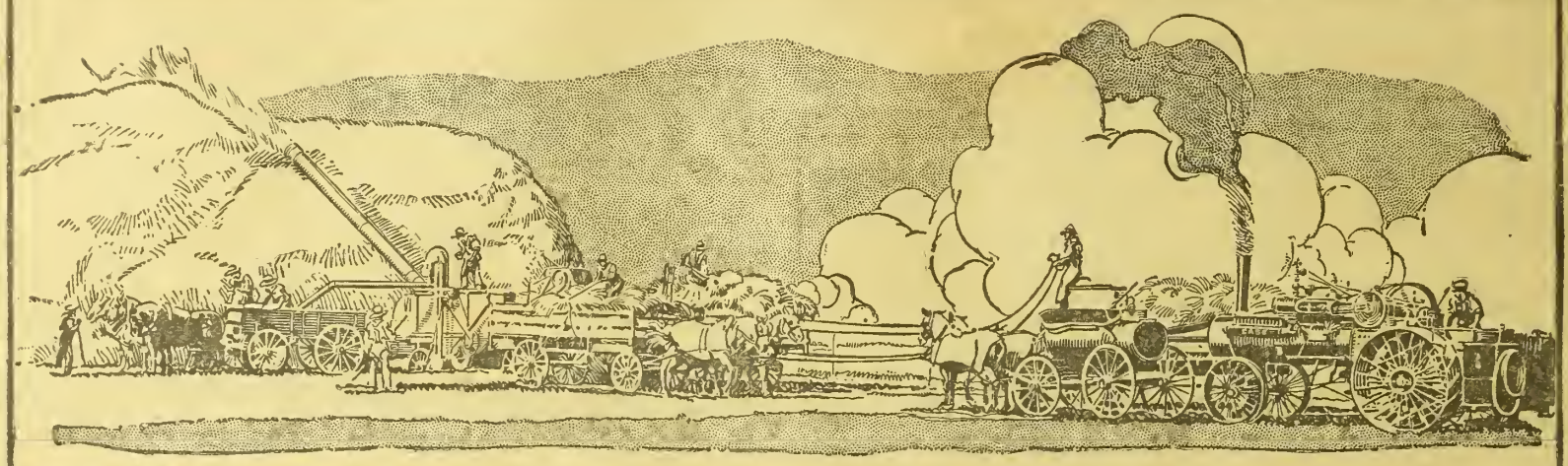
GUERNSEY BULLS.
Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to twelve months old. **ADAMS FARM, Gashland, Mo.,** 12 miles from K. C.

GUERNSEY BULLS
Three registered Guernsey bulls, 9 to 11 months old, tuberculin tested recently; best of breeding. Cows are good producers. For further information inquire of
FRED WILLE - COLUMBUS, NEBRASKA

Founded 1842

CASE

Famous the World Over



For Nearly a Century Case Threshing Rigs

Have Been Famous the World Over

Jerome I. Case, himself, was a thresherman. In 1842 he left his home in New York State and came to Wisconsin with six threshing machines, five of which he sold—the sixth he operated himself.

In 1844 he began manufacturing in a small way.

From the very beginning Mr. Case insisted on building quality machines. Case Threshers became known everywhere for their mechanical perfection. Their reputation has grown until today Case builds more threshers than any other three makers combined.

Case Steam Engines are as well known as Case Threshers. Together, they form a rig known and admired in every country on the globe. They represent the utmost in performance. No better can be built.

Case has the experience, the organization and the distribution.

Better Built

True value is based on dependability and length of service. The machine which is cheap in price, must of necessity be cheap in design and construction. Case Rigs are not built to sell on price alone, they are built to meet a standard which is demanded of every Case product—that standard is quality. So they cost less in the long run.

Case builds into each machine superiorities not found elsewhere.

In addition to economical upkeep and long wear, there is economy because of minimum fuel consumption and maximum threshing ability. Case principles of construction and Case performance have never been equaled.

One For Every Farm

Case Threshers are all steel, thus resisting fire, wind and water. Yet you do not pay extra for this insurance.

Case Steam Tractors are now made in seven sizes.

Case Threshers are made in seven sizes. Where steam is not desired, Case Threshers can be driven by Case Kerosene Tractors, built in four sizes.

Those who are interested in better threshing are invited to write for our book entitled "The Science of Successful Threshing," together with a booklet of our different machines with descriptions, pictures and specifications.

This printed matter is free, together with any of the others named below.

Your request for this information does not place you under the slightest obligation.

J. I. Case Threshing Machine Co., Inc. (Founded 1842) 826 Erie St., Racine, Wis.

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Below are listed the different series of booklets and folders. Tell us which interest you.

1—Kerosene Tractors
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Or, if you wish, ask for our General Catalog, describing the entire Case line. It is free.

Write Today

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 15. TOPEKA, KANSAS, APRIL 13, 1918. Established 1863. $1 a Year

PURE BRED HOLSTEIN CALF CLUB

Linwood Has First Registered Dairy Calf Club in Kansas

FORTY-EIGHT registered Holstein heifer calves, ranging in age from two or three months to a year, were distrihuted on March 30 to hoys and girls living in the community ahout Linwood, Leavenworth County. So far as we know this is the first pure-bred dairy calf cluh to he organized in Kansas. These calves were exceptionally well hred, practically all of them having dams and sires with high records. Many pure-hred herds will be started as a result of this dispersion. In a year from now many of these fine young heifers will have more than douhled in selling value.

This section of Kansas is peculiarly adapted to the dairy husiness. Owing to its proximity to Kansas City, there is an ever-increasing demand for milk. Two electric interurban roads traverse the county. This facilitates getting the milk to market. The land is rolling and well adapted to producing good pasture grass for a portion of the year at least. Alfalfa is heing generally introduced as a forage crop, and this with the silage which can he produced in ahundance without fail supplies the ideal hasis for a cheap and efficient milk ration.

There is another very important reason why dairying is a coming industry, not only in this section but also in many other parts of Kansas. There is serious need for so changing the general system of farming as to build up the producing power of the soil. No other type of farming is better adapted to do this than dairying. The steadily decreasing yields on many of the farms of Eastern Kansas are causing much concern.

Land in Leavenworth County is high in price. It does not pay to use inferior cows on this high priced land, although many are still not awake to this fact. The best farmers have realized the need of introducing hetter hlood. The farm management surveys conducted by the farm hureau under the direction of the county agent have conclusively demonstrated that cattle of dairy breeding are more profitahle than cattle not so hred. A striking example of this is the result of a farm survey made three years ago in the district around Tonganoxie, Leavenworth County, by P. E. McNall, specialist in farm management in the Agricultural College. In this survey seventy-three farm records were analyzed, practically every farm within a radius of two and a half miles of Tonganoxie heing covered. An average of nine dairy cows was kept per farm. In studying these farms with reference to the quality of the dairy cattle as indicated hy the dairy receipts per cow some interesting figures were revealed. On thirty-nine farms where dairy cattle brought in less than $50 gross receipts in dairy products per cow, the labor income of the operator was $80 minus, while on the thirty-three farms where cattle returned more than $50 in gross dairy receipts per cow the average lahor income was $640. This means that this amount could be credited to the operator after deducting 5 per cent on an average investment of $17,477, this being the average of the farms covered.

On thirty-seven of the farms selling dairy products, ordinary grade or dual-purpose cattle were kept. The gross receipts on these farms averaged but $51.03 per cow. On twenty-two farms where either grade or pure-hred dairy cows were kept, the gross receipts per cow averaged $88.26, and on these latter farms the lahor income of the operator averaged $486, while the lahor income of men who had other than cows of dairy hreeding averaged but $237. These figures furnish abundant evidence of the need of hetter cows where dairying is the chief farm enterprise.

In Leavenworth County the most progressive farmers and others indirectly interested in agricultural prosperity have consistently boosted for hetter dairy cattle and hetter dairy methods. When the Kansas Farmer Dairy Cluh was started the hanks of Leavenworth County enrolled more memhers than the banks of any other county in the state. The Wulfekuhler Bank alone had seven members in this club. Last year this same hank seized the opportunity to buy a bunch of high-grade dairy cows and heifers and distribute them to the farmers of the county who wanted a cow or two of better dairy breeding.

This pure-hred dairy calf club is another most progressive step in advancing dairying in the county. Leavenworth County is getting out of the grade cow class and is ready to move up and start a number of pure-bred herds. There is no better way to do this than through the agency of a hoys' and girls' calf cluh, organized and conducted with the purpose of teaching the young people the true value of well-bred dairy stock. The promoters of this cluh are taking advantage of the fire and enthusiasm of youth, and with the sort of guidance which will be given these boys and girls by the county agent and others directly responsible for the conduct of this club, we can expect these young people to develop into real dairymen. It is a well-known fact that it takes more than good cows to hring ahout success in dairying. Along with the good cows must be associated good dairymen, people with a genuine love for the husiness and a thorough knowledge of its details. Very seldom does a grown man who has never heen associated with dairy cattle in his youth hecome a highly successful dairyman. These hoys and girls will he learning the dairy husiness early in life. It is also true that very few can safely jump directly into the husiness of handling pure-bred cows without some preliminary training and experience in handling good grade stock. By starting with a single well-hred heifer calf, the owner can gradually grow into the business.



DRAWING THE NUMBERS, EACH MEMBER GETTING CALF HAVING CORRESPONDING NUMBER



I. N. CHAPMAN ADDRESSING BOYS AND GIRLS AND VISITORS ON WORK OF CLUB



NEW OWNERS TAKING CHARGE OF CALVES

The Linwood Calf Club was organized through the co-operation of the Linwood Bank, the interurhan railroad company, and the county agent, I. N. Chapman, hacked, of course, hy the county farm hureau. A committee, of which H. B. Browning, one of the progressive farmers of the community, was chairman, had charge of the details of distrihuting the calves which were furnished hy A. S. Neale, of Manhattan. Mr. Neale has never been out of the Holstein cattle, although when he first came to Kansas some years ago he dispersed his Ohio herd, saving only a few animals. He is now huilding up a high-class herd of high-producing pure-hreds and these calves are the offspring of the cows he has carefully selected from some of the best herds in Ohio. It is rather unusual to have all the calves for a calf club furnished hy one man, and this club was especially fortunate in heing able to get all the calves from a man of Mr. Neale's ability in selecting good dairy cattle.

The cattle were stahled in Mr. Browning's harn, heing shipped there the day before they were to he distributed. They were classified into several groups according to age and a different value placed on the individuals of each group. The calves were all numbered and as each cluh member's name was called a numher was drawn indicating the calf he was to get. He then signed a note which the banker had prepared covering the value placed on the calf. Following the drawing the hoys and girls led their calves out from the barn onto the hlue-grass pasture adjoining. A moving picture film was made of a number of the scenes during the distrihution. Of course a good many older people, parents and others interested, were present, and short talks were made by Mr. Neale; Mr. Taylor, of the Interurhan; O. W. Holt, the moving picture man; County Agent I. N. Chapman; the Kansas City, Kansas, milk inspector, Mr. Terrell; the Wyandotte County Agent, A. B. Van Horn, and others.

The members of the club will meet on the third Saturday of each month in Linwood. This is one of the rules of the cluh, and it is written into the contract that they shall attend this meeting and keep accurate records of the feed consumed hy their calves. This work will be under the direction of the county agent, Mr. Chapman. A year of this sort of work will be most fruitful of results.



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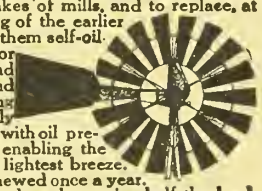

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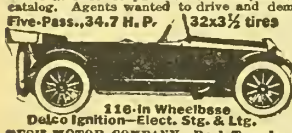

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FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

JUST recently I completed a summary of work I have done with my 30-60 tractor. I did this largely for my own satisfaction just to find out what I have accomplished with it. I was surprised to learn how much work I had done with my outfit when I had everything figured up. I paid cash for everything, thereby making quite a saving in first cost of equipment.

As to fuels I have used kerosene at prices ranging from 8¼ to 11½ cents a gallon; No. 2 solar oil at 7¾ to 11 cents a gallon; No. 2 distillate at 9 cents a gallon; and engine naphtha at 10 cents. While in Texas the most satisfactory fuel was the No. 2 solar oil, and the No. 2 distillate. They are practically the same. These two fuels are somewhere between gasoline and kerosene as to gravity and flash test. They really give more power than gasoline when once started, and do not heat the engine so badly as kerosene. The engine naphtha was discontinued soon, as it was about what gasoline is today, so the price could not compare with the solar oil or distillate.

Here in Nebraska I use kerosene for fuel at prices ranging from 8¼ to 11½ cents a gallon. It works satisfactorily for what I have done here, but in working the engine to its fullest capacity, as when plowing sod and dragging at the same time, I do not like it so well as the solar oil or distillate. It makes the engine pound or pre-ignite more, and is more sensitive about feeding water into the carbureter.

For cylinder oil I use what is called the "Stanolind" oil. I find that it leaves very little or practically no carbon in the cylinders. The only place carbon is deposited is in the oil grooves on the pistons, and under the first two cylinder rings closest to the head of the pistons.

My report shows that 752 days of work have been accounted for and I used 757 barrels of fuel, of about fifty to fifty-three gallons apiece. So I have averaged about one barrel of fuel a day. In plowing and harrowing old ground it required 2.5 to 2.8 gallons an acre. Plowing sod and dragging took three gallons or a little more to the acre. Listing required about one gallon an acre and fifty acres was considered a day's work, of about eleven hours. In plowing old ground and sod twenty-two acres was considered a day's work.

Other uses to which I have put my engine are threshing, filling silos, pulling trees, moving houses, and stretching woven wire. It certainly is fine for this work. I am in doubt as to whether this size of tractor is the right kind for this country. I believe it is too large, unless one can arrange fields that are not less than one-half a mile long. But if threshing is to be one of the main uses, then I believe this is the proper size. I do not believe it pays to thresh with less power than a 30-60.

I have done all my own repair work so far. This would have made quite an item of expense if done by someone hired for the purpose, and probably would not have been so satisfactory either. The condition of the engine is such that I expect to use it quite a while yet. It still has the original bull gear and intermediate gear, and I expect them to last as long as the engine.

Considering the amount of work and strain on these gears, I consider their lasting qualities remarkable. I never have let them run dry, but have kept oil on them. I have found that when working the engine to its capacity I could tell by the running of the engine when the gears had become dry. I believe an engine is more efficient by several horsepower when the gears are kept well oiled.

I consider that my greatest trouble was with the traction wheels, but this was the fault of the manufacturer, as they were too light and would not stand the strain. I understand this fault has been remedied by making the wheels much heavier. The following are the principal items of my record:

Cost of Equipment

One 30-60 tractor	$ 2,160.00
Fourteen-disk engine plow	402.00
Second-hand separator	400.00
Steel separator	1,112.00
Freight to Kress, Texas	383.32
Oil barrels and wagons	60.00
	$4,517.32

Operating Expenses

Three drive belts	$ 139.00
Repairs on separators	200.00
Repairs on engine	849.74
Batteries for engine	125.00
Sharpening disk plows (three times)	31.50
Fuel (757 barrels)	3,769.24
Lubricants	579.93
Wages of myself and helpers	5,653.98
	$11,348.39

Present Value of Equipment

Engine	$ 1,000.00
Plows	150.00
Steel separator	800.00
Barrels and wagon	60.00
	$ 2,010.00

Earnings.

Plowing, harrowing, listing, planting, etc.	$ 6,956.75
Threshing	23,068.86
	$30,025.61

Summary

Earnings		$30,025.61
Operating expense	$11,348.39	
Depreciation of equipment	2,507.32	13,855.71
Net earnings		$16,169.90

There is one item of expense which I should have figured in, and that is interest on the investment. Eight days of silo filling also were not included. Summing up everything, it seems that my repair account is the most unfavorable part of the report. Sometimes I wonder if the same amount of work could not have been done with steam power, at a lower expense for repairs. But even though the repair expense would have been smaller, the extra labor expense would have overbalanced this difference several times, because at least one extra man and team would have been necessary all the time.

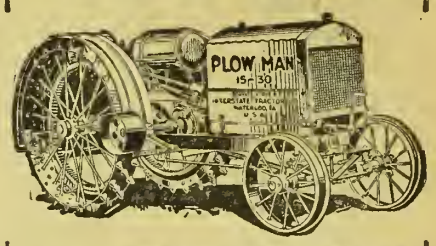
One thing that brought my repair bill higher than other operations may show, is because I replaced parts that other operators probably would have continued to use. I consider it cheaper to replace them just to get efficiency. If I knew what other tractor owners have done, then I would have some idea as to what degree of success I have had. So far as I know many of them may be able to boast of a much better record than mine. But considering the amount of the first investment, I believe I have had fair success. In case I have had better success than most tractor owners, I will place this credit where it belongs—with the department of farm mechanics at the University Farm, for all the advantages and benefits I had while at this school.

NOTE.—The foregoing article, which appeared recently in the Implement and Tractor Trade Journal, was prepared by R. J. Erickson and read as a paper before a meeting of the Nebraska Farm Equipment Association at Lincoln. Mr. Erickson bought his tractor in April, 1909, and thus has operated it nine seasons. His record is valuable because it extends over a long period. At present he is farming near Funk, in Phelps County, Nebraska.

Horsepower of Windmills

The suggestion is often heard that the windmill should be used for power purposes on the farm. To try to use a single mill for power purposes would be like trying to use a dog for draft purposes. A large mill running in a strong wind will seldom develop as much as five horsepower. If its power can be steadily absorbed, as by a storage battery, and then used at a higher rate for short periods, it will do very well. One of the best types of windmill, steel, twelve feet in diameter, in a twenty-five mile wind develops only one and a half horsepower. The sixteen-foot mill under the same conditions develops about two and a third horsepower. Europe uses windmills in batteries, a number of mills working together, for power purposes, and possibly the United States will find it desirable in the future to get power from the air.—L. S. FOLTZ, Colorado Agricultural College, Ft. Collins.

PLOW MAN



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HOOVER ASKS FOR MEAT BOARD

In a lengthy letter to the President, Mr. Hoover has asked for a board or commission to take charge of the meat business and formulate a constructive policy which can be depended on to increase or maintain production and at the same time be fair to all concerned. This action is in line with the contention of the committee from the Kansas Live Stock Association, which did not reach Washington until after the conference with the other live stock representatives had closed. The press reports stating that the Kansas committee was present were in error, as they delayed going to Washington for the purpose of gathering data to present to the Food Administration. This Kansas committee, consisting of J. H. Mercer, M. C. Campbell, M. W. Skinner, and M. M. Sherman, took with them the first real practical figures on meat production costs which have reached the Food Administration. This data showed clearly the complexity of the situation and formed a strong argument in support of their rather insistent demand that the whole meat situation should be placed in the hands of a committee instead of being lodged in a single man. They suggested a committee of either three or five men and asked that it should have one representative of the meat producers if composed of three men and two if composed of five.

The Kansas committee found both Mr. Hoover and Mr. Cotton sincere and earnest in their desire to get at all the facts possible. In the formal report made back to the Kansas Live Stock Association there are indications that relief for both cattle and hog feeders is in sight. There will be an outlet for better grades of heavy beeves through purchases for the United States army and the armies of our allies. Restrictions on profiteering in corn and corn products were also promised in the near future.

Mr. Hoover's action in asking for a meat commission has without doubt been influenced by his conference with the Kansas live stock committee. In his letter to the President he points out that we have reached a position with regard to the whole meat industry requiring a reconsideration of policy, that it is a most complex situation with which the Government has to deal, involving as it does the effect Government purchasing has on prices and the necessity for protecting both the civilian consumer and the producers. "This change of policy," says Mr. Hoover, "may take the form of more definite and systematic direction of the larger packers as to the course they are to pursue from month to month, or may even take the form of operation of the packing house establishments by the Government."

After discussing the effect of Government purchases in some detail, Mr. Hoover stated that the Government faces three alternatives in the matter of control of meats. These he outlines as follows:

"First, to free the Government from all interest in price by abandoning direction of war purchases and to abandon conservation measures because these may also affect price.

"This would be a relief to the Government, but with growing volume of purchases the price influence will be transferred to uncontrolled agencies who are themselves price-fixing and carries the following dangers:

"It will stimulate profiteering and speculation. Prices in the season of the year of large production can be manipulated downward and in the sparse season will ascend to a point where some classes will be eliminated from consumption. The cost of living thus subjected to abnormal fluctuation will reflect in wage discontent and instability. It will destroy systematic saving of the commodity by individuals and this saving in consumption is a vital national policy. The producer will go through erratic periods of discouragement and of stimulation which must undermine any systematic policy of national or individual increase in production, for every period of discouragement cuts off production of animals, which cannot be recovered.

"Second: To continue as at present the direction of these large purchases with a mixture of partial national policy in production and day-to-day dealing with emergency.

"This is an almost intolerable situation for any Government official in criticism from both producer and consumer and with the growing volume of purchases this criticism must increase. It permits of no constructive policy in production."

The third and seemingly the one favored by Mr. Hoover is as follows:

"To stabilize prices based upon cost of production at a fair and stimulative profit to the producer and with stabilization to eliminate speculative risks and wasteful practices and thus some gains for the consumer."

In commenting on this, he says:

"If such a policy is adopted, it also follows that it will have a most important bearing on and relation to policies of agricultural production and a long view can be taken and supported in assuring the producer of fair returns.

"This course is also fraught with dangers. It leads either to a voluntary agreement with the packers as to prices to be paid producers and charged to consumers from time to time; or, to actual operation of the packing plants by the Government. In either case the Government will need to take some financial responsibility in speculative business. In such situation the Government will be under constant pressure from the producers for enhancement of price and from the consumer for reductions. It necessitates the constant action of a commission to determine such prices. It will mean that all the complaints of trade fall upon the Government. The choice of alternative is one of determination of the maximum contribution to winning the war and the choice of the lesser economic evil between such alternatives."

In concluding his argument for a commission, Mr. Hoover makes the following statement.

"We have been powerless hitherto to properly protect all branches of the cattle industry with its constantly changing economic situation, or to give intelligent direction or assistance to cattle production. As you know, I have never felt that when we arrived at a point to determine the broad policy with respect to a commodity that this should be determined at the opinion of any single individual, no matter how sincere and earnest the application of intelligence might be."

He asks the President to appoint a board to study the entire situation with regard to the meat industry and the steps that should be taken, and suggests that it be composed of the following men or their delegates directly responsible to them: the Secretary of Agriculture as representing the producer, the chairman of the Federal Trade Commission as representing trade conditions, the chairman of the Federal Tariff Board as representing economic thought, the Secretary of Labor as representing the civilian consumer, and the Food Administrator as having to carry out any given policy determined upon.

PRESIDENT APPROVES MEAT BOARD

President Wilson has approved the plan outlined in Mr. Hoover's letter asking for a board to determine a war policy with respect to the meat industry. The good this committee can do depends largely on its personnel. It is to be understood in advance that personal delegates of Secretary Houston and the other officials constituting the board will of necessity be appointed to represent them in this particular duty. A start has been made in placing accurate and practical information on the production end of the business in the hands of the Food Administrator, and this will be helpful to the commission. Additional data is being accumulated by the Kansas Live Stock Association and can be drawn upon. Live stock representatives from other states will probably take similar steps in furnishing the necessary help to the commission. If the right men are appointed, the meat question as related to the war may be put upon a much better basis than it is at present.

A message from Mr. Cotton, received a few days ago by J. H. Mercer in response to a request for a statement bearing on the latest developments, will be of interest in this connection. We quote a portion only: "Mr. Hoover's recent statement with order of President appointing governmental commission to indicate policies regarding purchase of meat products by allied nations and this Government clarifies situation somewhat. That commission will undoubtedly act with fullest intention of giving fair prices to producer and of using foreign buying so the meats taken are those the industry can best afford to send."

MUST SAVE MORE WHEAT

More wheat from the United States is essential to the proper support of our allies in the war. The fighting is resolving itself in no small degree into time, distance, and ships. Up to the end of March we had fulfilled our original promise of sending 95,000,000 bushels of wheat to our allies. We thought we were safely past our most stringent conservation period, but now, following the great German drive, comes an appeal for more wheat, which can only be supplied by our limiting ourselves to a consumption of wheat products not exceeding 21,000,000 bushels a month until the next crop is available. To do this we are told that every citizen should restrict himself to not more than six pounds of wheat flour every thirty days.

Our allies had counted on getting large supplies from South America, having purchased enormous quantities of Argentine, where there is now available an exportable surplus of 133,000,000 bushels. The better part of two crops is banked up in Australia. Their exportable surplus is estimated to be 180,000,000 bushels. Sailing vessels are about the only means at hand for moving this wheat, and it is not thought that more than 5,000,000 bushels can be moved from Australia to the United States. The tragic shortage of ships has enforced a change of program. The distances to South America and Australia are too great. If we cannot supply the wheat from here, ships will have to be drawn from the transport of troops, munitions, and other military supplies in order to bring from these more distant lands that greatest of all necessities—food.

It is regarded as a military necessity that we send the wheat from here and save the ships. After checking up our total reserves of wheat, the Food Administration finds that there is a total of 176,411,500 bushels on hand. The allies need 75,000,000 bushels between March 1 and harvest. Our normal consumption for the same period is 200,000,000 bushels. We must get along with half this amount or admit that we cannot fight this war to a final conclusion, and win we must or give up all that we have fought for and stood for since the founding of this great nation.

PRICE-FIXING NOT CURE-ALL

No country, not even Germany, has ever made a complete success of a price-fixing program. Some of us perhaps are of the opinion that if only we could have definite prices fixed on everything—products which we buy as well as those we sell—the question would be settled. We have already gone far enough into price-fixing to see its dangers. If we could turn all the energies and activities of our price-fixing agencies toward eliminating profiteering and speculation and unnecessary waste in distribution, we would be making more real progress. Too many people are out for the dollars while the getting is good, and the exigencies of the war have given them their opportunity. Farmers as a class are willing to do their utmost in producing food, for it is essential to winning the war. If we could be assured that every profiteer who is not rendering some real service could be put out of business, we would not need to worry very much about the matter of prices. A scheme of price fixing extending all along the line will not necessarily accomplish the desired result. An illustration of how it works in Germany shows the weakness of the price-fixing method. A dealer had in some way obtained a large supply of eggs. The fixed price was 70 cents a dozen, and he so advertised, but charged 50 cents admission to his store.

A constant fight should be made on every individual and interest trying to take more than a fair profit for a necessary service rendered. Such individuals are not loyal, and are greatly hindering us in carrying on the war.

HOTELS BAR WHEAT

Sacrifices to save wheat on the part of prosperous, well-to-do people, was assured by the recent action of the leading hotel proprietors of the country. After being told of the imperative need of cutting our wheat consumption at least a half in order to properly ration our allies, 500 hotel men assembled in Washington enthusiastically pledged themselves to wipe wheat and wheat products off their menus until the next harvest. In this issue we give in part the statements of Doctor Taylor and Mr. Hoover in giving these men the reasons for saving more wheat. The significant thing is that it means sacrifice on the part of wealthy people who might pay almost any price for food articles which they really wanted. We cannot win unless all bear a share of the burden, and it is most encouraging to have spontaneous demonstrations of genuine loyalty from such a group of men whose clientele consists largely of the most well-to-do of our people.

When the calf is two weeks old, grain and bright clean hay should be offered; the quantity fed should be increased as the calf's appetite demands.

DOUBLING THE SHIPS

EVERY shipment of wheat that we can send from our ports is a shipment saved from the Argentine. Every ship can do double the duty from our ports that it can do from the Argentine. Every time that we send a shipment we save two ships from the Argentine. Every time we save a ship we save the transport and the supply of one regiment of American soldiers. — UNITED STATES FOOD ADMINISTRATION.

NATION'S PART IN THE WAR

Whole People Must Back Government in Its Military Program

IT IS becoming more and more necessary that we as a people adopt a positive war program. As yet we have not departed very much from our normal mode of living. No other portion of our population is more patriotic than that composed of the tillers of the soil. Farmers have ever heen to the front in battling for human liberty. In addition in this great struggle we have every material reason for directing our full resources to a vigorous prosecution of the war against the Central Powers of Europe. During 1917 more than a billion dollars' worth of American agricultural products was sold to European nations at war with Germany. If we had maintained peace at the price of obedience to the German war zone decree, these products would, most of them, have rotted on the farms and in the warehouses, or been used in unprofitahle ways with consequent stagnation and ruin to American farmers. Nor is this all, for unless the Central Powers are defeated in Europe, the war will come to our own shores. In fact war is being carried on now in our midst through the treachery and disloyalty found in every industry in the country.

The ringing appeal made to the hig hotel men of the United States recently by Dr. Alonzo E. Taylor will he read with interest hy the people of the open country. The Food Administration had called to Washington the proprietors of all the big hotels and restaurants of the United States. In addressing them, Doctor Taylor said in part:

"We have got to reach the place, each one of us, where we define every decision in our lives as an act of war policy. Everything that we do—plan, eat, wear—must he analyzed and measured from one single point of view: will it contribute to the carrying on of the war, or will it contribute to its prolongation? There is no other thing in the world for us hut to define everything in our lives as acts of military necessity or policy.

"We are accustomed to regard wheat as a more or less indispensable article of diet. It isn't. It is an article of luxury, and ahsolutely nothing else. Wheat possesses over oats, corn and rice absolutely no nutritional quality for man or beast. It has no more protein and no better protein. It has no more fat and no different fat. It has no mineral salt better or in larger amounts. It has no more fuel or better fuel. It is just one of the cereals, and there isn't the slightest evidence that it is the best one, hecause so far as comparative tests are concerned in animals, it isn't the hest one, it is very far from the best one.

"Our predilection for wheat is solely a question of taste, comfort and convenience; it is ahsolutely nothing else. Wheat makes the nicest hread, the lightest hread, the hread that is transported best, the hread that keeps moist and sweet longest. It lends itself to the habits of ease and convenience of a people; and because it lends itself to the convenience of a people, we want it sent to Europe and not kept here, and we ask and expect the American man and woman in judging of every situation as contrasted with that of our allies, men and women, to ask who has the larger hurden to hear, who has horne it the longest, who has wasted in resources the most, who has lost the most by sacrifice, who has suffered the most in death and destruction, wc or our allies? And when we have a choice to decide as to whether we or they should increase or decrease our burden, it ought to he not the duty, hut the joyful privilege of every American to lessen the hurden of every man, woman and child in the allied countries of Europe, hy accepting the heavier hurden on this side. And because wheat is easier to prepare than oats and rice and barley—that is the very best reason in the world why we ought to accept the oats and the rice and barley and to give them the wheat that is necessary to maintain a normal ration.

"We have all to decide whether we will serve the allies, who need help the most, or whether we will serve ourselves, who need it less. We had hetter begin serving the allies now.

"The greatest diet difficulties in Gernany today are duc to the fact that the poor man realizes that the big hotels don't play the game. A rich man today in Germany can buy anything he has the price to pay for—hams at $60 to $70 apiece, hutter at $5 a pound. Any delicacy outside of the regulations can he hought hy a man of wealth in Germany today, and this has honeycombed that nation with graft. And it started with the very hest hotels—the Adlon, the Esplanade—and they are today responsihle for the disorganization of the rationing systems in public eating places. Each manager or owner of a high-grade hotel and eating house has a positive influence and example that cannot be measured, as judged hy European experience. Each one of you has the chance to he a hig hrother to a hoy scout, and how the boy scout acts will depend very largely upon not only your example hut your positive working influence with the institutions and establishments that are smaller, simpler and in no way as influential as your own.

"We have just sent over two of the best food experts of the United States to Europe, and what is the striking thing contained in their letters from London and Paris? The thing that struck them most was the scarcity of food in the hest hotels of those two cities.

"Go to England today and compare it with England of a year or two years ago, and what is the striking conviction that comes home? That the intensity with which England is fighting this war is due as much as anything else to the example, force and ahility of her upper classes, so-called, the classes of means. They deny themselves the most, they take the heaviest hurdens, they reduce the most from their accustomed standards; and the poorer classes, the working classes and the union labor groups of England have become convinced that the British classes of wealth and station are ahsolutely in this war to the end, are willing to risk everything and will stand every deprivation that they ask everybody else to stand, and more. And when this spirit comes over this country we will all have a much greater intensity in the carrying on of the war than we at present possess.

"I wish every man in this room could go to the hattlefield of France, could go to the front, not merely to see what a front looks like, with its trenches, its men and all of the paraphernalia, hut to get the reaction of the French common soldier toward the American visitor. These men who have faced death for three and a half years for you and me, fighting a battle in which we have just as much at stake as they have—these men salute an American civilian with an expression of respect, reverence and trust that is ahsolutely past description hy human words.

"Why do these French soldiers who have struggled with death for freedom for three and a half years salute the American? Because in that salute they express their trust in America in the war; they express the trust in our assuming our share of this struggle from every point of view, not merely hy governmental participation in a military program, but also by the reconstruction of our entire lives from the point of view of saving and sacrifice, hy supporting them in the same sense that the American boy who fights heside them supports them and is supported by them.

"Now we must be worthy of this trust, and when a French soldier salutes an American civilian and he knows that that American is merely one typical of a hundred and five million, he expects us to do our duty as an ally, and he knows we will do it. The people of France know that the American people are heing asked to undergo food conservation and they know that the man who asks them to undergo it is the man best qualified in the world to lay out a program—the Hoover of Northern France and Belgium and now the Hoover of the United States."

Mr. Hoover, who also addressed the hotel men, told them that from the point of view of inter-allied feeding, wheat is vital. "It is the one grain that we have that will stand shipment. It is the one grain that will serve. Up to this time the Allies have used some 30 to 40 per cent of corn in their bread. Their hread has hcen as nothing compared to the bread that we have had in this country, neither in palatahility nor luxuriousness. After this, if they are to he fed, they must he fed on wheat hread, or none at all.

"Now, in this period of extreme difficulty in Europe," said Mr. Hoover, "the time when the morale of the civil population of our allies is at its lowest ehb, it does not stand for us to say, 'You can wait two or three months and then you can eat corn.' It is for us to say, 'You shall receive every solitary grain of wheat that our ports can handle.'

"Our population has lived hefore this on corn. For three years the Southern States lived and put up a good fight with no wheat. For periods of four and five years at a stretch no wheat was known to the people of New England. There is no reason why we should insist on having the most luxurious grain at this time, when it is our only transportahle grain.

"Now, we have founded the Food Administration on voluntary effort. We have no desire to depart from this idea, hut if wc are to accomplish this prohlem it must he accomplished hy the voluntary effort of the intelligent people, the influential people of the community. If this democracy has not reached such a stage of development that it has in its people the self-denial, voluntary self-denial, willingness to sacrifice, to protect its own institutions and those of Europe from which our own were bred, then it deserves to go down under the German hand and take another form of civilization.

"I, therefore, cannot give you orders. I am going to make an appeal. That appeal is this—that you should abolish the use of wheat and wheat products in every first-class hotel and restaurant until the next harvest." (Mr. Hoover was here interrupted hy applause, his auditors rising for a prolonged demonstration.)

"We must always bear in mind that our population is a population of great variety of life. A large numher of our people are dependent on the baker. Those who are dependent upon the baker can only eat bread the suh-stratum of which is wheat. You know as well as I that the haker cannot hake cereal products without a predominant portion of wheat. That section of our population, our working population, must receive wheat bread to some degree, hut that other section of our population, to which you gentlemen helong and to which your clientele belongs, and to which I helong, can quite well and without any self-denial worth the mention, make that small sacrifice. Therefore, if we are to get the distrihution of such wheat supplies as we must have for some sections of our population, it can only he if you and I and our kind are prepared to do without.

"Now, in these times of social unrest there is one antidote. That antidote was never applied in Russia, and the result has heen massacre. That antidote is a willingness for us to sacrifice more than we ask of those who have less to give. We must ask sacrifice from those who give from plenty, not from those who would have to give from their necessities.

"Therefore, my message is small and concrete—the service that we ask of you, that we ask of every well-to-do, every independent person in the United States today, is that he shall ahstain from the use of wheat in any form until the next harvest. Every message that we receive every hour of the day from this country—and it is a great country—shows us that we have a larger acreage planted in wheat this year than ever before. The arrival of the next harvest will solve our difficulties. If the Lord is good to us in the weather, our problem will be over by the first of September. That is not a long period of sacrifice.

"Now, most of us can play but a small part in the winning of this war, and you and I do not wish to look into the eyes of our children ten years hence and say that we failed in our duty. This is a sacrifice that is small in figure, hut I can assure you there is no message that I can send the food controllers of Europe today that will carry such weight and such encouragement to their people as to be ahle to say that every first-class hotel in the United States has, for their sake, aholished the use of wheat."

The machinery of the Food Administration is now in shape for a vigorous enforcement of the regulations governing the selling price of the wheat mill feeds. Send in complaints promptly to the State Food Administrator, Wichita. According to the new schedule of margins, the consumer should be ahle to huy mill feed at a maximum of $4.50 over the mill price for the feed, which in the case of bran has been established at 38 per cent of the cost of one ton of clean wheat at the mill.

FARMERS MAY BE DEPENDED UPON



THE war has served to exhibit to the country at large, as the country never quite realized before, its dependence upon agriculture and the manifold problems which beset our primary industry. There is reason to believe therefore that during the coming year agriculture will have the active sympathy and co-operation of all citizens and classes who are in position to render aid. The farmers of the United States will not fail to do all that they can in this emergency and, with favorable seasons, they will produce enough to sustain the civil population, to keep our Army and Navy in full fighting vigor, and to supplement the depleted resources of the allies. Every facility that the Department of Agriculture can command to assist them will be freely placed at their disposal.—D. F. HOUSTON, Secretary of Agriculture.

PRODUCTION PROGRAM FOR YEAR

Food More Urgently Needed Than in Year Just Passed

THE agricultural production committee of the Kansas State Council of Defence in its report at the recent meeting of the council, dealt almost entirely with the seed situation. It was shown that while there is a fairly large supply of seed listed for sale, much of which is of good quality, there is no surplus. All of the available supply will he needed. Farmers should not delay purchasing seed in case they are not already supplied. Many farmers who have corn of fair quality—that is, corn germinating from 60 to 90 per cent—can select sufficient seed from such lots hy making germination tests of individual ears. When hulk seed corn tests less than 90 per cent, it is advisable to make an ear-to-ear test of all the corn to he used for planting and to eliminate in this way those ears that will not grow. If every farmer who has corn would test his seed in this way it would not be difficult to locate sufficient seed of the best quality for all requirements. This work must he started early in order to have the seed ready hy planting time. The germination tests of old corn—that is, corn produced in 1915 and 1916—is invariahly good and as far as possihle this old seed should he used for planting.

Much of the kafir produced in the state was not fit for seed. There is, therefore, prohably a more acute shortage of kafir seed than of seed corn. However, kafir seed of good quality was produced in sections of Southeast Kansas and Northern Oklahoma and it is hoped that a supply is available from this source to meet the needs of the state. Feterita seed is scarce and high in price. The quality, however, of what little seed there is available, is good. Sorgo (cane) seed, while not plentiful, is more ahundant than was thought to be the case earlier in the season. The quality of the seed is only fair. Milo is fairly abundant and of good quality. There are only medium supplies of Sudan grass, which is as a rule of good quality.

Government Helps Out

The supply of available kafir and other sorghum seed in the state is being materially augmented hy the supplies purchased hy an agent of the committee on seed stocks of the United States Department of Agriculture. H. A. Vinall, 815 East Second Street, Wichita, Kansas. By act of congress, federal money has been provided for the purchase of seed of kafir, milo, feterita, sorgo, and Sudan grass. This seed is being stored at Wichita and is now ready for distribution throughout the state.

Farmers can send their orders through their county agents, the chairmen of the county councils of defense, or they may order direct from Mr. Vinall. Cash or certified check covering the price of the seed must accompany each individual order. In order to make the reserve serve as many as possihle, the amount to any one individual is limited. Tahle I gives the amount that can be supplied to an individual, together with the price of the seed:

Table I—Government Seed Prices

	Maximum Quantity Sold to Any One Man	Price per Cwt. f. o. b. Wichita
Black-hulled kafir	10 hu.	$5.00
Dwarf kafir	4 bu.	5.50
Pink kafir	2 hu.	6.70
Feterita	4 hu.	6.25
Dwarf milo	4 bu.	5.00
Black amber cane	6 hu.	9.00
Red amber cane	6 hu.	10.00
Orange cane	6 hu.	9.50
Sourless cane	6 bu.	9.50
Sumac cane	6 bu.	10.50
Sudan grass	100 lhs.	21.00

The seed information has heen ohtained hy the agricultural committee as a result of the state-wide seed and lahor survey which was started the week of Fehruary 11. This survey was carried out as a part of a general survey made in all agricultural states by the United States Department of Agriculture. Because of some delay in receiving hlanks from the Department of Agriculture, the work was not well under way until the week of February 18. In the survey the county was taken as a unit. The work in each county was in charge of a committee consisting of the chairman of the county counell of defense, the county superintendent of public instruction, and the president of the farm bureau in those counties that have farm bureau organizations. The county agent and emergency demonstration agents served with these committees in all counties where agents are located. The county committee in turn worked through the township securing the co-operation of the township farm hureau vice presidents and the township council of defense chairmen. These township labor and seed committeemen appointed a farmer in each school district in their township to co-operate with the teacher of the district school and to assist the teacher and pupils in making the survey. The organization was perfected and the work carried out in ninety-eight counties in the state. Complete information was ohtained from the farmers in the district regarding the kind and amount of seed needed and the kind and amount of seed for sale. Information was also secured regarding the lahor needs of the community.

As a result of the survey it was found that the majority of the farmers had provided themselves with the seed that they thought they would need for spring planting. In some sections of the state districts were found where there was no seed, in other places scattering farmers were located who would need seed. A list of these names was compiled hy the county committee and information supplied as to where seed could he secured.



In a large part of the state many farmers were found who had surplus seed availahle.

Germination Tests Made

Samples of this seed were secured and forwarded for germination tests to the Agricultural College. Samples were also secured for germination of the small lots that the farmers were holding for their own planting. In all 15,000 samples have heen received at the seed testing laboratory for germination tests. Of this number 12,085 samples had been germinated up to March 26 and the report of the tests forwarded to the farmers. Table II gives the results of these tests:

Table II—Germination Tests

	Number of Samples	Average Germination Per Cent
Corn	8,232	79
Kafir	1,214	57
Sorgo (cane)	742	61
Feterita	467	82
Milo	456	79
Sudan grass	163	76
Oats	498	92
Barley	110	81
Millet	52	83
Alfalfa	151	72
	12,085	—

It has heen impossihle to summarize this report with respect to the relative germination of the samples secured from the different sections of the state. This has been done, however, in the case of the corn and kafir tested previous to March 6. The results show conclusively that the corn and kafir seed produced in the southern and especially the southeastern part of the state is much better in germination than that from any other section.

Seed Lists Prepared

A complete list of all those who reported seed for sale was compiled at the lahoratory and this was supplemented by a list of names of elevators and seed dealers who have seed for sale, information regarding which was collected by the State Board of Agriculture. Three preliminary seed lists have already heen printed, the first on Decemher 31, 1917, the second on February 13, and the last on March 23. These lists have heen distributed upon request to all parties desiring to purchase seed. A complete list containing the names of all who have reported seed for sale, together with the germination test of many samples, is now compiled and ready for puhlication. This list as given in Table III contains the quantities of the different kinds of grain availahle.

Table III—Seed Listed for Sale

Crop	Quantity
Corn	274,800 bu.
Kafir	82,312 hu.
Sorgo (cane)	40,061 bu.
Feterita	11,816 bu.
Milo	31,073 bu.
Sudan grass	309,722 lbs.
Millet	21,869 hu.
Alfalfa	11,677 hu.

Purchasing Seed From a Distance

The committee advised that if home-grown seed is not availahle, seed which has been grown under conditions similar to those under which it is to he planted should if possihle he secured. In many localities in the central and western part of Kansas it will be necessary to import seed. For Central Kansas, varieties of corn that mature in 115 to 120 days should he secured from Eastern Kansas or from Missouri, preferably upland-grown seed from localities of about the same latitude should be obtained. Large-growing late-maturing varieties, especially those ordinarily grown on fertile creek or river bottom, should not he used. Early varieties from Northern Oklahoma or Southern Kansas can he moved some distance north with satisfactory results, and seed from this source can if necessary he used. For the western third of the state only early varieties which mature in 100 to 110 days should be planted. These varieties will be difficult, if not impossihle, to ohtain this season. For that reason in the western portion of the state it will he advisahle to limit the acreage of corn to the supply of adapted seed that is availahle and to plant the rest of the acreage of rowed crops to milo, dwarf kafir, feterita, and varieties of cane that are known to be well adapted to conditions prevailing in that section of the state.

It may also he advisable to summer fallow for wheat a part of the land in this section of the state for which it may he difficult to secure seed. Seed can also he saved by planting corn or sorghum in wide rows, twice the normal width (seven feet apart). A crop equal to or greater than that obtained hy the ordinary method of planting can often be grown, and at the same time the ground is left in excellent condition for wheat. This method of planting permits the use of two-row cultivators and other large types of machinery to a better advantage than the ordinary manner of planting, and the ground can he worked more rapidly and economically. Corn and sorghum planted in wide rows resist drouth hetter than that planted in rows normally spaced.

Spring crops should not he planted too early this season. When there is an abundance of good seed and a large acreage of corn to plant, it is perhaps advisable to start planting somewhat early, hut in a season of this kind when there is a scarcity of good seed and when most of the seed that is available for planting is not of the strongest vitality, no chances whatever should be taken. Seed should not he planted until the season is far enough advanced and the ground warm enough to insure prompt germination.

Crops for Late Spring Planting

Some may have difficulty in securing a stand of corn, either because the seed planted is not of strong vitality or because of unfavorable weather conditions following planting. Seed should, therefore, be provided for a reasonahle amount of replanting. The earlier varieties of corn can be used for this purpose, hut there will he such an urgent demand for varieties of this kind for planting in Western Kansas and in the northern states that there will be a shortage of seed of these varieties. If the replanting can be done promptly, kafir may he used in place of corn. If too late for kafir, feterita or milo can he used. These crops can be safely planted over most of Eastern or Central Kansas as late as the middle of June, and Sudan grass can he planted with safety up to July 1 or even later. There will be, therefore, a demand for these crops late into the spring and those who have a surplus of seed for which there is no early demand should still hold it for seed purposes.

In pursuance of the program of increased production which we are compelled to follow because of the great need, the committee offered the following suggestions in condensed form:

1. Put forth increased efforts to see that no corn or sorghum seed is planted this spring that has not been tested for germination and is not known to be good.
2. Locate and hold in reserve every availahle supply of seed of all kinds for communities that may need additional supplies due to the failure of some crop.
3. Watch insects and diseases.
4. Prepare ground for the crops in as good condition as existing lahor conditions will permit.
5. Delay planting corn and kafir until the ground is warm, in order to conserve seed.
6. Use only seed adapted to conditions. Avoid planting in Western Kansas large late-maturing varieties of corn from Southeastern Kansas. It will he hetter to plant milo, which is much more certain to produce grain.
7. Cultivate rowed crops thoroughly while they are small. Corn and kafir cannot be cultivated too much while small. This is the time to kill weeds.
8. Push the garden work. Let us not be satisfied with less than a garden for every family.
9. Keep up the work started last season in preserving and canning fruit and vegetahles so that nothing shall he wasted.
10. Wage campaign for maximum acreage of all crops.
11. Stack wheat and oats in Eastern Kansas that cannot be threshed promptly. Avoid waste wherever possible.
12. Plow oat and wheat ground as early this summer as possihle for wheat next fall. It is possible to increase the yield of wheat by 20 per cent in this way.
13. Start this spring to think about wheat for fall seeding. Remove rye as soon as it heads from wheat fields that are going to he saved for seed. This will better the grade of wheat and increase the yield.
14. Select seed next fall for crops fo spring planting; see that the seed i. properly stored over winter.
15. Prepare land for spring crops thi fall.

GENERAL FARM AND STOCK ITEMS

Something of Interest For All—Overflow From Other Departments

THERE has been some criticism of the Federal Farm Loan Board. The war has introduced unforeseen obstacles. The withdrawal of foreign capital and a considerable amount of domestic capital from the farm loan field as a result of governmental borrowings and the more attractive interest rates offered in railway, municipal and other investments has brought American agriculture face to face with a serious financial situation, it is pointed out in the first annual report of the Federal Farm Loan Board, which was submitted to the Speaker of the House in Hanuary.

Millions of dollars of foreign capital which had been invested in farm mortgages in the United States have been withdrawn on account of the war; the funds of large corporations and individual investors which have been employed freely in the making of farm mortgages in the past are being kept in more liquid and available form on account of the war conditions, and a great deal of local capital heretofore loaned to farmers has been diverted because of more attractive interest rates in other fields.

All of this has thrown a tremendously increased burden upon the newly created Federal Farm Loan System. Not only has the reduction in the amount of available funds for farm loans increased the demands upon the Farm Loan System, but it has multiplied the difficulties under which the Farm Loan System operates because the capital which the Federal Land Banks lend to farmers is procured by the sale of Farm Loan Bonds, and the sale of these bonds has been interfered with by this abnormal financial condition. To provide relief from this condition the report of the Federal Farm Loan Board which is signed by the Secretary of the Treasury, William G. McAdoo, ex-officio chairman; George W. Norris, Farm Loan Commissioner; Herbert Quick, W. S. A. Smith, and Charles E. Lobdell, members, urges upon Congress the importance of authorizing the Secretary of the Treasury to purchase Farm Loan Bonds during the coming year to the extent of $100,000,000 if necessary, these bonds to be resold to investors as the demand for them develops. The Farm Loan Board urges this step as a means of providing the basic industry of the United States with the capital needed to increase food production during the war; to stabilize interest rates; and to encourage the purchase of the bonds by relieving purchasers of the fear that the bonds may be pushed for sale at unpropitious times.

Buy Baby Bonds

"It is the patriotic duty of every citizen who is in a position to do so to invest in War Savings and Thrift Stamps and thereby help the nation to win the war," says D. F. Houston, Secretary of Agriculture. "The purchase of even a 25-cent Thrift Stamp is a definite contribution to this end.

"War Savings and Thrift Stamps foster the habit of thrift in small expenditures, make it possible for nearly every one to purchase what are in reality small government bonds, and offer a unique opportunity to the people at once to help their government and to economize conveniently for the purchase of the best investment securities in the world.

"To win this war we must have both men and money. I know that every farmer wants to do everything in his power for the nation in this day of trial. He will not only labor to produce the necessary foodstuffs but will also generously contribute of his means to make it possible for the men at the front to achieve victory. I am confident that the farmers of the land will not permit any other class to take the leadership in supporting the government in this crisis, financially or otherwise."

Increased Farming Costs

During a period of rising prices, the earlier part of the period is almost invariably the more profitable for the producer. This is an economic principle that applies to farming as well as to other lines of business. As prices increase, production costs also increase, but tend to lag behind the rise in prices. When the rise in price begins to slow up, production costs catch up and eventually the margin of profit becomes much narrower. To overcome this, the ordinary procedure in a business concern is to conduct the various operations with greater skill and economy.

A common remark of farmers is: "Give us the season and the prices, and we can make the profits." We must expect, however, narrower margins of profit for a time because of the increased cost of production. This is a condition difficult to overcome. A close study of farm management problems is well worth while under the conditions now operating. Some interesting figures on man and horse labor costs, as determined on a group of typical Missouri farms, have recently been given out. On these farms accounts have been kept in co-operation with the Missouri College of Agriculture.

The figures show that in 1913 the man labor cost for each hour of work was 12.5 cents; in 1914, 12.8 cents; in 1915, 14.1 cents; in 1916, 16.3 cents, and in 1917, 17 cents. The horse labor cost for each hour of work on these same farms is as follows: In 1913, 7.9 cents; in 1914, 8.2 cents; in 1915, 7.7 cents; in 1916, 9 cents, and in 1917, 12 cents.

The cost of putting in wheat on these farms, including seed, machinery costs, man labor, and horse labor, has of course increased materially during this period. The cost per acre the fall of 1914 was $4.22; the fall of 1915, $4.18; the fall of 1916, $5.50, and the fall of 1917, $6.66.

Eight-Hour Day for Farmers

No farmer expects an eight-hour day, but he does have a right to demand that in figuring the cost of his products the eight-hour basis be used. The eight-hour day is the unit in figuring the labor cost of all manufactured goods which must be purchased for use on the farm and it is clearly an injustice to the people of the farm to set the eight-hour day against the ten to fourteen-hour day in figuring production costs.

The National Grange took up this question at its recent annual meeting in St. Louis. A resolution presented by L. J. Tabor, state master of Ohio, was adopted exactly as presented.

This move on the part of the National Grange will certainly have the endorsement of the farmers generally. It does not suggest an eight-hour working day on the farm. Anyone at all familiar with farm conditions knows this is an impossibility, but the action of the Grange points the way to a reasonable price-fixing on products corresponding with the prices of manufactured articles depending on the labor day of the various trades and professions. The resolution is as follows:

"Whereas, the eight-hour day has become the established custom in the manufacturing and transportation systems of the country, and

"Whereas, practically everything that the farmer buys must be paid for by him on the basis of an eight-hour day for the labor cost of the article, and

"Whereas, we recognize that an eight-hour day is impossible on the farm if we are to feed and clothe the world, therefore be it

"Resolved, that in setting the price or determining the cost of any agricultural produce the labor cost shall be figured on the basis of an eight-hour day and at the prevailing wage in the industries."

Beef Calf Clubs

One of the most important movements in improved stock husbandry is that of organizing boys' or boys' and girls' calf clubs. These clubs, usually limited to a local community, have accomplished wonderful results in the way of stimulating interest in live stock improvement. As a rule some enterprising bank in a community assumes the responsibility of organizing the club and advances the money for the purchase of the calves. When the calves are assembled they are appraised by breeders of experience and distributed among the members of the club by lot.

As a rule a sale to which all of these calves are consigned is set for a date from six to twelve months following the beginning of the contest. Every member of the club takes personal care of his or her calf and when sold the difference between the purchase price, plus interest, and the selling price becomes the gross profit of the club member. We have one instance in mind where registered Shorthorn calves were used that the average gross profit on the entire offering was a little over 100 per cent.

One Illinois bank has adopted a three-year plan and instead of buying calves, bred heifers are secured, and at the end of the three-year period the produce from these heifers is to be offered. This places the operations on a breeding basis and will give the club members a practical experience that could not be obtained upon a short period plan. It makes practical breeders of them and insures to them a much larger margin of profit.

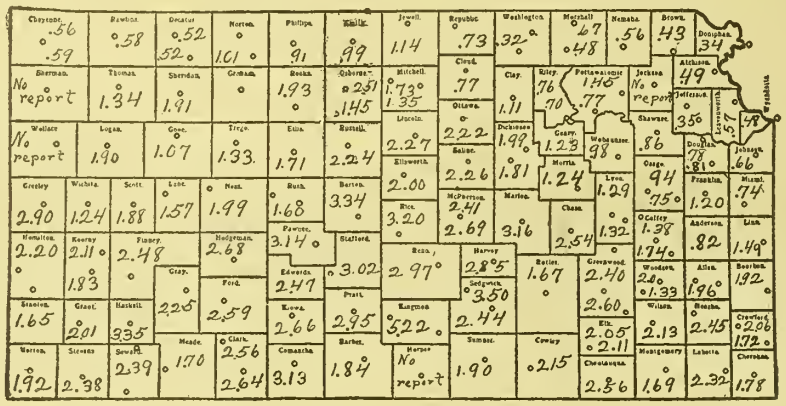
The American Shorthorn Breeders' Association and various state Shorthorn breeders' associations are co-operating extensively with banks and county agents in organizing these calf clubs and through their efforts registered calves have been selected almost without exception.

The results obtained thus far are of a most useful nature, for invariably where these clubs have been formed an increased call for registered breeding stock, and particularly registered sires, has followed.

At this time, when there is such an urgent call for increased beef production, when better standards are necessary on account of the advancing price of land and farming costs, these clubs serve an important purpose.

Precipitation of March 1918

Reports Furnished by S. D. Flora, Meteorologist, Weather Bureau, Topeka



KANSAS received more moisture in March than in January and February combined and more than in any other month since September of last year. Most of it fell the first few days or at the end of the month and in all parts the ground was very dry, with severe dust storms on several days until the soaking rains of the 28th and 29th, which improved crop prospects greatly. Wheat made a decided improvement in the eastern and south central portions, but much was abandoned in the north central and western counties. Farm work of all kinds was well up with the season. Oats were sown and much came up and barley seeding was begun.

What's an Aeroplane?

Here's the answer, published in The American Boy. That is, it tells what materials are necessary for a single aeroplane of the more simple type, not counting any of the materials necessary for the engine: Nails, 4,326; screws, 3,377; steel stampings, 921; forgings, 798; turnbuckles, 276; veneer, 57 square feet; wire, 3,262 feet; varnish, 11 gallons; dope, 59 gallons; aluminum, 65 pounds; rubber, 34 feet; linen, 201 square yards; spruce, 244 feet; pine, 58 feet; ash, 31 feet; hickory, 1½ feet.

Who would have thought it? The figures are from the Aviation Section of the Signal Corps.

Food Shipments to Allies

A general idea of the quantity of food sent to European allies by the United States from July 1, 1914, to January 1, 1918, is given by figures just announced by the U. S. Food Administration. In that period the United States has furnished complete yearly rations for 57,100,933 people. In addition there was enough extra protein to supply this portion of the diet for 22,194,570 additional men.

The total export of wheat and flour to the principal allies is equivalent to about 384 million bushels. Pork exports for the three and a half years amounted to almost two billion pounds. Exports of fresh beef totaled 443,484,400 pounds. The amount of food exported to Russia is negligible compared with that sent to the western allies.

As to German Efficiency

The searchlight of war has brought out many interesting facts, and one of these is that the vaunted German efficiency will not always stand the test of comparison with American efficiency.

The Germans boasted of being the greatest farmers on earth. Investigation shows that in efficiency in agriculture, measured by the produce per acre, America being graded 100, Belgium leads the world, at 205; Great Britain comes second, at 164; and Germany third, at 155; America comes fourth.

But the better test is the man test rather than the acre test, and here America leads the world by over two to one. Again, grading America at 100 per farm worker, Great Britain produces 43 and Germany 41. The American farmer cultivates twenty-seven acres, the German farmer but seven. With the aid of vast quantities of fertilizer the German produces more per acre, but he produces at a much greater cost per bushel and he produces much less than half as much per man.

Labor's Message to Kaiser

Mr. Gompers spoke well for American labor when he said:

"The Republic of the United States is not perfect; it has the imperfections of the human—but it is the best country on the face of the earth, and those who do not love it enough to work for it, to fight for it, to die for it, are not worthy of the privilege of living in it.

"I say to the kaiser, I say to the Germans, in the name of the American labor movement: You can't talk peace with the American workers; you can't talk peace with us; you can't talk to us at all now. We are fighting now. Either you smash your kaiser autocracy or we will smash it for you."

Use good breeding stock from good egg-laying yards of the breed you choose. Better pay a reasonable price for stock from a good flock you know than a fancy price for stock from highly advertised flocks you do not know.



Prevent Spread of Disease

IT OCCASIONALLY happens in case of sick animals that the owner is able to make an accurate diagnosis. "More often," says Dr. F. W. Caldwell, of the Missouri College of Agriculture, "he lacks the necessary understanding of the structure and function of the various parts of the animal body, or of the symptoms, pathology or lesions of disease and the experience with diseased animals to diagnose the complaint properly. This being true, and since veterinarians are too often not called until too late or until the time they could render the greatest service is past, it behooves farmers to inform themselves in regard to the consequences of neglect.

"Many animal diseases depend for their origin on a germ, usually specific for the disease in question, and the germ in turn depends for its existence on the opportunity to reproduce itself in the animal body. Prevent its entrance into the animal body and it in time is unable to reproduce itself, and likewise the disease. Also prevent its transmission from one animal to another and we limit the ravages of the disease.

"It is a subject of almost daily observation of veterinarians that a more or less widespread disease among the animals on a farm or in a locality had its inception in a single animal that was observed to be 'off feed' but was given no particular attention until days later, when several others showed the same symptoms.

"The one man in the community who is trained to diagnose animal diseases and administer treatment is the veterinarian, and his services should be sought early in the case of sick animals, but in the meantime it is unnecessary and evidencing a lack of good business principles to allow the sick to remain with the well possibly to infect them. On the first evidence of disease of any kind the sick should be separated and kept isolated until the nature of the affection is determined. Observance of this practice will often save many valuable animals.

"The same principle should be observed when purchasing animals which may have been exposed to various infections without the knowledge of the purchaser. Such animals should not be allowed to mingle with those already on the farm, and efforts should be made to determine the existence of infection, such as tuberculin test and tests for abortion."

Plant Feed Crops

J. E. Payne, of Oklahoma, states that the experience of farmers in the southwest part of that state during the past six months has shown that it is impossible to ship in all the feed needed, no matter what prices are. Work horses need about three tons of rough feed and from fifty to a hundred bushels of grain a year for each animal. Milk cows or growing beef cattle need fully as much feed as work horses if they are to be kept in the best condition and make maximum production. Of course, young stock requires less than the grown animals.

The Council of Defense of Oklahoma suggests that an acre of cane be planted for each head of horses and cattle kept, and that enough kafir, milo, and feterita be planted to insure a liberal supply of grain. When well tilled, these grains will average from ten to forty bushels to the acre.

These are good suggestions and are as applicable to Western and Southwestern Kansas as to Oklahoma. It is always most important to plan carefully for growing enough feed for the live stock. Nothing so disorganizes the continuity of live stock farming as lack of suitable feed.

Sheep and Wool

Effort should be made to increase the production of sheep and wool. Increase in farm flocks is recommended wherever conditions are favorable and the first cost of stocking is not too high.

The wool produced in this country furnishes only about 50 per cent of the amount used in peace times; the war demands have emphasized the seriousness of this domestic shortage. To equip two million soldiers and clothe them for one year would require the entire quantity of wool grown annually in this country.

During recent years we have shorn about 35,000,000 fleeces annually, and the pulled wool taken from sheep and lambs slaughtered for meat brings the total clip up to the equivalent of about 40,000,000 fleeces. If all this wool were suitable for military use, it would supply only two million men. The production of wool in the United States has remained practically stationary from 1914 to 1917, while imports increased 48 per cent and the estimated net supply increased only about 21 per cent.

That mutton and wool production in this country can be increased greatly admits of no doubt. This can be accomplished by developing sheep husbandry on farms.

Sudan Grass for Pasture

C. S. T., Pawnee County, asks about Sudan grass as a pasture crop and whether it will cause cattle to bloat.

Sudan grass is an annual belonging to the sorghum family. Since it must be sowed each year, it cannot be considered as a permanent pasture crop. It makes a fine quality of hay and is greatly relished by all kinds of live stock in this form. The aftermath which comes up is quite often grazed down in the fall. It does not produce coarse stems like cane and when made into hay there is practically no waste.

Plants of the sorghum family under certain conditions contain the deadly prussic acid in sufficient quantities to poison live stock. This is most common in cane. There have been very few instances of fatal poisoning from pasturing Sudan grass. In fact none have been reported from Kansas. It has generally been assumed to be fairly safe, although since it is a member of the sorghum family it is well to be on the safe side and watch the stock closely when first turned on the grass. It is not liable to cause bloat when grazed by stock.

A pasture test was made with milk cows at the Dodge City Branch Experiment Station a year or two ago. In this test three acres of Sudan grass kept an average of twenty cows in good condition for thirty-two days during a period of extremely dry weather. It has been figured out that with an annual rainfall of only 4.6 inches this three-acre patch of Sudan grass furnished pasture equivalent to 375 days' grazing for a single animal.

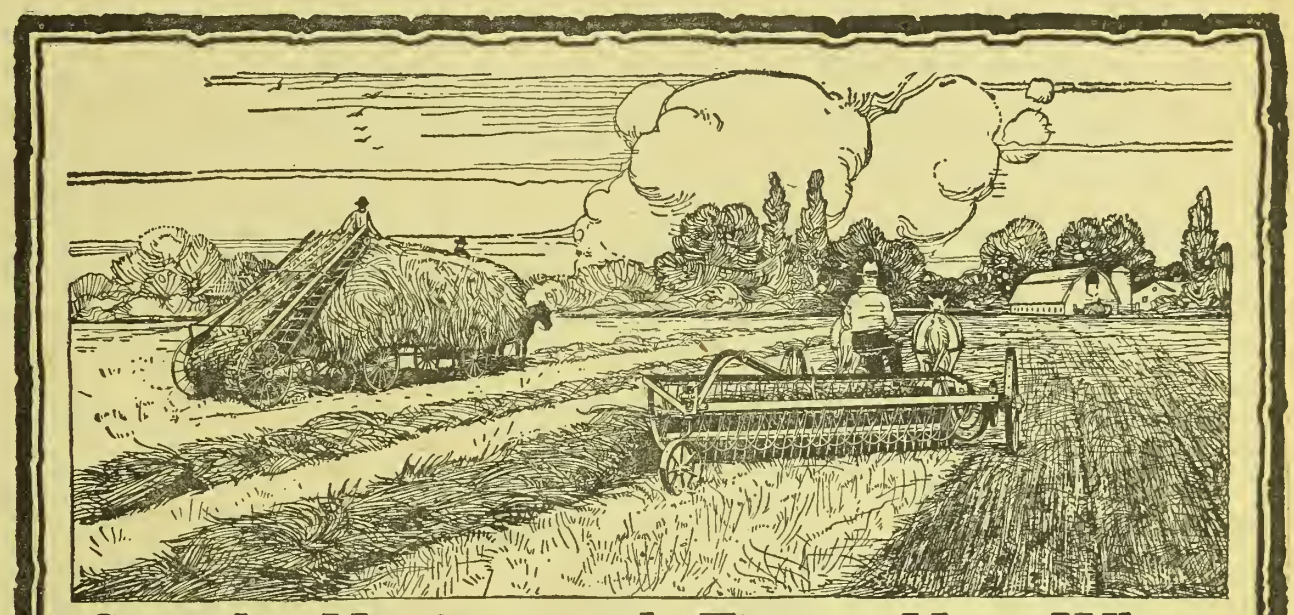
Live Stock on Farm and Range

During the first half of 1917 there was particular apprehension lest the number of live stock should be decreased. As a matter of fact, owing to the greater abundance of feedstuffs that the large crops of the year made available and the prevailing prices, there was revealed a most gratifying increase in the principal classes of live stock. According to the Department of Agriculture figures there has been an increase in the number of horses during the year of 353,000, or 1.7 per cent; of mules, 101,000, or 2.1 per cent; of milk cows, 390,000, or 1.7 per cent; of other cattle, 1,857,000, or 4.5 per cent; of sheep, 1,284,000, or 2.7 per cent, and of swine, 3,871,000, or 5.7 per cent. The increase of 4.5 per cent in the number of "other cattle" is due to an increase of 4.2 per cent in calves; 22.7 per cent in heifers for milk; 8.5 per cent in other heifers; a decrease of 3.2 per cent in steers, and an increase of 1.9 per cent in "other cattle" (milk cows not included). Swine over six months old increased 4.5 per cent; those under six months, 7.8 per cent. Sheep over six months increased 0.3 per cent; under six months, 11.1 per cent.

It will be of interest to note that the number of live stock estimated on January 1, 1918, shows the following increases over January 1, 1914, the year before the beginning of the European war: Horses, 601,000, or 2.9 per cent; mules, 375,000, or 0.8 per cent; milk cows, 2,547,000, or 12.3 per cent; other cattle, 7,691,000, or 21.5 per cent; swine, 12,441,000, or 21.1 per cent. It is especially noteworthy that within the last year, for the first time in many years, the number of sheep has shown a tendency to increase.

We must put every ounce of effort behind the men behind the guns. Make your home service reach the firing line.

From now until next harvest watch your grocery list or there will be no groceries to list.



Speedy Haying and Finest Hay When Help is Scarce and Time is Short

WHEN the haying rush comes on this season, a good deal of hay money is going to be lost on many farms — and saved on many other farms — in the short space of a few weeks. A very few days' delay, a rainy day or two, poor curing facilities, and hay values vanish like magic. Everything depends on haying machine preparedness. Will you be ready for haying?

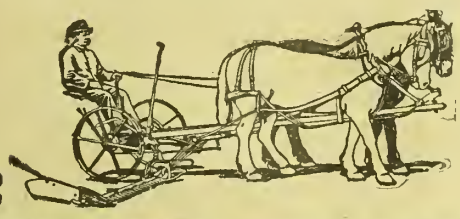
Good hay is made in fast time with little help, year after year, on farms equipped with mowers, rakes, tedders, side delivery rakes, loaders, etc., sold by International Harvester dealers.

Champion, Deering, McCormick, Milwaukee and **Osborne Mowers, Dump Rakes** and **Tedders** have been too long and favorably known on forty million acres of hayfield to need description.

Every hay grower should become familiar with the construction of the new **International, Keystone** and **Osborne Combined Side Delivery Rake and Tedder.** This popular, economical machine has two duties in one — it can be instantly adjusted for rake or for tedder. It rakes clean, teds thoroughly, and handles hay gently. It is a left-hand-delivery rake, which means it can follow the mower closely and strike the heads first (not the stems). It does clean work, piling two swaths at once on the clean stubble (not on an unraked swath), which means proper curing. Quickly adjustable to any condition of hay and ground.

International, Keystone and **Osborne Windrow Loaders** are built to last. Pulled easily by two horses, they load uniformly, leave the field clean, lift hay over 10 feet, do not thresh off blossoms and leaves. Sold with or without forecarriage and are released easily from top of load.

Hay values are high. These tools, which put hay under cover in prime condition four or five hours after cutting, return their price, and more, to your pocket. The International Harvester dealer can furnish you with proper sizes and types and special equipment. (The lines include also sweep rakes, stackers, and combined sweep rakes and stackers.) WARNING: This is a year of big demand for machines, scant supply and handicapped shipping. Act early and be certain. See the dealer — write to the address below for folders.



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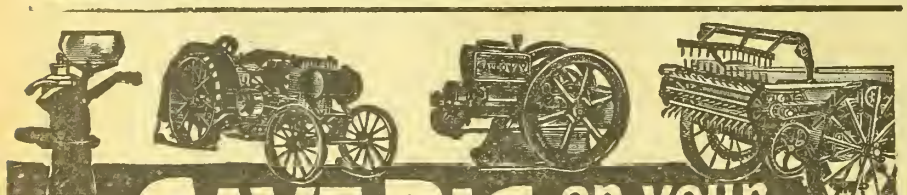

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"REMEMBER GALLOWAY'S BIG ANNUAL HEREFORD SALE, APRIL 30th, 1918. BE SURE AND COME."

Prayer of a Contented Cow

I am a milk machine.

I ask only for proper food and care and I will produce rich, pure, sweet milk.

The more care given me, the more and better milk I can and will produce. I want to do it because it is my life's work.

Please remember, dear master, I must work twenty-four hours each day that I can produce milk, both night and morning. In order to produce the maximum efficiency, I must work under favorable conditions.

I must have good feed from rich pastures.

I must have pure water and I must have plenty of fresh air. I must not be compelled to stand out in the rain or in the boiling hot sun.

Do not tie my head so that I cannot protect myself from the pesky flies, and so I cannot lie down and rest with ease and comfort. If I must be tied in a stall, wash and brush me regularly, so that foreign dust and dirt will not get into my milk. Please look after my hoofs and keep them healthy.

Please do not swear at me and do not strike me.

I like to be petted often.

Kind words also will help make me happy and contented. — ELBRIDGE A. STUART.

KANSAS FARMER DAIRY CLUB

Essentials in Dairy Herd Management

THERE are five essentials in building up a dairy herd:

Never forget that the sire is more than half the herd. Be sure that the sire heading your herd will transmit dairy characteristics.

Weed out the unprofitable cows by the use of the Babcock test and the scales. Dairy Club members are learning how to do this by keeping a milk and butter fat record of one cow for a year.

Raise and keep all the heifer calves from the best cows.

Practice winter dairying as much as possible. You will get more milk, better prices, and at less cost.

Provide comfortable quarters for the milk cows and other dairy stock.

Get these five points clearly in mind and follow them in practice, and you are certain to make progress in the dairy business.

You should learn how to select good cows from outward appearances also. This will come from experience and those who keep records and study them in connection with their cows will soon learn to select reasonably good cows by their appearance. The essential points of a good dairy cow are: Indications of constitutional vigor, food capacity, development of the nervous system, good blood circulation, and ability to produce milk abundantly. Prof. J. H. Frandsen of the Nebraska Agricultural College, one of the dairy authorities of the country, describes these points as follows:

Constitution.—Well-distended nostrils and good heart girth due to breadth and depth of chest are the best indications of that quality of health and vigor commonly referred to as constitution.

Food Capacity.—Great length from shoulder to hip bones, together with great width and depth of barrel, indicates well-developed digestive organs, which enable the cow to consume and digest large quantities of food.

Nervous System, or Nervous Temperament.—A good dairy cow is active and intelligent. Large, bright eyes, set rather far apart, a broad well-dished face, and a spare and angular form are good indications of a nervous temperament.

Blood Circulation.—A good circulatory system is necessary to carry the digested food from the abdominal region to the udder. The milk veins should be large, tortuous and branching, entering as many large wells as possible.

Producing Ability.—The digested food is converted into milk only after reaching the udder. A large udder that is soft and pliable, but not flabby when empty, and well developed forward and attached rather high behind, with teats of medium size and squarely placed, are the best indications of the cows' producing ability.

We would like to especially emphasize the importance of weighing and testing milk. No dairyman has ever made any pronounced success in developing a herd without keeping records. By carefully weighing and testing and weeding out the poor cows, the dairymen of Denmark in five years have succeeded in raising the average annual butter fat production of each cow more than forty pounds. This has increased the profit from each cow over $20 a year. Kansas dairymen can secure equally good results by following the same systematic methods. The record work can be more economically conducted where there are enough farmers in the community interested in testing their cows to make a cow testing association possible. Such an association can employ a specially trained man who will make regular tests of the herd, spending a day each month with every member of the association.

We can weed out the poor cows by weighing and testing, but to produce better cows we must depend upon sires having high production records back of them. The sire should always be better bred from this standpoint than the cows. By following this practice the young stock, as they develop, will be better producers than their mothers.

Improvement can be most rapidly brought about through community effort. If all the men milking cows in a certain community agree to handle the same breed, they can co-operate in purchasing and owning the best of animals as sires. They can also realize a better market for any surplus stock, since more buyers are attracted to a community where they can find a considerable number of animals and thus be able to buy in carload lots.

Winter dairying is to be recommended largely because butter fat is generally fully a third higher in price in winter than in summer. Cows which freshen in the fall or early winter, if given the best of care and the right kind of feed, will produce a large flow of milk through the winter and will go on pasture at a time when they would naturally be drying up. This tends to lengthen the milking period, for cows nearly always respond to the early spring and summer pasture with an increase in milk. Handled in this way the winter cow will produce more milk and butter fat in a year than the cow freshening in the spring. There is also more time for milking and handling the cows during the winter season. Where good shelter is provided and plenty of the right kind of feed, the weather is really more suitable during the winter than summer.

It is very important to know how to feed milk cows. Protein and carbohydrates are the two kinds of nutrients found in feeds with which we are most concerned. We must be able to roughly group or classify the various feeds into two general classes, those containing a high percentage of protein and those containing large amounts of carbohydrates. The following-named feeds are rich in protein: Aalfalfa, clover, and cow pea hay; linseed oil meal, cottonseed meal, gluten meal, soy bean meal and hay, bran, and oats. Feeds in the carbohydrate group are: Corn, cane, kafir or corn silage, timothy hay, oat and wheat straw, cane and kafir fodder, prairie hay, etc. The protein feeds are necessary for the production of muscle and milk. The carbohydrates produce fat and energy. We must learn how to balance the ration by using both classes of feed in the right proportion. Home-grown feeds are always the cheapest, and we should plan to grow as much of our cow feed as possible each year, and particularly so in the coming year, because purchased feeds are extremely high in price. Be sure to plan for plenty of alfalfa or other hay containing large amounts of protein, also silage and plenty of forage crops, such as cane and kafir or Sudan grass. The following rules, summarized by Professor Frandsen, will be helpful in determining the amount of feed required by each cow:

Feed all the roughage, such as alfalfa, silage, etc., the cow will eat up clean.

Feed approximately one pound of grain for every three pounds of milk produced each day.

Give the cows as much feed as they will consume without gaining in weight.

Feed some succulent feed, such as corn silage or roots, to make the ration more palatable.

Be prepared to supplement the pasture by feeding silage or some kind of green feed when the dry season sets in.

There is no more important factor in the profitable feeding of dairy cows than the silo. The silo is our best insurance against dry weather and high-priced grain. We should watch the pastures closely as the summer advances. If they get short, be prepared to supplement the grass with some green forage crops or summer silage. Such crops as corn, oats, Sudan grass, cane, or alfalfa, can be used during the short-pasture period to supplement the grass.

The Owl's Design, a twelve-year-old Jersey cow in the Kansas Agricultural College herd, has just finished a test in which she produced 602 pounds of butter fat for the year. This is the third year in which this cow has produced more than 600 pounds of butter fat.

If the ewes lamb late in the season on pasture, they need very little attention. In good weather two or three visits to the pasture during the day is probably all that is necessary. Beginners with sheep do not as a rule realize how important it is to have the udders cleaned up before the lambs come. All wool and dirt which might hinder the lamb in nursing should be removed. Sometimes ewes give so much milk that at first the udders become caked and inflamed. These should be watched carefully to avoid the possibility of the udder becoming spoiled.



Getting a Stand of Kafir

MANY farmers report difficulty in securing a stand of kafir. Learning of the uniform success of George W. Smith, of Elk County, Kansas, in getting good stands, J. C. Mohler, secretary of the State Board of Agriculture, induced Mr. Smith to write of his methods. They are so simple and effective, and the article so timely, it is well worth careful reading and close study:

Answering your inquiry as to my method of getting a stand of kafir, which I have not failed to get for several years, will say that in planting there are two things to be considered: First, the seed, and second, the machine with which it is planted.

In getting seed I never, if it can possibly be avoided, plant machine-threshed seed. If I have to buy seed I always buy seed in the head and thresh it by hand, as I also do with my own seed. If only a small amount of seed is needed it can be rubbed out on a washboard. Take a few heads in your hands, give them a few rubs, turn them over and give them a few more rubs, then strike them on the board to shake out the loose seeds and you are done. If quite an amount of seed is needed it is best to pile it down on the barn floor or better yet on a canvass, out of doors, and pound or flail it out, a slender stick or a pitchfork serving as a flail. It is not necessary to be too particular about getting it clean, as the chickens will be glad to finish the job.

After the seed has been rubbed or pounded out, take two tubs or pails and pour the seed from one to the other and let the wind blow out all the dirt and chaff that will come out, after which take a sand sieve with the meshes just large enough to let the seed go through but keep the chaff and unthreshed seed back, and run it through the sieve. You may have to winnow and sift it two or three times, but when you are done you will have seed that will all grow, ninety-nine times out of a hundred. It does not take long to thresh out all that a person needs. A sand sieve about fifteen inches in diameter can be bought at most any hardware store for 30 or 40 cents. Take some seed with you to the hardware store and you will be sure to have the right size sieve.

As to planting, I generally use a lister and when I have time I double-list and consider this the best way to plant. It conserves moisture and kills more weeds and leaves a cleaner field than any other method with the same amount of labor. Single-listing or disking and listing give good results for the amount of labor expended.

The most important thing in planting kafir is the method of covering the seed. The usual method is to have a subsoiler on the lister and plant the seed in the loose dirt behind the subsoiler. This is all wrong. The seeds sometimes sprout and die in this loose dirt and a big rain will wash the seed, dirt and all, out of the furrow. My method is to take the subsoiler off the lister (my lister has a knife under it to keep it in the middle of the ridge) and drop the seed right on the firm moist ground and cover with quite a little dirt. Two or three inches does not seem to be too much. Have your covering shovels or disks set down so they will run deeper than the middle of the furrow. This makes a small furrow on each side of the middle that will carry off the water and leave the dirt and seed in the middle instead of running down the middle and washing out the dirt and seed as is done when the subsoiler is used. My lister has two wheels running behind in the furrow and they press the dirt down firm on each side but leave a ridge of loose dirt right on top of the seed. A hard rain will beat and pack the dirt down hard on the seed and sometimes it will bake, but this little ridge of loose dirt will nearly always crack open and let the seed come through. In planting the seed right on the hard moist soil and covering it with loose dirt, the moisture will come up to the loose dirt and sprout the seed and keep it growing instead of sprouting and then dying as it sometimes does when it is planted in the loose dirt behind the subsoiler.

Be sure to get your shovels or disks down deep enough to go below the middle of the furrow. You may think you are getting too much dirt on your kafir, but after it has been flattened out by a rain or two you will find you have none too much.

Don't be afraid to throw away your subsoiler. You don't need it on your lister any more than you do on your corn planter, except perhaps to make it run straight, and a knife or a pin will do just as well.

One thing more: It is better to have quite a number of small holes in the lister plate than to have fewer and larger holes. My lister plate has sixteen holes drilled with a three-sixteenths bit and well reamed out so the seed will not stick in the plate. If your land is rich a seven-thirty-seconds drill will be better, but the thicker you plant, the longer it will take it to get ripe, as a rule.

One reason a good many people fail to get a stand of kafir is because they plant too early. In this county the first of May or not before the last week in April is early enough and always the soil should be warm.

Planting Garden Seed

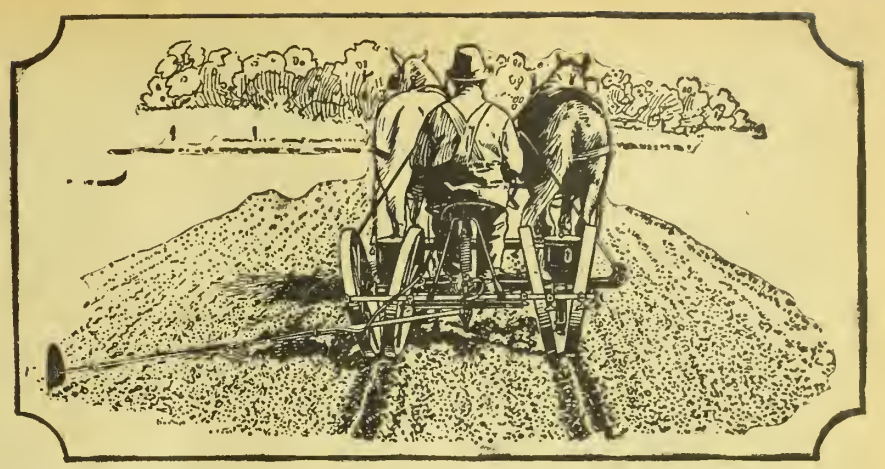
For successful germination of seed, four things are necessary, namely, live seed, air, moisture, and warmth.

It requires care and good judgment to sow seed properly. A great many failures may be traced to improper sowing.

Avoid cheap seeds. In the end they may prove the most costly. Buy from reliable seed houses and select standard varieties for your locality. Having secured good seed, the time of planting is next in importance. Beets, onions (seeds and sets), smooth-seeded peas, cabbage, parsnips, carrots, salsify, radish, spinach, turnips and potatoes may be planted as early as the ground can be put in the right condition. Vine crops, corn, tomatoes, peppers, beans and egg plants should not be planted until the soil has warmed considerably and all danger of late spring frost is past.

Seeds planted out of doors are usually covered deeper than if sown in the hotbed or greenhouse. No set rule can be laid down for the depth garden seeds should be planted. Small seeds are covered with about one inch of soil, while some of the larger are planted from two to four inches below the surface. If the soil is dry at sowing time it is well to firm it over the seed, but otherwise it is usually not advisable. The soil should never be permitted to bake after the seeds have been planted. Stir it lightly after each rain, using an iron rake for this purpose. This will also retard the growth of weeds. Some species are very slow to germinate and should be planted with a species that is rapid in its germination. For example, use radish with parsnips. The radishes break the ground for the parsnips and help to mark the row so that cultivation may be started early.—From Kansas Experiment Station Circular, "The Home Vegetable Garden," by M. F. Ahearn.





The Moline Four-Wheel Corn Planter

A simple, reliable, perfected four-wheel planter

When you use a Moline Four-Wheel Corn Planter to plant your corn you plant every kernel in every hill, the crop germinates quickly and uniformly, gets a quick start on the weeds, and matures early and uniformly. This means a bigger and better crop and more money for you.

All the seed is planted at the same depth because the runners set well back between the wheels. The four wheels pack the soil firmly from the sides and leave the top soil in a loose condition. This causes rapid rise of soil moisture and quick germination of the seed. The young plants push through the loose top soil easily. The ridges made by the four wheels will not wash out as easily as those made by the ordinary planter.

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To secure this she must have assistance. She has the land but needs the men. The Government of the United States wants every man who can effectively help to do farm work this year. It wants the land in the United States developed first of course; but it also wants to help Canada. Whenever we find a man we can spare to Canada's fields after ours are supplied, we want to direct him there. Apply to our Employment Service, and we will tell where you can best serve the combined interests.

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Stock Yards Pig Club

Fifty-four high-class bred gilts, most of them due to forrow in April, have been placed in the hands of boys of Sedgwick and adjoining counties by the Wichita Union Stock Yards Company and the Union Stock Yards National Bank. J. C. Holmes, specialist in charge of the feeding demonstrations at the Wichita Stock Yards, has now closed up the demonstration work which kept him so busy during the winter months, and is planning to visit the boys who have the gilts.

This is the second year that this club work with boys has been conducted under these auspices. Last year nearly all the boys did good work, making substantial profits on their pigs and in addition winning some cash prizes. This year they will have a chance to grow and develop a whole litter of pigs instead of only one or two as was done in the first club.

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WHEN WRITING TO ADVERTISERS MENTION KANSAS FARMER



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

Let us be like the bird for a moment perched
On a frail branch while he sings;
Though he feels it bend, yet he sings his song,
Knowing that he hath wings.
—Victor Hugo.

Drop Thy still dews of quietness,
Till all our strivings cease;
Take from our souls the strain and stress,
And let our ordered lives confess
The beauty of Thy peace.
—Whittier.

Women on Guard

Women of America, your country is at war against the world's mightiest military power.

We entered it when all the nations holding Germany at bay were throwing in their man-power and money-power, spending their millions to end this war by winning it. And still Germany was not defeated.

We entered it when, with their farm folks in the trenches, the fields of our allies were being plowed and sown by the women. But there were not enough, though they worked from dawn till dark.

Those crops have been pitifully small. The women will work and the soldiers will fight to the death, but against hunger they are helpless. Germany knows. She has said that if she can only starve England she will win.

If our allies have to yield to Germany because of hunger, America alone will have to shoulder the burden of winning the world war. And so to save our allies and their liberty and our own, we have pledged our youth, our wealth, our all. But we are not prepared to throw millions of soldiers into the field at once. Our money can not buy bread and meat in Europe for our allies. There is little there to buy.

We must give them food—real food! They need wheat, meat, canned foods, fats. And though thousands of tons of it will be sunk by submarines, still we must ship, ship, ship, until we have saved democracy with food.

Women of America, even as the women of France are guarding the fields day and night, your country calls you to stand guard over the world's commissary. That commissary is the food supply of America. There is enough in it if you will guard it.

You can release shiploads of wheat for these fighters and workers by using less wheat flour in your homes and by using more corn meal, by wasting not a crust or crumb of wheat bread. By eating less beef and pork, and by eating more fresh and preserved or dried vegetables and fish, our supply of meat animals will do for us and our allies. Likewise you are needed to stand guard and see that there is no waste in the world's supply of fats, sugar, and milk in your homes. They are becoming scarcer. As they do, then we ourselves and our brothers on the firing lines and our sisters in the fields and munition factories will suffer.

Three times a day—at each meal—think of America's glorious privilege: to feed the world while it fights its way to freedom. Then remember that you are standing guard, that the opportunity to win this war for humanity is yours.—United States Food Administration.

Victory Bread Suggestions

If you have a good rule for bread, use it, but in place of part of the white flour use one of the other grains either all or a part of the time.

Always keep the dough at an even temperature—about 75 degrees F. Handle and mold these bread doughs with greater care than white bread. If the doughs stick to the hands when kneading down, add more flour at this time.

Wheat-Saving Recipes

Some ways in which substitutes for wheat flour may be used in baking are suggested in Farmers' Bulletin 955, entitled "Use of Wheat Flour Substitutes in Baking," recently published by the United States Department of Agriculture. Directions are given for replacing a part of the wheat flour with corn meal, rolled oats, barley, peanut meal or flour, rice, soy bean meal or flour, graham flour, and potato, both in yeast bread and in hot breads made with baking powder. The bulletin also contains recipes for corn meal dumplings and for griddle cakes and pastry using substitute flours in part.

"Use Potatoes to Save Wheat," Circular No. 106, contains carefully worked out recipes for the use of potato in place of flour in bread making and for biscuits, cake, cookies, stuffing for fowl, and crust of meat pie.

Both pamphlets may be obtained by writing the Division of Publications, United States Department of Agriculture, Washington, D. C. We are sure these free publications will be a great help to the housewife who is earnestly trying to save all the wheat possible and at the same time give her family palatable, nourishing food.

Eggs Give Variety to Diet

Now that eggs are more plentiful and prices not quite so tempting, the possibilities of eggs as a means of giving variety should not be overlooked in the planning of meals. Eggs can be prepared in so many different ways that they may be eaten often without becoming monotonous. Beside boiling, poaching, frying, or scrambling, different combinations with other foods in omelets, souffles, and custards, offer attractive ways of serving them.

Custards may be varied by covering with a meringue made of the beaten egg whites. This may be browned in the oven if desired. Or a foamy custard may be made by lightly stirring the beaten and sweetened egg whites into the custard just before serving. The number of eggs required may be reduced by using cornstarch with the egg yolks to thicken the custard. One level tablespoonful of cornstarch is equal in thickening properties to one egg. If cornstarch is used, the custard must be cooked a little longer to remove the raw taste. A rich flavor may be given either a baked or a boiled custard by "caramelizing"—melting and browning over the fire—the sugar used. As the sugar generates heat of its own during this process, it is necessary to be very careful to avoid burning. A little nutmeg sprinkled over the top of a baked custard gives a flavor that is liked by many people.

An omelet is a wholesome, nutritious, and easily digested dish that is liked by most people. Miss Helen L. Green, instructor in domestic science at the Kansas Agricultural College, gives the following directions for making a plain omelet. Four eggs, four tablespoonfuls of hot water, milk, or cream, one-half level teaspoonful of salt, a few grains of pepper, and one tablespoonful of butter or other fat are required. Separate the eggs. Beat yolks until thick and lemon colored, and add the salt, pepper, and liquid. Beat whites until stiff and dry, and fold them lightly into the mixture until well blended. Heat the omelet pan and oil the sides and bottom with fat. Turn the mixture into the pan, spread evenly, and cook slowly, turning the pan so that the omelet will brown evenly. When well puffed and nicely browned underneath put the pan into a hot oven to finish cooking the top of the omelet. Fold and turn on a hot platter. A sauce may be served with the omelet if desired, though many persons prefer it without.

Variety may be given and the food value increased by adding finely chopped beef, ham, bacon, chicken, fish, cheese, or oysters, to the omelet mixture before pouring into the pan. If made with cove oysters, the liquid from the oysters may be used instead of water or milk. Peas, asparagus, celery, or cheese may be added to a white sauce and served around the omelet, or a tomato sauce may be eaten with it.

A French omelet is less difficult to make and is liked by some persons better than the foamy omelet. In making this omelet, the same ingredients are used, though the French people usually like more pepper than we ordinarily put into our omelets. Beat the eggs just enough to blend the yolks and whites, and add milk and seasoning. Put the fat into the hot omelet pan and when melted turn in the beaten eggs. As the mixture cooks, prick and pick it up with a fork, letting the liquid part run underneath. Do not stir. Cook until the whole is of a creamy consistency. Increase the heat to brown the omelet underneath, and then fold and turn on a hot platter. French omelet may be varied in the same ways as plain omelet.

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France Tightens Her Belt

New French food regulations effective February 25 contain these restrictions necessary to conserve the limited supply of food. Public eating places are forbidden to serve sugar, but customers may bring their own supply. The making of pastries, biscuits, and confectionery is prohibited. All grain which may be used for making bread is reserved for human food. Bread served at meals in public eating places is limited to about three and one-half ounces per meal.

There are severe restrictions on the consumption of dairy products of all kinds, especially butter, cheese and cream.

Potato Bread

1¼ cupfuls mashed potato (packed solid)
1½ teaspoonfuls salt
⅛ to ¼ yeast cake softened in 2 tablespoonfuls of lukewarm water
2¼ cupfuls flour (more or less flour may be needed)

It is impossible to give the exact amount of flour required, because different samples of flour may not absorb the same amounts of liquid. Cool the mashed potatoes to lukewarm, add the salt, the yeast softened in the warm water, and about one-fourth cupful of flour. Mix well, cover, and let rise until very light.

To the well-risen sponge, add the remaining flour, kneading thoroughly. The dough should be very stiff, as it softens considerably in rising. Cover and let rise until double in bulk. Shape into a loaf, cover, let rise again until it has increased two and one-half times in bulk, and bake. This makes one loaf.

Mashed sweet potato or cooked cereal or squash may be used in the same way as the Irish potato. In using any substitute which has a marked flavor it is better to try the bread first with less than one and one-fourth cupfuls and add more liquid. Squash rolls are very good.

Save Your Chicks—Free

Send two names to the Wight Co., 18 Main, Lamoni, Iowa, and they will send you enough Iowite Remedy, absolutely free, to save forty chicks from white diarrhea.—(Adv.)

What do you do with your stale bread? Do you know that bread crumbs can be worked into the bread dough? Roll the dry crumbs until they are fine. Mix into the dough with the flour. Crumbs may be used to replace one-third of the amount of flour.

Creamed Codfish

It may be because we have eaten it since childhood, but creamed codfish prepared according to the following directions is so tempting to us that we feel sure you will like it if you care for codfish at all. Shred a half cupful of dried codfish, picking out the bones, "freshen" by placing it in a pan of cold water over the fire and letting it slowly come to the boiling point. Then drain off the water, add three cupfuls of milk, season with salt and pepper and thicken with a beaten egg and from three to six level tablespoonfuls of flour dissolved in a little of the milk. Three tablespoonfuls of flour will make a thin sauce, while six will make it of medium thickness. As originally made in "York State," the cream skimmed from the pan of milk was always included with the milk. If cream cannot be had, a lump of butter should be added just before taking up. Serve on slices of toast or with mashed potatoes.

Is your family saving its share of sugar? Plan saving for your household. Use no more than three-fourths pound a week for each member. Multiply three-fourths pound by the number of people in your family and put that money aside for the week's use. That should include all the sugar you use in cookery and on the table. Follow these suggestions and recipes and help the Allies in their great need.

Weigh out three pounds of sugar for each person in your family at the beginning of the month and limit the sugar used during the month to this amount. If you do this, when fall comes the grocer won't have to hang up the sign, "No Sugar."

Twilight Animal Stories

Bumper The White Rabbit

By George Ethelbert Walsh

(Copyright, 1917, by George E. Walsh)

STORY XVI.—BUMPER BECOMES THE WHITE KING OF THE RABBITS.

WHAT Bumper saw and smelt when he hopped into the burrow under the rocks made a great impression upon his mind. It was a large burrow directly under the huge rock, with no other entrance to it than the one through the hollow tree trunk. No wonder the fox couldn't reach the rabbits! They were as well protected from him as if they lived in a house of stone.

There were all sizes of rabbits around him—little ones scarcely able to hop around without falling over, big, husky fellows with fierce looking muzzles and eyes, and very old ones who seemed too feebie to move very fast. But it was the one who had commanded the others to let Bumper in that attracted his attention the most.

He had been a big, stalwart rabbit at one time, and his frame was still large and angular, but age had shrunken his body and haunches, and his cheeks were thin and wrinkled. The eyes stared straight at Bumper as though they would go right through him. It was not until later that Bumper understood it was blindness that made that stare seem so penetrating.

"Tell me your name again!" this old patriarch said when Bumper stood trembling before him.

"Bumper the White Rabbit!"

The old one hopped nearer, using one of his companions as a guide.

"Is it true," he asked finally, turning to the others, "that he's white?"

"Yes," they all responded in chorus.

"No gray or brown hairs on him?"

"No gray or brown hairs on him."

"Be sure!" commanded the old leader. "Lick them to see if the gray shows underneath."

Several obeyed this order, and Bumper felt as if he was being washed all over, so vigorously did the tongues of his cousins lick him to discover any fraud.

"He still remains white," one of the rabbits said finally. "There are no gray or brown hairs underneath."

"That is well!" ejaculated the blind leader. "Now tell me the color of his eyes."

"Pink!" they cried.

"Ah!" The blind rabbit seemed suddenly excited and trembled with emotion. "Pure white, you say, and pink eyes! Is he a young rabbit, or very, very old?"

"He is young, no older than Piggy."

"Then it must be true," murmured the old blind patriarch. "It must be true."

The others were all quiet, and waited for their wise, blind leader to speak again. This he did after a long pause.

"Years ago," he began slowly, "there was a white rabbit who was sent to us as a leader. He was the wisest and shewdest and bravest of our kind. Where he came from no one knew. We made him king, and he ruled wisely and well for many years. He died before I was born, and that you know was a long time ago. Before he died he told us that some day another white rabbit, with pink eyes, would come to us, and his coming would be as strange and unknown as his."

The speaker stopped and seemed to weigh his words. All the rabbits held their breaths, and glanced from the blind leader to Bumper.

"When he came—this white rabbit, with pink eyes—we were to receive him and make him our king and leader. His wisdom would be greater than that of all ours combined, and in time he would deliver us from our enemies. You know how it is with us in the woods here. We're the meekest and most innocent of the wild animals. Even the birds prey upon us at times, and Mr. Fox and Buster the Bear hold us in contempt because we cannot defend ourselves. We would live on friendly terms with all the wild creatures of the woods, but they won't let us."

He sighed, and then continued: "Our only weapon is our teeth, but we never use them except to chew our food. Yet they are as sharp as those of the Squirrel, and nearly as long as those of the Fox. Yet we don't know how to use them in defense, or if we do we're too timid to attempt it. We're cowardly, and easily get frightened so that our enemies kill us without danger to themselves. They all hold us in contempt here in the woods."

This remarkable speech made many of the rabbits drop their heads in dejection, for the truth of it was all too well known to them.

"But this new leader and king was to deliver us from our fear and timidity," the blind speaker continued. "He was to show us how we could make friends with all through his wisdom and foresight. We have been waiting for him for many, many years, and now that he has come we should be glad and joyful. Let us do homage to Bumper the White Rabbit, for he is our new leader and king! I am happy to live to see the day when I could welcome him! My only regret is that age has blinded me, and I cannot see him with my own eyes. I could die in peace then!"

With that the blind, old rabbit humbled himself before Bumper and kissed one of his paws. This apparently was the signal for all the others to do likewise. They came to him in turn, and promised to follow and obey his word, secretly admiring his white fur and pink eyes.

To Bumper this sudden change of hostility to abject admiration and worship was embarrassing. His mind was all in a whirl, and when the others knelt before him and kissed his paw he could find no words to say. He simply smiled as graciously as he could, and accepted the homage in silence.

Without knowing it this was the correct thing to do. It was more impressive than if he had protested or tried to explain that there was a mistake. He was almost king-like in his attitude without trying to be so.

It all seemed like a dream to him. He was led away to the choicest sleeping part of the burrow, and attendants brought him food and drink. There was always some one to wait on him no matter what he wanted to do. It was slightly embarrassing at first, but as the novelty of it wore off he accepted the situation with a smile.

"If they take me for their king, why not act the part?" he asked himself. "I believe I could do it. I certainly look more like a king than any of the others. And I'm prettier than any of my cousins."

Bumper was in danger of getting intolerably conceited, and for a time he showed it; but his better sense came to his rescue finally.

"If I'm going to be their king and leader," he concluded, "I'll try to be a wise and good one. I'll not disappoint them. I'll listen to Mr. Blind Rabbit, and when I know all he does I'll try to use the knowledge for the good of all the rabbits in the woods."

So Bumper the White Rabbit did not regret his loss of the red-headed girl and the beautiful garden, for in becoming the king of the wild rabbits he had a greater career before him.



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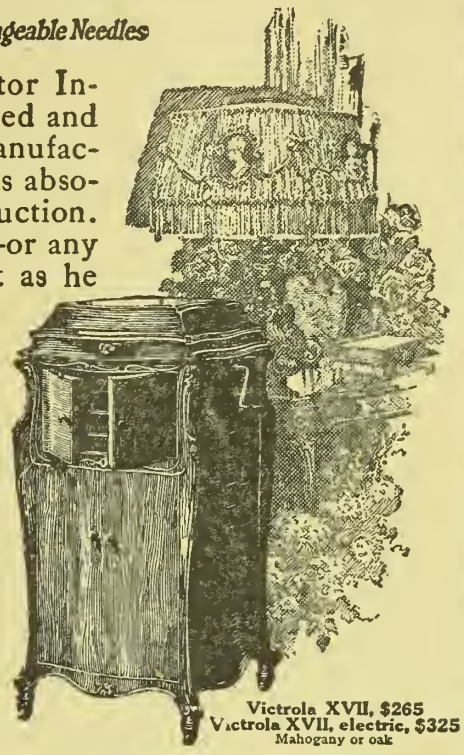

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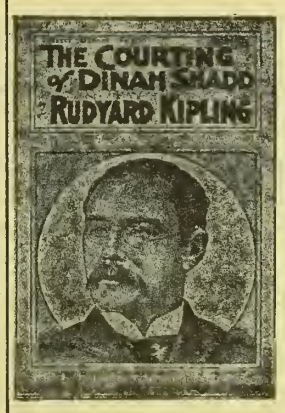

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A Page of Fashions





No. 8344—Children's Dress: Cut in sizes 4, 6, 8 and 10 years. The kindergarten age is the natural time for the wearing of such a charmingly childish little dress as No. 8344. It is all in one piece from shoulder to hem, but the line may be broken by a belt in a fancy shape if preferred. The front of the belt is pointed somewhat like a vest. **No. 8356—Ladies' Waist:** Cut in sizes 36 to 44 inches bust measure. The collar alone would be enough to make this waist distinctive, but it also has the new square neck as another good feature. The waist is made in the most popular style for this type of semi-tailored shirtwaist, with the fronths gathered to the back which extends over in shallow yoke effect. **No. 8330—Girls' Dress:** Cut in sizes 6 to 14 years. Whether you want a simple little dress for school or a frilly lingerie dress for best wear, you can use the one pattern, No. 8330, for both. The waist is perfectly plain, with a deep V-neck in front, and the broad, flat collar is cut in points at front and back. The skirt is a straight, one-piece, gathered model. **No. 8353—Ladies' Dress:** Cut in sizes 34 to 42 inches bust measure. Lingerie dresses will be legion this summer, and many new and interesting variations of this old favorite will be seen. In the illustration, No. 8353, a novel idea for a lingerie dress is shown. There is a plain waist, which is a little more than a yoke, with a straight skirt gathered to it. The skirt is cut in one piece and has a straight lower edge. **No. 8325—Ladies' Skirt:** Cut in sizes 24 to 32 inches waist measure. The popularity of the two-piece skirt never seems to wane, for each new season finds it in the front rank among the latest favorites. This two-piece model fits smoothly across the front and is gathered becomingly across the back. The style of the skirt makes it equally suitable for slender or stout figures. **No. 8350—Ladies' House Dress:** Cut in sizes 36 to 46 inches bust measure. An unusually good-looking house dress like this is a find that is well worth taking advantage of. It has the new shawl collar just like the street dresses, and the waist is perfectly plain, with long or short sleeves set in without fullness. The waist and three-gored skirt are both gathered at the slightly raised waistline.

No. 8032—Girls' Dress: Cut in sizes 6 to 12 years. Keeping the school girl up to date is easy enough when a dress like the one illustrated is the choice. The plain waist and three-gore gathered skirt join under a belt of separate material. A round collar, flaring cuffs and patch pockets in contrasting color give an air of distinction, and there is a front closing. **No. 7149—Ladies' Waist:** Cut in sizes 34 to 44 inches bust measure. This waist gives us the collar which may be worn snugly closed in military style, or open in sailor effect. The back is extended forward over the shoulders and the fronts are gathered where attached to it. The closing is in front and the fancy pockets are a matter of choice. **No. 8258—Girls' Dress:** Cut in sizes 6 to 14 years. The use of embroidered flouncing constitutes one of the easiest possible ways of making a girl's dress, as there are no hems to finish and all the edges are straight. The particular one shown has two skirts, both straight and in one piece. They are gathered at the top. The dress fastens at the center back. **No. 7431—Misses' Dress:** Cut in sizes 14 to 20 years. The long loose lines of this dress are among the leading favorites for slender figures. There is a surplice vest in the center of the front and a handsome belt piecing at the waistline, below which the front of the skirt is full. In the back the same effect is repeated without the vest. **No. 7826—Ladies' Skirt:** Cut in sizes 24 to 32 inches waist measure. This skirt is made on a raised waistline and is cut in three gores. The outside separate belt is attractive and there is a fancy pocket on each side of the front. To be sure, the same snap will be in the cut and lines of this model made in other than striped materials. **No. 8270—Ladies' Dress:** Cut in sizes 36 and 40 inches bust measure. A practical and economical way of using remnants or "left-overs" is suggested by the combination of materials shown in No. 8270. A set-in vest formed of crossed pieces gives a good line at the front, and the square sailor collar is attached to this. The skirt is a very easy one to make, as the upper section is in one piece and gathered, while the lower section is in two gores.

No. 8261—Children's Dress: Cut in sizes 2, 4, 6, 8 and 10 years. This dress may be opened all the way down the front, making it very easy to launder. Whether the sleeves will be long or short depends upon the small girl and her mother. The shape of the collar is quite out of the ordinary. Full bloomers are included in the pattern, to be worn with the frock. **No. 7001—Ladies' Shirtwaist:** Cut in sizes 34 to 44 inches bust measure. This practical waist has a plain back, which extends over the shoulders, forming a small yoke to which the fronts are attached after being gathered at the top. The closing is in front and leaves the neck open, with a small fancy collar as a finish. The sleeves are in full length and end in a cuff. **No. 7352—Girls' Dress:** Cut in sizes 6 to 14 years. For general wear this dress will be found most becoming. The blouse shows the new side front closing, the neck is a trifle low with flat collar and the sleeves long. The skirt has a deep yoke and below this the material is side plaited, with a plain panel in the center of the front. **No. 8118—Ladies' Dress:** Cut in sizes 36 to 42 inches bust measure. Simple in cut, smart in detail touches, neat and becoming, is what you want your house dress to be. Here it is exactly. The garment is cut in one piece, has the new collar, flare cuffs, triangle pockets, full-length front closing and with the fullness belted where it ought to be. **No. 7711—Ladies' Skirt:** Cut in sizes 24 to 30 inches waist measure. This two-gored skirt is mounted on a raised walstline and it has yokes to which the front and back gores are gathered. A trimming tab is a decorative feature of the back yoke and nothing could be more novel than the placing of a pocket at the lower edge of each yoke, as illustrated. **No. 8255—Misses' Dress:** Cut in sizes 16, 18 and 20 years. This dress has a surplice closing, which extends down to the left side, where it fastens under the belt, and the front of the waist then forms a point, which gives the basque effect. Two narrow belts are buttoned at each side of the point, and extend for a short distance around the back. Skirt is cut in one piece.

All patterns are ten cents for each number. Be sure to give the number and size desired and write your name and post office address plainly. Address Pattern Department, Kansas Farmer, Topeka, Kansas.

Classified Advertising

HELP WANTED.

WANTED, IMMEDIATELY—THOUSANDS government-war jobs open to farmers. Men-women. $100 month. List free. Franklin Institute, Dept. 0-82, Rochester, N. Y.

TREES, SEEDS AND PLANTS.

ONE HUNDRED FIFTY BUSHELS GOOD recleaned alfalfa seed for sale, $9 per bushel if a quantity is taken. V. O. Johnson, Aulne, Kansas.

FOR SALE—PURE TENNESSEE EVERgreen broom corn seed, $8.50 per bushel. Donald Pierce, Moran, Kansas.

ONION PLANTS — CRYSTAL WAX AND Bermuda ready. Prepaid, 500, $1; 1,000, $1.75. Sinton Plant Co., Sinton, Texas.

SEND $1 AND WE WILL SEND YOU 12 Concord grapevines, 2 years (postpaid), guaranteed to reach you in good condition. Welch Nursery, Shenandoah, Iowa.

PROGRESSIVE (EVERBERERS) STRAWberry plants, 75 cents hundred, $6 thousand, prepaid, parcel post. G. W. Howden, 726 Walnut St., Lawrence, Kansas.

FOR SALE — OLD CORN FOR SEED (Boone County White), in the ear or shelled, $4 per bushel at the farm or station. C. H. Bacon, R. F. D. 2, Hutchinson, Kansas.

AMBER CANE FOR FODDER, $3.50 bushel; dwarf milo maize, $2.50 bushel; sacks free. Prices larger quantities. V. E. Lawrence, Salisbury, Mo.

FOR SALE—CABBAGE PLANTS, WAKEfield and Drumhead, one dollar per thousand. Special prices on large orders. C. E. Gibson, Valdosta, Georgia.

NO. 1 SWEET CLOVER, FARMERS' prices. At experiment station pasture supported a dairy cow per acre. Also alfalfa. John Lewis, Madison, Kansas.

FOR SALE — VERY BEST MATURED white milo maize seed, also red dwarf milo seed, screened, sacked, f.o.b., $3 per bushel. Send 25c for samples. Ed W. French, Hudson, Kansas.

RECLEANED, FULLY MATURED RED Top Cane, 10c; Orange, 7½c; kafir, red and white maize, 6c; feterita, 7c; Sudan, 23c per pound here. Send bank draft or money order. Shaw Seed Co., Thomas, Oklahoma.

FROST-PROOF FIELD-GROWN CABbage plants, ready for shipment now. Prices, $1.50 for 500, $2.50 per thousand delivered by mail or express. Orders shipped same day received. Jenkins Plant Co., Sumner, Ga.

SEED CORN — MY OWN GROWING. Picked especially for seed. White, shelled, graded. Tests 95 per cent and better. Two bushels, $5 per bushel; over two bushels, $4 per bushel. Sacks free. Fred Perkins, President Oswego State Bank, Oswego, Kansas.

I HAVE ABOUT FORTY BUSHELS OF two-year-old Reid's Yellow Dent corn in the ear, that all grows. Raised near here. Price, $4.50. J. T. Hatch, 217½ E. Dewey, Wichita, Kansas.

PURE SUDAN SEED, GUARANTEED free from Johnson grass. Ten pounds, $2.20; $20 per hundred. Black-hulled kafir, $5.50 per hundred. Schrock kafir, $9 per hundred. All seeds high grade. Recleaned 1917 crop. H. A. Foster, Cleo Springs, Oklahoma.

SEED CORN RAISED IN EDWARDS County, Kansas, in year 1917. White tests 100 per cent, yellow 99 per cent. Test made by Kansas State Agricultural College. White, $5 per bushel; yellow, $4. If you want the best seed you will have to hurry. P. O. Box 278; Belpre, Kansas.

SUDAN SEED, BEST QUALITY, FIFTY pounds to stroked bushel, $20 per cwt.; less than fifty pounds at 22c. Extra fine, field-selected, mature, black-hulled white kafir heads, 6c a pound. Alfalfa, $8. Also have shock kafir sorghum. R. E. King, Solomon, Kansas.

PURE WHITE BLOSSOM SWEET CLOver seed, clean, hulled, scarified, $30 per 100 pounds, $15 per fifty pounds; under ten pounds, 32c per pound, f.o.b. Grain sacks, 50c each. This seed is excellent and will please you. If not, return it and I will refund purchase price and freight charges. Willis J. Conable, Axtell, Kansas.

CABBAGE PLANTS—WAKEFIELD, SUCcession, Flat Dutch, 100, 45c; 200, 85c; 500, $1.50; 1,000, $2.50, postpaid. Tomatoes and onions, all leading varieties, same price as cabbage. Celery, egg plant and peppers, 100, $1; 200, $1.75; 500, $3; 1,000, $5, postpaid. Cabbage, tomatoes and onions by express collect, $2 per thousand. Cash with all orders. Book your orders now as plants are scarce. Hope Plant Farm, Hope, Ark.

OKLAHOMA DWARF AND STANDARD broom corn seed, cream and red dwarf maize, dwarf kafir and common millet, $7; red kafir and feterita, $8; amber, orange, Texas red and sumac canes, $10; Sudan, $25; all per hundred pounds. Recleaned, freight prepaid, prepaid express $1 more. Claycomb Seed Store, Guymon, Oklahoma.

VIOLINS.

VIOLIN FOR SALE—HAS SWEET TONE. Free trial. Easy payments if wanted. Write Miss Bertha Mardiss, Route 5, Rosedale, Kansas.

FARM LANDS

YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

REAL ESTATE.

FOR LEASE — 236 ACRES FEED AND grain ranch in Butler County, Kansas. Fair improvements. Will lease for cash or on shares. A. Grant, Rosalia, Kansas.

HORSES AND MULES.

FOR SALE — IMPORTED PERCHERON pure-bred horse, seven years old, dark gray, weight 1,700 to 1,800 pounds. Sound and O. K. at farm. Otto Meyer, Basehor, Kan.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE — A RED POLLED BULL, calved March 8, 1913. There are very few better bulls in the state. Geo. Haas, Route 6, Lyons, Kansas.

FOR SALE—EIGHTY-FIVE HEAD HIGH grade Angus cows, coming three and four years old; twenty-five calves at present. Box 391, Garden City, Kansas.

REGISTERED HOLSTEIN BULL CALVES, $45; heifer calves, $65, delivered; King Segis breeding. Pond View Dairy, Hutchinson, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

HOGS.

FOR SALE—HAMPSHIRE PIGS, REGISTered stock. Roy Crawford, Topeka, Kan.

WANTED—TO BUY.

HEREFORD HERD WANTED FOR CASH —I want to buy for cash the best possible Hereford herd of 75 to 100 head. Must be well bred, in good condition and sold at bargain figure. Address at once, Amos Burhans, Waterloo, Iowa.

AUTOMOBILE ACCESSORIES

FORDS CAN BURN HALF COAL OIL, OR cheapest gasoline, using our 1918 carburetor. Thirty-four miles per gallon guaranteed. Easy starting. Great power increase. Attach it yourself. Big profit selling for us. Thirty days' trial. Money back guarantee. Styles to fit any automobile. Air-Friction Carburetor Company, 558 Madison Street, Dayton, Ohio.

SITUATION WANTED.

EXPERIENCED MAN WANTS WORK ON a farm. Has wife and two children. Wants place where house will be furnished. Lon Cooper, General Delivery, Topeka.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

THE AIREDALE—THE MOST WONDERful dog on earth. Great watch and stock dog. Will do anything any dog can do, and do it better. Pedigreed puppies for sale at farmers' prices. Descriptive circulars free. P. H. Sprague, Maywood, Illinois.

GOPHER TRAPS.

CLEAN YOUR ALFALFA. POCKET GOpher trap. Send me $3 for one-half dozen. Guaranteed or money refunded. Success Gopher Trap Co., Harlan, Iowa.

MISCELLANEOUS.

FOR SALE — ONE NEW ASPINWALL potato planter, one Pugh potato digger, good condition. Inquire at Belvue State Bank, Belvue, Kansas.





Curiosity May Spoil the Hatch

MANY people using incubators forget the old maxim about counting their chickens, and by opening the door to see how many eggs are pipped, materially reduce the number finally hatched. The last three days of incubation is the most critical part of the hatching period, says T. S. Townsley, of the Missouri College of Agriculture, and the care at this time has an important bearing upon the hatching per cent. At this stage the control of temperature and the regulation of moisture supply are particularly important. The temperature after the eighteenth day must be watched carefully. The activity of the chicks creates heat and there is a tendency for the temperature to rise. Any considerable increase in the heat in the machine weakens the chick and drives out moisture, thus causing the chick to dry fast to the shell. Opening the incubator door to show the neighbors what a wonderful hatch is promised also allows the moisture to escape, cools the machine and gives the chicks a shock which adds materially to the list of dead in the shell.

On the eighteenth day the machine should be closed and not opened again until the hatch is finished. During this time the temperature should be watched closely and regulated by turning the lamp down so that the temperature on a level with the top of the eggs will not be above 105 degrees. The machine should be darkened during the hatching period to prevent the first-hatched chicks from trampling those coming out later. There is nothing gained by helping chicks out of the shell, as those unable to get out unaided are not worth the effort required to help them out. After the hatch is finished the shells and unhatched eggs should be removed and the temperature of the machine gradually reduced to about 95 to 98 degrees and the chicks left in until the brooder is ready.

Feeding Baby Chicks

The first week the chicks should be fed four or five times a day to obtain the best results. After that it is a good plan to supply a dry mash in a hopper where it will be available at all times. The mash may be composed of equal parts by weight of bran, corn meal, shorts, ground oats—hulls removed—and 5 per cent meat scraps.

When it is possible it is advisable to keep the chicks supplied from the start with all the sour milk they will drink. If milk is not available they should have ready access to plenty of clean, fresh water. Sharp grit is also needed from the beginning. In case the chicks are kept in close confinement it will be necessary to supply them with green food such as clipped ends of sprouted oats, lettuce, alfalfa leaves, and onions.

Following are suggested rations for chicks: Hard-boiled eggs mixed with rolled oats or bread crumbs; stale bread soaked in milk and dried; a mixture of cracked corn, kafir, and steel-cut oats; any of the good commercial chick feeds; and corn bread or johnnycake. — F. E. Fox, K. S. A. C.

Raising Turkeys in Brooder

Turkeys are by some people considered difficult to raise, but I find them as easily cared for as chickens, and their feed is less expensive. The louse is one of the worst enemies to young turkeys and will leave chickens to pester them. The early long strolls in the weeds and wet grass are also very damaging.

Turkeys are by nature rovers, especially the bronze variety, but where the little turks have turkey mothers they should be yarded until the grass and weeds are dry. As a choice between the two, I would prefer chicken hen mothers, but in either case the mother must be entirely free from lice before taking charge of the youngsters.

After the turkeys are six weeks old wet mornings or cold rains do not seem to hurt them so much. At that age they are not so delicate, and they are more able to eat solid grains or almost anything that is good for other fowls.

I have had good luck raising turkeys hatched and reared by hen and turkey mothers, but the best and finest bunch I ever raised was a flock of White Hollands hatched in an incubator. I cared for the eggs in the incubator the same as I do chicken eggs. There were sixteen fertile eggs. I turned these and aired them up to the twenty-sixth day, then I left them alone. On the twenty-eighth day we hatched out fourteen of the finest, strongest little turks I ever saw.

After they were thoroughly dried off I reduced the heat in the incubator to 98 degrees the first day and to 95 degrees the second. On the third day I heated my brooder to 95 and placed the little turks in the brooder. I put stale bread in the oven until thoroughly dry and a golden brown, then ran it through the food chopper or rolled it with a rolling pin, mixed it with the yolk of one hard-boiled egg and a few cut onion tops, and sprinkled with a small amount of pepper. This was the feed for the first day.

A little—just a very little—sand was sprinkled in the chaff in the brooder. I fed very sparingly for the first week. After the first day a little grain was mixed in. The most natural feed for little turks seems to be small seeds. Millet seed, buckwheat, kafir, cracked wheat, hulled oats, or a few rolled oats are all right. Foxtail grass is a nuisance to everything except a flock of little turkeys. They like to pluck at the seeds from morning until night and seem to do much better than if on full feed of other grains. They also love to roam over an alfalfa field and catch the moth millers and grasshoppers.

When my little turks were three days old we put the brooder on the bluegrass, which was young and tender. We kept the brooder heated so they would not get chilled, and made a small wire run around it. They were entirely free from vermin.

When they were ten days old we turned them loose to rustle for themselves. Then our trouble began. They were pets, real pets, so one got stepped on, and another, which ran up to see what I was doing when I was drawing water, ran into the cistern. We rescued him alive, but he was so thoroughly chilled that he died about ten days later. The rest grew to maturity but were such pets that if a stranger came into the yard to look at the chickens he was likely to be very much surprised and almost knocked down by a sixteen to twenty-pound turkey alighting either on his head or shoulder. This was the trouble with raising them by hand, they were too tame.

But after all, in raising so many we were repaid for our trouble. The farmer who has a stubble field or an alfalfa field misses a great deal if he hasn't a flock of turkeys.—Mrs. Lizzie B. Griffith, Lyon County.

Tells Why Chicks Die

E. J. Reefer, the poultry expert, 923 Reefer Building, Kansas City, Mo., is giving away free a valuable book entitled "White Diarrhea and How to Cure it." This book contains scientific facts on white diarrhea and tells how to prepare a simple home solution that cures this terrible disease over night and actually raises 98 per cent of every hatch. All poultry raisers should certainly write Mr. Reefer for one of these valuable Free books.—(Advertisement.)

Straw and similar material gathers moisture, and when the litter becomes damp enough to be limp it is practically useless for fowls to scratch in for their grain feed. Scratching litter in the poultry house is essential, but it should be cleaned out and renewed frequently.

As the hens begin to lay more eggs, they need more feed. This is when the box of dry mash comes handy. They can increase their own ration. Oyster-shell grit and charcoal are more necessary at this season also. The shell and grit should be given in hoppers or open boxes and the charcoal in the mash. Digestive troubles are most likely to threaten now. Provide plenty of clean water. Green feed in pasture or sprouted oats should be supplied.

Reliable Poultry Breeders

LEGHORNS.

CHOICE S. C. BUFF LEGHORNS, FARM range, 100 eggs, $6. J. A. Reed, Lyons, Kan.

L. B. RICKETTS, BREEDER OF PRIZE Winning Single Comb White Leghorns, Greensburg, Kansas.

SINGLE COMB BROWN LEGHORNS—Winners of the blue in four states. Eggs, $6.50 per hundred. Wm. Roof, Maize, Kan.

SINGLE COMB BUFF LEGHORNS — Eggs, six dollars hundred. Thomas D. Davis, Avard, Oklahoma.

SINGLE COMB WHITE LEGHORN EGGS reasonable, from heavy winter layers. Mrs. Ed Lehman, Newton, Kansas.

EGGS (YOUNG'S 288 S. C. W. LEGhorns, costing $20 setting), $7 hundred. Elsie Thompson, Mankato, Kansas.

FIFTEEN EGGS, $1.35 POSTPAID; 200-egg strain pure-bred White Leghorns; great winter layers. M. E. Ransom, Ponca, Okla.

S. C. W. LEGHORN EGGS FOR HATCHing from extra selected good laying strain, $5 and $7 per hundred. I. H. Gnagy, Hutchinson, Kansas.

PURE-BRED SINGLE COMB WHITE Leghorn eggs, hundred, $5. Chas. McFadden, Morland, Kansas.

ROSE COMB WHITE LEGHORNS—EGGS, six years' breeding, $5 per hundred. Mrs. Joe Streeter, Route 5, Hamilton, Mo.

S. C. W. LEGHORN EGGS, $2 PER FIFteen, $7 per hundred. C. T. Mulkey, Lamont, Oklahoma.

FOR SALE — EGGS FOR HATCHING from the "Hardscrabble" strain of S. C. W. Leghorns. Write for prices. E. M. Wheeler, Jefferson, Kansas.

CHOICE HATCHING EGGS—SINGLE AND Rose Comb Brown Leghorns. Start with bred-to-lay strain. Delivery free. $2, fifteen; fifty, $3.50; hundred, $8. Plainview Farm, Lebo, Kansas.

EGGS FOR HATCHING—PURE-BRED S. C. Brown Leghorns. Fifty eggs, $3.50; one hundred, $6. Mrs. L. H. Hastings, Thayer, Kansas.

FEW CHOICE S. C. WHITE LEGHORN cockerels from my combined egg contest and show room winners, reasonable. Eggs $7 hundred, chicks 15 cents. C. G. Cook, Lyons, Kansas.

EXCELSIOR FARM SINGLE COMB White Leghorns, Yesterlaid-Young strain. Eggs, $5 for 108. Orders filled promptly. Baby chicks, 12c. Mrs. C. C. Cole, Levant, Kansas.

S. C. WHITE LEGHORN EGGS FROM winners at Nebraska's best shows. Pen 1, $5 setting; Pen 2, $2 setting, $11 hundred; Pen 3, $8 hundred. List free. Mugglestone Bros., 3425 W Street, Lincoln, Nebraska.

YOUNG, FRANTZ, FERRIS, YESTERlaid S. C. White Leghorns. Heavy layers. Eggs, $6 per hundred. Sold 10,000 eggs for hatching last season. No complaint. L. O. Wiemeyer, Route 1, Anthony, Kansas.

ROSE COMB BROWN LEGHORNS, BRED to lay. Twelve years' breeding. Range flock, winter layers. Selected eggs, $6 per hundred. Blue Grass Stock Farm, Oneida, Kansas.

S. C. WHITE LEGHORNS, "ENGLISH" strain, eggs $8 per hundred; baby chicks $16 per hundred; two-months-old cockerels, $10 per dozen. Sarver's Poultry Farm, Hastings, Nebraska.

S. C. B. LEGHORN BABY CHICKS, $12.50 per hundred. Eggs, $2.50 per setting and $5 per hundred. Sweepstakes and first prize cockerel Kansas State Fair; first pullet, first cockerel, Joplin, Mo. Paradise Poultry Farm, Corona, Kansas.

SINGLE COMB WHITE LEGHORNS—Oldest and best strain in the West. Trapnest egg record, 268 eggs. Our strain has won at Kansas City, Topeka, Wichita, Hutchinson, etc., silver cup specials. Eggs, $6 per hundred; fertility guaranteed. Mating list free. Mrs. Grace Ackerman, Stewartsville, Missouri.

SEVERAL BREEDS

SINGLE COMB ANCONA AND SILVER Wyandotte eggs, $1.25 per fifteen, parcel post prepaid. Mrs. Cecile McGuire, Pratt, Kansas.

EGGS—BLUE ANDALUSIANS, $6 HUNdred; Blue Orpingtons, $3 fifteen; Buff Leghorns, $5 hundred; Buff Ducks, $7 hundred; Bourbon Red Turkeys, $3 eleven. Circular. John A. Huber, LaCrosse, Kansas.

FOR SALE—EGGS FROM ALL KINDS of pure-bred poultry, Geese, 7 kinds of ducks, Pearl and white guineas, Bantams, Fancy Pigeons, Canaries, Rabbits, Guinea pigs, Dogs. Write wants. D. L. Bruen, Platte Center, Nebr.

DON'T WAIT — DON'T WAIT UNTIL white diarrhea gets half or two-thirds your chicks. Don't let it get started. Be prepared. Write today. Let us prove to you that Walko will prevent white diarrhea. Send for 50c box on our guarantee—your money back if not satisfied. Walker Remedy Co., Box K, Waterloo, Iowa.

CORNISH

DARK CORNISH EGGS. EAST LAWN Poultry Yards, Fairmount, Neb.

FOR SALE — FEW FINE DARK CORnish pullets, $2.50 and $3.50. Eggs, $2.50 setting. L. C. Horst, Newton, Kansas.

BABY CHICKS.

YOU BUY THE BEST CHICKS FOR least money. Guaranteed alive or replace free. Shipped anywhere. Colwell Hatchery, Smith Center, Kansas.

PLYMOUTH ROCKS.

WHITE ROCK EGGS, $5 PER HUNDRED. Nora Lamaster, Hallowell, Kansas.

BUFF ROCKS — SIXTEEN YEARS SUCcessful breeding. Eggs, $6 per hundred, $3 per fifty. Mrs. Homer Davis, Walton, Kan.

BARRED PLYMONTH ROCKS — PUREbred farm stock. Eggs, 6c each. Mrs. W. C. Bocker, Solomon, Kansas.

THE VERY BEST FANCY BRED PLYmouth Rocks for sale. Wm. Harrison, Marshall, Mo.

BARRED AND WHITE ROCK EGGS—Write for mating list. Nora Hill, Cambridge, Kansas.

SIMS' BARRED ROCKS — STATE WINners. Get my free mating list. Geo. Sims, LeRoy, Kansas.

BARRED ROCK EGGS, $1.50 PER FIFteen, prepaid within state. Choice farm flock. G. P. Wells, Lyons, Kansas.

WEIGHER-LAYER BARRED ROCK eggs. Pens, $3 to $6; utility, $6 hundred. C. F. Fickel, Earlton, Kansas.

HILLCREST BARRED ROCKS — EGGS, $1.25 for fifteen, $6 per hundred. D. T. Gantt, Crete, Nebraska.

WHITE ROCK EGGS (IVORY STRAIN), $1.50 for fifteen. Mrs. Alfred Vollmer, Bronson, Kansas.

REDUCTION ON BARRED ROCK HENS and eggs. Write me. Mrs. Chris Bearman, Ottawa, Kansas.

PURE BARRED ROCKS—EGGS, $5 PER hundred. Baby chicks, 12½c. Mrs. Lillian Marshall, Raymond, Kansas.

PURE BARRED ROCK EGGS, $1.00 PER fifteen, $5.00 per hundred; farm range. Mrs. H. Buchenan, Abilene, Kansas.

BUFF ROCKS — EGGS, $1.50 FIFTEEN. Good layers. Mrs. Hugh Shultz, Eureka, Kansas.

WHITE ROCK EGGS FOR SETTING, from choice selected pure-bred birds, 5c each. C. E. Potter, Carlyle, Kansas.

BEAUTIFUL BARRED ROCKS — 200-262 yearly egg record. Eggs, $2 per fifteen, $7 per hundred. Satisfaction guaranteed. Joe Greiner, Mena, Arkansas.

WHITE PLYMOUTH ROCK EGGS FROM fine birds, farm range flock, selected eggs, $5 per hundred, 75c per fifteen. Mrs. C. G. Steele, Barnes, Kansas.

BARRED ROCKS, COCKEREL LINE. Cock head first pen Kansas City, Mo., $16; two sons, $5 each. Incubators, brooders, feeders. Mattie A. Gillespie, Clay Center, Kan.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swaim, Geuda Springs, Kansas.

WHITE ROCKS, SIZE AND QUALITY; good egg strain. Eggs, fifteen, $1.25; fifty, $3.50; hundred, $6. G. M. Kretz, Clifton, Kansas.

MAMMOTH WHITE ROCKS — CHOICE stock. Pen, $3 fifteen; farm range, $1 fifteen, $5 hundred. H. C. Loewen, Peabody, Kansas.

RINGLET BARRED ROCKS, PRIZE WINners. Eggs from exhibition pens, $2 and $3; utility, $1.25. Write wants. Satisfaction pledged. Hiram Patton, Hutchinson, Kan.

EGGS FROM MY PRIZE WINNING Barred and White Rock pens. Write for mating list and show record. H. F. Hicks, Cambridge, Kansas.

BARRED ROCK EGGS—PARKS 200-EGG strain. Best pens, $3 fifteen, $5 thirty, $12 hundred; utility flock, $8 hundred. Gem Poultry Farm, Haven, Kansas.

WHITE ROCKS — PRIZE WINNERS, farm raised. Eggs, $1.50 fifteen, $3.50 fifty, $6 hundred. Special pen, $3.50 fifteen. Mrs. Ben Miller, Newton, Kansas.

RINGLET BARRED ROCKS—EGGS, $2 to $5 fifteen, $8 hundred. Reduction on incubator orders. Mrs. W. E. Schmitendorf, Vassar, Kansas.

BARRED ROCK EGGS FOR HATCHING, from stock winning at Topeka and Wichita, 1916; also first at Topeka, 1918; $7.50 hundred, $1.25 fifteen; first pen, $3 fifteen, $5 thirty. Mrs. Myrtle Henry, Lecompton, Kan.

BARRED ROCKS, BOTH LINES. STATE show winners. Good layers. Eggs, $1.50 per fifteen, $6 per hundred. Special matings, $5 per fifteen. C. C. Lindamood, Walton, Harvey County, Kansas.

PURE BARRED ROCK EGGS—EXCELlent laying strain. Finely barred, farm range, $1.25, fifteen; $6 hundred. Choice pen, $3 fifteen. Mrs. S. Van Scoyoc, Oak Hill, Kansas.

BRED-TO-LAY BARRED ROCKS—FINE, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, $1 setting, $5 hundred; guaranteed. Belmont Farm, Topeka, Kansas.

BARRED PLYMOUTH ROCKS, THOMPson Ringlet strain, cockerel and pullet mated, pen and utility flock eggs. Quality high. Priced low. Many satisfied customers in thirty-seven states. Circulars free. A. F. Siefker, Defiance, Mo.

BARRED PLYMOUTH ROCK. — EVERY egg is produced by straight line barred, carefully mated stock, the kind that satisfies, at $1.50 per fifteen; $8 per hundred. Show matings, $3 per fifteen straight. Eighty per cent fertility and quality guaranteed. J. A. Thomas, R. R. 3, Sapulpa, Okla.

POULTRY WANTED.

PAYING 25c FOR COCKERELS, BROILers 35c, cocks 18c, capons 30c, turkeys 28c. No. 1 fowls delivered before April 20. Sell 'em now. Will buy hens May 1, order coops today. The Copes, Topeka.

RHODE ISLAND REDS.

ROSE COMB REDS, WINTER LAYERS. R. E. Mills, Lexington, Neb.

SINGLE COMB R. I. RED COCKERELS. E. J. Manderscheld, Seward, Kansas.

SINGLE COMB RED EGGS, $2.50 PER setting, $8 per hundred. Maple Hill Poultry Farm, Lawrence, Kansas.

ROSE COMB RED PULLETS, $2, $2.50. Chicks, 15c each. Eggs, 100, $5. Fred Leck, Yates Center, Kansas.

STANDARD-BRED R. C. RED EGGS—Fifteen, $1.50; hundred, $6. Mrs. B. F. Weigle, Winfield, Kansas.

EGGS FROM TWO SPLENDID PENS, R. C. Reds, $3 and $5, fifteen; baby chicks, 25c. Mrs. L. G. Lambert, Anderson, Mo.

EGGS AND LARGE RED ROSE COMB utility cockerels. Stedem & Sons, Marshall, Missouri.

CARVER'S R. C. REDS—EGGS, UTILITY, 100, $5; pen, per setting, $3. Mrs. S. H. Nash, Route 1, Kinsley, Kansas.

KANSAS STATE SHOW, FIRST PRIZE S. C. Red cock and other winners in my pens. Eggs, $1.50, $3, $5 setting. W. G. Lewis, 622 N. Market, Wichita, Kansas.

ROSE COMB RED EGGS FROM GOOD colors and good layers, $1 fifteen, $6 hundred. Sam Putnam, Route 4, El Dorado, Kansas.

BRED TO LAY SINGLE COMB REDS—Pure-bred, rich red, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, setting, $1.00; hundred, $5.00; guaranteed. Belmont Farm, Topeka, Kansas.

ROSE COMB REDS — ALL YEARLING hens. Harris strain. Eggs, $1.50 fifteen, $3.50 thirty, $6 hundred. James A. Harris, Poultry Farm, Latham, Kansas.

ROSE COMB REDS, BRED TO LAY AND win in shows. Heads of pens direct from Meyer, owner of champion Reds in American laying contest. Fifteen eggs, $2.50; thirty, $4. M. L. Van Ornam, Superior, Nebraska.

SEVEN GRAND PENS ROSE COMB REDS headed by roosters costing $15 to $50. Fifteen eggs, $3; thirty eggs, $5; fifty eggs, $8. Special utility eggs, $7.50 per hundred. Baby chicks. Catalog. W. R. Huston, Americus, Kansas.

ORPINGTONS.

S. C. WHITE ORPINGTON EGGS, $6 PER hundred. C. L. Hill, Filley, Neb.

S. C. BUFF ORPINGTON EGGS, $5 PER hundred. Mrs. Wm. Falkner, Belvue, Kan.

PURE-BRED BUFF ORPINGTON EGGS—Circular free. Mrs. Biermann, Wisner, Neb.

BUFF ORPINGTON EGGS FROM PRIZE winners. Write for mating list. Nora Hill, Cambridge, Kansas.

S. C. BUFF ORPINGTONS — LARGEboned, even color. Eggs, $1.50 fifteen, $6 hundred. John Oiler, Adrian, Missouri.

GOLD-DUST S. C. BUFF ORPINGTON eggs, $2.25 setting or $8 hundred, postpaid. Mary E. Price, Route 7, Manhattan, Kansas.

PURE-BRED S. C. BUFF ORPINGTON eggs for hatching, $2 for fifteen. W. J. Musch, Hartford, Kansas.

BUFF ORPINGTON EGGS, $1 FIFTEEN, $6 hundred. Mrs. Frank Neel, Beverly, Kansas.

PURE-BRED WHITE ORPINGTON eggs for hatching, $1.50 per fifteen. Frank Hinson, Stockdale, Kansas.

WHITE ORPINGTONS FOR WINTER layers and qquality eggs, $7 hundred, $3.75 fifty, prepaid. Ideal Poultry Farm, Concordia, Kansas.

BUFF ORPINGTONS, ONE DOLLAR PER setting; five dollars per hundred. This pen won ten ribbons last year, six firsts, four seconds. J. L. Moorhead, Blue Rapids, Kan.

LANGSHANS.

EGGS—BEST LANGSHANS. JOHN LOVette, Mullinville, Kansas.

BLACK LANGSHAN EGGS, 7c EACH; over 100, 6c. Baby chicks, 20c. Mrs. Geo. W. King, Solomon, Kansas.

BIG BLACK LANGSHAN COCKERELS and eggs, score cards furnished. Guaranteed satisfaction. H. Osterfoss, Hedrick, Iowa.

MADISON SQUARE AND CHICAGO prize winning Langshans. Eggs, $6 per hundred up. John Lovette, Mullinville, Kansas.

QUALITY BLACK LANGSHAN EGGS — Fifteen, $1.60; 100, $6.50. J. M. Bond, Enterprise, Kansas.

BLACK LANGSHANS — EXCELLENT range stock. Eggs, fifteen, $1.25; 100, $6. Baby chicks, 16c each. Mrs. J. B. Stein, Smith Center, Kansas.

MAMMOTH SIZE BLACK LANGSHANS—260 egg strain, 14-pound cockerels, hens 12. Eggs, fifteen, $3.50. English Penciled Runner ducks, lay all winter, eggs $2 fifteen. E. Stewart, Henderson, Iowa.

DUCKS AND GEESE.

FAWN WHITE RUNNER DUCK EGGS—Fifteen, $1.50; fifty, $3; one hundred, $5.50. H. Clay Shirky, Norborne, Mo.

EMBDEN AND TOULOUSE GEESE — Stock and eggs. Will take Runner ducks or Leghorns in trade. Emma Ahlstedt, Roxbury, Kansas.

FAWN WHITE RUNNER DUCK EGGS—$1.50, thirteen; $3.50, fifty; $6, hundred. Prize winners. White eggs. Mrs. Ben Miller, Newton, Kansas.

MAMMOTH PEKIN DUCK EGGS—SETting, $1.50; pure white Indian Runner, $1.25; fawn and white Indian Runner, $1; prepaid. J. J. Lefebvre, Onaga, Kansas.

WYANDOTTES.

ROSE COMB WHITE WYANDOTTE eggs, extra good; hundred, $5. Mrs. Geo. Rankin, Gardner, Kansas.

SILVER WYANDOTTE EGGS—FIFTEEN, $1.65; fifty, $3.75; hundred, $6.50. Mrs. Edwin Shuff, Plevna, Kansas.

CHOICE SILVER LACED WYANDOTTE eggs, fifteen $1.25, fifty $3.50, hundred $6. Mrs. Philip Schuppert, Arrington, Kansas.

WHITE WYANDOTTES, GOOD STOCK. Eggs, $1.25 fifteen, $3.50 fifty. Effie Achison, Paico, Kansas.

SILVER WYANDOTTE EGGS—FIFTEEN, $1.50; fifty, $3.65; hundred, $6. Baby chicks, 20c each. Lawrence Blythe, White City, Kansas.

WHITE WYANDOTTE EGGS AT $1.50, fifteen; $3.25, fifty; $6 hundred. Winning, laying strain, fertility and satisfaction guaranteed. Andrew Kosar, Delphos, Kansas.

EGGS—SILVER LACED WYANDOTTES, fifteen, $1.50; fifty, $4; hundred, $6.50. Five kinds of ducks, eggs. Circular free. Fred Kucera, Clarkson, Nebraska.

WHITE WYANDOTTE EGGS, $1.25 PER fifteen, $6 per hundred, from good laying strain. Chilcott's Poultry Farm, Mankato, Kansas.

WHITE WYANDOTTES, STRONG STOCK, splendid layers. Eggs, $1.25 per setting, $6 per hundred. Baby chicks, 15c each. Mrs. Fred Pinkerton, Pawnee City, Neb.

MINORCAS.

SINGLE COMB BLACK MINORCA EGGS, thirty, $3.50. Sarah Peters, Nashville, Kan.

S. C. BLACK MINORCAS — EXTRA heavy layers. Eggs from pen birds, $2 for fifteen. Mrs. E. G. Tharp, Protection, Kan.

SINGLE COMB BLACK MINORCAS — Eggs, $2 per fifteen, $3.50 per thirty; utility, $6 per hundred, prepaid. Dan Oberhellmann, Holstein, Missouri.

TURKEYS.

BOURBON RED TURKEY EGGS—PRIZE winning two-year-old hen, 44-pound tom; $3 setting. S. Peltier, Concordia, Kansas.

EGGS FROM EXTRA LARGE, HEALTHY, deep red Bourbon turkeys, $3.50 for eleven. Mrs. J. W. Harshbarger, Milo, Kansas.

SARVER'S FAMOUS NARRAGANSETT turkey eggs, $5 per ten. Sarver's Poultry Farm, Hastings, Nebraska.

BOURBON RED TURKEYS—EGGS FROM choice stock in size, color and markings, $5 and $4 per eleven. Free catalog. Mrs. Clyde Meyers, Fredonia, Kansas.

ANCONAS.

ANCONAS — THE GREATEST LAYERS. Eggs, $7 per hundred, $2.50 for thirty. Joe Partsch, Humphrey, Nebraska.

THE STRAY LIST.

TAKEN UP—BY VINCENT KLEYMANN, Edwards Township, Wichita County, on the 18th day of March, 1918, one light bay mare three years old, four white feet, white stripe in face, no marks or brands. Dean Trueblood, County Clerk, Leoti, Kansas.

FARM AND HERD.

The second offering of Poland China bred sows by A. J. Erhart & Sons, Ness City, Kansas, at Hutchinson, April 4, sold for an average of $127 per head. Nos. 1 and 3 topped the sale, each selling for $220. W. P. Byers, of Dombey, Oklahoma, purchased fifteen head from the Erhart herd at private sale.

William B. Parker, of Lakin, Kansas, reports his herd of pure-bred Shorthorn cattle doing well. Mr. Parper has built up one of the best Shorthorn herds in Kansas. The best blood lines of the breed will be found in this herd and a feature at this time is a good lot of young stock of the best breeding and high in quality.

H. B. Cowles, of Topeka, owner of Braeburn Holstein herd, reports the sale of a choice bull calf to J. A. Forth, of Overbrook, Kansas, for $200. Mr. Forth purchased his first breeding stock from Braeburn herd several years ago and like a very large number of Holstein breeders, looks to this herd when on the market for high-class Holsteins. The advertising carried by Mr. Cowles as a breeder's card, and the comeback customers, explains the heavy sales of breeding stock from this herd. The third bull from this herd was recently sold to the Harvey Eating House people.

F. F. Wood, of Wamego, Kansas, owner of one of the choice Duroc herds in Kansas, reports his herd doing well. Mr. Wood has the best blood lines of the breed in his herd and a choice lot of individuals. A feature of his herd at this time is the fine lot of spring pigs and young boars.

Don't locate that new fenced-in chicken yard on rough land where nothing will grow. A hillside will do for the house and feedyard, but ground capable of growing green feed and fruit trees should be near by. Trees should not be planted so close to the henhouse as to exclude free circulation of air in summer.

Eggs of Leghorn and other Mediterranean breeds should be set so as to hatch the latter part of April or the first of way. They may be hatched as late as June, if you have plenty of shade, but the risk of unfavorable weather is usually too great to insure laying before cold weather of early winter, and an unprofitable pullet is the result.

HOLSTEIN CATTLE.

SAND SPRING HOLSTEIN HERD

Tuberculin Tested Annually



The first five cows to finish the A. R. O. yearly test on our farm averaged 15,506 pounds milk, 606 pounds butter, in 365 days, and two of them three years old,

AND WE ARE BREEDING THEM BETTER

Our last bull calf went to C. E. Glaze, of Larned, Kansas.

In selecting a bull, three things remember—**Production, Individuality,** and **Breeding.** The man who buys a bull from our herd finds us working for him every minute.

"Farmers' Milk Holsteins"—Supreme Dairy Breed of the World

E. S. ENGLE & SON - - - - ABILENE, KANSAS

Forty Heavy Springing Two-Year-Old Holsteins

DUE TO CALVE IN NEXT FIFTEEN TO THIRTY DAYS.

These heifers are nice, large and beautifully marked, from high-producing dams, and are bred to registered bulls with records up to 32 pounds. Also 100 yearlings from 14 to 18 months old, some are bred to freshen this fall, balance being bred. Ten choice young high-grade heavy springing cows. **All stock tuberculin tested every six months and will be sold subject to sixty-day retest.**

JAMES W. MAGEE - - - - CHANUTE, KANSAS

HOLSTEIN SALE

The eighth annual sale of the Howell Consignment Sale Company, of Howell, Michigan, will sell eighty head of Registered Holsteins, **April 25, 1918.** These cattle are all young and of excellent breeding and fine individuals. Welcome to our old Kansas customers. Catalogs April 15. Write if interested.

Mark B. Curdy, Sec. Howell Consignment Sale Co., Howell, Mich.

Col. Perry, Anctioneer.

HOLSTEIN SALE

Fifty Head of High Grade Holsteins at Auction, April 18, 1918

Twelve head of cows, giving milk. Twenty heifers, fifteen months to two years. Sixteen calves from one month to one year. Two grade bull calves.

All Over Six Months Old Tuberculin Tested.

TONNES TORKELSON - - - - EVEREST, KANSAS

CLYDE GIROD, At the Farm **F. W. ROBISON, Cashier Towanda State Bank**

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young hulls, ready for service, botb from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your berd.

IT WILL PAY YOU TO SEE OUR OFFERING

of higb grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices tbat cballenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or pbone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

HOLSTEIN COWS FOR SALE

NINETY HEAD REGISTERED AND HIGH GRADE:

Forty two-year-old heifers bred to freshen May and June. Ten yearlings. Forty cows three to six years old. Priced to sell. Farm adjoins town. Come and see me.

C. A. BROCK - - - NORTONVILLE, KANSAS

HOLSTEIN CATTLE

I am offering for sale from my registered herd, four cows from four to six years old; two heifers, two years old, extra good; four yearling heifers and four high-grade cows; four registered bulls of serviceable age. Write or come and see my herd.

J. W. MEYER, NORTONVILLE, KANSAS.

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

Tuberculosis -- No!

WE GUARANTEE a retest on any stock you buy from us SIXTY DAYS after date of sale.

Before buying write us about our extensive herd of absolutely first-class Holsteins and Guernseys. Anything you want. Carloads or lots. Nearly pure-bred calves from famous bulls and good cows, $20 to $25.

EDGEWATER STOCK FARM
Fort Atkinson, Wis.

STUBBS FARM HOLSTEINS

A few young bulls ready for service at reasonable prices. Fine individuals, best of breeding, guaranteed right in every way. Write for prices or come and see them.

STUBBS FARM - MULVANE, KANSAS

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wauwatosa, Wisconsin

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each dellvered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. **Clover Valley Holstein Farm, Whitewater. Wisconsin.**

REGISTERED HOLSTEIN BULLS

I have a few choice young bulls from my best record cows. They are splendid prospects for herd bulls and priced to sell.

BEN SCHNEIDER, NORTONVILLE, KAN.

Holstein Calves

We offer for sale choice beautifully marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated, f. o. b. cars: One to two weeks old, $17 each; three to five weeks old, $20 each; six to eight weeks old, $25 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves. **H. B. COWLES, 608 Kan. Av., Topeka, Kan.**

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON. KANSAS

CALVES

We are offering our

SELECT HIGH GRADE CALVES
From Large Producing Dams and Famous Herd Sires

for $20 and $25, aged one to two months. Give us your order for any amount, and we will guarantee satisfaction on wbat we send you. Write at once. We have some dandies.

EDGEWATER STOCK FARM
FORT ATKINSON - WISCONSIN

CALVES

HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment. **Edgewood Farms, Whitewater, Wisconsin.**

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

CHOICE HOLSTEIN CALVES

High grade, beautifully marked, sired by registered bulls and from heavy milk producing dams, ten days old, $15; three weeks, $17; six months, $40. For thirty days only. First draft takes them.

Mt. Pleasant Stock Farm, Gilberts, Illinois.

HOLSTEIN CALVES

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 166946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

Cedarlane Holstein Herd

Four-year-old grandson of Pontiac Korndyke, guaranteed sound and a sure breeder. Average record dam and sire's dam, 29.4 pounds in seven days. Special price on bull calves from above bull. No females.

T. M. EWING, INDEPENDENCE, KANSAS

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

SHORTHORN CATTLE.

550 Shorthorns sold at auction in 1917 for $1,000 or more per head. Only 26 exceeded $2,500 and but three passed the $5,000 mark. It is the uniformity of prices that indicates the stability of the trade.

The Shorthorn is the breed for you.

Address Department W

American Shorthorn Breeders' Association

13 Dexter Park Ave. CHICAGO, ILL.

HERD BULL FOR SALE

My herd bull, Baron Prince 362371, sired by Star Goods, second sire Victor Orange. Dam traces to Imp. Rose of Sharon. Weighs 1,800 pounds in breeding condition. A sure breeder and priced to sell.

Arthur W. Jacob

Valley Center, Sedgwick County, Kansas.

SHORTHORN BULLS

Eight Scotch-topped yearling Shorthorn bulls, reds and roans, ready for service. Price, $150. First check gets choice. Come and see them. I can please you.

J. R. ELY - - MARION, KANSAS

PARKER'S SHORTHORNS

Bulls for Western Kansas. Growthy, thick-made kind, eight to eighteen months old. Two with quality and breeding to head pure-bred herds.

Wm. B. Parker

Lakin, Kearney County - - Kansas

SCOTCH SHORTHORNS

Bettle's Albion 399451 now for sale. Roan, weight 2,000 pounds if fat. Strong breeder. Also six bulls from 6 to 24 months old, reds, whites and roans. Write

C. E. HILL - - TORONTO, KANSAS

DUROC JERSEYS.

Crow's Big Smooth Durocs
Herd headed by the
Grand Champion Potentate

Assisted by three other grand champion boars. We also have five grand champion sows in herd.

FOR SALE—Sixty-five tried sows and spring gilts to farrow in April and May. **All immune.** All bred to our grand champion boars. Everything guaranteed and priced reasonable. Write or come and see our herd. We can please you.

W. R. CROW & SONS

HUTCHINSON - - KANSAS

Otey's Durocs

Hercules 3d, a giant 900-pound boar in breeding flesh, and **Pathfinder Chief 2d,** the largest and smoothest of all the sons of the mighty Pathfinder, head our herd. Fifteen gilts bred for summer and fall farrow for sale. Write or come and see them.

W. W. OTEY & SONS, WINFIELD, KAN.

Duroc Hogs : Shorthorn Bulls

Two 1-year-old Shorthorn bulls recorded, one 1-year-old Duroc Jersey herd boar. Also I am booking orders for spring pigs, pairs or trios, no relation.

R. C. WATSON - ALTOONA, KANSAS

DUROC PIGS AND BRED GILTS, Immune. Size, vigor, quality, breeding. Priced right. **W. J. BARNES - - OSWEGO, KANSAS**

WOOD'S DUROCS

For Sale—Duroc Jersey boars, best blood lines, Illustrator, Bonaccord, Kansas King and Gano's.

WOOD'S DUROC FARM, Wamego, Kansas

DUROC BOARS FOR SALE

A few choice fall boars by Kansas Critic and W. W. Valley Chief, out of large dams of Good E Nuff and Graduate Col. breeding.

W. W. Zink - Turon, Kansas

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on fall boars and gilts, from Crimson Wonder, Golden Model, Illustrator, Defender breeding.

JOHN A. REED & SONS, LYONS, KANSAS

E. E. Frizell & Sons, Larned, Kansas, owners of one of the best herds of Red Polled cattle now assembled, report their herd doing well. This firm has been breeding Red Polled cattle for years and, while they have other breeds on the farms in Pawnee County, none of them have proven more profitable than their great dual-purpose herd. A feature of their herd at this time is the fine lot of young stock of the best blood lines of the breed. This lot includes a very fine lot of young bulls.

HORSES AND MULES.



JACKS AND JENNETS

15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.

PHIL WALKER
Moline, Elk County, Kansas

Malone Bros.,
Jacks and Percherons

We have 2 barns full of extra good jacks ranging in age from weanlings to 6 yrs. old, all over 2 yrs., well broke to serve. Several fine herd headers among them. Also jennets in foal to homebred and imported jacks. A few imported Percheron stallions royally bred. We can deal. Write or call on

J. P. & M. H. MALONE, CHASE, KAN.

Percherons—Belgians—Shires



2, 3, 4 and 5-year stallions for sale or let on shares. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.

FRED CHANDLER, Route 7, Chariton, Ia., Above Kas. City.

Eighty-eight Imp. and American-Bred Percheron and Belgian Stallions and Mares, wt. 1,600 to 2,350, from $450 up. Durham, Angus, Galloway and Hereford calves and yearlings from $75 up. **ILLINOIS HORSE CO., Good Block, Des Moines, Iowa.**

40 Percheron Stallions and mares, weanlings up. 20 Mammoth jacks, 10 jennets in foal. Priced reasonable. **Al E. Smith Lawrence, Kansas.**

GALLOWAY CATTLE.

GOOD GALLOWAY BULLS

Twenty-five Extra Good Yearlings
Extra breeding and quality. Priced to sell.

J. M. HILL, SEDGWICK, KANSAS
Route 4, Box 65A

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm hulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

Breeders' Directory

ANGUS CATTLE.
D. J. White, Clements, Kan.
George McAdam, Holton, Kansas.

RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.

DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.

FARM AND HERD.

Tonnes Torkelson, Everest, Kansas, has announced April 18 as the date of his public sale of Holsteins. On that date he will offer fifty head of choice high-grade Holsteins. The offering will consist of twelve cows in milk, twenty heifers from fifteen months to two years old, sixteen calves from one month to one year old, and two bull calves.

The Poland China bred sow sale of Ross & Vincent, Sterling, Kansas, April 3, resulted in the disposal of thirty head of bred sows and gilts at an average of $105. Twenty head of last September gilts sold at an average of $50 per head, and six fall boars averaged $50 per head. The occasion was the dedication of the best up-to-date sale pavilion in Kansas. The breeders and farmers present were royally entertained at the home of Mr. and Mrs. Vincent. The highest price was $185, paid for No. 3 in the catalog, which went to the good herd of Bruce Hunter at Lyons, Kansas. This sow was a splendid two-year-old, with a litter of pigs by Model Wonder, a splendid son of Big Bob Wonder, now at the head of the Ross & Vincent herd.

The second sale of Poland China bred sows of H. B. Walter & Son, Effingham, Kansas, on April 1, resulted in the disposal of forty head averaging $248. The keen competition was for sows bred to Big Bob Wonder. The breeding of the premier boar, Big Bob Wonder, was a strong factor in attracting representative breeders. The highest price was paid for No. 1, which went to W. R. Webb, Hiawatha, Kansas, at $660. No records were made, but a clean even sale, and the returns for the offering were very satisfactory to Messrs. Walter & Son.

The annual March jack and jennet sale held by Hineman & Sons, Dighton, Kansas, proved to be one of the best sales ever held by this well-known firm. The sale totaled $21,407.50. Fourteen jacks, including one yearling and one weanling, averaged $923. Twenty-nine jennets, including one yearling, averaged $205. The top jack sold for $2,075. A yearling jack by Kansas Chief sold for $1,300. The blood of Kansas Chief and Pharaoh was in great demand.

Smith & Hughes, of Topeka, owners of one of the record bred Holstein herds in Kansas, report the recent sale of four animals to the Knights and Ladies of Security—one three-months-old bull calf, one heifer seven months old, and one heifer five months old; also one two-year-old heifer. The two-year-old heifer had just freshened and they were preparing her for advanced registry test and did not deliver her until her test was completed. In seven days she averaged fifty-three pounds of milk per day, testing around 4 per cent, making her butter-fat yield around fourteen pounds. This stock was all bred on the Smith & Hughes farm and the price for the four animals was $875.

Arthur Mosse, of Leavenworth, Kansas, owner of one of the great prize-winning herds of Chester White hogs now assembled, reports his herd doing well. This year he has one of the finest lots of spring pigs ever raised on his farm. He is claiming November 7 as the date of his 1918 fall sale.

40—Head—40

POLANDS and DUROCS

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HOG SALE

ELEVENTH SEMI-ANNUAL SALE

CHOLERA IMMUNE



CHOLERA IMMUNE

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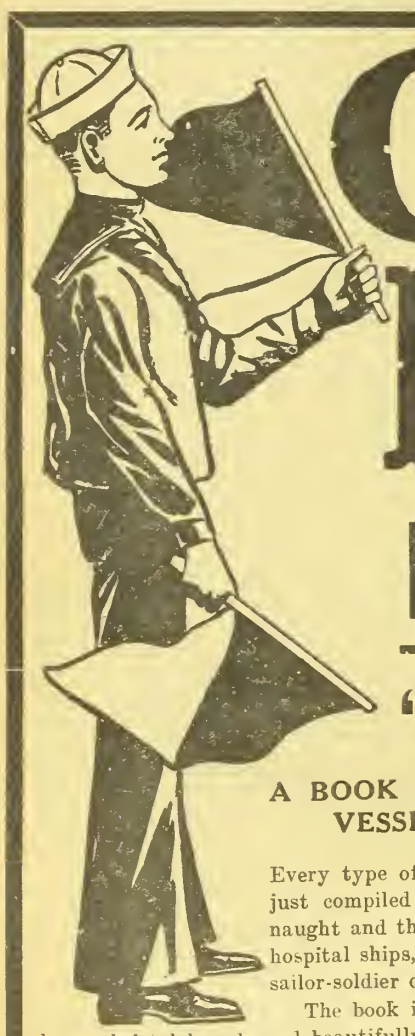
Wednesday, April 24, 1918



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Volume 56, Number 16. TOPEKA, KANSAS, APRIL 20, 1918. Established 1863. $1 a Year

WHY KEEP SHEEP ON FARM

Initial Investment Small---Can be Marketed With Minimum of Grain

CUTTING out waste is a problem in agriculture, as in every other business. On every farm there is so-called waste land—fence corners, useless weed patches, and draws not suitable for cultivation. To make the most of such land there is nothing quite equal to a flock of sheep. The many good reasons for keeping a flock of sheep on the average farm were admirably developed in a contest conducted by the American Sheep Breeder, of Chicago. Prizes were offered for the best answers to the question, "Why keep sheep on the farm?" In spite of the fact that Kansas has comparatively few sheep and is not generally thought of as a sheep state, a number of young men from Kansas wrote creditable articles on this subject and submitted them in the contest. A. L. Myers, of Riley County, won second prize in this contest. He and most of the young men who took part were encouraged to do so by A. M. Patterson, of the Agricultural College, who has done much to promote the growing of more sheep in the state. Mr. Myers' article as published in the American Sheep Breeder follows:

"In these days of excessively high-priced wool and mutton, many people who have formerly despised sheep are becoming interested in them. There are indeed many reasons why sheep should be kept on the farm. In fact, if we are to continue wearing wool clothing and eating mutton, sheep must be kept on the farms. The ranges are rapidly disappearing. The open ranges are being broken up, the forest reserves are stocked to full capacity, Australia and Africa are producing sheep to the maximum and still there is a shortage of forty million pounds of wool and a corresponding shortage of mutton. With these conditions before us, there will always be a demand for wool and mutton which will make sheep raising a lucrative part of the farm business.

"The chance of loss is small in the farm sheep business since comparatively little capital is invested in the flock even at the present high prices. It takes a rather wealthy man to now stock up in cattle, but a man of limited capital can buy a few sheep and very soon have a large flock, returning most generous profits.

"Sheep return two cash crops annually—wool from the breeding flock in the spring and mutton from the lambs in the fall or winter. The advantage of cash coming in at different times throughout the year, rather than all at once, is appreciated by all farmers.

"Sheep make more economical gains than any other type of live stock. They stand next to hogs in the amount of gains per given amount of feed consumed. Their advantage over hogs lies in their ability to consume roughage, hogs requiring a large amount of concentrates. They will not only eat anything that cattle will and make more pounds of gain on it, but will also eat weeds and brush, on which a cow would starve. Due to their weed-consuming ability, they will clean a pasture of weeds so that often it will support as many cattle as it formerly did besides feeding the sheep. They also keep the fence-rows clean and are excellent gleaners, picking up all waste grain and even eating much of the stubble after the grain has been harvested.

"Another big reason why sheep should be kept on the farm is their ability to improve the soil. Not only is their manure of higher value than that of most animals but due to their roving habits of grazing it is thoroughly scattered. Because of their sharp hoofs, it is well tramped into the soil, where it is soon available for plant growth. Due to the fact that they always search out one of the highest parts of the pasture to fold at night, they leave more manure there. This is an advantage as these places are usually less fertile, hence need the manure more than other portions.

"In addition to these reasons which are in a measure selfish ones as they mean money in the farmer's pockets, there is a patriotic reason for the keeping of sheep. Throughout the nation and the world there is a call for meat and clothing which cannot be met unless everyone does his part. Sheep simply mean more live stock on the farm, for they do not limit other live stock when kept in small numbers. Hence sheep should be kept on practically every farm.

The winner of the third prize in this contest was H. F. Wolter, of Illinois. Here are his reasons for keeping sheep:

"Present conditions have so magnified the value of sheep on the farm that there has been a great rush into this business. However, the reasons which prompt this movement have always existed and will continue to exist in the future.

"That sheep are the most profitable animals kept on the farm in proportion to the net investment and labor involved is the unanimous opinion of those who have kept sheep. Sheep, unlike other farm animals except the dairy cow, produce two products each year, namely wool and lambs. With an average price for wool, a ewe will shear enough to pay for her maintenance for the year. Besides this she will produce one, two, and sometimes three lambs, which are clear profit.

"Sheep and lambs are well adapted to meat production, as they are perhaps the most economical producers of meat on the farm when it is considered that their ration consists for a large part of weeds and roughages which would not only be wasted but would do harm to the crop if allowed to mature. Sheep thus convert this waste into a highly marketable product, rendering a double service and profit to the farmer.

"Sheep are the only farm animals that can be termed weed destroyers, as other live stock eat weeds only in the absence of other more palatable feeds. Sheep on the other hand do not have to be forced to eat weeds, but out of their own choice a large part of their ration is made up of these plants. Sheep prefer young, succulent weeds free from spines and bristles, but when the plants are young sheep have even been known to consume Russian thistles. Woody, tough weeds are stripped of their leaves and seeds causing death and preventing their reproduction. Sheep consume practically all kinds of weeds and in this respect perform an invaluable service to the farmer which although often ignored manifests itself in the neater, cleaner fields and in increased yields of crops and profit to the farmer.

"Besides cleaning up weeds and converting them into mutton and wool, sheep play an important part in the fertility of the soil. Sheep add no fertility to the soil it is true, neither do they remove much, but they do transform fertility and distribute it about in such a way as to be very useful. Sheep manure ranks next to poultry dung in its value as a fertilizer. But besides its high fertility value, it is in a readily available form and when distributed over the fields in a manner as only sheep can scatter it, larger crop yields result. There is also less waste in sheep manure, as it is spread directly on the fields practically the entire year around by the animals themselves. One of the best evidences of the value of sheep as a factor in fertility is to note that in the Cheviot Hills where sheep have been herded for centuries and where no fertility has been applied, more sheep are herded per acre than when the land was in its virgin state.

"If we will then recognize that with the amount of capital invested, the labor involved, the housing necessary, and the advantage of clean fields and larger yields, sheep are the most profitable farm animals. There is no doubt that the present movement toward sheep raising will not be temporary but there shall come a time when a small flock shall beautify and add to the profits of every corn belt farm."

The first prize went to H. F. Schnaidt, of Iowa, who summarizes in most concise form the reasons why the average farmer should keep at least some sheep upon his premises:

"1. The initial investment in foundation stock is small.

"2. Expensive buildings are not necessary.

"3. Expensive machinery is not required.

"4. Less productive land can be utilized.

"5. Sheep will eat and relish almost every class of weeds.

"6. By eating 'ragwort' the source of 'pictou' cattle disease is eliminated.

"7. By cleaning out the fence rows sheep destroy the winter protection of many injurious insects.

"8. Due to the fineness of the mastication of their food, very few weed seeds are found in sheep droppings.

"9. Sheep are of great value in clearing brush land.

"10. Sheep are dual-purpose animals.

"11. Crop yields are increased by the constant and uniform distribution of rich manure.

"12. The excreta of sheep is rich in nitrogen and potassium.

"13. Less plant food is removed from soil by sheep than by grain crops.

"14. The cost of maintenance is small.

"15. Sheep make profitable use of fodder left in corn fields after corn is harvested.

"16. Sheep can be made marketable without grain.

"17. Wool and lambs are more easily transported than grain crops.

"18. Rapid and frequent monetary returns.

"19. Reasonably large percentages of profits under normal conditions.

"20. Wool and mutton advanced in price before the war and a sudden drop in value is not to be expected.

"21. Less labor is required on a sheep farm than on a grain farm.

"22. Labor on the farm is more evenly distributed throughout the year.

"23. Sheep require little care except during the usual slack periods.

"24. Children as a rule like sheep and this is a good time to develop future shepherds.

"25. A flock of sheep on the farm furnishes a fresh supply of meat at any time of the year.

"26. Because of the comparatively low cost per animal, sheep are more easily improved than most other types of live stock.

"27. Sheep are more prolific than horses and cattle.

"28. The western sheep ranches are rapidly disappearing and it is up to the small farmers to make up the deficiency.

"29. The population of the United States is increasing, while the number of sheep is steadily decreasing.

"30. As a patriotic duty in the present world crisis, we must produce more wool and mutton."



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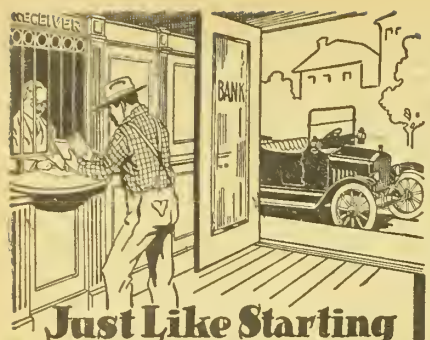

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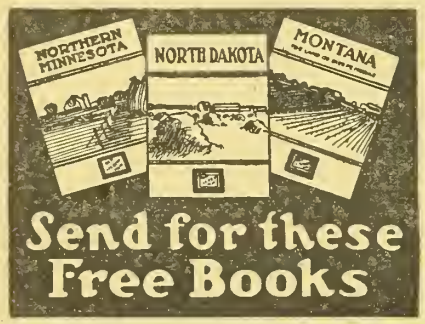

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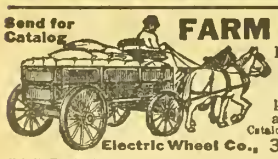

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In replacing spark plugs in a motor it is a good plan to put some graphite on the threads. It prevents the plugs from sticking in the cylinder or valve cap and also helps to prevent leakage. This is especially true when the plug is located in the valve cap and is of brass.

The failure to employ modern methods of lightening labor in the house is a great hardship in many farm as well as city homes.

FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

THE people of Kansas are now experiencing perhaps the greatest demands that have ever come upon them. Situated as it is in the center of one of the great wheat-producing regions of the world and famed for its tremendous production of this great commodity, Kansas is looked to by the world to produce as she has never done before. The farmers are the ones who are responsible for upholding the reputation of the state. Earnest and patriotic as they may be in this, they will probably find it hard to fulfill their expectations when it comes to the question of farm labor.

One way to aid in overcoming the shortage which is going to be felt so keenly during the coming season is to make the most efficient use of available men and horses by using them in conjunction with two-row implements. Many farmers have been using two teams and two men with single-row machines to do the work which can be accomplished practically as well, and at least 90 per cent as fast, by one man and a two-row implement.

In the central and western portion of Kansas the two-row lister cultivators are not uncommon, but their use can be widened extensively, and because of the keen appreciation of the necessity for economy in labor, will be used the coming season to a much greater extent than ever before. Two-row cultivators are perhaps a little more difficult to handle than a single-row machine. However, their successful use has been demonstrated for many years and under the press of necessity their popularity will undoubtedly increase. When the corn is small it will keep the operator pretty busy watching two rows at the same time to see that no hills are covered, but for the subsequent cultivations this difficulty should be practically eliminated. Three horses and one man will accomplish practically as much as four horses and two men with single-row machines and the saving accomplished is certainly worthy of the most serious consideration. —K. J. T. EKBLAW, K. S. A. C.

Fertilizer Corn Planter

A. S., Franklin County, asks if it would be possible to use fertilizer in a common plate corn planter—round-hole drop. He says: "I do not have a fertilizer attachment and do not wish to go to the expense of a new planter, having only ten acres for corn this year. The holes in the plates are large and the kernels of seed corn will be so small this year that I am afraid two grains will go through if I do not fill up the extra space."

We submitted this question to K. J. T. Ekblaw, professor of farm engineering at the Agricultural College. He answers as follows:

"The ordinary corn planter is not designed to be used as a fertilizer distributer and we would not advise its use for any such purposes. The plates in the planter which regulate the drop are so designed as to give accurate results only for corn grains of a certain size. The variation in the size of the particles in any fertilizer is so great as to render it extremely impossible that there should be uniform distribution of corn and fertilizer. There would be just as good a chance of nothing but fertilizer being dropped into a hill as there would be of two grains being dropped.

"We would suggest that if the corn grains are unusually small, plates with as small holes as possible be obtained. These can be gotten from the manufacturer of the planter at small cost. If it is necessary to use fertilizer at the time of planting it would undoubtedly be profitable to purchase a regular fertilizer attachment."

Are You Ready to Go?

Have you repaired that mower, plow, binder, or drill that broke down last season and which you fixed up with a piece of wire?

Have you gone over your machinery to replace every worn bolt and tighten every loose nut? Loose parts not only wear out faster, but they throw excessive shocks and wear on adjacent parts. Worn pins in the cotter bar yoke of a mower cause non-alignment and lead to many serious troubles. Guards are easily knocked out of line and worn chips and wearing plates, especially the inside shoe, cause much sickle trouble. Worn knotter, dogs on packer shaft, and twine disk cause most binder head troubles.

Have you given your gas engine an overhauling? A slightly loose connecting rod or crank shaft bearing will soon develop into a serious knock and necessitate costly repairs. The low-grade fuels make necessary more frequent grinding of valves and cleaning of cylinder walls than did the high-grade oils formerly used. Keep your engine clean, and prevent excessive wear of gears and cams. A dirty igniter or timer often causes short circuiting of the ignition system. A thorough overhauling now may prevent that breakdown which would otherwise occur during your busy season.

Have you looked over your tractor, and are you well acquainted with its construction? Would you believe that the majority of tractor troubles can be traced to the lubrication system? Too little oil means a burning out of bearings and scoring of cylinders and pistons. Understand your oiling system and drain oil from crank case as often as is recommended by the manufacturer.

Temporary Mending of Leak

You can easily make a temporary repair of a broken gasoline line on the road or in the field by the use of shellac and some tape, but if these happen to be missing a leak can be held by the use of some soap and a piece of wrapping paper. Clean the pipe carefully at the brake and then for about six inches on both sides smear it with a thin coating of soap. Wrap a piece of the paper two or three times around and apply another coating of soap, followed by two or three more rounds of paper. Hold this securely in place by binding it with tape or twine.

Motor Truck Train

Large numbers of motor trucks are being shipped to France for army use. Between March 14 and March 20 motor trucks valued at nearly $2,000,000 started from Buffalo across New York State to the seaboard, where they were to be shipped across. These trucks were moved in trains of thirty each.

The first movement of these army motor trucks across the state was in the heart of winter and arrangements had to be perfected for caring for the men accompanying them. County defense committees were notified a few hours in advance of the arrival of the trains and asked to prepare meals and make arrangements for night stopping places.

Federal reserve banks are to rediscount notes secured by farm tractors, the United States Department of Agriculture announces. Instructions have been issued by the Federal Reserve Board to all Federal reserve banks authorizing them to rediscount tractor paper presented by any member bank, provided it has maturity not exceeding six months and the tractors are purchased for agricultural purposes. This action of the Federal Reserve Board, explains the department, means that notes given for farm tractors will be treated in the same manner as other agricultural paper, thus making it easier for farmers to obtain tractors where needed.

A six-hour practical course in gasoline engine fundamentals, with the most prominent members of the engineering faculty in charge of each class, is being given every day for the drafted men from Camp Funston, 300 of whom already have received their training.

The first estimate of A. A. Potter, dean of engineering, who proposed the course, was that approximately 300 soldiers from the 342d field artillery—a motor unit—would receive the training. But the work given has proved so practical that Capt. J. L. Lehman, adjutant of the regiment, has requested that the course be continued, and that at least 600 men will have been instructed when the courses are completed.

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BIG CROWD AT HAYS

The whole west end of Kansas was represented at the big Hays Experiment Station meeting last week. Over two thousand people were in attendance, nearly all coming in automobiles. This large attendance was in marked contrast to that of four years ago, when the idea of having a roundup was inaugurated. At that first meeting there were not more than ten or a dozen farmers interested in live stock present.

This big experimental farm at Hays is a great asset to the western part of the state. Western Kansas people have been rather skeptical of the benefits that might come to them from crop trials conducted at the Manhattan station. Station men themselves have also recognized the necessity for experimental work conducted under conditions such as prevail in the western part of the state. Since its establishment, the Hays station has worked steadily and consistently along practical lines.

Visitors who made the auto tour over the station farm noted the fine appearance of practically all the wheat on the station land. Methods have been worked out which in a series of years seem to have made wheat a much more dependable crop than it has been in the past. The general farm practice developed, however, does not make wheat growing the one and only source of farm income. There are certain to be years in which wheat will fail, or nearly so. On the experimental farm the live stock projects are also important sources of revenue and are more sure, year in and year out, than wheat. Chas H. Weeks, superintendent of the station farm made a detailed report of the business end of the station work, and it carried the conviction that the type of farming being worked out was well worth studying.

Judging from the large attendance, farmers of the West and Northwest are anxious to dig into the work of the station and find out wherein its success lies. All day long men, women and boys went from feed lot to feed lot, looking over the cattle and other live stock. It was not a mere curiosity crowd. They studied most carefully the placards tacked on the gates and asked innumerable questions of Mr. Weeks, Professor Cochel, President Jardine, and others of the station staff who were present.

Mr. Weeks' financial statement showed that even hogs had practically broken even the past year, while the sheep had made over 50 per cent profit on the investment.

The rough feeds that growing and developing cattle eat are sure crops, and the wastes from grain farming are all capable of being cashed in through cattle. After inspecting a lot of breeding cows that had been wintered on silage and straw, it seemed almost a crime to burn straw, as is so often done. These cows had been fed for a hundred days at a cost of only $5.12 each. Silage was charged at $5 a ton, and straw at $1 a ton. The cows were not in run down condition. Half of them had calves, and the calves seemed strong and active, although perhaps not quite equal in strength and activity to calves from cows in the next lot where alfalfa had been fed.

Space will not permit giving a full account of the results of the year's experiments in this issue. Next week we will give in detail the important lessons coming from the results of the season's work.

WAR SPEECHES AT HAYS

Over 1,500 people by actual count gathered in the big coliseum of the Hays Normal last week after lunch had been served on the Experiment Station farm. The meeting was called primarily to give the public first hand results of the season's experimental work and especially that of the cattle department. The program, however, was largely a war program. There was no mistaking the earnestness of the farmers of the west end of the state in their support of the war plans of the Government. President Jardine, who was fresh from a conference at Washington with people right from the front in Europe, was able to tell of the dire need of getting every grain of wheat possible to France. He made it clear that we have not begun to make the sacrifices and contributions that our Allies have a right to expect. "We are in a fight which needs the co-operation of every man, woman, and child," said Doctor Jardine. "This is not purely a military fight. The responsibility rests on every man, woman, and child in the country."

Ex-Governor Stubbs, who was given the topic, "War-time Live Stock Problems," said that if we conscript our boys to fight in the trenches, nothing we have and no man, no matter what his business, is sacred from conscription. The Government we support and stand for has a right to expect our all if necessary. Mr. Stubbs told the people what he would do with spies and enemies who, right in our midst, are seeking to attack us, and his solution did not call for any prisons or internment camps prividing good food and shelter for those who were caught fighting for the Huns as spies. The crowd not only cheered, but whooped and yelled at his expression of feeling toward those who, after having the opportunity of their lives in this country, now turn and attack it. In a call for a rising vote in support of his sentiments on the prosecution of the war, the whole audience arose as one man. He advocated the cutting out of non-essential industries, stating for example that the men making mere pleasure automobiles could be put to work building aeroplanes so that we could make the skies over the German trenches black with our planes.

Ex-Governor Hoch, member of the Board of Administration, was also present, and most eloquently spoke on the support of our Government in this crisis. "Women, possibly more than the men, have shown their willingness to do their part," said the ex-governor. "May the men arise to the emergency."

Others who spoke were E. C. Paxton of Topeka, field agent of the United States Bureau of Crop Estimates; J. E. Rouse, professor of animal husbandry in the Hays Normal School; E. E. Frizell, state farm labor administrator; Charles R. Weeks, superintendent of the Hays Experiment Station; Prof. W. A. Cochel, of the Agricultural College; J. C. Mohler, secretary of the State Board of Agriculture, and Ralph Voorhees, treasurer of the Federal Loan Bank of Wichita. Mr. Voorhees, who came to Kansas from Colorado on his appointment with the loan bank, was wonderfully impressed by the display of patriotism on the part of the people present. He plead for support of the boys at the front to the last dollar and the last ounce of personal effort. He said the only reason his own home did not display more than two stars on the service flag was that he had but two boys.

Mr. Voorhees had been asked especially to explain some of the points relative to the operation of the Federal Loan Bank in making loans to men using grazing land. The Bank has been criticised because of some of its rulings on this point. Mr. Voorhees made it clear that they are so hedged in by law that they cannot do other than they are doing. They have stretched the law to the limit in making it possible to finance men using grazing land.

MEAT BOARD APPOINTED

Of the twelve men appointed on the Meat Board asked for by Mr. Hoover, at least three have personal knowledge of the meat-production business. These are C. E. Yancey, of Liberty, Missouri, president of the Missouri Live Stock Producers' Association; Maron Sanson, Fort Worth, Texas, and Henry C. Stuart, former governor of Virginia. Mr. Yancey had already been appointed to assist Mr. Cotton of the Meat Division. J. W. Sullivan, who is unknown to us, was also appointed to assist Mr. Cotton and to be a member of the Meat Commission.

Victor Murdock, of Wichita, a member of the Federal Trade Commission whose ability is generally recognized, is an appointee. Samuel Tator, no address given, has also been appointed to represent the Federal Trade Commission. The Tariff Commission is represented by its vice-chairman, Thomas W. Page. The Department of Labor has four representatives: John A. Moffat, commissioner of conciliation; W. E. Hall, director of public service; Ethelbert Stewart, chief statistician, and Royal Meeker, commissioner of labor statistics. These men are to represent the interests of the meat consumer.

The Department of Agriculture is represented by George M. Rommell and L. D. Hall, both of them specialists in live stock and meat production. Mr. Rommel is chief of the Bureau of Animal Industry and is a good friend to the meat producers of the country.

In our last issue we gave the main points of Mr. Hoover's letter to the President asking for the appointment of this commission. The possibility of Government control of packing houses was a feature of his statement. The commission met in Washington April 9 and began its study of the meat question. This will include investigations of the packing business and the production of meat, including costs, labor shortage, transportation difficulties, speculation and marketing, and middlemen's margins.

In spite of the fact that 7,000,000 meat animals were added to our resources during the past year, the unusual demand for meat, both at home and abroad, is such that there is danger of a meat famine unless we speed up production. That cannot be done without making it possible for the business to be at least self-supporting. Anyone in touch with the live stock producer knows he has lost heavily during the past season. There is some relief in sight. The better classes of cattle are now being taken at fair prices. It is to be hoped that the commission will go into the subject exhaustively. It is imperative that the production of meat continue.

Government control of packing houses may be a remote possibility. The facts dug up by the Federal Trade Commission show the tremendous power these great organizations possess. Stockmen have long contended that the packers owned and controlled the various stock yards, and the investigations have proved that their suspicions were correct. The packing business as it has developed is rapidly becoming a natural monopoly, and as such must be controlled or regulated as are other monopolies.

With at least three live stock men, and perhaps more, on this meat commission, the interests of the producer ought to be fairly well safeguarded.

FARM FURLOUGHS FOR SOLDIERS

Provision is now made whereby enlisted or selected men may get short furloughs to help out on farm work. Provost Marshal Crowder, in accordance with the Act of Congress on this point, has issued a general order giving the details of procedure. A formal application must be made out, presenting in considerable detail the facts involved on the farm where the man is to work. These are presented to the local draft boards. It is up to commanding officers to pass on the application, which must be sworn to by the man on whose farm the soldier is to work. In the order it is made clear that it is desired to reduce to a minimum the interference created in the progress of military training and preparation. It is also provided that furloughs may be granted "en bloc" to men that are willing to accept them upon the quest of farmers when the time to be consumed in traveling from the post to the place of labor will not exceed twenty-four hours. A regular form is provided on which farmers will make their requests. These applications also go to the local boards, who in turn pass them on to the post, camp, or cantonment commander. He will have them endorsed on the back by the soldiers who desire to accept work on the terms indicated.

It is our candid opinion that no great use will be made of the furlough provision here in Kansas. We feel sure that our Kansas boys are not the kind who will want to turn back after putting their hands to plow. They are fretting already because of the delay in moving them to the front where they can get busy at the job for which they are training. They want to have a hand in licking the kaiser, and the sooner they can get at it the better they will like it. Neither do we think the folks at home are going to do anything that will perhaps deprive the boys of some of the training which will make them better able to take care of themselves when their time comes to go over the top and clash with the Hun in the front line trenches. It is our opinion that the whole idea of sending the boys back to the farms for a few weeks was born in politics. There may have been some inequalities in the first draft, but we are now committed to fighting this war to a finish, and in view of the sacrifices made by the men who are to do the fighting, we at home can certainly accept our share of the burden. Nothing will give them greater courage and determination than to know absolutely that we are back of them to the last dollar and to our maximum efforts, even though that involves getting along without their help in performing our daily tasks.

FARM LABOR SITUATION

The farm service division of the National Labor Bureau maintains that the early statements of the critical labor shortage were much exaggerated. They claim that while there is a good steady demand for farm labor from Kansas and other middle western states, it is not greater than in previous years. They point to the report of record acreages of crops planted as evidence that the situation is not as serious as some have thought.

We know that there has been a steady drain of labor from the farm for some time. This has resulted in a decidedly unbalanced population, and difficulties would have come sooner or later even though we had not been compelled to still further complicate the situation by taking additional men from the farms and into the industries for war service. Now that we are at war, we must jolt ourselves out of the old ruts and work out new ways of handling things. Nothing can be done just as it was under normal conditions. Farmers must be resourceful and we feel that with proper co-operation and mobilization of the resources at hand the situation will be met. We have a most energetic and resourceful man as farm labor commissioner of Kansas. Mr. Frizell is tireless in his efforts to enlist every possible source of labor for the work of the season before us. The harvest labor question is being taken up by local committees, each mobilizing war emergency workers to help near-by farmers. County committees are being formed to standardize farm wages for the state. This is a most important step. Where every farmer goes it independently and bids against his neighbor for the help needed, disorganization is sure to result.

You can help wonderfully if you will try to co-operate to the fullest extent possible with Mr. Frizell in the organization he is perfecting. If you stand back and simply complain of conditions you are not showing the proper spirit. The thing to do is for everybody to get busy and work together. Of course we are going to be handicapped, but it would be a poor commentary on our resourcefulness to admit defeat at this stage of the game.

DOUBLING RAISIN CONSUMPTION

Advertising Products Increases Consumption and Prevents Glutted Markets

By CHILTON GANO

ADVERTISING to influence the consumer demand for farm products is more and more gaining the attention of farmers. Individual farmers are building up big businesses through branding certain of their farm products and advertising them to the public; example, Jones' Dairy Farm Sausage, now a huge business but which started with a farmer's idea to provide his neighbors as well as his own household with sausage, calling their attention to the plan by means of circular letters.

The more striking advertising campaigns by farmers, however, are those by big organizations of farmers, and among these one of the biggest and most instructive is that of the California Associated Raisin Company, exploiting Sun-Maid Raisins. In the fall of 1914 this big organization, representing nearly the entire raisin industry of California—some 6,000 growers—set out to double raisin consumption in the United States by means of advertising. It was known that in England the per capita consumption of currants and raisins was twice that in this country. It was also known that in increasing the demand for raisins lay the only hope of the industry, which was growing rapidly. The enterprise of persuading a nation to eat twice as much of a food as has been its habit may seem rather rash; but the organization set out bravely, and in the past four years it has been rapidly accomplishing just what it set out to do.

The consequence has been that raisins, instead of moving to glutted markets and commanding unsatisfactory prices, have been a highly profitable crop to the growers. This experience is today being repeated in so many sections of the country, and represents an opportunity to so many more, that the story of the raisin industry constitutes a really valuable object lesson to farmers throughout the country. Organization resurrected the raisin industry. In the past year it also resurrected the honey industry of Texas, and various industries in no telling how many sections. It can and will do the same thing in many other territories and for many other crops, in the next five years.

WHY ORGANIZATION CAME

It required twenty-eight years to put raisins "on the map" of California, from the date at which Col. Agostin Haraszthy first introduced the vine from France, 1851. By 1879 raisin vineyards had sprung into being throughout the San Joaquin Valley, and California had produced her first million-pound crop. Thereafter growth was by leaps and bounds. In 1890, 27 million pounds were produced, and the crop in the past few years has averaged the surprising figure of over 200 million pounds.

Up to the 150-million-pound mark, the selling end of the business presented little difficulty. But, at one and one-half pounds per capita, the nation's people appeared to be satisfied. As the crop increased raisins began to accumulate. In the fall of 1909 it was estimated that 80 million pounds would not find a market. It was then that six enterprising Californians undertook to organize the industry for purposes of new and aggressive selling methods.

The growers were depressed and eagerly grasped at the opportunity extended to them. Eighty-five per cent of the industry signed up with the California Associated Raisin Company, which offered a co-operative plan differing in financial details from that of the California citrus growers, but much the same in principle. The company guaranteed to growers on delivery, 3¼ cents a pound, retained a fixed margin above this from selling price, for its own expenses, including dividends on capital stock, and prorated any surplus back to the growers.

Its first task was the elimination of the spectacular and the establishment of its own selling organization. This alone vastly improved the situation, but advertising similar to the Sunkist advertising was a part of its plan, from the start, and by 1914 the company was both ready to advertise and crop increase had made advertising a crying necessity.

ADVERTISING SUN-MAID RAISINS

The Associated Raisin Company had not interfered with the raisin packing industry, which had flourished in Fresno ever since the raisin crop became important. In the first years of the company its entire holdings had been sold to the packers. In the fall of 1914, therefore, when the Company's advertising first started, California raisins were appearing under as many different brands as there were packers. It was impossible to exploit a single brand, and the advertising was of an educational character, signed by the company but advertising merely raisins.

The product furnished excellent "talking points," as the nutritive value of raisins is much higher than is generally known. A United States Farmers Bulletin gives the comparative food value of raisins as follows: One pound of California raisins is equal to six pounds of apples, five pounds of bananas, four and one-half pounds of potatoes, one pound of bread, four pounds of milk, four and three-fourths pounds of fish, two pounds of eggs, or one and one-third pounds of beef.

The advertisements emphasized these facts graphically, offered a recipe book giving fifty-two ways of serving or using raisins, and devoted a special space to the subject of raisin bread.

But in the meantime the Company had been erecting a big packing plant of its own to handle a part of its product, and in January, 1915, the campaign, while continuing to be largely educational so as to benefit the entire industry, also advertised for the first time the "Associated's" own brand, "Sun-Maid Raisins."

The expenditure for advertising in the first year was about $100,000. Full-page advertisements in national weeklies and monthlies aggregating ten million circulation were used, and this general campaign was supplemented with newspaper campaigns in selected cities. The unqualified success of the campaign prompted an appropriation for the next year of $165,000; and in 1916-17 it was further increased to $250,000.

THE RAISIN-BREAD SUCCESS

From the first the company saw the opportunity in urging more general use of raisin bread, and its development of this feature has probably been the best paying branch of the campaign. At first small boxes in each ad were addressed to bakers and consumers, urging the baking and use of raisin bread. At the same time the company mailed a big illustrated folder to bakers throughout the country explaining how they could take advantage of this feature of the campaign. Bakers had long been finding the five-cent loaf unprofitable, and the raisin-bread idea gave them a new opportunity to exploit a ten-cent loaf. The company offered them advertising matter such as newspaper electros, window display material, sticker-labels for the loaves, etc., at cost.

Two thousand bakers promptly acted on the idea, and the number has been growing rapidly ever since. So big a success was promised in this field that the second year's campaign abandoned the small boxes and began to devote whole page advertisements to the raisin-bread idea. How well the idea paid may be judged from the company's sales of bulk seeded raisins known as "Bakers' Sun-Maid." In 1914, before the advertising got in its work, sales of these raisins totaled 62,773 twenty-five-pound cases. In 1915 the total sales were 583,834 cases, or nearly ten times as many.

Many bakers went at the matter aggressively, running strong local newspaper campaigns at their own expense, and many fine reports of results came in to the company. A Buffalo baker, for example, increased his raisin bread business from 500 loaves weekly to 25,000 loaves a week. A South Bend concern increased its raisin bread sales from 100 five-cent loaves to 750 ten-cent loaves, within thirty days after it began to bake California Raisin Bread according to the "Associated's" guaranteed and protected formula. Such reports came in from all sections.

Many of these bakers, for introductory purposes, used a special plan offered by the company which called for the giving away on the first day of free loaves of bread. Large newspaper advertisements made the offers, and contained coupons good for a free loaf. This plan was costly at the start but in every case succeeded in building a demand for the new product right from the start.

Since the "Associated" began to prove its worth it has had one big triumph in its local territory. An aggressive campaign to increase its membership resulted in bringing into its ranks practically every raisin grower of the state, and its membership is now about 6,500 growers. These growers and the entire state recognize that the company resurrected a $10,000,000-a-year industry, and its prestige in California is now enormous.

But the best thing about it all is that farmers in other sections are every year proving that the same sort of thing can be done in any state in the Union, and not alone in California.

President Wilson's Answer to Germany

I HAVE sought to learn from those who spoke for Germany whether it was justice or dominion and the execution of their own will upon the other nations of the world that the German leaders were seeking. They have answered, answered in unmistakable terms. They have avowed that it was not justice but dominion and the unhindered execution of their own will.

The avowal has not come from Germany's statesmen. It has come from her military leaders, who are her real rulers. * * * We can not mistake what they have done—in Russia, in Finland, in the Ukraine, in Roumania. The real test of their justice and fair play has come. From this we may judge the rest. They are enjoying in Russia a cheap triumph in which no brave or gallant nation can long take pride. A great people, helpless by their own act, lies for the time at their mercy. Their fair professions are forgotten. They nowhere set up justice, but everywhere impose their power and exploit everything for their own use and aggrandizement; and the people of conquered provinces are invited to be free under their dominion!

I accept the challenge. I know that you accept it. All the world shall know that you accept it. It shall appear in the utter sacrifice and self-forgetfulness with which we shall give all that we love and all that we have to redeem the world and make it fit for free men like ourselves to live in. This now is the meaning of all that we do. Let everything that we say, my fellow countrymen, everything that we henceforth plan and accomplish, ring true to this response till the majesty and might of our concerted power shall fill the thought and utterly defeat the force of those who flout and misprize what we honor and hold dear. Germany has once more said that force, and force alone, shall decide whether Justice and peace shall reign in the affairs of men, whether Right as America conceives it or Dominion as she conceives it shall determine the destinies of mankind. There is, therefore, but one response possible from us: Force, Force to the utmost, Force without stint or limit, the righteous and triumphant Force which shall make Right the law of the world, and cast every selfish dominion down in the dust.

Advantages of Dairy Business

Among the many advantages of the dairy business a few stand clearly out as follows:

1. It is highly profitable when well conducted because it markets the crops of the farm in the most valuable form, and because it is a business which is capable of almost indefinite development.

2. It is good for the farm because crops are fed at home and because the demand for protein feed brings much nitrogen to the land.

3. Butter is absolutely destitute of fertilizing value, and if the milk be fed almost no fertility leaves the farm.

4. One of the disadvantages of most farming is the irregular income, weeks and even months passing with no cash receipts. The dairy checks, however, are not only frequent but regular throughout the year—an advantage appreciated only by those who have kept cows and had the experience of a steady income.

5. It is good for the family to be engaged in producing a high-grade produce which is consumed at a distance and which helps to hold up constantly advancing standards. The farmer lives much alone and is likely to be a "law unto himself." If he has "done well," even by a lucky strike, he is likely to claim the credit himself and to persist in what has once succeeded. His children follow after him, stepping blindly in his footsteps, or else break away because of an instinctive desire to come into touch with a larger number of people. Nothing so much rationalizes the whole family as dealing intimately with the great world of business outside.

All in all the dairy business is one that commends itself to the best of thinking men as an important means of service, worthy the exercise of the highest faculties and certain to give prompt and full returns for whatever of capital, knowledge and thought may be put into the industry.—EUGENE DAVENPORT.

There have been attempts at profiteering in blackstrap molasses. After an extended investigation the United States Food Administration announces that any sale of imported blackstrap molasses or molasses made in the United States from imported cane should be at not more than 18 cents a gallon. At prices above this, the owner would be reaping an unjust and unreasonable profit. This of course is the price in tank cars at seaboard points, or at the point of origin carrying the same freight rate. This molasses is used in the manufacture of over 1,700,000 tons of feeding stuffs annually in the United States.

We must conquer the whims of our own appetites before we can hope to conquer the German menace.

GENERAL FARM AND STOCK ITEMS

Something of Interest For All—Overflow From Other Departments

THE removal from farms and ranges to army camps of nearly a third of a million horses and mules has increased the market demand for straw and hedding several hundred tons per week. The prices at army camps and large markets have naturally influenced the price of this commodity on local markets, and the straw that was formerly hurned or allowed to he trampled down hy stock will now hring enough on the market to leave a good margin of profit to farmers over the cost of haling and shipping. The market price of straw is now between $8 and $20 per ton. and there is a good demand for almost any kind of straw.

Farmers who are not in the habit of selling straw, but who can advantageously do so, should bale their surplus or arrange to do so during the present year. Since the War Department naturally prefers to huy from those who can furnish large quantities regularly, individual farmers can either sell their surplus through regular trade channels or unite with each other and ship co-operatively.

It is suggested that farmers consult their county agricultural agents regarding the cost of baling and shipping, the kind of straw in greatest demand, market grades, and markets in Kansas.

Western Kansas Garden

Even in Western Kansas it is not necessary to depend on commercially canned vegetables for supplying the family. On many of the farms of Western Kansas the tin-can piles are entirely too much in evidence. This year the Government will take a very large proportion of the commercially-canned products, and we must grow our own vegetahles or go without. Mrs. W. H. George, of Ogallah, Trego County, Kansas, makes a great success of a garden each year. She not only provides the family with fresh vegetables, but cans from 900 to 1,000 quarts for winter use. What she has done others can do. She has written most interestingly to J. C. Mohler, secretary of the State Board of Agriculture, of her experience. She says:

"We like to plow our garden in the fall, ahout six inches deep, and then cover it ahout five or six inches deep with straw.

"If for any reason we are unable to plow in the fall, we only use about four inches of straw taken from around the feeding rack and where it has been hauled for the chickens to scratch. Then we do not have to contend later with wheat growing and smothering the plants.

"At planting time we pull hack the straw with a rake just enough to enahle us to make a shallow trench in the soil, planting the seed in the trench and covering with earth. Where parsnips, carrots and heets and turnips are planted, we cover lightly with straw also. Sometimes we sow the turnip seed on top of the straw.

"In planting this way, more ground is required for heans, but they yield so much more that one does not need to plant so many. I canned 100 quarts of green heans from one pound of red kidney beans planted in this way July 10 to 12.

"Melons and tomatoes are planted similarly, also squash and cucumhers — in fact, all our garden. Melons and such vines are planted closer as they will not need to he hoed after the second leaves come on, as we pull the straw around all plants.

"Peas are the only vegetahle we have had trouble producing, and then only in seasons of too much rain, when they sometimes mildew.

"For potatoes we list a furrow ahout five or six inches deep, the latter preferred, and drop potato seed about fourteen inches apart in the furrow and cover with cultivator ahout three inches deep. Then cultivate the same as corn, lightly after a rain, hut avoid cultivation while ground is too wet.

"We have had the best success with the following varieties of vegetahles—(where two are indicated, the first has given the hest results, except tomatoes):

"Tomatoes—Early June Pink; Kansas Standard for late planting. Cauliflower—Snowhall. Cabbage—Sure Head, plant in February for early transplanting. Lettuce—California Cream Butter; plant thick, then thin and use, leaving the heads spaced. Radishes—Crimson Giant. Carrots—Danver's Half Long. Salsify or Oyster Plant—Mammoth Sandwich. Parsnips—Hollow Crown. Onion — Yellow Danvers; don't plant in mulch. Beets—Blood Turnip. Turnip—Purple-top Strapleaf. Peas—American Wonder. Beans—Henderson Bush Limas; Stringless Green Pod for string and canning; Red Kidney, string and dry; White Cow Peas, sometimes called Crowders. Cucumhers—Japan Climhing; Long Green. Muskmelons—Burrel Gem, rust-proof; Rocky Ford for green flesh, and Emerald Gem for pink. Squash—Japanese Pie. Summer Squash — Giant Crookneck and White Bush; the Crook Necks are fine for winter when ripe. Pumpkin—Cow and Pie Pumpkin, Cushaw. Potatoes — Early Ohio (Red River seed preferred)."

Catch Crop After Oats

W. A. S., Johnson County, wants to plant some hay or forage crop after wheat or oats this summer. He has been considering cane, feterita, millet, and cow peas. Whatever crop is grown will he fed with silage. He has cane seed of his own raising, and has bought three bushels of cow-pea seed. He asks about sowing a peck of millet and a peck of cow-peas together and whether he should plow the land or douhle-disk for feterita. Also whether it should he sown broadcast or listed and cultivated.

This sort of an inquiry indicates a disposition to make the land produce the maximum return. In Eastern and Southeastern Kansas some good feed can quite often be grown following oats or wheat. The land might just as well be growing a valuahle crop as weeds.

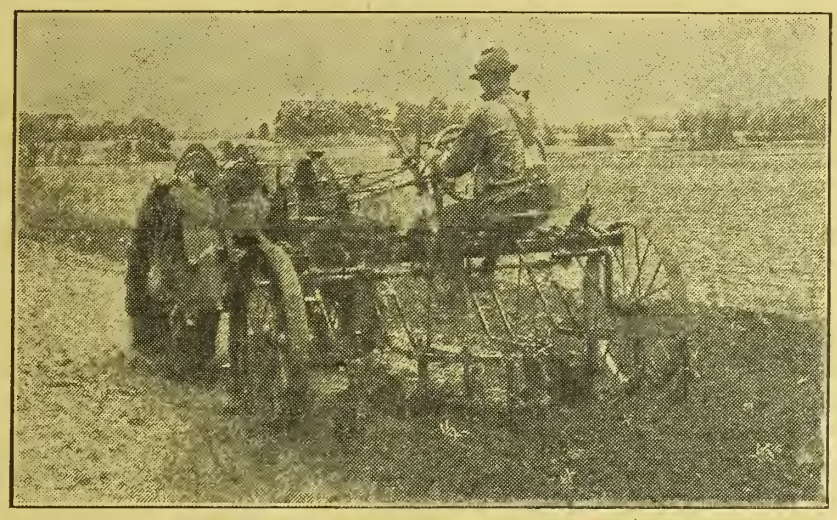
Cane is a good feed crop to grow as a catch crop, and for late planting Sudan grass is another good forage crop. To a considerahle extent Sudan grass bids fair to supersede millet as a catch crop in the eastern part of the state. In the judgment of many who have tried it, it is hetter as a feed for all classes of stock and will produce fully as much if not more tonnage. Feterita is a very quick-maturing grain sorghum and under favorable conditions will sometimes produce a grain crop after oats or wheat. We would advise listing shallow and cultivating. It does not make as good forage as cane or Sudan grass. If the disking can follow the harvest without delay it would he a hetter method of preparation than plowing, since the ground can be more quickly prepared.

The question of growing millet and cow peas together we referred to Prof. L. E. Call of the Agricultural College. For several years these two crops have been grown in mixtures on the agronomy farm at Manhattan. The Whippoorwill variety of cow peas was used with German millet, planting some time during the month of June. The millet was seeded at the rate of twenty-five pounds to the acre and the cow peas at the rate of forty-five pounds to the acre. In 1912 this mixture produced 3.06 tons to the acre, and millet alone, twenty-five pounds of seed to the acre, yielded 4.07 tons to the acre. In 1913 the mixture produced 1.35 tons to the acre, millet alone 1.20. In 1914 the mixture yielded at the rate of 2.89 tons to the acre, and millet alone 1.89 tons. That year cow peas alone, seeded at the rate of forty-five pounds to the acre, yielded at the rate of 2.12 tons cured forage to the acre. In 1915 the yield of the mixture was at the rate of 2.49 tons, millet alone 3.01, and cow peas alone 3.30 tons.

In commenting on their experiences, Professor Call says:

"We have not found it advisable to sow less than twenty-five pounds of millet to the acre either where sown alone or with a mixture of cow peas. We have found, however, that it is satisfactory to use a smaller amount of cow peas than we have used in our mixture. We have sown as small an amount as fifteen pounds, or a peck of cow peas, with twenty-five pounds of millet, with good results. The proportion of cow pea hay will he less with this rate of seeding, but it will not materially decrease the total quantity of hay produced. In fact, there is very little to he gained in the average season from the standpoint of total hay production hy adding cow peas to the mixture, hut there is a great deal to be gained from the standpoint of having the cow peas, which are a legume, in the mixture which will increase the protein content and therefore the feeding value of the hay.

"Cow peas cannot be sown with Sudan grass successfully. We have tried the mixture, sowing twenty pounds of Sudan grass and forty-five pounds of cow peas to the acre, hut the Sudan grass grows so rapidly that the cow peas are completely choked out. It is therefore a waste of seed to sow the peas with Sudan grass."



TRACTOR USED IN CULTIVATING CORN THE FIRST TIME

Grange Opposes Zone System

The members of Valley Grange at Waverly got husy at a recent meeting and voted to ask our Kansas congressmen to work and vote for the repeal of that addition to the War Revenue Bill which provides for the zone system on second-class mail. Every member present signed a petition to our senators and representative.

If the Government is so pinched for sources from which to raise revenue, why doesn't it ask Congress to cut off the free seed graft and the franking privilege on the tons of congressional matter it sends out campaign years to brihe the farmers to vote for the senders? The farmers don't ask for those documents nor for the seeds, hut many of them do want magazines and periodicals that are published in eastern cities, and when the law goes into effect in July they will have to pay more for such publications. As I understand the law, it will include farm and religious journals.

That cheap talk ahout making the magazines pay for carrying their advertising pages is all tommyrot, hecause anyone that knows anything about the puhlishing business knows that the publishers will have to either quit business or pass the extra carrying cost on to the purchasers.

If Congress wanted to tax one of the Government departments, why should it choose the one that affects the educational interests of the people so much? It would he just as reasonable to tax our schools and colleges.

A noticeable thing ahout the granges that have steadily kept up their educational work is that they are never threatened with dormancy. While so many of our Kansas granges are planning to use the Grange as a financial agent to increase their store of dollars and giving little or no attention to its possibilities as an agent for increasing their store of uplifting and useful knowledge, it might be well for such granges to ask themselves: "What were the chief objects of the founders of the Grange?"

Just lately I received a letter in which the writer said: "The exchange of ideas an experience meeting for its anniversary Grange is worth more to them than all the money they make in their financial dealings through the Grange." Early in the history of the order a Yankee, speaking to his Grange brethren of the Middle West, said: "When two men swap dollars, neither of them is richer hy the trade. If they swap commodities, each may get something he wanted more than what he had. If they swap thoughts and experiences, each douhles his store of knowledge and is richer for life. The Grange gives the farmer's family its hest opportunity to exchange ideas, experiences, and methods, and thus enahles every memher to give and receive a fund of knowledge that may be drawn upon at all times to help make our daily life and its pursuits more useful."

From time to time ever since that speaker first set some of us older memhers to thinking of the great value the exchange of ideas is to the members of the Grange, we have heard new memhers repeating the primary thought of that early speaker in some form. Just recently I was pleased to hear one of our hright young lecturers give it out at a puhlic meeting which his grange was holding.

More than twenty years ago a grange that was then twenty-five years old had an experiecne meeting for its anniversary meeting. Each memher was asked to tell in what way the Grange had done him or her the most good. After many fine things had heen said of the good work of this grange, which was a leader in its section of the country, a white-haired old man said with evident feeling: "This grange has opened a hook of knowledge to me that I had thought was closed to me forever. My school days were few and I had always coveted an opportunity to gain more of the good and useful knowledge of the world than my ohscure and quiet life afforded. The exchange of ideas and thoughts and the readings from first-class writers opened a door to the great storehouse of the world's hest literature that has proved worth more to my hungry mind than a fortune in dollars could have been. If this grange had done no other good work, its example and influence in giving as a part of its programs extracts from some of the world's choicest literature has been of untold value to its members, from youngest to oldest. Each meeting has given us some fine thought to carry home with us and in doing just this one thing has enriched the lives of its members for all time."—EVA GASCHE.

There is no more heroic figure in history than that of the French nation. It is almost four years since it hegan its fight for existence. During that period from a population of ahout 35,000,000 it has mohilized 7,000,000 fighting men, or 20 per cent. More than a million have been killed and as many more maimed for life, and still they fight on with women and old men trying to raise enough food for their needs. Now hecause they cannot get enough grain from the rest of the world to make up for their deficiencies, the French soldier's bread ration has heen cut, and the people's ration is only one-third of normal. Surely we can make a few sacrifices for such a nation as that.

Do not help the Hun at meal time.

CROP AND LABOR SITUATION

Men of Cities Must Understand Importance of Agriculture

IN MARCH 13 Clarence Ousley, assistant secretary of agriculture, appeared before the Senate Committee on Agriculture and made a statement concerning the agricultural production of the United States and the labor needed for cultivating and harvesting the crops of 1918. Following his appearance before the committee, Mr. Ousley prepared a statement for the press, covering the points presented. This statement follows:

"I am receiving many letters concerning newspaper reports of my testimony before the Senate Committee on Agriculture on March 13. These letters show that what I said has been reported in such a manner as to convey a false impression in many respects. It is impossible for me to answer every letter and to discuss every angle of the subject, but for the information of all inquirers, I furnish the following summary of what I said on the subject of crop acreage and the labor necessary to cultivate and harvest the crops in 1918:

"If the law of averages holds good, there will be approximately as much land under the plow this year as last year, and I am inclined to believe that in the aggregate the acreage will be increased. Since the latter part of January I have visited the Northwest from Minnesota to Puget Sound, and the South from Texas to Georgia. In the Northwest, of course, there were no plantings, but I found a general purpose, notwithstanding labor difficulties, to equal or increase acreage. In the South I found the same purpose already partly in effect. It may be assumed that what the farmers of the Southwest and of the Northwest intend to do, the farmers of other regions also intend to do.

"The winter wheat acreage last fall was increased 4 per cent and would have been increased 15 to 20 per cent but for dry weather in a considerable part of the winter-wheat belt. The prospect at this time is for an increase of spring wheat acreage of 5 to 15 per cent. In the South the early plantings carry a generous proportion of food and feed crops, and if the spring is favorable there is no reason to doubt a maintenance of this proportion. In many of the trucking and market-garden regions, especially those surrounding busy industrial centers, there is likely to be a considerable decrease in truck-crop acreage because of labor difficulties, but in many of these regions much of the land will go into staple crops. This readjustment of farming operations in the trucking regions is likely to cause a smaller yield of perishable products, but on the other hand the home-garden movement is in full swing and if every man who can do so will make a reasonable effort to raise a garden, there need be no lack of vegetables.

"Of course no man can say what the harvest will be, for the yield will depend upon the weather and upon the labor available for cultivation and harvesting.

"The principal difficulty in farming operations for 1918 is the problem of farm labor. That is serious, but it is not insuperable. The Department of Agriculture has farm-labor offices in nearly all of the states, working in co-operation with the agricultural colleges, the county agents and other state activities, and the Department of Labor has employment offices in nearly all the centers of population. These two departments together are enabled to contribute much to the solution of the problem by furnishing information and by shifting labor from neighborhood to neighborhood as the seasonal demand passes, and generally by bringing together the laborer and the employer. But when all has been done that may be done by these departments or by any other governmental agency, much will remain to be done by the states and communities, especially by the cities, for there is not enough labor seeking employment to supply the farms for cultivation and harvesting. For years the cities with their great fortunes and bright lights have been drawing the young men from the farms. The war has merely precipitated a draft that sooner or later would have caused more or less of a food crisis. In peace times that is a matter that might well be left to readjust itself through such reduced production and consequent high prices as would make farming more profitable and attract men to the industry. But in the war emergency we must have food at all costs, and since there is no way of getting it without labor, and since labor is lacking, the cities must sacrifice something of their comfort and furnish the necessary man power to cultivate and harvest the crops. In many towns and cities last year the business men closed their establishments or spared numbers of their employes to help the farmers. In a few places already business men are taking surveys and are making pledges to furnish labor which has farm experience, to the adjoining communities as may be needed. The same methods must be put into practice in every town and city adjacent to a farming region. The men of the cities must be brought to understand the vital importance of agriculture. Many of them have sneered at it or have regarded it with indifference. Now they must lend it much of their thought and their effort. They should understand that the United States is going to furnish food to the armies and the civil populations behind them, and they may depend upon it that the farmers will feed themselves. It behooves the cities therefore to take some thought of their own sustenanee by readjusting their activities. There is hardly a business or an industry in the United States that can not spare temporarily for the cultivating and harvesting seasons a considerable part of its man power, or even close, say, for three to fifteen days during the period as the local need appears. In many such cases women can take the places of men for the lighter commercial and industrial tasks so that the men who have farm experience may be available for farm needs. In many cases women can do light work on the farm, such as dairying, cultivating vegetables and fathering fruit. The details must be worked out by each community. It is not possible to devise a general system, because conditions vary on every farm and in each neighborhood.

"In many of the industrial centers wages are so high that a large number of men are content to work only a part of the time. Either by public sentiment or industrial regulation—if need be by vagrancy laws—there must be a full utilization of man power. It is not possible for the National Government to compel or even to direct such readjustments. There is not wisdom enough in this Congress or in any Congress that could be assembled to solve all these local and regional problems. States, communities and individuals of influence must take responsibility. Washington can not create labor and should not compel employment. Local initiative and local responsibility must be exercised to the fullest extent.

"The farmers will do their full duty in planting. The governmental agencies will do all that they can do and we may reasonably expect a normal season. If the people of the communities, especially of the cities, will assume their part of the burden, there need be no doubt of the result, but if the cities persist in plunging for profit and in enjoying their ease, expecting the Government and the farmers to work miracles, then those who are neither fighters nor producers may suffer some privation."



THE girl members of the Linwood Pure-Bred Dairy Calf Club are here shown, with a few of the boys. There are thirty-six members in the club. Each month they are to meet with the county agricultural agent, I. N. Chapman, and report on the amount, kind, and cost of feed given their calves for the month. A short lecture will be given on some phase of dairy herd management, starting with the care of calves and young stock, and advancing gradually until the whole subject is covered. It will be a year's course of instruction in dairy husbandry, and the club members will learn many of the important details of the business.

How I Did My Bit

THE subject, "How I Did My Bit," was the theme of a prize letter written for Today's Housewife by Mrs. E. L. Marshall, a charter member of the Glenwood Mother-Daughter Canning Club. A prize of $25 was offered for the best letter on this subject. O. H. Benson, of the United States Department of Agriculture, acted as one of the judges, the first prize of $25 going to Mrs. Marshall. The editors of KANSAS FARMER feel sure you will agree with us after reading the letter that the writer and her family have done their "best" instead of their "bit." Mrs. Marshall's story follows:

"As a member of the Glenwood Mother-Daughter Canning Club, I learned how to conserve all kinds of food. I began early in the spring to help organize mother-daughter canning clubs, giving demonstrations in canning. I helped organize the canning club at Lansing and gave them two demonstrations; helped organize the Basehor club and gave them one demonstration; gave the Ackerland Mother-Daughter Canning Club one demonstration, and organized the Mother-Daughter Club of Tonganoxie with forty-two teams. I was called to Piper in Wyandotte County and organized a canning club there which has been very successful.

"Many calls came over the telephone, some from ladies I had never seen, asking how to can different vegetables and for help in understanding the canning directions. I was glad to help them and carefully explained my methods so that vegetables were canned by many who had never canned any before. Although a great many more vegetables were raised this year, none of them were allowed to go to waste as was formerly the case. This year the surplus was canned for winter use.

"It was of my own free will that I helped these people to learn how to can vegetables and meats, for I received no pay, with the exception of a second demonstration at one club, where I showed them how to can several kinds of meat.

"My daughter and myself made our garden produce everything possible, getting two crops from part of it. We planted the watermelons in the onion patch, where we raised twenty bushels of onions, and the late cabbage and tomato plants were set between the early potatoes.

"The potatoes were dug as we needed them. We had all the peas we could use for a family of eight, and all were fond of peas. We canned seventy-six quarts and gave a neighbor enough for seventeen pints. String beans were so plentiful that we canned ninety-three quarts and had some to spare. We planted Kentucky Wonder and stringless green pod. The first crop of our lima beans we canned with corn as succotash, the crop making fourteen quarts. When frost came we picked six bushels of lima beans, hulling and canning twenty-five quarts of the green ones and drying the ripest ones. We planted our lima beans three times before we got a stand. We raised some navy beans and when the first crop was ripe we gathered the bean pods and put them into sacks. When the rains came the plants made a second crop. Nearly all of this second crop got ripe before frost. They have been pulled and hauled to a crib where they beans was better than the first. We raised enough turnips to do us this winter where we raised our peas. We cleared off the pea vines, plowed, and harrowed the ground before sowing the turnip seed.

"We had an abundance of garden truck, raising about everything that can be grown in a garden. We pulled one and one-half bushels of beets after using from them all summer, and also pulled five pecks of carrots. We have fine parsnips and salsify in the garden yet. We will dig and store these crops later. We raised twenty bushels of sweet potatoes. When frost came we gathered about twenty bushels of green tomatoes and made up fifty-six quarts of pickles, having already canned seventy-four quarts of ripe tomatoes.

"Altogether we have canned 1,023 quarts of meats, fruits, and vegetables this year—1917—and only bought $4.50 worth of fruit. The rest was all produced on our farm. We helped shock 130 acres of wheat and oats and also helped make the hay. We help to do the milking and sell the milk, but make our own butter and always have all the milk we need for home use.

"One of our daughters is attending the State Normal School and she came home the latter part of May and helped on the farm during the summer, going back to school the first of September. One daughter is in high school and is at home Saturdays and Sundays. Two girls are going to rural school and this winter I have one at home to help me keep the others in school. The baby is three years of age. The only son is in the army, and we send him a box of 'eats' every week by parcels post.

"We also raised sixty young ducks, fifty turkeys, some geese, and about 300 chickens. We sold the chickens when they weighed from one and a half to three pounds each. We have plenty of apples and raised our pumpkins in the sweet corn field. We canned 114 quarts of corn. I have three sisters living in town and gave them each a pumpkin and a big sack of apples. We have not canned our pumpkins and sweet potatoes yet, but will do so next month."

The Governments of the United States and of the Allies, using the proceeds of the Liberty Loan, are the largest purchasers of American agricultural products. In supporting the Liberty Loan, the farmers are enabling their best customers to purchase goods and at the same time securing the best investment in the world. Buy Liberty Bonds.

That idle acre is a German missile for an American heart.



Good Bulls to Farmers

IN A recent issue of the Shorthorn in America, the proposition of getting farmers to use better bulls is discussed by the editor. It is generally admitted that the small farmer needs some encouragement in the use of better sires. He too often feels that he cannot afford to use a really good animal. The plan suggested by the writer in the breed paper is that of guaranteeing to the purchasers the sale of their bulls when the time approaches for them to make an exchange. He suggests that the breeders in the various communities make a canvass of the farmers who are in need of Shorthorn bulls and who may be agreeable to placing them in service; then furnish the required number and plan to hold sales each year or alternating years as may be practicable, thus providing to the purchasers a convenient outlet for the bulls. In many cases it would amount merely to an exchange among the farmers themselves, and this may be worked out privately as well as through the public sale method, depending on the community. One condition would be necessary in either event, and that is that the farmers keep their bulls in thrifty condition and properly care for them otherwise.

He points out that a satisfactory method similar to this might be adopted and a large number of farmers induced to buy Shorthorn bulls. Once the practice is started it will be easily continued. The farmers can be readily induced to buy a better class of bulls if they feel reasonably sure of disposing of them without a considerable shrinkage in the price. The farmer is apt to be—usually is—a cautious buyer when prices go beyond the customary range of farm stock values. It is just on this point that encouragement and education are necessary. It is here that the safeguard needs to be provided.

Individual breeders can accomplish a great deal along this line by turning to their neighbor farmers bulls of a better class than they have been accustomed to using, and extending the time of payment until the superior merit of the calves is recognized. The placing of from one to a half dozen bulls each year by each breeder would prove a long stride in the direction of stimulating beef production among the breeders of grade cattle.

"We offer these suggestions here," says the writer, "and invite Shorthorn breeders generally to give them consideration, for by putting them into practice an increase and improvement in Shorthorn grades will certainly result. More than this, sooner or later there will be created on the part of the purchasers a desire to put in foundation stock for pure-bred herds. There is through this channel a practical opportunity to extend and perpetuate Shorthorn trade."

While this plan as outlined above has for its purpose extending the use of pure-bred Shorthorn cattle, it will work just as well if applied to any other breed of cattle.

Reports on Brood Sows

In the report of Edward C. Paxton, field agent for the Bureau of Crop Estimates for Kansas, it is estimated that there are 109.5 per cent as many brood sows in the United States as a year ago. In Kansas the number of breeding sows is estimated as scarcely up to the number a year ago, but as a whole the average American farmer has demonstrated his faith in the promise of the Food Administration that a just ratio between the price of corn and hogs will be maintained for the spring crop of pigs.

According to the report just given out, the outlook for heavy production of all kinds of live stock in Kansas and in the United States was never brighter. Losses of all classes of live stock during the past year, both from disease and exposure, are estimated to have been less than the previous year and less than the ten-year average. It is estimated that the present condition of the health of horses, cattle, sheep, and swine, both of Kansas and of the United States, is over 96 per cent of normal. This is better than it was last year and better than the ten-year average. There have been no serious outbreaks of contagious diseases among live stock during the past year. In Kansas hog cholera has been less prevalent than in a good many years, largely due to the active preventative measures being carried out by the state and federal officials, they receiving the hearty co-operation of the farmers in the application of sanitary and other measures.

How to Feed Young Pigs

Feed, sunshine and exercise are the three essentials mentioned by L. A. Weaver of the Missouri College of Agriculture for success with young pigs. The fastest and cheapest gains are made on a pig before weaning time, so that ordinarily it will pay to keep the small pig growing as rapidly as possible. The sow should, of course, get some good milk-producing feed and she should be fed to her full capacity as soon as the pigs are old enough to take all the milk she will give. It will not pay to limit the feed at this time, since the pigs make the most economical gains from feed fed through the sow. When the pigs are about a month old they will be able to use more feed than that obtained from the sow even though the sow is properly fed and a good milker.

As soon as the pigs will eat, which is usually at four or five weeks of age, they should be fed separately from their dam. A creep should be made so that they may have access to a small pen where the sow cannot get their feed. Skim milk fed in a shallow pan is very good for them. The pigs may also be taught to run into the creep for feed by allowing them some shelled or ear corn. As soon as they begin to eat well, a slop made of milk, some shorts, a little bran and some linseed oil meal or tankage fed along with the corn, will make a ration which with proper exercise will not cause thumps or scours.

A good ration for young pigs is corn four parts, shorts four parts, bran one part, and tankage one part. These proportions should be by weight. As the pigs become older the corn in the ration may be gradually increased until the amount has been doubled.

Perhaps the most common trouble caused by improper feeding and care of young pigs is scours and thumps. Scours are usually caused by changing the feed of the sow, by over-feeding, by dirty pens and troughs, or by exposure of either the sow or pigs to cold rain or to cold weather.

Changing from sweet to sour milk, or feeding too much high protein feeds, such as tankage or linseed oil meal when the animals are not accustomed to it, may cause the trouble. If the sow is fed too much her milk flow will be greatly stimulated and the young pigs will receive more than they can utilize, thus causing scours.

The first treatment in the case of scours is to cut down the sow's feed and clean her quarters. A tablespoonful of sulphur in her feed for two days will also be beneficial. Scalded milk or a good physic, such as Epsom salts, is helpful. A teaspoonful of castor oil or Epsom salts should be given to the pigs. Charcoal is sometimes used. White scours, which is contagious, may be treated by cleaning and disinfecting the pens and by giving a good physic.

Lack of sunshine and exercise together with excess feeling, cause thumps. A remedy is to cut down the mother's feed and force the pigs to take exercise in the sunshine. Thumps in large pigs which have been weaned is usually caused by some affection of the lungs or of the bronchial tubes.

The continued high prices of mutton and lamb have made it desirable that more sheep be kept on the farms of the United States. In many parts of the country there are large areas of rough land, weedy lots, and grown-up fence rows which afford an excellent opportunity for feeding sheep.

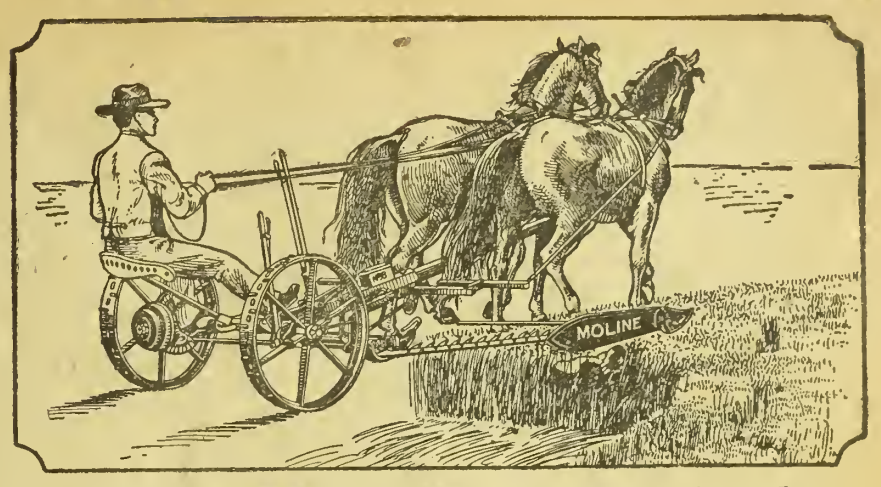
The sooner the irresistible might of this great republic is organized and put into full action, the sooner the war will end. Every dollar invested in Government securities works to shorten the war, to save the lives of American soldiers and sailors. Buy Liberty Bonds.

In feeding hogs for the market, as also any other class of meat animals, larger returns are obtained when the stock is as nearly uniform as possible.

There are few combinations of feed which are more economical than a ration of silage and cottonseed meal for wintering stocker cattle. One pound of cottonseed meal per day combined with what silage stocker steers will eat will cause them to gain slightly in weight.

The Sheep-Killing Dog

"The Sheep-Killing Dog" is a suggestive title of U. S. Farmers' Bulletin 935, issued in February, 1918, and which is the severest indictment ever filed against Mr. Dog. It gives a summary of the anti-dog laws of every state in the Union, and publishes in full the dog statutes of Pennsylvania and West Virginia, which are considered the most successful in regulating sheep-killing dogs. Address Washington, D. C.



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On the rear of the Moline Mower you will notice a bell shaped gear. When this gear gets into motion it has the same effect on the sickle as a fly wheel on any machine and carries the mower through heavy and difficult cutting where other mowers fail. You can always depend on the Moline.

This is the same principle that was used on the old Adriance Buckeye Mower 60 years ago, and you won't find it on any other mower on the market. In fact, this mower is the old original Buckeye, now called the Moline Mower, and is greatly improved. Every user of a Moline Mower profits by these years of service and knows his Moline Mower will not fail him in a "pinch."

Other features such as, one-piece main frame; cold rolled steel axle and shaft; pawls and ratchets in plain view; coupling frame hinges which will not bind; five-inch driving wheels, extra heavy cutting parts; removable wearing plates; alignment device for the cutter bar; spring draft; forward acting foot lever and many other distinctive features, carry the Moline Mower through tough cutting year after year.

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It will be worth a whole lot to you to have a Moline Mower at work on your farm. Remember when you get a Moline Mower you get the product of one of the oldest and most reliable concerns in the business. This means that you can always get repairs for a Moline Mower

Your Moline dealer will be glad to show you the Moline Mower or if there is no Moline dealer in your locality write us for full information. Address Dept. 10.

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The Food Controllers of United States and Canada are asking for greater food production. Scarcely 100,000,000 bushels of wheat can be sent to the allies overseas before the crop harvest. Upon the efforts of the United States and Canada rest the burden of supply.

Every Available Tillable Acre Must Contribute; Every Available Farmer and Farm Hand Must Assist.

Western Canada has an enormous acreage to be seeded but man power is short, and an appeal to the United States allies is for more men for seeding operations.

Canada's Wheat Production Last Year was 225,000,000 Bushels; the Demand from Canada Alone, for 1918, is 400,000,000 Bushels.

To secure this she must have assistance. She has the land but needs the men. The Government of the United States wants every man who can effectively help to do farm work this year. It wants the land in the United States developed first of course; but it also wants to help Canada. Whenever we find a man we can spare to Canada's fields after ours are supplied, we want to direct him there. Apply to our Employment Service, and we will tell where you can best serve the combined interests.

Western Canada's Help Will Be Required Not Later Than May 5th. Wages Competent Help, $50 a Month and Up, Board and Lodging.

Those who respond to this appeal will get a warm welcome, good wages, good board, and find comfortable homes. They will get a rate of one cent a mile from Canadian boundary points to destination and return.

For particulars as to routes and places where employment may be had, apply to

U. S. Employment Service, Dept. of Labor.

St. Louis, Kansas City and St. Charles, Missouri.



DR. HESS DIP and DISINFECTANT

Spring is Cleaning-Up Time

The garbage can, sinks, drains, closets, cesspools, all foul-smelling and disease-breeding places need attention. Get out the sprinkling can and make a liberal use of Dr. Hess Dip and Disinfectant. Do this regularly to establish health conditions—to destroy disease germs and purify the air. There is no better way to avoid contagious diseases. Use it also about the poultry house, pig pen and stables. One gallon makes 100 gallons of disinfectant. **GUARANTEED.**

Dr. HESS & CLARK
Ashland Ohio

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KANSAS FARMER DAIRY CLUB

Producing Clean Milk

THE spoiling of milk is caused by the presence of various kinds of bacteria. These minute organisms increase very rapidly under favorable conditions. The problem of the dairyman is to keep them from getting in.

Milk with a low bacterial count can be produced in practically any cow barn. Any dairy farmer with a healthy herd can produce such milk with an investment of only $10 or $20 and a little extra care.

The United States Department of Agriculture in an experiment produced low bacterial count milk in a poor dairy barn. The only changes made were: Simple steam sterilizer for utensils, clean cows—especially clean udders—small-top milking pails, proper manure removal and good bedding. The bacterial count fell from as high as 1,200,000 to an average of 2,154.

Low bacterial count is the beginning of good milk, but milk must also be safeguarded from other contamination likely in a dirty barn. There is no legitimate excuse for the production of milk from dirty cattle or in a filthy stable. In addition milk must be properly cooled to prevent the multiplication of bacteria.

Reduction of bacteria in milk does not depend on the kind of barn or expensive equipment so much as on simple inexpensive precautions. Milk with low bacteria count can be produced in barns of ordinary type with less than $20 worth of extra equipment. The dairy specialists of the U. S. Department of Agriculture have proved this in a practical experiment.

For the purpose of this experiment, four cows were put in an ordinary frame barn. An untrained worker was employed to milk and care for the animals. No extra attention was devoted to cleaning the barn. At the end of six months the barn was no cleaner than many commercial barns.

Without any changes in barn management the specialists had two cows milked into small-top pails and the two others were milked into ordinary open-top pails. The milk from the open-top pails averaged 497,653 bacteria. The milk from the small-top pails averaged 368,214.

The use of the small-top pail without any extra precaution made a difference in the average count of 129,439 bacteria per cubic centimeter.

The pails and cans were sterilized with live steam. This can easily and cheaply be done with a simple steam sterilizer, which can be made at home or can be purchased complete for about $10. Other conditions remained as before. The milk from the sterilized small-top pails averaged only 17,027 bacteria—a reduction of 351,187 in favor of this simple sterilization. With the open pails, sterilization reduced the bacteria to 22,677—a decrease of 474,976 compared with milk from the unsterilized open pails.

In the third step of the experiment the manure was removed from the barn twice instead of only once a week. The udders and teats of the cows were washed before each milking. These reasonable measures of cleanliness reduced the count in milk drawn into the sterilized small-top pail to 2,886 bacteria, and in the sterilized open-top pail to 6,166 per cubic centimeter. Ordinary cleanliness, it can be seen, caused a reduction of over 10,000 bacteria per cubic centimeter.

To make it easier to keep the cows clean, in the final stage of the experiment the manure was removed daily, clean bedding was supplied, and the cows were cleaned with a curry comb and brush. With these final precautions the bacterial count in the small-top pail averaged the very low one of 2,154 per cubic centimeter or 1,197,847 bacteria less than were found in a sample when the barn and cows were dirty and the utensils were not steamed.

Kindness to Cows Pays

In the hurry of getting chores done, the dairyman sometimes forgets that dairy cows are naturally of a nervous and excitable disposition, and that under conditions of excitement or fear the milk flow is materially lessened. Driving cows on the run, chasing them by dogs and with loud shouting, are not allowed on a well-managed dairy farm. In the stable all operations should be carried on quietly. When a cow kicks there is usually a reason for it; the teats may be hurt by the milker or the cow may be frightened. At such a time a little care in removing the cause and pacifying the cow will often prevent further trouble. Many good cows become confirmed kickers and consequently less profitable as a result of lack of careful observation and kindness on the part of the attendants.

Dairy cows readily become accustomed to a regular daily program, any interruption of which acts as a disturbing influence and tends to cause a decrease in milk production. There should be certain hours for milking and the same order of milking should always be followed. Thus, at the regular time the cows release the muscles controlling the milk ducts so that the milk is given down more quickly and easily. Regularity in milking is one of the important factors in keeping the milk flow constant.

It is immaterial whether cows be fed grain before or after roughage, but it is desirable that the feeding be done at regular intervals and that the feeds always be given in the same order. Feeds which have considerable odor are usually fed after milking in order to prevent the absorption of odors by the milk.—Circular Illinois Experiment Station.

Dairy Cattle Improvement

The scrub bull must go; the co-operative bull association has sounded his death knell. No longer can he retard dairy development and hinder efficiency. Every dairy herd should produce the maximum of milk at the minimum of cost. By breeding to superior sires, milk production will be greatly increased in a single generation and greater economy effected. It has been impossible for the four million farmers who produce the bulk of this country's milk supply, but who own an average of less than ten cows, to use bulls of high quality because of the great expense. By joining a bull association any dairy farmer may own a share in an excellent pure-bred bull at a cost far below that ordinarily paid for a scrub. The initial cost is smaller and the maintenance cost is very much less.

The above is the program of the dairy division of the United States Department of Agriculture.

Dairy bulls are judged by their ability to increase the production of their daughters over the dams. Scrub bulls can only decrease production—thus lowering the efficiency of the herd. Their harm is not ended in one generation, but continues indefinitely. With beef at exceptionally high prices, sell the scrub bull, for his meat value far outweighs his dairy worth. A common practice for the farmer with a few cows is to breed to the nearest bull, regardless of breed, breeding, or conformation, and as a result dairy herd improvement is slow.

The cost of bull service also falls heavily on the commercial dairyman with a small herd, as bulls must be changed every two or three years to avoid inbreeding. As a rule, therefore, he buys a bull calf from the nearest farmer who keeps the breed in which he is interested. Too often cost is the first consideration. Too seldom is the bull pure-bred, and even then authentic production records of his ancestors are not usually available. The result is lack of improvement. Though a great pure-bred bull occasionally may be secured in this way, in nearly every case he will have been disposed of before his heifers come in milk and his value has been determined. In this way many of the greatest bulls have been lost to the dairy industry. A co-operative bull association will remedy these difficulties.

A co-operative bull association is a farmers' organization whose purpose is the joint ownership, use, and exchange of three or more high-class pure-bred bulls. The territory covered by the association is divided into three or more breeding blocks, and a bull is stationed in each block for the service of the fifty to sixty cows in the block. Every two years the bulls are interchanged. Thus, at small cost, a bull for every sixty cows is provided for six or more years. The cost of bull service is thus greatly reduced, the best of bulls are obtained, and the man with limited means and only a few cows is enabled to improve his herd. Bulls of outstanding merit are preserved for their entire period of usefulness. Associations of this kind teach co-operation, encourage careful selection of cows and calves, introduce better methods of feeding and management, intelligently fight infectious diseases of cattle, and assist in the marketing of dairy stock and dairy products. Assistance in organization may be obtained by writing to the Dairy Division, Bureau of Animal Industry, United States Department of Agriculture.

One fact cited by the dairy specialists in support of the co-operative bull association is that about three-fourths of the 23,906,000 dairy cows in the United States are owned in herds of less than ten cows. The owners of these small herds in many cases can not afford to maintain pure-bred bulls, and for such owners the bull association offers the only practical remedy for the poor quality of dairy cattle. Through bull associations they can improve their cattle and decrease expense.

The following tabulation shows the records of the daughters of certain bulls that have been used in co-operative bull associations, and also shows the records of the dams of the daughters:

	Average fat production.
Bull No. 1:	
Seven daughters	270.5 pounds
Seven dams	208.3 pounds
Average increase	62.2 pounds
Bull No. 2:	
Seven daughters	281.6 pounds
Seven dams	226.4 pounds
Average increase	55.2 pounds
Bull No. 3:	
Two daughters	369.5 pounds
Two dams	254.0 pounds
Average increase	115.5 pounds

Every farmer who talks maximum profits instead of maximum production is aiding Germany.



Beats Out The Grain

SAVE MORE GRAIN
Help Win the War

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Condition of Wheat Crop

IT WOULD appear that wheat has come through the winter in Kansas in better condition than could have been expected. According to the April 1 estimate of Edward C. Paxton, of the Federal Bureau of Crop Estimates, who is located in Kansas, the 9,480,000 acres of winter wheat in Kansas promises 67 per cent of a normal crop. Based upon this condition, Kansas has a chance this year to produce in the neighborhood of 180,000,000 bushels of winter wheat. The final outcome will be either greater or less as climatic conditions from now till harvest are favorable or unfavorable. This is more than twice as much wheat as Kansas produced in 1917. It means not only more foor for our soldiers and allies, but more money to buy Liberty bonds whenever necessary.

Handicapped last fall by lack of moisture, Kansas wheat was off to a poor start, but came over the top of the winter battling with renewed vigor from the wet snows of February and the light but timely rains of March. Starting with a condition of 71 per cent last December it enters April with a batting average of 67 as compared with 45 a year ago and 80 the ten-year average.

Winter killing was severe in some parts of the state. Those counties lying in the drainage system of the Saline, Solomon and Republican rivers suffered worst. The mortality was also great in parts of the western third of the state even in wheat counties of important acreage, as Ford and Hodgeman. From Pawnee County eastward and south of the Kaw, conditions are almost universally above 80 per cent. East of the Blue and of a line drawn south from its junction with the Kaw, conditions will average over 90 per cent.

The average condition of winter wheat throughout the United States is estimated to be 78.6 per cent of normal compared with 79.3 per cent last December, 63.4 per cent a year ago and 83.6 per cent the ten-year average on April 1. This condition forecasts a probable reduction of 560,000,000 bushels of winter wheat in the United States.

First Year Farm Loan System

The Federal Farm Loan System has completed its first year of actual operation. The first charter issued to a Federal Land Bank is dated March 1, 1917, and the charters for the other eleven were issued during that month. Borrowing under the Federal Farm Loan System is done through national farm loan associations, and the first charter granted to one of these associations is dated March 27, 1917; so that while most of the work of organizing the banks, systematizing their business, appointing and training appraisers and the like had to be done after the end of March, 1917, it may be said that the banks have just about concluded their first year of operation. A statement of the business done during this first year is therefore of interest.

Before the system was put in operation it was argued that our American farmers would not organize for co-operative borrowing. The answer to this seems to be found in the fact that up to March 31, 1918, 2,808 national farm loan associations were incorporated, representing about four associations to each five counties in the United States. These associations average about twenty members, representing a total membership of about 56,000 farmers.

The twelve Federal Land Banks have received applications for over 120,000 loans, amounting to about $300,000,000. Many of these applications have been rejected, reduced or withdrawn. About 80,000 loans have been approved, amounting to over $160,000,000, and on over 30,000 of these loans money has been paid to the farmers to the amount of about $80,000,000. Many of the loans approved were for reduced amounts which the borrowers declined to accept.

Notwithstanding the unusual expenses incident to the operation of new machinery and to the appraisement and determination of title on many loans that have not yet been closed, the expense of the banks in doing business has been within such limits as to justify the expectation of the Farm Loan Board that these banks will easily be able to operate on a difference of one-half of one per cent between the loaning rate and the rate which they pay on their bonds. None of the banks, of course, received any appreciable income from their business during the first half of the year, but during the last half the business of the Spokane Federal Land Bank, for example, was sufficiently profitable to come within about $10,000 of wiping out the excess of expenses incurred in the first half, and the volume of business on its books assures it a handsome surplus for the second year. Every borrower, when he takes out his loan, makes a subscription which increases the stock of the Federal Land Bank to the extent of five per cent of the amount borrowed. These stock subscriptions of borrowers, in the case of several of the banks, are now so large that, in accordance with the provisions of the Act, the retirement of the original stock of the banks, which was principally subscribed by the Government, will begin within a few months.

Increase Sorghum Acreage

We would again urge the importance of a large acreage of the grain sorghum crops in Kansas. The distribution of seed being made by the United States Department of Agriculture, which has already been mentioned, has for its purpose the increasing of sorghum planting. The seed the Government is distributing is on sale at actual cost.

H. N. Vinall at Wichita is the Government representative in Kansas, but seed should preferably be ordered through a county agent or through the chairman of the county council of defense. It is not advised that farmers who can obtain good seed in their own localities purchase from this reserve.

The seed available comprises kafir, milo, feterita, sorgo (cane), and Sudan grass. Only standard varieties are being handled by the Government, and all are being recleaned and sacked.

All this seed shows good germination, the Government having refused to purchase any which tested lower than 85 per cent in the case of kafir, 80 per cent in the case of sweet sorghum, and 75 per cent in the case of Sudan grass.

Plows Eight Acres in One Day

The Prairie Dog Tractor is a wonder. It is a small, light tractor with great strength and speed. It will do your plowing, harrowing, listing, planting, drilling. It pulls your binder, mower, corn harvester, manure spreader, and is equipped with belt pulley with 18 horsepower under the belt that will grind your feed, pump your water, saw your wood, and do every kind of farm work. The Prairie Dog is a time-saver and a money-maker. The price is surprisingly low. There is some satisfaction in this machine, as you can run it on high or low speed, handle it like an automobile, and it is full spring mounted and rides as easy as a buggy.

The Prairie Dog Tractor will do the work in one day that a team will do in four, and you can plow your ground and work it while it is in good shape to work—ahead of the drouths and ahead of the floods. Remember the price is right. Send for free circular and full information today. It will pay you big.

Kansas City Hay Press Company, Kansas City, Mo.—(Advertisement.)

Crops in Sedgwick County

C. W. Tallman. Sedgwick County, writes that since the good rain the alfalfa and wheat is looking most promising. Some of the wheat which was sown late did not come up on account of dry weather last fall, but where it was sown early it is now coming on in fine shape. He says: "Farmers are very busy preparing ground for spring crops. A large acreage of oats is sown and it is all looking well. There will be quite a large acreage of kafir, cane, and other forage crops raised in the southwestern part of t he county. Stock of all kinds looks well, considering the scarcity of feed. The outlook for a bumper crop is encouraging, but farm help is very scarce."

The loyalty of the men and women and the boys and girls of Kansas is reflected in a report received from the National War Savings Committee at Washington, by P. W. Goebel, director for Kansas, which shows that the War Savings fund has now passed the $100,000,000 mark. This sum represents to a very large degree the small savings of the people, now flowing into the nation's war chest at a rate of $700,000,000 a year, with every indication that the anticipated $1,680,000,000 will be attained soon after the launching of the Third Liberty Loan drive. The cash figures of $100,000,000 is the equivalent of 24,000,000 of the five-dollar Baby Bonds, or 400,000,000 of the "two-bit" Thrift Stamps. Although figures are not available to show the number of individuals enlisted as war savers, a conservative estimate places the number at not less than 5,000,000, whereas it is hoped to enroll 40,000,000 persons as war savers.

Many straw stacks in Kansas have been burned in the last few weeks. In traveling fourteen miles one man saw fourteen burning stacks in a certain Kansas county. In Iowa and other corn belt states cattlemen are paying as high as $7 a ton for straw. Live stock men who have been using straw, silage, corn fodder, and a small amount of alfalfa hay with a little cottonseed meal or cake or some soft corn, say that this combination makes good inexpensive beef. The straw should at least be spread out to enrich the soil.

Following the conference of the live stock representatives from several of the mid-west states with the Food Administration, a request was made for the nomination of men for appointment to a place on the meat division with Mr. Cotton. Each state delegation was asked to submit two names. C. E. Yancey, president of the Missouri Live Stock Producers' Association, was selected and called to Washington by Mr. Hoover last week. Mr. Yancey has been an extensive feeder of cattle, hogs, and sheep, and is thoroughly familiar with the whole business of meat production. It was admitted to the Kansas committee, however, that the man appointed would not have any real authority or power to act, being merely in an advisory capacity. Live stock men will have a representative on the job, however, who will be able to understand their problems and whose advice and counsel can be counted on in protecting them against loss.

Potatoes in the nutrients they contain are very similar to wheat. Increased consumption of potatoes will help save wheat. They are now cheap, which is another important consideration. Too many of the flour substitutes are higher in price than wheat. Transportation troubles have prevented the proper distribution of potatoes, but by a systematic campaign large supplies are now being moved. Unless these are consumed now they will spoil. We can imagine how the Germans would ridicule our methods if we should permit the actual loss of such large values as are stored up in our potato crop, much of which is still unconsumed.

The only legitimate "con game" is the con-servation game.



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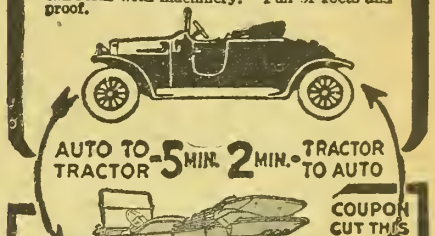

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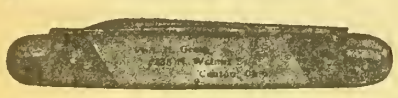

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Much with the race to better it;
We can unfetter it,
Free it from chains of the old traditions,
Broaden its viewpoint of virtue and sin,
Change its conditions
Of labor and wealth,
And open new roadways to knowledge and health,
Yet some things ever must stay as they are
While the sea has its tide and the sky its star.

A man and a woman with love undefiled,
And the look of the two in the face of a child;
Oh, the joys of this world have their changing ways,
But this joy stays.
Nothing better on earth can be
Than just those three.
—Ella Wheeler Wilcox.

The Joy of the Teacher

If an Agassiz finds pleasure in digging among fossils in order that he may interpret the great story of prehistoric life; if a Thoreau by Walden pond is delighted with his studies of bugs and beetles; if a John Burroughs on his little patch of ground in the valley of the Mohawk, glories in his life among the birds and bees; if a Luther Burbank is enraptured with his work of transforming a worthless desert cactus into an edible fruit, or in producing a sweeter rose or a fairer lily; if these and other workers whose names are legion, revel in the love of their work—then by what term shall we designate the joy that should be the teacher's, who works not with mere fossils, nor with bugs or beetles, nor with birds, bees, or flowers, but with the child who is at once the most complex, the most plastic, the most beautiful, the most wonderful of all God's creations. Yes, it's a great thing to teach school, it's a wonderful thing to be a teacher.—Frank W. Simmonds in The Kansas Teacher.

EDITOR'S NOTE.—Yes, it is a wonderful thing to be a teacher, but if the opportunity of the school teacher—to whom is committed the developing child life for a few hours a day, during a few months of the year, for at most only a few years—is so great, what shall we say of the possibilities before her whose teaching begins some years earlier than that of the school and whose influence extends through life?

Did You Sign Food Pledge?

Send to the United States Department of Agriculture, Washington, D. C., for the following United States Food Leaflets which will help you keep it:

To help you save wheat: No. 2—Do You Know Corn Meal? No. 6—Do You Know Oatmeal? No. 9—Vegetables for Winter. No. 10—Plenty of Potatoes.

To help you save fat: No. 16—Use Fat Carefully.

To help you save meat: No. 3—A Whole Dinner in One Dish. No. 5—Make a Little Meat Go a Long Way. No. 8—Instead of Meat. No. 11—Milk: the Best Food We Have. No. 14—Dried Beans and Peas. No. 17—Use More Fish.

To help you plan meals: No. 1—Start the Day Right with a Good Breakfast. No. 4—Choose Your Food Wisely. No. 7—Food for Your Children.

To help you save fuel: No. 12—Save Fuel When You Cook. No. 13—Let the Fireless Cooker Help You Cook.

Eat Canned Vegetables Now

The next few weeks present the hardest problem of the year to the housewife in the way of planning meals that will please the capricious appetites of the different members of the family and meet their bodily needs. The men are beginning their spring rush of work, the women are making garden, raising chickens, and cleaning house, and the boys and girls are busy everywhere. Everyone is working hard and needs plenty of nourishing food. Yet all are growing tired of the heavy winter foods and begin to long for fresh vegetables.

The body really needs something different. Doctors say that the tired-out feeling at the end of the winter—"spring fever"—is often the protest of the body against a lack of fruit and vegetables in the winter diet. The child, who is building a man's or a woman's body in addition to maintaining a dynamo of tireless energy, feels this need most keenly. The salts, or mineral matter, that vegetables contain is one of your chief helps in keeping strong and well. In every part of the body there are salts somewhat like table salt, but of many kinds—iron, lime, and others. Your body will not work smoothly unless it has plenty of these salts, and the children cannot build strong bodies without them. You must get them from your food. Vegetables and fruit are rich in them. The salts and other substances in vegetables also help to prevent constipation.

Now, while we are waiting for the lettuce, asparagus, onions and "greens" which we will shortly have, is the time when last summer's canned and dried vegetables can be used to the best advantage. Chopped onions or green peppers may add a good flavor. Of course you will not use any canned vegetables about which there is the least suspicion of spoilage.

Canned corn is very good when turned into a baking dish, milk and seasoning added, and the whole heated through in the oven and allowed to brown on top. Outside stalks of celery cut up, a green pepper, or both, added before baking, make the dish more appetizing.

Do you use dried vegetables? They are as good as canned, or better. The only change that takes place is the loss of water. The salts and other valuable parts are the same as in the fresh. Soak them for several hours or over night to replace the water lost in drying. Then cook them exactly as you would fresh ones—as a vegetable, in soups, or with meat.

Souffles

2 cupfuls thick white sauce
2 eggs
Salt

The white sauce is prepared by thickening two cupfuls of hot milk with three level tablespoonfuls of flour, boiling a few minutes in double boiler, and seasoning with butter. Beat the yolks and the whites of the eggs separately. Add the yolks and the salt to the white sauce and fold in the whites lightly. Turn the mixture into a greased baking dish set in a pan of hot water, and bake it in a moderate oven until it puffs and becomes firm, which will be thirty to forty minutes.

Cheese souffle is made by adding one-half to one cupful of grated cheese to the hot white sauce; fish or vegetable souffle by adding one-half to one cupful of cooked fish or vegetable to the hot white sauce, and bread crumb souffle by using one cupful of stale bread crumbs to two cups of medium thick white sauce. The bread crumbs take the place of part of the flour and give a different texture.

For a dessert, add to the hot white sauce one-fourth cupful of maple syrup or honey, or from one-half to one cupful of sweetened fruit pulp, such as prune, apricot, apple, or peach.

Dandelion Soup.

1 cupful dandelion pulp
1 tablespoonful butter
1 tablespoonful flour
1 cupful milk
Yolk of hard-boiled egg
Salt and pepper

Make a sauce of the milk, flour and butter, and add to it the dandelion pulp. Just before serving the soup add the egg yolk, which has been pressed through a sieve.

Dandelion Greens with Bacon.

2 tablespoonfuls butter
1 cupful bread crumbs
1 pint cooked and chopped greens
1 tablespoonful onion juice or lemon juice
Salt and pepper

Brown the crumbs slightly in the melted butter, add the greens and the remaining ingredients. When the mixture is hot, form it into a loaf on a plate, garnish with slices of hard boiled egg, and place slices of broiled bacon over the top.

HOME CANNER

Many are making $15.00 and up per day canning fruits and vegetables for market, neighbors and home by using a

"FAVORITE" HOME CANNER



Made better, last longer no waste, gives best results, uses less fuel, easy to operate. Prices, $4.50 and up. We furnish cans and labels. Write for FREE BOOKLET.

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Crocheted camisole, gown, and corset cover yokes. A collection of pretty patterns with illustrations and complete instructions. In ordering be sure to ask for Book No. 7. Price, postpaid, 10 cents.

FANCY WORK DEPT., KANSAS FARMER, Topeka, Kansas.

Woman's Place in Business

The broadening opportunities for women in the financial world and the training necessary for those who would improve upon them were discussed recently before the students of Wellesley College at Wellesley, Massachusetts, by Miss Eugenia Wallace, supervisor of the library and bond filing department of the Guaranty Trust Company of New York. Miss Wallace's observations are particularly timely by reason of the tendency just now to substitute women for men in all sorts of employment. Because of her varied experience she is particularly well qualified to analyze the situation women face.

Miss Wallace is a member of the executive committee of the League for Business Opportunities for Women, a director of the Intercollegiate Bureau of Occupations, and a member of the committee on office work of the National Association of Employment Schools. She formerly conducted a course in indexing, filing, and library work, as applied to business, at Columbia University.

In her view, the thing that is essential to women's success in business is that their mental equipment be so developed that concentration, memory, and accuracy can be counted upon as a matter of course. With that equipment, a willingness to begin at the bottom, and an eye watchful for the opportunity that is sure to arrive, any young woman may hope for a place of importance and honor in the business world. She said:

"Work in the financial world is alluring because its keynote is service. Opportunities have broadened, and while there are by no means the great openings that are generally believed to exist, there is a real change of heart, one evidence of which is that women are everywhere entering doors that were barred to them a year ago. But they must measure up to the requirements of the business world and then be content to start at the foot of the ladder.

"The precious thing the business world seeks is character—character as expressed in the right attitude toward the problems of life. The business world also wants unselfishness—the elements of good fellowship and good humor—and such well trained mental processes that concentration, memory, and accuracy can be counted upon as a matter of course, together with that power of analysis and self-help that will enable one to handle the tools of business and search out short cuts and direct routes to desired ends. Do you know what quality of all others is most rare? Initiative and originality, tempered with judgment. This is the thing any employer can best afford to pay for, because it brings results.

"If you will keep that word 'results' well in mind, it will give you the whole business situation in a nutshell. In ninety-nine cases out of a hundred the employer—individual or corporation—cares not a whit how the work is done, if the results are forthcoming. It is because results cannot be had without good work that training is necessary and

technique must become thoroughly mastered. Technique is the actual method of handling work. It may mean only the ability to enclose circulars in the right way, or it may mean method in library work, stenography, chemical analysis, or mathematical computation. The thing is to do it so well that the mind is freed from the question of 'how to do,' and can go forward into those broader realms of 'what to do,' where the durable satisfactions lie.

"For the sake of gaining this thorough knowledge, I should advise those who aim to be leaders, to start at the bottom and learn the very groundwork of the thing they undertake. Someone has said that the first principle of business is to learn to do the least task well; the second—and it is equally important—is to teach someone else to do it. This is the twofold rule of progress that enables the strong man or woman to lift responsibility from overburdened shoulders, and teach younger people to take it easily and in turn.

"If you keep in touch with what is going on in the world, you will be able to choose your own work much more wisely than if you are ignorant of the great forces at play outside. I cannot too earnestly impress upon you the importance of careful choice. Your whole life will be affected by it, for both success and happiness depend, to a tremendously large extent, upon one's vocation being a free and wise choice, founded upon real knowledge of conditions.

"Take your talent into the world where it belongs and let it earn its way there. The way may be hard for a while, but if yours is purpose and not merely desire, hardship will not deter you. Remember that fitness is the first essential, and that there is a world of wisdom in Thoreau's mild but frank rebuke, 'It is not enough to be busy, so are the ants. What are you busy about?'

"What are you busy about? Or should you be busy at all in the business sense of the word? Think that over many times, and ask yourselves if there isn't a bigger and finer work waiting for you in the homes and rural towns than there is in the few great cities toward which the young people flock so eagerly. One of the great tragedies of our country is the way in which the small communities are being drained of their young men and women, to whom family ties are less than personal ambition. The homes and small communities are in need of the very things that trained and resourceful people, girls with vision and initiative, could develop within them, and it is essentially woman's work, for it affects the life and happiness of the nation.

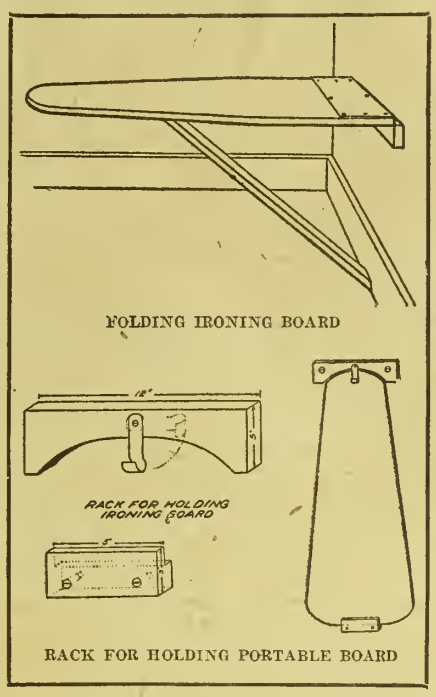
When all is said and done, every human being longs to make the world a little better for having been in it. Women will have their influence upon business, and I venture to say it will be a leveling influence, a spirit of very real democracy. You will do a vast amount of good if you remain strong and resolute and happy. Come into the busy life with the thought of what you can put into it, for that is the spirit that is guiding the great men and women of the new order—the spirit that will break through all the blind alleys and hopeless-looking barriers that have retarded the progress of so many. If you 'place your fingers on this highest note and keep it there' your influence may be an even finer and bigger thing than you dare hope."

Convenient Ironing Board

One of the devices described in Farmers' Bulletin 927 of the United States Department of Agriculture, entitled "Farm Home Conveniences," is the folding ironing board shown on this page, which can be fastened up against the wall when not in use. The construction of this board is very simple. A convenient size has the following dimensions: 4 feet 8 inches long, 15 inches at the attached end, and 8 inches at the free end. About two feet from the attached end the board begins to taper gradually. The free end is rounded.

A strip 1 1-4 by 4 by 15 inches is securely fastened by screws to the wall at a convenient height. This will vary with the height of the user. For the average woman it should be thirty-one or thirty-two inches. The board is hinged to the wall strip with No. 3 butt hinges.

The leg, or brace, made of material one inch thick and four inches wide, is fastened with a No. 3 butt hinge to a board strip 1 by 4 by 8 inches. The board strip is screwed to the under side of the board eleven inches from the free end. The length of the brace depends upon the height of the board, and when the board is in position the brace rests against the baseboard of the wall. Its construction will be easily understood from the drawing. Skirts may be easily ironed without changing the position of the brace. A piece of galvanized iron tacked to the board at the end next the wall provides a very handy resting place for the hot iron when it is not being used. The board is folded up against



RACK FOR HOLDING PORTABLE BOARD

the wall, and may be held in place by using the upper part of the rack for holding a portable ironing board, as in the illustration.

If a portable ironing board is preferred to the stationary one, this rack, attached to the inside of a closet door, will be a convenient place in which to keep it out of the way and free from dust. The upper part of the bolder is made of two and one-half inch material and is five inches in depth. It is twelve inches across the top and is shaped to fit the contour of the smaller end of the ironing board. In the center is a button which holds the top of the board in place. The button is made of metal and so shaped as to give it a spring and to provide a finger hold for easy movement. The upper part of the rack or holder is screwed to the wall or door.

The bottom or lower part of the rack is five inches wide and three inches in depth, and is made of two and one-half inch material. It is rabbeted on the side next to the wall, an inch rabbet being cut in to form a rest for the board. This part of the rack is fastened with two rews to the wall or door.

Brewers of beer have been limited by presidential proclamation to 70 per cent of the amount of grains and other food materials that were used last year. The same limitation applies to the so-called temperance and near-beers.

"In attempting to throw light on another person's character, remember that you are likely to cast some reflections on your own."

A hood suspended over the kitchen range and connected to the flue in the chimney will gather all the steam and odors and carry them away.

A good application of paint fills the cracks and pores in wood and prevents the entrance and growth of organisms which cause decay. It prevents the formation of rust if applied to the iron parts of machinery. There is no painting season. Just buy a good paint and apply it. Be sure that it is good, for it costs more to apply poor paint than good. So if it takes more labor to spread cheap paint which will make your painting cost more, buy a good paint which will last longer and be better for your buildings.

Popped corn, either whole or ground, makes a very delicious breakfast or supper dish, when served with top milk.

The best practical way to protect bread from mold is to keep it in a dry, air-tight box.

God's providence is not blind, but full of eyes,
It searches all the refuges of lies,
And in His time and way, the accursed things shall perish. —Whittier.

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We want to send one or more books to each of our subscribers. Every book offered is highly interesting. You will find in the list books of travel, romance, love and mystery. Each book is printed in large clear type and bound in strong cover paper bindings.



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No. 8535—Children's One-Piece Dress: Cut in sizes 2, 4 and 6 years. The sleeves are gathered into the armholes and again into the turned-back cuffs. There is a tiny yoke and the lower part of the dress is brought in to fit it in three box plaits. **No. 8544—Ladies' Four-Gored Skirt:** Cut in sizes 24, 26, 28, 30 and 32 inches waist measure. This skirt is four-gored. The large pockets with envelope flaps for trimming add an interesting touch. **No. 8520—Ladies' Dress:** Cut in sizes 34, 36, 38, 40 and 42 inches bust measure. The fronts of the waist are turned back to form revers. The skirt is in three pieces.

No. 8450—Ladies' Dress: Cut in sizes 36 to 42 inches bust measure. The sleeves may be long or short and the skirt has three gores. **No. 8457—Ladies' Waist:** Cut in sizes 36 to 44 inches bust measure. The



fronts are rolled to form revers. **No. 8451—Children's Empire Dress:** Cut in sizes 2, 4, 6 and 8 years. The round or square neck may be used and the skirt is cut in one piece.

The man who grows more food adds to the wealth of the world. The man who grows dollars may be adding only to his own wealth.

Dried prunes soaked in water over night, then drained and brought to the breakfast table, are a luscious substitute for fresh fruit.

Be a food controller in your own home and count yourself fortunate that you have food to control.

Not all Americans can win a niche in the Hall of Fame, but all can keep out of the Hall of Shame that bears the names of profiteers and hoarders, of wasters and slackers and slickers, of both sexes and all ages.—Youth's Companion.

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

HELP WANTED.

WANTED, IMMEDIATELY—THOUSANDS government war jobs open to farmers. Men-women. $100 month. List free. Franklin Institute, Dept. 0-82, Rochester, N. Y.

TREES, SEEDS AND PLANTS.

ONE HUNDRED FIFTY BUSHELS GOOD recleaned alfalfa seed for sale, $9 per bushel if a quantity is taken. V. O. Johnson, Aulne, Kansas.

FOR SALE—PURE TENNESSEE EVERgreen broom corn seed, $8.50 per bushel. Donald Pierce, Moran, Kansas.

ONION PLANTS — CRYSTAL WAX AND Bermuda ready. Prepaid, 500, $1; 1,000, $1.75. Sinton Plant Co., Sinton, Texas.

BLACK AMBER CANE SEED, $7.50 PER hundred. Sacks furnished. Claude Paddock, Oberlin, Kansas.

GOOD CLEAN BLACK AMBER CANE seed at $3.50 per bushel. Robert Carlson, Route 2, Axtell, Nebraska.

CANE SEED—SELECT RECLEANED AMber, orange, six-fifty hundred. Fort Scott Fuel Supply, Ft. Scott, Kansas.

ORANGE CANE SEED, EXTRA GOOD, $8 per cwt., sacks extra. Joseph Nixon, Belle Plaine, Kansas.

AMBER CANE FOR FODDER, $3.50 bushel; dwarf milo maize, $2.50 bushel; sacks free. Prices larger quantities. V. E. Lawrence, Salisbury, Mo.

STRAWBERRY PLANTS—PROGRESSIVE (everbearers), 75 cents hundred, $6 thousand, prepaid parcel post. G. W. N. Howden, 726 Walnut St., Lawrence, Kansas.

FOR SALE—CABBAGE PLANTS, WAKEfield and Drumhead, one dollar per thousand. Special prices on large orders. C. E. Gibson, Valdosta, Georgia.

SUDAN—CHOICE WELL MATURED, REcleaned seed, 100 pounds, $20; 50 pounds, $10.50. New sacks free. Edward Anderson, Jamestown, Kansas.

HIGHEST QUALITY BLACKHULL WHITE kafir seed, all matured, germination guaranteed, 5c pound. Southern seed matures quickest. Sample. J. Berger, Stillwater, Okla.

CANE SEED—BLACK AMBER SEED, 85 per cent germination, $3.50 per bushel in five-bushel lots; sacks extra. Feterita seed, $2.50 per bushel. Wildgen Lumber Company, Olmitz, Kansas.

SEED CORN — MY OWN GROWING. Picked especially for seed. White, shelled, graded. Tests 95 per cent and better. Two bushels, $5 per bushel; over two bushels, $4 per bushel. Sacks free. Fred Perkins, President Oswego State Bank, Oswego, Kansas.

NANCY HALL SWEET POTATO PLANTS ready May 1. Tomato plants. Frost-proof cabbage plants ready now. Prices, per hundred, 50 cents; per thousand, $3.50, delivered. S. & H. Plant & Truck Farm, North Enid, Oklahoma.

SEED CORN RAISED IN EDWARDS County, Kansas, in year 1917. White tests 100 per cent, yellow 99 per cent. Test made by Kansas State Agricultural College. White, $5 per bushel; yellow, $4. If you want the best seed you will have to hurry. P. O. Box 278, Belpre, Kansas.

PURE WHITE BLOSSOM SWEET CLOver seed, clean, hulled, scarified, $30 per 100 pounds, $15 per fifty pounds; under ten pounds, 32c per pound, f.o.b. Grain sacks, 50c each. This seed is excellent and will please you. If not, return it and I will refund purchase price and freight charges. Willis J. Conable, Axtell, Kansas.

FIELD SEEDS CHEAPER—RECLEANED Orange cane seed 7c, red or black amber 8c, red-top sumac 8½c, white or red kafir 4½c, pink kafir 6c, feterita 7c, Dorso 7½c, Sudan 25c, alfalfa 10c to 17½c, sweet clover 25c to 30c; feed kafir 4c per pound, our track; seamless bags 55c, jute bags 30c. The L. C. Adam Mercantile Co., Cedar Vale, Kan.

DON'T PLANT CORN WITH QUESTIONable germination qualities. We have 700 bushels St. Charles red cob white seed corn, Manhattan testing same 96% growing. Price, $3.50. Also blackhull white kafir $3, German millet, $2.75. Order now and avoid disappointment. Friesen Grain Company, Hillsboro, Kansas.

OKLAHOMA DWARF AND STANDARD broom corn seed, cream and red dwarf maize, dwarf kafir and common millet, $7; red kafir and feterita, $8; amber, orange, Texas red and sumac canes, $10; Sudan, $25; all per hundred pounds. Recleaned, freight prepaid, prepaid express $1 more. Claycomb Seed Store, Guymon, Oklahoma.

CABBAGE PLANTS—WAKEFIELD, SUCcession, Flat Dutch, 100, 45c; 200, 85c; 500, $1.50; 1,000, $2.50, postpaid. Tomatoes and onions, all leading varieties, same price as cabbage. Celery, egg plant and peppers, 100, $1; 200, $1.75; 500, $3; 1,000, $5, postpaid. Cabbage, tomatoes and onions by express collect, $2 per thousand. Cash with all orders. Book your orders now as plants are scarce. Hope Plant Farm, Hope, Ark.

VIOLINS.

VIOLIN FOR SALE—HAS SWEET TONE. Free trial. Easy payments if wanted. Write Miss Bertha Mardiss, Route 5, Rosedale, Kansas.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE — A RED POLLED BULL, calved March 8, 1913. There are very few better bulls in the state. Geo. Haas, Route 6, Lyons, Kansas.

FOR SALE—EIGHTY-FIVE HEAD HIGH grade Angus cows, coming three and four years old; twenty-five calves at present. Box 391, Garden City, Kansas.

REGISTERED HOLSTEIN BULL CALVES, $45; heifer calves, $65, delivered; King Segis breeding. Pond View Dairy, Hutchinson, Kansas.

ONE HUNDRED CHOICE HOLSTEIN cattle — springers, fresh cows and young stuff. Herd sire a 30-pound bull. C. S. Simmons, Belmont, Wis.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

THRIFTY YOUNG HOLSTEIN CALVES, either sex, five to seven weeks old, practically pure-breds, beautifully marked, from high-producing dams. $25, guaranteed safe arrival and express prepaid to your station. Buy your calves from one of the largest dairy herds in Kansas. Magee Dairy Farm, Chanute, Kansas.

REAL ESTATE.

BARGAINS—BARGAINS—FARMS, UNIMproved lands and exchanges. Send for free magazine. Western Sales Agency, Minneapolis, Minn.

WANTED—TO BUY.

HEREFORD HERD WANTED FOR CASH —I want to buy for cash the best possible Hereford herd of 75 to 100 head. Must be well bred, in good condition and sold at bargain figure. Address at once, Amos Burhans, Waterloo, Iowa.

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FORDS CAN BURN HALF COAL OIL, OR cheapest gasoline, using our 1918 carburetor. Thirty-four miles per gallon guaranteed. Easy starting. Great power increase. Attach it yourself. Big profit selling for us. Thirty days' trial. Money back guarantee. Styles to fit any automobile. Air-Friction Carburetor Company, 558 Madison Street, Dayton, Ohio.

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EXPERIENCED MAN WANTS WORK ON a farm. Has wife and two children. Wants place where house will be furnished. Lon Cooper, General Delivery, Topeka.

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AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

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CLEAN YOUR ALFALFA. POCKET GOpher trap. Send me $3 for one-half dozen. Guaranteed or money refunded. Success Gopher Trap Co., Harlan, Iowa.

MISCELLANEOUS.

FOR SALE — ONE NEW ASPINWALL potato planter, one Pugh potato digger, good condition. Inquire at Belvue State Bank, Belvue, Kansas.

PATENTS.

PATENT BOOK SENT FREE TELLING how we protect and help market your invention. Also bulletins listing hundred inventions wanted. Send sketches for free opinion. Lancaster & Allwine, 463 Ouray Bldg., Washington, D. C.

Farmers are sometimes the last to heat up; but they stay hot; and in a long fight they are always found sturdily carrying the battle across No Man's Land to the foe, in the last grim struggle.—HERBERT QUICK.

Bread is the staff of life, but very few Americans need a staff.

We must save food now or go on short rations later.



English Poultryman to America

THE national campaign that is being conducted by the Agricultural College and the U. S. Department of Agriculture to increase poultry production has already created attention and action on the part of thousands. To further this movement to an even greater extent and to urge the imperative necessity of food production, the U. S. Department of Agriculture has been fortunate in securing the services of Edward Brown, of London, England, to bring to the attention of farmers, poultrymen and others the imperative necessity of increased poultry production as a vital war measure. He will speak in Parsons, Kansas, April 29, and in Hutchinson on April 30.

Edward Brown, F. L. S., is a man of international reputation and without question the world's greatest authority and lecturer on poultry matters. He is not only in a position to point out clearly the necessity of poultry and egg production as a source of food supply but he can state from personal experiences how it feels to be in an air raid, for on sixteen different occasions he witnessed aerial invasions on London by German planes. During the past two years Mr. Brown has made two trips to this country. On his first trip in the summer of 1917 both coming and going his ship was attacked by German submarines and in one instance the torpedo missed the stern of the boat by only fifteen yards. Since the outbreak of the war he has made two trips to France to study conditions there relating to food production and its necessity as an element to insure victory. As a result of this close personal contact with actual war conditions, both on land and sea, surely no one is in a better position than Mr. Brown to place the hard cold facts before the American public and urge a national effort to increase poultry production. Arrangements are now being made by the Federal Department of Agriculture in co-operation with the state colleges and poultry associations for an extensive tour whereby he will speak before representative audiences at various points throughout the country.

In studying poultry conditions Mr. Brown has traveled in all of the European countries inclusive of Western Europe. He has seen the suffering brought about as the result of food shortage in Europe. He appreciates fully the effect of the German submarines on shipping food and supplies and not least of all he has seen the horrors of the air raids by German aeroplanes where women and children have been the principal victims. He knows, too, what it means to have a son in the trenches and how necessary food is to maintain our fighting forces. He realizes that of all meat foods none can be produced more quickly and by a greater number of people than poultry. He knows, too, that food is ammunition and so would urge all who hear him to "help produce the food that will win the war" and thus avoid the suffering that our Allies have experienced.

Lice and Mites

Sodium fluoride is a new remedy for chicken lice that is proving popular, according to W. A. Lippincott, professor of poultry husbandry in the Kansas Agricultural College.

Lice live on the bodies of the chickens. The remedy should be placed under the wings and about the vent, and must be well worked into the feathers. It is effective in getting rid of the lice, but if a dust bath accessible at all times is furnished the chickens, the lice may be almost entirely prevented.

The mite does not live on the body of the fowl. It is a bloodsucker that goes on the body only to feed but lives in the cracks and crevices of the perches at other times. To kill mites, spray the nests and roosts with kerosene to which enough crude carbolic acid to give a strong odor has been added. If the house is so large as to make this method too expensive, a 3 per cent solution of some coal tar stock dip may be used.

One spraying is not sufficient because it does not affect the eggs of the mite which have been deposited in the crevices. A second spray, eight or ten days later if the weather is cool or five or six days later if hot, is needed to kill the mites that have hatched since the first application.

Good Poultry Record

A profit of $88.22 over and above cost of feed, from 150 hens and 125 pullets, is the February record of W. A. Horne, of Williamsburg, as reported by Ross M. Sherwood, poultryman in the division of extension in the Kansas Agricultural College. Mr. Horne is one of the farm co-operators in the poultry extension work. Daily records are kept by him of the amount and cost of feed and the number of eggs produced.

These hens and pullets were fed beef scraps, oyster shell, kafir, bran and shorts, soaked oats, a small amount of corn, and skim milk, and the feed bill for the month of February was $43.70. The net profit for January was $49.61 on a feed bill of $45.

The equipment used for this poultry business is simple and inexpensive. There are two houses, one 16 x 10 feet and the other 28 x 9 feet. The sides of the winter house are made of baled hay and kafir fodder and the roof is covered with straw and metal roofing. The hens are kept in on cold days and deep litter of oat straw is provided for them.

Hatched 117 Chicks

John A. Clark, of Jonesboro, Ark., writes: "I hatched 117 chicks and did not lose one. Not a weak one in the flock." Mrs. J. B. Courson, Cordova, Ala., writes: "I have been using your tablets and did not lose a single chick. My neighbors want your tablets."

You will not lose a single chick either if you will use Reefer's Ready Relief, which every poultry raiser knows saves baby chicks from dying of that dreadful white diarrhea plague. A package of this new scientific discovery will save 500 baby chicks. Aren't 500 of your baby chicks worth $1.00? That is less than one-half cent apiece. I take all the risk and will refund every penny of your money if Reefer's Ready Relief fails to save your chicks. A million-dollar bank backs up this guarantee. Send for a dollar package today, or write for my free poultry book which tells the experience of a man who has made a fortune out of poultry. E. J. Reefer, 2634 Reefer Bldg., Kansas City, Mo.—(Adv.)

There are many advantages to a single pitch roof on the poultry house. This type is most easily built. It gives the highest vertical front exposed to the sun's rays and throws all of the rain water to the rear.

If the chickens must be confined on account of bad weather, provide a good straw litter in which their grain feed may be scattered. This will give them exercise and keep them interested and healthy. When chickens that have been accustomed to free range are closely confined, this frequently checks their development for the time being unless they are made contented in their new quarters. Provide green feed for them also.

As far as possible, the interior fixtures of a poultry house, such as roosts, nests, dust boxes, drinking fountains, feed troughs, and grit boxes, should be so constructed as to permit them to be readily removed and cleaned.

Save Your Chicks—Free

Send two names to the Wight Co., 18 Main, Lamoni, Iowa, and they will send you enough Iowite Remedy, absolutely free, to save forty chicks from white diarrhea.—(Adv.)

The Liberty Bond button is no longer a mark of liberality or even of patriotism; it is a badge of citizenship. Are you wearing one?

Food control in North America today means chiefly getting the food across the Atlantic at all costs.

Reliable Poultry Breeders

LEGHORNS.

CHOICE S. C. BUFF LEGHORNS, FARM range, 100 eggs, $6. J. A. Reed, Lyons, Kan.

L. B. RICKETTS, BREEDER OF PRIZE Winning Single Comb White Leghorns, Greensburg, Kansas.

SINGLE COMB BROWN LEGHORNS—Winners of the blue in four states. Eggs, $6.50 per hundred. Wm. Roof, Maize, Kan.

SINGLE COMB BUFF LEGHORNS—Eggs, six dollars hundred. Thomas D. Davis, Avard, Oklahoma.

SINGLE COMB WHITE LEGHORN EGGS reasonable, from heavy winter layers. Mrs. Ed Lehman, Newton, Kansas.

SINGLE COMB BROWN LEGHORN eggs, $5 per hundred. Mrs. F. E. Tonn, Haven, Kansas.

CHOICE SINGLE COMB BROWN LEGhorn eggs, $5 hundred. Mrs. Henry Wohler, Hillsboro, Kansas.

EGGS (YOUNG'S 288 S. C. W. LEGhorns, costing $20 setting), $7 hundred. Elsie Thompson, Mankato, Kansas.

EGGS—SINGLE COMB BUFF LEGHORN, $5 hundred. Mrs. S. F. Crites, Florence, Kansas.

PURE-BRED SINGLE COMB WHITE Leghorn eggs, hundred, $5. Chas. McFadden, Morland, Kansas.

ROSE COMB WHITE LEGHORNS—EGGS, six years' breeding, $5 per hundred. Mrs. Joe Streeter, Route 5, Hamilton, Mo.

EGGS—ROSE COMB REDS, S. C. BROWN Leghorns, $6 per hundred. L. D. Speenburg, Belleville, Kansas.

S. C. W. LEGHORN EGGS, $2 PER FIFteen, $7 per hundred. C. T. Mulkey, Lamont, Oklahoma.

CHOICE HATCHING EGGS—SINGLE AND Rose Comb Brown Leghorns. Start with bred-to-lay strain. Delivery free. $2, fifteen; fifty, $3.50; hundred, $8. Plainview Farm, Lebo, Kansas.

EGGS FOR HATCHING—PURE-BRED S. C. Brown Leghorns. Fifty eggs, $3.50; one hundred, $6. Mrs. L. H. Hastings, Thayer, Kansas.

EXCELSIOR FARM SINGLE COMB White Leghorns, Yesterlaid-Young strain. Eggs, $5 for 108. Orders filled promptly. Baby chicks, 12c. Mrs. C. C. Cole, Levant, Kansas.

S. C. WHITE LEGHORN EGGS FROM winners at Nebraska's best shows. Pen 1, $5 setting; Pen 2, $2 setting, $11 hundred; Pen 3, $8 hundred. List free. Mugglestone Bros., 3425 W Street, Lincoln, Nebraska.

YOUNG, FRANTZ, FERRIS, YESTERlaid S. C. White Leghorns. Heavy layers. Eggs, $6 per hundred. Sold 10,000 eggs for hatching last season. No complaint. L. O. Wiemeyer, Route 1, Anthony, Kansas.

ROSE COMB BROWN LEGHORNS, BRED to lay. Twelve years' breeding. Range flock, winter layers. Selected eggs, $6 per hundred. Blue Grass Stock Farm, Oneida, Kansas.

S. C. WHITE LEGHORNS, "ENGLISH" strain, eggs $8 per hundred; baby chicks $16 per hundred; two-months-old cockerels, $10 per dozen. Sarver's Poultry Farm, Hastings, Nebraska.

SEVERAL BREEDS

BUTTERCUPS, SELECTED BY HOGAN system. Egg capacity, 150 to 280. $1.50 per fifteen. Mrs. Jas. Shell, Pittsburg, Kan.

SINGLE COMB ANCONA AND SILVER Wyandotte eggs, $1.25 per fifteen, parcel post prepaid. Mrs. Cecile McGuire, Pratt, Kansas.

PURE ROSE COMB WHITES—100 EGGS, $7.50; fifty, $4; fifteen, $1.50. Extra layers. Golden Seabright bantam eggs, fifteen, $1.25. E. Bidleman, Kinsley, Kansas.

EGGS—BLUE ANDALUSIANS, $6 HUNdred; Blue Orpingtons, $3 fifteen; Buff Leghorns, $5 hundred; Buff Ducks, $7 hundred; Bourbon Red Turkeys, $3 eleven. Circular. John A. Huber, LaCrosse, Kansas.

FOR SALE—EGGS FROM ALL KINDS of pure-bred poultry, Geese, 7 kinds of ducks, Pearl and white guineas, Bantams, Fancy Pigeons, Canaries, Rabbits, Guinea pigs, Dogs. Write wants. D. L. Bruen, Platte Center, Nebr.

DON'T WAIT — DON'T WAIT UNTIL white diarrhea gets half or two-thirds your chicks. Don't let it get started. Be prepared. Write today. Let us prove to you that Walko will prevent white diarrhea. Send for 50c box on our guarantee—your money back if not satisfied. Walker Remedy Co., Box K, Waterloo, Iowa.

CORNISH

DARK CORNISH EGGS. EAST LAWN Poultry Yards, Fairmount, Neb.

BABY CHICKS.

YOU BUY THE BEST CHICKS FOR least money. Guaranteed alive or replace free. Shipped anywhere. Colwell Hatchery, Smith Center, Kansas.

ANCONAS.

ANCONAS — THE GREATEST LAYERS. Eggs, $7 per hundred, $2.50 for thirty. Joe Partsch, Humphrey, Nebraska.

ANCONA EGGS FOR HATCHING—FIFteen, $1.25; hundred, $6. Mrs. John Smutny, Irving, Kansas.

When Writing to Advertisers, Please Mention Kansas Farmer

PLYMOUTH ROCKS.

WHITE ROCK EGGS, $5 PER HUNDRED. Nora Lamaster, Hallowell, Kansas.

BARRED AND WHITE ROCK EGGS—Write for mating list. Nora Hill, Cambridge, Kansas.

SIMS' BARRED ROCKS — STATE WINners. Get my free mating list. Geo. Sims, LeRoy, Kansas.

BARRED ROCK EGGS, $1.50 PER FIFteen, prepaid within state. Choice farm flock. G. P. Wells, Lyons, Kansas.

HILLCREST BARRED ROCKS — EGGS, $1.25 for fifteen, $6 per hundred. D. T. Gantt, Crete, Nebraska.

REDUCTION ON BARRED ROCK HENS and eggs. Write me. Mrs. Chris Bearman, Ottawa, Kansas.

PURE BARRED ROCKS—EGGS, $5 PER hundred. Baby chicks, 12½c. Mrs. Lillian Marshall, Raymond, Kansas.

PURE BARRED ROCK EGGS, $1.00 PER fifteen, $5.00 per hundred; farm range. Mrs. H. Buchenan, Abilene, Kansas.

WHITE ROCK EGGS FOR SETTING, from choice selected pure-bred birds, 5c each. C. E. Potter, Carlyle, Kansas.

BEAUTIFUL BARRED ROCKS — 200-262 yearly egg record. Eggs, $2 per fifteen, $7 per hundred. Satisfaction guaranteed. Joe Greiner, Mena, Arkansas.

WHITE PLYMOUTH ROCK EGGS FROM fine birds, farm range flock, selected eggs, $5 per hundred, 75c per fifteen. Mrs. C. G. Steele, Barnes, Kansas.

BARRED ROCKS, COCKEREL LINE. Cock head first pen Kansas City, Mo., $16; two sons, $5 each. Incubators, brooders, feeders. Mattie A. Gillespie, Clay Center, Kan.

"RINGLET BARRED ROCKS" — PRIZE winners. Eggs, fifteen, $1.50; fifty, $3.50; hundred, $6. Chicks, 16c. Mrs. C. N. Bailey, Lyndon, Kansas.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swalm, Geuda Springs, Kansas.

BARRED ROCK EGGS (RINGLET strain), from large, vigorous, splendid-marked birds, $1.25 per fifteen; 100, $6. S. R. Blackwelder, Isabel, Kansas.

WHITE ROCKS, SIZE AND QUALITY; good egg strain. Eggs, fifteen, $1.25; fifty, $3.50; hundred, $6. G. M. Kretz, Clifton, Kansas.

BUFF ROCKS—GET THE BEST. BAKER gold nugget proved layer strain—no guesswork. Eggs, fifteen, $2; fifty, $5. Order early. Abram Troup, Logan, Kansas.

FOR SALE—PURE WHITE PLYMOUTH Rock eggs, 75c per fifteen or $5 per hundred. Mrs. W. E. Flicker, Cawker City, Kansas.

MAMMOTH WHITE ROCKS — CHOICE stock. Pen, $3 fifteen; farm range, $1 fifteen, $5 hundred. H. C. Loewen, Peabody, Kansas.

RINGLET BARRED ROCKS, PRIZE WINners. Eggs from exhibition pens, $2 and $3; utility, $1.25. Write wants. Satisfaction pledged. Hiram Patton, Hutchinson, Kan.

EGGS FROM MY PRIZE WINNING Barred and White Rock pens. Write for mating list and show record. H. F. Hicks, Cambridge, Kansas.

WHITE ROCKS — PRIZE WINNERS, farm raised. Eggs, $1.50 fifteen, $3.50 fifty, $6 hundred. Special pen, $3.50 fifteen. Mrs. Ben Miller, Newton, Kansas.

RINGLET BARRED ROCKS—EGGS, $2 to $5 fifteen, $8 hundred. Reduction on incubator orders. Mrs. W. E. Schmitendorf, Vassar, Kansas.

BARRED ROCK EGGS FOR HATCHING, from stock winning at Topeka and Wichita, 1916; also first at Topeka, 1918; $7.50 hundred, $1.25 fifteen; first pen, $3 fifteen, $5 thirty. Mrs. Myrtle Henry, Lecompton, Kan.

When Writing to Advertisers, Please Mention Kansas Farmer

BARRED ROCKS, BOTH LINES. STATE show winners. Good layers. Eggs, $1.50 per fifteen, $6 per hundred. Special matings, $5 per fifteen. C. C. Lindamood, Walton, Harvey County, Kansas.

PURE BARRED ROCK EGGS—EXCELlent laying strain. Finely barred, farm range, $1.25, fifteen; $6 hundred. Choice pen, $3 fifteen. Mrs. S. Van Scoyoc, Oak Hill, Kansas.

BRED-TO-LAY BARRED ROCKS—FINE, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, $1 setting, $5 hundred; guaranteed. Belmont Farm, Topeka, Kansas.

BARRED PLYMOUTH ROCKS, THOMPson Ringlet strain, cockerel and pullet mated, pen and utility flock eggs. Quality high. Priced low. Many satisfied customers in thirty-seven states. Circulars free. A. F. Siefker, Defiance, Mo.

BARRED ROCKS THAT PRODUCED 175 eggs each in 1916; 120 eggs seven months, 1917. Four ribbons, 1917. Pens standardized, Hogan system, eggs, $2 per fifteen, $10 hundred. Mating list free. Farnsworth, 224 Tyler St., Topeka.

BARRED PLYMOUTH ROCK. — EVERY egg is produced by straight line barred, carefully mated stock, the kind that satisfies, at $1.50 per fifteen; $8 per hundred. Show matings, $3 per fifteen stralght. Eighty per cent fertility and quality guaranteed. J. A. Thomas, R. R. 3, Sapulpa, Okla.

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HOUDAN EGGS, $2 PER FIFTEEN. THE best chickens there are for town. John V. Smith, Morrowville, Kansas.

RHODE ISLAND REDS.

SINGLE COMB R. I. RED OR WHITE eggs. E. J. Manderscheid, Seward, Kansas.

ROSE COMB RED PULLETS, $2, $2.50. Chicks, 15c each. Eggs, 100, $5. Fred Leck, Yates Center, Kansas.

STANDARD-BRED R. C. RED EGGS—Fifteen, $1.50; hundred, $6. Mrs. B. F. Weigle, Winfield, Kansas.

EGGS FROM TWO SPLENDID PENS, R. C. Reds, $3 and $5, fifteen; baby chicks, 25c. Mrs. L. G. Lambert, Anderson, Mo.

EGGS AND LARGE RED ROSE COMB utility cockerels. Stedem & Sons, Marshall, Missouri.

CARVER'S R. C. REDS—EGGS, UTILITY, 100, $5; pen, per setting, $3. Mrs. S. H. Nash, Route 1, Kinsley, Kansas.

SINGLE COMB RED EGGS—HUNDRED, $4.75; thirty, $1.75. Mrs. Rosa Janzen, Geneseo, Kansas.

BRED TO LAY SINGLE COMB REDS—Pure-bred, rich red, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, setting, $1.00; hundred, $5.00; guaranteed. Belmont Farm, Topeka, Kansas.

ROSE COMB REDS, BRED TO LAY AND win in shows. Heads of pens direct from Meyer, owner of champion Reds in American laying contest. Fifteen eggs, $2.50; thirty, $4. M. L. Van Ornam, Superior, Nebraska.

SEVEN GRAND PENS ROSE COMB REDS headed by roosters costing $15 to $50. Fifteen eggs, $3; thirty eggs, $5; fifty eggs, $8. Special utility eggs, $7.50 per hundred. Baby chicks. Catalog. W. R. Huston, Americus, Kansas.

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S. C. WHITE ORPINGTON EGGS, $6 PER hundred. C. L. Hill, Filley, Neb.

261-EGG BUFF ORPINGTONS—FIFTEEN eggs, $1.50. M. Spooner, Wakefield, Kan.

S. C. BUFF ORPINGTON EGGS, $5 PER hundred. Mrs. Wm. Falkner, Belvue, Kan.

PURE-BRED BUFF ORPINGTON EGGS—Circular free. Mrs. Biermann, Wisner, Neb.

BUFF ORPINGTON EGGS FROM PRIZE winners. Write for mating list. Nora Hill, Cambridge, Kansas.

S. C. BUFF ORPINGTONS — LARGEboned, even color. Eggs, $1.50 fifteen, $6 hundred. John Oiler, Adrian, Missouri.

GOLD-DUST S. C. BUFF ORPINGTON eggs, $2.25 setting or $8 hundred, postpaid. Mary E. Price, Route 7, Manhattan, Kansas.

PURE-BRED S. C. BUFF ORPINGTON eggs for hatching, $2 for fifteen. W. J. Musch, Hartford, Kansas.

BUFF ORPINGTON EGGS, $1 FIFTEEN, $6 hundred. Mrs. Frank Neel, Beverly, Kansas.

PURE-BRED WHITE ORPINGTON eggs for hatching, $1.50 per fifteen. Frank Hinson, Stockdale, Kansas.

PURE-BRED SINGLE COMB BUFF ORPington eggs, fifteen, $1.75; fifty, $3; hundred, $6. Mrs. Charles Ziegenhirt, Linn, Kansas.

SINGLE COMB BUFF ORPINGTON EGGS from fine layers, large bone, good buff, $6 per hundred; smaller lot, 7 cents. Wilford Bonneau, Route 1, Concordia, Kansas.

WHITE ORPINGTONS FOR WINTER layers and qquality eggs, $7 hundred, $3.75 fifty, prepaid. Ideal Poultry Farm, Concordia, Kansas.

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BLACK LANGSHAN EGGS, 7c EACH; over 100, 6c. Baby chicks, 20c. Mrs. Geo. W. King, Solomon, Kansas.

BIG BLACK LANGSHAN COCKERELS and eggs, score cards furnished. Guaranteed satisfaction. H. Osterfoss, Hedrick, Iowa.

MADISON SQUARE AND CHICAGO prize winning Langshans. Eggs, $6 per hundred up. John Lovette, Mullinville, Kansas.

QUALITY BLACK LANGSHAN EGGS — Fifteen, $1.60; 100, $6.50. J. M. Bond, Enterprise, Kansas.

BLACK LANGSHANS — EXCELLENT range stock. Eggs, fifteen, $1.25; 100, $6. Baby chicks, 16c each. Mrs. J. B. Stein, Smith Center, Kansas.

DUCKS AND GEESE.

FAWN WHITE RUNNER DUCK EGGS—Fifteen, $1.50; fifty, $3; one hundred, $5.50. H. Clay Shirky, Norborne, Mo.

EMBDEN AND TOULOUSE GEESE — Stock and eggs. Will take Runner ducks or Leghorns in trade. Emma Ahlstedt, Roxbury, Kansas.

FAWN WHITE RUNNER DUCK EGGS—$1.50, thirteen; $3.50, fifty; $6. hundred. Prize winners. White eggs. Mrs. Ben Miller, Newton, Kansas.

MAMMOTH PEKIN DUCK EGGS—SETting, $1.50; pure white Indian Runner, $1.25; fawn and white Indian Runner, $1; prepaid. J. J. Lefebvre, Onaga, Kansas.

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S. C. BLACK MINORCAS — EXTRA heavy layers. Eggs from pen birds, $2 for fifteen. Mrs. E. G. Tharp, Protection, Kan.

SINGLE COMB BLACK MINORCAS — Eggs, $2 per fifteen, $3.50 per thirty; utility, $6 per hundred, prepaid. Dan Oberhellmann, Holstein, Missouri.

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GOVERNMENT PERMITS BUYING HENS now. Write for coops and cash offers. The Copes, Topeka.

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Located in center of shopping district, convenient to car lines, stores, and all points of interest. Direct car line to stock yards.
The hotel of quality, comfort and refinement.
European Plan, $1.00 to $2.50 per Day..
Cafe in Connection.
KUPPER-BENSON HOTEL COMPANY
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SAVES THE LITTLE ONES

Here it is—the one sure, safe, scientific chick feed. The feed that brings 'em through the first two weeks—the critical period. Don't permit roup, dysentery and other diseases to kill off your chicks when for a few cents you can keep them well. You will lose hardly more than 5 or 10 chicks out of every hundred — if — right from the start — you will feed

OTTO WEISS CHICK FEED

For "new" chicks. A natural food, prepared by poultry raisers who know how to mix the right ration of cereals, beef, bone and grit.
A pound feeds 50 chicks one week. Ask your dealer for it.



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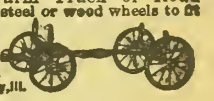

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ROSE COMB WHITE WYANDOTTE eggs, extra good; hundred, $5. Mrs. Geo. Rankin, Gardner, Kansas.

SILVER WYANDOTTE EGGS—FIFTEEN, $1.65; fifty, $3.75; hundred, $6.50. Mrs. Edwin Shuff, Plevna, Kansas.

CHOICE SILVER LACED WYANDOTTE eggs, fifteen $1.25, fifty $3.50, hundred $6. Mrs. Philip Schuppert, Arrington, Kansas.

GOLDEN WYANDOTTE EGGS, FIFTEEN, $1.25; fifty, $3.50; hundred, $6. Louis Bruning, Phillipsburg, Kansas.

SILVER WYANDOTTE EGGS—FIFTEEN, $1.50; fifty, $3.65; hundred, $6. Baby chicks, 20c each. Lawrence Blythe, White City, Kansas.

WHITE WYANDOTTE EGGS AT $1.50, fifteen; $3.25, fifty; $6 hundred. Winning, laying strain, fertility and satisfaction guaranteed. Andrew Kosar, Delphos, Kansas.

EGGS—SILVER LACED WYANDOTTES, fifteen, $1.50; fifty, $4; hundred, $6.50. Five kinds of ducks, eggs. Circular free. Fred Kucera, Clarkson, Nebraska.

WHITE WYANDOTTE EGGS, $1.25 PER fifteen, $6 per hundred, from good laying strain. Chilcott's Poultry Farm, Mankato, Kansas.

WHITE WYANDOTTES, STRONG STOCK, splendid layers. Eggs, $1.25 per setting, $6 per hundred. Baby chicks, 15c each. Mrs. Fred Pinkerton, Pawnee City, Neb.

FINE WHITE WYANDOTTE ROSE Combs, fifteen years a breeder. Eggs, $1 setting if more than one setting is ordered, $5 hundred. R. B. Pixley, Wamego, Kan.

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WHITE HOLLAND TURKEY EGGS.—Winnie Litton, Peabody, Kansas.

BOURBON RED TURKEY EGGS—PRIZE winning two-year-old hen, 44-pound tom; $3 setting. S. Peltier, Concordia, Kansas.

EGGS FROM EXTRA LARGE, HEALTHY, deep red Bourbon turkeys, $3.50 for eleven. Mrs. J. W. Harshbarger, Milo, Kansas.

SARVER'S FAMOUS NARRAGANSETT turkey eggs, $5 per ten. Sarver's Poultry Farm, Hastings, Nebraska.

BOURBON RED TURKEYS—EGGS FROM choice stock in size, color and markings, $5 and $4 per eleven. Free catalog. Mrs. Clyde Meyers, Fredonia, Kansas.

HOLSTEIN CATTLE.

Forty Heavy Springing Two-Year-Old Holsteins

DUE TO CALVE IN NEXT FIFTEEN TO THIRTY DAYS.

These heifers are nice, large and beautifully marked, from high-producing dams, and are bred to registered bulls with records up to 32 pounds. Also 100 yearlings from 14 to 18 months old, some are bred to freshen this fall, balance being bred. Ten choice young high-grade heavy springing cows. All stock tuberculin tested every six months and will be sold subject to sixty-day retest.

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HOLSTEIN CATTLE.

HOLSTEIN SALE

The eighth annual sale of the Howell Consignment Sale Company, of Howell, Michigan, will sell eighty head of Registered Holsteins, **April 25, 1918.** These cattle are all young and of excellent breeding and fine individuals. Welcome to our old Kansas customers. Catalogs April 15. Write if interested.

Mark B. Curdy, Sec. Howell Consignment Sale Co., Howell, Mich.

Col. Perry, Auctioneer.

CLYDE GIROD, At the Farm — F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd.

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

HOLSTEIN COWS FOR SALE

NINETY HEAD REGISTERED AND HIGH GRADE:

Forty two-year-old heifers bred to freshen May and June. Ten yearlings. Forty cows three to six years old. Priced to sell. Farm adjoins town. Come and see me.

C. A. BROCK - - - NORTONVILLE, KANSAS

HOLSTEIN CATTLE

I am offering for sale from my registered herd, four cows from four to six years old; two heifers, two years old, extra good; four yearling heifers and four high-grade cows; four registered bulls of serviceable age. Write or come and see my herd.

J. W. MEYER, NORTONVILLE, KANSAS.

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

Tuberculosis -- No!

WE GUARANTEE a retest on any stock you buy from us SIXTY DAYS after date of sale.

Before buying write us about our extensive herd of absolutely first-class Holsteins and Guernseys. Anything you want. Carloads or lots. Nearly pure-bred calves from famous bulls and good cows, $20 to $25.

EDGEWATER STOCK FARM
Fort Atkinson, Wis.

STUBBS FARM HOLSTEINS

A few young bulls ready for service at reasonable prices. Fine individuals, best of breeding, guaranteed right in every way. Write for prices or come and see them.

STUBBS FARM - MULVANE, KANSAS

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wauwatosa, Wisconsin

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. **Clover Valley Holstein Farm, Whitewater, Wisconsin.**

REGISTERED HOLSTEIN BULLS

I have a few choice young bulls from my best record cows. They are splendid prospects for herd bulls and priced to sell.

BEN SCHNEIDER, NORTONVILLE, KAN.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

CHOICE HOLSTEIN CALVES

High grade, beautifully marked, sired by registered bulls and from heavy milk producing dams, ten days old, $15; three weeks, $17; six months, $40. For thirty days only. First draft takes them.

Mt. Pleasant Stock Farm, Gilberts, Illinois.

Cedarlane Holstein Herd

Four-year-old grandson of Pontiac Korndyke, guaranteed sound and a sure breeder. Average record dam and sire's dam, 29.4 pounds in seven days. Special price on bull calves from above bull. No females.

T. M. EWING, INDEPENDENCE, KANSAS

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

Holstein Calves

We offer for sale choice beautifully marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated, f. o. b. cars: One to two weeks old, $17 each; three to five weeks old, $20 each; six to eight weeks old, $25 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.

H. B. COWLES, 608 Kan. Av., Topeka, Kan.

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON, KANSAS

CALVES

We are offering our

SELECT HIGH GRADE CALVES
From Large Producing Dams and Famous Herd Sires

for $20 and $25, aged one to two months. Give us your order for any amount, and we will guarantee satisfaction on what we send you. Write at once. We have some dandies.

EDGEWATER STOCK FARM
FORT ATKINSON - WISCONSIN

CALVES

HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment. **Edgewood Farms, Whitewater, Wisconsin.**

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

ROSS' HOLSTEINS

Bull calves by Hamilton Prilly 5th, whose dam made a record of 26.49 pounds butter in seven days, 105.6 pounds in thirty days. Pictures sent on application.

S. E. ROSS - ROUTE 4, - IOLA, KANSAS

LILAC FARM

R. F. D. 2 TOPEKA, KANSAS

Holstein herd sire for sale. A four-year-old, best breeding. Object, to avoid inbreeding. Price, $200.

Regier's Holstein-Friesians

Young bulls ready for service. Dams A. R. O. Four dams of one average 25.61 pounds butter in seven days. All sired by the great bull, Sir Rag Apple Korndyke De Kol.

G. REGIER & SONS, WHITEWATER, KAN.

REGISTERED HOLSTEIN BULLS

For Sale—Several young bulls by Pontiac Beauty De Kol Segis, a grandson of King of the Pontiacs and King Segis. These bulls are out of high-testing yearly record cows. We breed for yearly production. Come and see my herd. **H. D. Burger, Seneca, Kansas.**

MULEFOOT HOGS.

KNOX KNOLL STOCK FARM

Now taking orders for spring pigs, $20 each at weaning time. Thrifty pigs from big litters. A few fall boars and gilts. All stock registered free. For prices and catalog address **S. M. KNOX, Humboldt, Kansas.**

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

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CLAIM SALE DATES.

Holsteins.

April 25 — Howell Consignment Sale Co., Howell, Mich. Mark B. Curdy, Secy.

Jerseys.

April 30—Ralph Ballou, Paris, Mo. B. C. Settles, Palmyra, Mo., sales manager.

May 24 — Glenwells Farm, Grandview, Mo. B. C. Settles, Palmyra, Mo., sales manager.

Poland Chinas.

April 24—Laptad Stock Farm, Lawrence, Kansas.

Durocs.

April 24—Laptad Stock Farm, Lawrence, Kansas.

Chester White Hogs.

April 27—C. E. Ross, Morrowville, Kansas. Sale at Washington, Kansas.

Chester White Hogs.

Nov. 7—Arthur Mosse, Leavenworth, Kan.

James W. Magee, Chanute, Kansas, has just returned from a nine weeks' trip through Wisconsin, Minnesota, Michigan, Ohio, New York, Pennsylvania and New Jersey. In Pennsylvania he purchased twenty-three fine pure-bred Holstein cows, all with A. R. O. records, from 14-pound junior two-year-olds up to 28-pound four-year-olds. He also purchased Maggie Korndyke 179584, who made 14.43 pounds of butter in seven days out of 379 pounds of milk. This record was made at the age of two years and one month. She also made a thirty-day record of 1,561.4 pounds milk and 57.45 pounds of butter; in sixty days 3,160.8 pounds milk and 114.51 pounds butter; in ninety days 4,617.8 pounds milk and 168.07 pounds butter. Eight months after continued milking 267 consecutive days she made 267.3 pounds milk and 10.66 pounds butter. She completed the year as a two-year-old by making 15,453.6 pounds milk and 595.07 pounds butter in 365 consecutive days. While in Wisconsin Mr. Magee purchased for the Neosho County Calf Club, which is being organized, seventy-four head of fine heifers, fourteen to sixteen months old, just bred. In order to get a uniform bunch he purchased six carloads, or 215 head. He has already disposed of seventy-five head in Neosho County to young people who were not fortunate enough to get into the calf club. At this time there is something like 300 head around Chanute and in Neosho County, and an effort is being made to place 1,000 head in that county during the year 1918. Mr. Magee's herd is headed by a young son of King Segis Pontiac, whose dam, Valerie Korndyke Segis 111967, made as a two-year-old 15.36 pounds butter in seven days, she by Prince Segis Korndyke, a brother to the great King Segis. There is not a dam on either side that has not an A. R. O. record. This young bull is a brother to the $50,000 bull, the $35,000 bull, and also to the first two junior two-year-olds to make twenty-eight pounds of butter in seven days.

A. J. Swingle, of Leonardville, Kansas, owner of one of the great herds of big-type Poland China hogs in Kansas, reports his herd doing well. Mr. Swingle has saved a large number of spring litters this year sired by his herd boars that are among the best now in service. These litters are out of the great lot of sows that make up Mr. Swingle's sow herd, that is one of the best now assembled.

S. E. Ross, Iola, Kansas, reports his Holsteins doing well. Mr. Ross owns one of the good herds headed by Hamilton Prilly 5th, whose dam made a seven-day record of 26.49 pounds of butter and a thirty-day record of 105.6 pounds. A feature of the herd at this time is the fine lot of young stock sired by this bull.

Herman Gronniger & Son, Bendena, Kansas, held a very satisfactory sale of Poland China bred gilts at the farm on April 9. Fifty-three head of late summer and fall gilts sold for $3,012.50, or an average of $56.85. No boom prices or records were broken, but a very even sale of useful farmer hogs that will insure a profit to each purchaser. The top sale was $81 for No. 54 in the catalog, a splendid March yearling gilt bred to Big Wonder Hadley for April litter.

G. Regier & Sons, Whitewater, Kansas, owners of one of the heavy-producing herds of Holsteins in the Southwest, report their herd doing well. This herd is made up of record-bred individuals and the result is high records—cows with records of from nine to ten gallons of milk per day and butter records of 19.116 to 20.658 pounds in seven days. A feature of the Regier Holsteins at this time is the fine lot of record-bred young stock.

H. C. Grotheer, of Pittsburg, Kansas, who owns good herds of Shorthorn cattle and big-type Poland China hogs, reports his herds doing well. Mr. Grotheer has the popular blood lines of both Shorthorns and Poland Chinas and a feature of both herds at this time is the goot lot of young stock.

W. J. Harrison, of Axteel, Kansas, has made a success with his Duroc Jersey swine. Mr. Harrison is the owner of the first prize and junior champion sow at the Topeka Free Fair, 1917. This fine sow has a litter of ten pigs by Crimson Model 2d, a boar that was second at the Topeka Free Fair of 1917 in a strong class. He also has in his herd the blood of Invader of Idlewild, a line-bred Chief Colonel boar and the champion at the Illinois State Fair; also Long Wonder, Grand Model, and Grand Model 8th, the champion boar of Iowa in 1917. The blood lines are all of the most popular and a feature of the herd at this time is the choice lot of spring pigs.

HORSES AND MULES.



JACKS AND JENNETS

15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.

PHIL WALKER
Moline, Elk County, Kansas

Malone Bros., Jacks and Percherons

We have 2 barns full of extra good jacks ranging in age from weanlings to 6 yrs. old, all over 2 yrs., well broke to serve. Several fine herd headers among them. Also jennets in foal to homebred and imported jacks. A few imported Percheron stallions royally bred. We can deal. Write or call on

J. P. & M. H. MALONE, CHASE, KAN.

Percherons—Belgians—Shires



2, 3, 4 and 5-year stallions for sale or let on shares. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.

FRED CHANDLER, Route 7, Chariton, Ia., Above Kas. City.

Eighty-eight Imp. and American-Bred Percheron and Belgian Stallions and Mares, wt. 1,600 to 2,350, from $450 up. Durham, Angus, Galloway and Hereford calves and yearlings from $75 up. **ILLINOIS HORSE CO., Good Block, Des Moines, Iowa.**

40 Percheron Stallions and mares, weanlings up. 20 Mammoth jacks, 10 jennets in foal. Priced reasonable. **Al E. Smith Lawrence, Kansas.**

ANGUS CATTLE

Edgewood Farm Angus

I have for sale

40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.

D. J. WHITE, Clements, Kan.

ABERDEEN ANGUS BULLS

Big growthy two-year-olds from $125 to $200. Registered. F.O.B. Longford, Kansas.

E. J. Sampson, Oak Hill, Kan.

GALLOWAY CATTLE.

GOOD GALLOWAY BULLS

Twenty-five Extra Good Yearlings
Extra breeding and quality. Priced to sell.

J. M. HILL, SEDGWICK, KANSAS
Route 4, Box 65A

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

DUROC JERSEYS.

Crow's Big Smooth Durocs

Herd headed by the

Grand Champion Potentate

Assisted by three other grand champion boars. We also have five grand champion sows in herd.

FOR SALE — Sixty-five tried sows and spring gilts to farrow in April and May. **All immune.** All bred to our grand champion boars. Everything guaranteed and priced reasonable. Write or come and see our herd. We can please you.

W. R. CROW & SONS
HUTCHINSON - - KANSAS

Otey's Durocs

Hercules 3d, a giant 900-pound boar in breeding flesh, and **Pathfinder Chief 2d,** the largest and smoothest of all the sons of the mighty Pathfinder, head our herd. Fifteen gilts bred for summer and fall farrow for sale. Write or come and see them.

W. W. OTEY & SONS, WINFIELD, KAN.

Duroc Hogs : Shorthorn Bulls

Two 1-year-old Shorthorn bulls recorded, one 1-year-old Duroc Jersey herd boar. Also I am booking orders for spring pigs, pairs or trios, no relation.

R. C. WATSON - ALTOONA, KANSAS

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. **W. J. Harrison, Axtell, Kan.**

DUROC PIGS AND BRED GILTS, Immune. Size, vigor, quality, breeding. Priced right.

W. J. BARNES - - OSWEGO, KANSAS

WOOD'S DUROCS

For Sale—Duroc Jersey boars, best blood lines, Illustrator, Bonaccord, Kansas King and Gano's.

WOOD'S DUROC FARM, Wamego, Kansas

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on fall boars and gilts, from Crimson Wonder, Golden Model, Illustrator, Defender breeding.

JOHN A. REED & SONS, LYONS, KANSAS

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Gentlemen: Inclosed is One Dollar. Mail me at once a copy of "Our Navy" and enter my subscription for one year to KANSAS FARMER.

NAME .....

TOWN .....

R. F. D..... BOX NO..... STATE.....

Composition of Milk

The composition of milk varies greatly, depending upon the breed and individuality of the cow, the season of the year, lactation period, milking, and environment. The average composition, however, which has been determined by 200,000 analyses reported by a well-known dairy authority, is as follows:

Water	87.17
Fat	3.69
Milk sugar	4.88
Casein	3.02
Protein, albumen	.53
Ash	.71

When cream is taken from the milk by a separator or by hand, practically all of the fat is taken out. The skim milk which remains is frequently referred to as "serum," and it contains everything but the fat, as follows:

Water	90.68
Fat	.02
Milk sugar	5.00
Casein and albumen	3.50
Ash	.80

Exports of wheat from the United States to the Allies between July 1, 1914, and January 1, 1918, totaled more than 389,000,000 bushels. Wheat flour exports exceeded 24,600,000 barrels. The total in terms of wheat shows that the United States has sent the Allies nearly five bushels of wheat for every person in this country. Until the next harvest the great need is for wheat from the United States.

Stockmen are usually advised to keep their hogs a safe distance from streams and public highways when cholera is near. Would it not be more rational to advise that hogs be kept a safe distance from such sources of infection at all times? It must be remembered that there are a few unscrupulous men who continue the practice of disposing of their dead hogs by throwing them into streams and into the brush along public highways. Until this vicious habit ceases, hogs cannot be considered safe along streams or public highways at any time.

DO YOU READ the Small Ads in the Classified Section?

Many of these "Want" Ads contain information that will prove valuable and profitable to you. You ought to read them every issue.

War acquaints us with strange foods. Horse meat has been sold on the open market. Whale meat is tinned on the Pacific coast. Shark is praised by many; and Alaska, rich in resources, has shipped to the United States during the past year 38,295 pounds of reindeer meat. This is about nine times the shipments of 1916 and another year ought to show greater gains. It looks as if reindeer will be added to the list of meat animals that supply the American table.

GLENWOOD FARM'S SHORTHORNS AND POLAND CHINAS

SHORTHORNS

Sires in Service—Emma's Valentine 412453, Golden Searchlight, and Master Goods.

For Sale—Emma's Valentine 412453, Master Butterfly 10th 582866, and Secret's Valentine 648605. Real Herd Bulls.

PRICES REASONABLE.

POLAND CHINAS

Sires in Service — Expansion King, King Wonder II by Big Bob Wonder, and Wonder's Joe by Giant Joe.

For Sale—Twenty gilts bred for summer and fall litters, sired by Expansion King or King Wonder II, bred to Wonder's Joe or King Wonder II. A few fall boars.

C. S. NEVIUS & SONS, CHILES, KANSAS

SHORTHORN CATTLE.

$200,000 SHORTHORN PRIZES

Cash prizes open for Shorthorns in 1918 will reach $200,000. This association has made appropriations to fairs and shows in 36 states, from one to six shows in each state. $8,000 is appropriated for futurity classes alone at the Iowa and Ohio State Fairs, the American Royal, Kansas City, and the International, Chicago.

Come and get your share.

Junior futurity entries close June 1.

American Shorthorn Breeders' Ass'n
13 Dexter Park Ave. Chicago, Illinois

SHORTHORN BULLS

Eight Scotch-topped yearling Shorthorn bulls, reds and roans, ready for service. Price, $150. First check gets choice. Come and see them. I can please you.

J. R. ELY - - MARION, KANSAS

PARKER'S SHORTHORNS

Bulls for Western Kansas. Growthy, thick-made kind, eight to eighteen months old. Two with quality and breeding to head pure-bred herds.

Wm. B. Parker

Lakin, Kearney County - - Kansas

SCOTCH SHORTHORNS

Bettie's Albion 399451 now for sale. Roan, weight 2,000 pounds if fat. Strong breeder. Also six bulls from 6 to 24 months old, reds, whites and roans. Write

C. E. HILL - - TORONTO, KANSAS

POLAND CHINAS.

Poland China Baby Pigs FOR SALE

I am booking orders for baby pigs from large-type, heavy-boned, prolific sires and dams. Also have a few choice August and September boars for sale. All immuned.

A. J. SWINGLE, Leonardville, Kansas

DEMING RANCH QUALITY

BIG-TYPE POLAND CHINA HOGS

Breeding stock for sale at all times. All immuned. Come and inspect our herd or write us your wants.

H. O. Sheldon, Herd Manager

OSWEGO, KANSAS.

Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.

J. EDW. PLILEY - GILMAN CITY, MO.

GRAND VIEW POLANDS

Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.

ANDREW KOSAR - DELPHOS, KANSAS

Langford's Spotted Polands. Last call for fall boars. Yours for Spotted Polands,
T. T. Langford & Sons, Jamesport, Missouri

BIG-TYPE POLAND CHINAS, October farrow, $35 each. Six months Shorthorn bull, grandson Choice Goods Model, $130.
H. C. GROTHEER, PITTSBURG, KANSAS.

Ziller's Big-Type Poland Chinas

Thirty Years a Breeder.

Choicest breeding boars and gilts ready for service. Catalog free.

John D. Ziller, Hiawatha, Kan.

FASHIONABLE STOCK PLACE POLANDS

Herd headed by Big Wonder. This outstanding son of Big Bob Wonder was first in junior yearling class at Topeka and second at the National Swine Show in competition with the world. Breeding stock for sale at all times. Immune. Satisfaction guaranteed.

V. O. JOHNSON - - AULNE, KANSAS

REDFIELD'S SPOTTED POLANDS

Fall boars, large enough for spring service.

Chas. H. Redfield, Bucklin, Kansas.

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. Chas. E. Greene, Peabody, Kan.

RED POLLED CATTLE.

RED POLLED BULLS

FOR SALE—Thirty head coming yearling bulls. Come early and get the best. Our experience has been those that come late found us sold out. Write or come at once.

E. E. FRIZELL

FRIZELL, (PAWNEE COUNTY), KANSAS

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.

CHAS. L. JARBOE - QUINTER, KANSAS

AYRSHIRE CATTLE.

AYRSHIRE BULLS

Ten to twelve months old. Also herd bull and heifer calves five to six weeks old. All out of extra good cows. Priced right.

H. L. MICHAELIS - KINSLEY, KANSAS

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS

Best breeding, best type. Stock for sale.

GEO. W. ELA, Valley Falls, Kansas

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I make sales anywhere
Write for date. VALLEY FALLS, KANSAS

W. B. CARPENTER Live Stock Auctioneer
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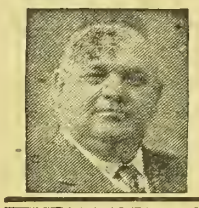
818 Walnut Street Kansas City, Missouri



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Twelve years on the block.
Pure-bred sales a specialty. Sales made anywhere.
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JERSEY CATTLE.

100 GOOD JERSEYS FOR SALE

We are offering some fine young cows and heifers, now fresh or to freshen in April and May. The best blood lines and good individuals.

J. W. BERRY & SON, Jewell City, Kansas.

GUERNSEY CATTLE.

GUERNSEY BULLS

Two Registered Guernsey Bulls for Sale—nine and seven months old.

W. E. EVANS - JEWELL, KANSAS

GUERNSEY BULLS.

Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to twelve months old. ADAMS FARM, Gashland, Mo., 12 miles from K. C.

Breeders' Directory

ANGUS CATTLE.
D. J. White, Clements, Kan.
George McAdam, Holton, Kansas.

RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.

DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.

A rank growth of weeds becomes an asset when plowed under before they make seed.

Only a slacker could stand idly on the sidewalk and criticize as the army of workers marches by.

We'll substitute corn for wheat and victory for defeat.

FARM AND HERD.

C. S. Nevius & Sons, Chiles, Kansas, are building up one of the good herds of Shorthorn cattle. They have used the Prince Pavonia and Searchlight cross. Prince Valentine 4th was also used in the herd several years, leaving many good things in the herd. The herd now numbers about fifty head, with Scotch pedigrees of the most fashionable breeding. A feature at this time is a choice lot of herd bulls, among them being Emma's Valentine, Master Butterfly, and Secret Valentine, a splendid roan with the best of Scotch breeding.

H. D. Burger, of Seneca, Kansas, is one of the most successful breeders of Holstein cattle in this state. His herd now numbers about fifty head of registered cows. The herd is headed by Sir Pontiac Beauty De Kol Segis, a grandson of the King of the Pontiacs, who has more A. R. O. daughters, more 20-pound two-year-olds, more 600-pound two-year-olds, and more daughters to make thirty pounds with second calf than any other sire. Grandson of King Pietertje Segis, who combines in the closest degree the blood of King Segis and Paul Beets De Kol. His sire is a full brother to the only two-year-old to produce over 1,000 pounds of butter in a year, and a half brother to the only 44-pound cow. A feature of the herd at this time is a choice lot of young bulls by Pontiac Beauty De Kol Segis.

Ask your dealers for brands of goods advertised in KANSAS FARMER.

"Give me a quart of Oil"

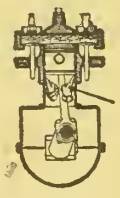
This careless request may bring costly penalties



THE garage man comes out. The motorist says, "Give me a quart of oil." His "quart of oil" is poured into the crank-case, or reservoir. The car goes on. No doubt the motorist thinks he has amply protected the 1500-odd parts of his engine.

Far from it. *One of the surest ways to invite friction-drag and engine trouble is to say, "Give me a quart of oil."*

"Give me a quart of Oil" invites LOSS OF POWER

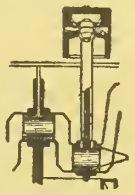


Escape of explosion past the piston rings, loss of compression and loss of power frequently result from oil of incorrect *body*. The power-loss is felt most on heavy roads and on the hills.

You can get full compression—complete power—only by using oil whose *body* suits *your* engine.

Correct body is seldom secured by saying, "Give me a quart of oil."

"Give me a quart of Oil" invites WEAR OF BEARINGS

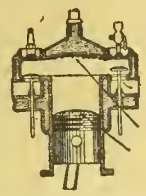


The problem of bearing lubrication is far from simple. Bearings differ widely in type and size. The oiling systems which supply them also differ. Adjustments vary.

Both the *quality* and *body* of the oil must suit these conditions. For every oil that suits your engine bearings, you will find many which will cause undue friction.

An almost sure start toward bearing trouble is "Give me a quart of oil."

"Give me a quart of Oil" invites CARBON DEPOSIT



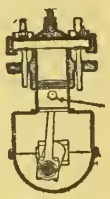
Guesswork won't eliminate this trouble.

Both the *quality* and the *body* of the oil must be considered

Suppose the *body* is too light for the piston clearance. The oil then works too freely into the combustion chambers. In burning, excess carbon accumulates unless the oil's ash is light and naturally expelled through the exhaust.

An easy road to carbon trouble is, "Give me a quart of oil."

"Give me a quart of Oil" invites WEAR OF PISTON PINS



Piston-pin lubrication is a difficult problem and little understood.

The location of the piston pins within the heated pistons and the slight oscillating motion of the pins or bushings demand an oil which will spread readily, yet maintain the proper film between the pins and bushings.

Quick damage will come if the oil fails to meet these conditions. To encourage piston-pin troubles prematurely, it is only necessary to say, "Give me a quart of oil."

"Give me a quart of Oil" invites SCORED CYLINDER WALLS



Scoring frequently results from oil of low lubricating *quality*. Often, also, the oil's *body* is too light. Then the cylinder walls have no protecting film. Scratching results.

Too often the blame can be traced straight to "Give me a quart of oil."

"Give me a quart of Oil" invites NOISE

Noise is often a sign of worn parts—resulting from friction.

It may be a dull "thump" at every revolution of the main shaft. It may be "knocking" of worn piston pins. It may be "hissing" within the cylinders. It may be "knocking" caused by excessive carbon deposit.

When a comparatively-new car pounds and racks its way along the roads it is seldom necessary to ask what brought on premature old age. Generally it is undue friction—resulting from incorrect lubricating oil. A way to invite premature noise is an off-hand request, "Give me a quart of oil."

"Give me a quart of Oil" increases MAINTENANCE COST

If the oil's *quality* is low, an excess quantity will be consumed and still the proper film will not be maintained.

If its *body* is incorrect, it may fail to reach and protect all moving parts.

In either case, excessive friction-drag results. Fewer miles are obtained from each gallon of gasoline. Your fuel and repair bills mount up.

This common waste is the frequent result of "Give me a quart of oil."

"Give me a quart of Oil" reduces SECOND HAND VALUE

What fixes the selling price of a used car? (1) The condition of the engine. (2) The condition of the chassis. (3) The condition of the body.

The engine is the vital part of the car. The engine condition, therefore, is most important

At an auction sale in New York City, second hand cars of uniformly prominent makes were auctioned off. The bodies were in good condition. The prices of the cars originally ranged from about $1000 to $3000. *The selling price in some cases* was as low as $200.

Why? Because the engines and other mechanical parts were badly worn.

Was the wear due to long service? No. The age of most of these cars disproved that. *Premature* wear was evident

It is safe to say the owners of these cars had used the common expression—"Give me a quart of oil." They paid a high price for their carelessness.

Correct Automobile Lubrication

Explanation: The four grades of Gargoyle Mobiloils, for engine lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "E"
Gargoyle Mobiloil "Arctic"

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A," "Arc" means Gargoyle Mobiloil "Arctic," etc. The recommendations cover all models of both pleasure and commercial vehicles unless otherwise noted.

This Chart is compiled by the Vacuum Oil Company's Board of Engineers and represents our professional advice on Correct Automobile Lubrication.

AUTOMOBILES	1918		1917		1916		1915		1914	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Abbott	Arc	Arc								
Abbott-Detroit			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" " (8 cyl)					A	A	A	A		
Allen	A	Arc	A	Arc	A	Arc	A	Arc	A	A
Apperson	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Auburn (4 cyl)					A	A	Arc	A		
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (6-38 & 6-39)			A	Arc	A	Arc				
" (6-39B) (Teetor H)	A	Arc								
" (6-39B) (Cont'l)	Arc	Arc								
Autocar (2 cyl)	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Briscoe	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (8 cyl)					A	A				
Buick	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	A	Arc
Cadillac	A	A	A	A	A	A	Arc	Arc	Arc	Arc
Case	Arc	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Chalmers	A	A			Arc	Arc	Arc	Arc	A	A
" (6-40)					A	Arc				
" (6-30)			A	A	A	A				
Chandler Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (8 cyl)	A	A	A	A						
" (F A)	A	Arc								
Cole					Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A	A	A		
Cunningham							Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Dart	A	Arc	A	Arc	A	Arc	Arc	Arc	A	A
" (Mod. C)			A	A	A	Arc	A	Arc	A	A
" (2 & 3½ ton)	A	A								
Detroiter			Arc	Arc	Arc	Arc	A	Arc	A	A
Dodge	A	Arc	A	Arc	A	Arc	E	E		
Dort	A	Arc	A	Arc	A	Arc	A	Arc		
Empire (4 cyl)	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc				
Federal	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod. 5-X)	A	A	A	A						
" (Special)	Arc	Arc								
Fiat	B	A	B	A	B	A	B	A	B	A
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	A	A	A	A	A	A	A	A	A	A
Grant	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Hal-Twelve			A	A	A	A				
Haynes	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (12 cyl)	A	A	A	A	A	A				
Hollier (6 cyl)	A	Arc	A	Arc						
" (8 cyl)	A	A	A	A	A	A	A	A		
Hudson					Arc	Arc	Arc	Arc	Arc	Arc
" (Super Six)	A	Arc	A	Arc	A	A				
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Jackson			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Jordan	Arc	Arc	Arc	Arc						
Kelly Springfield	A	A	A	A	A	A	A	A	A	A
King							Arc	A	A	A
" (8 cyl)	A	A	A	A	A	Arc	Arc			
" (Com'l)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Kissel Kar	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" " (Mod. 48)					A	A	A	A	A	A
" " (12 cyl)	A	A	A	A						
Lexington			Arc	Arc	Arc	Arc	Arc	Arc		
Liberty (Detroit)	Arc	Arc	Arc	Arc						
Lippard Stewart	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod. M)			A	A	A	Arc				
" " (Mod. MW)			A	Arc						
Locomobile	A	E	E	E	E	E	E	E	E	E
McFarlan	A	Arc	A	Arc	A	A	A	Arc	A	A
Madison	A	Arc	A	Arc	A	Arc	A	Arc		
" (8 cyl)			A	A	A	A				
Marmon	A	A	A	A	A	A	Arc	A	Arc	
Maxwell	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Mercer	A	A	A	A	A	A	Arc	Arc		
" (22-70)							Arc	Arc		
Mitchell	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (8 cyl)					A	A				
Moline-Knight	B	A	A	A	A	A	A	A	A	A
National	Arc	Arc	Arc	Arc	A	Arc	A	Arc	A	A
" (12 cyl)	A	A	A	A	A	A				
Oakland	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)					A	A				
Oldsmobile	A	A			Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Overland			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Owen Magnetic	A	Arc	A	Arc	A	Arc	A	Arc		
" (Mod. M25)	Arc	Arc	Arc	Arc						
Packard							A	Arc	A	Arc
" (12 cyl)	A	A	A	A	A	A				
" (Com'l)	A	A	A	A	A	A	A	A	Arc	Arc
Paige (4 cyl)							A	Arc	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
" (6-36)					A	Arc	A	Arc		
" (6-38-39)			A	Arc						
" (6-40)	A	Arc								
Paterson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Pathfinder			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (12 cyl)			A	A	A	A				
Peerless	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Pierce Arrow	A	A	A	A	A	A	Arc	Arc	Arc	Arc
" " (Com'l)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Premier	A	A	A	A	A	Arc	A	Arc	A	Arc
Regal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)					A	A	Arc	Arc		
Renault (French)					A	Arc	A	Arc	A	Arc
Reo	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Riker	A	E	E	E						
Saxon	E	E	E	E	E	E	E	E	E	E
Selden			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (¾ ton)			A	Arc						
Simplex			A	A	A	A	Arc	Arc	Arc	Arc
Stearns-Knight	B	A	A	A	B	A	B	A	B	A
" (8 cyl)	B	A	A	A	B	A				
Studebaker	A	Arc	A	Arc	A	Arc	Arc	Arc	A	Arc
Stutz	A	A	A	A	A	A	A	A	A	A
Velie (4 cyl)							A	Arc	A	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (3 & 3½ ton)	Arc	Arc								
" (¾ ton)	A	Arc								
Westcott	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
White	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (16 valve)	A	A	A	A						
Willys-Knight	B	A	A	A	B	A	B	A	A	A
Willys Six			Arc	Arc						
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc

YOUR TRACTOR

also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

How to secure the Correct Oil for your car

DO NOT say, "Give me a quart of oil." You want an oil of the highest *quality* and of the correct *body* to meet the lubricating requirements of your engine.

Ask for that oil and get it.

At the right we print, in part, our Chart of Automobile Recommendations.

This Chart is the result of the most far-reaching and thorough study of automobile lubrication that has ever been made.

It was prepared by a company whose authority on scientific lubrication, for every class of machinery, is recognized throughout the world—the Vacuum Oil Company.

It was prepared after a careful analysis of the lubricating requirements of each make and model of American and foreign car.

For years this Chart has been recognized as the scientific guide to correct automobile lubrication.

The superior efficiency of the oils specified has been thoroughly proven by practical tests.

Make a note of the grade of Gargoyle Mobiloils specified in this Chart for your engine. Then make sure that you get it.

You will then give your engine oil of the *highest quality* and of the *correct body*. Its use will result in

Saving of fuel — Saving of oil
Maximum power — Minimum repairs

The requirements of the transmission and differential of your car are equally important. The correct grades of Gargoyle Mobiloils for the transmission and differential are specified in the complete Chart of Recommendations which you will find on your dealer's wall.

Write for 64-page booklet containing complete discussion of your lubrication problems, list of troubles with remedies and complete Charts of Recommendations for Automobiles, Motorcycles, Tractors and Motor-boat engines.

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If your dealer has not the grade specified for your car, he can easily secure it for you.



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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 17. TOPEKA, KANSAS, APRIL 27, 1918. Established 1863. $1 a Year

DEVELOPING BREEDING HEIFERS

Results Favor Well Fed Heifers Calving as Two-Year-Olds

BEEF heifers when well wintered can calve at two years of age without retarding their development. The tendency in Western Kansas beef herds is for the cows to become smaller in size. This is probably due to early breeding and poor feeding of the heifers during their growth and development. With normal treatment the strain of reproduction is too great and they become stunted in growth.

In looking over the various experimental lots at the Fort Hays Station farm during the annual round-up which was held April 10, the visiting farmers and cattlemen saw the results of feeding developing heifers better than is the ordinary practice. The well-fed heifers dropping their second calves at three years of age were only about a hundred pounds lighter in weight than the heifers in the other lot receiving optimum treatment and dropping their first calves at three years of age. Many cattlemen were heard to remark that the heifers with the second drop of calves were in better breeding condition than the ones dropping their first calves. Both of these lots had received grain during the winter periods. The latter were in too high condition in the opinion of most of the visitors. In fact they would have gone in as killing cattle.

In point of actual size and development the well-fed heifers already having one crop of calves to their credit were the equals of the lot just calving for the first time. This was one of the outstanding features of the series of tests on the development of breeding heifers which has been under way at the Hays Experiment Station for the past two years. These experiments were planned by Prof. W. A. Cochel and began the fall of 1915. Eighty head of high-grade Hereford heifer calves were divided into two lots of forty each and wintered separately. The general plan was to feed one group as nearly normal as possible, or in other words, about as the average cattleman would feed developing heifers. They were all fed silage, alfalfa, and straw, but one lot received in addition a grain ration, the object being to determine whether the tendency to retard development could be overcome without deferring the breeding of the heifers. During the first season the average amount of grain daily to each heifer in this lot was 4.54 pounds of corn and cob meal, and one pound of linseed oil meal.

At the spring round-up meeting, 1916, when the heifers were inspected by the farmers of the western part of the state, the grain-fed heifers were found to have made an average daily gain per heifer of 1.88 pounds for the 120 days. The lot on roughage only had made an average daily gain per heifer of .92 pound for the same period. These heifers weighed 556 pounds each March 29, while the grain-fed heifers weighed 671 pounds each. The daily feed cost of the latter had been 9.5 cents a head and of the former 3.9 cents a head.

Of course no conclusions could be drawn as a result of wintering these yearling heifers by these two different methods. In order to make comparisons and determine the results from early breeding where heifers had been carried through the winter as had these two different lots, twenty heifers from each group were bred to calve the spring of 1917. The remaining heifers were carried over another year without breeding, the intention being to have them drop their first calves as three-year-olds the spring of 1918.

At the spring meeting in 1917, which was held April 5 on the Hays Experiment Station farm, the bred heifers were dropping their first calves as two-year-olds, but it required still another year before any definite conclusions could be drawn. At the meeting held this spring, April 10, which was attended by over 2,000 people from the western part of the state, the heifers which had been held over until they were two years old before breeding were dropping their first calves and it was then possible to draw some conclusions.

It was easy to see that the twenty heifers wintered in the ordinary way without grain and bred to drop calves at two years of age were smaller and less rugged in appearance. In all probability they had been wintered better than a great many heifers are wintered. They weighed 871 pounds December 19. Including the weight of seven calves which were weighed March 28, they had made an average gain during the hundred days of sixty-three pounds each. Eight calves were lost in this lot, probably as a result of the poor condition of the heifers at calving time and during the gestation period.

The lot receiving normal treatment but not bred until two years of age had made good development. These heifers had not produced a crop of calves, and as a result had made a good growth during the second summer on pasture and on December 19 averaged 998 pounds in weight. Their average gain for the hundred days, including the twelve calves weighed March 28, was sixty-two pounds. Three calves had been lost in this lot. Considering the poorer development of the heifers bred early and the fact that to date eight out of fifteen calves had been lost, it would seem that it is not a wise policy to breed heifers so early when they cannot be given better feed during the wintering period. In actual practice very few cattlemen ever think of carrying heifers until they are three years old before getting a crop of calves. During the hundred days from December 19 to March 28 the average daily feed cost for these two lots had been 15.3 cents for the lot dropping their first calves and 14.8 cents for the lot calving the second time. This of course is a great deal more than they cost to winter the first two years, but the abnormal prices of feeds is largely responsible for the increased cost.

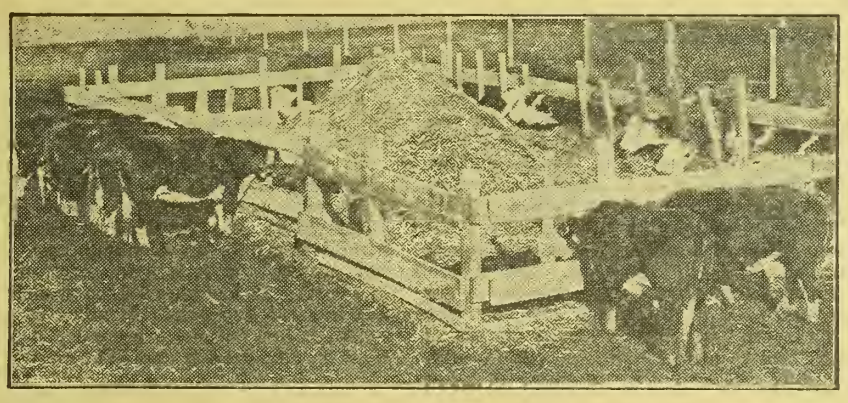
The heifers receiving the optimum treatment were all big, rugged cows, as will be noted from the illustrations. The principal difference between the ones with their first calves and those with their second was a matter of condition. The heifers that had been carried until two years old before breeding had gone into the winter period of the test weighing an average of 1,074 pounds. The heifers that dropped calves the spring of 1917 weighed an average of 969 pounds December 19. Producing and suckling calves had thus set them back about a hundred pounds in weight. One heifer from this lot was lost in calving in 1917. There were eight calves to weigh March 28. Two calves had been lost. The average gain per cow for the hundred days, including the weight of the eight calves, was ninety-nine pounds.

In the well-fed lot where the heifers were bred to calve for the first time in 1918 as three-year-olds, thirteen calves were weighed March 28. Two calves had also been lost in this lot. The average gain per cow, including the weight of calves March 28, was 130 pounds. Considering cows only, the average winter gain of the heifers calving for the second time was more than that of the heifers that had just dropped their first calves. The daily feed cost per heifer in these two lots was about 24 cents. Of course feeds have been abnormally high the past season. The lots receiving the grain consumed an average of three pounds of corn daily per heifer and .96 of a pound of cottonseed cake. The alfalfa ration ranged from about eleven to thirteen pounds daily per heifer. The amount fed was of course limited. They were fed straw sixty days, eating about the same amount daily as of alfalfa. Kafir fodder was fed after the straw was exhausted. The average silage eaten daily per heifer was 13.7 pounds. This also was limited. Alfalfa was charged at the rate of $16 a ton; wheat straw, $1 a ton; kafir fodder, $8; silage, $5; corn, $1.40 a bushel, and cottonseed cake $50 a ton.

Every cattleman or farmer handling a few beef cows naturally asks the question whether it pays to either defer breeding young heifers or feed them a more expensive ration during their growth and development. There are a number of things to consider. The maintenance of a breeding herd having cows of sufficient scale cannot be overlooked. This will have a bearing on the value of the calves produced and sold each year. Small, stunted cows cannot be expected to produce as large and growthy calves as larger and more rugged cows. The cost of growing and developing heifers up to the time they become producers also enters in as well as the maintenance cost of mature cows during the winter season. The figures given by Professor Cochel in his talk explaining the experiment and its results may help solve some of these perfectly natural questions which come to the mind of a man interested in knowing whether it pays or not to put the additional feed into his growing stock.

The total winter cost of feeding the heifers in Lot 1, as given by Professor Cochel, was $51.33. The pasture cost for three summers, $12 a head, making a total feed cost of $63.32. These heifers of course have no calves to their credit as two-year-olds. Lot 16, the well-fed heifers calving at two years of age, had cost $50.68 for winter feeding, and $12 for three summers' pasturing, or a total of $62.86. This lot of twenty heifers had seventeen calves to their credit, weighing an average of 366 pounds at

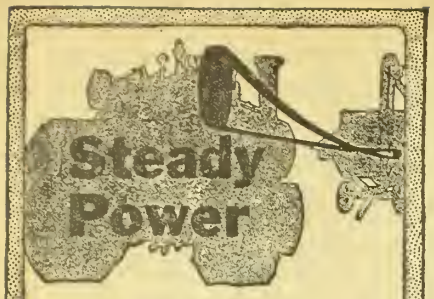
(Continued on Page Nine)



WELL-FED HEIFERS JUST CALVING FOR FIRST TIME AS THREE-YEAR-OLDS



WELL-FED HEIFERS WITH CROP OF CALVES TO THEIR CREDIT AS TWO-YEAR-OLDS. IN BACKGROUND PRESIDENT JARDINE EXPLAINING EXPERIMENT TO VISITORS



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The design and mechanical construction of this engine are right by the test of use and years.

From the little 13 to the giant 25 h. p., over three times the rated power is easily developed, and it is always there when you want it.

The Gas Engine is all right for the man who wants one, and who has had experience with them. The Steam Engine, however, is the most simple and consequently the most dependable. Any one of a half dozen different things may stop a gas engine which cannot be found without experience, but all know enough about the steam engine to keep it running.

The Nichols-Shepard Steam Traction Engine, one of the Red River Special Line, is always dependable. Write for circulars.

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And crops! Here through the miracle of irrigation there are bountiful crops of fruits and farm products. Dairying, hog raising, cattle and sheep. Five and six cuttings of alfalfa in a season—clover, barley, sugar beets, etc.

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Insure big crops every year. Don't let crops drown out. Drain with



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All-steel, reversible, adjustable. Cuts or cleans ditch down to 4 ft. deep—any soil—does labor 100 men. Write for free drainage book.

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We manufacture all sizes and styles. It will pay you to investigate. Write for catalog and price list.

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610 E. Seventh St., Topeka, Kansas

FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

THE following question has been submitted by W. A. S., Johnson County: "I have a 1914 Ford car that uses a great deal of gasoline—a gallon every eight to fifteen miles. It has the regular Ford carburetor. Would it be advisable to put on a Stromberg or Air-friction carburetor or a Wilmo manifold or a Burn Oil device, and burn kerosene? I would like to use kerosene because it is cheaper if I can do so without injury to the engine and get good results from it. One man told me the Air-friction carburetor would tear a Ford engine to pieces; that it is too strong for this kind of an engine, but is all right for some other kind. My car will not run slowly on high."

E. V. Collins, of the engineering department of the Agricultural College, offers the following suggestions:

"The Ford car should make twenty to twenty-five miles per gallon in ordinary service if in proper adjustment. Perhaps there is something wrong with your carburetor. The Holley carburetor which is used on most Fords should have the needle valve open from three-fourths to seven-eighths of a turn. This is really a high speed adjustment and will vary somewhat with different machines. One of the most common troubles is that the machine gets too much gas at low speeds which causes the motor to "gallop" or run unevenly and throw out black smoke. This condition is caused by the opening in the end of the low speed tube being too large and may be remedied by installing a new low speed tube or slightly closing the end of the tube which extends down into the gasoline puddle beside the needle valve. Probably the best thing to do is to borrow a carburetor which is known to be in good order. This will tell whether the difficulty is in the carburetor or in some other adjustment. Very often the spark is retarded too much.

"As a rule it is not advisable to purchase extras for a car. A heated manifold is of some advantage in cold weather but most drivers do not like them in warm weather, as the power is appreciably lessened.

"A carburetor cannot be too strong for a motor unless something besides gasoline is used as a fuel. Ford carburetors have the advantage of simplicity and the use of a different carburetor is largely a matter of personal preference to be decided by the owner."

Motor Car an Essential

So closely has the motor car become identified with present day American life that it requires but a moment's consideration to realize that it is just as necessary an institution as the telephone, the telegraph or the railroad.

Perhaps the most obvious as well as the most important role of the automobile is that of a time saver. In this hustling country of ours time is an all important element. To Europeans the speed with which Americans put through their projects has always been a marvel. It was America that first conceived the possibility of sending a locomotive speeding at sixty miles an hour. And it was America that first applied the motor car to the task of increasing the efficiency of modern business. Through its offices we have speeded up transportation, widened operating radii and made distance no longer a matter of miles but rather of minutes.

Imagine, if you can, an America without motor cars and you will have an America seriously hampered commercially. Can you picture the rush hour traffic, so familiar a part of our modern city life, transformed suddenly to a tangled jam of horse-drawn vehicles? The smooth deftness with which the traffic policeman handles the swift moving motor craft would be impossible, and the accomplishment, now a matter of hours, would be drawn into the days.

More and more the importance of the automobile as applied to business life has been made apparent. But the city man holds no monopoly on the automobile. You have but to resort to available figures, or, better still, take a trip through a thriving agricultural community, to realize that the American farmer is now one of the most consistent buyers of motor cars.

The farmer, who formerly depended on his horse and buggy as a means of transportation from farm to city, now sits at the wheel of his automobile and makes the trip in a fraction of the time formerly required under the old regime.

As a result the farmer of today is a better informed man than the farmer of yesterday. He is no longer isolated from society. A matter of ten, fifteen or twenty miles, when the weather is bad, no longer keeps him from attending his Grange meeting, or hearing a lecture in the city. He can drive to town in the evening after his day's work is done. When he returns home at night there is no horse to unhitch; he merely runs his car into his garage and it is there until morning. He covers more territory, sees how other successful men are conducting their affairs, and runs his farm as a business man runs his establishment. Not the least important aid that the automobile has been to the American farmer is the added attraction it has lent to farm life by banishing loneliness and influencing the young men that rural life is not without its attractions.

The medical profession as a whole has adopted the motor car. Every doctor drives his car winter and summer while making his daily professional calls. Were he dependent on the horse and buggy, his working radius would be seriously hampered. Incidentally, if an emergency call comes in, when quick response may mean the saving of a human life, the physician's red cross on his radiator permits him to exceed the speed limit and rush first aid when it is needed.

The city salesmen who drive motor cars have automatically widened their working territory many times over. This has enabled business concerns to extend better service to their customers.

Consider how our cities reflect the influence of the motor car. Suburban towns have sprung up miles from the business centers, their inhabitants depending almost entirely on automobiles. The hansom cab has almost disappeared from our city streets. Swift fleets of taxicabs, stationed at the various depots, distribute transients to all parts of the great cities without loss of time.

We have accepted the revolution as a matter of course. We have been adjusted to this condition. While the equipment of our street car lines and railroads has grown to meet the ever increasing demand placed upon it by the public, it would, nevertheless, be insufficient to take care of the transportation of the entire populace of this great country were the motor car to be banished. Should the automobile suddenly disappear from our city streets there would follow a congested condition which could not be alleviated easily.

People buy cars now because they need them; because it will make them more efficient members of society; because it will save time and money. The man without a car cannot successfully compete with the man who operates an automobile. The function of the automobile today is an economic one, pure and simple. It is a vital part of our daily life. It has speeded up transit; it has brought thousands of miles of good roads; it has become a necessity.—C. W. Nash in Blacksmith and Wheelwright.

Piping of Hot Water Tank

Many hot water tanks attached to the kitchen stove never furnish water that is really hot. The most common cause for this is that the hot water supply pipe is tapped into the middle of the tank instead of being tapped into the top of the tank. When tapped into the top the water circulates faster through the heating system and hot water delivered to the tank does not have to force its way upward through a mass of cold water. Those desiring hot water from the kitchen tank should see that the hot supply pipe connects as above stated, that the cold water pipe to the stove leaves the tank at the bottom, and that the pipes have as few bends as possible. If the tank is located quite a distance from the stove, larger connecting pipes should be used than when the tank is near to the stove.—L. S. Foltz, Colorado Agricultural College.

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EAT POTATOES AND SAVE WHEAT

There are still tons of potatoes in Colorado which can be used as food in the place of wheat. The special effort made during potato week to bring about the wider use of potatoes brought results. The Colorado food administrator recently reported to Mr. Innes, food administrator for Kansas, that the co-operative effort for that week had materially reduced the surplus of potatoes in Colorado.

Potatoes cannot be shipped to our Allies. If the surplus is not consumed at home in the next few weeks there will be large losses of valuable food material. Up to two cents a pound, potatoes are as cheap a source of food nutrients as wheat flour. Germany's success in feeding her people is largely due to her potato production. Germany is the great potato country of the world. In acreage of potatoes Russia leads, but in total production Germany leads, producing one-third of the world's potato crop. Germany, Austria-Hungary, and Russia combined produce three-fourths of the potato crop of the world.

We must send the wheat to our Allies, and that means we cannot have to exceed half as much to use at home as our normal consumption. It would be a most regrettable circumstance if any of the food value represented by the potatoes now available in this country should be lost because of our whims of appetite. If we cannot conquer these whims of our own appetites, how can we hope to conquer the German menace? Circular 106 from the United States Department of Agriculture, entitled "Use Potatoes to Save Wheat," gives numerous tried recipes that will help in making the potato more palatable. You can get copies of this circular free by sending a request to the Division of Publications, United States Department of Agriculture, Washington, D. C.

MORE EFFECTIVE SPY CONTROL

The tendency in various parts of the country toward meting out mob law to suspected spies and alien enemies is an indication of our need for more drastic laws for handling the situation. Mob rule is always to be deplored. We should speedily have a law which will make it possible for the authorities to apprehend every spy and plotter in our midst and put them where they cannot endanger our people and our prosecution of the war. The application of a little military law against spies would have a most salutary influence in checking enemy propaganda in our midst. The Sedition and Espionage Bill now in Congress will make it warm for spies. It provides a penalty of twenty years in prison and a fine of $10,000 for anyone who "by word or act shall support or favor the cause of the German Empire or its allies." The penalty also covers the spreading of false reports about the military or other activities of the United States, including efforts to prevent the success of the Liberty loan.

These penalties are none too severe. It is time we awakened to the fact that this war is a serious matter. We have not yet as a people fully measured the determination and power of the enemy. Our program is being treacherously balked and slowed up by enemies in our midst who can in comparative safety commit many acts of disloyalty.

There has been much unnecessary debate over this sedition bill because of an error in the Associated Press report of its terms, to the effect that criticism of the President was an act of sedition. This was not in the bill as reported in Congress.

FLOUR BEING RETURNED

The willingness of farmers to back up our Allies who are holding the line for us until we can get there ourselves in force is evidenced by the response to the call for flour stored in excess of immediate requirements. Farmers habitually lay in their year's supply of flour in the fall. Now that we have been shown that we must cut our normal consumption at least a half until the next harvest, people who have stored flour according to normal consumption needs are turning it in. Fully three hundred families in Brown County, mostly farmers, are reported to have returned to the stores and mills enough flour to ration 8,700 French soldiers a month. The total amount was 52,090 pounds of flour and 790 pounds of sugar. We are beginning to realize that the war is not so far from us after all. If the British and French should be defeated, Germany could bring the war to our own doors in a week or ten days.

All over the state people are responding to the call of the Food Administration. Out in Ellsworth County a thresherman with the foreign-sounding name of Cenek Sekavec voluntarily returned 350 pounds of flour to the Holyrood Milling Company and made the following statement to the county food administrator: "As it is the duty of every patriot to do all he can to help win this war, and being not only willing but anxious to do my share to help, I, having more flour than my family needs for thirty days, have returned 350 pounds to the Holyrood Milling Company for redistribution. As I have three brothers already in the service of Uncle Sam, I want to see that they and all of our boys are well supplied with foodstuffs."

Not all are so patriotic, however. Our Food Administrator is reporting a number of instances where flour hoarding is being practiced, in some cases partly through ignorance and in others wilfully in order to hinder our war program. The extreme penalty for hoarding is a $5,000 fine and two years in prison. In some instanees, owing to extenuating circumstances, minimum fines and contributions to the Red Cross have been assessed against those convicted of hoarding.

CATTLEMEN TO MANHATTAN

The sixth annual meeting of the cattlemen of Kansas will be held in Manhattan May 17 this year. Six lots of calves have been on full feed to determine the value of alfalfa, silage, corn, and cottonseed meal, in making yearling beef. They have been on feed for five months, and the day of the meeting each lot will be valued by eommission men, buyers, and sells from the stock yards, on the basis of their beef value. A complete report will be made on the results of the experiment, including the amounts of feed consumed, cost, gains made, and profits or losses. In addition there will be a program of unusual interest. Talks will be made by representatives of the National Food Administration, range cattlemen, commission men, cattle feeders, and packers. In view of the many problems which have arisen as a result of the war, this meeting is one which should be attended by all who are in any way intereated in beef cattle.

WHEAT CONDITION IMPROVED

The condition of Kansas wheat, as reported for April 13 by the 2,000 correspondents of the State Board of Agriculture, is given as 77.6 per cent, based on 100 as representing a satisfactory stand and development. This is the average for the state, and covers 6,039,563 acres, the remainder of the nine and a half million acres seeded last fall being reported by correspondents as "worthless or so unpromising that it will probably be abandoned or devoted to other crops." This is an abandonment of approximately one-third of the total acreage sown. Fully 90 per cent of this is west of a line drawn diagonally across the state from the northwest corner of Marshall County to the southeast corner of Clark County. Fully 60 per cent of the wheat sown last fall lies west of this line. Some of the important wheat counties in this section have not suffered serious losses. Rawlins County reports only 15 per cent acreage, Jewell 16, and Barton County, where the acreage was almost 300,000, 20 per cent. In the region lying south and east of the diagonal line dividing the state as indicated the per cent of failure is only 10.

This large abandonment of wheat is almost entirely due to long-continued dry weather through the fall and winter. Fine rains have fallen all over the West since the observations were made by the various correspondents, and in all probability some of the wheat reported as abandoned at that time may have been revived. The weather for the past few days with the rain and snow which has fallen has been especially favorable for wheat.

Even with this large abandoned acreage, the conditions now are much more favorable than they were a year ago. At that time the total acreage of wheat remaining was given as less than 4,000,000 acres, and the condition only 60.13 per cent. In the eastern part of the state the wheat at the present time is in exceptionally fine condition, and a number of the counties reporting conditions as high as 96 per cent and no abandoned acreage. There has been little or no insect damage, and if conditions remain favorable from now on we have prospects of producing at least a normal crop.

The condition of oats is reported as uniformly good, and the acreage is 11.7 per cent greater than that of last year. The increase in barley acreage is 14.4 per cent, there being almost a million acres of barley sown. In some instances oats and barley have been seeded in thin stands of wheat for a combination crop. The report also indicates an increased acreage of potatoes, most of the increases being in the commercial potato-growing districts.

The state board's correspondents estimate that 1,597,400 bushels of last year's wheat crop, or 3.8 per cent, is still in the hands of the farmers, and that about twenty million bushels of the last year's corn crop is now in the farmers' hands, or 18.8 per cent. Over ten million bushels of oats are yet on hand, 200,000 bushels of barley of last year's crop, and 1,851,000 bushels of grain sorghums.

The reports indicate that farm help is sufficient in most localities for present needs, although correspondents are of the opinion that an acute shortage will likely develop later during the cultivating and harvesting season.

CORRECTION OF ERROR

In a recent issue in reporting the Government estimate of our probable wheat production in Kansas, through a typographical error we made a statement in quoting the federal figures which made them forecast a possible yield of 180 million bushels instead of 108 million bushels. This report was based on condition April 1.

FEDERATE MEAT PRODUCERS

A federation of all state organizations of meat producers is in process of organization. The preliminary steps were taken at a mecting recently held at Purdue University, Lafayette, Indiana, to study the results of the winter experiments in feeding cattle.

There is serious need for such a federation of state organizations. Committees of meat producers from a dozen different states, oftentimes having conflicting plans and ideas, have been going to Washington to confer with the Food Administration. There has been no unity of action on the part of the meat producers of the country. Mr. Hoover has been confused by the multiplicity of counsel he has been getting from the various live stock interests. Prof. W. A. Cochel, who has been through the mill as a member of one of the committees, stated clearly the need for more unity of action on the part of people engaged in live stock production in a talk he made at the Indiana meeting. He said: "I have had the pleasure of having two or three conferences with Food Administrator Hoover, and he stated that live stock men would find it to their best interests to elect a permanent committee to which he could go for information. Mr. Hoover said that when he wanted to know anything about labor or how labor would take an order he proposed to issue, he would go to Samuel Gompers and know within a few minutes the attitude of organized labor. If he wanted to know anything about the packing industry, he would go to a committee of packers appointed for that purpose, and in thirty minutes find out what they would do and what they would not do. But when he wants to find out anything about the live stock industry he hears from a multitude of committees with a thousand different opinions. The result is that he cannot get anything definite or tangible out of all the suggestions."

In the proposed federation of live stock associations, each of the corn belt states will be represented in the organization by three men — two practical feeders, members of the state live stock association of the state they represent, and one member of the faculty of the state agricultural college of the same state. It is proposed to hold a meeting of the new live stock organization at Manhattan May 16.

Simplicity in farm machinery is important. Complicated parts cause trouble and are difficult to repair when a machine or implement gets out of order.

BUY LIBERTY BONDS

IN NO more effectual way can we help our Government fight this war than to buy freely of its bonds. There can no longer be any illusions as to the purposes of the Central Powers of Europe. If they should win in Europe, they will next attack the United States and South America. Our stores of worldly goods would not be worth much to us in the event of such an outcome to the life and death struggle now going on in France, and what is infinitely worse, our women and children would meet the same fate as that meted out to the women and children of Belgium and other devastated portions of Europe.

We may be fighting to make the world safe for democracy, but no one who has followed the development of the German program can doubt that we are now fighting to make our own homes safe for our children. That appeal did not come so prominently to the front in the first and second Liberty loans. Let us make no mistake now, but face the reality that we are subscribing to this loan to enable our Government to protect our homes and our children. This obligation overshadows all others. No one who can possibly meet the payments should fail to buy at least one fifty-dollar bond. The more widely distributed the loan, the better. Get in touch with your Liberty bond committee and subscribe for as many bonds as you can carry, preferably planning to meet the payments from future earnings rather than drawing on accumulated savings.

COLONY BROODING OF CHICKENS

Machine Plus Brains of Operator Should Equal Best Work of Hens

By FRANK UHL

IF YOU would grow chickens by machinery, you must be able to see things for which you are looking, you must learn to know symptoms and to apply the old adage, "An ounce of prevention is worth a pound of cure." Some old hens are exasperatingly "dumb," as many people can testify, yet they know more than a machine. But the machine plus the brains of the operator should equal or excel the work of the best hens.

Colony brooding is a term commonly applied to growing chicks in flocks of 200 or more. They must be kept comfortable by some method of artificial heat, and fed in one bunch. Some claim to raise as many as 1,500 in one lot, but the writer doubts the wisdom of attempting to handle so many. Most people could raise only half the number, and still more could succeed by placing the limit at 300 or 200. The great majority of amateurs may better use but twenty-five chicks and a good hen and coop for a brooder. The latter is much less expensive and there is no danger of the fire going out at night when the wind suddenly shifts to the northwest.

Like all new inventions, colony brooding will be tried out until its limitations are defined and its rightful place in industry becomes established. It promises to be one of the best means of increasing the production of poultry. More chicks can be raised by one person or the same number raised with much less time and labor by colony brooding than with hens or small brooders. Trouble from lice and mites may be practically eliminated. Losses from vermin and sudden showers and dashing rains may be reduced to the minimum. While there may be more losses in the first three weeks of the life of machine-raised chicks, due to incubation, faulty heat, or feeding, there should be less loss thereafter than with hen-raised chicks. Hens, once used for hatching and brooding, can be kept busy laying eggs through the best laying season.

Anyone who has been successful in raising chicks with a small brooder may attempt growing them by some method of colony brooding. But they must have or soon acquire the ability to recognize and correct chick troubles in their early stages.

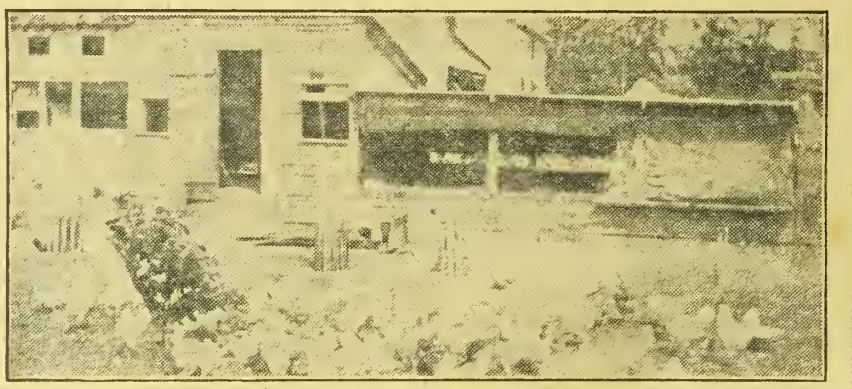
The location of the brooder house must be favorable, a south slope being the best. Surface water must be drained away. Sandy soil is much to be preferred to a heavy soil. The size of the flock should be limited to what the house will accommodate at ten or twelve weeks after allowing for a loss of 10 per cent. The house, or at least the sleeping room of the chicks, should admit plenty of fresh air and yet prevent draughts. The heater should be self-regulating and dependable. If an electric alarm can be installed that will ring in the residence when the temperature at the brooder house gets too low, so much the better. If tested occasionally to see that it works, the night rest of the operator and continual comfort of the chicks will be assured. The main disadvantage of colony brooding is the danger of wholesale slaughter resulting from chicks piling up in order to keep warm, if the heater fails to work or the fire gets too low. The house should not be located too near other buildings, since a brooder house cannot be made fireproof. In colony brooding one must "expect the best, but prepare for the worst." Like many other ventures, it is easy if you know how and have no accidents.

There are many types of brooders now on the market. The hard coal heaters are very good where the coal can be had at a reasonable price. The writer used a gasoline heater one season with varying success. The hover was kept too warm for the first lot. The chicks preferred piling up to being in the chilly air outside the hover. With the second bunch, by keeping the temperature lower we got better results, but owing to the close care of the flame needed and the rising price of gasoline, we changed to a coal oil heater. This heater has no hover. It heats the whole room, but the chicks sleep at a comfortable distance around the stove. While a great deal of oil is required in severe weather, this cost is largely offset by ease of operation and care of the chicks. The stove requires from one-half to four gallons of oil per day, varying with the weather, construction, and size of the house. In normal times the cost of heat should not exceed five cents per chick raised.

The accompanying cut shows a house and shed used by the writer as a brooder house. The house is 8 by 12, and with the addition of the scratching shed, 8 by 15, accommodates about 300 chicks. It is made air-tight on three sides and the roof by means of rubberoid and tar-felt paper and is banked around the bottom to insure a dry, warm floor. Fresh air is admitted through the runway into the shed, a boxed ventilator on the north and a burlap or cotton-covered half window on the south. On dark, chilly or rainy days the chicks can be confined to the house and shed by means of wire and drop curtain, the curtain being lowered over the part of front necessary to keep the chicks comfortable.

The yard fence should be of inch mesh wire for the first foot or eighteen inches, with enough poultry netting above to prevent the growing chicks from flying over the top. A good fence will save aggravation for the operator and keep the chicks safe from cats, hawks, and sudden showers.

Time and chick-life both are saved by making everything as near chick-fool-proof as possible. The corners and sides of at least the sleeping room should be fitted with smooth slanted boards or patent plaster-board to prevent the chicks piling up from crowding to the wall. Watering pans should be shallow and contain a smooth stone to prevent drowning or spilling. Sanitary patent fountains are to be preferred of course, but good ones can be made by inverting a can in a shallow pan. Boxes for mash feed should be deep enough to prevent waste by scratching the feed over the sides. Blocks and boards should not be left standing against the wall to fall on chicks. Don't drop in the scratching litter or yard tacks, bits of tin, or anything else that the chick should not try to digest. Many "don'ts" and "do it now's" will have to be learned by experience.



HOUSE AND SHED USED AS A BROODER-HOUSE

Before placing the chicks in the brooder house, spray it and the shed with a good disinfectant and insecticide. Have the heater installed and in operation a day or two to dry the house and insure a proper regulation of the temperature. Cover the floor with three or four inches of fresh, clean litter of short straw and alfalfa leaves, clover, or coarse bran.

The move from incubator to brooder house is a great change in chick life. It marks an epoch, and the change cannot be made too carefully. The chick must not become chilled at any time, much less at this time. Make the move at dusk if practicable, carrying them in a cloth-lined and covered basket. Handle them gently and distribute carefully around the stove at such a distance as to get about the right heat, placing those at the rear side first in order to avoid disturbing them later. If done right, the chick has learned a valuable lesson in going to bed, which may save trouble later. Detail, you may say. Chick-raising by machinery is detail. The more attention given to the natural needs of the chick, the quicker the work is reduced to a science, which means success.

If the chicks are only twenty-four to thirty-six hours old when taken to the brooder, they need little attention the first day aside from giving them water or preferably fresh clabbered milk. By the time they are forty-eight to sixty hours old they may be given four or five feeds daily of ground rolled oats and dry bread crumbs mixed with bran—as much as they will clean up in ten or fifteen minutes. This feed may be given on wide boards or in shallow, flat-bottomed troughs. They should have access to charcoal and be given some coarse sharp sand. They should not be permitted to eat all they want of the latter, as some chicks will overeat of it to the exclusion of proper food. The feeding of fresh clabbered milk should be continued for at least two or three weeks, even if it has to be bought for them. Some prefer to give it as the only drink the first week. It is a great help in preventing bowel disorders of incubator-hatched chicks in the first weeks and its continued use is a fine tonic for the growing youngsters.

The most important lesson for the chick to learn is the location of the iron hen. For the first day it is well to keep them confined to the end or part of the house around the stove, by means of temporary partitions of wide boards or low wire. These partitions should be far enough away from the stove so that the chicks will not crowd against them to get away from the heat. On each succeeding day if the weather is favorable the chick-run should be enlarged, the amount depending upon the vigor of the chicks and the readiness with which they return to the heat when they get too cool. They should not get started to crowding together in a far corner or side of the house. Feed troughs are a convenient place for them to pile up, and for this reason should be kept near the heat.

A day or two after the chicks have the run of the whole house the small door leading into the scratching shed can be opened and they may be given a small wedge-shaped pen at the foot of the runway. This may be daily enlarged until the chicks have the whole of the scratching shed. For some time a partition should lead from the foot of the runway at an angle to the farther side wall. No excuse should be left for a bunch of chicks to get lost in a corner, pile up and smother, in place of finding their way to the heat when a chilly cloud covers the sun. As soon as practicable the chicks should have access to freshly spaded soil or a grassy run outside the shed. Like the run in the shed, it should be enlarged by degrees. The writer has found that by the use of a double opening divided by a wide board extending at a right angle from the shed, the chick easily finds its way back to the heat. If not guided in some way, a few may run back and forth until chilled, especially in the late evening or in case of rain.

During the first one or two weeks, or until the chicks get to scratching in the litter for grain, they should be fed four or five times daily. Some prefer to feed a dry mash only part of each day, but the writer thinks best to let all the chickens except those being fattened have access to dry mash at all times. They become accustomed to it and are less likely to gorge themselves. Any that do not get their share of the grain ration need not go hungry. Feeding the chick dry mash increases its capacity to use this cheapest food we have for growing and later for egg production. The following is a good mash to use for growing chicks: One hundred pounds of coarse bran, 50 pounds shorts, 100 pounds finely ground chop, sifted, 50 pounds meat scrap, sifted, 12 pounds bone meal, and 10 pounds of chick-size charcoal.

All feeds should be fresh, not musty or moldy fram dampness or heating. The meat scrap should be light brown in color. A dark color indicates heated meal or presence of bloodmeal or perhaps tankage, which are not as good chick feeds. The bone meal provides nutrients for bone and feather making. While not a cure-all, the charcoal is a great aid to digestion.

Chicks very soon learn to eat cracked grains and rolled oats. They are very greedy for the latter and may easily be led to eat more than is good for them. It should not compose more than one-third of the grain ration. The rest of the ration may include part or all of the following: Cracked corn, cracked wheat or good wheat screenings, cracked kafir, steel-cut oatmeal, or coarse ground and softed oats and millet seed. Chicks under two weeks old should not be given all the grain feed they will eat, as they may become crop-bound. The grain should be scattered in three- or four-inch litter, two or three times daily. After four weeks it is practicable to scatter enough grain in six-inch litter late each afternoon to last twenty-four hours. This gives them a full crop for the night and leaves enough for them to keep busy scratching the next forenoon.

After the chicks are six or eight weeks old, during warm weather of late spring, if they have been properly trained and the iron hen is working all right, all you have to do, if there is no vermin about, is to supply fuel and the mash boxes each morning, keep fresh water in a shady place, give grain once a day, and watch them grow. It is "as easy as rolling off a log." They can go to roost at their own convenience and be at work before you are up in the morning.

When the weather keeps the chicks indoors they need more attention. Scatter some new feed, pile the litter for them to scratch to a level again, give several grass or wheat sods, or throw in a few shreds of sliced onion. Variety will keep them interested in life and help make them grow. They are also much less apt to contract the habit of picking toes if kept busy when not resting or sleeping.

Make the chicks continue to scratch for their grain as they grow older. It keeps them healthy and vigorous. Renew the litter when it becomes too fine to hide the grain readily. Keep a box of grit or coarse sand in the yard. Don't throw more grain in the litter than they will clean up in twenty-four hours unless you have very deep litter. Chicks will eat more grain and develop more rapidly if given somewhat less than they will clean up.

During summer, increase the feed with every cool change of weather. After a heated season, cool weather increases the demand for food, and we should be ready to take advantage of it. More rapid development is what we are after. The quicker the medium or late-hatched pullet is matured, the quicker will she begin paying for her feed and yielding a profit.

Remove the cockerels when they weigh one and one-half or two pounds and sell them or shut them in small pens for fattening. They will fatten more quickly and on less feed and will be ready for an earlier market. This will also give the pullets better sleeping room and add to their development.

Low roosing boards should be provided as soon as the chicks seem disposed to sleep along the wall and at the far end of the room.

Ventilate more freely as the weather becomes warm. Chickens crowded in too warm a room at night may lose all they gain during the day in an ideal yard of shade and grass. An opening under the roof at the back and a window under the

(Continued on Page Thirteen)

WINTERING BREEDING COWS

Daily Maintenance Cost of Five Cents a Cow in the Lot Fed a Ration of Silage and Wheat Straw



GENERAL VIEW OF FEED LOTS AT HAYS EXPERIMENT STATION.—WELL-FED HEIFERS JUST CALVING AS THREE-YEAR-OLDS IN FOREGROUND

MATURE beef cows were fed at the Fort Hays Branch Experiment Station the past winter at a cost of only a trifle over five cents a day per cow for a hundred-day period. The sole feed was silage and wheat straw. The cows were in good condition, this lot of fifteen head having made an average gain per cow of seven pounds during the hundred-day period. Six calves had been produced up to the date of the final weighing, March 28. These weighed 480 pounds. The total gain of the lot, including the calves, was 587 pounds. Only about half the cows had calved at the time of the round-up meeting April 10 when the different lots were inspected.

Silage and wheat straw would not ordinarily be considered a particularly good ration for a breeding cow. It is a low protein combination and under normal conditions the best cattlemen do not like to keep breeding cows during the gestation period on a ration so deficient in protein. Its cheapness in these days of high-priced alfalfa and grain is its chief merit. The results speak volumes for the silo as a means of getting maximum returns from the fodder crop.

For a number of years the maintenance of beef breeding cows has been a subject for investigation by the Kansas Experiment Station. Nowhere else in the country has there been such an opportunity to do experimental work in beef production along such fundamental lines. Prof. W. A. Cochel early saw the opportunity to do this work, and he and Superintendent Weeks have constantly looked upon cattle as a means of marketing rough feed and the by-products of grain farming. The experiments have all been planned with a view to working out the best possible means of getting the most profit from the use of these feeds in the handling of beef cattle. In a good many of the tests that have been conducted cattle have been wintered on feed that would not have brought in a nickel if there had been no cattle on the station farm to consume it. The Hays Experiment Station has constantly used cattle as a means of marketing its grain, hay, and other rough feeds. Without the cattle the station could not have been maintained without much larger appropriations.

The past winter has been the most trying one in a good many years from the standpoint of feed costs in carrying the stock through. In the test referred to above four lots of cows, fifteen to the lot, were fed different rations. In addition to the lot carried through on silage and straw only, one lot was fed silage, straw, cottonseed cake; one silage, fodder, and cake, and another silage and alfalfa. The straw ran out after eighty days' feeting and the straw lots were fed corn fodder for the remaining twenty days of the test. The table gives the results in detail.

At the time of the meeting the cows were all in good thrifty condition and the calves were strong and active. Even in the lot fed silage and straw only, the calves seemed normal in condition. They were perhaps not quite so active and vigorous as those in the silage and alfalfa lot, but only an experienced cattleman could have detected much difference. It might be too hasty to assume that cows could be successfully wintered every year on a ration so deficient in protein. They might have come off of grass last fall in extra good condition and thus have been able to draw on their reserve to tide them over a period of poor feed. Fat and mineral material can be stored in the animal body and drawn on as needed, but there seems to be no provision made for storing up any reserve protein.

With the exception of the alfalfa lot all the cows were wintered at a very moderate feed cost. At the prevailing prices cottonseed cake is a cheaper feed to go with the silage and fodder than alfalfa. Cattlemen of the west end of the state will watch with interest the continuation of the maintenance feeding tests. A good many have fed Russian thistle hay in a pinch, and some have stored it in silos. Already some data has been obtained from stockmen on the value of this plant, and analyses of it show it to be exceptionally high in protein. Cattlemen will note with considerable interest the station plans to make some definite tests to determine the value of this weed as a feed. We can hardly conceive of the Russian thistle being accepted as a standard feed crop, but some definite tests on its feeding value, proper time to cut for silage or hay, and other points may help out in emergencies when other feeds are scarce.

Some rather interesting data has been obtained on the cost of wintering herd bulls. This was made available to the public on the day of the round-up. Quite often a man is unable to decide whether to buy a needed bull in the fall or to wait until spring. Some accurate figures on wintering costs will help in arriving at an answer to this question. In 1916 and 1917 the average daily feed cost per head of wintering the herd bulls at the Hays Station was 13½ cents, but feeds were much lower in price that year. Eight herd bulls were wintered in one lot the past season for a total feed cost per head of $29.77, the feeding period considered being one hundred days. They had eaten an average of 20.9 pounds of alfalfa a head daily, 14.6 pounds of silage, 1.4 pounds of cottonseed cake, and 3 pounds of corn. They were fed cane hay forty days, consuming an average of 14.4 pounds per head daily.

Forty-six high grade heifer calves were also inspected and their feed records studied. These heifers were dropped on the station farm. They averaged 465 pounds in weight December 19, and 569 pounds March 28, making an average gain of 104 pounds during the hundred days. The daily feed cost per head was 16.4 cents. The daily feed in pounds per head for the hundred days was as follows: Alfalfa hay, 7.1; wheat straw, 53 days, 5.8; corn fodder, 40 days, 3; cane hay, 7 days, 5.5; silage, 9.2; cottonseed cake, .48; corn, 2.8; oats, 2. Corn was fed eighty-eight days and oats twelve days. Feed prices were figured as follows in all these tests: Alfalfa hay, $16 a ton; wheat straw, $1; cane hay, $8; corn fodder, $4; silage, $5; cottonseed cake, $50; corn, $1.40 a bushel, and oats, 64 cents a bushel.

These yearling heifers were in fine growthy condition. It had cost more than usual to winter them, but they were being pushed for growth, Professor Cochel and Superintendent Weeks evidently concluding that the experiment in developing breeding heifers had shown that it would pay to push heifers and let them drop their first calves as two-year-olds. Either this must be done or the heifers will not develop to the size they should, and it is impractical to carry them up to three years of age before dropping their first calves.

WINTERING BREEDING COWS—FED 100 DAYS—FIFTEEN COWS IN EACH LOT

	Lot 5 Silage, Straw, Cake	Lot 6 Silage, Fodder, Cake	Lot 7 Silage, Straw,	Lot 8 Silage, Alfalfa,
Weight of cows Dec. 19, 1917	15,765	15,736	15,863	15,745
Weight of cows March 28	15,780	15,740	15,970	15,790
Number of calves March 28	12	8	6	13
Weight of calves March 28	1,250	850	480	1,160
Total weights, cows and calves, March 28	17,030	16,590	16,450	16,950
Total gain, 100 days	1,265	854	587	1,205
Average weight of cows December 19	1,051	1,049	1,058	1,050
Average weight of cows March 28	1,052	1,049	1,065	1,053
Average gain, 100 days	1	0	7	3
Average daily ration per cow:				
Silage	13.7	13.7	13.7	13.7
Wheat straw, 80 days	26.9	...	25.0	...
Corn fodder, 20 days	17.9	25.4	17.1	...
Alfalfa	...	...	...	15.9
Cottonseed cake	1.9	1.9	...	...
Corn fodder fed in Lots 5 and 7 after straw ran out.				
Corn fodder fed in Lot 6, 100 days.				
Feed cost per cow, 100 days:				
Silage	$3.44	$3.44	$3.44	$3.44
Wheat straw	1.08	...	1.00	...
Corn fodder	.72	5.08	.68	...
Alfalfa	...	...	...	12.71
Cottonseed cake	4.75	4.75	...	...
Total	$9.99	$13.27	$5.12	$16.15
Daily cost per cow	.10	.133	.051	.161

Feed values allowed per ton in this table: Silage, $5; wheat straw, $1; corn fodder, $4; alfalfa, $16; cottonseed cake, $50.

Note.—Plans are being made to compare Russian thistles with the above feeds in next winter's experiments.

Must Get More Breadstuff

American shipments of wheat to France are only two-thirds of barest requirements.

"America must do more toward reducing the domestic consumption of cereals and increasing exports to France," declared Andre Tardieu, French high commissioner to the United States, in a recent address delivered before the Southern Commercial Congress.

"You must do it because it is a case of necessity, because it must be done," asserted M. Tardieu. "For these past three months the shipments of cereals from America to Europe have been short one-third of the supply recognized as indispensable to strictly compressed needs."

The bread ration of the French soldiers has been cut from twenty-five to twenty-one ounces, the civilian bread card allows ten ounces per day, which is about one-third of the average bread consumption of the French peasant or workman. The manufacture of crackers and pastry is absolutely prohibited.

Consumption of sugar has been reduced 49 per cent. The import of dried vegetables has been reduced 52 per cent and of fats 48 per cent.

Feeding of horses and cattle on cereals which could be saved for the making of bread has been prohibited. This with the lack of other feedstuffs, hay and fodder, resulted in a decrease of 50 per cent in the number of horses in France and in an important reduction of cattle. With almost no feed for their cattle, the French were forced to place them on the market as meat. This meant the suspension of meatless days and an attempt on the part of the people to make up for the lack of bread with an increase of the meat portion.

"The people who have imposed such sacrifices on themselves," said M. Tardieu, "are people who have kept fighting for almost four years—a people who have mobilized 7,000,000 men from a population which, excluding the invaded territories, does not exceed 35,000 inhabitants, a people whose women and children have taken the burden of industrial and agricultural work left by the men who joined the army, a people whose army lost over a million men in killed, over a million men in maimed, a people whose army, nevertheless, is still holding, with an unconquerable steadfastness, over two-thirds of the western front.

"Within the last weeks, despite the restrictive measures I have stated there have been in France agricultural districts which had for days to put up with a complete, absolute deprivation of bread, a situation which could not go on without endangering the physical and moral health of the nation.

"I am aware of what you have done in order to reduce your domestic consumption and to increase your exports. But you must do more. You must do it, for it is a case of necessity. You must do it because it can be done.

"We and our European allies—the British, the Italians—have been taught to suffer. Americans, who are now sharing our burden of blood and of death on the battle line, we are requesting you to share as well, in the rear, our burden of suffering. In order that you and and we may win the war, it is necessary that you, here in America, should all agree to a new effort and to new privations."



Renting Farm on Shares

ONE of our Harper County readers asks about share renting of a farm. He is planning to rent a farm this fall and wants to know vbat share he should get where the land ›wner furnishes the horses, feed, and eed, and the tenant the tools. He asks f the owner should pay for balf of tbe breshing. He also wants to know vbat share he sbould expect if the land ›wner furnishes all tools, horses, seed, nd feed, and the tenant does all the vork, including the threshing. Also bow ›est to manage the matter of seeding lfalfa, it being tbe intention of the ›wner to put in some alfalfa next sea›on. The place has a 200-acre pasture, ›ut our correspondent has no cattle. He ›ould expect to raise wbeat, oats, kafir, nd Sudan grass.

P. E. McNall, farm management spe›ialist of the extension division of our Agricultural College, bas had opportunity ›o study a good many farm management ›ropositions, and we asked him to offer ›ome suggestions on the questions raised ›y our correspondent.

"The information given is rather lim›ted," says Mr. McNall, "and the condi›ions mentioned are somewhat unusual n the ordinary Kansas sbare lease the andlord furnishes all land, buildings, eed, and live stock, with the exception f the work stock. The tenant furnishes ›bor, work stock and farm machinery. The expenses are divided equally with he exception of the taxes, and in this ase each man pays his sbare, depending ›pon tbe assessed valuation of the prop›rty owned.

"It is ordinarily considered inadvisable or the landlord to furnish the work ›orses and tools, as these are completely nder the control of the tenant and he hould have tbe personal interest in them vhich will insure proper care, both with egard to feed, veterinary bills, repairs, nd other expenses.

"Your correspondent's first proposition ontains the question, 'Should the land›rd pay half of the threshing?' If the andlord furnishes horses, feed, and seed, he tenant should pay all expenses of perating the place, including threshing.

"In the second place he asks wbat hare the tenant sbould get if the land›wner furnishes all tools, horses, seed, nd feed, and the tenant does all the ork and pays for the threshing. Since he threshing is a minor expense of run›ing the place, and the land owner fur›ishes all feed and seed, and since it ›ust be assumed that be also furnishes ll tools and repairs, all expenses for eterinary bills and other expenses for ›orses, including feed—in fact, since the nd owner runs all risks and the tenant one, it would be more nearly correct › figure the tenant on a hired-man basis ›ther than a tenant. It would be im›ossible to state what an equitable share ›ould be without knowing something of he gross income of the place.

"He also states that there are 200 cres of pasture on the place with no ›ttle furnished by either the landlord r the tenant. The income from this asture must either be from hay or from he rental to men who can stock it. I do ot know what the stock rental for that art of the state will be for this year, ut otber parts of the state seem to oint to a cost of $10 per season per ead. If a person figures an average ›oking of the pasture, the pasture hould rent for approximately $2 per ere. If the pasture is rented out and he tenant is out no expense, tbe rental hould go to the landlord.

"Evidently the alfalfa seed will be rnished by the landlord. The tenant ill probably prepare the land and sow he seed. In this case the crop should e divided in the same manner as are ther crops of the farm."

Tbe proposition of renting farms on hares has been studied by the United tates Department of Agriculture. Nuerous inquiries from both landlords and enants asking for help in working out lans for sucb co-operative handling of rms led the Department to publish ulletin 650, entitled "Lease Contracts sed 'in Renting Farms on Shares.' his bulletin is a report on the study f contracts used in various types of farming in every state in the Union.

In making this study, 258 representative types of contracts were examined, and 2,907 tenant farm survey records, including general and specified farming, were considered.

Under average conditions, the specialists say, the share system is the most satisfactory. In the partnersbip formed by this plan, tbe landlord furnishes the land and the tenant the labor, and it is to tbeir mutual interests that tbe farm be made more productive and profitable. As a rule all equipment, including tools, machinery, work stock, productive stock, and otber work capital is owned in equal partnership. All expenses, including hired labor and taxes, are shared equally and the proceeds are divided balf and half. Products taken for family use by eitber landlord or tenant are charged against the respective parties. In cases where tbe landlord furnisbes more than half of the capital for stock or equipment, or where the land is naturally very productive, he is entitled to receive more tban half of tbe proceeds, and a share that is fair to botb landlord and tenant is agreed upon. On the other hand, where tbe tenant furnishes more tban half of tbe capital, or the type of farming requires special skill or an unusual amount of labor, or the land is not productive, he should receive more than half of the profits.

In order to make the partnership most successful the division of profits should be fair to both parties. Any injustice tends to bring about friction between landlord and tenant, and leads to a lack of interest and disagreements which prove unprofitable to botb parties. The wording of the lease, the specialists say, is a comparatively simple problem after the conditions essential to fairness have been agreed upon. Frankness is also important, and the contract sbould be prepared in a simple, specific, and readily understandable form.

Most farm leases run for one year, with the privilege of renewal at one or two months' notice. Usually the crop year, March 1 to March 1, is used. Tbe share system involves considerable bookkeeping, but this is desirable on all farms and, in fact, most contracts specify that accounts be kept. Some farms are rented for a stipulated sum, the price ranging from $2 to $30 per acre, the average price being from $4 to $10 in tbe North Central States. A modified form of tbis system consists in paying a specified number of bushels of grain or bales of cotton, etc., in lieu of cash.

We would suggest that those of our readers interested in the renting of farms on sbares write to the Department of Agriculture for a copy of this bulletin. We would be glad to answer any special inquiries on rental propositions.

Estimate of Grain on Farms

Tbe crop reporting board of the bureau of crop estimates, United States Department of Agriculture, has made tbe following estimates from the reports of its correspondents and agents:

Tbe amount of corn on farms March 1, 1918, was about 1,292,905,000 bushels, or 40.9 per cent of the 1917 crop, against 782,303,000 bushels or 30.5 per cent of the 1916 crop on farms Marcb 1, 1917, and 1,116,559,000 bushels or 37.3 per cent of the 1915 crop on farms March 1, 1916. About 21.9 per cent of the crop will be shipped out of the counties where grown, against 17.6 per cent of the 1916 crop and 18.7 per cent of the 1915 crop so shipped. The proportion of the 1917 crop which is merchantable is about 60.3 per cent (equivalent to 1,905,723,000 bushels), against 83.9 per cent (2,154,487,000 bushels)of the 1916 crop and 71.1 per cent (2,127,965,000 bushels) of the 1915 crop.

The amount of wheat on farms March 1, 1918, was about 111,272,000 bushels or 17.1 per cent of the 1917 crop, against 100,650,000 bushels or 15.8 per cent of the 1916 crop on farms March 1, 1917, and 244,448,000 bushels or 23.8 per cent of the 1915 crop on farms March 1, 1916. About 51.2 per cent of the crop will be shipped out of the counties where grown, against 56.7 per cent of the 1916 crop and 61.7 per cent of the 1915 crop so shipped.

The amount of oats on farms March 1, 1918, was about 595,195,000 bushels or 37.5 per cent of the 1917 crop, against 394,211,000 bushels or 31.5 per cent of tbe 1916 crop on farms March 1, 1917, and 598,148,000 bushels or 38.6 per cent of the 1915 crop on farms March 1, 1916. About 32 per cent of the crop will be sbipped out of the counties where grown, against 28.4 per cent of the 1916 crop and 30.1 per cent of the 1915 crop so sbipped.

The amount of barley on farms March 1, 1918, was about 43,404,000 busbels or 20.8 per cent of tbe 1917 crop, against 33,244,000 bushels or 18.2 per cent of tbe 1916 crop on farms March 1, 1917, and 58,301,000 busbels or 25.5 per cent of the 1915 crop on farms March 1, 1916. About 38.8 per cent of the crop will be shipped out of the counties wbere grown, against 43.5 per cent of the 1916 crop, and 43.2 per cent of the 1915 crop so shipped.

Castrating and Docking Lambs

Lambs should be castrated when about ten days to two weeks old. One man holds the lamb by gatbering its four legs together and holding the lamb tightly against his body; take bold of the scrotum and pull skin away from the testicle, cut off scrotum about one inch from the animal's body, slit tbe testicle which at once comes free of the covering, then pull out the testicle, taking out as much of the cord as can be removed. The lambs should be put in a dry clean place for two or three days.

In docking lambs they should be held in the same manner as when castrating. There are two methods of docking: One by cutting off with a sharp knife, the other by burning witb a docking iron. The latter is preferred, especially if the lamb has a large tail. The hot iron sears over the wound, which prevents bleeding. If the lambs are very old it migbt be well to tie a string around the stump to prevent bleeding. Ten days to two weeks' time should lapse between docking and castrating, as the two operations at one time would be too hard on the lamb.—A. M. Paterson.

Community Drying Plant

A successful community plant, located at Lincoln, Nebraska, for the drying of fruits and vegetables, is described in Farmers' Bulletin 916, "A Successful Community Drying Plant," just issued for free distribution by tbe U. S. Department of Agriculture.

Practically the same plan as is described in tbe bulletin was followed in eleven other communities—nine of them in Nebraska—during tbe summer and fall of 1917, and the information is given at this time because of a demand for it for consideration at farmers' meetings. The plan proved successful under conditions found in the locality of Lincoln; in more humid or dryer sections of tbe country, tbe bulletin says, tbe methods employed might not prove satisfactory.

Any person interested in the subject of community drying of fruits and vegetables will find valuable suggestions in Farmers' Bulletins 841 and 903, as well as the new publication. They may be obtained free upon application to the Division of Publications, U. S. Department of Agriculture.

Preparation for Corn and Kafir

Probably large acreages of corn and kafir and otbers of the grain sorgbums are yet to be planted. This is most assuredly true of the west and northwest



The Spirit of War Service

Alone in the midst of war's desolation, the telephone lineman crawls to mend the broken wires.

On all sides the thunder of artillery; in the air bursting shrapnel.

He faces danger with that unconquerable spirit of war service which permits him to think only of maintaining the telephone connections.

The safety of the troops depends on these lines of communication, often used for the sentries' warnings, the carrying of official commands and the summoning of reinforcements.

In a dark hole hidden among sparse brushwood are the telephone operators, some of whom have been for months in their damp cave ceaselessly swept by shells.

And they are admirable, all these heroes of the Signal Corps, whether serving in darkness or in the all too bright light of day.

The spirit of war service, over here as well as over there, furnishes the nerves, the endurance, the morale—the stuff that wins war.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
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parts of our state. It must be remembered that there is almost a month's difference in the length of the growing period between the southeastern corner of the state and the northwestern. Weak seed and cold ground makes a poor combination and the weather of the past week or two has been such as to discourage early planting. When seed is plentiful and strong in vitality it is perhaps a good plan to plant at least a part of the acreage early and take chances on the weather. If there is no seed for replanting, this is risky, and the seed this year is weaker than usual and more apt to give a poor stand.

While waiting for favorable planting conditions, the time spent in seed-bed preparation is not lost. In fact the more preparation in advance of the planting of the crop, the better. It serves the double purpose of hastening the warming of the soil and killing weeds. Weeds are ever the most persistent enemies of corn, kafir, and other cultivated crops, and the more weeds destroyed before the crop is planted, the easier it will be to keep it clean afterwards. Wherever wheat and small grain is grown, the rush of the harvest season is sure to come just when the corn or kafir needs cultivation the most.

Push Early Pigs

By pushing early spring pigs they can be put on the highest market in August and September. A March pig given the proper care and feed can be made to weigh approximately 200 pounds by September. Here are some timely suggestions on handling pigs from Ray Gatewood, who has special charge of the sows and pigs at the Kansas Experiment Station farm, Manhattan:

"The mother of the litter should be fed a proper ration to supply sufficient nourishment for the pigs. A pig that becomes stunted by improper feeding will not make economical gains.

"The pigs will eat shelled corn when three weeks old, and they should have access to it at all times until weaned. It can be supplied in a self-feeder in a separate pen from the sows—the pigs gaining entrance through a creep hole in the fence.

"When the pigs are eight to ten weeks old they should average approximately thirty-five pounds in weight—they are old enough and large enough to wean. As soon as they are shut up to be weaned they should have free choice to such feeds as shelled corn, shorts, and tankage supplied by a self-feeder. The corn need not be ground, because the pigs can grind it cheaper than the farmer can.

"The latter part of May or the first of June alfalfa will be ready for pasture. Alfalfa will replace a large amount of concentrates besides furnishing a succulent feed and giving the pigs sufficient exercise for proper development. When turned on alfalfa the pigs should still have access to the concentrated feeds."

Fight the Potato Beetle

The Colorado potato beetle is the most serious pest with which the potato grower has to contend. The time to start to fight is when the insects first appear and the plants are small. The potato beetle spends the winter in the ground, emerging in the spring about the time the potato plants come up. These mature beetles feed on the potatoes and the females lay their eggs in clusters on the under surface of the leaves. These eggs, which are yellow in color, hatch in about a week and the larvæ have most voracious appetites, eating an amount of food out of all proportion to their size. In from two and a half to three weeks they are full-grown, when they enter the soil to pupate and within a week or two come out and lay eggs for the second generation.

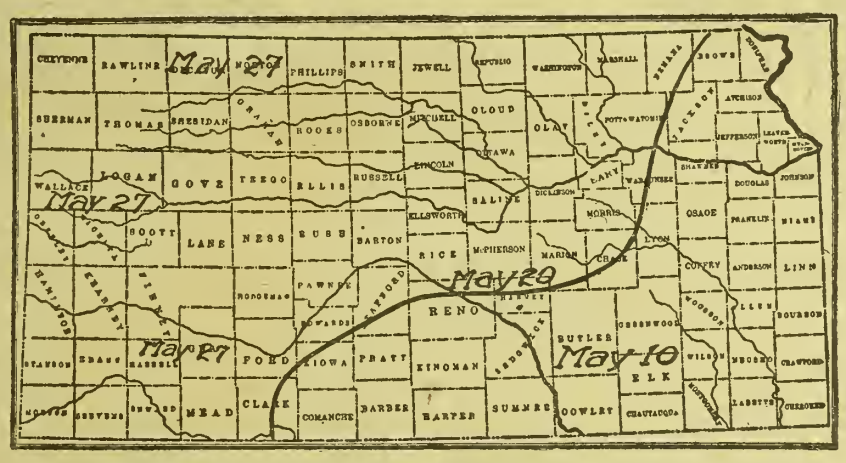
The best way to combat them is to spray the plants with lead arsenate spray mixed at the rate of one pound of the lead arsenate paste to about twelve gallons of water. Paris green can also be used mixed at the rate of a pound to fifty gallons of water. With this mixture two pounds of freshly-slaked lime should be used to every pound of the Paris green.

If the potato patch is not large enough to warrant buying the necessary equipment for spraying, the Paris green or powdered lead arsenate can be applied by means of a tin can with a perforated lid. A heaping teaspoonful of either of these poisons should be mixed with a quart of flour or hydrated lime and dusted on the potatoes while the dew is still on them.

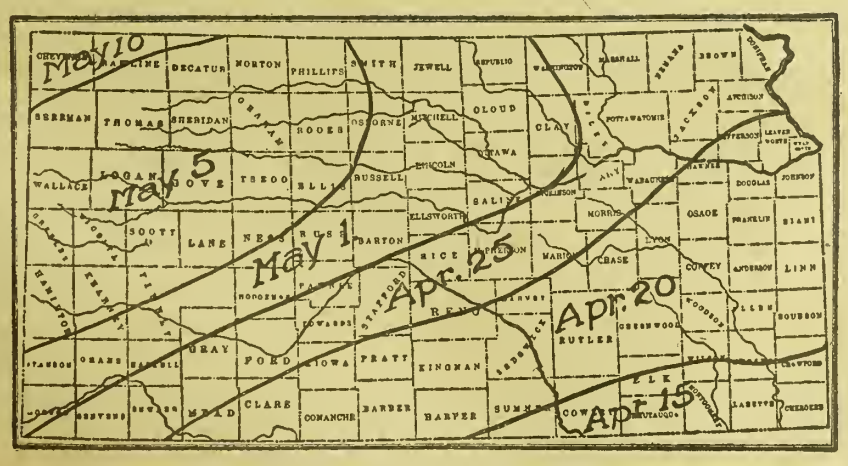
Fruit-Growing in Kansas

A half acre of well-chosen varieties of trees, vines, bushes, and plants, if given proper care, will under almost any condition produce more fruit than a good-sized family can consume, according to George O. Greene, horticulturist in the division of extension of the Agricultural College. Mr. Greene is the author of a bulletin entitled "Fruit Growing in Kansas," just issued by the division of extension.

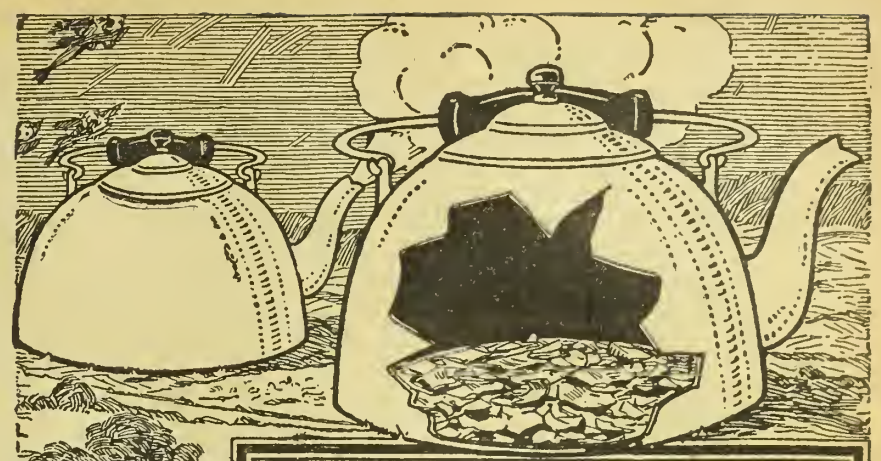
Varieties of small-tree fruits grown successfully in Kansas are named in the bulletin. An acre orchard plan is given, and also suggestions relative to the care of the home orchard and the picking, packing, and marketing of fruit.



LATEST DATES ON WHICH KILLING FROST HAS OCCURRED IN SPRING IN KANSAS



AVERAGE DATES OF LAST KILLING FROST IN DIFFERENT SECTIONS OF KANSAS



Why En-ar-co National Motor Oil Is Better Oil

Steam that escapes through a tea-kettle spout, if caught and condensed, would be pure water—distilled water.

Distilling removes all impurities, leaving a scale or residue along the sides and bottom of the kettle.

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Now imagine a huge tea-kettle that will hold 25,000 gallons of crude oil. Picture an intense heat applied and the vapor that would arise, then you have some idea of our modern oil stills — the scientific process of making En-ar-co National Motor Oil.

The vapor is condensed, further refined and then filtered. The result is a clear, clean motor oil that will perform its function properly in any motor.

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For automobiles, tractors, motor trucks, motorcycles, motor boats, aeroplanes and every type of motor. Clean, clear, pure. Free from excess carbon. Has the "right" body.

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One grease for all uses, all around the motor car, tractor or gas engine. Gives perfect lubrication in differentials, compression cups, transmissions and every other grease point.

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A pure, dry, uniform gasoline that insures utmost satisfaction in continuous, responsive power.

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I own ..... automobile or ..... tractor and enclose two 3-cent stamps. Send me Handy Long-Distance Oil Can FREE. Please give nearest shipping point and quote prices on items I have marked. I will be in the market about .....

I use.....gals. gasoline per year. I use.....auto grease per year. I use.....gals. motor oil per year.

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My Name is .....*R. F. D. or Street No.*.....

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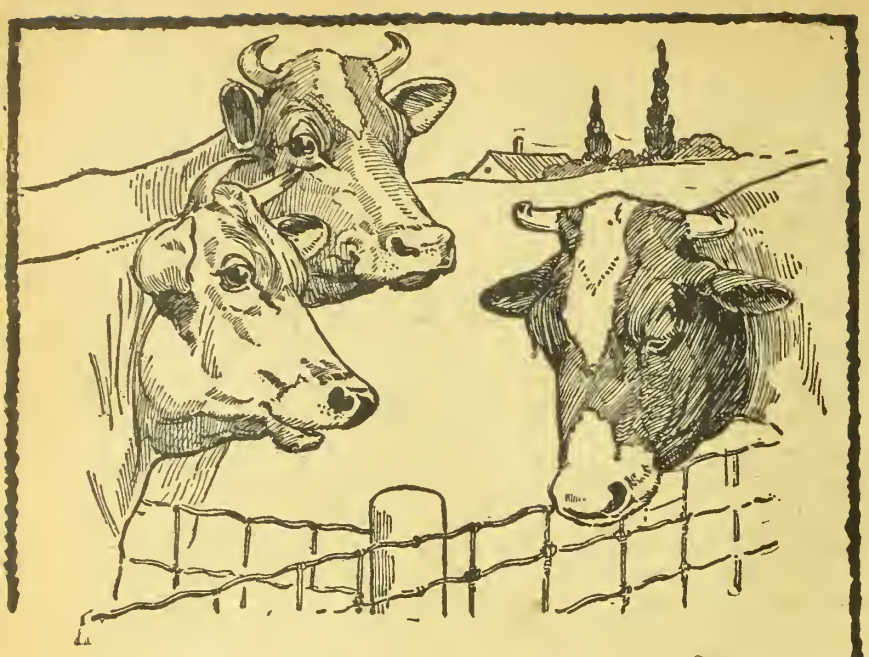
License to Use Explosives

Some have wrongly assumed that the recent act requiring all dealers and users of dynamite and other explosives to take out licenses was passed because the Government wished to reduce the use of explosives. Nothing could be farther from the truth. It is recognized that in many instances the use of dynamite has a distinct relation to farm work and crop production. The real and principal object of the law is to keep dangerous explosives out of the hands of plotters and alien enemies of the country.

This act need not deter anyone from buying and using explosives if his motives are honest. The license costs but 25 cents and can be obtained from licensing agents located in every state and every county. As a rule the county clerks are the licensing agents. Dean Edw. C. Johnson, of the extension division of the Agricultural College, has been drafted on the advisory committee to the explosives inspector for Kansas to represent the interests of farmers. Every farmer who desires to use dynamite, blasting powder, or other explosives, for blowing out stumps, blasting rocks, digging ditches, or for any other purpose, must first obtain his purchaser's license, and, if he expects to issue explosives to his employes, he must also obtain a foreman's license. Explosives in amounts up to twenty-five pounds may be stored in strongly-constructed wooden boxes which must be kept securely locked at all times except when being filled or emptied. It is also urged that whenever possible such boxes be kept in securely-locked buildings.

Garden seeds may be scarce another year, unless every one who raises a garden makes an effort to grow seed. Plan to grow enough seed to furnish your own supply for next year. This will insure the country against a possible vegetable seed famine. It is easy to save the most common varieties of vegetable seed, such as tomato, radish, lettuce, cucumber, spinach, potato and other annual crops.

Speeding up construction of good roads is an integral part of government war work. Efficient transportation is necessary to reduce the margin between producer and consumer. — U. S. Food Administration.



IF COWS COULD TALK

"Good morning, Mrs. Fawncoat. I hear that all the cows in the county are joining the 'Win-the-War' Club."

"Yes, Mrs. Starface; Secretary of Agriculture Houston says we must increase the production of butter-fat, and we cows have all promised to do out 'bit.'"

"There's one thing I want to say right now," spoke up Mrs. Black, "The farmers have got to back us up in this movement. I'm with the rest of you, heart and soul, but what chance have I got?"

"Why, Mrs. Black, what's the matter? You have a fine warm barn and plenty to eat and drink."

"Yes, I know; but what can I do as long as they use that old cream separator on the place? It never was any good, anyway, and now it wastes so much cream I'm just plain discouraged."

"Well, you're not so badly off as some cows, where they haven't any cream separator at all."

"I don't know about that. There's a lot of cream separators in this county that are only 'excuses'—not much better than none at all. I tell you, Mrs. Fawncoat, with butter at present prices and the people at Washington begging every one to save fat, it's almost a crime to waste butter-fat the way some of these farmers do."

"That's one thing I'm thankful for," said Mrs. Fawncoat, "there's no cream wasted on this farm. We have a De Laval Cream Separator and everybody knows that the De Laval is the closest skimming machine."

"Well," said Mrs. Starface, "we never used a De Laval on our place until last fall and supposed one separator was about as good as another; but, honest, the De Laval is the first cream separator we've ever had that gave us cows a square deal."

P. S.

Of course our cows can't talk—but if they could you'd never have a moment's peace until you got a De Laval Cream Separator.

Remember that a De Laval may be bought for cash, or on such liberal terms as to save its own cost. See the local De Laval agent, or if you don't know him, write to the nearest De Laval office as below.

THE DE LAVAL SEPARATOR CO.

165 Broadway, New York 29 E. Madison St., Chicago



SAVE BIG on your implements

BUY DIRECT FROM GALLOWAY'S FACTORIES!

Learn how Galloway can save you big money on your **Separator, Engine, Spreader, Tractor,** or other farm implement. You have heard of Galloway. You know of others who have traded with him and got great values. Resolve yourself—this year—to buy from Galloway and make money by saving money. When you buy from Galloway you buy direct from the factory. Galloway's business plan is the big economical way of doing business. All waste, all unnecessary expense, is saved when you buy direct from Galloway's factories. The saving on your year's supply will amount to hundreds of dollars. 300,000 customers—some near you.

Free Book! Act Now! Write Today! Send at once and get Galloway's 1918 Free Book. Let it be your buying guide. It will post you on the highest grade implements at the very lowest prices. We ship from St. Paul, Chicago, Waterloo, Council Bluffs, Spokane, Kansas City, to save you freight. Now, while you think of it, SEND FOR THE BOOK.

WILLIAM GALLOWAY COMPANY, Box 217, WATERLOO, IOWA

"REMEMBER GALLOWAY'S BIG ANNUAL HEREFORD SALE, APRIL 30th, 1918. BE SURE AND COME."

KANSAS FARMER DAIRY CLUB

Turning Cows on Grass

EVERY owner of cows welcomes the time when he can turn them out on grass and thus cut down the feed bills and the labor required to care for them. Probably all the boys and girls of the Dairy Club have been anxiously looking forward to the time when they could begin to reduce their feed bills by turning the cows on pasture. Claude Carter wrote us last week that their silage had just given out but they were still keeping their cows shut up so as to give the pasture a better start. His cow, Bonnie Bell, has gone down some on her milk, but he hopes she will come up again when he gets her on grass.

The early part of the pasture season is usually the time of cheapest milk production for most cows. It is always best to go somewhat slowly in turning cows on the grass in the spring, and especially heavy-milking cows. The immature grass, such as we have in the early spring, is not very rich, and while the cows like it and will hardly eat anything else after they get a taste, it is almost impossible for a heavy milking cow to eat enough in a day to keep up her flow. We speak of this early grass as watery, which means that it contains a very large amount of water in proportion to the nutrients.

The best plan is to keep the cows off the pasture until the grass has got a good start and become somewhat mature and less watery. Those who have silage yet will not find this hard to do. Cows will eat silage even after they get a taste of grass, but they will not eat very much dry feed after being turned on the pasture. If you have a heavy-milking cow and must of necessity turn her on grass early, it will be necessary to keep up the grain ration until the grass becomes richer. If this is not done the heavy producer may actually fall off in milk at the time in the year when ordinarily we expect cows to do their best. One of the club members from out in the short grass country writes that he is out of feed and his father is too busy to haul any, and in consequence his cow is getting only buffalo grass, which he says is not very good yet. He is still feeding her two pounds daily of cold pressed cottonseed cake, and the March record is even better than the February record. She is probably eating some of the last year's growth of grass. Buffalo grass cures on the ground, whereas the ordinary bluestem, or prairie grass, of Eastern and Central Kansas, is absolutely without value as feed after it has been frozen in the fall. Buffalo grass is a very rich grass, and cows will do well on it providing they have a large enough area to graze over.

Claude says in the same letter in which he tells about the silage giving out that he has a little over $81 to pay yet on his cow. He thinks he will have her paid for in full by August. He feels proud of his cow and calf.

Dairy Club Honor Roll

The rules of the club require that the feed and milk records for each month shall be sent to KANSAS FARMER not later than the tenth of the following month. We extended the time for mailing the March records one week, because the tests of samples sent to Manhattan reached members about a week later than usual. The following members sent their March records to us in good time:

Thelma Adams
Harold Bentz
Claude Carter
Luther Cross
Gary Cook
Alfred Davis
Floyd Gerardy
Frank Greenlee
Merrill Greenlee
Carlito Griswold
Melvern Lee
Theresa O'Mara
Elise Regier
Roland E. Roncy
Glen Romig
Hazel Shriver
Glen Will
Ernest A. Worthington.

Herd Still Growing

We have not had a letter from Dora Brader for some time. She is without doubt a very busy girl with her dairying and school work. On receipt of her prize for winning third place for sending in pictures and letters, she wrote as follows: "I received the letter and check and thank you very much for the prize. My cow is looking fine. She will be fresh any day now. My oldest heifer was fresh last January. I milk her every morning and night. She had a heifer calf, but I had bad luck with it and it died. I have not sold any of my dairy herd yet, so I now have two cows and a heifer calf one year old.

"As my father's subscription to KANSAS FARMER has just expired, you can send him my copy of the paper for a year, and he will pay me for it."

Cost of Oleomargarine

Makers of oleomargarine are again attempting to secure legislation that will permit them to make more money from the sale of their product. The congressman who has introduced the present bill is from the stock yards district of Chicago. Coming as it does from a section devoted entirely to the packing business, it does not take long to figure out who is backing it. The dairy interests must always be on the watch in order to defeat the efforts made to undermine their industry by making it possible to sell oleomargarine in competition with butter. The investigations of the Federal Trade Commission into the packing industry have let some light into some of its darker corners. Here are several interesting rays, as pointed out by the Pacific Dairy Review:

The raw material in oleomargarine costs on the average 52.1 per cent of the selling price of the oleomargarine, but whether this is based on the wholesale or retail price our information does not state. It is sufficient to state, for comparison, that the raw material in butter costs 84.3 per cent of the selling price. In other words, butter allows the farmer who produces the butter fat 84.3 per cent of the price it brings and only 15.7 per cent to the manufacturer and dealers. Oleo pays only 52.1 per cent to the producers of the raw material, while the packers and dealers realize 47.9 per cent. And still some assert that oleomargarine is the "poor man's butter." It appears to us that where the poor man comes in is in helping to make millionaires, so long as he is permitted to be fooled.

The figures quoted above should interest our food administrators. It has been claimed by the packers that they turn out meats at cost and that their profits are derived from by-products that they produce. As oleo is one of them, we can believe it, but why does a food establishment make an enormous profit on one of its products and handle the others at cost? Simply to freeze out competition in one line and make it up in another. When the Food Administration fixes prices of oleomargarine on a basis of its cost, as it aims to do in other foods, it might become the "poor man's butter" instead of the millionaire packer's "pudding."

Bull Furnished to Calf Club

There can be no real progress in breeding up dairy herds unless high-class prepotent sires are used. To insure such an opportunity to the members of the pure-bred Holstein calf club recently organized at Linwood, A. S. Neale announced to the members on the day the calves were distributed that he would furnish a high-class sire for the use of club members. This community was ready for pure-bred cattle, but it would have been a mistake to start a club with pure-bred heifer calves of such good breeding as the calves that went to these boys and girls, without making suitable provision for mating them to a sire good enough to bring about improvement, or at least keep the offspring up to the standard of their dams.

The young bull which will be loaned to this club next winter by Mr. Neale is of his own breeding. A student, working his way through the Agricultural College by milking cows and selling the milk, milked his dam the past year. He had no silage nor pasture, keeping her in a dry lot the year through and milking only twice a day. She made a year's record of 15,688 pounds of milk and 638 pounds of butter, freshening at four years and ten days of age. This record won this cow fifteenth place in the Holstein Record Association prize list for

four-year-olds, she being the only cow in Kansas to win an association prize for production last year. The dam of the sire of this young bull made a record of 12,987 pounds of milk and 671 pounds of butter in one year, freshening when eighteen months old. This is a world record. His grandsire's dam is a half sister to the sire's dam, and her record is 29,053 pounds of milk and 1,335 pounds of butter. Both of these cows are by Sir Pietertje Ormsby Mercedes, one of the great long-distance sires. This young bull certainly has a fine record back of him. Placing a sire of such breeding in a community will have a far-reaching effect on its dairy development.

Testing Association Records

The Arkansas Valley Cow Testing Association has over forty cows in the forty-pound list for March. The following table gives the names of owners and records of cows which have produced more than forty pounds of butter fat during the thirty-one days of March:

Owner—	Pounds Milk	Per Cent Fat	Pounds Butter Fat
E. V. Swinehart, H.	2,206	2.6	52.156
E. V. Swinehart, H.	1,652	3.3	54.516
Appleman Bros., H.	1,624	3.3	53.592
Appleman Bros., H.	1,693	3.2	54.176
Appleman Bros., H.	1,234	3.6	44.424
Appleman Bros., H.	1,376	3.1	42.656
Appleman Bros., H.	1,401	3.2	44.832
Appleman Bros., H.	1,535	2.9	44.515
Stubbs Farm, H.	1,801	4.1	73.841
Stubbs Farm, H.	1,407	3.0	42.210
Stubbs Farm, H.	1,184	3.4	40.256
A. F. Babb, J.	840	5.0	42.000
Dr. J. F. Axtell, H.	1,730	3.3	57.090
Dr. J. F. Axtell, H.	1,566	3.0	46.980
Dr. J. F. Axtell, H.	1,587	2.7	42.849
P. W. Enns, H.	1,163	3.8	44.194
P. W. Enns, H.	1,562	3.4	53.108
P. W. Enns, H.	1,035	4.7	48.645
Fred Harvey, H.	1,218	3.5	52.630
Fred Harvey, H.	1,231	4.0	49.240
Fred Harvey, H.	1,755	3.2	56.160
Fred Harvey, H.	1,438	3.4	48.892
Fred Harvey, G.	1,389	4.0	55.560
Fred Harvey, H.	1,252	3.2	40.064
Fred Harvey, H.	1,066	3.8	40.508
Fred Harvey, H.	977	4.2	41.034
J. C. Corfman, H.	1,054	4.2	44.268
A. C. Dewitt, J.	1,004	4.7	47.188
Lon Turner, J.	884	5.0	44.200
Martin Ternes, H.	1,454	3.2	46.528
W. M. Spurlock, H.	1,017	4.2	42.714
W. M. Spurlock, H.	880	4.8	42.240
Bert Peck, H.	1,113	4.4	48.972
F. H. Bock, J.	1,119	4.4	49.236
F. H. Bock, H.	1,110	3.9	43.290
F. H. Bock, H.	1,150	3.5	40.250
F. H. Bock, H.	1,361	3.1	42.191
F. H. Bock, H.	1,631	3.2	52.192
F. H. Bock, H.	1,497	3.2	47.904
J. R. Pringle, J.	1,339	3.4	45.526
J. R. Pringle, H.	1,496	3.6	53.892
J. R. Pringle, H.	1,411	3.4	47.974

The following table gives the names and records of the cows in the Dickinson County Cow Testing Association which have produced more than forty pounds of butter fat during the period of thirty days ending March 30, 1918:

Owner—	Pounds Milk	Per Cent Fat	Pounds Butter Fat
J. A. Engle, H.	1,278	3.2	40.9
J. M. Gish, H.	1,098	5.0	54.9
Ed Brehm, H.	1,152	5.0	57.6
Mott Bros., H.	1,176	3.8	44.7
Hoffman Bros., H.	1,077	3.8	41.9
H. H. Hoffman, Ayr.	1,149	5.1	58.6
Henry Lenhert, H.	912	4.8	44.8
J. A. Weishar, H.	1,353	4.4	59.5
J. A. Weishar, H.	1,908	3.2	61.1
Ira Zercher, H.	1,179	4.3	50.7
George Lenhert, H.	1,233	3.6	44.4
George Lenhert, H.	834	5.2	43.4
George Lenhert, H.	1,671	3.2	53.5
George Lenhert, H.	1,815	3.3	59.9
D. S. Engle & Son, H.	1,440	4.0	57.6
L. L. Engle, H.	1,365	3.6	49.1
N. E. Engle, H.	1,146	3.9	44.7
Fred Muench, J.	672	6.5	43.9
Fred Muench, J.	786	5.3	41.7

NOTE.—H. stands for Holstein; J. for Jersey; G., Guernsey; Ayr., Ayrshire.

Developing Breeding Heifers

(Continued from Page One)

weaning time. This would mean a credit of a least $35 apiece to the heifers in this lot, leaving the net feeding expense account as three-ear-olds at $37.86. The lot carried through without extra winter feed and not calving until the spring of 1918 cost in winter feed $27, or a total, adding the pasture, of $39 each. The lot normally fed and calving at two years of age cost in feed for the three winters an average of $26.48, which with the pasture makes the total feed cost as three-year-olds $38.48. This lot of heifers has twelve calves to their credit, weighing an average of 353 pounds at weaning time. This would mean a credit of about $25 a heifer if the calves were as good as those from the well-fed lot. They were thirteen pounds lighter at weaning time according to the figures.

It would have added to the value of the test, at least to those who did not see the cattle, if a committee of competent cattlemen had placed the relative values on the different lots of heifers as breeding cows. Those who saw them could of course judge for themselves as to their value, and by studying the figures arrive at their own conclusions. In our judgment the well-fed heifers calving at two years of age were enough better as breeding cows to make up for the difference in net cost of feed up to the spring they were three years of age. The 1918 calves were not considered in these figures. The poorly fed lot calving at two years of age will not have as large a credit in calves this year as the other lots because of the high per cent of abortions. This larger loss of calves in this lot is rather significant and should not be overlooked in drawing conclusions. It would seem that there must be some relation between the feeding of these heifers and the losses of calves.

How About the Boarder?

In his April news letter to farm bureau members, F. S. Turner, county agent for Anderson County, asks: "Have you started to look for your boarder yet?" A good many people in that county are becoming interested in dairying, and Mr. Turner undoubtedly has got many of these men keeping records of their dairy cows. We have a feeling that the example of our club member, Theresa O'Mara, of Colony, has stimulated a live interest in better dairy cattle and the keeping of accurate records in that community.

Mr. Turner goes on to say that no doubt all farm bureau members milking cows have boarders, or at least every man so far who has hunted for them has found one. He tells of one man who began keeping records January 3. Cow No. 1 in the three months of January, February, and March, gave 3,321 pounds of milk and 115.5 pounds of butter fat. Cow No. 2 gave only 1,195 pounds of milk and 44 pounds of butter fat in the same period, and the first cow had been fresh ten days earlier than the second. Another man who started in weighing his milk found one cow that returned him barely five dollars for the month of February after being in milk but seven months. The only way to be sure about your cows is to keep records. In many a herd one or two cows could be sold and the total profit of the herd increased.

Harold Bentz was a few days late with his March reports and explained by saying: "I have been so busy studying for my final test in school that I did not have time to make the reports out. This is my last year in the grades, as I intend to graduate out of the eighth grade. My cow is doing pretty well now. I feed her all the alfalfa and fodder she will eat. We are now milking six cows, and there will be two more fresh in a few days. Four of those we now milk are fresh. We are getting eighteen gallons of milk a day from five cows. That is not including mine." With the week allowed on account of the test being late, Harold's report was in early enough so he gets credit for having it in on time. We hope the butter-fat tests will not be so late again as they were last month.

Interest in Club Department

We have sometimes wondered if anyone beside the club members among our readers found the club department interesting and valuable. A letter came last week from a lady who said she was going to send us some kodak pictures of her boy and his cow and a letter showing the good and the far-reaching effects of the Kansas Farmer Dairy Club outside its actual membership. She says: "Have you ever investigated or tried to find out how many people outside the club members are interested? I would just like to know how many boys and girls—yes, and old married women—have done just as my thirteen-year-old boy has done. It reads like a fairy story."

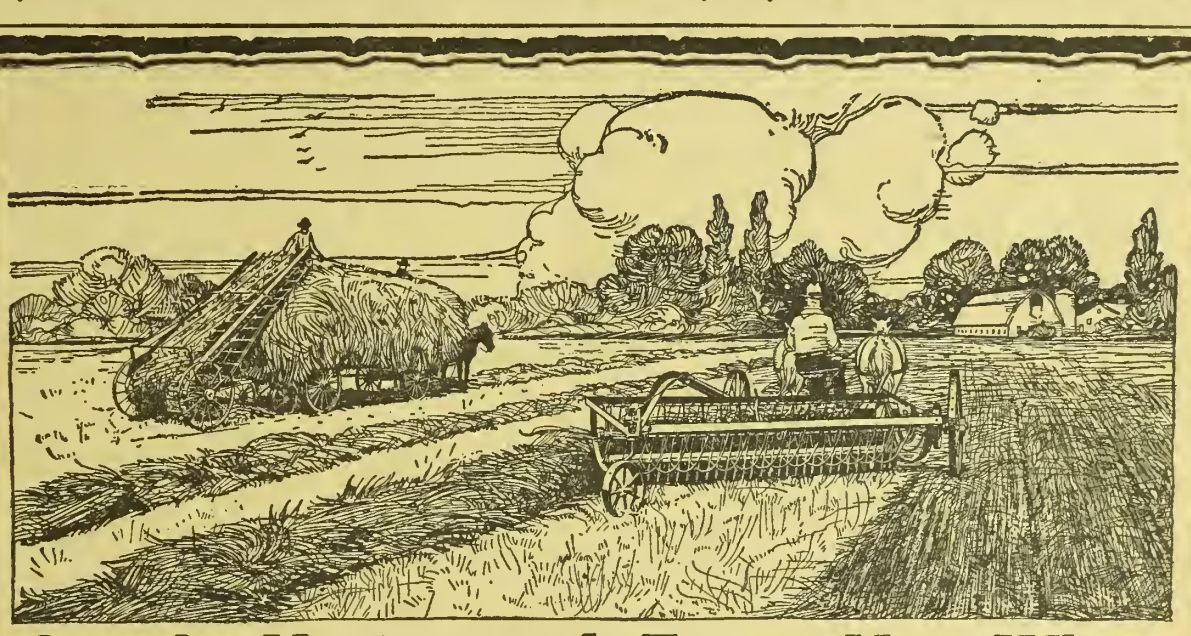
We will look for the story and pictures from this reader who is so much interested in our Dairy Club. This has given us an idea. Perhaps there are others who have been doing dairy work, but have felt because they were not enrolled as members of the club that reports from them would not be welcome. We want to extend an invitation to boys or girls or older persons to write us of their experiences, whether they are club members or not. We have always hoped that the work of club members and the ideas and suggestions on dairying appearing in the Dairy Club Department from week to week would be of real value to many of our readers.

Night Pasture for Horses

A small night pasture for eight work horses saves a farmer in South Dakota four days' work per month, according to a farm management report. He says there is no manure hauling, no flies breeding in manure piles, much less currying and cleaning and no straw to haul for bedding.

This farmer finds further that his horses tend to relax and do better and are in better health when turned to pasture in the evening where they roll and cool off. "The grass takes the poison out of the blood," as the old saying goes.

He states further that if horses are fed hay and grain before they are turned out in the evening they are not likely to eat enough grass to do them any harm. To guard against this still further he manages his pasture so that the horse cannot fill up on grass quickly, either by having small pasture or by having other stock eat off the surplus. This problem was solved successfully last year by pasturing the large lawn, windbreak and the waste land about the farmstead.



Speedy Haying and Finest Hay When Help is Scarce and Time is Short

WHEN the haying rush comes on this season, a good deal of hay money is going to be lost on many farms—and saved on many other farms—in the short space of a few weeks. A very few days' delay, a rainy day or two, poor curing facilities, and hay values vanish like magic. Everything depends on haying machine preparedness. Will you be ready for haying?

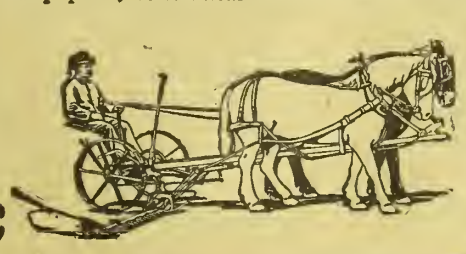
Good hay is made in fast time with little help, year after year, on farms equipped with mowers, rakes, tedders, side delivery rakes, loaders, etc., sold by International Harvester dealers.

Champion, Deering, McCormick, Milwaukee and Osborne Mowers, Dump Rakes and Tedders have been too long and favorably known on forty million acres of hayfield to need description.

Every hay grower should become familiar with the construction of the new International, Keystone and Osborne Combined Side Delivery Rake and Tedder. This popular, economical machine has two duties in one—it can be instantly adjusted for rake or for tedder. It rakes clean, teds thoroughly, and handles hay gently. It is a left-hand-delivery rake, which means it can follow the mower closely and strike the heads first (not the stems). It does clean work, piling two swaths at once on the clean stubble (not on an unraked swath), which means proper curing. Quickly adjustable to any condition of hay and ground.

International, Keystone and Osborne Windrow Loaders are built to last. Pulled easily by two horses, they load uniformly, leave the field clean, lift hay over 10 feet, do not thresh off blossoms and leaves. Sold with or without forecarriage and are released easily from top of load.

Hay values are high. These tools, which put hay under cover in prime condition four or five hours after cutting, return their price, and more, to your pocket. The International Harvester dealer can furnish you with proper sizes and types and special equipment. (The lines include also sweep rakes, stackers, and combined sweep rakes and stackers.) WARNING: This is a year of big demand for machines, scant supply and handicapped shipping. Act early and be certain. See the dealer—write to the address below for folders.



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65 CENTS FOR 3 YEARS

KANSAS' GREATEST FARM WEEKLY

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Made better, last longer no waste, gives best results, uses less fuel, easy to operate. Prices, $4.50 and up. We furnish cans and labels. Write for FREE BOOKLET.

We also manufacture Home and Community Steam Pressure Outfits.

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Every Ear Tested for Vitality.
Hiawatha Dent and Reid's Dent; also Garden Seeds.

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We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

A Man Must Live

"A man must live!" we justify
Low aim and crime to murder high,
But is it true? Pray tell me why.
In what religion did you learn
"A man must live"?
There are times when a man must die.
Imagine for a battle cry
For soldiers with a flag unrolled—
For soldiers with a sword to hold—
This coward's whine, this liar's lie:
"A man must live!"

—Selected.

Greater Love Hath No Man

Jesus Christ said to his disciples: "Greater love hath no man than this, that a man lay down his life for his friends."

It is sweet to live, but our love overshadows the value we put upon our own life, so that when a man loves another, or his country, or his Lord, and understands the need, he gives life cheerfully, if need be. Love of others sees death through different eyes than love of self. Our boys in France who rode cheerfully, songfully into the great battle, knowing that many were about to die, saw not the sweetness of their own lives, but laid down their lives for their country. And we who give our boys must give their lives as bravely.

The strength of every man's life and the power of every woman's soul must be enlisted in this war for victory, and must be given to this land and to the world freely that the righteousness which is of God shall make democracy safe for the world and shall bring actual justice, freedom, and peace. — Clifton E. Rash, Minister Central Park Christian Church, Topeka.

Evidences of Education

These five characteristies I offer as evidences of education:

Correctness and precision in the use of the mother tongue;

Refined and gentle manners, which are the expression of fixed habits of thought and action;

The power and habit of reflection;

The power of growth; and

Efficiency, or the power to do.—Nicholas Murray Butler, in The Kansas Teacher.

Coal Oil Causes Many Deaths

Carelessness in handling kerosene causes about one-third of all the deaths from fire in Kansas, according to such figures on personal injuries from fire as are obtainable by the State Fire Marshal Department. The law does not require personal injuries to be reported, but usually township clerks and fire chiefs include them in their reports of fires. These incomplete figures supplemented by careful study of newspaper clippings give the proportion stated above.

When it comes to property loss, the figures are official and show that, year in and year out, kerosene causes about 25 per cent more fires than gasoline. The total damage in dollars and cents is greater from gasoline, owing to the fact that three-fourths of all gasoline fires in Kansas occur in business properties, while three-fourths of the kerosene fires are in dwellings, the average business building being more costly than the average dwelling. The fact that kerosene fires occur in homes, among the women and children whose clothing is highly inflammable, accounts partially for the large number of fatalities.

No one would attempt to deny that kerosene is, in itself, far less dangerous than gasoline. The trouble is with the people. Long use has accustomed them to kerosene, and as the old saying goes, familiarity breeds contempt.

The public has been taught to fear gasoline, because of its rapid evaporation and the highly explosive qualities of the gas thus generated. But kerosene —well, that's different. It evaporates only in the presence of heat, and most people have been accustomed to its use all their lives. Nobody expects to find a red devil in a jug of coal oil. But it is there just the same. It does not require an extremely high temperature to generate kerosene gas, and once generated it is practically as explosive as gasoline. In fact, because of its high explosive power it may be used to drive the ordinary gasoline engine, merely by adding some trifling attachments for the purpose. — Annual Report of the State Fire Marshal of Kansas.

Worn Bed and Table Linen

Sheets which are worn in the center may be ripped open and turned so that what has been the center is on the outside edges where there is less wear, and the part that has formed the outside becomes the center. The edges of the muslin should be lapped and stitched on each side with the sewing machine, as the old material will not be worth the work of overhanding.

When pillow cases made with tubing become thin where the head rests, you can rip the ends and stitch them in such a way that the worn part comes at the edges of the pillow. Of course this should be done before the cases have become so thin that it does not pay.

The larger table cloths which have become thin can be cut up into smaller table cloths, lunch cloths, and also napkins for common use. The pieces which are not suitable for that kind of use can be used for bandages and for cloths. Never throw away a piece of linen.

The Rights of Others

What are the qualities that make a person "livable with," as we say? Is not the fundamental one respect for our own rights and for the rights of others? And is not one side of the question equally as important as the other?

If my child must respect certain rights and privileges which belong to me as a parent, then I must respect rights and privileges that belong to him.

One of the first marked traits a child develops as soon as he is able to play with others is wanting to have things for his very own. He quickly learns the "mine" and "thine" of things, and especially the "mine." It is "my" book, "my" rattle, "my" ball, and great is the uproar when he is requested to share his property rights with another. At this stage young mothers are often given to discouragement and make such remarks as, "I do not know what I shall do with my boy. I fear he has an extremely selfish disposition. He refuses to let any other child do so much as touch any of his playthings." But wait, dear mother, remember that instincts are crude when they first appear and must be wisely and patiently trained. Let us first respect the child's right and say, "Yes, it is your ball, but won't you let your little friend play with it?"

By following this method we shall find the child becoming more and more aware of his playmate's as well as his own rights. He will share his favorite blocks with another not because some grown-up in authority says "You must," but voluntarily because he respects the rights of another to share in his play. The idea does not formulate itself in his little mind in so many words perhaps, but it is the response that follows from instinctively recognizing that he is giving his due and that it pays to mete out like measure to another.

The general idea of all our child training may well be just that—recognizing the child as an individual having rights, and training this individuality by allowing it to express itself voluntarily. Of necessity this expression must be guided and guarded so that the best qualities of self find the readiest expression, all our efforts being aimed at developing what is brightest and best in the unfolding life.

Children are quick to accept the standards of living that we are privileged to set them, quick to respond to the frown or the smile, and slow to question where they are accustomed to receive justice.

At no other time of life so much as in childhood is the opportunity given to bring out and establish traits of character that make for a sound manhood or womanhood.

One of the greatest opportunities within reach of all mothers is through the medium of story telling. Stories interest children enormously, absorbing the entire attention for the time being. They establish a bond of mutual sympathy between the story teller and the listener. They teach lessons of bravery, unselfishness, kindness, and a regard for truth, with no seeming effort in those directions. They also develop the imagination. When we stop to think that every invention we have, every great effort accomplished, was first developed in some individual mind through the aid of the imagination, we will do everything we can to foster this great power in our children.—Mrs. Charles R. Long, for United States Bureau of Education.

REMEMBER THE DAYS

SUNDAY — ONE MEAL WHEATLESS
MONDAY — ALL MEALS WHEATLESS
TUESDAY — ONE MEAL WHEATLESS
WEDNESDAY — ALL MEALS WHEATLESS
THURSDAY — ONE MEAL WHEATLESS
FRIDAY — ONE MEAL WHEATLESS
SATURDAY — ONE MEAL WHEATLESS

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Popcorn Balls

Popcorn is a splendid substitute for sugar sweets. Pop the dried corn in a regular popper or a covered iron frying pan, shaking vigorously and taking care not to let it burn. A cup of dried corn will make three quarts when popped. It is good mixed with a little salt or melted butter and salt.

To make a sweet of it, combine with syrup. Boil together one cupful of syrup and one tablespoonful vinegar until a few drops harden in water. Pour over the popper corn while the syrup is hot. This amount of syrup will cover three quarts of popped corn. As soon as the mass is cool enough to handle, grease the hands well and form into balls.

Puffed rice may be made into balls in the same way. Setting the rice in a hot oven for a few minutes before making into balls will make it crisp.

Substitute Brains

Do you remember the day you picked up the coffee pot and off fell the top? The rod had slipped out of the hinge. Without a moment's hesitation you slipped in a bit of wire, bent it in position and secured the top—the rod was gone but you substituted brains.

That is just what you are called on to do in bread-making—substitute brains.

The object of the wheat campaign is to cut consumption one-half. Keep your

eye on that goal; let nothing turn you aside. We are in a race with Germany. "Food will win the war"—but whose food?

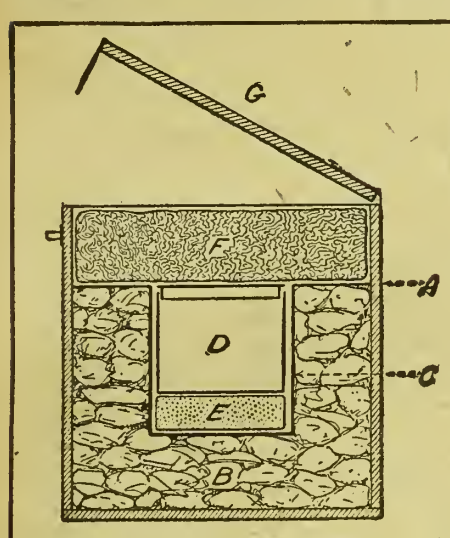
The American people have been asked to save 100,000,0000 bushels of wheat by July as a military necessity. You are a military unit in the campaign and three times a day you are called on to do your share. If you fail you imperil the safety of the army "Somewhere in France." No reason, no excuse matters; the only thing that counts is saving the wheat—the cut must be made.

If for any reason you cannot get substitute flours, why not use potatoes? Potato bread is excellent and potato biscuit a treat. There are always potatoes too small to bake that can be turned into bread. Small potatoes make large loaves. Substitute brains and the will to conquer for excuses, and the wheat will be saved.

How to save your share of that 100,000,000 bushels of wheat is mostly a matter of ingenuity. When you get in a tight place use your head—substitute brains—but do the job.

Making a Fireless Cooker

You can't afford to be without a fireless cooker. It can save fuel in winter and make your kitchen comfortable in summer. It will give you better food. It will save you time and labor, for you can have your dinner cooking while you attend to other duties or go away from home. Make one for yourself. It may cost less than a dollar and will pay for itself in time and fuel saved. Or buy a ready-made one.



THIS illustration shows a cross section of the home-made fireless cooker. If the lid is made of wood, a metal handle may be attached for convenience in lifting it. The parts shown are:

A—Collar of cardboard, which covers packing material.

B—Packing material.

C—Metal bucket for nest lining, the outside of which is covered with asbestos.

D—Cooking vessel.

E—Soapstone.

F—Cushion.

G—Hinged lid.

How a Fireless Cooker Cooks.—First, the food is made as hot as it can be on the stove, then it is put immediately into the cooker. Once there, it stays hot and keeps on cooking. The walls of the fireless cooker keep the heat in just as the walls of a good refrigerator keep the heat out.

The Outside Container.—Any good-sized box or bucket with a tight cover—a grocery box, a butter firkin, a wooden candy bucket, a hundred-pound lard can, or a new garbage can.

Packing Material—Soft hay, excelsior, ground cork, sawdust, tightly crumpled newspapers, or any other good non-conducting material that can be packed in closely. This packing forms a nest for the cooking vessel.

The Nest Lining—A metal or enamel bucket and sheet asbestos to cover the bucket. The bucket must have straight sides and a lid and be of such a size as to allow at least three inches of packing material between it and the outside container, top, bottom, and sides.

The Cooking Vessel—A vessel with a tight lid to fit closely into the nest lining and yet slip in and out easily, or two or three of the small ones especially made for the fireless. The best kind is of enamel, granite, or aluminum.

Cardboard—To make the collar.

The Cushion—Denim or muslin stuffed with the packing material. This cushion is to be pressed down across the top under the outside lid.

Two Soapstone Disks—Purchasable at a hardware store. They are not needed for all cooking, but with them you can cook more quickly and in greater variety.

To make the fireless cooker, proceed as follows:

1. Line the outside container with newspaper if a wooden box is used.

2. Pack the bottom of the outside compactly with a layer of the packing material to the depth of three inches or more.

3. Cut a circle of asbestos two inches larger in diameter than the nest lining. Place the asbestos mat in the center of the packing.

4. Cut a strip of asbestos big enough to cover completely the outside walls of the bucket which is to serve as the nest lining, and tie it in place.

5. Place the bucket with its asbestos covering directly in the center on the asbestos mat. Hold in place and tightly fill in the space between it and the walls of the outside container with the packing material. Pack in solidly to within one-half inch of the top of the bucket. The success of your cooker depends largely upon the tightness with which you crowd in the packing material, which prevents the heat from escaping from your hot food.

6. Cut a piece of cardboard to fit in the outside container. Cut a hole in the middle of it which will fit closely over the bucket which forms the nest lining.

7. Make the cushion for the top by cutting two pieces of cloth the size of the outside container and putting them together with a straight strip of cloth three inches wide. Stuff with the packing material.

8. Outside finishings.—If a box is used for the outside container, the lid should be hinged and fastened down with a hook. If it is of wood, paint or stain it a dark color. Casters make it convenient to move about.

Soapstone disks will increase the usefulness of your cooker. They can be heated hotter than the boiling point of water, and when shut up in the fireless furnish heat which cooks the food. If you made your fireless according to directions, you can safely use the disks. Heat them very hot, but do not let them get red hot, for fear of cracking. With one below and one on top of the cooking vessel you will be able to roast meat or even to bake bread or puddings. Without the disks your fireless is useful only for certain kinds of foods—cereals, beans, pot roasts, stews, etc.—things that can be cooked in water.—United States Food Leaflet.

Use Rhubarb Freely

Though really a vegetable, rhubarb is used as a fruit on account of its acidity and its flavor. The young and tender shoots which appear early in the spring are liked by most people and should be freely used.

Rhubarb provides generous amounts of valuable mineral salts, which go to make up the soft tissues and the bones of the body and which are important in the regulation of the bodily functions. Like practically all fruits and vegetables, it acts as a mild laxative, and is for this reason a valuable food. The housewife will do well to vary the ways of preparing so good a food so that the family will not tire of it. This does not mean that elaborate dishes must be served. Simply-cooked dishes and simple meals are always to be preferred from the standpoints of health, money, and labor.

When stewing rhubarb for sauce, leave on the skin, as the red skin gives an attractive color. Cherries, apples, prunes, pineapple, figs, or raisins may be combined with the rhubarb. The juice and grated rind of a lemon or an orange also improves the flavor. Have you ever tried baking rhubarb? Place a layer of the rhubarb cut in small pieces in a baking dish, sprinkle generously with sugar, and alternate in this way until the dish is filled. Sprinkle sugar over the top, add small pieces of butter and grated lemon rind or cinnamon. Bake slowly until well done. Long, slow baking gives rhubarb a rich red color.

The following additional ways of using rhubarb as a dessert are taken from a bulletin entitled "Ways of Using Rhubarb," published by the New York College of Agriculture:

One-Crust Rhubarb Pie

1 pint rhubarb, cut in small pieces
½ to ⅔ cupful sugar
1 tablespoonful cornstarch
⅛ cupful cold water
1 teaspoonful melted butter

Mix the rhubarb and the sugar and cook the sauce until it is thick. Add the cornstarch dissolved in the water and cook until the mixture is clear. Add the melted butter. Line a pie pan with plain pastry, and bake in a quick oven for about fifteen minutes, or until it is well done and a good brown. Fill crust with the rhubarb mixture, heap the meringue lightly on the top, and brown slightly in a slow oven.

Meringue

Whites of 2 eggs
3 tablespoonfuls sugar

Beat the whites of the eggs until they are stiff. Add sugar gradually, and beat the mixture until it will stand alone.

Rhubarb Pie, Recipe No. 2

1 pint sweetened rhubarb sauce
1 egg, well beaten
2 tablespoonfuls orange juice
Cocoanut

Combine the sauce, the egg, and the orange juice. Pour the mixture into a pie crust which has been previously baker, sprinkle cocoanut over the top, and bake the pie in a moderate oven until the filling thickens.

Rhubarb Shortcake

3 eggs
3 tablespoonfuls lemon juice
½ cupful granulated sugar
1 cupful flour
1 teaspoonful baking powder
¼ teaspoonful salt.

Beat the yolks of the eggs until they are light. Add the lemon juice, and gradually beat in the sugar. Beat the whites of the eggs until they are dry, add them to the mixture, and beat it well. Sift together the flour, the baking powder, and the salt. Fold the dry ingredients lightly into the egg mixture. Bake the cake in two layers in a moderate oven.

Filling for Shortcake

2 teaspoonfuls gelatin
¼ cupful cold water
1 pint red rhubarb, cut in small pieces
1 cupful sugar
Juice and grated rind of ½ orange.

Soak the gelatin in the cold water to soften it. Cook the rhubarb with sugar until the sauce is thick. Add gelatin and juice and rind of the orange, beating the mixture well. When it is cold, place between the layers of the cake and heap whipped cream on the top.

Take Your Choice

Which would you rather do: Spend a quarter for something to eat and give you a stomach ache, or smash the kaiser? You can take your choice. Which would you rather do: Earn half a dollar cutting lawns, or go in swimming and let America be whipped? You can take your choice. Why, if you choose victory for America you can take those quarters and put them into war stamps, and war stamps will help win the war. You can almost say that Thrift Stamps will win the war. It you don't get anything back for your money but victory, you would make a pretty fair bargain, don't you think? But in this case you will get paid in victory, and will get your money back with interest. It's what we call a genuine bargain.—The American Boy.

When making a pie crust which is to be baked before putting in the filling, do it in this way: Invert a pie pan and cover the outside with pastry, fitting the pan carefully. Trim off the edges if necessary, prick the top with a fork, ant set the pan in a tin sheet—or another pie pan—so that the edge of the crust may not touch the floor of the oven. Bake the pastry in a quick oven for about fifteen minutes or until it is well done and a good brown. Slip the crust from the outside of the pan, place it on the inside, and put in the filling.

Small biscuits or rolls can stand a much hotter and quicker baking than large loaves which must be heated slowly and long. On being taken from the oven bread should be placed on slats or shelves so that the air can circulate about it until it is thoroughly cooled.

The Government has served and is serving the farmers; the farmers should support the Government in this time of war. **Buy Liberty Bonds.**

White or light colored yarns may be dyed the much-desired gray or khaki, using for this purpose a stronger dye than for dress materials in order to get the correct shade.

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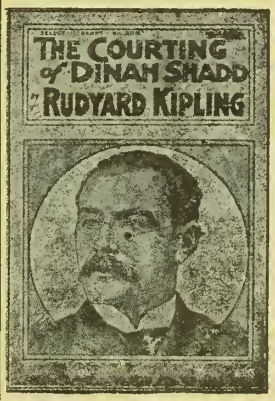
We want to send one or more books to each of our subscribers. Every book offered is highly interesting. You will find in the list books of travel, romance, love and mystery. Each book is printed in large clear type and bound in strong cover paper bindings.



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A Page of Fashions





No. 8354—Boys' Suit: Cut in sizes 2, 4 and 6 years. The coat of this very good looking boys' suit seems to be closely related to the well known Norfolk jacket, but the plaits in this case are only applied trimming bands. There are two in front and two in back, giving the effect of box plaits. The srtaight pants are included in the pattern. **No. 8334—Ladies' Corset Cover:** Cut in sizes 34 to 42 inches bust measure. This new summer corset cover is suitable for embroidered flouncing, and is very easy to make. The edge of the neck is perfectly straight,



and it is drawn in slightly on a ribbon. A circular fitted peplum holds the corset cover snugly in place at the waistline, but it may be discarded if preferred. **No. 8333—Girls5 Coat:** Cut in sizes 6 to 14 years. There are many times in the summer when a light weight coat is a welcome protection against the chill in the air. The one shown is ideal for this purpose. The front of the upper part and the skirt section are cut in one. The back of the coat is plain, and the lower section is joined to the side front sections and gathered at the waist line. **No. 8335—Misses' Dress:** Cut in one size, 16 years. There is more than one way of being well dressed, but the younger set will agree that No. 8335 is one of the best. It has a slight suggestion of the popular basque waist in the drapery of the waist. The front panel of the waist is joined to sash ends, which tie in a loose knot at the back. The waist has drop shoulders with long, plain sleeves which are finished with deep turned-back cuffs. The skirt is cut in two pieces. **No. 8332—Ladies' Skirt:** Cut in sizes 24 to 32 inches waist measure. It would be hard to find an easier skirt to make than this up-to-date two-piece gathered model. Especially during the summer months, separate skirts, whether of wool or wash materials, are a necessity which the well dressed woman cannot get along without. Gathered skirts are very popular this season, and the one shown is sure to look well on the slender or medium figure. **No. 8323—Misses' Dress:** Cut in sizes 14 to 20 years. This dress is quite easy to make, as the back and front of the waist is in one piece. This is done so that the tuck will be in a straight line. The waist is gathered to a very narrow band at the neck line, giving a soft effect which is especially becoming to slim figures. The skirt is a straight piece of material gathered to the normal waist line, and may be made with or without the tucks.

No. 8236—Boys' Suit: Cut in sizes 6, 8, 10, 12 and 14 years. For the junior boy there is nothing that looks better and withstands the rough wear which he gives his clothes longer than a suit consisting of coat and knickerbockers. This suit has a straight coat plaited in at the waistline in the back and held in place by a narrow belt. Knickerbockers of liberal width complete the suit. **No. 8271—Ladies' Shirtwaist:** Cut in sizes 36 to 42 inches bust measure. An unusually good plain waist is shown in this group. Strictly speaking, it cannot be called a tailored waist, yet it is more apt to be becoming to the great majority of women than the severely plain style. It is just the thing for shopping or business wear, as it has very smart but simple lines. **No. 8232—Girls' Dress:** Cut in sizes 6 to 14 years. A clever way of introducing fullness is the prominent feature of this smart one-piece dress for the schoolgirl, which is a very simple matter to make. The fronts are gathered at the shoulders and underneath the pockets, producing the soft effect shown in the sketch. The pockets are stitched right over the gathers. **No. 8259—Ladies' Dress:** Cut in sizes 36 to 42 inches bust measure. Judging by the vast number of variations on the one style it seems that we are destined to wear long-waisted and one-piece effects for a long time to come. This dress is simple, easily made, and has lots of style. The closing is at the center front. The long waist is stitched at the hip-line to a five-piece skirt section. **No. 8245—Ladies' Skirt:** Cut in sizes 24 to 32 inches waist measure. The applied yoke is a very noticeable feature of most of the new separate skirts which are being shown in the spring catalogs. An excellent example of this is shown in this group, a model which is equally suitable for silk or wool materials. The side sections are formed by two box plaits, the front one being held down by the extension of the yoke. **No. 8238—Ladies' Bungalow Apron:** Cut in sizes 36 to 44 inches bust measure. A welcome departure from the usual kimono or set-in sleeve styles is this apron with the new raglan sleeves, No. 8238. It is amply big enough to protect any dress worn underneath it without crushing, or if preferred, it may easily take the place of a dress for housework. Long or short sleeves may be used and the apron fastens down the center back.

No. 8230—Boys' Rompers: Cut in sizes 2, 4 and 6 years. Rompers section is stitched to the lower edge of the shaped yoke, and the straps which seem to support the trousers are in reality only applied to the yoke. The back section is gathered to the belt with pointed ends, which buttons at the edge of the pockets in front. **No. 8229—Ladies' Apron:** Cut in one size. Something new in the apron line for the busy housewife is shown in No. 8229. It is sure to appeal, because it is so easy to make, the main part being one piece with an opening for the head to slip through. The lower portion, which forms the capacious pockets, is cut the same shape as the lower part of the apron proper. **No. 8254—Children's Dress:** Cut in sizes 4, 6, 8 and 10 years. Who wouldn't feel proud of herself in a stylish little dress like No. 8254? Smocking is in high favor just at present for both young and "a little older" girls. The fullness at the shoulders is taken out in smocking, and the same method of decoration is used on the sleeves and at the high waistline. **No. 7535—Ladies' Dress:** Cut in sizes 34 to 42 inches bust measure. In this design the sleeves and body are cut in one, with center back seam and side front closing. The neck may be high or low, with or without the collar. The sleeves are full length, gathered into the band cuff. The skirt has four gores, with slightly circular flare at the lower edge. **No. 8241—Ladies' Skirt:** Cut in sizes 22 to 30 inches waist measure. The straight lower edge of this yoke skirt suggests the use of flouncing in a very practical way. The lower part is in one piece and is gathered to a straight yoke which has two deep tucks. If preferred, the tucks might be left out and the flouncing used for the yoke also. **No. 8263—Ladies' Dress:** Cut in sizes 36 and 40 inches bust measure. Very smart and serviceable is this new model. It is about the simplest development possible in a one-piece frock, and so will not take long to make. Moreover, the fact that it is very easily put on is a recommendation in itself. The dress is all in one piece from shoulder line to hem.

All patterns are ten cents for each number. Be sure to give the number and size desired and write your name and post office address plainly. Address Pattern Department, Kansas Farmer, Topeka, Kansas.



Poultry Work For May

THERE is no necessity or good reason for poultrymen to be greatly alarmed simply because poultry and eggs are cheap just at this time. With pork, mutton and beef selling at record prices, and all higher than ever known, you can depend upon the consuming public resorting to the use of more poultry and eggs. It is only to be expected that poultry would be cheap and the market flooded just after what is known as Rule 14 was lifted. If your hens are laying well it is unwise to rush them to market. The low price of eggs is also only temporary. The firms and individuals that have been storing eggs in the past have held off this season. Therefore the eggs produced have gone onto the leading markets in large numbers and this has forced the price down. These parties will now begin to buy and this will gradually bring the price up, and if they do not do so, you can expect to see but few storage eggs in competition with fresh eggs next fall and winter, which will cause the price to be much higher than ever known. If you do not need the income from your eggs to pay your feed bills, store your eggs by preserving them in water glass and keeping them in a cool place. In a few weeks many hens will begin to moult and practically stop laying and that will bring the price up again. But we don't recommend wasting feed, time and money caring for unprofitable hens and chicks. Thousands of dollars and much foodstuff can be saved if poultrymen will carefully and fearlessly cull their laying and breeding hens. Hens that are too fat—that "hang down" about their abdomens; hens that appear of low vitality; hens that really do not have the apparent size required of their breed; hens that have long toe nails or long, slim, unhealthy-appearing heads and beaks, should all be culled and placed on the market as soon as possible. They will not produce enough eggs during this month and next to pay for half their feed and any chicks hatched from their eggs would very likely prove vastly unprofitable. It is only such hens as these that we would be in any great rush to cull.

Watch over your baby chicks and all young stock to keep the flock free of any that are runts or weaklings. Considering present prices of grain, it will certainly not pay to endeavor to raise any chicks which do not appear strong when hatched. Keep and brood only those chicks which start growing rapidly and keep going right along.

Keep over till fall and winter only such young cockerels as will be used or sold for breeding next winter. Those intended ultimately for market should be caponized as soon as old enough to determine their sex, or should be sold as broilers as rapidly as they reach a weight of one and one-fourth to one and three-fourths pounds. Note the difference in the development of comb and in the shape of back, saddle and neck feathers of a male and female. This difference will help you in determining the cockerels to caponize. It will not pay to make capons from the cockerels of light weight breeds such as Anconas, Leghorns and Campines. Young cockerels of these breeds will grow to a weight of one and one-fourth to one and one-half pounds very rapidly and will show very little gain in weight during the month following, therefore will prove more profitable if marketed early, thus saving feed and work besides giving more house room and range to the growing pullets intended for layers next winter.

Many years of time can be saved and more rapid progress made both in breeding for Standard qualities or high egg production where the dam, as well as the sire, of all chicks is known. It is not too late for every breeder to hatch and pedigree a few chicks from his best hens. It will pay anyone to do so.

During May both lice and mites cause worry and loss to millions of poultry raisers. It is better to prevent these pests than to wait and after suffering loss to your hens and chicks then attempt to get rid of them. To prevent and rid the grown stock of lice, mix two parts of vaseline with one part of blue ointment. Apply an amount about the size of a pea to the skin of each fowl about one inch below the vent. A like amount should be applied to the skin of each thigh. Rub the ointment well into the skin.

To prevent and rid poultry houses of mites, clean them thoroughly and keep them clean. Dropping boards should be scraped clean at least twice each week. During this month clean out all foul litter from the floors and nests and with the use of a spray pump throw a stream of mite-killing liquid on all perches, dropping boards, side walls, ceilings and floor about the roosting quarters. Be certain the liquid reaches and penetrates all cracks and joints. Paint or spray all nests and hoppers and the under sides of the dropping boards or roosts. Treat the brood coops in a like manner. During the hot weather season this treatment should be repeated once a month to all coops occupied by growing youngsters, and every six weeks to all houses used by grown stock. We have found a mixture of two parts of kerosene or crude oil and one part carbolic acid to be a simple and a very effective spray. We have also used several prepared sprays now on the market and with very good results.—RUSSELL F. PALMER, American School of Poultry Husbandry, Leavenworth.

Colony Brooding of Chickens

(Continued from Page Five)

roosts are helpful in summer ventilation, but should be closed with the coming of fall weather.

The droppings in the roosting quarters should be removed once in two weeks or oftener should they become damp or of a bad odor. If fed as recommended above, the droppings should be in good condition. Avoid wet mashes and other wet foods.

The drinking fountains or pans should be well rinsed or washed daily and scalded occasionally. If pans are used, place them on low boxes or under a partial cover or a lean-to board that will keep the chicks out of the water. Don't use a can or bucket for watering while the chicks are small enough to be drowned in it.

In chilly weather, while the chicks are small, see that a bunch does not huddle in a sunny spot too far from the heater. A window that causes such a danger should be covered with a blind at feeding time. One of the most interesting scenes of colony brooding is to see the tired, contented chicks encircling the stove, stretched on the floor with their heads pointing away from the heat. When they take this position, all is well for the night.

To further increase the vitality of the future hen, the pullets may be turned loose to range everywhere after they are well feathered. The writer has Leghorn chickens and keeps most of them yarded. We prefer to hatch the latter part of April or the first of May. The pullets are shut in their winter laying yard about the first of September and begin laying in October and November.

Last, but not least, when the chickens begin using the heater for a roosting place, take it apart and store it in dry quarters.

Since colony brooding is in the experimental stage in the West, the writer would be glad to answer any questions that he can in regard to it. He believes it should have a large place in Kansas poultry raising.

Save Your Chicks—Free

Send two names to the Wight Co., 18 Main, Lamoni, Iowa, and they will send you enough Iowite Remedy, absolutely free, to save forty chicks from white diarrhea.—(Adv.)

Motorists, Spare the Fowls

Motorists have been asked by the Food Administration to respect the life and limb of fowls on highways. The chicken that you spare today may be your Sunday dinner a few months hence.

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

HELP WANTED.

WANTED, IMMEDIATELY—THOUSANDS government war jobs open to farmers. Men-women. $100 month. List free. Franklin Institute, Dept. 0-82, Rochester, N. Y.

WANTED—MAN TO DO TESTING FOR cow testing association. $55 a month, board and expenses. Montgomery County Cow Testing Association, Wm. W. Castillo, Secretary, Independence, Kansas.

MEN-WOMEN WANTED FOR GOVERNment war positions. Thousands needed immediately. Good salaries; permanent employment; liberal vacations; other advantages. We prepare you and you secure a position or we refund your money. Ask for booklet "QL" free to citizens. Washington Civil Service School, 2068 Marden Building, Washington, D. C.

TREES, SEEDS AND PLANTS.

ORANGE CANE SEED, EXTRA GOOD, $6 per cwt., sacks extra. Joseph Nixon, Belle Plaine, Kansas.

FOR SALE—PURE TENNESSEE EVERgreen broom corn seed, $8.50 per bushel. Donald Pierce, Moran, Kansas.

BLACK AMBER CANE SEED, $7.50 PER hundred. Sacks furnished. Clande Paddock, Oberlin, Kansas.

AMBER CANE FOR FODDER, $3.50 bushel; dwarf milo maize, $2.50 bushel; sacks free. Prices larger quantities. V. E. Lawrence, Salisbury, Mo.

ONE HUNDRED FIFTY BUSHELS GOOD recleaned alfalfa seed for sale, $9 per bushel if a quantity is taken. V. O. Johnson, Aulne, Kansas.

SUDAN—CHOICE WELL MATURED, RE-cleaned seed, 100 pounds, $20; 50 pounds, $10.50. New sacks free. Edward Anderson, Jamestown, Kansas.

BEST WHITE BLOSSOM SWEET CLOver at farmers' prices. At State Experiment Station it pastured a dairy cow per acre. Fine for hay. John Lewis, Madison, Kan.

FOR SALE—GOOD SUDAN GRASS, $18 per cwt; black amber cane, $6.50 per ctw., and alfalfa seed, $10 per bushel. Sacks, market price. H. Chas. Stephens, Whitewater, Kansas.

CANE SEED—BLACK AMBER SEED, 85 per cent germination, $3.50 per bushel in five-bushel lots; sacks extra. Feterita seed, $2.50 per bushel. Wildgen Lumber Company, Olmitz, Kansas.

SUDAN SEED, BEST QUALITY, FIFTY pounds to stroked bushel, $20 per cwt.; less than fifty pounds at 22c. Extra fine, field-selected, mature, black-hulled white kafir heads, 6c a pound. R. E. King, Solomon, Kansas.

NANCY HALL SWEET POTATO PLANTS ready May 1. Tomato plants. Frost-proof cabbage plants ready now. Prices, per hundred, 50 cents; per thousand, $3.50, delivered. S. & H. Plant & Truck Farm, North Enid, Oklahoma.

SEED CORN RAISED IN EDWARDS County, Kansas, in year 1917. White tests 100 per cent, yellow 99 per cent. Test made by Kansas State Agricultural College. White, $5 per bushel; yellow, $4. If you want the best seed you will have to hurry. P. O. Box 278, Belpre, Kansas.

CABBAGE PLANTS—WAKEFIELD, SUCcession, Flat Dutch, 100, 45c; 200, 85c; 500, $1.50; 1,000, $2.50, postpaid. Tomatoes and onions, all leading varieties, same price as cabbage. Celery, egg plant and peppers, 100, $1; 200, $1.75; 500, $3; 1,000, $5, postpaid. Cabbage, tomatoes and onions by express collect, $2 per thousand. Cash with all orders. Book your orders now as plants are scarce. Hope Plant Farm, Hope, Ark.

VIOLINS.

VIOLIN FOR SALE—HAS SWEET TONE. Free trial. Easy payments if wanted. Write Miss Bertha Mardiss, Route 5, Rosedale, Kansas.

HOGS.

POLAND CHINA PIGS EIGHT TO TEN weeks old, $15. Clair W. Brown, Brewster, Kansas.

THE STRAY LIST.

TAKEN UP—ABOUT DECEMBER 30, 1917, by E. W. Cramm, who resides 2½ miles north and 2½ miles east of Chase, Rice County, Kansas, one red heifer with white face, about two years old, appraised value $50. Emern H. Sledd, County Clerk, Lyons, Kansas.

Even if birds are not actually killed, injuries are likely to cause them to become runts through inability to hunt for their feed as usual. Losses from this source have increased so greatly in recent years that they are believed to exceed the inroads made on poultry flocks by hawks and all birds of prey.

"The United States is obligated to send 1,000,000 tons of food each month to the Allies, and is it doing it?"—Vernon Kellogg.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

TWO REGISTERED GUERNSEY BULLS, one two years, other five months old, priced low if taken at once. M. I. Patterson, Victoria, Kansas.

FOR SALE—A RED POLLED BULL, calved March 8, 1913. There are very few better bulls in the state. Geo. Haas, Route 6, Lyons, Kansas.

ONE HUNDRED CHOICE HOLSTEIN cattle—springers, fresh cows and young stuff. Herd sire a 30-pound bull. C. S. Simmons, Belmont, Wis.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

THRIFTY YOUNG HOLSTEIN CALVES, either sex, five to seven weeks old, practically pure-breds, beautifully marked, from high-producing dams. $25, guaranteed safe arrival and express prepaid to your station. Buy your calves from one of the largest dairy herds in Kansas. Magee Dairy Farm, Chanute, Kansas.

AUTOMOBILE ACCESSORIES

MIRACLE MOTOR-GAS TONIC TABlets, the modern gasoline intensifier, vigorizer and decarbonizer. 100 gallons treated for $1. Dept. A, 705 Oakwood Blvd., Chicago, Illinois.

FORDS CAN BURN HALF COAL OIL, OR cheapest gasoline, using our 1918 carburetor. Thirty-four miles per gallon guaranteed. Easy starting. Great power increase. Attach it yourself. Big profit selling for us. Thirty days' trial. Money back guarantee. Styles to fit any automobile. Air-Friction Carburetor Company, 558 Madison Street, Dayton, Ohio.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

FARM LANDS

YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

SITUATION WANTED.

WANTED—LIGHT WORK ON A FARM anywhere in Kansas. Understand motors. Address W. G. Wilkins, General Delivery, Topeka, Kansas.

REAL ESTATE.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 56th St., Chippewa Falls, Wisconsin.



Cut non-essentials—we are in a race with a swift antagonist and need no handicap.

Reliable Poultry Breeders

LEGHORNS.

L. B. RICKETTS, BREEDER OF PRIZE Winning Single Comb White Leghorns, Greensburg, Kansas.

SINGLE COMB BROWN LEGHORNS—Winners of the blue in four states. Eggs, $6.50 per hundred. Wm. Roof, Maize, Kan.

SINGLE COMB BUFF LEGHORNS—Eggs, six dollars hundred. Thomas D. Davis, Avard, Oklahoma.

SINGLE COMB WHITE LEGHORN EGGS reasonable, from heavy winter layers. Mrs. Ed Lehman, Newton, Kansas.

SINGLE COMB WHITE LEGHORN EGGS —100, $6 prepaid. Quality guaranteed. Dave Bake, Conway Springs, Kansas.

SINGLE COMB BROWN LEGHORN eggs, $5 per hundred. Mrs. F. E. Tonn, Haven, Kansas.

CHOICE SINGLE COMB BROWN LEGhorn eggs, $5 hundred. Mrs. Henry Wohler, Hillsboro, Kansas.

EGGS (YOUNG'S 288 S. C. W. LEGhorns, costing $20 setting), $7 hundred. Elsie Thompson, Mankato, Kansas.

EGGS—SINGLE COMB BUFF LEGHORN, $5 hundred. Mrs. S. F. Crites, Florence, Kansas.

KULP'S STRAIN ROSE COMB BROWN Leghorns—Eggs, $2.50 per setting, $7 per hundred. Mrs. Griswold, Tecumseh, Kan.

PURE-BRED SINGLE COMB WHITE Leghorn eggs, hundred, $5. Chas. McFadden, Moriand, Kansas.

ROSE COMB WHITE LEGHORNS—EGGS, six years' breeding, $5 per hundred. Mrs. Joe Streeter, Route 5, Hamilton, Mo.

EGGS—ROSE COMB REDS, S. C. BROWN Leghorns, $6 per hundred. L. D. Speenburg, Belleville, Kansas.

S. C. W. LEGHORN EGGS, $2 PER FIFteen, $7 per hundred. C. T. Mulkey, Lamont, Oklahoma.

EGGS FOR HATCHING—PURE-BRED S. C. Brown Leghorns. Fifty eggs, $3.50; one hundred, $6. Mrs. L. H. Hastings, Thayer, Kansas.

EGGS, 10 CENTS EACH—S. C. WHITE Leghorn hens, cockerel dams above 200 eggs; sires from dams of 247 and 282 eggs. Frank Uhl, Manhattan, Kansas.

S. C. BROWN LEGHORNS BRED 22 years; 222 to 266-egg lines. Eggs, fifteen, $2; fifty, $4; hundred, $6. Gorsuch, Stilwell, Kansas.

PURE SINGLE COMB WHITE LEGhorns, bred exclusively 16 years. Real layers. Eggs, $6 hundred. Ed N. Regnier, Wamego, Kansas.

YOUNG, FRANTZ, FERRIS, YESTERlaid S. C. White Leghorns. Heavy layers. Eggs, $6 per hundred. Sold 10,000 eggs for hatching last season. No complaint. L. O. Wiemeyer, Route 1, Anthony, Kansas.

ROSE COMB BROWN LEGHORNS, BRED to lay. Twelve years' breeding. Range flock, winter layers. Selected eggs, $6 per hundred. Blue Grass Stock Farm, Oneida, Kansas.

S. C. WHITE LEGHORNS, "ENGLISH" strain, eggs $8 per hundred; baby chicks $16 per hundred; two-months-old cockerels, $10 per dozen. Sarver's Poultry Farm, Hastings, Nebraska.

SEVERAL BREEDS

SINGLE COMB ANCONA AND SILVER Wyandotte eggs, $1.25 per fifteen, parcel post prepaid. Mrs. Cecile McGuire, Pratt, Kansas.

EGGS—BLUE ANDALUSIANS, $6 HUNdred; Blue Orpingtons, $3 fifteen; Buff Leghorns, $5 hundred; Buff Ducks, $7 hundred; Bourbon Red Turkeys, $3 eleven. Circular. John A. Huber, LaCrosse, Kansas.

FOR SALE—EGGS FROM ALL KINDS of pure-bred poultry, Geese, 7 kinds of ducks, Pearl and white guineas, Bantams, Fancy Pigeons, Canarles, Rabbits, Guinea pigs, Dogs. Write wants. D. L. Bruen, Platte Center, Nebr.

CORNISH

DARK CORNISH EGGS. EAST LAWN Poultry Yards, Fairmount, Neb.

BABY CHICKS.

YOU BUY THE BEST CHICKS FOR least money. Guaranteed alive or replace free. Shipped anywhere. Colwell Hatchery, Smith Center, Kansas.

ANCONAS.

ANCONAS—THE GREATEST LAYERS. Eggs, $7 per hundred, $2.50 for thirty. Joe Partsch, Humphrey, Nebraska.

ANCONA EGGS FOR HATCHING—FIFteen, $1.25; hundred, $6. Mrs. John Smutny, Irving, Kansas.

BUTTERCUPS.

BUTTERCUPS, SELECTED BY HOGAN system. Egg capacity, 150 to 280. $1.50 per fifteen. Mrs. Jas. Shell, Pittsburg, Kan.

MINORCAS.

S. C. BLACK MINORCAS — EXTRA heavy layers. Eggs from pen birds, $2 for fifteen. Mrs. E. G. Tharp, Protection, Kan.

SINGLE COMB BLACK MINORCAS—Eggs, $2 per fifteen, $3.50 per thirty; utility, $6 per hundred, prepaid. Dan Oberheilmann, Holstein, Missouri.

PLYMOUTH ROCKS.

WHITE ROCK EGGS, $5 PER HUNDRED. Nora Lamaster, Halliowell, Kansas.

BARRED AND WHITE ROCK EGGS—Write for mating list. Nora Hill, Cambridge, Kansas.

HILLCREST BARRED ROCKS—EGGS, $1.25 for fifteen, $6 per hundred. D. T. Gantt, Crete, Nebraska.

REDUCTION ON BARRED ROCK HENS and eggs. Write me. Mrs. Chris Bearman, Ottawa, Kansas.

BARRED ROCK EGGS, BOTH MATINGS, $1.50 per fifteen. Vernon Ravenscroft, Kingman, Kansas.

PURE BARRED ROCKS—EGGS, $5 PER hundred. Baby chicks, 12½c. Mrs. Lillian Marshall, Raymond, Kansas.

PURE BARRED ROCK EGGS, $1.00 PER fifteen, $5.00 per hundred; farm range. Mrs. H. Buchenan, Abilene, Kansas.

BUFF AND WHITE ROCK EGGS—SPEcial matings, fifteen, $3; thirty, $5; utility, hundred, $6. W. H. Beaver, St. John, Kan.

BEAUTIFUL BARRED ROCKS—200-262 yearly egg record. Eggs, $2 per fifteen, $7 per hundred. Satisfaction guaranteed. Joe Greiner, Mena, Arkansas.

WHITE PLYMOUTH ROCK EGGS FROM fine birds, farm range flock, selected eggs, $5 per hundred, 75c per fifteen. Mrs. C. G. Steele, Barnes, Kansas.

BARRED ROCKS, COCKEREL LINE. Cock head first pen Kansas City, Mo., $16; two sons, $5 each. Incubators, brooders, feeders. Mattie A. Gillespie, Clay Center, Kan.

"RINGLET BARRED ROCKS"—PRIZE winners. Eggs, fifteen, $1.50; fifty, $3.50; hundred, $6. Chicks, 16c. Mrs. C. N. Bailey, Lyndon, Kansas.

BUFF ROCKS—EGGS, $1.50 FIFTEEN. Good layers. Mrs. Hugh Shultz, Eureka, Kansas.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swaim, Geuda Springs, Kansas.

PURE BARRED ROCKS, RANGE, EXcellent layers. Eggs, strongly fertile, $1.25 fifteen, $5 hundred. Mrs. S. Van Scoyoc, Oak Hill, Kansas.

BARRED ROCK EGGS (RINGLET strain), from large, vigorous, splendid-marked birds, $1.25 per fifteen; 100, $6. S. R. Blackwelder, Isabel, Kansas.

WHITE ROCKS, SIZE AND QUALITY; good egg strain. Eggs, fifteen, $1.25; fifty, $3.50; hundred, $6. G. M. Kretz, Clifton, Kansas.

MAMMOTH WHITE ROCKS—CHOICE stock. Pen, $3 fifteen; farm range, $1 fifteen, $5 hundred. H. C. Loewen, Peabody, Kansas.

RINGLET BARRED ROCKS, PRIZE WINners. Eggs from exhibition pens, $2 and $3; utility, $1.25. Write wants. Satisfaction pledged. Hiram Patton, Hutchinson, Kan.

WHITE ROCKS — PRIZE WINNERS, farm raised. Eggs, $1.50 fifteen, $3.50 fifty, $6 hundred. Special pen, $3.50 fifteen. Mrs. Ben Miller, Newton, Kansas.

RINGLET BARRED ROCKS—EGGS, $2 to $5 fifteen, $8 hundred. Reduction on incubator orders. Mrs. W. E. Schmitendorf, Vassar, Kansas.

BARRED ROCK EGGS FOR HATCHING, from stock winning at Topeka and Wichita, 1916; also first at Topeka, 1918; $7.50 hundred, $1.25 fifteen; first pen, $3 fifteen, $5 thirty. Mrs. Myrtle Henry, Lecompton, Kan.

BARRED ROCKS, BOTH LINES. STATE show winners. Good layers. Eggs, $1.50 per fifteen, $6 per hundred. Special matings, $5 per fifteen. C. C. Lindamood, Walton, Harvey County, Kansas.

BRED-TO-LAY BARRED ROCKS—FINE, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, $1 setting, $5 hundred; guaranteed. Belmont Farm, Topeka, Kansas.

BARRED PLYMOUTH ROCKS, THOMPson Ringlet strain, cockerel and pullet mated, pen and utility flock eggs. Quality high. Priced low. Many satisfied customers in thirty-seven states. Circulars free. A. F. Siefker, Defiance, Mo.

BARRED ROCKS THAT PRODUCED 175 eggs each in 1916; 120 eggs seven months, 1917. Four ribbons, 1917. Pens standardized, Hogan system, eggs, $2 per fifteen, $10 hundred. Mating list free. Farnsworth, 224 Tyler St., Topeka.

HOUDANS.

HOUDAN EGGS, $2 PER FIFTEEN. THE best chickens there are for town. John V. Smith, Morrowville, Kansas.

TURKEYS.

BOURBON RED TURKEY EGGS—PRIZE winning two-year-old hen, 44-pound tom; $3 setting. S. Peltier, Concordia, Kansas.

EGGS FROM EXTRA LARGE, HEALTHY, deep red Bourbon turkeys, $3.50 for eleven. Mrs. J. W. Harshbarger, Milo, Kansas.

SARVER'S FAMOUS NARRAGANSETT turkey eggs, $5 per ten. Sarver's Poultry Farm, Hastings, Nebraska.

BOURBON RED TURKEYS—EGGS FROM choice stock in size, color and markings, $5 and $4 per eleven. Free catalog. Mrs. Clyde Meyers, Fredonia, Kansas.

POULTRY WANTED.

WE WANT YOUR EGGS, HENS, AND other poultry. Loan coops, cases, free. Prices mailed on request. The Copes, Topeka, Kan.

RHODE ISLAND REDS.

SINGLE COMB R. I. RED OR WHITE eggs. E. J. Manderscheid, Seward, Kansas.

ROSE COMB RED PULLETS, $2, $2.50. Chicks, 15c each. Eggs, 100, $5. Fred Leck, Yates Center, Kansas.

STANDARD-BRED R. C. RED EGGS—Fifteen, $1.50; hundred, $6. Mrs. B. F. Welgle, Winfield, Kansas.

EGGS FROM TWO SPLENDID PENS, R. C. Reds, $3 and $5, fifteen; baby chicks, 25c. Mrs. L. G. Lambert, Anderson, Mo.

EGGS AND LARGE RED ROSE COMB utility cockerels. Stedem & Sons, Marshall, Missouri.

ROSE COMB RHODE ISLAND RED eggs, $1 for fifteen or $5 for 105. M. L. Fridley, Wamego, Kansas.

SINGLE COMB RED EGGS—HUNDRED, $4.75; thirty, $1.75. Mrs. Rosa Janzen, Geneseo, Kansas.

BRED TO LAY SINGLE COMB REDS—Pure-bred, rich red, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, setting, $1.00; hundred, $5.00; guaranteed. Belmont Farm, Topeka, Kansas.

SEVEN GRAND PENS ROSE COMB REDS headed by roosters costing $15 to $50. Fifteen eggs, $3; thirty eggs, $5; fifty eggs, $8. Special utility eggs, $7.50 per hundred. Baby chicks. Catalog. W. R. Huston, Americus, Kansas.

RHODE ISLAND WHITES.

PURE ROSE COMB WHITES—100 EGGS, $7.50; fifty, $4; fifteen, $1.50. Extra layers. Golden Seabright bantam eggs, fifteen, $1.25. E. Bidieman, Kinsley, Kansas.

ORPINGTONS.

S. C. WHITE ORPINGTON EGGS, $6 PER hundred. C. L. Hill, Filley, Neb.

261-EGG BUFF ORPINGTONS—FIFTEEN eggs, $1.50. M. Spooner, Wakefield, Kan.

S. C. BUFF ORPINGTON EGGS, $5 PER hundred. Mrs. Wm. Falkner, Belvue, Kan.

PURE-BRED BUFF ORPINGTON EGGS—Circular free. Mrs. Biermann, Wisner, Neb.

S. C. BUFF ORPINGTONS—LARGEboned, even color. Eggs, $1.50 fifteen, $6 hundred. John Oiler, Adrian, Missouri.

GOLD-DUST S. C. BUFF ORPINGTON eggs, $2.25 setting or $8 hundred, postpaid. Mary E. Price, Route 7, Manhattan, Kansas.

PURE-BRED S. C. BUFF ORPINGTON eggs for hatching, $2 for fifteen. W. J. Musch, Hartford, Kansas.

BUFF ORPINGTON EGGS, $1 FIFTEEN, $6 hundred. Mrs. Frank Neel, Beverly, Kansas.

PURE-BRED WHITE ORPINGTON eggs for hatching, $1.50 per fifteen. Frank Hinson, Stockdale, Kansas.

PURE-BRED SINGLE COMB BUFF ORPington eggs, fifteen, $1.75; fifty, $3; hundred, $6. Mrs. Charles Ziegenhirt, Linn, Kansas.

SINGLE COMB BUFF ORPINGTON EGGS from fine layers, large bone, good buff, $6 per hundred; smaller lot, 7 cents. Wilford Bonneau, Route 1, Concordia, Kansas.

WHITE ORPINGTONS FOR WINTER layers and qouality eggs, $7 hundred, $3.75 fifty, prepaid. Ideal Poultry Farm, Concordia, Kansas.

LANGSHANS.

BIG BLACK LANGSHAN COCKERELS and eggs, score cards furnished. Guaranteed satisfaction. H. Osterfoss, Hedrick, Iowa.

MADISON SQUARE AND CHICAGO prize winning Langshans. Eggs, $6 per hundred up. John Lovette, Mullinville, Kansas.

QUALITY BLACK LANGSHAN EGGS—Fifteen, $1.60; 100, $6.50. J. M. Bond, Enterprise, Kansas.

WYANDOTTES.

ROSE COMB WHITE WYANDOTTE eggs, extra good; hundred, $5. Mrs. Geo. Rankin, Gardner, Kansas.

SILVER WYANDOTTE EGGS—FIFTEEN, $1.65; fifty, $3.75; hundred, $6.50. Mrs. Edwin Shuff, Plevna, Kansas.

WHITE WYANDOTTES, GOOD STOCK. Eggs, $1.25 fifteen, $3.50 fifty. Effie Achison, Paico, Kansas.

CHOICE SILVER LACED WYANDOTTE eggs, fifteen $1.25, fifty $3.50, hundred $6. Mrs. Philip Schuppert, Arrington, Kansas.

GOLDEN WYANDOTTE EGGS, FIFTEEN, $1.25; fifty, $3.50; hundred, $6. Louis Brunlng, Phillipsburg, Kansas.

EGGS FROM SNOW WHITE WYANdottes, 100, $6; Rouen duck eggs, $1.50 per twelve. Emma Ben, Gilead, Neb.

WHITE WYANDOTTE EGGS AT $1.50, fifteen; $3.25, fifty; $6 hundred. Winning, laying strain, fertility and satisfaction guaranteed. Andrew Kosar, Delphos, Kansas.

WHITE WYANDOTTE EGGS, $1.25 PER fifteen; $3.25, fifty; $6 per hundred, from good laying strain. Fertility guaranteed. Chilcott's Poultry Farm, Mankato, Kansas.

WHITE WYANDOTTES, STRONG STOCK, splendid layers. Eggs, $1.25 per setting, $6 per hundred. Baby chicks, 15c each. Mrs. Fred Pinkerton, Pawnee City, Neb.

FINE WHITE WYANDOTTE ROSE Combs, fifteen years a breeder. Eggs, $1 setting if more than one setting is ordered. $5 hundred. I. B. Pixley, Wamego, Kan.

WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

DUCKS AND GEESE.

BUFF DUCK EGGS, $1.75 PER DOZEN, prepaid. Mrs. Louis Calame, Stillwater, Oklahoma.

FAWN WHITE RUNNER DUCK EGGS—Fifteen, $1.50; fifty, $3; one hundred, $5.50. H. Clay Shirky, Norborne, Mo.

EMBDEN AND TOULOUSE GEESE—Stock and eggs. Will take Runner ducks or Leghorns in trade. Emma Ahlstedt, Roxbury, Kansas.

FAWN WHITE RUNNER DUCK EGGS—$1.50, thirteen; $3.50, fifty; $6, hundred. Prize winners. White eggs. Mrs. Ben Miller, Newton, Kansas.

Unlike Germany, we Americans believe that the state exists for the individual, not the individual for the state. A democratic state, however, has nothing to offer to its individual citizens that it does not derive from its citizens themselves. Its wisdom is their wisdom; its courage is their courage; its services are their services. It demands, therefore, the loyalty, the wisdom, the courage, the service of its individual citizens. It has nothing but these to serve them with.

Unlike Germany, we believe in democracy. We believe in political democracy as the only means of insuring to each individual his equal voice in the laws that govern him. We believe in such a kindly democracy in social life that the chance to shift from level to lever, either upward or downward, shall be insured to every one according to his own just merits.

Feed Shortage in England

Eggs are very scarce in Great Britain because of the poultry feed shortage. When warned that grain for feeding their fowls was not coming in, poultrymen freely disposed of their flocks.

In March fresh eggs retailed at two dollars per dozen, which put them beyond the reach of people of average means. The British egg shortage has naturally resulted in additional demands for meat.

"There is no half-way house between victory and defeat."—Lloyd George.

Nothing is as usual; why eat as usual?

A good citizen is known by the food he eats.

If you have saved a slice a day, eat cornbread and save a loaf.

"Doing all humanly possible"—but the war calls for super-human effort.

Ask no rest; we have a victory to win.

War provides a stage where all may play a part.

Growing Tomatoes

Tomato growing, tomato history, tomato troubles, and the harvesting and packing of the crop, are the general subjects covered in the recent bulletin of the extension division of our Agricultural College entitled "Tomatoes." George O. Greene, the author, says that tomatoes are not cultivated to the extent they should be in our home gardens. No other vegetable excepting the potato, which may be considered as a field crop instead of a garden vegetable, plays so important a part in the farmer's bill of fare as the tomato. Mr. Greene has made some rather interesting investigations showing the extent to which tomatoes are purchased in cans, and pointing out the great saving which can be brought about by growing them much more extensively and preserving supplies for home use throughout the year. This bulletin will be sent free on application to the extension division of the Agricultural College at Manhattan. It will be most helpful to those who are growing tomatoes in their gardens.

The lamb crop at the Kansas Agricultural College is on a war basis this year. A. M. Paterson, who has charge of the sheep on the college farm, reports that the crop of lambs to date is above 160 per cent of the ewes bred last fall. The last fifteen ewes to lamb have produced thirty lambs, twenty-nine of which are living. The high percentage of twins in the flock this spring has given the institution a fine lot of lambs to use for experimental purposes. It is the best increase showing that has been made. Both heredity and proper feeding and handling are to be given credit for this fine record.

HOLSTEIN CATTLE.

CLYDE GIROD, At the Farm F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

HOLSTEIN COWS FOR SALE

NINETY HEAD REGISTERED AND HIGH GRADE:

Forty two-year-old heifers bred to freshen May and June. Ten yearlings. Forty cows three to six years old. Priced to sell. Farm adjoins town. Come and see me.

C. A. BROCK - - - NORTONVILLE, KANSAS

HOLSTEIN CATTLE

I am offering for sale from my registered herd, four cows from four to six years old; two heifers, two years old, extra good; four yearling heifers and four high-grade cows; four registered bulls of serviceable age. Write or come and see my herd.

J. W. MEYER, NORTONVILLE, KANSAS.

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wauwatosa, Wisconsin

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

REGISTERED HOLSTEIN BULLS

I have a few choice young bulls from my best record cows. They are splendid prospects for herd bulls and priced to sell.

BEN SCHNEIDER, NORTONVILLE, KAN.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

CHOICE HOLSTEIN CALVES

High grade, beautifully marked, sired by registered bulls and from heavy milk producing dams, ten days old, $15; three weeks, $17; six months, $40. For thirty days only. First draft takes them.

Mt. Pleasant Stock Farm, Gilberts, Illinois.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

LILAC FARM

R. F. D. 2 TOPEKA, KANSAS

Holstein herd sire for sale. A four-year-old, best breeding. Object, to avoid inbreeding. Price, $200.

Regier's Holstein-Friesians

Young bulls ready for service. Dams A. R. O. Four dams of one average 25.61 pounds butter in seven days. All sired by the great bull, Sir Rag Apple Korndyke De Kol.

G. REGIER & SONS, WHITEWATER, KAN.

REGISTERED HOLSTEIN BULLS

For Sale—Several young bulls by Pontiac Beauty De Kol Segis, a grandson of King of the Pontiacs and King Segis. These bulls are out of high-testing yearly record cows. We breed for yearly production. Come and see my herd. H. D. Burger, Seneca, Kansas.

ROSS' HOLSTEINS

Bull calves by Hamilton Prilly 5th, whose dam made a record of 26.49 pounds butter in seven days, 105.6 pounds in thirty days. Pictures sent on application.

S. E. ROSS - ROUTE 4, - IOLA, KANSAS

HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment. Edgewood Farms, Whitewater, Wisconsin.

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

HORSES AND MULES.



JACKS AND JENNETS

15 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned. Special prices for early sales. Fifteen good jennets for sale. Come and see me.

PHIL WALKER
Moline, Elk County, Kansas

Percherons—Belgians—Shires



2, 3, 4 and 5-year stallions for sale or let on shares. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.

FRED CHANDLER, Route 7, Chariton, Ia., Above Kas. City.

Eighty-eight Imported and American-Bred Percheron and Belgian Stallions and Mares, some weighing from 1,600 to 2,350, from $450 up. Durham, Angus, Galloway and Hereford calves and yearlings from $75 up. Illinois Horse Co., Good Block, Des Moines, Iowa.

40 Percheron Stallions and mares, weanlings up. 20 Mammoth jacks, 10 jennets in foal. Priced reasonable. Al E. Smith Lawrence, Kansas.

Holstein Calves

We offer for sale choice beautifully marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated, f. o. b. cars: One to two weeks old, $17 each; three to five weeks old, $20 each; six to eight weeks old, $25 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.

H. B. COWLES, 608 Kan. Av., Topeka, Kan.

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON, KANSAS

CALVES

We are offering our

SELECT HIGH GRADE CALVES
From Large Producing Dams and Famous Herd Sires

for $20 and $25, aged one to two months. Give us your order for any amount, and we will guarantee satisfaction on what we send you. Write at once. We have some dandies.

EDGEWATER STOCK FARM
FORT ATKINSON - WISCONSIN

CALVES

Wide-Row Planting

We would again call attention to the advantages of wide-row planting of corn and the grain sorghums. This method has been successfully practiced by farmers here and there over the state for a good many years. Last year C. C. Cunningham, of the Kansas Experiment Station, reported at some length in the columns of KANSAS FARMER on the good results being obtained by those who have adopted this method of planting. It is largely a matter of moisture conservation, involving planting of the crop in rows of double width and giving the blank space careful cultivation. Less seed is required and in periods of short moisture the crop draws on the reserve stored in the wide spaces between the rows. The method is especially adapted to the use of machinery of such size as permits getting over the ground rapidly. Seed is scarce and high-priced the present season and this is another good reason for giving the plan a trial. If carefully followed out it will result in producing more and better grain than the thicker method of planting commonly followed.

V. M. Emmert, county agent of McPherson County, reports that for the past eight years Jacob Lohrenz, who lives near Mound Ridge in that county, has been planting corn in rows seven feet apart and is fully convinced that he raises more corn to the acre every year than his neighbors. He finds it is easier to tend the crop, especially late in the season, and that he can put it into wheat easily without disturbing the corn. "This method was tried out last year," said Mr. Emmert, "by Grover Andes, C. M. Spencer, Stanley Bretches, Alva Flook, H. A. Huxman, and Mr. Heibert, on fields of from five to forty acres, and in every case there was an improvement in the quality of the corn over that grown in the usual way, and in most cases there was a larger yield."

From what we have observed and learned of this method of planting corn and the grain sorghums, we believe it is worthy of an extensive trial over most of our state.

Short circuit on cornbread, the wheat wont go around.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

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CLAIM SALE DATES.

Jerseys.

April 30—Ralph Ballou, Paris, Mo. B. C. Settles, Palmyra, Mo., sales manager.
May 24—Glenwells Farm, Grandview, Mo. B. C. Settles, Palmyra, Mo., sales manager.

Chester White Hogs.

April 27—C. E. Ross, Morrowville, Kansas. Sale at Washington, Kansas.

Chester White Hogs.

Nov. 7—Arthur Mosse, Leavenworth, Kan.

The Poland China sows sold in C. S. Nevius & Sons' bred sow sale on March 5 have made a splendid record. The reports coming to Nevius & Sons have shown that nine pige on an average have been saved. Several sows sold in this sale farrowed ten and twelve pigs and are raising them. Nevius & Sons handle their herd in a way that insures producers. A feature of the herd at this time is a splendid lot of young stock, including fall boars.

E. E. Fisher, Stockton, Kansas, breeder of Polled Durham cattle, reports his herd doing well. The blood lines of Mr. Fisher's herd include all of the popular families and he has a choice lot of individuals. A feature of his herd is the fine lot of young stock, including some good Shorthorn and double-standard Polled Durham bulls.

C. E. Rose, of Morrowville, Kansas, owner of one of the good herds of Chester White hogs in Kansas, reports his herd doing well. The blood lines of this herd are the best of the Chester White breed and include world's grand champion breeding. A feature of the herd is a fine lot of spring pigs, some sired by Volunteer 42401, grand champion at the Nebraska State Fair of 1917. White Cloud, a young boar that is to head this herd, was sired by Prince Big Bone, grand champion at the National Swine Show at Omaha in 1917.

Paul Cashatt, Oskaloosa, Kansas, owner of one of the good herds of Shorthorn cattle in this state, reports his herd doing well. Mr. Cashatt has the popular blood lines of the breed and a very fine lot of individuals in his herd. At this time he has a splendid lot of young stock, including a number of choice young bulls.

The American Shorthorn Breeders' Association has appropriated $8,000 for the futurity classes alone in the 1918 shows. These futurity contests are held at the Iowa and Ohio State Fairs, the American Royal at Kansas City, and the International, Chicago. As twenty awards are made in each class, the opportunities open to the exhibitor are inviting. The entries for the senior classes have already closed. The entries for the junior classes close June 1. These futurity contests are the most interesting features of the season's shows and bring out each year many new exhibitors who are successful in carrying off a generous share of the prize money. The amount of cash prizes for Shorthorns in 1918 will reach $200,000. The Shorthorn Association has made appropriations to fairs and shows in thirty-six states, from one to six shows in each state, providing an inviting field for all who exhibit their products.

The Shorthorn steer, Bonnie Dale, bred by Tomson Brothers of Kansas and exhibited at Fort Worth, Texas, by the Oklahoma A. & M. College, made a dressed weight percentage of 69.81 per cent, 1.24 per cent higher than his nearest competitor.

Charles L. Jarboe, Quinter, Kansas, owner of one of the best herds of Red Polled cattle in Kansas, reports his herd doing fine. A number of cows in this herd are making twenty pounds of butter per week. Mr. Jarboe reports a good demand for high-class Red Polled breeding stock. Among recent sales from his herd two fine heifers and a young bull went to a breeder at Greensburg, Kansas; two fine bulls to breeders at Ellis, Kansas, and a choice bull calf to a breeder at Haven, Kansas.

Homer Drake, of Sterling, Kansas, owner of one of the good Duroc herds, reports his herd doing well. A feature of his herd at this time is the choice lot of fall and winter boars, sired by Colonel's Wonder 222495, one of the good sires of the breed.

John D. Henry, of Lecompton, Kansas, reports his great herd of big-type Polands doing well. Up to this time he has saved forty-seven pigs from six sows. This lot was sired by his famous old herd boar, Mammoth Orange, and Smooth Prospect. They have the size and quality. Smooth Prospect, Mr. Henry's young herd boar, is proving a good sire. He weighed 510 pounds at a year old and has the show boar quality. Mr. Henry also has a choice lot of October boars and gilts and a number of outstanding September gilts.

Charles H. Redfield, of Bucklin, Kansas, reports his great herd of big Spotted Polands doing well. Mr. Redfield saved a fine lot of spring pigs this year and they are growing out fine. These pigs were sired by some of the best sires of the breed. He reports a good demand for high-class Spotted breeding stock.

T. T. Langford & Sons, Jamesport, Missouri, owners of one of the good herds of Spotted Polands, reports that they have saved sixty-five head of spring pigs and that the lot is the best in the history of their herd. These pigs were sired by some of the best boars of the breed now in service and are out of the big outstanding sows in the Langford herd.

When Writing to Advertisers, Please Mention Kansas Farmer

White Scours in Pigs

Scours is one of the hog raiser's persistent enemies, and is apt to give more trouble in the early spring than at any other season of the year, due to the sows and their litters being closely confined, with little or no exercise, lack of green or succulent feed, and cold, damp nests.

"Some authorities claim that white scours is an infectious disease, caused by a microbe or bacillus," says C. V. Truax in the Swine World. "My personal observation, however, and the opinions of many breeders and feeders, leads me to believe that this malady is caused solely by over-feeding the sow, feeding her an unbalanced ration, or the absence of necessary mineral and vegetable matter in her ration. To the experienced feeder and caretaker, white scours will usually herald its approach a couple of days in advance, by the hair on the pigs raising and assuming a rough, harsh appearance. The first symptom is a diarrhea of light green or gray color, which rapidly turns to white, and if left unchecked will quickly cause emaciation and finally death.

"When this trouble is due to overfeeding, the best remedy is to cut down the ration immediately. The action in this case is as follows: The sow produces more milk in the udder than the litter can consume, with the result that the udder becomes inflamed or caked and the milk becomes sour or brackish. When the little fellows get a good dose of this in their stomachs they promptly get the belly-ache, accompanied by scours. Naturally they lose their appetite, do not nurse as often, nor as much, and this causes a greater accumulation of milk in the udder, so that when they do nurse again they get another dose, which only aggravates the trouble. When this ailment is caused by a lack of mineral or vegetable matter, the sow's milk assumes an acid condition, and this can only be corrected by removing the acidity. As is true with a great many diseases, an ounce of prevention is worth a pound of cure.

"I know of writers who claim that damp nests will cause white scours, but I do not believe this is possible. Damp nests may cause a general unthriftiness, but white scours always originates in the sow's milk.

"When you discover a case of this kind, the first thing to do is to either cut the feed in half, or change to a variety of feeds. A steady diet of any one feed, if continued too long, is liable to produce white scours. Better start the sow in with a light feed of bran or oats, continuing for a week, then balance the ration with the addition of corn, middlings and tankage. As soon as you have decreased or changed the feed, give the sow a good cooling physic, such as two to four ounces of Epsom salts, or a half pint to a pint of linseed oil. After her bowels have moved freely, if the pigs still scour, the following remedies given in the sow's feed three times a day will be found beneficial: A teaspoonful to a tablespoonful of sulphate of iron (copperas), depending on the weight of the sow and the severity of the case; or a teaspoonful to a tablespoonful of laudanum; or a teaspoonful of powdered tannaform. In severe cases where one has the time, it will be found beneficial to dose the pigs every two hours with a few drops of laudanum, or what tannaform will lay on the end of a knife blade. If the trouble is caused from an acid condition of the milk, the following remedies will be found beneficial, as all of them are correctors of acidity: Two ounces of powdered chalk twice daily; or a tablespoonful of air-slacked lime, twice daily; or one ounce of sulphate of soda, twice daily. The addition of a good quality of blood meal, or in the absence of that, a 60 per cent tankage, to the sow's ration for a few days, will prove beneficial. Thick sour milk or clabber, fed to the sow, will oftentimes be remedial, as the bacterial properties overcome the acidity. If the sow is in a dry lot, by all means get her on grass, if possible, as where sows and litters have plenty of range and forage this troublesome scourge is seldom encountered."

"A rush of too many fowls to market as soon as the restriction against selling laying hens is removed, may result in food losses," says the United States Department of Agriculture. "Think twice before selling a hen that is still laying. Green food is becoming more plentiful and the demand for eggs continues. Universal marketing of fowls may react on prices as well as cause spoilage of dressed poultry."



Our Navy FREE

"Our Navy"

A BOOK SHOWING EVERY TYPE OF VESSEL IN THE U. S. SERVICE

Every type of vessel in the navy is shown in a book just compiled for KANSAS FARMER. The superdreadnaught and the submarine, the torpedo boat destroyers, hospital ships, as well as photographs of the life of the sailor-soldier on board, are shown.

The book is 10 by 13 inches, bound permanently in heavy bristol boards and beautifully printed. A copy of "Our Navy" should be in every patriotic American home, for, besides the naval photographs,

IT CONTAINS THE FULL TEXT OF THE PRESIDENT'S GREAT WAR MESSAGE

There is absolutely no charge for the book. IT'S FREE. Merely send in your subscription for one year with One Dollar to KANSAS FARMER, and a copy of "Our Navy" will be sent you ABSOLUTELY FREE.

USE THE COUPON

KANSAS FARMER, Topeka, Kansas.

Gentlemen: Inclosed is One Dollar. Mail me at once a copy of "Our Navy" and enter my subscription for one year to KANSAS FARMER.

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TOWN .....

R. F. D..... BOX NO..... STATE.....

GLENWOOD FARM'S SHORTHORNS AND POLAND CHINAS

SHORTHORNS

Sires in Service—Emma's Valentine 412453, Golden Searchlight, and Master Goods.
For Sale—Emma's Valentine 412453, Master Butterfly 10th 582866, and Secret's Valentine 648605. **Real Herd Bulls.**
PRICES REASONABLE.

POLAND CHINAS

Sires in Service — Expansion King, King Wonder II by Big Bob Wonder, and Wonder's Joe by Giant Joe.
For Sale—Twenty gilts bred for summer and fall litters, sired by Expansion King or King Wonder II, bred to Wonder's Joe or King Wonder II. A few fall boars.

C. S. NEVIUS & SONS, CHILES, KANSAS

TESSORO PLACE

OWL INTEREST FINANCE JERSEYS (REGISTER OF MERIT)

Buy a bull from a R. of M. cow and be more certain in your herd building. Every cow in milk in our herd has a year's test or one now on. Our two-year-olds will average 400 pounds of butter. Write for prices and other information.

R. A. Gilliland, Mayetta, Kansas

SHORTHORN CATTLE.

$200,000 SHORTHORN PRIZES

Cash prizes open for Shorthorns in 1918 will reach $200,000. This association has made appropriations to fairs and shows in 36 states, from one to six shows in each state. $8,000 is appropriated for futurity classes alone at the Iowa and Ohio State Fairs, the American Royal, Kansas City, and the International, Chicago.

Come and get your share.

Junior futurity entries close June 1.

American Shorthorn Breeders' Ass'n
13 Dexter Park Ave. Chicago, Illinois

PARKER'S SHORTHORNS

Bulls for Western Kansas. Growthy, thick-made kind, eight to eighteen months old. Two with quality and breeding to head pure-bred herds.

Wm. B. Parker
Lakin, Kearney County - - Kansas

SHORTHORN SHOW BULL

For Sale—Choice roan Shorthorn bull, good breeding, fine show prospect if fitted.
E. E. FISHER - STOCKTON, KANSAS

SHORTHORN BULLS — Bulls of good quality, registered and ready for service. Priced right. **Paul Cashatt, Oskaloosa, Kan.**

SCOTCH SHORTHORNS

Bettie's Albion 399451 now for sale. Roan, weight 2,000 pounds if fat. Strong breeder. Also six bulls from 6 to 24 months old, reds, whites and roans. Write
C. E. HILL - - TORONTO, KANSAS

POLAND CHINAS.

Poland China Baby Pigs FOR SALE

I am booking orders for baby pigs from large-type, heavy-boned, prolific sires and dams. Also have a few choice August and September boars for sale. All immuned.
A. J. SWINGLE, Leonardville, Kansas

DEMING RANCH QUALITY

Big-Type Poland China Hogs

A choice lot of September and October boars. One real herd boar prospect. Fifty bred sows and bred gilts. 250 spring pigs. Write or come and see us.

H. O. Sheldon, Herd Manager
OSWEGO, KANSAS.

REDFIELD'S SPOTTED POLANDS. Booking orders for spring pigs. Well spotted, choice boars. Priced for quick sale. **CHAS. H. REDFIELD, Bucklin, Kansas.**

Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
J. EDW. PLILEY - GILMAN CITY, MO.

HENRY'S BIG-TYPE POLANDS

October boars and gilts. September gilts bred to order. Booking orders for spring pigs at weaning time, sired by Smooth Prospect, Mammoth Orange, Big Bob 2d.
JOHN D. HENRY, LECOMPTON, KANSAS

GRAND VIEW POLANDS

Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.
ANDREW KOSAR - DELPHOS, KANSAS

BIG-TYPE POLAND CHINAS, October farrow, $35 each. Six months Shorthorn bull, grandson Choice Goods Model, $130.
H. C. GROTHEER, PITTSBURG, KANSAS.

LANGFORD'S SPOTTED POLANDS

Last call for fall gilts.
T. T. Langford & Sons, Jamesport, Missouri

Ziller's Big-Type Poland Chinas

Thirty Years a Breeder.
Choicest breeding boars and gilts ready for service. Catalog free.

John D. Ziller, Hiawatha, Kan.

FASHIONABLE STOCK PLACE POLANDS

Herd headed by **Big Wonder.** This outstanding son of **Big Bob Wonder** was first in junior yearling class at Topeka and second at the National Swine Show in competition with the world. Breeding stock for sale at all times. Immune. Satisfaction guaranteed.
V. O. JOHNSON - - AULNE, KANSAS

TOWNVIEW HERD

Boars ready for service, sired by **King Wonders Giant 77326.** A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene, Peabody, Kan.**

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS

Best breeding, best type. Stock for sale.
GEO. W. ELA, Valley Falls, Kansas

JERSEY CATTLE.

IDYLWILD STOCK FARM

Place your order for a Sophie Tormentor, Jacoba Irene, spring bull calf to increase your production.

C. F. Blake - Glasco, Kansas

FINE YOUNG JERSEY BULLS

From Register of Merit and tested cows; Register of Merit sire.

Dornwood Farm, Topeka, Kan.

B. C. SETTLES

MAKES A SPECIALTY OF MANAGING JERSEY SALES.
Write for catalogs.

Palmyra - - Missouri

Longview Jerseys

(Register of Merit Herd)

Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.

Longview Farm
LEE'S SUMMIT - - MISSOURI

BROOKSIDE JERSEYS

Registered Jersey Bulls, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.
THOS. D. MARSHALL, SYLVIA, KANSAS

REGISTERED JERSEY BULLS

Butter-Bred, from High-Producing Cows.
Photo furnished.
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For the improvement of the Farm and Home

Volume 56, Number 18. TOPEKA, KANSAS, MAY 4, 1918. Established 1863. $1 a Year

THE CULTIVATION OF CORN

Destruction of Weeds Important Factor in Cultivation of Crop

WHAT is the primary purpose of cultivating corn? The correct answer to this question is of practical value to every grower of corn or any of the grain sorghums. If to kill weeds only, the practice will differ from that based on the necessity to cultivate in order to conserve moisture. S. C. Salmon, associate professor of farm crops at our Agricultural College, discussed this question before a Farm and Home Week audience at Manhattan last February and presented the results of some of his experiments on the college farm.

There is probably no question of more immediate concern to Kansas farmers than that pertaining to farm labor and its most efficient utilization the coming season. The experiments in corn cultivation seem to show that as good or better yields of corn can be produced with less labor than is often thought necessary, and this is not meant to disparage the value of tillage in connection with growing corn or other cultivated crop successfully.

"When I came to Manhattan about four and one-half years ago," said Mr. Salmon, "I found that one of the most commonly accepted principles in growing corn was that cultivation to conserve moisture was necessary. It was thought that corn should be cultivated during the summer as far as practicable and that the dryer it was the more necessary it was to cultivate. I do not know how generally this opinion is held at the present time, but I have no doubt that many farmers still hold to it.

"This idea did not agree with my experience and I could find no experiments that would substantiate it. Hence I started some experiments to find out if summer cultivation would pay and also to determine as far as possible to what extent cultivation was beneficial in killing weeds and to what extent it was beneficial in conserving moisture.

"This experiment the first year included twelve plots which were cultivated in four different ways—that is, each method was practiced in four different plots located in different parts of the same field in order that any variation in the soil would offset all methods alike. The methods used were as follows:

"1—Cultivated in ordinary way. This consisted usually of three cultivations at intervals of a week or ten days.

"2—Cultivated the same as 1 until laid by. Then cultivated with a one-horse harrow-tooth cultivator between the rows whenever necessary to kill weeds or establish a mulch. This usually consisted of one or two cultivations only during the summer.

"3—Cultivated the same as 1 until laid by. Then cultivated with a one-horse harrow-tooth cultivator every ten days until the corn was mature.

"4—Not cultivated at all. Weeds removed by scraping with a hoe, loosening the dirt as little as possible.

"In 1914 the test was conducted on rather thin upland; in 1915 on upland and rich bottom soil; in 1916 on upland only, but in one case on early fall plowing, in another on spring, and in still another test on unplowed ground. In 1917 the test was conducted on upland, one test being on fall plowed and another on unplowed ground. In all cases except as otherwise specified the ground was plowed in the fall, worked early in the spring with disk and harrow, and was in excellent condition when the corn was planted. The surface planter was used in all cases. The yields secured were as follows:

"With ordinary good cultivation, or Method No. 1, the yield in 1914 on upland soil was 13 bushels to the acre; in 1915, on upland soil, 60.1, and on bottom land 70. In 1916, on fall-plowed land the acre yield was 44.66 bushels, on spring-plowed land 43.83, and on land not plowed at all 43.25. In 1917, on fall-plowed land the yield was 47.06; on land not plowed, 36.69, or an average for the four years on the different kinds of soil and with different methods of preparation of 44.82 bushels to the acre. Exactly the same kind of land and the same previous preparation, cultivated by Method No. 2, yielded 13.36 bushels to the acre on upland in 1914, 57.30 on upland and 66.70 on bottom land in 1915; 44.46 on spring-plowed, 46.51 on fall-plowed, and 39 on unplowed land in 1916; and 48.56 on spring-plowed and 36.41 on fall-plowed in 1917, or an average for all plots of 44.03. A similar series of plots, cultivated by Method 3, yielded 11 bushels to the acre in 1914; 52.10 on upland and 65.50 on bottom land in 1915; 42.73, 46.15 and 41.50 respectively on spring-plowed, fall-plowed and unplowed plots in 1916; 48.20 and 36.96 respectively on spring-plowed and fall-plowed plots in 1917, an average of 43.01 for all plots. On a similar series of plots where the weeds were merely shaved off with a hoe the yield in 1914 was 9.24; in 1915, 58.60 and 71.40; in 1916, 44.01, 46.75, and 45, and in 1917, 42.90 and 31.52, the average being 43.67.

"To our surprise summer cultivation has usually not only not increased the yield of corn, but in most cases has resulted in a positive loss. Also the loss appears to increase with the number of cultivations. Thus the average yield for ordinary cultivation is 44.8 bushels as compared with 44 bushels for summer cultivation as necessary to kill weeds or establish a mulch, and 43 bushels for summer cultivation every ten days.

"Another rather surprising result is the exceptionally good yields secured from the plots that were not cultivated but on which the weeds were removed with a hoe. The average yield of these plots is 43.67, or only 1.1 bushels less than the best method, and in most tests has yielded as high as the best.

Why Summer Cultivation Is Harmful

"It appears that even with a harrow-tooth cultivator set to cultivate very shallow as was done, there is considerable root pruning during the summer, and the injury to the roots by late cultivation is more than enough to compensate for any gain due to conservation of moisture or killing weeds.

"At this stage of growth corn roots are near the surface of the ground and hence easily injured by cultivation. Also, the soil is well filled with roots which intercept any moisture that tends to move upward. Also, if weeds have been controlled the corn roots are so well distributed in the soil that weeds will do little damage.

What Cultivation Does

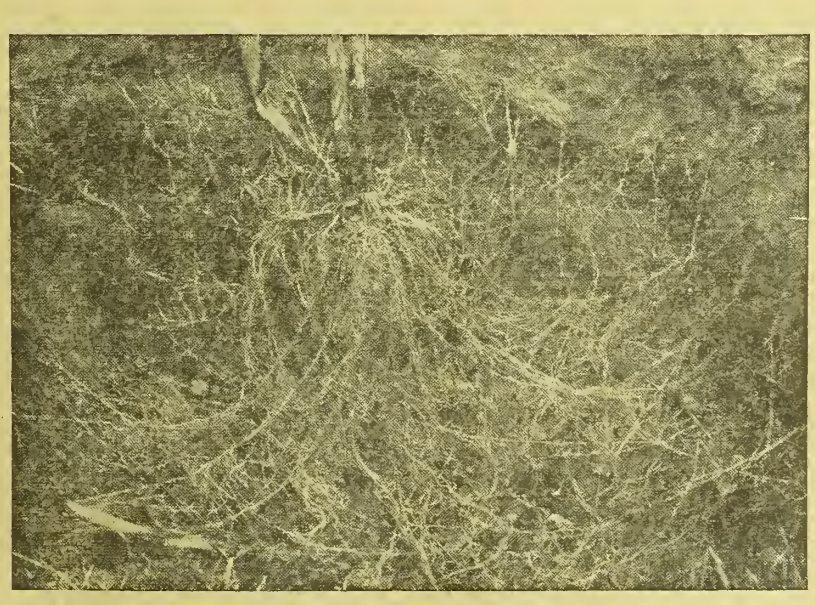
"The yields of the non-cultivated plots show that the principal value of cultivation under conditions at Manhattan is to control weeds. Only in 1914 and again in 1917 was a materially lower yield secured from these plots. The location of the plots and the slope of the land suggested that the greater yield of the cultivated plots in these seasons was due to cultivation putting the surface in better condition to absorb rainfall rather than to preventing the evaporation of water already in the soil. It is probable that on some soils, especially heavy clay soils, cultivation would be beneficial for this reason aside from killing weeds.

Practical Application

"The practical application of these results appears to be about as follows: First, summer cultivation after the corn is laid by, in general, should not be practiced—certainly not with conditions such as have obtained at Manhattan during the last four years. If conditions are such that a crop of weeds can be killed by a very shallow cultivation, it would probably be advisable to cultivate—otherwise it would not.

"Second: It is probably not necessary nor advisable in most cases to cultivate more than is required to control weeds. On heavy soils it would probably be advisable to cultivate in case a heavy rain caused the soil to run together or crust badly in order to put the surface in condition to absorb water. Otherwise, corn should be cultivated only to kill weeds.

"Third: These results appear to show that much labor might be saved by good preparation of the ground, rotation of crops, and by other practices which result in better control of weeds."



ROOTS OF A HEALTHY HILL OF CORN.—THEY PENETRATE THE SOIL FOR MANY INCHES IN EVERY DIRECTION.—CULTIVATION WHICH INJURES ROOTS IS HARMFUL

Save Burlap Bags

Fully 65 per cent of the burlap bags made are being used for sand or earth in the trenches. One English order alone is for 150,000,000 bags. Bag manufacturers have agreed to sell all they now have on hand or already bought at a price not greater than 25 cents apiece at tidewater points.

Jute from India is the material used in the manufacture of grain and feed bags. The freight rate on jute from Calcutta to the United States is over $100 a ton and the present status of the shipping situation is such that the greatest of uncertainty prevails in the jute bag industry. The price of these jute bags has become quite a factor in the price of all feedstuffs and fertilizers. When jute bags were cheap little effort was made to preserve them for future use. Under present conditions every effort possible should be made to save these used bags, not solely because of their commercial value, but because every bag saved and used over again for commercial purposes releases a new bag for the trenches where it may save the life of an American or allied soldier.

Farm Orchard Makes Money

A net profit of $176.37 an acre from a 20-acre apple orchard, is the 1917 record of John Moser of Marysville. Mr. Moser is one of the twenty farm co-operators in the state in orchard demonstrations, and the record is reported by T. H. Parks, extension entomologist of the Kansas Agricultural College.

The acre yield was 204 bushels and the value of the apples was $3,902.50. Pruning, spraying, and picking expense for the year was $375, leaving a total net profit of $3,527.50. Mr. Moser's record is the best of those made by the twenty co-operators.

A net profit of $136.38 an acre was made by Kitchell and Marburg, near Dover. This demonstration orchard consists of nine acres. The average yield was 122 bushels, valued at $1,580. The year's expense was $262.54, leaving a total net profit of $1,318.

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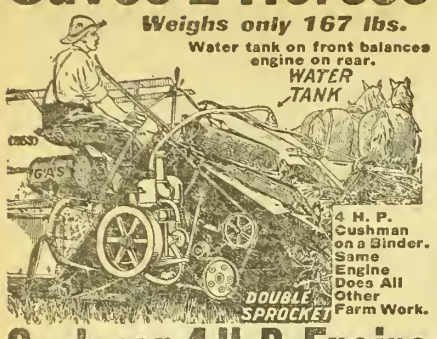

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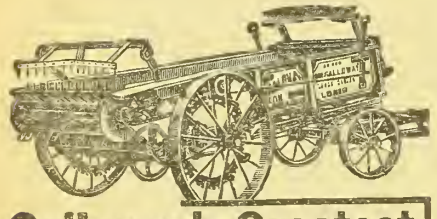

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FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

TWO bulletins which have recently come from the Department of Agriculture at Washington are interesting, not only for the subject matter contained in them, but because they are contributions from a rather new branch of the service—that of rural engineering. One of the authors of the bulletins is E. B. McCormick, who was for many years connected with the engineering division of the Kansas Agricultural College. The bulletins themselves deal with the care and repair of several types of farm implements, but this is only one phase of the work which is included in this branch of engineering.

Rural engineering, or farm engineering, or agricultural engineering, are all one and the same thing. The different designations resulted from the work being taken up at several places at the same time, and since it was rather new, it was a little difficult to choose a name that was suitable. In any case, it is simply engineering applied to agriculture. It includes a consideration of the fundamental principles of engineering that are in any way concerned with agriculture and the application of these principles in a practical way. Sound methods of using these engineering principles are developed, and their possibilities are studied.

Of course science is fundamental to both agriculture and engineering, and and the student who pursues an agricultural engineering course obtains a thorough grounding in this branch of learning. An agricultural engineer who can not see things from an agricultural viewpoint will not get very far, so the basic courses in practical and scientific agriculture are given to him. Likewise, in order that he may approach his problems with confidence in their solution, he must have a good working knowledge of the other technical branches of engineering—civil, mechanical, electrical. All this must be accompanied by practical laboratory work, in order that he may not be entirely inexperienced when he leaves college.

It appears that a man, or a woman, too, for that matter equipped with an agricultural engineering training, has preparation that fits him or her to take advantage of a wide variety of opportunities, whether it be in teaching, in practical or advisory agriculture, or in technical engineering work. All these fields are short-handed, and the demand for men and women to fill vacancies is tremendous. The value of a training of this kind has been thoroughly demonstrated in the successful achievements of those who have already gone out into the world with such a training; all are holding positions of trust and responsibility, many being now in the national service.

Though agricultural engineering is rather recent in development, its application and appreciation is rapidly widening. The department giving this work at the Kansas Agricultural College at Manhattan reports that the interest in it is constantly increasing, and that the demand for men possessing a training of this kind is exceptionally strong. This is to be expected, for agriculture and engineering are the industries that are supporting the war.

Army Trains Truck Drivers

The highways transport committee of the Council of National Defense has issued the following statement:

Night-driving of motor-truck supply trains from the West to seaboard has just been started by the Quartermaster's Department as a step toward the final training which will best fit men for service in France.

A division supply train, comprising thirty-eight cargo and two tank trucks, started last night on its 600-mile journey eastward.

The experience gained through this cross-country convoy work now finds the truck companies self-contained and able to travel entirely independent of the countryside. Camps are made at the proper hour no matter where the company is located, with the exception that the point is made of selecting the open country rather than the cities.

This driving of motor equipment in regular formation from factory to seaboard has proven a most important step in the training program. Each motor supply train will make two trips, the first trip being made in the daylight and the second at night. At the front most of the motor trucks are run at night, so our drivers will now have the chance to accustom themselves to such operation. This night driving here will tend to decrease the daytime traffic congestion on some of our main highways.

Blasting Out Silo Pit

In making excavations, dynamite can quite often be used to save hand labor. A Wisconsin man tells how he excavated a silo pit by the use of dynamite. It was to be five feet deep and twenty-one feet in diameter. He first cut ten cartridges of 40 per cent dynamite in two. He then put down ten auger holes two and a half feet deep in the ground, spaced about equal distances apart over the area to be blasted out. One of the half cartridges was loaded in each of the holes and well tamped. These shots loosened the ground so that it was a very easy matter to shovel out the dirt not thrown out by the charges.

After the hole had been cleaned out, he put down seven more holes, charging them in the same way, continuing until the proper depth was reached. In three days the job was completed and ready for the masons. It had taken seven pounds of the 40 per cent dynamite and fourteen electric blasting caps, which cost only a little more than two dollars.

Investigation has shown that, in most cases where tractors do not give good service, the cause has been due to lack of knowledge on the part of the operator. The farmer should study the machinery carefully before he condemns it. Every instruction book that accompanies a machine is sent out with the idea of aiding the operator. When a new tractor is bought, the farmer can well afford to spend many hours of his idle time in studying the machine. It should be remembered that very few manufacturers would put a tractor on the market which could not be operated. While they might succeed in selling a considerable number of unsatisfactory machines, the reaction would soon force them out of business. With this idea in view, it is probable that operators will find the fault within themselves, rather than within the tractor. The same suggestion might be made concerning other farm implements.

It is reported that 30,000 army trucks ordered by the War Department are being driven overland from the factories in the Middle West to Atlantic ports for shipment to France. It would require 15,000 freight cars to transport these 30,000 trucks by rail, and an additional 2,250 cars to carry the necessary spare parts and supplies than will be transported on the trucks. At the rate of fifty cars to a train, this would mean 345 trains. This method of delivery will thus release 17,250 freight cars, 345 engines and train crews for use in handling other important freight.

Every driver of an automobile should learn how to check a skid. If the steering wheel is immediately turned in the direction of the skid, the skidding will stop, because this will cause a tendency to rotate in the opposite direction. With a little practice this swing of the steering wheel will become almost automatic when the car starts to skid.

When driving an automobile in stormy weather considerable annoyance is caused by moisture collecting upon the windshield. The Studebaker Service gives the following mixture applied to the windshield with a piece of soft gauze or soft cloth, strokes downward, as effective: "To one ounce of water and two ounces of glycerine add one dram salt."

The hose connections of the radiator should be frequently examined. They may look all right from the outside, but as the walls of the hose become decayed they are apt to swell and reduce the size of the opening, thus preventing proper circulation.

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THE NON-PARTISAN LEAGUE

We cannot see how any red-blooded, patriotic citizen of the United States can excuse or condone some of the acts of the organization known as the Non-Partisan League, which has recently invaded Kansas. This organization owes its origin to a real grievance which farmers of North Dakota had against the methods whereby they were being defrauded in the marketing of their wheat. The one big issue in the North Dakota fight was the state-owned terminal elevator for farmers, but when the League got into power it killed the very act which had been responsible for its organization.

When the League organizers first appeared in Kansas some months ago we viewed the movement with suspicion as applied to Kansas conditions and last fall warned our readers to carefully investigate the leadership and management of the League before buying membership in it at the rate of $16 for two years, those being the terms offered by its paid organizers who were sent to Kansas from North Dakota.

While we are in the midst of this great war in which the United States is fighting for human liberty, we may well view with suspicion a movement which has so entangled itself with disloyal organizations and practices as has the Non-Partisan League. The Grange, the oldest and one of the most constructive agricultural organizations in the country, through its official organ, the National Grange Monthly, repudiates most emphatically any intimation or suggestion that it stands sponsor for the principles of the League. The Farmers' Union, another constructive farmer organization that has proved itself by its worth, has gone on record in a number of states in denouncing the Non-Partisan League.

A. C. Townley, president of the Non-Partisan League, admits in a sworn statement that the organization has collected $3,790,000 since its beginning in 1914. Of this, $2,680,000 was paid in membership dues, and the balance in stock in the League's various enterprises. Mr. Townley admits that he is virtually the "whole thing" in the management of its financial affairs. Has anyone ever heard of his making any accounting to farmers for these millions?

The League has never been able to clear itself of the charge of entering into an entangling alliance with a distinctly disloyal and destructive movement. Its leaders and organizers attempt to sidestep when asked about its alliance with the I. W. W., but they have not as yet denied that a tentative agreement was made with this disloyal element last summer. The evidence is incontrovertible, being in the form of definite statements printed in the July 21, 1917, issue of Solidarity, the official organ of the I. W. W. The following extracts will show the purport of the agreement: "The tentative agreement between the Non-Partisan League and the Agricultural Workers' Industrial Union No. 400 was drafted by joint committees elected to represent both organizations. It is expected that this agreement will cover the harvest season, that it will establish for the first time in the harvest fields a uniform wage scale. . . . . If this agreement was in force in Kansas at this time, instead of three to four dollars a day, we would be getting five to six." This agreement was negotiated by Mr. Townley and Arthur Le Sueur, who is now executive secretary of the Non-Partisan League. Mr. Le Sueur was one of the organizers of the "People's Council" together with men like Gelieb-ter, Schlesinger, and Schlossberg. This People's Council is the notorious pacifist organization which was kicked out of Minnesota, Wisconsin, and other states because of its disloyal activities, and was finally invited to meet in North Dakota.

The I. W. W. has been proven beyond a question to be a helper of Germany. Its greatly increased activities during the past two years are explained by the fact that its greatest aim is to slow up and if possible stop the production of the things most needed to carry on the war. A federal grand jury at Wichita in March returned indictments against thirty-five I. W. W. members, the evidence showing that they had a deliberate program in the near-by oil field of obtaining "job control" and then practicing "sabotage," or slow-up tactics. According to their books and literature, this might be both obstructive and destructive. "The question of right or wrong does not concern us; what we want is results," says one of their text-books.

According to claims made, over $300,000 has been turned over to League organizers by Kansas farmers. It is not using publicity. Its organizers simply go quietly about, deliberately selling membership in the organinzation. No one seems to know exactly where the $16 goes or how it is divided up. We can see little hope for Kansas members getting any return for their money. This alone should be enough to make a man go slow in turning over his membership fee, but with this the fact that the League cannot clear itself from the grave suspicion of having made entangling alliances with those whose purpose is clearly to undermine our Government, reducing its fighting efficiency and giving aid to the enemy, should deter any real American from accepting its leadership at this critical time.

In announcing the stand of the Grange in the National Grange Monthly, the editor, who is the national master, Oliver Wilson, says: "The Grange is non-partisan in the true, broad sense. Its service is unselfish and continuous for the farm interests of America. The Grange seeks no class legislation or special favors for farmers, simply because they are farmers, but names as its supreme ideal 'the greatest good to the greatest number.' The Grange is absolutely loyal to its Government, and tolerates within its meetings and among its leaders no spark of even a suggestion of disloyalty. On these four issues the Grange and the Non-Partisan League are as wide apart as if oceans separated them. Let this fact be here and now made clear to everyone: that whatever may be the future of the Non-Partisan League, no responsibility for that future rests upon the Grange or upon the real leaders of the Grange."

Some of our readers may disagree with us, but KANSAS FARMER has no political aims or aspirations to further or protect and we are simply pointing out some of the works of the Non-Partisan League as we see it because we feel that the movement is a real menace to the cause of the farmers of this state. As we stated last fall, we believe it far better to rally more strongly to the support of the true and tried and positively loyal farmers' organizations we already have than to accept membership at the rate of $16 apiece in this new organization which by its works so far has failed to commend itself to a people whose purpose is to stand squarely back of our Government to the last ditch.

FIGHTING GARDEN INSECTS

On page five of this issue we print in tabular form for convenient reference the methods to employ in combating the principal garden insects. Unless you do the right thing at the right time, your garden crops are sure to be seriously injured by insect pests of various kinds which seem to be getting more numerous every year.

Since many people need only small quantities of the different spray mixtures, we give with the table convenient formulas for preparing the various poison mixtures in small quantities. We would suggest that this page be preserved and tacked up somewhere for convenient reference during the insect-fighting season.

PROHIBITION MARCHING ON

Farmers of Kansas will rejoice at the progress we are making toward becoming a "boozeless" nation. Eleven states have now ratified the national prohibition amendment, among them being the states of Kentucky, Maryland, Delaware, and Massachusetts. These are states which have long been counted in the wet column. Indiana is now dry by statute. Numerous cities in Illinois, among them the notorious city of Rock Island, have voted dry. Twenty cities in New York have recently voted dry, the larger ones being Auburn, Elmira, Ithaca, Binghamton, Gloversville, and Middleton. With these additions to the dry columns, there will be a steadily decreasing amount of foodstuffs used for the production of liquor in this country.

Daniel A. Poling, who is now investigating most thoroughly vice conditions in France and England as touching our army, writes most encouraging news of the results of the efforts being made to protect our boys on the other side. While conditions in England are far from satisfactory, and especially as applies to our marines and sailors, he comments on the receptive attitude of Great Britain, mentioning the statement of a member of parliament, made in February, that the restrictions then announced on the brewing of beer had been made as the result of public sentiment in the United States. Mr. Poling tells of a distinguished citizen of Glasgow who, in speaking a few weeks ago of the scant consideration being given to the real public opinion of the United Kingdom, said "God bless America! In her lies our hope for war prohibition."

Meanwhile our housecleaning at home is going on apace, and we can soon with better grace urge upon England the casting out of the liquor trade, which, according to her own prime minister, Lloyd George, is the most dangerous foe Great Britain is now fighting.

LETTERS TO SOLDIERS

What kind of letters are you writing to your soldier boys? We are told over and over again that the morale of the soldier and that of the civilian population behind him is a most important factor in winning victories. The worried, despondent soldier is not a good fighter. One of the big things the Red Cross has been doing in supporting the morale of the French soldier in the trench has been to see that his family at home is provided with the things necessary to its physical comfort and well being. This has been done most systematically behind the lines in France during the past winter, and our money given to the Red Cross has thus been not only relieving the suffering at home but making the French soldier a better fighter and better able to hold the line until we can get there in force. It has meant cheerful letters to the French soldier, telling how the Red Cross from the United States has supplied his family with food and clothing in their extremity.

We have not begun to sacrifice in this country, and it should not be difficult to keep up the morale of our fighting men by writing to them in a cheery sort of way that will minimize the difficulties and seeming hardships at home and make it easier for them to do their duty. We heard a Y. M. C. A. secretary who has been serving in an army camp speak recently and he emphasized this point. He told us they continually advised the boys in camp to write cheery letters home so as to bring the same kind of letters back.

It is not always easy to write the cheerful letters. It has ever been the harder task for those at home to keep up their courage, especially the mothers who cannot go themselves, but must send their boys out to do or die for home, country, and the ideals of government for which we stand.

There is no more fruitful cause for soldiers absenting themselves without leave than a discouraging letter from home. There are many instances where this has occurred and the soldier finds that conditions have been grossly exaggerated. Of course we will miss them and there will be unsatisfactory conditions and perhaps sickness, but it will not help matters to pass it on to the boy in camp who has a task before him calling for the utmost courage and fortitude. Our efforts should be directed toward making it as easy as possible for him to perform his duty. Lighten his worries instead of adding to them.

A division inspector recently submitted the following statement in this connection:

"While stationed at Columbus Barracks, Ohio, last year I was a member of a general court-martial that tried approximately 100 enlisted men for desertion from National Guard regiments stationed on the border. I believe I am safe in saying that at least 90 per cent of them gave as their reason for desertion the fact that they had received letters from home to the effect that a wife, sister, or mother was either dying, very ill, or in destitute circumstances, and begged the man to come home at once. Many of them admitted that when they arrived home they found that the writer of the letter had exaggerated conditions."

Never before in history has a nation undertaken to give its soldiers such pleasant and comfortable surroundings. Extraordinary measures have been taken to keep the young soldiers actively engaged while in camp with sports and amusements and supplied with various comforts in order to keep them in a contented, happy frame of mind. It is an abnormal environment, however, and in spite of all that is being done the young man fresh from home will suffer from homesickness. Let us bear our burdens at home as best we may, and write him only in that cheery way that will help instead of hinder him in his job of becoming a courageous and victorious soldier fighting in a righteous cause.

FREE SEEDS AGAIN

Congressmen, even in war time, when all non-essential freight should be eliminated, are insisting on the privilege of sending out the little vote-garnering free packets of Government seeds. The editor of KANSAS FARMER received his package some days ago and with it a request to advertise to our readers the fact that these packages of seeds from members of Congress are now available to their constituents. It is a graft pure and simple, and the agricultural committee in Congress has been trying for years to cut out the appropriation for this free seed distribution. The following familiar news item recently came from Washington: "An appropriation of $240,000 for the congressional free seed distribution, which had been eliminated by the Senate agricultural committee, was restored by the Senate." We wonder if the time will ever come when our representatives in Congress will consent to give up this useless waste of public funds.

SPRAY YOUR APPLE TREES

If you have apple trees, be prepared to give them the first spray for codling moth. If you neglect this you will harvest only wormy apples. This first spray is known as the "petal-fall" spray. It should be applied when about two-thirds of the petals have fallen and before the calyx of the blossom has closed. The poison spray must be driven into the calyx so that when the worm takes his first bite of the tiny developing apple, this first bite will be his last. Do not apply the spray too early or you will poison the bees. After most of the petals have fallen the bees will not be attracted by the blossoms.

The spray should be composed of one and a half gallons of commercial lime sulphur and two pounds of lead arsenate paste to fifty gallons of water. It will control a large percentage of the first brood of codling moth and aid in the control of the curculio. It is also valuable in controlling the apple scab.

HOW BIRDS CONSERVE CROPS

Thousands of Insect Pests Eaten Daily By Our Feathered Friends

THE value of birds to man is based principally on their feeding habits. Their greatest help is through their activity in eating harmful insects, their eggs and larvæ. Without this constant aid we would be powerless to protect our trees and crops from the ravages of caterpillars, beetles, borers, and such creatures. We have many terrible examples of what happens when a species overcomes its natural enemies that, under normal conditions, hold it in check. The devastation caused by the rapid increase of the gipsy and brown-tail moths throughout New England, the cotton boll weevil in the South, and the injurious fruit scales in California, all show the effects of such insect invasion. These ravenous creatures cause an annual loss to our forestry and timber interests of at least $100,000,000, as is shown by figures issued by the United States Department of Agriculture.

Much valuable data has been compiled by the United States Biological Survey at Washington and by various state departments, notably in Massachusetts, New Hampshire, and Pennsylvania. In these papers it will be found stated, to quote Chapman, "that the stomach of a single cedar waxwing contained 100 canker worms, that one cuckoo had eaten 250 caterpillars, that 454 plant lice were found in the stomach of one chickadee, that a nighthawk had made a meal on 600 grasshoppers, that a flicker had devoured 1,000 chinch bugs, that a scarlet tanager was seen to eat 630 gipsy moth caterpillars in eighteen minutes, or at the rate of 2,100 an hour, while a Maryland yellow-throat ate 3,500 plant lice in forty minutes, or at the rate of 5,270 an hour!"

Insects are known to spread diseases among men and domestic animals. This is particularly true of mosquitoes which are well known as distributors of malaria and yellow fever. These dangerous insects are destroyed in enormous numbers by nighthawks, whippoorwills, swifts, swallows, and flycatchers. The larvæ, which swarm in standing water, are eaten by ducks and other marsh-inhabiting birds. Flies are also famous germ carriers. They are eaten by practically all species of birds and thus much contagion is prevented.

The seeds of noxious weeds cause but little less loss to man than do the attacks of insects. The U. S. Biological Survey has published many interesting reports on the examination of bird stomachs. Professor Beale found 700 seeds of pigeon-grass in the stomach of a tree sparrow, and estimates that this species destroys 875 tons of weed-seed annually in Iowa alone. A snow-bunting had eaten 1,000 pigweed seeds; the stomach of a bob-white contained 5,000 seeds of pigeon-grass and a mourning dove consumed 7,500 seeds of yellow wood sorrel.

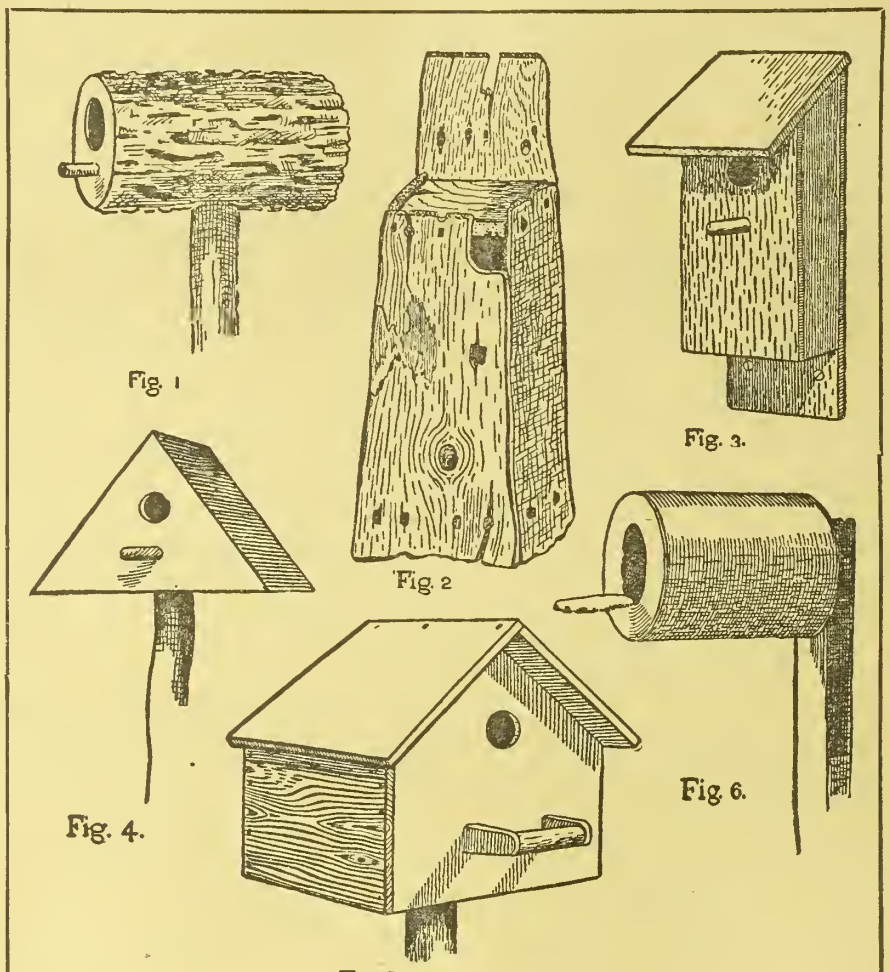
Another important service the birds render for man, particularly the agriculturist and orchardist, is in the destruction of harmful rodents. A considerable percentage of the heavy expense borne by the farmer is caused by rats and by field mice of many species. These cause great damage to the crops, both in the field and when stored. During the winter, many young fruit trees are badly injured or killed outright by the mice which gnaw the tender bark, girdling the trunk and stripping the larger roots. Hawks, owls, and crows are constant destroyers of these creatures. They are killed occasionally by gulls and herons also.

Gulls and crows are also valuable as scavengers, keeping our harbors and beaches clear of refuse that would otherwise spread contagion. The black vulture and "turkey buzzard" render similar services in the southern states.

Of all our birds none offers a better record than bob-white. He is entirely beneficial in every habit and does absolutely no harm. He is resident with us the entire year, destroying 145 species of insects during the summer and 129 kinds of harmful weed-seeds in winter. He is a bird of beautiful plumage and cheery whistle. One would suppose that every farmer would rise in his defense against those who regard him only as a game bird. Unfortunately he is not often appreciated in his own fields, and to the average farmer bob-white is only something good to shoot and eat. We trust that the extensive educational campaign carried on during recent years will produce its desired results and that the value of this splendid little worker in our fields will be recognized.

The woodpeckers and thrushes have suffered also—not from the shot of the sportsman, but from the guns and traps and snares of the poacher, who, through ignorance or malice, violates the regulations enacted for the preservation of our wild life. The downy woodpecker has a splendid economic record to offer: Seventy-four per cent of its food is of insects, including ants, beetles, bugs, flies, grasshoppers, caterpillars and spiders. The flicker is often found in the "game"-bag of the poacher. This splendid bird specializes in the destruction of ants, making of them 42 per cent of its total diet. Of its entire food, 56 per cent is of animal matter, 39 per cent is vegetable, and 5 per cent mineral.

Robins are still killed by those who refuse to recognize the greater value of a live bird over that of a dead one. Consider the food of a robin: Insects, 40 per cent; wild fruit, 43 per cent; cultivated fruit, 8 per cent; miscellaneous vegetable food, 5 per cent. Such a record alone should protect any bird from destruction and when we add the robin's esthetic value to his economic worth—add his cheerful song to his beneficial appetite—the killing of such a bird is truly criminal. And yet the laws of eight of our states allowed the killing and sale of robins until the coming of the Federal Migratory Bird Law, which provides government protection for the robin for all time.



ENCOURAGE BIRDS BY PROVIDING APPROPRIATE NESTING BOXES.—FIG. 1, SECTION OF HOLLOW LIMB; FIG. 2, ROUGH SHINGLES; FIG. 3, SHED-ROOFED HOUSE; FIG. 4, A-SHAPED HOUSE; FIG. 5, GABLED HOUSE; FIG. 6, TOMATO CAN

EDITOR'S NOTE.—The above statement, compiled from official sources, has been issued by the National Association of Audubon Societies. Just at this time the information is of special importance because the Association is trying to impress upon Congress the need for immediate passage of the Migratory Bird Treaty Enabling Act, which would put into enforcement one of the wisest statutes ever planned for the protection of the winged conservators of our farms. You can help this cause by writing to your representatives in Congress urging the passage of this legislation, which is the final step in the enforcement of a beneficial agreement.

Flour-Saving Enforced

There will be no flour famine in this country if every individual lives within the limit of one and a half pounds of flour consumption a week until the next crop is available. Reports being spread that a flour famine is inevitable are a species of German propaganda, the purpose of which is to induce selfish, unpatriotic people to hoard this important food. Even some storekeepers have aided this German propaganda by telling their customers that we are facing a flour famine. Here is Food Administrator Innes' statesment:

"Practically all flour mills are working on Government contracts. They are milling for the Allies or for our troops and are selling direct to the United States Food Administration.

"The mills already have produced enough flour to last us until harvest if every person does the right thing. The right thing is to live on a maximum of one and a half pounds of flour per person per week. Families where baker's bread is used should limit themselves to one-half of a pound of flour per person a week.

"A household with two members should not have more than twelve pounds of flour on hand at any time. Twelve pounds is a month's supply for a family of two and to have more than a month's supply is hoarding. A family of two should not buy flour by the twenty-four-pound sack, but by the twelve-pound sack. A family of four should not have more than twenty-four pounds of flour on hand at any one time. If they buy baker's bread they should not have more than eight pounds of flour on hand at any one time. A family of four using baker's bread should make purchases in eight-pound lots instead of in the twenty-four-pound sack. Grocers are ordered not to sell more than a month's requirement for the family. Many grocers of Kansas already are refusing to make sales to families that are already supplied, and such grocers have the support of the U. S. Food Administration.

"A pro-German is any person who is helping Germany to win this war. It makes no difference if that individual's ancestors came over in the Mayflower or if he claims descent from Pocahontas, he is pro-German if he helps Germany prolong the war. Any one who hoards food is helping Germany and is pro-German.

"After May 15 we will requisition all flour hoarded by pro-Germans. At present patriotic Americans are returning excess stores. Some are returning all their flour and are going on a wheatless ration until the next harvest.

"That their loyalty will not be in vain we have paid investigators working now on the flour situation. We also have 3,000 volunteers, situated in every community in Kansas, who are giving us accurate information. With their aid we are listing stores of hoarded flour and already we know where much is stored. We are giving until May 15 for any one to voluntarily give up excess holdings, and we believe most Kansans will do so. But pro-Germans must not complain if they are publicly disgraced after May 15 by having their excess stores requisitioned by the Government.

"I would ask any one who wishes to volunteer information, to make reports only after they are in full possession of the facts. Report to the state office or to your county administrator after facts are complete. Reports should not be made when there is nothing but rumor to base an investigation on, for such rumors are often the result of spite-work."

Less Grain to Live Stock

It is imperative that we continue live stock production not only as a war measure but as an important feature of a dependable and permanent type of agriculture. In the addresses given in Kansas by C. F. Curtiss, dean of Iowa State College, the importance of live stock was discussed. Dean Curtiss is one of the recognized authorities on live stock questions. He had just come from a conference in Washington, and could also speak from the standpoint of meat production as affecting the war program. He urged that we maintain our production of beef cattle, but suggested a material reduction in the amount of grain fed. Kansas conditions are favorable for the production of sheep, it was pointed out, and more should be raised. Care in feeding young pigs should be taken to assure increased production.

"The American farmer is quick to respond to the call for patriotism," said Dean Curtiss. "No other industry came forward as well in this war as agriculture. The farmer has been delivering the goods and is on time. This country is 800,000 tons behind in its schedule of sending supplies for the Allies, but it is not the fault of the farmer.

"There is every reason to believe meat will become as scarce as wheat. It is probable that while the war lasts grain will be so high that it will be necessary to feed it sparingly to live stock. We'll have to learn to feed substitutes. Alfalfa and corn fodder will of itself constitute a large part of the ration for beef cattle. Cottonseed meal added to it will make an excellent feed. With a constant supply of alfalfa and rape pasture the farmers can produce hogs on half less grain.

"The food supply is becoming more and more restricted each day. More ships are being sunk than are being built. Practically the entire food supply for the Allies will have to come from the United States and Canada. Our own farms will furnish the source of supply to a large extent. It may be necessary to take off all ships that have been supplying beef from Argentina. This would mean a heavy additional demand on our products.

"The French have been subjected to a terrible ordeal. It is a sad fact that France was again compelled to cut the bread ration. The thing that concerns the French people most is their food supply. France is dependent upon bread and England upon meat. I believe we will gladly give half of our wheat and our last crust of bread if necessary."

Reduction, Production — the watchwords of 1918.

SPRAY IN SMALL QUANTITIES

Convenient Formulas for Spraying Small Garden or a Few Trees

OWNERS of a few fruit trees or people having small gardens will welcome spray formulas for preparing necessary poisons in small quantities. Practically all the formulas published in bulletins or books are based on fifty or one hundred gallons of the spray mixture. Of course by a careful use of the scales and some arithmetical calculations one can figure out how much of a given material is necessary to prepare a small quantity such as is needed to kill a few worms on some gooseberry bushes or perhaps save the fruit on a few trees. Few people, however, like to be bothered with figuring out small quantities from these fifty or hundred-gallon formulas. It is by no means the town dweller only who feels the need of the small-quantity formula. Even on the farms it is only the professional orchardist or the commercial gardener who ordinarily has use for spray mixtures in fifty and one-hundred-gallon lots.

In a circular of the Ohio Experiment Station by Paul Thayer the small-quantity formulas are given for the sprays commonly used in combating the insects and diseases attacking our gardens and fruits. These formulas will be found most convenient as supplementary to the regular spray calendar.

Measures are given wherever possible, because they are much easier to use than weights. These measures are based on the following table, which is the generally accepted standard:

Gallon	Quart	Pint	Level measuring cup	Level tablespoon	Level teaspoon
1	4	8	16	256	768
	1	2	4	64	192
		1	2	32	96
			1	16	48
				1	3

Attention is called to the cup mentioned above. It is the half-pint measuring cup that is coming into general use in the kitchen and is obtainable at any ten-cent store. The cup, as well as the spoons, is filled level, all the rest of the material being scraped off.

Copper Sulphate Solution

Use a little over two level tablespoonfuls of copper sulphate (blue vitrol) to a gallon of water or a half cupful to five gallons. The copper sulphate should be pulverized until the coarsest particles are about the size of coarse sand. Small amounts of copper sulphate may be easily pulverized by inclosing them in a cloth and pounding on a hard, smooth surface. Do not dissolve the copper sulphate in an iron or tin vessel. This is an excellent spring (dormant) spray on all plants that do not need a scale spray.

Bordeaux Mixture

Use one of the following formulas: A trifle over two level tablespoonfuls of copper sulphate (blue vitrol) with one-half measuring cup of hydrated lime to one gallon of water; or one-half measuring cup of copper sulphate with 2¼ measuring cups of hydrated lime to five gallons of water. Dissolve the copper sulphiate and lime separately and mix; then dilute to the required amount. The making of Bordeaux mixture in such small amounts with stone lime is not practical, and hence the recommendations are for hydrated lime.

This is the standard spray for plant diseases. It is too strong for the foliage of peaches and some varieties of plums, and for them the following mixture is used (half strength Bordeaux): One level tablespoonful of copper sulphate with six level tablespoonfuls of hydrated lime to one gallon of water; or, six level tablespoonfuls of copper sulphate with 1½ level measuring cups of hydrated lime to five gallons of water.

Ammoniacal Copper Carbonate

The common formula for ammoniacal copper carbonate is as follows: One level teaspoonful of copper carbonate with two tablespoonfuls of ammonia to one gallon of water. Dissolve the copper carbonate in just sufficient ammonia to dissolve it thoroughly and then add the water.

This spray is practically colorless when applied and is used against diseases when the fruit is so nearly ripe that Bordeaux mixture would injure its attractiveness.

Commercial Liquid Lime-Sulphur

The formula for the use of commercial liquid lime-sulphur in dormant strength is one pint of commercial lime-sulphur diluted to one gallon of water. This is the strength used in early spring to destroy the scale, and is most effective when used just before the buds open.

The summer strength of this spray mixture is one-half cup (scant) of commercial lime-sulphur to one gallon of water. This strength may be used as a summer spray in place of the standard Bordeaux mixture. The dry lime-sulphur has not yet been found successful as a summer spray.

Kerosene Emulsion

Dissolve a one-inch cube of laundry soap in a half pint of boiling water. Add one pint of kerosene and shake in a two-quart fruit jar until thoroughly emulsified. (This is sufficient for three gallons.) The stock emulsion will keep for months if stored in air-tight vessels. When carefully made and applied, this is an excellent remedy against plant lice and other sucking insects.

Tobacco Solution

The nicotine sprays on the market contain about 40 per cent of nicotine. Some of the manufacturers of these sprays are putting them out in ounce phials. Their recommendations are 40 to 80 drops to a quart of water or one to two teaspoonfuls to a gallon of water. The addition of a small amount of common soap adds to the sticking property of the solution.

The spray is equally effective with kerosene emulsion against plant lice and other sucking insects. It is somewhat more expensive, but easier to prepare.

Paris Green

Paris green spray can be made in small quantities by adding one level teaspoonful of Paris green to one gallon of either water or Bordeaux mixture. It is still used as a spray against potato bugs, but for use on fruit trees it has been superseded largely by arsenate of lead.

Arsenate of Lead

Arsenate of lead spray is made by adding 1½ level tablespoonfuls of paste, or two level tablespoonfuls of powder, to one gallon of water, Bordeaux mixture or summer-strength lime-sulphur.

White Hellebore and Pyrethrum

These are used when fruit is attacked by some chewing insect (like the currant worm) so near the time of ripening that it is unsafe to use arsenate of lead. The hellebore or pyrethrum is usually mixed with an equal amount of flour and dusted on the plants.

Keeping Meat in Summer

Meat keeps the best in a dry, dark, cool, well ventilated place where flies cannot get to it. The smoke-house has proved satisfactory until hot weather and flies set in. The standard method then is to wrap the meat in paper and muslin and to bury it in the grain bin. Another good method is to pack in unwrapped in clean, granulated rock salt. Smoked meat will absorb little or no salt from this dry pack.

Conservation, concentration, and conseeration—for the sake of those at the front.

Principal Garden Insects and Remedies

THE home gardener must count upon the presence in his garden of insect pests, and if not combated they will interfere seriously with yields and in many instances destroy the plants. The following table, prepared by J. H. Merrill, Assistant Entomologist, Kansas Experiment Station, lists the insects most likely to appear in the vegetable garden and furnishes information in regard to the plants attacked and the treatment recommended:

CROPS ATTACKED	INSECT PEST	WHAT TO DO	WHEN TO DO IT
Beans, Peas	Aphids (plant lice sucking sap from the leaves)	Nicotine sulfate—¾ pint to 100 gallons of water plus 3 or 4 pounds of soap. One teaspoonful to 1 quart of water plus a small piece of soap. Soapy spray—1 pound of laundry soap to 6 gallons of water.	When insects first appear.
Beets, Chard, Spinach	Webworm (worm which eats and ties the leaves)	Arsenate of lead—3 pounds of lead arsenate paste to 50 gallons of water. Must be applied with force.	As soon as insects appear.
Cabbage, Cauliflower, Turnip, Radish	Cabbage Worms (Soft bodied worms which devour the leaves and ruin the heads)	Arsenate of lead—3 pounds of lead arsenate paste to 50 gallons of water. Dust as for Colorado potato beetle.	As soon as the plants are set. Continue until heads are half formed.
	Cutworms (Fleshy worms which cut off young plants at surface of ground)	Poisoned bran mash— Bran ..... 20 lbs. Paris green or white arsenic ..... 1 lb. Syrup ..... 2 qts. Oranges or lemons ..... 3 Water ..... 3½ gals.	As soon as the damage is noticed sow it broadcast in the evening so that the amount recommended will cover 4 or 5 acres.
	Harlequin cabbage bug (An orange and black triangular bug that sucks the sap)	Hand picking bugs and eggs.	As soon as bugs appear.
	Aphids	On cabbage and cauliflower, use sprays given under beans and peas and wet the aphids. On turnip and radish, use only nicotine sulfate with 3 pounds of soap to 50 gallons, or 1 ounce to a gallon.	When they become numerous
	Squash bugs (Brown bugs which suck sap from under side of leaves)	Hand pick bugs and eggs and trap with chips and small pieces of board. Soapy spray—1 pound of soap to 3 gallons of water. Strike the bug so as to actually wet it.	When insects appear.
Cucumbers, Muskmelons, Squashes, Pumpkins, Watermelons	Striped cucumber beetle (Small, yellow and black striped beetles which attack young plants)	Protect young plants with screens. Dust with tobacco, lime, or sulphur. Apply arsenate of lead liberally, using 3 pounds of lead arsenate paste to 50 gallons of water.	When the insects appear. Repeat once a week until danger is past.
	Aphids (Plant lice sucking sap from leaves)	Nicotine sulfate and soapy spray used as for bean aphids. Spray under sides of leaves to hit insects.	As soon as insects appear.
Onions	Onion thrips (Small sucking insects causing white spots on plant)	Spray as for aphids, using high pressure.	When insects appear.
Potatoes, Egg Plants, Peppers	Potato bug (Thick, striped beetle and reddish larvae eating leaves)	Arsenate of lead—4 pounds of lead arsenate paste to 50 gallons of water. Paris green ..... 1 lb. Freshly slaked lime ..... 1 lb. Water ..... 50 gals. As a dust—1 heaping tablespoonful of paris green or powdered arsenate of lead to 1 quart of flour or hydrated lime.	Hand pick adults and eggs when plants are not large enough to spray. Spray when insects are attacking the plants. Dust by means of perforated can or cloth bag while dew is still on plants.
	Flea-beetles (Small jumping beetles which perforate the leaves)	Arsenate of lead and Bordeaux mixture on under sides of leaves.	Spray when insects appear.
Sweet Corn	Corn earworm (Worm found eating the kernels of corn in the ear)	Three parts of powdered arsenate of lead to 1 part sulphur or flour.	Dust with cheesecloth bag, perforated can or powder gun when silks first appear and repeat every four or five days while corn is in silk.
Likely to attack any garden truck	Grasshoppers	Poisoned bran mash as recommended for cutworms.	Sow broadcast in the morning so that the amount recommended will cover 4 or 5 acres.

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are common in Western Canada. The thousands of U. S. farmers who have accepted Canada's generous offer to settle on homesteads or buy farm land in her provinces have been well repaid by bountiful crops of wheat and other grains.

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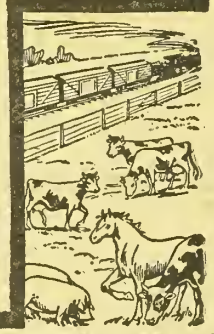

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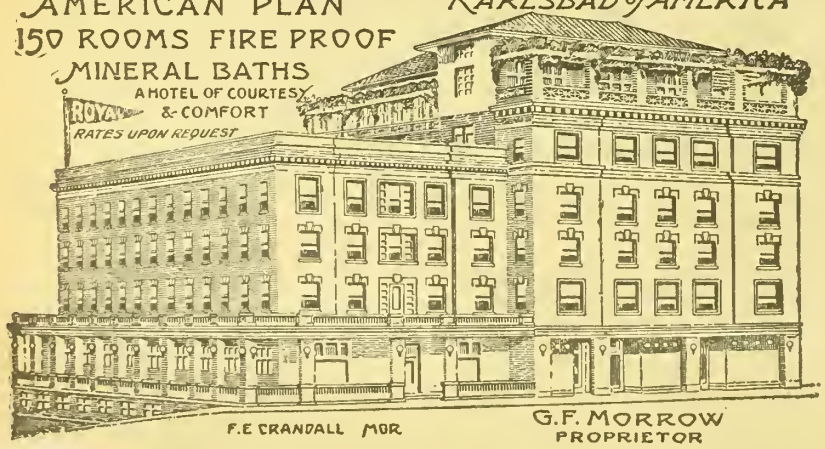

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Garden Irrigation

MANY a garden could be saved by proper application of water at the right time. This is especially true in sections where the rainfall is light. Even in the eastern or humid part of Kansas garden crops often suffer seriously for moisture. The garden with its reservoir or pumping plant to supply the necessary water during periods of short rainfall can be made a winner in almost any sort of a season. This question of garden irrigation was raised by Mrs. J. R. P., a Butler County reader of KANSAS FARMER. She states that the water comes to her garden through a pipe fed by windmill power a little higher than the garden, and she wishes to arrange it so as to get the best possible results the coming season. Prof. Albert Dickens, head of the horticultural department of the Agricultural College, offers the following general suggestions on the subject of garden irrigation:

"To understand and put into practice the best methods in garden irrigation, one should know something of the factors of plant success. Among the most important of these are the condition of the soil, water supply, drainage, kind of crop, age of crop, season, temperatures, weather forecast, area to be irrigated, and the labor resources of the gardener.

"Poor condition of the soil is probably responsible for more discouragement and disappointment in irrigation than any one factor. Stiff, heavy soil poorly supplied with humus material is a difficult proposition and any irrigation is likely to result in more or less disappointment. Such a soil should be well supplied with well rotted manure before any degree of success in gardening work is to be expected. Likewise sandy soils will drain quickly and are likely to "burn up" during hot dry weather unless they are well filled with manure so sufficient water can be retained to make it worth while to irrigate them. If garden soils are not in good condition they should be made so before gardening operations are attempted.

"In localities where the amount of rainfall is uncertain the weather forecasts and the soil conditions must be most carefully considered. Many a garden has been injured by giving a heavy irrigation just preceding a heavy rainfall. If the soil does not drain readily the plants are either scalded or drowned and the garden is a failure.

"Plants should not be sprinkled in hot dry weather when the sun is shining. For corn, potatoes, tomatoes and other deep rooted crops, furrow irrigation is usually as satisfactory as any. Plow a furrow between the rows and keep the furrow filled until the water soaks to the rows on each side, then as soon as possible cover the wet ground with the earth that was removed to make the furrow. As soon as possible rake or cultivate the ground until it is in good condition. A good thorough furrow irrigation should last two or three weeks.

"For small crops such as lettuce, radishes, onions, peas, etc., sprinkling with a hose or sprinkler in the evening after the sun is low or preferably after the sun is down and following it with a light cultivation in the morning is probably the best practice. In this method of irrigation less water must be given at much more frequent intervals than in furrow irrigation.

"The best gardeners in the country are installing a sprinkling system, commonly called the Skinner system, in which the water is forced through overhead pipes with a sprinkling device arranged with reference to the pressure so the entire area may be sprinkled. This is probably the most satisfactory system but the installation is somewhat expensive, although where good posts and good pipes are used it may well be considered as a permanent investment.

"Sub-irrigation systems have not been successful in most soils. The system consists of applying water through drain tile or specially prepared soil pipes, the type varying somewhat according to the crop that is to be grown. The water is applied through a head pipe that carries it out into the laterals. Economy of water lost in evaporation is one of the arguments in favor of this system, but many soils become water-logged and sour and in the case of sandy soils many times the drainage is very much greater and the economy of water is not real.

"The following general directions should be followed in using any irrigation system:

"Apply the water before the soil becomes hard and dry.

"The amount of water must vary with the probability of evaporation and the probability of rainfall. If the weather forecast is 'fair and warmer,' then the probability is it will not rain for at least three or four days and a greater amount of water may be applied than if the forecast is for local showers and cooler.

"The ground should always be worked as soon as possible after an irrigation. After a light sprinkling a good rake is usually sufficient, as this will check the germination of weed seeds, conserve the moisture and aerate the soil. After furrow irrigation on large areas horse tools are generally used for cultivation."

Sorghums and Pit Silo

Western Kansas should be a live-stock country and with the silo and the sorghums as feed crops there is no reason why it should not be a section where the growing of live stock, either beef or dairy cattle, and horses and mules could be a dependable feature of the farm business. You can have a pit silo at little cost, and the sorghums are almost sure to make silage crops in any kind of a season if given half a chance. These crops do not always mature grain, but they almost invariably produce some return in the way of forage, and this can best be saved as silage.

We would like to emphasize these two factors in Western Kansas farming: Grow sorghums for silage and increase the number of silos, making pit silos if silos above ground cannot be built. At the present time there is a great shortage of feed. Even the supply of straw is low. At the Hays Experiment Station, where certain lots of cattle were being fed straw as roughage the past winter, the supply of straw on the station farm was exhausted before the end of the feeding period and other roughage had to be substituted.

There is nothing more important in connection with the handling of live stock in the western part of the state than the growing of plenty of feed to carry them through the winter. A considerable wheat acreage has been abandoned, and on a part of this at least feed crops might well be planted. Last year sorghums were put in extensively on abandoned wheat land, and produced well.

With the rains of the past week or so the ground is in good condition for putting out cane, kafir, or others of the sorghums. Prof. L. E. Call of the Agricultural College states that there will be enough kafir, milo, feterita and cane seed available for planting large acreages. The prices of course are high, but no higher proportionately than the prices of grain generally. Professor Call points out that it will be difficult to obtain varieties of seed corn adapted to the western part of Kansas.

Pinto Beans in Southwest

The pinto bean was raised quite extensively in the West and Southwest last year. H. M. Bainer, agricultural and industrial agent for the Santa Fe Railroad, regards the pintos as a money-making crop for these sections. Mr. Bainer was loaned to the government by the Santa Fe railroad, and has just completed the taking over of the unsold portion of the pinto crop of Colorado for the United States Government in co-operation with the Food Administration. When this movement is completed, fully 50,000,000 pounds of these beans will have been shipped to eastern markets.

The Food Administration has been putting on a strong publicity campaign in the eastern states, calling attention to the pinto bean and its good qualities, following this up by actually placing the beans on the market. They have

been shown to be fully equal, if not superior, to the ordinary navy bean as a food product.

"This whole campaign is going to mean a great deal to the future of the pinto bean industry," says Mr. Bainer. "From present indications, a greater acreage is going to be planted this spring of this crop than ever before. Our department of the Santa Fe railway is going to put out considerable literature in the way of posters and circulars dealing with the pinto beans, calling attention to this crop and urging growers throughout all of our territory to put out a greater acreage and at the same time pay more attention to better seed and better cultural methods. We feel that this is going to be one of the leading cash crops for farmers of much of the Southwest."

Permanent Income Amendment Endorsed

This coming fall an amendment to our state constitution, having for its purpose the adoption of a permanent plan for carrying on the normal work of our state educational institutions, will be submitted to the voters of the state. The women of Kansas, through the federated women's clubs of the state, have just endorsed this amendment. It is their avowed purpose to see that the voters of the state are informed concerning the desirability of this change in the method by which Kansas provides for her institutions of higher learning.

In past years the institutions have depended upon direct appropriations from the Legislature and no plans could be made concerning the development of these institutions that would extend over a longer period than the meeting of the next Legislature.

The change in the administration of the state schools from the old plan, having a separate board of regents for each institution, to a salaried board who are in control of all the schools of the state, is eliminating competition between the schools and proving to be economical in the removal of duplicating courses in the institutions.

The adoption of this amendment would make it possible for these schools to have fairly accurate ideas concerning the income for succeeding years and in many ways it would be economy in the matter of administration.

The influence that the club women have had on the improvement of the common schools and high schools in their communities would be hard to estimate.

In making their plans for the improvement and growth of the state institutions the Board of Administration is now hampered by the fact that no plan may extend over more than two years. Two years is a very short time in the growth of a great school. No business would be run on such a short term method, and the people of the state are asking that their state schools be placed on a plane that will make them equal to any and at the same time will allow economical administration.

The action of the women of the state in endorsing this effort to put the financial side of our state educational institutions upon a more businesslike basis is embodied in the following resolution, passed at the recent annual meeting of the Federated Women's Club of Kansas at Salina:

The State of Kansas has always taken a foremost place in its appreciation of education. With our growing wealth and enlarging vision of responsibility as a leader among the states in enlightenment and progress, we are keenly sensitive to our obligation to provide the best in the educational institutions maintained by the state. These stressful days of war give even greater emphasis to this obligation. Kansas must do her full part in the conduct of the war and in the reconstruction of the world after this war has been fought to a victorious issue.

Therefore we, the Federated Women's Clubs of Kansas, in annual convention, record our hearty approval of the amendment to the state constitution submitted to the voters by the last legislature by which provision will be made for a permanent income to be assured to all our state educational institutions.

We pledge ourselves to lend our cordial support to this progressive educational measure and to do our utmost to spread widely an intelligent understanding of this amendment so that our institutions of higher learning may have a permanent income that will enable them to plan a broad and consistent policy in meeting the great demands made upon them in these crucial days.

Hays Station on Profit Basis

While an experiment station cannot and should not ordinarily be run as would a big farm business, the Fort Hays Experiment Station in Kansas very closely approximates this condition. It is necessary to do many things costing money in experimental work simply to get at facts which cannot be obtained in any other way, but in spite of this at the Hays station, according to the report made by Supt. Charles R. Weels on the occasion of the cattlemen's round-up, was run last year at a profit of 2.3 per cent and 5 per cent the year before on the total investment.

Last year alfalfa was produced at a profit of $20.33 an acre, corn at a loss of 25 cents, sorghum at a profit of $3.16 an acre, and wheat at a profit of 43 cents an acre. While the wheat crop was a complete failure on many farms in the district, the station wheat averaged six bushels to the acre.

Beans were produced at a slight loss. Beans are an uncertain crop, pointed out Superintendent Weeks, but they may be raised successfully under favorable weather conditions. They do not survive hot winds so well as do the sorghum crops.

Cattle made a profit at the station despite the highest price of feed ever known. The station lost $84 on hogs, the value of the hogs handled being $8,200. Sheep at the station proved remunerative. The value of the sheep in January, 1917, was $1,635. The profit in a year was more than $1,000.

Kafir has outyielded corn three to one on an average in the last eight years at the station, the speaker pointed out. The average yield of wheat on ground that was plowed early has been 13.4 bushels an acre, while on late plowed ground it has been 7.8 bushels. This difference has been due in part to the fact that there is more moisture in the ground at the time of seeding when the ground is plowed early.

The station is run on a strictly business basis. It costs 24.4 cents an hour for each man doing work at the station, an average of 13.2 cents an hour for every hour of work by a horse, an average of 3.6 cents per hour for machinery, and $1.30 for every hour in which an engine is run.

Superintendent Weeks was complimented highly by the speakers on the efficient work done at the experiment station. One of the speakers pointed out that a single experiment may be worth to the farmers and cattlemen of Western Kansas the entire cost of maintaining the station—and hundreds of experiments with live stock and crops are being conducted.

A circular on the control of garden insects and plant diseases has been issued by the department of entomology and botany in the Kansas Agricultural College which is expected to prove valuable to gardeners. A bulletin issued by the department of entomology on the spraying of fruit trees gives a spray schedule for various kinds of fruit. Copies of these bulletins may be obtained on application to the Kansas Agricultural Experiment Station, Manhattan.

"Hooverize," "Fletcherize," and exercise—these three; but the most important of these is exercise.

The first American farm tractors which will be used chiefly in preparing land for grain production are now being operated in France, according to reports reaching the U. S. Food Administration.

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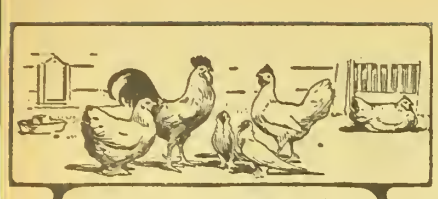

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Those who located in Central Kansas 20 years ago are the big farmers today. Their land has made them independent.

Your chance *now* is in the five Southwestern Kansas counties adjacent to the Santa Fe's new line, where good land is still cheap.

With railroad facilities this country is developing fast. Farmers are making good profits on small investments. It is the place today for the man of moderate means.

Wheat, oats, barley, speltz, kaffir and broom corn, milo and feterita grow abundantly in the Southwest counties referred to. Chickens, hogs, dairy cows and beef cattle increase your profits.

You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6 per cent—price $10 to $15 an acre.

Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy-purchase contract. Address

E. T. Cartlidge,
Santa Fe Land Improvement Co.,
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"Putting off an easy thing makes it hard, and putting off a hard thing makes it impossible."

Good business as well as patriotism urges support of the Government in its financial needs. There is no class of Americans more than the farmers of the nation whose own welfare is so indissolubly bound up with that of the United States Government. Buy Liberty Bonds.

KANSAS FARMER DAIRY CLUB

Use of Milk Urged

AT A conference of the national dairy industry, held in Chicago April 12 and 13, a committee was appointed to confer with the Food Administration officials in Washington. This committee has requested the Food Administration to announce again its policy with regard to milk.

In response to this request the Food Administration has issued the following:

"For the proper nourishment of the child it is essential that milk should be kept in the diet as long as possible. Not only does it contain all the essential food elements in the most available form for ready digestion, but the recent scientific discoveries show it to be especially rich in certain peculiar propertes that alone render growth possible.

"This essential quality makes it also of special value in the sick room. In hospitals it has also been shown that the wounded recover more rapidly when they have milk.

"For the purpose of stimulating growth, and especially in children, butter fat has no substitute. During this last winter when much agitation arose in some of the larger cities over the price of milk, which was advanced from two to three cents per quart by reason of the rapid rise in the cost of feed and labor, many families among the poorer classes were found giving their children tea and coffee instead of milk. Such methods of feeding fail to nourish the child properly. The widest possible publicity should be carried on through public channels to bring these essential facts to the attention of all mothers.

"In spite of the shortage of milk in Germany, that country has at all hazards maintained the milk ration of the children and in the hospitals, even though to do so has meant that the adult population has had to forego largely its use. In a 'safety first' health campaign it must be remembered that it should be 'children first.'

This statement from the Food Administration puts the stamp of official approval on the great industry of dairying. The boys and girls of the Dairy Club, who are doing their part in keeping up the supply of this most essential food product, can feel that they are being given recognition for what they are doing. There are absolutely no satisfactory substitutes for milk or milk products and people who are in the dairy business can be assured that this great industry is to be encouraged in every way possible.

Dairying as a part of the farm business here in Kansas is facing a period of expansion and progress. It has been carried on too much as a side line in the past without much attention being given to the kind of cows being milked. There is no good reason why the average Kansas milk cow should not double her production of milk and butter fat. This can be done by better feeding and the selection of better cows. When labor is so scarce and feed so high in price, it is almost necessary to keep cows that will produce more milk. It costs just about the same to maintain a poor cow as a good one. By that we mean the cost of the feed the cow eats just to keep her own body going. The milk she produces comes from the extra feed she is able to eat and turn into this product. The good cow, producing twice as much milk and butter fat as the poor cow, produces her milk cheaper because the feed expense of running the empty machine is about the same with each cow, and in the case of the good cow is distributed over twice as much milk. If there is a boy or girl in the Dairy Club who cannot see why the cost per gallon of the milk produced from a forty-pound cow is less than that from a twenty-pound cow, write and ask to have it more fully explained.

As our dairy industry develops it will also be necessary to keep better cows because the land is getting higher in price. Milking better cows is a good way to increase the income from the land.

Club members can feel that they are engaged in one of the important industries and one that is certain to continue to be important. The statement from our National Food Administrator shows how important he considers the production of milk as related to the conduct of the war.

Old Club Member Writes

A last year's member of the Dairy Club, who could not continue the work this year, sends words of greeting and encouragement that all will be glad to read. This former member is Ernest Asbury, of Leavenworth County, who was awarded a prize of $3 and a year's subscription to KANSAS FARMER as a reward for the many good letters and pictures he sent in during the year.

"Dear Friends," writes Ernest, "I received my prize of three dollars and was very much pleased to get it and to know that I was awarded first place in the picture and letter contest. I am also glad to have the subscription to KANSAS FARMER, for I like to read the Dairy Club department, whether I am a contestant or not. I am going to high school this year, and I could not keep up my school work and work in the Dairy Club, too, or I would have joined the advanced class. I hope that the boys and girls like the Dairy Club work as well as I did last year. I am wishing the Dairy Club the greatest of success."

Watch the Cream Separator

Are you sure your cream separator is running all right and skimming as closely as it should? Butter fat is too valuable a product to be lost in the skim milk. Be sure that the machine is level and securely fastened to a firm foundation. Sometimes a machine works loose after being leveled, and requires readjustment. Do not forget that the speed of the separator is an important factor in its skimming. If the crank is turned slower than the speed indicated by the manufacturers, there will be a loss of fat in the skim milk. The milk should not be turned into the howl until the machine is running at full speed.

A temperature of 90 degrees is best for clean separation. There is apt to be a loss of fat in separating cold milk. If the milk gets too cold for separating, it can be warmed by placing the can in hot water. The best practice, however, is to separate the milk as soon as possible after it is milked.

Keeping the separator clean is also an important factor in its skimming qualities. As soon as the milk has been run through, the bowl should be flushed out by pouring into the supply can a couple of quarts of luke-warm water. The different parts can then be washed with warm water, being careful to leave no particles of milk or sediment. The parts can then be rinsed in scalding water and allowed to dry.

More milk sours during the spring months than during any other time of the year. This period between winter and summer is the time when we do not pay much attention to cooling the milk. During the cold weather it is not necessary to cool milk, and not having had trouble with milk spoiling we naturally get careless. Warm weather tests out our methods of keeping milk free from the organisms that cause it to spoil. It is not too early to begin to make plans for cooling the milk and cream. It is impossible to make good butter from poor cream. Indirectly the care you take of your cream will affect the price your creamery can pay for the butter fat, and now that practically all cream buyers grade cream you might be compelled to take a lower price because your cream is delivered in such a condition that it must necessarily be placed in a lower grade.

Milking Machines Save Labor

The shortage in labor is causing more interest than ever in the milking machine. Milking machines have been on the market more than twenty-five years but most of them have not been successful. As a result of years of experimenting, machines are now on the market that are past the experimental stage. Milking machines are giving the best satisfaction in hands of many users while others soon discard them. The successful use by many shows that the machine is all right when properly used. Experience has shown that the milking machine saves a great deal of labor, making it possible for one man to milk twenty-five to thirty cows in an hour, although extra time is required for cleaning the machine. The machine does



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The U. S. Dept. of Agriculture recommends that you rid your seeds and soil of infection before planting, with the greatest known disinfectant—

FORMALDEHYDE
The Farmer's Friend

It prevents potato scab and black-leg that attacks beets and other vegetables. It guards against onion rot and onion smut and smudge, cucumber root rot. It prevents mould in celery, lettuce, parsnips and other covered seeds when applied to the beds before planting. One pint bottle of our Formaldehyde costs 35 cents. Big scientific book with full directions sent free upon request.

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that make a horse Wheeze, Roar, have Thick Wind or Choke-down, can be reduced with



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Government reports show $18,000,000 worth lost in one year. HELP SAVE IT. Conservation is the foreword and slogan of the nation. Much of the milk product is lost through unsanitary conditions on the farms and at shipping stations. STOP THIS LOSS with

Henthorn's Milk Can Lock

It locks and seals the can securely from the time it leaves the producer until it arrives at its destination. With this lock it is impossible for cream or milk to be spilled or pilfered.

Price, 65 Cents

Ask your dealer, or write

Milk Can Lock Mfg. Co.

Osawatomie - - - Kansas

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not injure the cow in any way and animals prefer machine to hand milking. It is a question whether the cows milked with a machine hold up in milk toward the end of the milking period quite as well as when hand-milked, so that the yield for the year may be a little less. Apparently the machine will do better work than poor hand milkers, but it is not quite equal to skilled hand milkers.

When the machine is properly handled the quality of the milk with reference to its sanitary condition is better than when it is hand milked, but too often the machine is not properly cleaned, and then the milk is not in as good condition as that drawn by hand.

C. H. Eckles, of the Missouri College of Agriculture, suggests that a farmer who expects to purchase a machine will do well, first of all, to visit some one using a machine of the kind he is considering, and see it in operation, so that he may decide for himself whether he wants it. In buying a milking machine use the same common sense that would guide the buyer of any machinery. It is safer to get a make that has been in use for some time, preferably three years at least, in order that the defects may have been corrected.

It is doubtful whether a milking machine is practical for fewer than thirty cows. The cost for an outfit for this many cows will vary from $150 to about $450, but if it does its work successfully it is well worth the price.

Dairying in the West

Dairying as a part of farming is to be advocated, rather than specialized dairy farming, in the western part of the state. This was the thought advanced by Prof. O. E. Reed at an after-supper meeting in the dining room of the hotel at Hays the day of the cattle round-up. All the rest of those present were beef cattle men, and Professor Reed jokingly stated that he had visited in the homes of some of them and found that they did not have milk and butter on their tables. He was asked to explain the purpose of the dairy farm project at the experiment station. This dairy proposition is operated as an independent unit and must stand or fall absolutely on its merits. They grow such feeds as are adapted to Western Kansas and purchase the necessary concentrates. So far the dairy project has made good.

Dairying as a feature of farming in that part of the state appeals especially to the man of small capital. The man with large financial resources can go in for beef cattle. Dairying would not appeal to him at all, but the man having a limited amount of land and capital can use milk cows most successfully to convert into revenue the waste roughage of the farm. There are a great many more farmers coming in this class financially than there are of those in a position to handle cattle in a large way.

While this round-up meeting was a beef cattle gathering, we noticed that during the day Professor Reed was consulted by a good many men who were interested in getting some good dairy cattle into their respective communities. It is evident that interest in dairying is on the increase in the western part of the state.

A fine lot of young Holstein heifers were seen on the dairy farm. A visit to the dairy barn and equipment was a feature of the automobile tour which covered the whole station. All these young heifers had been bred on the place. The male calves from the grade stock have been marketed as beef. Only well-bred registered bulls are used in the herd.

At present the milk is being marketed at Fort Riley, going exclusively to the base hospital. The Government has found it very difficult to get clean, safe milk. This is a long way to ship milk, and it requires the greatest of cleanliness and care to send it so far and have it suitable for hospital use.

A silo or two and a few good cows on every wheat farm of the West would make farming far safer than it is where cows are not kept, the only source of revenue being the wheat, which is sure to fail in some years.

Sire in Dairy Herd Important

The economical production of milk is possible only when the machine used—the cow—is an efficient one for the purpose and when the person in charge knows how to manage the machine. A cow is born with a certain natural ability to produce milk if given proper conditions. The extent of this ability is mostly a matter of heredity or breeding. The high-producing dairy cow is not the result of any special manner of raising the heifer calf. The most skilled feeder cannot put this quality into a cow born without it. All the good feeder can do is to make full use of the ability to produce milk which the cow has inherited. The extent to which this milk-producing ability is inherited varies greatly, as is well known. Even in the well-bred dairy herds not all the heifers raised prove good enough to retain in the herd. Constant culling of the inferior cows has been found one of the most important measures in maintaining a profitable herd.

The ability to produce milk is inherited through both dam and sire, but since the sire is responsible for half the inheritance of each young animal, he is clearly the most important factor in improving the herd. If the cows in a herd are capable of producing only 200 pounds of fat a year and the sire used represents a breed or family the cows of which average 350 pounds of fat a year, it would appear reasonable that the heifers would average half way between—an increase of 75 pounds of fat a year.

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Kansas City Hay Press Company, Kansas City, Mo.—(Advertisement.)

Much Cream Wasted

The Dairy Division of the Department of Agriculture at Washington is authority for the statement that the loss of milk and cream in the United States amounts to eighteen million dollars a year. This is based on careful investigations made in many parts of the country where cream and milk is handled. This is an enormous loss, and now that butter fat and milk are worth more than ever it is of the utmost importance that it be reduced to a minimum. Every cream shipper stands a chance to lose some of his cream and occasionally a whole canful. The small losses will perhaps not be noticed, as he has no means of knowing exactly how much butter fat his cream contains. Yet in the aggregate these small losses to the individual shipper amount to a considerable sum in the course of a year. The can that falls off the truck or out of an express car on the platform, dumping its contents, is a total loss to the shipper.

In a recent issue we urged the importance of carefully sealing all cream cans. The big creameries are urging this as a measure of protection to their patrons, and some of them are making a systematic campaign to keep before shippers this important source of loss in shipping cream. The wire fastening used to hold the can lid in place with the seal to prevent its being tampered with is supposed to prevent petty pilfering, but we were told recently by a man who has had much experience in the express business that the ordinary seal is not effectual, since a great deal of cream is lost from cans simply by the lid becoming loosened so that a small quantity of cream can slop out or in some instances being deliberately poured out without breaking the seal. Of course in the event of an accident due to careless handling in which a can falls to the pavement or platform, the seal is little protection. The only safe way to prevent cream or milk being lost from cans in shipment is to clamp the lid on so tightly and securely that the cream cannot spill out, even should the can be upset. Such a clamping of the lid also prevents its being loosened sufficiently to pour out small quantities. The loss which occurs is certainly enough to justify the expense of some such clamping device as will absolutely hold the lid to its place under any and all circumstances. Such devices are now on the market, and in the interest of conservation and the saving of waste of all kinds, we believe cream and milk shippers should take steps to prevent the possibility of their being responsible for or having to stand any of the enormous loss which our federal investigation finds is taking place in the handling of milk and cream.

Announcement has been made that the Southwest Jersey Show Association will give a strictly Jersey show in Kansas City, Missouri, September 16 to 21. The show will not be restricted to any particular locality, but will be open to any exhibitor of Jersey cattle. More than $1,600 in premiums will be awarded. The show will be given in Convention Hall—Kansas City's great exhibit building. A feature of the meeting will be the horse show each evening. The show will be under the management of F. J. Bannister, J. E. Jones, and C. J. Tucker, all well known Jersey breeders. Complete information and premium lists can be obtained by addressing J. E. Jones, 421 Dwight Building, Kansas City, Mo.



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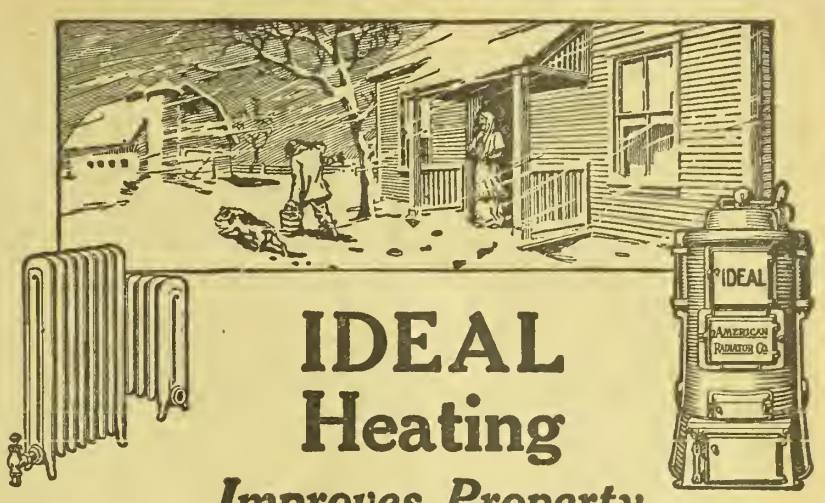

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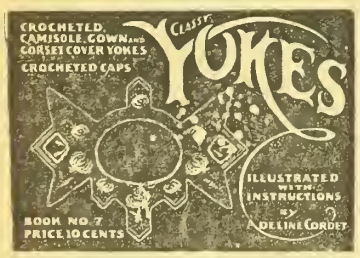

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Let us be content in work to do the thing we can and not presume to fret because it's little.—ELIZABETH BARRETT BROWNING.



We desire to make thie department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to othere experiencee or suggestione by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory anewer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

The Prayer

Dear God, I am a woman—womanlike,
No weaker and no stronger than the rest.
And that is why I ask this prayer tonight
For help and guidance in the little things.
If I could feel your hand upon my lips
On days when I am sick, or merely tired
Of all the little trivial worrying things,
Perhaps the stabbing word would not dart out
To wound my child, and turning, cut my heart.
I do not want to nag. I only want
Guidance to understand that each of us
Has his small troubles, and that mine are not
Harder in truth than other women bear.

And one more prayer that I would make tonight:
If I could only see the difference
Between the really big and little things!
I do not ask for better—or for more—
I only ask for this. God keep my soul
From growing petty. It will be enough.
Help me in this, and I am satisfied.
—Lillian Mayfield Roberts in The Earth.

Heaven never was tacked on at the end of a syllogism. Heaven lies at the end of a rough pathway. Christ is not now upon the cross of Calvary. Christ is on the cross over there in Flanders. Let us go out and stand with Him under the cross upon which the wickedness of men has lifted him once more. Let us discern him in the life of today as he is calling men to sacrifice and death. Let us be sure he is there. The gospel is not for individual redemption alone: it is for the complete redemption of the entire race of mankind in all its interests. "A rest remaineth for the people of God," but between you and that rest there is the rough pathway of the cross. —DR. EDMUND JANES KULP, pastor First Methodist Episcopal Church, Topeka.

Closet for Cleaning Utensils

Entrance of dust and dirt into a house is unavoidable, and the housekeeper is compelled to spend much of her time and energy in the daily cleaning. Through the use of better equipment and more systematic planning she is able to do the cleaning more easily and quickly. It is well to have a special place where cleaning utensils may be kept in the best condition and ready for instant use, thus saving the time and energy spent in collecting them when needed.

A closet, cupboard, or wardrobe in the kitchen is the best place for keeping these utensils. A backstair closet is also a good place. One end of a back porch may be inclosed and used for this purpose. The closet should have plenty of hooks and racks for utensils and a shelf for cleaning materials.

The housekeeper should choose utensils according to her own needs and according to the requirements of her house. The following inexpensive equipment, suggested in Farmers' Bulletin 927 of the United States Department of Agriculture, entitled "Farm Home Conveniences," will help to lighten the work of cleaning:

Bucket with wringer for mopping.

A piece of inch board fifteen inches square with rollers makes a convenient platform on which to set the mop bucket, and permits it to be moved easily without lifting.

Wall mop made by tying a bag made of wool or cotton cloth over an ordinary broom.

A broom, with a hook screwed in the end of the handle by which it can be hung up.

A long-handled dust pan.

Several brushes for cleaning purposes.

Cheesecloth, worn silk, and flannelette for dusters. These dusters may be made by dipping the cloths in two quarts of warm water to which one-half cupful of kerosene has been added. They are inflammable, and should be kept away from the stove or lighted lamp.

A blackboard eraser covered with flannelette for stove polishing.

An oiled floor mop to use on oiled or polished floors. Several makes can be found on the market, or one may be made of old stockings or any discarded woolen or flannelette material. The material is cut into one-inch strips and sewed across the middle to a foundation of heavy cloth. This is fastened to an old broom handle or used in a clamp mop handle. The mop is dipped into a solution made of one-half cupful melted paraffin and one cupful kerosene and allowed to dry. To keep it moist it is rolled tightly and kept in a paper bag, away from stove or lamp.

A carpet sweeper or a vacuum cleaner should be used in the daily cleaning of the carpets and rugs. A vacuum cleaner operated by hand or electric power removes practically all the dust and dirt from carpets and rugs in a dustless manner.

Softening Hard Water

Is your cistern empty, and are you wishing for soft water? Did you know that you can soften ordinary "hard" water by using such simple chemicals as slaked lime and washing soda?

The chemical to be used will depend on the mineral causing the hardness. A sample of the water to be treated should be sent to a commercial analytical laboratory where a test of the kind and amount of the hardness can be made and the proper treatment prescribed.

Dr. H. W. Brubaker, assistant professor of chemistry of the Kansas Agricultural College, has made tests along this line in the last year and states that four or five ounces of lime, costing one-fourth of a cent, will soften thirty gallons of Manhattan water. Several of the people of the town have filled their cisterns with city water and tried out this treatment with satisfactory results.

Where it is necessary to use washing soda, the treatment is a little more expensive than this, but the cost is still considerably less than that of the additional soap necessary when hard water is used.

Lest We Forget

A few maxims to hang up over the kitchen sink and read over while the dishes are being washed:

Little children wish and need to be doing something with their bodies and hands every minute they are awake.

They need a frequent change of occupation.

If I provide them with interesting things to do, they will not have time to be fretful or to do naughty things.

When I see my children harmlessly occupied, and using their hands and bodies, I may be sure that they are educating themselves even if I cannot understand the pleasure they take in their occupation.

When a child has a great desire to do something inconvenient, let me ask myself, "Why does he want to do it?" and try to understand and meet the real need which is apt to underlie his unreasonable request.—DOROTHY CANFIELD FISHER, for U. S. Bureau of Education.

Inexpensive Conveniences

"Farm Home Conveniences" is the title of Farmers' Bulletin 927, just issued by the United States Department of Agriculture. This bulletin describes household conveniences which may be made at a moderate cost by anybody who has a few simple tools and the ability to use them. Among the articles which it tells how to make are: a kitchen cabinet, fireless cooker, sponge box for keeping bread dough at an even temperature, dish drainer, serving tray on casters for carrying dishes to and from the table, a folding ironing board which can be fastened up against the wall and is out of the way when not in use, a rack for a portable ironing board if this is preferred, an iceless refrigerator, a cold box to be placed outside the window for keeping food in cool weather, shower bath facilities, a cookstove dryer or evaporator, and a fly trap. Suitable equipment for making butter and cheese and for the cleaning closet is also described, and several pages are devoted to a discussion of well protection and inexpensive waterworks for a farm kitchen.

Other publications of the Department of Agriculture of interest along this line, which are available for free distribution at the present time, are:

Farmers' Bulletin 607, Farm Kitchen as a Workshop.

Farmers' Bulletin 841, Home and Community Drying of Fruits and Vegetables.

Farmers' Bulletin 689, Plan for Small Dairy House.

Farmers' Bulletin 602, Production of Clean Milk.

Farmers' Bulletin 748, A Simple Steam Sterilizer for Farm Dairy Utensils.

Farmers' Bulletin 734, Fly Traps and Their Operation.

Farmers' Bulletin 463, Sanitary Privy.

Farmers' Bulletin 474, The Use of Paint on the Farm.

Any of these bulletins may be obtained free from the Division of Publications, United States Department of Agriculture, Washington, D. C.

Milk Is in Season

The first law of conservation is, Use home supplies in season. Milk is in season. It is both meat and drink, and furnishes easy energy to the system. Milk has a hundred uses—it may be served as a beverage, a soup, the foundation of the main dish, or turned into a salad in the form of cream cheese, or converted into a dessert. The housekeeper who has an abundance of milk and eggs is rich in resources.

Where skim milk is plentiful, use it in making graham or bran breads; it gives a soft texture to any bread that contains branny material.

Cooking rice, mush or oatmeal with milk not only adds to the food value but improves the dish.

This is the season for cream soups—cream of onion, potato, bean, oyster plant, pea, celery, tomato, corn, spinach, asparagus, and a dozen more. In these soups you can use canned vegetables and vegetables not so good for use in other ways, such as coarse celery or potatoes not good enough for baking. Serve these nourishing soups with a light meal.

Make the best use now of dishes with white sauce. This is the basis of milk gravies, cream soups, croquettes, souffles, scalloped dishes and certain desserts such as cornstarch or tapioca pudding. Substitute cornstarch, rice or corn flour for wheat flour in making cream sauce. Cook fat and cornstarch thoroughly before adding the milk. A brown sauce may be made by browning the fat and the cornstarch before adding the liquid.

For the main dish at dinner or supper at this season combine milk and eggs or milk and cheese and eggs. Use eggs and milk in making corn bread and wheatless muffins and in desserts. Serve no meat, or less meat when such combinations are made.

Potatoes for Wheat

America has fallen behind in its shipments of food to Europe. We must make up our obligations now by sending more cereals, especially wheat. Eating potatoes is one way to increase the supply of wheat.

We have the potatoes—millions of bushels are available now; they won't be as good three months from now. To conserve both wheat and potatoes eat potatoes now and get such an enthusiasm for potatoes that next year's production will beat this year's.

Does it not fill you with shame to read the morning paper with wheat bread before you in any form? Shame on any American who does not stimulate further production of potatoes by eating them now!

Our comrades across the sea need wheat. They need every bit we have in this country. What would Germany do under these circumstances? If the Hohenzollern family demanded wheat for the preservation of autocracy the German people would be compelled to send the last grain and they would be compelled in the name of autocracy to eat potatoes.

We can improve on that. Of our own free will we can send wheat for liberty. Out of love for our fellows we can eat potatoes for democracy.

The men crippled in fighting our battles, the women widowed for our freedom, the children orphaned to make the world safe for future children, they are the ones who stretch their pitiful hands to us across the seas. We can say: Brothers and sisters, every grain of wheat, every particle of flour this country has is yours—YOURS. We have said it—empty words do not fill empty stomachs, neither does maudlin sentimentality.

Germany gets 200 bushels of potatoes to the acre, the United States less than 100 bushels. Germany raises five times

Steers Fattened on Silage Without Corn

THE Missouri Experiment Station recently closed the third series of experiments on feeding beef cattle which have been conducted during the last three years. The experiments just closed were conducted with a view of adjusting methods of finishing beef cattle to war conditions. As it will be seen from the following data, the cattle which received no corn other than that contained in the silage made the cheapest gains. The last test extended over a period of 100 days in which five lots of two-year-old steers were fed. The cattle used in the test were grade Shorthorn and Hereford steers which were purchased in December on the Kansas City market at a cost of $11.15 per hundred pounds. The cost of these steers in the feed lot at the beginning of the test was $11.35 per hundred pounds.

Each of the five groups received all the corn silage and clover hay they could eat. The first lot received a full feed of shelled corn and linseed oil cake in the proportion of six pounds of corn to one pound of linseed cake. The second lot received the same amount of linseed cake as the first, but only half as much shelled corn. The third lot received the same amount of linseed cake as the first and second lots, but was fed corn during the last forty days only. The fourth and fifth lots received no corn other than that contained in the silage. The fourth lot received the same amount of linseed cake as was fed to the first three lots, which averaged 2.77 pounds per steer daily. The fifth lot received an average of 4.4 pounds linseed cake.

The largest average daily gain, 3.05 pounds per head, was obtained in the first lot, which received a full feed of corn throughout the feeding period. The gains in live weight made by the fourth and fifth lots, which received no corn other than that in the silage, are considered satisfactory for fattening cattle. Crediting the gain on the hogs following the cattle to the steers, the cost of gain was least in the fourth and fifth lots. Figuring corn at $1.50 a bushel, corn silage at $8.50 a ton, linseed oil cake at $60 a ton, and clover hay at $20 a ton, the total cost of feed was more than twice as much in the first lot, which received a full feed of corn, as it was in the fourth lot, which received no corn other than that contained in the silage. The price received on the market was $14.40 per hundred pounds for the first and second lots, $14.10 for the third, fourth, and fifth lots. After deducting all expenses and crediting the gain in live weight on the hogs to the cattle at $15.50 per hundred, the profit per steer was: First lot, $5.27; second lot, $10.89; third lot, $13.47; fourth lot, $15.04, and fifth lot, $14.02.

The largest profits were obtained from the fourth and fifth lots, which received no corn other than that contained in silage. Judging by this trial, the larger amount of linseed cake fed to the fifth lot was not justified. The profits per steer in the first three lots decreased as the amount of corn increased. This leads to the conclusion that the feeding of corn to two-year-old fattening cattle in addition to corn silage, linseed oil cake, and clover hay, is not justified on the basis of the present market. There was no distinct difference in the shrinkage in shipment which could be attributed to the different rations fed. There was practically no difference in the percentage of dressed beef obtained from the various lots of cattle. An inspection of the beef after the animals had been slaughtered disclosed the fact that the product produced by the heavy feeding of silage without the addition of corn was fully equal to the corn-fed beef. Two prominent packing-house experts rated the fourth lot as the best of the five.

This is the third of a series of tests conducted by the Missouri Experiment Station on the extensive use of corn silage for fattening beef steers. The results confirm those obtained in the previous tests, which are reported in Bulletin 150 of the Missouri station.

Federated Meat Producers' Association

According to reports that have come to us, live stock men throughout Indiana and Eastern Illinois have shown unusual interest and enthusiasm in the new federated meat producers' association which was organized April 12 and 13 at a meeting of cattle and hog men and agricultural representatives from eight central western states at Purdue University, Lafayette, Indiana. The constitution drawn up by a committee on which were men from the eight states was accepted unanimously by the 500 members of the Indiana Cattle Feeders' Association at their annual meeting April 13. The document will be put up to other state bodies who will be called in special session before May 16, when the permanent organization will be perfected at Manhattan, Kansas.

Reasons for forming the association as stated were: To unite all the producers of the Central West with common aims and to assure the meat production asked by the Government; to organize the producers so that they will back up C. E. Yancey, their representative on the food administration, and to see that the meat commission named recently by President Wilson to determine policies toward meat production interests be properly informed.

The situation in which the meat producers find themselves as a result of meatless days was explained by Dean J. H. Skinner, of the Purdue College of Agriculture, and head of the animal husbandry department. He showed the necessity of some central organization to keep the food administration and others informed of the needs of the live-stock industry.

Men on the constitution committee were: W. A. Cochel, Manhattan, Kansas, S. T. Simpson, Columbia, Missouri; J. W. Waichet, Columbus, Ohio; W. T. Tomhave, State College, Pennsylvania; F. S. Morrison, Madison, Wisconsin; H. P. Rusk, Urbana, Illinois; C. G. Starr, Lafayette, Indiana, and H. J. Gramlich, Lincoln, Nebraska.

The constitution adopted is as follows:

Article I—Name: This Association shall be known as the Federated Meat Producers' Association.

Article II—Object: The object of this Association shall be to further the interests of the meat producers of the United States through a federation of the various state live stock organizations.

Article III—Membership: The following states shall be entitled to membership in this organization: Pennsylvania, Indiana, Nebraska, Ohio, Wisconsin, Iowa, Kansas, Illinois, Kentucky, Michigan, Minnesota, and Missouri. Other states may be admitted upon application and ratification by the executive committee of this association.

Each state shall be represented by a committee of three. Two of these shall be selected by the state live stock association or associations, and shall be actively engaged in the production of meat animals. The third member of this committee shall be selected by the department of animal husbandry of the college of agriculture and experiment station within said state.

Article IV—Officers: The officers of this association shall be president, vice president, secretary-treasurer, and an executive committee composed of the officers and two additional members elected from the membership at the annual meeting.

Article V—Meetings: The annual meeting of this association shall be held in Chicago, Illinois, on the third Tuesday in March of each year. Special meetings may be held at the call of the executive committee.

Article VI—Membership Fee: Each state becoming a member of this association shall pay a membership fee of $25 per annum. This fund shall be used to further the interests of this association. All expenditures from this fund shall be authorized by the executive committee.

Article VII—Voting: Each state holding membership in this association shall be entitled to one vote.

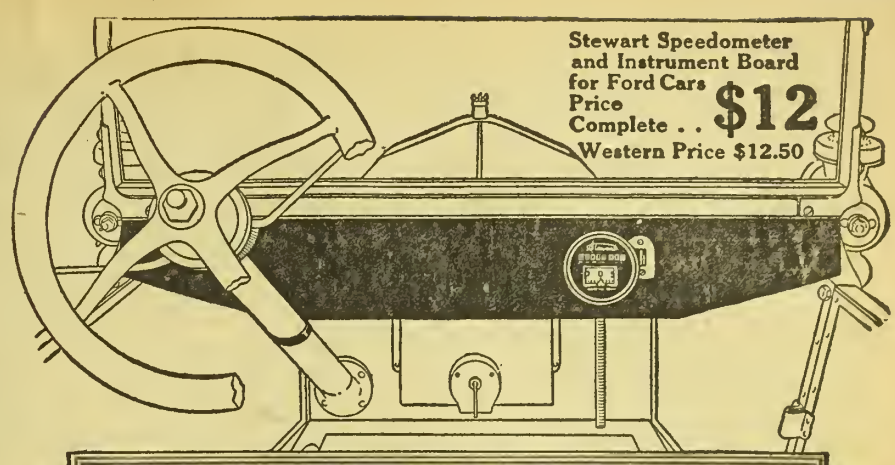
Article VIII—Amendments: This constitution may be amended at any annual meeting by a vote of the majority of the members present.

Keeping Sheep on Farm

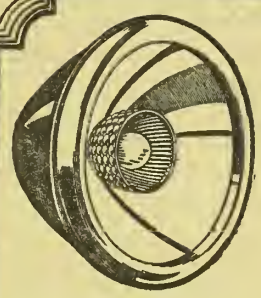
J. E. Payne, of Oklahoma, warns against plunging in sheep. He says he once knew a man who owned two brood sows from which he made $100 per year net profit. This was $50 profit from each brood sow. He figured that 100 brood sows should give him a net profit of nearly $5,000 a year after making allowance for some losses. He borrowed money and bought a hundred sows. The next year he failed to make enough on hogs to pay the interest on the borrowed money.

The large profits which small flocks of sheep have made their owners during the last few years have almost persuaded some men who never raised sheep, and know nothing of the business, to go into sheep raising on a large scale. They are encouraged to do this by seeing a few men make money by specializing in sheep farming. But the men who make money by specializing in sheep raising are men who were already acquainted with sheep.

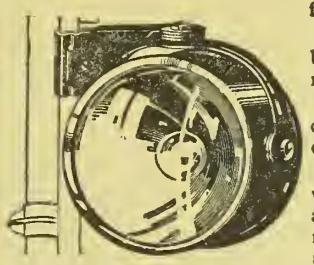
The small flocks on farms live largely on the rough feed which usually wastes. Enough sheep to pick up the waste roughness will pay the farmer, while a large flock, in the hands of an inexperienced man, may cause loss instead of bringing gain.



Stewart Speedometer and Instrument Board for Ford Cars Price Complete . . $12
Western Price $12.50



Stewart Lens per pair $2.00



Stewart V-Ray Searchlight $5.00

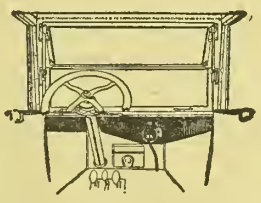


Special Ford Model

Stewart V-Ray Spark Plug $1.00



Stewart Warning Signal Hand-operated $3.50
(Motor-driven type $6)



Stewart Speedometer and Instrument Board for Ford Sedan and Coupelet models Price, complete $15.00
Western Price $15.50

Stewart Accessories For Ford Cars

When you buy accessories for your Ford car, get the best. Insist on having Stewart Automobile Accessories.

Costs you no more to get the best, in the first place. And, in the long run, it is cheapest.

Stewart Accessories for Ford cars are the best that your money can buy. There are none better sold at any price.

When the best costs you no more, why take chances with unknown, untried, inferior accessories that may give you endless trouble.

Back of Stewart Accessories stands the world's greatest accessory manufacturers—an organization with unlimited resources and manufacturing facilities. This fact alone insures the continued superiority of Stewart Accessories.

You need Stewart Accessories on your Ford car. They enable you to get more pleasure, better service, and greater satisfaction out of your motoring.

The Stewart line for Ford cars is complete. Note how varied it is. Examine the illustrations on this page. Each shows an accessory you need — an accessory that will make your Ford a better car.

Take the Stewart Speedometer and Instrument Board for example. This Stewart Product is an absolute necessity on any car.

You are depriving yourself of half the pleasure of motoring if you have no Stewart Speedometer. You need it to tell you how far and how fast you drive; to avoid arrest for speeding; to check your gasoline and oil consumption and your tire mileage. You need it for following road guides. You need it wherever and whenever you drive.

The Stewart Instrument Board will "dress up" your car — adds to its appearance. Fills up that unsightly gap below the windshield. Brings the speedometer up into position where it can be easily seen Rests tight against the steering column Eliminates vibration from the steering wheel Easily installed in a few minutes. No bolts, screws or brackets to fuss with. Clock, headlight switch, starter control and other accessories can be easily added. Made of wood with black satin egg-shell finish. Speedometer is mounted flush. Adds a finishing touch of elegance to the Ford car.

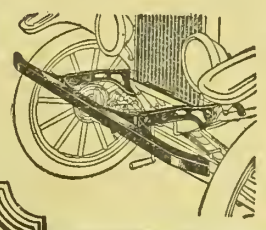
Then there are the other Stewart Accessories for your Ford. The Stewart Autoguard for the front and rear are needed for your car's protection. The Stewart V-Ray Searchlight is indispensable Stewart Lens makes every road bright and clear as day The Stewart Warning Signal warns and clears the way for you in any traffic. Stewart V-Ray Spark Plugs put an end to your spark plug troubles.

Each of these Stewart Accessories is a motoring necessity. Don't be without them another day.

Stewart Accessories are sold by leading jobbers accessory dealers and garages everywhere.

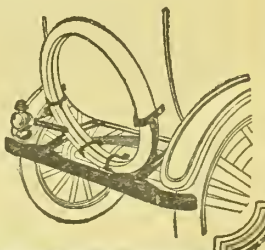
Stewart-Warner Speedometer Cor'n

CHICAGO, U. S. A.



Stewart Autoguard for Ford cars $7.50
(Western Price $8.25)
With Nickel Rail, $8.50
(Western Price $9.25)

Stewart Autoguard Tire-carrier for Ford Cars $11.50
(Western Price $12.50)
With Nickel Rail, $12.50
(Western Price $13.50)



as many potatoes as the United States in less than one-tenth our area. We can and we will do as well. But that's for the future. For now, let's eat potatoes, save wheat, and redeem our obligations to the Allies.—United States Food Administration.

Potato and Celery Hash

6 medium-sized boiled potatoes
1 cupful cut celery
1 teaspoonful salt
3 tablespoonfuls fat

Mix the cold potatoes with finely-cut celery. Add the salt and the melted fat, stir together, place in a hot oven, and bake until well browned on top. Stir the potatoes and let brown again. Repeat this two or three times until the potatoes have browned throughout and the celery is well cooked.

Raw diced potatoes may be cooked with the celery in boiling salted water for twenty minutes. When tender reduce water by rapid boiling, add the fat, pour into baking pan and cook ten minutes in the oven.

Scalloped Dishes

1 cupful medium thick white sauce
2 cupfuls cooked vegetables or fish

The white sauce is made by heating a cupful of milk in the double boiler, thickening with two level tablespoonfuls of flour, and seasoning with the same amount of butter. Arrange the sauce and the vegetables or fish in alternate layers in a greased baking dish. Sprinkle buttered crumbs over the top, and brown it in a moderate oven twenty-five to thirty minutes.

Canned corn, peas, tomatoes, oysters, and salmon all lend themselves well to this method of preparation for the table. This is also an excellent way to use leftovers, as a small amount of the vegetable goes farther when combined with the white sauce.

"Corn Flour-Plus" Biscuit

You can give up the use of wheat flour and still enjoy hot biscuit for breakfast. Corn flour is the answer. This is a new product to most housekeepers but it promises to be well known before wheat harvest, as the production of corn flour has increased 500 per cent in the last eighteen months.

Corn makes a beautiful white flour, delicate enough for a perfect sponge-cake, or, what is more to the purpose, a fine biscuit flour that browns like French pastry. Corn flour combines well with any of the substitute cereals in making hot cakes, muffins, and biscuit.

Corn flour and wheat biscuit:

2 cupfuls corn flour
¾ cupful wheat flour
6 teaspoonfuls baking powder
1 teaspoonful salt
3 tablespoonfuls fat
1 cupful milk

Corn flour and rolled oats biscuits are made by using one and one-third cupfuls of corn flour, one cupful of ground oats, and no wheat flour. The ground oats are prepared by putting rolled oats through the food chopper. The other ingredients are the same as in the recipe just given.

Corn flour and buckwheat biscuit may be made by using one and one-third cupfuls of corn flour, one and one-fourth cupfuls of buckwheat, and no wheat flour, with the other ingredients as given.

Sift dry materials together. Work in fat well. Combine liquid and dry material, handling lightly. Roll or pat one-half inch thick and cut as biscuit. Bake in hot oven. All measures are level. In measuring the baking powder, level the spoons with a knife. Drop biscuit require less baking powder than rolled biscuit.

FASHION DEPARTMENT—ALL PATTERNS TEN CENTS

This department is prepared especially in New York City, for Kansas Farmer. We can supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10 cents each, postage prepaid. Full directions for making, as well as the amount of material required, accompanies each pattern. When ordering, all you have to do is to write your name and address plainly, give the correct number and size of each pattern you want, and enclose 10 cents for each number. We agree to fill all orders promptly and guarantee safe delivery. Special offer: To anyone ordering a pattern we will send the latest issue of our fashion book, "Every Woman Her Own Dressmaker," for only 2 cents; send 12 cents for pattern and book. Price of book if ordered without pattern, 5 cents. Address all orders for patterns or books to Kansas Farmer, Topeka, Kansas.



No. 8347—Children's Dress: Cut in sizes 2, 4, 6 and 8 years. This dress is neat-looking, easy to launder and can be made in a short time. It is a one-piece kimono dress, slashed at the center front to allow it to be slipped on over the head. The kimono sleeves may be long and gathered into a cuff at the wrist, or cut off at the elbow. The broad rounded collar gives a quaint appearance to the simple little dress. **No. 8337—Ladies' Fichu:** Cut in one size. Many and varied are the uses of a fichu, and it is a wise woman who sees that she is well supplied with several of these dainty accessories. The set illustrated is practical and very becoming. The fichu is quite broad over the shoulders, and the ends are rounded and trimmed with a frill. A rounded cuff, and a pointed cuff which may be cut off, gives three styles. **No. 8352—Children's Dress:** Cut in sizes 2, 4 and 6 years. The best argument in favor of this little frock is its simplicity. It is just the pattern you want for an easily made little gingham dress for play. It hangs straight from shoulders to hem, but the line is broken by a belt which is fastened well up under the arms to simulate an empire waist line. The front of the dress is caught in shallow plaits at the belt, which gives the effect of a panel. **No. 8336—Ladies' Dress:** Cut in sizes 36 to 48 inches bust measure. What every woman knows is that she cannot get along this season without a smart but simple one-piece dress. The model shown is in one piece from shoulders to hem. The long tight-fitting sleeves are very chic for a cloth dress, but the shorter sleeves may be substituted in a wash dress if preferred. **No. 8343—Ladies' Skirt:** Cut in sizes 24 to 32 inches waist measure. A suggestion of the barrel or peg top effect which is so fashionable this season is produced in this model by the use of large pockets which stand away from the hips. It is a style which is very deceiving, because it looks quite intricate, but in reality there are just four gores and a trimming band and so it is very easy to make. **No. 8348—Ladies' Dress:** Cut in sizes 36 to 42 inches bust measure. A splendid model for linen or pongee, which offers an opportunity to use the popular soutache braid is illustrated in design No. 8348. The new square neck is effectively finished with a braided collar, and a broad tuck forms the closing of the dress down the front. The three-piece skirt is gathered to the waist line at front and back.



No. 8543—Ladies' Waist: Cut in sizes 34, 36, 38, 40, 42 and 44 inches bust measure. This shirtwaist has the Quaker collar and pointed cuffs. The sleeves are set in without fullness, and they are gathered into deep cuffs having flaring turnovers. **No. 8538—Misses' and Small Women's Dress:** Cut in sizes 16, 18 and 20 years. The waist is very plain, for the wide revers are simply the fronts rolled back. The skirt is four-gored. **No. 8551—Ladies' Two-Gored Skirt:** Cut in sizes 24, 26, 28, 30 and 32 inches waist measure. The cornucopia pockets are very new and easy to make.



No. 8522—Ladies' Slip-On Waist: Cut in sizes 36, 38, 40 and 42 inches bust measure. The large sailor collar is attractively finished with hemstitching. The sleeves may be long or short. **No. 8537—Ladies' One-Piece Apron:** Cut in sizes 36, 40 and 44 inches bust measure. The apron is all in one piece and the neck is cut like a yoke, so that it can be easily slipped on over the head. **No. 8531—Girls' Long-Waistd Dress:** Cut in sizes 6, 8, 10 and 12 years. The skirt is all in one piece, and the bloomers are separate. The sleeves are set in without fullness and the lower edges are gathered into neat cuffs.

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We want to send one or more books to each of our subscribers. Every book offered is highly interesting. You will find in the list books of travel, romance, love and mystery. Each book is printed in large clear type and bound in strong cover paper bindings.



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Raising Cockerels For Breeders

IN BREEDING up a laying strain of poultry there is a big difference between the cockerel allowed the range of the farm, mingling with hens all his life, and a bird raised apart from hens till used in the breeding.

All freely admit that the male is a good half of the flock, but right there we part company. One class changes cockerels each year, without much regard to the breeding, just so they change. If the eggs hatch, that is supposed to be all that is necessary. If in six months the young stock shows up very uneven, it is charged to "running out." It is hard to make such people believe they themselves are the ones that have made a mistake, and are the ones that have "run out."

When we examine a chicken, we find there is not much to it. It has no teeth, no stomach, and when disease attacks it it seldom recovers and becomes valuable. Chickens propagate their species by eggs which hatch. Their whole life is one of comparative frailty. Whatever we gain in egg production or beauty or any desirable quality is lightly held, and if not guarded with the greatest care, highly-developed individuals revert back to their former condition with a rapidity that is amazing.

If a laying strain is to be maintained, there must be some simple rules observed which will tend to make the laying of more eggs a fairly permanent quality. We must admit that extra egg production in a hen is purely artificial, but poultry was created with an ability to respond far beyond the ordinary requirements of birds simply to raise a few chicks to keep up the species.

The poultry business is fast undergoing a change. More attention is being paid to egg production as a source of profit. When this becomes general it must revolutionize poultry growing, as every farm can increase its egg supply many fold without much regard to breed. All breeds can be made far better than they are by attention to a few simple details. What I shall state may seem extreme to some people, but it is easily tried out on any farm, and one trial will convince anyone.

No cockerel that has run with the flock all its life should be used to breed up a laying strain. Such a bird is exhausted, as far as impressing any laying quality on his chicks is concerned, no matter how good the hens were or the breeding of the male bird. When the chicks are grown, especially if it is a laying breed, at least one-half would be sorted out as inferior stock.

Now try another plan. Sort out the best layers, year-old hens, mate with a bird raised apart from the flock, both hens and cockerels in full vigor, and their chicks at the age of five months will not sort out more than 5 to 8 per cent.

We have been experimenting with this problem for half a lifetime; first with Brown Leghorns and lastly with single comb White Leghorns. The main trouble was to grow our own cockerels, as they require more care than pullets, must have a house and a yard for themselves, and are a source of no income until used or sold.

All persons who have tried to raise fifty or seventy-five White Leghorn cockerels have a rich fund of experience. All is well until about the holidays, when the passion of the bird shows itself in assaulting whichever of his fellows he can handle. Many are thus damaged and there is no way to prevent it except to isolate each bird. Then when the expense is totaled, the sum is more than people are willing to pay. These are the sort of birds to mate a flock with and are worth almost any price to anyone trying to build up a laying strain. Outside of having good birds for our own use, there is no money in raising a high-class bird. The market is flooded with birds at a dollar each raised with the flock. The average price of growing fifty to the using age is about two dollars each. Deduct the price of the ones that will get damaged and the cost will be more. There will also be some culled out that would not be first class, so the profits of the business are nothing as compared to that from pullets of the same flock of chicks which began laying in the fall and are a source of income from then onward, while cockerels are an expense from beginning to end.

It will be a hard matter to convince farmers that it does no good to swap roosters to improve their flocks. They seem to think they must breed from stock not related to their own and that when they have done that the subject is exhausted and there is no other way to better the results.

The average hen in the United States lays sixty eggs per year, and if we continue to breed for eggs, as we are now doing and have done for a hundred years, our poultry will be just chickens, that is all—just chickens. It is one thing to have a flock of hens that average sixty eggs per hen at eighteen months old. It is quite another thing to have a flock that at fifteen months from hatching has laid ten months of the time.

When I have time I will write out more of the details of the problem of "breeding to lay," as we have found it. Others may have obtained the same results another way, but our way is simple, and as we have the results we are fairly well satisfied.—E. M. WHEELER, Montgomery County.

Farmer's Flock Profitable

In a letter reproduced in the Farmers' Magazine of Canada, a successful Canadian farmer writes on "The Paying Farm Flock" in part as follows:

"Big money is made on the ordinary farm from one hundred and fifty hens. Judging from what I have been reading lately about the poultry situation it seems to be that before long about all the hens that are left will be those on the farms, with perhaps a few small flocks in villages kept mostly by retired farmers who would be lonesome without the sound of crow and cackle they have always been used to hearing. But the ordinary farmer has not been paying much attention to the hen, at least not until the last year or two. The high price of grain has made him ask whether the hens were paying their way or were merely an expensive set of boarders. Now, I am sure that if anyone can make a success of poultry raising it is the farmer, not only the man who goes to the expense of house and colony houses, but the ordinary farmer without any extra conveniences at all. Not that I advocate doing without all the up-to-date means of raising fowl and making them pay, for I do not, but my own experience proves we can make hens pay under the most ordinary farm conditions if we take a little trouble and try to apply all the best methods of our conditions.

When I began farming about twenty-five years ago, all my friends thought it was a great joke to give me a hen or two, and in those days hardly any two people kept the same breed, and after I had bought a dozen or two more hens the resulting flock can be imagined. There were representatives of every known breed and all their crosses of several generations. There were some good layers among them, however, and, taught by some good farm journals, I began picking over the flock every fall, with the result that in a few years I had a flock that was the admiration of all who saw them, and was giving me a good supply of eggs the year round. But some person coveted the hens, poisoned my watch-dog and left me to begin over again with twenty odd hens out of a flock of about a hundred and fifty. That cured me of working for beauty, so instead of culling for color as well as shape I just picked closely for type and now have a flock of good layers, that for about fifteen years have only missed supplying fresh eggs for a few days in the fall, when they were first put in winter quarters.

"Last year I hesitated for some time about keeping my usual two hundred hens over winter, but their past record as told by the hen book I keep as well as the store bill the eggs kept paid up, encouraged me to keep my flock."



Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

HELP WANTED.

WANTED—MARRIED MAN FOR GENeral farm work. House, garden, cow, wood, privilege of chickens furnished; must board man; steady job. State wages expected and give references. A. L. Rumold, Dillon, Kan.

MEN-WOMEN WANTED FOR GOVERNment war positions. Thousands needed immediately. Good salaries; permanent employment; liberal vacations; other advantages. We prepare you and you secure a position or we refund your money. Ask for booklet "QL" free to citizens. Washington Civil Service School, 2068 Marden Building, Washington, D. C.

U. S. GOVERNMENT WANTS THOUsands clerks at Washington, immediately, for war preparatory work. $100 month. Quick increase. Men-women 18 or over. Seven-hour day. Thirty days vacation. Easy clerical work. Common education sufficient. Your country needs you. Help her and live in Washington during these stirring war times. Write immediately for free list positions open. Franklin Institute, Dept. P82, Rochester, N. Y.

TREES, SEEDS AND PLANTS.

DWARF KAFIR, 85 GERMINATION, $3 bushel. Oscar Wilcox, Larned, Kansas.

ORANGE CANE SEED, EXTRA GOOD, $6 per cwt., sacks extra. Joseph Nixon, Belle Plaine, Kansas.

BLACK AMBER CANE, $3 PER BUSHEL f. o. b. Union Pacific. Good new seed. G. E. Shouse, Niles, Kansas.

BLACK AMBER CANE SEED, $6.50 PER hundred. Sacks furnished. Claude Paddock, Oberlin, Kansas.

CABBAGE PLANTS — EARLY JERSEY Wakefield, 100, 20c; 1,000, $1.25, prepaid. D. F. Hamilton, Hatfield, Ark.

4,000 POUNDS OF SUDAN GRASS SEED at 25 cents per pound. J. B. Pool, El Reno, Oklahoma.

FETERITA, $3.00 BUSHEL, WELL MAtured, recleaned, graded. Sacks free. D. W. Little, Conway Springs, Kansas.

SUDAN SEED, 16 CENTS PER POUND, recleaned. Purity and germination guaranteed. M. H. Loy, Milo, Kansas.

ONE HUNDRED FIFTY BUSHELS GOOD recleaned alfalfa seed for sale, $9 per bushel if a quantity is taken. V. O. Johnson, Auine, Kansas.

AMBER CANE FOR FODDER, $3.50 bushel; dwarf milo maize, $2.50 bushel; sacks free. Prices larger quantities. V. E. Lawrence, Salisbury, Mo.

SUDAN—CHOICE WELL MATURED, REcleaned seed, 100 pounds, $20; 50 pounds, $10.50. New sacks free. Edward Anderson, Jamestown, Kansas.

FOR SALE—GOOD SUDAN GRASS, $18 per cwt; black amber cane, $6.50 per ctw., and alfalfa seed, $10 per bushel. Sacks, market price. H. Chas. Stephens, Whitewater, Kansas.

ABOUT 500 BUSHELS ST. CHARLES red cob white seed corn, testing very strong in germination, price $3.50; seed kafir, $3; German millet, $2.75. Sacks extra. Order now. Friesen Grain Co., Hillsboro, Kansas.

PINTO BEAN SEED CAREFULLY graded and recleaned. Guaranteed germination 90 to 95%. Sample on file with Agricultural College. Grown in Wabaunsee County. For sale by grower, 13c per lb., sacks extra, f. o. b. Maple Hill. Russell Sells.

OKLAHOMA DWARF AND STANDARD broom corn seed, cream and red dwarf maize, dwarf kafir and common millet. $7; feterita, $8; amber, orange and Texas red canes, $8; Sudan, $21. All per 100 pounds, recleaned, freight prepaid; prepaid express, $1 more. Claycomb Seed Store, Guymon, Oklahoma.

CABBAGE PLANTS—WAKEFIELD, SUCcession, Fiat Dutch, 100, 45c; 200, 85c; 500, $1.50; 1,000, $2.50, postpaid. Tomatoes and onions, all leading varieties, same price as cabbage. Celery, egg plant and peppers, 100, $1; 200, $1.75; 500, $3; 1,000, $5, postpaid. Cabbage, tomatoes and onions by express collect, $2 per thousand. Cash with all orders. Book your orders now as plants are scarce. Hope Plant Farm, Hope, Ark.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

ONE HUNDRED CHOICE HOLSTEIN cattle — springers, fresh cows and young stuff. Herd sire a 30-pound bull. C. S. Simmons, Belmont, Wis.

REGISTERED HOLSTEIN BULL CALF you'll be proud to own. Born September 27. Individually superfine. Nearly white, large. Sire over ton. O. S. Andrews, Greeley, Kan.

PLAINVIEW FARM JERSEYS — I AM offering a registered bull calf, four months old, from R. O. M. stock carrying the best imported blood. Price, $50. A. C. Chamberlain, Emden, Missouri.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

THRIFTY YOUNG HOLSTEIN CALVES, either sex, five to seven weeks old, practically pure-breds, beautifully marked, from high-producing dams. $25, guaranteed safe arrival and express prepaid to your station. Buy your calves from one of the largest dairy herds in Kansas. Magee Dairy Farm, Chanute, Kansas.

AUTO TIRES.

TIRES — FORD, $6.50. LARGER SIZES equally low. "Wear like iron." Booklet free. Economy Tire Co., Kansas City, Mo.

WANTED

WANTED — POP CORN. THE BARteldes Seed Co., Lawrence, Kansas.

AUTOMOBILE ACCESSORIES

MIRACLE MOTOR-GAS TONIC TABlets, the modern gasoline intensifier, vigorizer and decarbonizer. 100 gallons treated for $1. Dept. A, 705 Oakwood Blvd., Chicago, Illinois.

FORDS CAN BURN HALF COAL OIL, OR cheapest gasoline, using our 1918 carburetor. Thirty-four miles per gallon guaranteed. Easy starting. Great power increase. Attach it yourself. Big profit selling for us. Thirty days' trial. Money back guarantee. Styles to fit any automobile. Air-Friction Carburetor Company, 558 Madison Street, Dayton, Ohio.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

SITUATION WANTED.

WANTED—LIGHT WORK ON A FARM anywhere in Kansas. Understand motors. Address W. G. Wilkins, General Delivery, Topeka, Kansas.

REAL ESTATE.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 56th St., Chippewa Falls, Wisconsin.

VIOLINS.

VIOLIN FOR SALE—HAS SWEET TONE. Free trial. Easy payments if wanted. Write Miss Bertha Mardiss, Route 5, Rosedale, Kansas.

HOGS.

POLAND CHINA PIGS EIGHT TO TEN weeks old, $15. Clair W. Brown, Brewster, Kansas.

It is the unvaccinated who are suffering from the country-wide epidemic of smallpox.

The old superstition that everybody must have whooping cough, and the sooner the better for the child, has brought the white hearse to a good many Kansas homes the past year.—Bulletin, Kansas State Board of Health.

Reliable Poultry Breeders

LEGHORNS.

L. B. RICKETTS, BREEDER OF PRIZE Winning Single Comb White Leghorns, Greensburg, Kansas.

SINGLE COMB BUFF LEGHORNS — Eggs, six dollars hundred. Thomas D. Davis, Avard, Oklahoma.

SINGLE COMB WHITE LEGHORN EGGS —100, $6 prepaid. Quality guaranteed. Dave Baker, Conway Springs, Kansas.

SINGLE COMB BROWN LEGHORN eggs, $5 per hundred. Mrs. F. E. Tonn, Haven, Kansas.

CHOICE SINGLE COMB BROWN LEGhorn eggs, $5 hundred. Mrs. Henry Wohler, Hillsboro, Kansas.

EGGS (YOUNG'S 288 S. C. W. LEGhorns, costing $20 setting), $7 hundred. Elsie Thompson, Mankato, Kansas.

EGGS—SINGLE COMB BUFF LEGHORN, $5 hundred. Mrs. S. F. Crites, Florence, Kansas.

KULP'S STRAIN ROSE COMB BROWN Leghorns—Eggs, $2.50 per setting, $7 per hundred. Mrs. Griswold, Tecumseh, Kan.

PURE-BRED SINGLE COMB WHITE Leghorn eggs, hundred, $5. Chas. McFadden, Morland, Kansas.

EGGS FOR HATCHING—PURE-BRED S. C. Brown Leghorns. Fifty eggs, $3.50; one hundred, $6. Mrs. L. H. Hastings, Thayer, Kansas.

EGGS, 10 CENTS EACH—S. C. WHITE Leghorn hens, cockerel dams above 200 eggs; sires from dams of 247 and 282 eggs. Frank Uhl, Manhattan, Kansas.

S. C. BROWN LEGHORNS BRED 22 years; 222 to 266-egg lines. Eggs, fifteen, $2; fifty, $4; hundred, $6. Gorsuch, Stilwell, Kansas.

PURE SINGLE COMB WHITE LEGhorns, bred exclusively 16 years. Real layers. Eggs, $6 hundred. Ed N. Regnier, Wamego, Kansas.

YOUNG, FRANTZ, FERRIS, YESTERlaid S. C. White Leghorns. Heavy layers. Eggs, $6 per hundred. Sold 10,000 eggs for hatching last season. No complaint. L. O. Wiemeyer, Route 1, Anthony, Kansas.

ROSE COMB BROWN LEGHORNS, BRED to lay. Twelve years' breeding. Range flock, winter layers. Selected eggs, $6 per hundred. Blue Grass Stock Farm, Oneida, Kansas.

SEVERAL BREEDS

SINGLE COMB ANCONA AND SILVER Wyandotte eggs, $1.25 per fifteen, parcel post prepaid. Mrs. Cecile McGuire, Pratt, Kansas.

FOR SALE—EGGS FROM ALL KINDS of pure-bred poultry, Geese, 7 kinds of ducks, Pearl and white guineas, Bantams, Fancy Pigeons, Canaries, Rabbits, Guinea pigs, Dogs. Write wants. D. L. Bruen, Platte Center, Nebr.

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DARK CORNISH EGGS. EAST LAWN Poultry Yards, Fairmount, Neb.

BABY CHICKS.

REDS, ROCKS, LEGHORNS — 15 CENTS. Request folder. McCune Hatchery, Ottawa, Kansas.

YOU BUY THE BEST CHICKS FOR least money. Guaranteed alive or replace free. Shipped anywhere. Colwell Hatchery, Smith Center, Kansas.

ANCONAS.

ANCONAS — THE GREATEST LAYERS. Eggs, $7 per hundred, $2.50 for thirty. Joe Partsch, Humphrey, Nebraska.

ANCONA EGGS FOR HATCHING—FIFteen, $1.25; hundred, $6. Mrs. John Smutny, Irving, Kansas.

BUTTERCUPS.

BUTTERCUPS, SELECTED BY HOGAN system. Egg capacity, 150 to 280. $1.50 per fifteen. Mrs. Jas. Shell, Pittsburg, Kan.

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WHITE HOLLAND TURKEY EGGS.— Winnie Litton, Peabody, Kansas.

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BOURBON RED TURKEYS—EGGS FROM choice stock in size, color and markings, $5 and $4 per eleven. Free catalog. Mrs. Clyde Meyers, Fredonia, Kansas.

DUCKS AND GEESE.

MAMMOTH TOULOUSE GEESE, $10 PER trio. Earl Scott, Belvidere, Kansas.

FAWN WHITE RUNNER DUCK EGGS— Fifteen, $1.50; fifty, $3; one hundred, $5.50. H. Clay Shirky, Norborne, Mo.

EMBDEN AND TOULOUSE GEESE — Stock and eggs. Will take Runner ducks or Leghorns in trade. Emma Ahlstedt, Roxbury, Kansas.

FAWN WHITE RUNNER DUCK EGGS— $1.50, thirteen; $3.50, fifty; $6, hundred. Prize winners. White eggs. Mrs. Ben Miller, Newton, Kansas.

When writing advertisers, please mention Kansas Farmer.

PLYMOUTH ROCKS.

WHITE ROCK EGGS, $5 PER HUNDRED. Nora Lamaster, Hallowell, Kansas.

BARRED ROCK EGGS, BOTH MATINGS, $1.50 per fifteen. Vernon Ravenscroft, Kingman, Kansas.

PURE BARRED ROCKS—EGGS, $5 PER hundred. Baby chicks, 12½c. Mrs. Lillian Marshall, Raymond, Kansas.

PURE BARRED ROCK EGGS, $1.00 PER fifteen, $5.00 per hundred; farm range. Mrs. H. Buchenan, Abilene, Kansas.

BUFF AND WHITE ROCK EGGS—SPEcial matings, fifteen, $3; thirty, $5; utility, hundred, $6. W. H. Beaver, St. John, Kan.

BEAUTIFUL BARRED ROCKS — 200-262 yearly egg record. Eggs, $2 per fifteen, $7 per hundred. Satisfaction guaranteed. Joe Greiner, Mena, Arkansas.

BARRED ROCKS, COCKEREL LINE. Cock head first pen Kansas City, Mo., $16; two sons, $5 each. Incubators, brooders, feeders. Mattie A. Gillespie, Clay Center, Kan.

"RINGLET BARRED ROCKS" — PRIZE winners. Eggs, fifteen, $1.50; fifty, $3.50; hundred, $6. Chicks, 16c. Mrs. C. N. Bailey, Lyndon, Kansas.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swalm, Geuda Springs, Kansas.

PURE BARRED ROCKS, RANGE, EXcellent layers. Eggs, strongly fertile, $1.25 fifteen, $5 hundred. Mrs. S. Van Scoyoc, Oak Hill, Kansas.

BARRED ROCK EGGS (RINGLET strain), from large, vigorous, splendid-marked birds, $1.25 per fifteen; 100, $6. S. R. Blackwelder, Isabel, Kansas.

WHITE ROCKS, SIZE AND QUALITY; good egg strain. Eggs, fifteen, $1.25; fifty, $3.50; hundred, $6. G. M. Kretz, Clifton, Kansas.

MAMMOTH WHITE ROCKS — CHOICE stock. Pen, $3 fifteen; farm range, $1 fifteen, $5 hundred. H. C. Loewen, Peabody, Kansas.

WHITE ROCKS — PRIZE WINNERS, farm raised. Eggs, $1.50 fifteen, $3.50 fifty, $6 hundred. Special pen, $3.50 fifteen. Mrs. Ben Miller, Newton, Kansas.

BARRED ROCK EGGS FOR HATCHING, from stock winning at Topeka and Wichita, 1916; also first at Topeka, 1918; $7.50 hundred, $1.25 fifteen; first pen, $3 fifteen, $5 thirty. Mrs. Myrtle Henry, Lecompton, Kan.

BRED-TO-LAY BARRED ROCKS—FINE, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, $1 setting, $5 hundred; guaranteed. Belmont Farm, Topeka, Kansas.

BARRED PLYMOUTH ROCKS, THOMPson Ringlet strain, cockerel and pullet mated, pen and utility flock eggs. Quality high. Priced low. Many satisfied customers in thirty-seven states. Circulars free. A. F. Siefker, Defiance, Mo.

BARRED ROCKS THAT PRODUCED 175 eggs each in 1916; 120 eggs seven months, 1917. Four ribbons, 1917. Pens standardized, Hogan system, eggs, $2 per fifteen, $10 hundred. Mating list free. For sale, two pens, to make room for young chicks. Write Farnsworth, 224 Tyler St., Topeka.

MINORCAS.

S. C. BLACK MINORCAS — EXTRA heavy layers. Eggs from pen birds, $2 for fifteen. Mrs. E. G. Tharp, Protection, Kan.

WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

WYANDOTTES.

SILVER WYANDOTTE EGGS—FIFTEEN, $1.65; fifty, $3.75; hundred, $6.50. Mrs. Edwin Shuff, Plevna, Kansas.

CHOICE SILVER LACED WYANDOTTE eggs, fifteen $1.25, fifty $3.50, hundred $6. Mrs. Phillp Schuppert, Arrington, Kansas.

ROSE COMB WHITE WYANDOTTE EGGS for sale, one dollar per fifteen, six dollars per hundred, prepaid. Mrs. J. C. Hatz, DeWitt, Neb.

GOLDEN WYANDOTTE EGGS, FIFTEEN, $1.25; fifty, $3.50; hundred, $6. Louis Bruning, Phillipsburg, Kansas.

EGGS FROM SNOW WHITE WYANdottes, 100, $6; Rouen duck eggs, $1.50 per twelve. Emma Ben, Gilead, Neb.

WHITE WYANDOTTE EGGS AT $1.50, fifteen; $3.25, fifty; $6 hundred. Winning, laying strain, fertility and satisfaction guaranteed. Andrew Kosar, Delphos, Kansas.

WHITE WYANDOTTE EGGS, $1.25 PER fifteen; $3.25, fifty; $6 per hundred, from good laying strain. Fertility guaranteed. Chilcott's Poultry Farm, Mankato, Kansas.

WHITE WYANDOTTES, STRONG STOCK, splendid layers. Eggs, $1.25 per setting, $6 per hundred. Baby chicks, 15c each. Mrs. Fred Pinkerton, Pawnee City, Neb.

FINE WHITE WYANDOTTE ROSE Combs, fifteen years a breeder. Eggs, $1 setting if more than one setting is ordered. $5 hundred. I. B. Pixley, Wamego, Kan.

SILVER WYANDOTTE EGGS—FIFTEEN, $1.50; fifty, $3.65; hundred, $6. Baby chicks, 20c each. Lawrence Blythe, White City, Kansas.

RHODE ISLAND WHITES.

PURE ROSE COMB WHITES—100 EGGS, $7.50; fifty, $4; fifteen, $1.50. Extra layers. Golden Seabright bantam eggs, fifteen, $1.25. E. Bidleman, Kinsley, Kansas.

RHODE ISLAND REDS.

SINGLE COMB R. I. RED OR WHITE eggs. E. J. Manderscheid, Seward, Kansas.

STANDARD-BRED R. C. RED EGGS— Fifteen, $1.50; hundred, $6. Mrs. B. F. Welgle, Winfield, Kansas.

ROSE COMB RHODE ISLAND RED eggs, $1 for fifteen or $5 for 105. M. L. Fridley, Wamego, Kansas.

SINGLE COMB RED EGGS—HUNDRED, $4.75; thirty, $1.75. Mrs. Rosa Janzen, Geneseo, Kansas.

NITE'S S. C. REDS — TWENTY GOOD breeding pullets, $2 and $3 each. Two mated trios, $10 each. Eggs now 15c each from my two best pens. Samuel H. Nite, Garden City, Kansas.

BRED TO LAY SINGLE COMB REDS— Pure-bred, rich red, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, setting, $1.00; hundred, $5.00; guaranteed. Belmont Farm, Topeka, Kansas.

SEVEN GRAND PENS ROSE COMB REDS headed by roosters costing $15 to $50. Fifteen eggs, $3; thirty eggs, $5; fifty eggs, $8. Special utility eggs, $7.50 per hundred. Baby chicks. Catalog. W. R. Huston, Americus, Kansas.

ORPINGTONS.

S. C. WHITE ORPINGTON EGGS, $6 PER hundred. C. L. Hill, Filley, Neb.

261-EGG BUFF ORPINGTONS—FIFTEEN eggs, $1.50. M. Spooner, Wakefield, Kan.

S. C. BUFF ORPINGTON EGGS, $5 PER hundred. Mrs. Wm. Falkner, Belvue, Kan.

S. C. BUFF ORPINGTONS — LARGEboned, even color. Eggs, $1.50 fifteen, $6 hundred. John Oiler, Adrian, Missouri.

BUFF ORPINGTONS, PURE-BRED. — Eggs, fifteen, $1.50; hundred, $7. Mrs. Homer Beasley, Bridgeport, Oklahoma.

GOLD-DUST S. C. BUFF ORPINGTON eggs, $2.25 setting or $8 hundred, postpaid. Mary E. Price, Route 7, Manhattan, Kansas.

BUFF ORPINGTON EGGS, $1 FIFTEEN, $6 hundred. Mrs. Frank Neel, Beverly, Kansas.

PURE-BRED WHITE ORPINGTON eggs for hatching, $1.50 per fifteen. Frank Hinson, Stockdale, Kansas.

PURE-BRED SINGLE COMB BUFF ORPington eggs, fifteen, $1.75; fifty, $3; hundred, $6. Mrs. Charles Ziegenhirt, Linn, Kansas.

BUFF ORPINGTON EGGS FROM WINning pens at leading shows in West this season. Hatch guaranteed. Shipped prepaid. Write for prices. Leo Anderson, Juniata, Nebraska.

LANGSHANS.

BLACK LANGSHAN EGGS, $1.50 FOR fifteen, postpaid; large stock. Mrs. Minnie Shipley, Deer Creek, Oklahoma.

BIG BLACK LANGSHAN COCKERELS and eggs, score cards furnished. Guaranteed satisfaction. H. Osterfoss, Hedrick, Iowa.

MADISON SQUARE AND CHICAGO prize winning Langshans. Eggs, $6 per hundred up. John Lovette, Mullinville, Kansas.

MAMMOTH SIZE BLACK LANGSHANS, 260-egg strain, 12-pound hens, 14-pound cocks; eggs, 15, $2, $3.50. English Penciled Runner Ducks, lay year through; eggs, 15, $2. E. Stewart, Henderson, Iowa.

POULTRY WANTED.

POULTRY AND EGG MARKET GOOD healthy condition. Write for coops, cases, cash offers. The Copes, Topeka.



Crowding Causes Disease

Prevent diseases among chickens by providing sanitary conditions and feeding with care. Don't wait until the birds are sick and then attempt to cure them. A sick bird is little better than a dead bird, points out Leland D. Bushnell, professor of bacteriology in the Kansas Agricultural college.

Most of the preventive measures should be aimed toward the protection of the flock rather than individuals. Co-operation of the entire community is necessary in keeping down disease. When co-operation is practiced, no eggs are used for hatching purposes which are from flocks infected with white diarrhea, and farmers who have diseased chickens of any sort will not allow them to come in contact with their neighbor's chickens.

Most disease is increased by incorrect living conditions. These can be corrected and the amount of disease greatly reduced by giving the chickens maximum care—proper food and shelter and sanitary surroundings. It is estimated that under maximum sanitary care the death rate of a flock is 7 per cent and under minimum sanitary care the death rate is 42 per cent. The death rate without proper care, in other words, is six times as great as with proper care on the same amount and kind of feed.

If the owner overcrowds his poultry and does not increase the amount of care given the birds, Nature soon relieves the condition by removing a considerable number by disease. The death rate is always high among flocks that are overcrowded in the pens unless maximum care is given and then the danger of disease is greater than when they are given plenty of room.

Though the Food Administration abolished the rule against selling hens and pullets, effective April 25, it is well to be careful and not sell laying hens. The demand for food is too great to sell them until after their laying season is over, or until they moult, or about August or September. The cry now is for greater food production along all lines, and laying hens will do their share. Experts are expressing satisfaction over the results of the rule forbidding the sale of hens from February to April 25. With its abolition, unproductive hens may be disposed of, but productive ones should be kept through their producing period.

Guineas are of exceptionally fine flavor and are used in some of our best hotels. Many persons who cannot raise turkeys because of the nearness of neighbors could raise a flock of guineas to advantage. Guineas feed largely in thickets and weed patches and commit fewer depredations against field and garden crops than either chickens or turkeys. They require little feeding of grain at any time and are prolific layers. The eggs are considered by many persons to have a richer and finer flavor than even hen eggs.

The incubator has been the means of making poultry profitable, and the farm flock uniform in age. Now when some of the large poultry plants have gone out of business the farmer, to whom poultry-keeping is a side line, can follow no more patriotic and profitable line of production than to keep his incubator running, and his hens in such vigorous condition as to insure the laying of hatchable eggs. A shifting policy is not a profitable policy; if the incubator is a profitable investment when food is cheap, it is a profitable investment when food is high, for the incubator produces food, and multiplies the food production of our country without the loss of the service of the hens.

Save Eggs for Next Winter

Experiments show that eggs laid in March, April, and May, keep better than those laid later in the season, although later preserving is also successful. This means that now is the best time of the year for the housewife to preserve the next winter's supply of eggs. Such eggs should be strictly fresh and preferably infertile.

For home preservation the most successful method yet devised seems to be with the aid of waterglass. One part of the waterglass is dissolved in nine parts of rain water that has been boiled to destroy bacteria and then cooled. This solution should be put into an open crock or glass jar and the eggs immersed as they are gathered day by day. At least two inches of the solution should always be above the top layer of eggs. The eggs should be placed in the solution with the large ends uppermost so that the contents of the egg will not rest on the air cell and rupture the inner shell membrane. Piercing the air cell with a coarse needle just before cooking will prevent the cracking of the shell caused by the expansion of the air cell upon boiling.

While this method is fairly successful for home preservation, such eggs are not considered desirable for general market purposes, because after being preserved in waterglass they do not keep well when handled by the ordinary commercial methods. In most states it is unlawful to expose them for sale without labeling them "pickled" or "preserved" eggs.

GENERAL FARM ITEMS

Soft water or clean rain water should be used in the cooling system of the automobile. Most well water is hard and contains minerals that will cause a scale to form on the inner walls of the whole cooling system and eventually cause overheating.

Preservation of Concrete

The presence of moisture is one of the chief causes of cracking in concrete surfaces. In the warm months this moisture has no detrimental effect, but in winter it collects in the tiny pores of the concrete and freezes. The freezing action with its concurrent expansion exerts a pressure on the surrounding concrete and causes tiny cracks to appear. These cracks in turn fill with moisture and the chipping action continues until spring comes with its higher temperature. This chipping and cracking of the surface of the concrete detracts both from the appearance and the strength of the concrete.

To prevent this destructive action a thorough coating of the surface of the concrete with a floor dressing paint prepared for the purpose is effective. This coating preserves the texture and individuality of the concrete and prevents all moisture from penetrating the surface. If new concrete floors are covered with two coats of this paint and recoated at intervals of about six months, the concrete surface will remain unscarred and without cracks.

A Soldier's Sentiments

The following are a few paragraphs from a speech made at Topeka by Private Peat of the British Army, a Canadian who recently returned from the front because of severe wounds received in battle. They are of interest as an expression of the thought of the men in the front line trenches.

"One of the finest things that is going to come out of this war is that it is going to take all the camouflage out of our souls. They are going to come out clean.

"In all my experience over there I can honestly tell you I have never seen a soldier do a mean thing to another. It takes the selfishness out of us, and when you get all the selfishness out of the ordinary individual you have a pretty good individual left.

No matter what university or what church your boy has been in, he will gain in this university an experience he has never had before. I shall be glad all my life that I did not get out of it. If I had by hook or crook, I should have had it on my conscience all my life. Try to make yourselves better men and women for the better men who are going to come back from the great university over there. We are not coming back narrower than we went. That's certain. So don't mark time until we get back.

"There is no place in the world where men talk about women more than we do over there, in a perfectly respectful way, too. Possibly because we realize this is a woman's war. Some have gone to war for love of the King, some for love of country, and some because they are drafted, but they all go over the top for the same reason when they get there. Every one of these men really is fighting for some woman he loves.

"You women have it in your power to do more for your men than anyone else can do for them. In that last moment before we go over the top, while we are waiting for zero—the instant when the barrage lifts and we go over—with our guns in readiness and cigars in our mouths, because we need the stimulant then, I don't care what kind of a man you are, you like to think of something good. Here and there are men who look different from the rest. They cannot think of anything pleasant. All they can remember is a wife fainting when they left or a mother begging them not to go. And it is for her they are really going over there.

"Can't you help keep back the tear until he is gone? It is better to have them go now than to wait ten years and fight here. It is better to buy Liberty bonds now than German indemnity bonds ten years from now. Please start them off right, you people over here. You can do it. Give your boys some of your will. We will go through their lines and across the Rhine, if you will only let us. This is for civilization, for home and mother. Don't get excited. Try to keep an even pace, and go on and on. We are going to win."

Paint Up Old Machine

The enormous demands of the war have considerably lessened the output of pleasure automobiles in this country. A great majority of our auto manufacturers have taken on contracts for furnishing the United States and allied governments with motor trucks and motors, consequently the production of pleasure cars has been decreased. Due to the fact that the number of automobile buyers is increasing each year there has resulted an excess demand for all makes of runabouts and touring cars. Practically every automobile manufacturer in this country has already sold out his 1918 output of pleasure cars, and as a result the prospective buyer of a machine is unable to obtain one in many cases.

Many owners of automobiles buy a new one each year, exchanging the old car as a part payment on a new model. Due to the fact that the number of cars manufactured has been decreased, these owners are unable to get the new car at a lucrative price, as a result they must endeavor to make the old car last another season by having it repainted and in some cases rebuilt.

Several years ago an automobile owner could not paint his own car and obtain very satisfactory results due to the fact that all enamels were of such character that they had to be baked on, a process that could only be carried on at the factory of the maker, consequently an automobile owner would drive his car for many seasons without having it painted and at the end of this time the machine would present a very unsightly appearance.

In order to remedy this condition, paint manufacturers experimented for several years upon an auto enamel that could be easily applied and today a motorist can go to an automobile supply house or paint store and buy an auto enamel in any shade he desires, that will exactly suit his requirements. This enamel can be put on the car in a short time and after application the machine will present a brand new appearance. Many car owners are now painting their machines twice a year as a result of the improvement in paints. This is a measure of conservation most appropriate in these war times.

Plant Tested Sorghum Seed

Fifty per cent, and possibly more, or the sorghum seed intended for planting in Kansas this year is unfit for that purpose. Numerous tests of samples gathered from all portions of the state indicate that fact. It is revealed that a great deal of the seed belies its good appearance and will not grow. Conditions last fall were unfavorable for maturing viable seed. Farmers planting seed of uncertain or unknown worth are taking long chances this year. The only way to find out before planting whether seed will grow is to test it, as every farmer knows but too few follow that practice. It is highly important to do so always, but particularly at such times as these, when we must make every stroke for increased productions count. Because of the unusual situation I want to appeal to our farmers to make sure in advance of planting whether seed is viable, and thus avoid the handicap of poor seed. Nothing is more important toward securing a 100 per cent crop of the sorghums than planting good seed, and this is one element in his operations over which the farmer has control.

Farmers who haven't good seed, or who want to make sure of the quality, are offered seed of guaranteed germinability by the United States Department of Agriculture, through its representative, H. N. Vinall, of Wichita. He has been assembling excellent seeds, retaining only those showing a high percentage of germinability. These are vastly superior to the general run, and may be had by the farmers of Kansas at cost.

The Government is meeting the emergency by placing within easy reach the best seeds obtainable, and it is hoped the farmers will show their appreciation by drawing freely on its stocks. High-grade seeds of all kinds of sorghums adapted to Kansas conditions are available through the Government agency, as kafir, milo, feterita, sweet sorghums, and Sudan grass.—J. C. MOHLER, Secretary State Board of Agriculture.

HOLSTEIN CATTLE.

CLYOE GIROD, At the Farm — F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

HOLSTEIN COWS FOR SALE

NINETY HEAD REGISTERED AND HIGH GRADE:

Forty two-year-old heifers bred to freshen May and June. Ten yearlings. Forty cows three to six years old. Priced to sell. Farm adjoins town. Come and see me.

C. A. BROCK - - - NORTONVILLE, KANSAS

HOLSTEIN CATTLE

I am offering for sale from my registered herd, four cows from four to six years old; two heifers, two years old, extra good; four yearling heifers and four high-grade cows; four registered bulls of serviceable age. Write or come and see my herd.

J. W. MEYER, NORTONVILLE, KANSAS.

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wauwatosa, Wisconsin

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

REGISTERED HOLSTEIN BULLS

I have a few choice young bulls from my best record cows. They are splendid prospects for herd bulls and priced to sell.

BEN SCHNEIDER, NORTONVILLE, KAN.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

CHOICE HOLSTEIN CALVES

High grade, beautifully marked, sired by registered bulls and from heavy milk producing dams, ten days old, $15; three weeks, $17; six months, $40. For thirty days only. First draft takes them.

Mt. Pleasant Stock Farm, Gilberts, Illinois.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

Regier's Holstein-Friesians

Young bulls ready for service. Dams A. R. O. Four dams of one average 25.61 pounds butter in seven days. All sired by the great bull, Sir Rag Apple Korndyke De Kol.

G. REGIER & SONS, WHITEWATER, KAN.

REGISTERED HOLSTEIN BULLS

For Sale—Several young bulls by Pontiac Beauty De Kol Segis, a grandson of King of the Pontiacs and King Segis. These bulls are out of high-testing yearly record cows. We breed for yearly production. Come and see my herd. H. D. Burger, Seneca, Kansas.

ROSS' HOLSTEINS

Bull calves by Hamilton Prilly 5th, whose dam made a record of 26.49 pounds butter in seven days, 105.6 pounds in thirty days. Pictures sent on application.

S. E. ROSS - ROUTE 4, - IOLA, KANSAS

HOLSTEIN CALVES, 15-16ths pure, six weeks old, the cream of Wis., $25 each. Registered bull calves, $45, crated for shipment. Edgewood Farms, Whitewater, Wisconsin.

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

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Jerseys.

May 24 — Glenwells Farm, Grandview, Mo. B. C. Settles, Palmyra, Mo., sales manager.

Chester White Hogs.

Nov. 7—Arthur Mosse, Leavenworth, Kan.

Ben Schneider, Nortonville, Kansas, owns one of the profitable herds of Holstein cattle in Kansas. "Heavy producers" has been Mr. Schneider's motto since the foundation of this herd. The herd was started with record-bred stock and all breeding stock added to the herd from time to time has been in the class that insures heavy production. Mr. Schneider has added a number of high record cows to his herd this spring.

The Jersey cattle sale to be held at Glenwell's Farm, Grandview, Missouri, May 24, will be one of the big events in Jersey cattle circles. One hundred and twenty-five head of Jerseys will be catalogued for this sale and the offering will include a fine lot of Register of Merit cows. The sale will be under the management of B. C. Settles, Palmyra, Missouri.

William B. Parker, of Lakin, Kansas, owner of one of the good herds of Shorthorn cattle, reports his herd doing well and a good demand for high-class breeding stock. A feature of his herd at this time is the good lot of young stock, including a young roan bull by Beaver Creek Sultan, Tomson Bros.' herd bull and out of the great show cow, Lady May, and also a white one by Baron Fancy out of a cow that is the equal of Lady May.

W. W. Zink, of Turon, Kansas, is making a great success with his fine herd of Duroc Jersey swine. At this time there are 125 head of spring pigs on the Zink farm. They are sired by the great breeding boar, Kansas Critic, he by Critic B, and his dam was Colonel's Best by King the Colonel. Kansas Critic weighed 800 pounds when shown at the Kansas State Fair last fall, where he was second in class as senior yearling. He also sired the senior champion sow pig and the reserve grand champion sow pig at the Kansas State Fair last year. About sixty spring gilts are now on the farm by him that promise to grow into state fair winners. Kansas Critic is assisted by a splendid March yearling, Crimson Illustrator, by Illustrator 2d, and his dam was by the noted Otey's Dream, a hog that came from a family of state fair winners. Crimson Illustrator was first in futurity at the Kansas State Fair, 1917.

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RED POLLED CATTLE.
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TAKEN UP — ABOUT DECEMBER 30, 1917, by E. W. Cramm, who resides 2½ miles north and 2½ miles east of Chase, Rice County, Kansas, one red heifer with white face, about two years old, appraised value $50. Emern H. Sledd, County Clerk, Lyons, Kansas.

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I have for sale

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2 AGED BULLS, also
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Hercules 3d, a giant 900-pound boar in breeding flesh, and Pathfinder Chief 2d, the largest and smoothest of all the sons of the mighty Pathfinder, head our herd. Fifteen gilts bred for summer and fall farrow for sale. Write or come and see them.
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Kansas Farmer

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 19. TOPEKA, KANSAS, MAY 11, 1918. Established 1863. $1 a Year

FARMING AND THE WAR

Drain on Country's Labor Supply Most Serious Problem of Farmer

IF WE could prevent the steady drain on the labor supply of the country and at the same time win back to the farm a large amount of labor that has left it for other fields, we would find the true solution of the farm labor problem. This statement was made by L. J. Tabor, master of the Ohio State Grange, in addressing a Farm and Home audience in Manhattan last February. He suggested that a step which might be of assistance in this direction would be legislation or control that would require every able-bodied man in America to engage in some form of productive work. America has long been noted for its idle rich, but we have among us the idle poor as well. Now that they are telling farmer folk just how much we may receive for the product of our toil, why not tell every man, whether rich or poor, great or small, that he must work or starve. The crisis is more serious than when John Smith issued his famous order, "They that will not work shall not eat."

"The collapse of Russia, the situation in Italy and the food shortage of our Allies," said Mr. Tabor, "has magnified the food crisis until it has become more serious and alarming than ever before. If the farms of America do not produce as much, or more, in the coming year than they have in the past, a calamity awaits us.

"Every well-informed farmer realizes that during the coming year he must toil to the utmost and make every humanly possible effort to keep up the supply of food; but again he comes face to face with the question, 'How can I increase production without the necessary labor?' To answer this call should be the first duty of forward-looking statesmen.

"We have developed in this country an extravagance and love of ease and a desire for the luxuries of life among those that could afford it and many who could not. We had just as well adjust ourselves at once to the stern fact that we, as a nation, cannot go on with this struggle, which daily becomes more serious and appalling, with any hope of success unless we rid ourselves of the great handicap of luxury, ease, and indifference.

"Happily, the situation is not beyond repair; legislation preventing manufacture of luxuries and non-essentials would release thousands of able-bodied men for necessary fields of production, and thus make it possible to secure sufficient labor to prevent starvation adding still greater horrors to the sufferings of war.

"In considering this question there seems to be three things that are fundamental: First, recent trend of events demonstrate that the eight-hour day is becoming the established custom in the industrial world; second, an eight-hour day is impossible on the farm, unless we intend to let humanity starve; third, the shortening of the hours of labor has been, to some extent, a factor in the increased cost of living.

"Whether we believe in the eight-hour day or not is not the question; the eight-hour day is here to stay, yet the farmer cannot work it. The shorter hours of labor have been a cardinal feature in the constant drain of the country's labor supply toward industrial centers. The farmer is being placed at a very unfair disadvantage, as practically everything that he buys must be paid for by him on the basis of an eight-hour day for the labor cost of the article purchased. Everything that he has to sell is sold on the basis of a twelve, fourteen or sixteen-hour day. To remedy this condition the farmer must insist that in all price fixing the labor cost of whatever he has to sell should be figured on the basis of an eight-hour day and at the prevailing wage in near-by industries.

"A few years ago price fixing by the federal government would have been considered as rank socialism. We accept it today because of its recognized necessity in the crisis. The farmer will not complain at governmental activity in this direction, provided every other industry is equally treated. With no regulation or control on the price or hours of labor and little or no control on the price of anything that the farmer buys, he cannot be blamed for lacking in enthusiasm for food regulation.

"Give the farmer an unrestricted market and he will ask neither maximum or minimum guarantees. Withdraw or restrict his market and he will only ask what is accorded in every other industry—cost of production plus a reasonable profit. I will guarantee that 99 per cent of the farmers of Ohio will gladly turn over their farms to the federal government and operate them at cost plus 10 per cent.

"Intimate knowledge of the situation compels us to believe that the present food administration is earnestly striving to deal justly with the producer and at the same time be fair to the consuming and suffering world.

"A few city papers and misinformed reporters were very much agitated because the farmers did not subscribe for all of the second Liberty Loan, or rather all they thought he should take, and did not haul his wheat to town the next day after the price was set. These newspaper misstatements have misled some good people into believing that the farmer is somewhat of a slacker.

"These insinuations need no answer, yet it should be pointed out: First, that there is no definite way to tell the amount of farm purchases, as the farmer usually subscribed through his bank and his Liberty Loan subscription was credited to the town where made; second, no effort was made to properly canvass the farmer—he lacked the personal solicitation received by the man in town; third, the farmer is not in the habit of making his investments in bonds of any class; fourth, as newspapers have constantly talked about loans being oversubscribed, the farmer has not felt that the Government has needed his money; fifth, most farmers were too busy seeding and trying to save crops and working too long hours to attend meetings or solicit neighbors, so were not reached; sixth (and most important), many farmers rightfully felt that by investing their money in seed, feed, live stock, etc., they could make their money serve the country better than in any other capacity.

"We trust there is not a man or woman among us who desires to make any undue profit out of the baptism of tears and blood through which we are passing. While legitimate profits are necessary to keep in motion the wheels of industry, excessive profits should not be allowed or permitted. The recent revenue bill was a step in the right direction, but we doubt if they have gone sufficiently far in the taxation of excess war profits. As much as is possible war should be made to pay for war.

"Every citizen, whether farmer, manufacturer, miner or professional man, should be perfectly willing, after a reasonable profit has been added, to see that any excess goes into the war chest of the Government.

"We should not hesitate to lay hands on every excessive profit of the present. We must not forget that if we are to tax war profits they must be taxed now. It will be fatal and decidedly unfair if after this great conflict is over we expect the young men who have offered their lives to the cause of their country to come home and help take up all the burden of taxation caused by this frightful conflict. Bonds must be issued in ever-increasing numbers, but the amount should be reduced as much as possible by increased taxation and by taxing all excess war profits up to 80 per cent.

"It may be said that the farmer or laborer, in asking for taxation of excess war profits, is favoring some form of taxation in order that he may escape. Not so. With the exception of munitions of war and government supplies all other war profits are made possible by the purchases of the consuming public, and the farmer and toiler constitute more than 75 per cent of the consumers."

We cannot refrain, in this connection, from calling attention to the fact that the recent session of Congress placed an exemption on the salary of government employes. There may be some justification for the exemption of government clerks who draw but a nominal wage, but our congressmen and United States senators who voted heavy taxes on the rest of us and then at the same time allowed a section to creep into the bill which will exempt their own salaries and that of higher government officials, acted in a manner that was not only unjust and unwise but unpatriotic as well.

The Grange's Contribution to the Cause of Democracy

SOME present-day historians tell us that it was the heroes of the Belgian army who held back the Hun while the hosts of democracy rallied sufficiently to prevent autocracy and barbarism from overwhelming the world. Others insist that it was Joffre's Immortals in the English and French lines who freely poured out their life blood in the Valley of the Marne and turned back forever the enveloping lines of gray.

We have no desire to dim the laurels of worthy heroes, but in a measure must agree with our Food Administration that the final issue of the conflict will be determined in the wheat fields and corn fields of America. The world agrees that food is as essential as men or ammunition in securing the final victory. The place of the farm in this conflict cannot be minimized or gainsaid. We trust that every farm organization has done its duty. We criticise none, and would not minimize their contributions, but will say without fear of contradiction that the Grange, the oldest and strongest of all farm organizations, has rendered a service second to none in this connection.—L. J. TABOR, Master Ohio State Grange.

Sudan for Hog Pasture

Sudan grass is coming more and more into favor as a pasture and forage crop. Its use as a hog pasture is comparatively new. We note that in a recent news letter issued by Henry S. Wilson, emergency agent for Johnson County, he tells of having received reports from a number of other counties where they have compared Sudan grass with Dwarf Essex rape as a hog pasture, in which claims are made that where hogs had access to both of these crops they preferred the Sudan grass to the rape. Sudan grass also makes an excellent pasture for other stock besides being a good hay or forage crop. It is not an expensive crop to plant, even with seed at 21 cents a pound. It can be double-rowed, using about eight pounds of seed to the acre. It should not be planted earlier in Eastern Kansas than about the twentieth of May.

The difference between the patriotic American housewife and the one who is indifferent or disloyal is measured by the amount of wheat flour in her kitchen.

A country worth fighting for is a country worth saving for. Buy Thrift Stamps.

A Gas Engine That Goes

The Nichols-Shepard Oil-Gas Tractor

does not "lay down" on the job. A heavy engine for heavy duty. Successful because simple and built with nothing but work in view.

The Nichols-Shepard Oil-Gas Engine has never been a compromise. It is designed for work—any kind of work that a traction engine should do—and it does it.

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Two sizes—25-50 h. p., 35-70 h. p.

One kind—*a Worker.*

Uses gasoline, kerosene, naptha or distillate at all loads.

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WM. GALLOWAY CO., Box 213 Waterloo, Iowa

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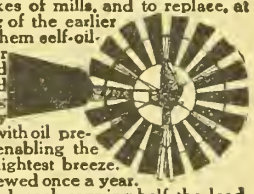
has become so popular in its first three years that thousands have been called for to replace, on their old towers, other makes of mills, and to replace, at small cost, the gearing of the earlier Aermotors, making them self-oiling. Its enclosed motor keeps in the oil and keeps out dust and rain. The Splash Oiling System constantly floods every bearing with oil preventing wear and enabling the mill to pump in the lightest breeze. The oil supply is renewed once a year. Double Gears are used, each carrying half the load.



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Machine Etched
HALFTONES & ZINC ETCHINGS

Ditch for Profits

Insure big crops every year. Don't let crops drown out. Drain with



The Marvin FARM DITCHER GRADER TERRACER

All-steel, reversible, adjustable. Cuts or cleans ditch down to 4 ft. deep—any soil—does labor 100 men. Write for free drainage book.

Owensboro Ditcher & Grader Co.
Box 162 Owensboro, Ky. Model 20

FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

IN writing on the use of the tractor in the Iowa Agriculturist, E M. Mervine, agricultural engineer at the Iowa State College, emphasizes the importance of keeping the machine in the best of repair. Because of the great shortage of labor, there will probably be a greater demand for tractors on the farms this year than ever and it behooves us to keep the machines now in use up to maximum efficiency.

"Cleanliness is next to Godliness," said Mr. Mervine, "and is very essential in the successful operation of a tractor. Old grease serves merely to collect and hold dust and this mixture of dust and grease is then a grinding agent instead of a lubricant. A few gallons of kerosene will take off all the dirt and grease and make the tractor look like new. When clean it is much easier to perfect adjustments than when the parts are clogged and hidden from view.

"Since most tractors have exposed gears, the question arises as to how these gears can be lubricated and still not collect dirt. Some companies answer this by saying that you should not lubricate the gear where it is exposed to dirt. In this case they depend on hard faced gear teeth and think that a clean. dry gear will wear longer than a dirty one even though the latter is greased. It is possible to use a lubricant on these exposed gears which is so dry that it will not collect dust. Such a mixture is made by moistening equal parts of flake graphite and powdered rosin with gasoline and smearing this on the gear teeth. The gasoline evaporates, leaving the rosin to hold the graphite in place. This, of course, applies only to drive gears.

"The lubricating system should be examined to make sure that it is working correctly. Over ninety per cent of tractor troubles are due to improper lubrication. Here again cleanliness is absolutely essential. Unless the machine is in such bad shape that it needs overhauling completely, kerosene poured into the cylinders will soften carbon deposits, cut the gummy oil residue and loosen gummed piston rings. When the cylinders have been drained, the crank case must also be cleaned. Drain the old oil from the crank case and fill it with kerosene. Turn the engine over a few times to clean the case and then drain out the kerosene as before. Carefully examine all bearings to see that they are tight and then refill crank case with new oil.

"See that there is proper clearance between the valve push rods and the valve stems when the engine is turned over. It should equal the thickness of a thin postal card.

"Keep a supply of spark plugs on hand, also a few good tools. Good tools, properly cared for, will save a lot of time and money when the spring work begins."

Tractors from Automobiles

There are many contrivances now on the market for utilizing the power of an automobile for various kinds of farm work. Many of these devices are designed to make tractors of automobiles, utilizing particularly some of the popular cars sold at comparatively low prices. The purpose, of course, is to enable the farmer owning a pleasure car to be able to utilize his power in helping to solve the labor problem. In speaking of this use of the automobile, K. J. T. Ekblaw, professor of farm engineering at the Agricultural College of Kansas, points out that various means are used for converting the automobile into a tractor by the use of these different attachments. One way requires the removal of the rear wheels of the car, after which the attachment is bolted to the car frame. In another method, pinions are attached to the rear axle of the car in place of the wheels. They mesh with the internal gears on the drive wheel of the attachment. Sometimes a secondary rear axle fitted with traction wheels is attached to the car, the power being transmitted from one axle to another by means of a system of sprockets and chains.

Devices are now designed for converting the automobile into a stationary power plant. One way is to place pulleys pushed up close against the rear wheels of the car, which are raised off the ground, the power being transmitted by the friction caused by the automobile tires coming in contact with the face of the pulleys. Power utilization may also be accomplished by means of a clutch attached at the front end of the car directly to the engine crank-shaft. The advantage of this system is that the power is not transmitted through the transmission gears, but an automatic throttle governing device may be used to regulate the speed of the engine.

"The main objection to the use of tractor or power attachments lies in the fact that almost invariably the automobile is subjected to unusual strains upon engine, transmission gears and frame," explained Professor Ekblaw. "A larger cooling apparatus should be used, for additional radiation is a necessity since the tendency toward overheating the engine is great."

Automobile on Farms

In an investigation conducted in Illinois, 277 farmers of that state gave the following reasons for owning cars:

Use auto going to town and to church on Sunday.

Use automobile one-tenth for pleasure, nine-tenths for business.

It is a great time-saver. Can go to town while the horses eat.

My opinion is that two-thirds of the cars run by farmers in this vicinity were bought out of necessity.

Use it all the time for business or whenever necessary.

Use it Sundays for pleasure; all other days for business.

Bought it as a necessary equipment of farm.

Use it very little for pleasure.

I am too busy for much pleasure.

As for using the car for pleasure, it is so little I could not tell you.

For business I use it all the time.

After using an automobile, it seems absolutely necessary.

For real pleasure we have not driven 200 miles this year. Our total mileage is from 4,000 to 5,000.

It is one of the most convenient things on the farm.

Without use of car, production would be cut down enormously.

Have two cars; use both for business.

It's handy all around.

We bought a car to handle our business; also have a large car which is used for family use when the other can not be used.

It would almost be impossible for us to get along without the cars.

We bought it as a business proposition, but had in mind pleasure possibilities.

We bought one for pleasure and the other to use every day instead of horses.

I bought the car for pleasure, as I could not load my family and hired help in the automobile Saturday nights and Sundays.

Use it Sundays to go to church, week days to town to do trade.

We go pleasure riding only when we go visiting.

Use automobile for pleasure very small percentage, as a farmer who tends to his business has very little time for pleasure trips.

We have run our car 2,500 miles and 222 miles were for pleasure.

Study Tractor Operation

If you contemplate using a tractor in your farm work, learn as much as possible about the fundamentals of tractor operation.

The tractor requires more attention than any other machine which the farmer owns. Do not expect it to work without this attention. Every tractor should be gone over by an expert before spring work opens. If the operator understands his machine thoroughly, he is the man to do the work. If not, try and secure a local mechanic who is to be trusted, or secure the services of a representative from the company which manufactured the machine.

The fundamental principles upon which a tractor operates are new to most of us. This has led to an endless amount of trouble and can be remedied only when each and every one who operates a tractor makes a special effort to become thoroughly conversant with the fundamentals of cycles, ignition, carburization, etc. There is available much literature on these subjects. Books, newspaper and magazine articles furnish a wealth of information. Read carefully the instruction book which should be furnished with every tractor; if it has been lost, secure another. Leave no stone unturned that will fit you to become a more proficient tractor operator.

For several years manufacturers of power farming machinery have been giving big national demonstrations. A great deal of interest has been shown in these demonstrations by farmers throughout the western part of the country. For two years such public demonstrations were given in Kansas. Last year our nearest big demonstration was the one at Fremont, Nebraska. The matter of holding such a demonstration this year will be considered in the near future by the tractor demonstration committee of the National Implement and Vehicle Association. A. E. Hildebrand, of Bloomington, Illinois, who is secretary of the committee and managed the demonstrations last year, has expressed himself in favor of holding the annual demonstration again this year.



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FARM LABOR MEETINGS

Farm labor questions and the wages to be paid in different sections of Kansas are being discussed in a series of eight meetings now being held.

More unity of action in the matter of establishing a reasonable and fair scale of wages for the harvest season and the work following harvest is being urged by E. E. Frizell, state farm labor director. By taking this action every farmer in the state will have a basis for determining the wages he should pay, and every laborer will know approximately the wages he can expect in the different sections of the state.

Mr. Frizell is extending an invitation to the farmers' organizations in Kansas including the farm bureaus, the Grange, the farmers' institute, Farmers' Union, Anti-Horse Thief Association, the Equity Union, Farmers' Society of Equity, and others, to send delegates to their nearest district meetings. Commercial clubs, other organizations of business men, county councils of defense, and labor organizations are urged to send representatives as they also will co-operate in supplying the needed labor from the towns.

The first meetings of the series was held at Hays on May 10, for the district including Norton, Phillips, Smith, Graham, Rooks, Osborne, Trego, Ellis, and Russell counties.

The meeting for the district including the counties of Marshall, Riley, Geary, Morris, Chase, Lyon, Osage, Franklin, and Miami, and all counties in Kansas north and east of these, was held in Topeka, Saturday afternoon, May 11.

On Monday, May 13, Garden City will have a meeting for Greeley, Wichita, Scott, Lane, Finney, Gray, and Meade, and all counties west and south of these.

The Kinsley meeting, which will be held May 14, will include Ness, Rush, Barton, Hodgeman, Pawnee, Stafford, Ford, Edwards, Pratt, Kiowa, Clark, Comanche, and Barber counties.

The meeting at Wichita, May 15, will include Rice, McPherson, Marion, Reno, Harvey, Sedgwick, Butler, Harper, Kingman, Sumner, and Cowley counties.

The Yates Center meeting, May 16, will be for the district including Greenwood, Elk, Chautauqua, Coffey, Anderson, Linn, and all counties south and east.

Jewell, Republic, Washington, Mitchell, Cloud, Clay, Lincoln, Ottama, Ellsworth, Saline and Dickinson counties will be included in the meeting which will be held at Minneapolis, May 18.

The meeting at Colby will be held May 22 and will include Cheyenne, Rawlins, Decatur, Sherman, Thomas, Sheridan, Wallace, Logan and Gove counties.

These meetings will be held in the county court houses and in each instance the hour for the meeting will be 2 o'clock, except at Topeka, where the meeting will be called at 1:30.

Delegates sent by farmers' organizations, organized labor, business men's organizations, E. E. Frizell, farm labor director, and an additional representative of the agricultural college, will have a part in these meetings.

A state-wide campaign for the enrollment of men and boys in the state who will help in the harvest and who are not already enrolled, will begin May 20 and will continue until every city and town has been canvassed. It is expected that in every city where there is a commercial club that organization will hold itself responsible for the enrollment in the city. Where there is no commercial club, business men's associations, councils of defense, county farm bureaus, or other active local organizations will conduct the enrollment campaign.

"At least 100,000 harvest hands will be needed in Kansas for a period of ten to twenty days," says Mr. Frizell, "and every able-bodied citizen who has had farm experience, whether he is a retired farmer, a banker, a grocer, a minister, a lawyer, or other town man, will be expected to demonstrate his patriotism by spending his vacation at manual labor in the harvest field. This great need for labor offers opportunity for every man and boy between the ages of fifteen and sixty-five years to do direct war work."

LIBERTY LOAN IN WEST

Agriculture is doing its part in buying bonds as well as supplying soldiers and furnishing them their rations. When the United States entered the war, the East said the people of the West were asleep, but that charge did not stand long, for in meeting their enlistment quotas it was the western states that came to the front most quickly. Then came the charge that farmers were not buying bonds, and probably they did not take the first and second issues in proportion to their ability to subscribe. There are plenty of good reasons, however, why this was true.

The third Liberty loan, according to the announcements made in advance, was to be presented especially to the agricultural districts, and there can be no discounting the response to this call to the people of the open country for money to help win the war. At last accounts Iowa and Oregon were disputing as to which should have credit for first exceeding its quota of the third Liberty loan. Both are agricultural states witrout large industrial centers, and in third place, instead of Pennsylvania, Massachusetts, New York, or some other big eastern state, we find Arkansas.

When the opportunity was presented and the appeal systematically made to the agricultural districts, as it was to the cities in the first loans, the people of the rural districts opened up their pocketbooks and poured out their resources in support of this third Liberty loan. Secretary McAdoo, who has just completed a trip through the South and Southwest where he visited many middle-sized cities and towns, was deeply impressed with the successful work of the Liberty loan workers. In a public statement which he made on his return to Washington from this trip, he said in part:

"The farmers of the country and the people living in the less densely populated districts have supported the third Liberty loan with unusual effect, and their subscriptions in many of the agricultural states have not only been highly encouraging but show that the farmers of the United States are awakening to the gravity of the war and are determined to back their country to the limit in this great struggle for human liberty. I hope the farmers will continue their good work.

"The people of the inland sections of the country are just as determined to fight this war for liberty and for the vindication of the rights of America to a victorious conclusion as are the people of the Atlantic, the Pacific and the Gulf seaboards. It is, indeed, a heartening thing to travel through the country now and observe the loyalty, the spirit of self sacrifice, and the determined purpose of the people generally. The soul of America is awake—awake with an intensity and a unity which spells the doom of military despotism and the triumph of world democracy."

KANSAS FARMERS MARKET WHEAT

During the past thirty years practically the entire wheat holdings of Kansas farmers have been marketed. The appeal from the Food Administration resulted in the heaviest flow of wheat to market since threshing time. The April receipts were about double those of March.

Where present conditions indicate a probable failure of this year's crop, the Food Administration has granted to many permission to hold enough for their next fall's seeding. In each county lists have been compiled of the few who did not respond to the call.

This response to the call of the Food Administration for the marketing of all wheat before May 15 is indeed most gratifying. It shows that the wheat-growers in attendance at the conference called by Maurice McAuliffe, president of the Farmers' Union of Kansas, correctly interpreted the sentiment of the rank and file of our Kansas wheat farmers when they passed almost unanimously the resolution calling for an immediate marketing of all wheat held on farms.

This conference, which was held in Kansas City, Kansas, March 21, was attended by about two hundred delegates, representing a number of states. Kansas had by far the largest representation. The resolution referred to was not given very wide publicity over Kansas. In fact we do not recall seeing this particular resolution given in any of the Kansas papers coming to our desk. It was No. 7 of the resolutions passed, and for the information of our readers we quote it in full as adopted: "Resolved, that, realizing that the wheat now in the farmers' hands should be placed on the market as requested by President Wilson, we ask that all wheat now held be sold at once, but ask that the Federal Grain Corporation guarantee that the farmer now holding wheat for seed in the event of crop failure of the 1918 crop be furnished seed at the same price for which he sells the wheat he now holds."

MORE MEN NEED OF THE HOUR

Last week a farmer in Kansas ordered his paper stopped because the editor expressed the personal opinion that not many of our Kansas boys in training camps would make application for furloughs to work on the farms, nor would their fathers and mothers call them from their jobs and thus deprive them of a certain amount of training. This subscriber said: "What difference would fifteen days make in their training? How do you expect us to save the crop with the best of our help gone?"

Our subscriber seems to have forgotten how KANSAS FARMER protested against the manner in which the first draft was made. It was so hurriedly done that the War Department authorities in charge admitted that the first draft was roughly chopped out as with an ax. The principle of universal liability to service, embodied in the selective draft act, makes it the fairest draft measure ever adopted, but we objected to the manner in which it invaded the ranks of agricultural labor as it was first administered. It seemed that little consideration was given to the importance of crop production. In article after article we have stood for the cause of agriculture as related to our war program.

Later drafts have been made with due recognition of agriculture, and draft boards have been ordered to place all farmers or farm laborers actually engaged in production at the bottom of the list in Class 1, which means that the call now being filled will take very few men from agriculture. It is a matter of common report that the cities and towns are supplying the bulk of the men now being called.

Then there came the provision for the furloughing of men already in army camps in order that they might return to the farms and help out in the planting of crops. It was in the article explaining in detail how the boys could be called back for a short time that we expressed our personal opinion to which our subscriber objected. We are sorry to have a reader stop his paper for such a poor reason. We ourselves do not like to read a paper in which the editor never dares to express an opinion. We have some very dear friends with whom we cannot always agree, but we do not cut them from our list because of that fact and refuse to speak to them or have any dealings with them. In fact we think there is something wrong when one of our friends is so opinionless that he never disagrees with us on any point. The same rule holds with the publications we read.

We feel that our subscriber is hasty in his action in cutting himself off from the many good and useful things to be found in such a paper as KANSAS FARMER simply because the editor has an opinion on some point with which he cannot agree.

We cannot refrain from saying in this connection that we still feel that not the slightest obstacle should be thrown in the way of getting every man possible into the breach on the battle line in France as rapidly as they can be transported and with the maximum amount of training. We felt that there were serious mistakes made in drafting our first army. We not only protested, but we assisted in preparing resolutions which were taken to Washington by a committee and presented to the War Department and the Food Administration, but now that our army is organized and being put into shape for effective work, we would not advocate any steps that would in the slightest degree delay the movement of our men or deprive them of even the smallest amount of the training they need to enable them to take care of themselves when they begin to take part in the actual fighting.

Fifteen days may seem a trifle, but if the French army reserves with such of our own troops as perhaps were brigaded with them had not been able to get into the breach inside of twenty-four hours when the British army was whipped and demoralized at the beginning of the great German drive, the enemy would have pushed on to the coast, separating the army of France from that of England. It would have been a most crushing defeat, and only the promptness and valor of the reserves saved the day. In view of the fact that the Central Powers have evidently determined to force the war to a definite military conclusion this spring or summer, nothing is of greater importance right now that men and more men. Our Allies are fighting with their backs to the wall. Each day may bring a crisis. They are looking to us to be present in force at the earliest possible moment. How can we say fifteen days is a matter of little importance?

The Food Administration has just reminded us that we must continue to practice a most rigorous elimination of waste in our use of meat and economize as much as possible. By order of the Food Administration meatless days were abandoned April 1 because of the accumulation of surplus stocks. It is not the intention to call for meatless days, but we are warned that we should use meat, and especially beef, sparingly in order to meet the heavy demands of our Allies, which amount to about 75,000,000 pounds of meat and meat products weekly, as compared with a pre-war normal demand of 15,000,000 pounds. In order to avoid making further drafts on the shipping required to transport our soldiers, our Allies have reduced their consumption of meat and poultry to an average of about one and one-quarter pounds per week for each person. We use in this country an average of about three and one-fourth pounds a week for each person. Mr. Hoover only asks that we continue to economize and cut out all waste in our consumption of meat, and particularly beef. A response to this request will avoid a repetition of meatless days.

Prof. O. E. Reed, head of the dairy department of the Agricultural College, has assumed the duties of state dairy commissioner. For a number of years George S. Hine has been state dairy commissioner, and has most efficiently conducted the work of the office. The appointment of Professor Reed consolidates the work of the dairy commission with that of the dairy department of the college. As a conservation measure in these war times it is perhaps a good move, but as a general proposition we believe strictly policing duties should be performed apart from the work of the college and experiment station. Mr. Hine goes into commercial work.

FOOD WILL WIN THE WAR

Must Save and Reduce Consumption on all Commodities

By HERBERT HOOVER, From Address Before Pittsburg Press Club

THE Food Administration is purely a war institution. Its first and primary concern is the feeding of our own people and those of the Allies, and thereby the maintenance of the strength of all the men, women and children both there and here, and thus the strong arm of our soldiers.

The necessity for the creation of Food Administrations in all the countries at war with Germany arises solely from the situation in overseas shipping. Over one-third of the world's carrying capacity has been diverted directly and indirectly to military purposes, and of the remainder there has been an unceasing loss during the war. There is an abundance of food accessible to the seas but there are not the ships to carry it from every point and to still conduct the war.

The first adjustment of this situation has been to isolate the more remote markets. There are today abundant stores of food in Australia, the East, and in South America. Ours and Canada's are the nearest supplies to the Allies, and better protection from submarines can be given to ships on the Atlantic lane than on other sea routes.

Roughly every 5,000 tons of food to the Allies requires 15,000 tons of shipping from Australia, 10,000 tons from the Argentine, and 5,000 tons from North America. Every steamer we can save from these long journeys means the possibility of an additional shipload of soldiers and munitions to France. If the Allies were compelled to go to these more remote markets for their whole food supply it would require over 2,500,000 tons more shipping than at present in use for this purpose. If North America could next year provide the whole of Allied necessities we could save 1,500,000 tons of shipping. Every ship we save is a ship built. The weight of our blow against the Germans will be limited not alone by the ships we build, but by the ships that we save. The measure of ships saved by food supplied directly from North America is, until our shipping expands, the measure of ships for our own soldiers.

If the Allies were forced to rely wholly upon the remote markets for their food, we would have no soldiers in France today. Nor will the burden grow less in the near future, for every ship we build will be needed to replace losses and to increase our army at the front. This is conservation of ships as well as of food.

Therefore the whole war food problem is simply and solely a determination of the amount of food that can be spared from North America; the marginal amount must be drawn from the more remote markets. * * *

It was found by experience to be absolutely impossible to trust to the normal commercial agencies to select the prime commodities necessary for national existence amongst the Allies and to trust to the incidental operation of trade to maintain the maximum handling of shipping. Furthermore, these commodities are distributed by their governments under rationing systems, and thus must, in any event, come into government hands.

Therefore, the European governments have been compelled to undertake, as the consequence of shortage on supplies, the single-hauded purchase of their supplies both for civil and military purposes. There has thus grown up an enormous consolidation of buying of 120,000,000 European people, a phenomenon never before witnessed in the economic history of the world.

Furthermore, we have aggregated in this country something like 2,000,000 men under arms, and we shall probably expand our forces to three or five million before we are finished. The buying for these men is necessarily concentrated in one agency, instead of 5,000,000 separate agencies as before, and we have thus a second great engine growing up in our midst as a necessity of war conditions.

In order that these two buying agencies should not get in each other's way, it has been necessary to place them under joint direction. In the final outcome, therefore, we find ourselves in the presence of a gigantic monopoly of buying just as potent for good or evil as any monopoly in selling, and in many instances either making or influencing prices. Therefore, not through any theory, but through an actual physical fact, the price made by this gigantic buyer denominates the market.

This is price-fixing in a light never contemplated in economic history or theory, and it is time that economic thinkers dennde themselves of their procrustean formulas of supply and demand and take cognizance of it.

In commodities where this situation arises, the Government must necessarily regulate the price, and all theories to the contrary go by the board. So far among food commodities only wheat is positively involved and pork prices are influenced by the volume of buying.

It is entirely possible for the Government to make these purchases to the best advantage of the Allies and to the army and navy and to disregard totally the civilian population, either the consumer or the producer. Where these purchases aggregate to such a volume as to make inroads on the normal consumption of the civilian, it would mean that the residue would go to the highest bidder.

This would be conservation again for the rich and not for the poor, with a vengeance. Had we allowed this to go on in wheat, flour would today be $40 a barrel instead of at a universal price of practically $12.

The producer is also subject to damage by these great buying agencies. Production of food does not take place evenly over the year; it is seasonal. It is entirely possible for such a monopoly to manipulate prices in the season of surplus marketing to figures below the producers' cost. Again transportation both inland and overseas is subject to every vicissitude of war. Temporary stoppages in transport can produce every speculative disaster unless some stability is given to markets. Therefore both sides, consumer and producer, must be safeguarded by wise direction of this buying power, and this is bound to result in price regulation in certain commodities in just protection to both.

But right at this point arises to me a fundamental principle in national war economics. I do not believe that any person in this United States has a right to make one cent more profit out of any employment than he would have made under pre-war conditions. I do not care whether this refers to the farmer, to the laborer, to the manufacturer, to the middleman or to the retailer; to me, every cent taken beyond this standard is money abstracted from the blood and sacrifice of the American people.

I do not believe that extortionate profits are necessary to secure the maximum effort on the part of the American people in this war. If we are going to adopt that theory, we have admitted everything that has been charged against us of being the most materialistic, the most avaricious, and the most venal of people in this world.

If we are going to admit that the Government, in order to secure the supreme effort of its citizens in production, must bribe them with money to this extra exertion, we have admitted a weakness of American character, of American civilization and of American ideals that puts us on a plane below German kultur.

Do not mistake that I am saying that prices and wages should return to the pre-war normal, because the incidence of war before we joined in it had lifted our costs of operation, and there must be compensation in every direction. Nevertheless, I hold that any man who has made more than his necessary living out of the cost this nation is giving in the blood of the boys we are sending to France should not stand out as a benefactor to his community.

I have had this statement met before now with the expression that it is dreamy idealism, but I have found no individual who was prepared in his own instance to defend any such line of action.

It is true that this doctrine has been made law only to the larger food trades. I am confident that profiteering has from a national point of view disappeared in the regulated food trades, and in consequence my belief is that it should be applied generally to all business in this community, and it is also my belief that before we are finished with this war, that will have been done.

To me, this goes much farther than the mere case of the individual and the blame that may be attached to him. As I have seen this war develop from an active participation in its backwash and misery since its first day, I have seen growing out of the masses of people in every country aspirations for a great economic change. That change, broadly, will be, in the view of extremists, that those who work with their hands will obtain a larger portion of this world's goods and those who work with their brains will obtain less. Those who do not work will probably obtain nothing.

If we are to bring about this economic change in an orderly and American way, and not by convulsions during the period of recuperation from the war, we must lay the foundations for it now. None of us want a repetition in the United States of the history of the last twelve months of Russia. The proper social development of this country along these lines fills the background of all men's minds and its proper guidance rests upon the liberal and thinking men of the country.

The enforcement of this law against profiteering in the food trades is a considerable part of our anxieties. In order to determine how far we have succeeded—that is, how far the margin between the producer and consumer has been diminished—we maintain positive data in our organization.

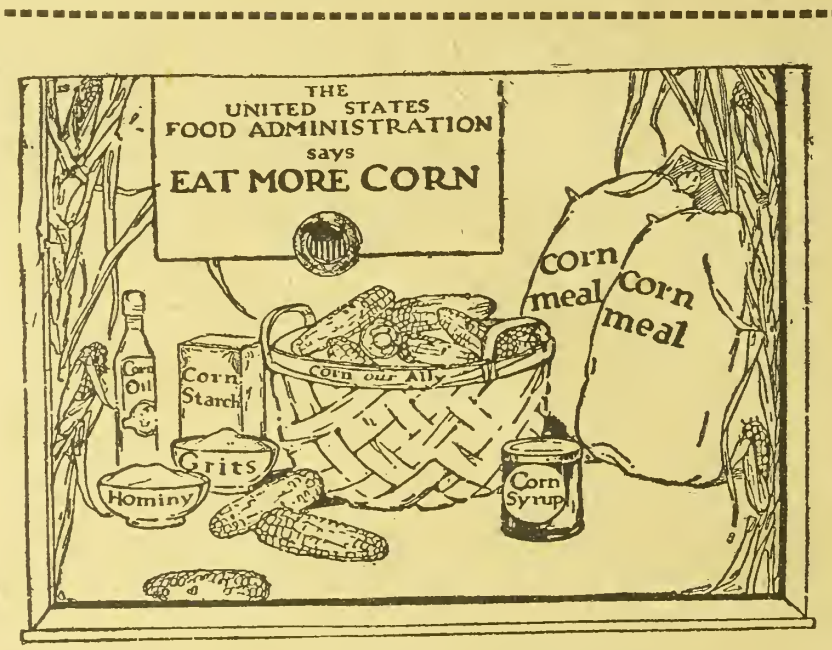
To illustrate this, we have calculated a price index based upon the food values of the principal commodities. For instance, a rise of a half dollar a dozen in eggs would be a good headline, but it is not as important to the country as a rise of a cent a loaf in bread. Upon this basis we find that since the Food Administration was founded the price of food commodities has increased 18 per cent to the producer and at the same time it has decreased 12 per cent to the consumer. The margin is thus smaller by 30 per cent—in fact it is now so narrow that price charges to the producer directly reflect to the consumer, and the Food Administration has to take all of the curses of both sides.

This has been accomplished largely by voluntary co-operation of the food trades. Ninety-five per cent of our traders desire to serve the common interest and the measure of their co-operation is one of the most illuminating proofs of the high sense of service in our people. While isolated instances will occur, I am convinced that at no time in the last three years has there been as little speculation and extortion in the nation's food as there is today.

Another economic theme which the Food Administration has had to pioneer is that of saving. Speaking broadly, we have some thirty-six million of able-bodied manhood. We have already had to divert two millions of these men to actual arms. Beyond this we have had to divert a vast number of men to provide munitions not only for ourselves but for the Allies. We have had to divert vast numbers of men to the provision of the raw materials for these shops. We have had to set aside larger amounts of our foodstuff for the Allies, and consequently there was a diversion of farm production to this purpose.

Altogether, a rough calculation indicates that already we have diverted from eight to ten million men from their normal occupations toward war and the products it requires. That is from one-quarter to one-third of our normal productive units. It is possible that we can increase the exertion of the remainder of our productive population by eliminating non-essential labor, by more intensive labor and longer hours, by the

(Continued on Page Seven)



BRING UP THE RESERVES

AS THIS is being written the world of safety and freedom is at death grips with the enemy. Through long weeks the battle has waged and still the Germans sweep on like a tide over their dead. Out of this conflict of Titans, messages from heroic leaders come to every awaiting heart. Like the trump of archangels these great spirits call to us; from the Marne still resound the words of Joffre—

"The hour has come to advance at all cost,
and die where you stand rather than give way."

And that dauntless message from Ferdinand Foch, now the commander-in-chief of the Allied armies—

"My left wing is broken, my right wing is crushed;
we are attacking in the center all along the line."

And in the midst of battle the hold-fast words of Field Marshal Sir Douglas Haig—

"Every position must be held to the last man;
there must be no retirement."

Stern, terrible facts are driving us to action; now the best qualities of the race and breed are seen; whatever happens we shall not fail—to the trumpet call of battle America is rising like a winged Victory.

CALF CLUB AND DAIRY PROGRESS

Interesting Younger Generation in Dairying Means Much to Industry



LINEUP OF LINWOOD CALF CLUB MEMBERS AND THEIR CALVES.—THIS LEAVENWORTH COUNTY CLUB IS THE FIRST PURE-BRED CALF CLUB ORGANIZED IN KANSAS. CAREFUL RECORDS WILL BE KEPT AND MEMBERS ARE PLEDGED TO MEET ONCE A MONTH FOR DAIRY INSTRUCTION

By E. J. TROSPER

THERE never has been a time when the dairy industry needed the sincere judgment of conservative men to guide its destinies as it does today. Our development must be sane and sure. It is no time for speculative theorizing. No time for untried, unfounded experiments. The dairy cow will justify the claim more fully than she has ever done before, that she is the foster mother of the human race and the backbone of American Agriculture, if the men who have pinned their faith to her will not be led away by "get-rich-quick" crops and the cry of labor shortage.

It is a poor industry that does not permit of a greater future. I contend that dairying has a greater future than its present is or past has ever been because we now have armies of tried and experienced men and women whose business it is to encourage the young boys and girls of the town and country to become producers of raw materials.

No better service can be rendered any boy or girl than to put him in touch with natural life and its environments.

Because the calf club movement has for its cornerstone the development of boys and girls it is bound to become a potent factor in the dairy industry.

Objects of Calf Club

It would indeed be an indication of selfishness on the part of him who attempts the organization of a calf club, should he fail to recognize the fact that the boys and girls should be of uppermost importance. Too many times communities and individuals have sacrificed the boys' and girls' interests for mercenary purposes.

Our boys and girls of today are the dairymen of tomorrow; in fact, form the very foundation of the industry, and unless we create a desire strong enough to direct their thought and efforts along dairy lines little dairy development may be experienced in the future, even though we are a hundred per cent efficient in all other phases of the billion-dollar game.

To popularize dairying among the younger generations throughout the entire country means the practical and scientific development of an efficient army of dairymen in whose hands lay the problem of developing the dairy industry to its highest degree. In order to properly nourish our rapidly increasing population and in that way contribute our share to the general welfare of the human race, the dairy industry must be encouraged and developed and the logical place to encourage and develop any industry is among those upon whose shoulders rests the responsibility of carrying the burden.

In recognizing community development as one of the leading objects of the calf club movement we should include all factors essential to a good community. Unfortunately it is next to impossible in communities to develop a co-operative spirit among the older inhabitants. Every parent, however, has a greater interest in his sons and daughters and if it is possible to develop unity of action among the younger people the old folks will join in the activities. When the boys of a community are called together they vote on the breed of dairy cattle they prefer. The majority rules and in a good many cases the boys are actually responsible for developing one breed in the community. This is the first place in which the element of co-operation enters. Boys will do this, but men never would sacrifice a life-long prejudice for the sake of co-operation.

Previous to the organization of one of the first calf clubs in Minnesota, five different breeds were kept for dairying, but when a calf club was organized it didn't take the community long to get behind the dairy breed selected by the youngsters.

Experience teaches us that there isn't a better method of reclaiming run-down communities than to initiate the dairy business. Our most prosperous communities dairy and invariably dairying is the main occupation on highest-priced land.

History of Calf Club Movement

The calf club idea, according to our best dairy authorities, originated in Minnesota several years ago. The plan proved effective but did not receive national recognition until 1917. During the year of 1917 hundreds of calf clubs were organized in all parts of America. Missouri and Illinois lead with about seventy-five clubs each. Iowa, while not having many clubs, is doing the most effective work because of the follow-up work initiated through the various state dairy associations. A large number of the states have recognized the influence of calf clubs in popularizing dairying and give to it the leading place in the activities of the year.

Practically every state in the Union can boast of a well organized calf club.

Organization of calf club "gangs" without purpose or direction; fake organizations by some bankers to get a high rate of interest on money loaned boys; absence of definite organization with able leadership and follow-up work; personal glory; selfishness; speculation; encouraging boys to sell calves; tuberculosis; abortion; fake pedigrees; graft; inferior business methods; breed disputes; young calves; improper care, breeding, feeding, and management of females; pure-bred machines in grade hands — all these undesirable negative factors enter into the calb club movement.

Each of the above conditions is a story in itself and until the "kaiserism of calf clubdom" is entirely eliminated, or at least reduced, little substantial progress can be expected from a movement destined to contribute more to the development of the nation's future welfare than any other one thing bearing directly on the dairy industry.

Future of Dairy Calf Clubs

Following every big, new offencive, comes a "lull." Especially is this true where something new is launched.

The big calf club drive took place during 1917. Entire trainloads of dairy-bred cattle have been shipped in one shipment to certain sections of several of our states. In general, people seem to be waiting to see how the clubs organized last year pan out before organizing others.

Shortage of labor, high-priced feed, and unsettled market conditions have served as a boomerang not only to the calf club movement but to the entire dairy industry as well.

In brief, it may be said that the club movement is a success because it has interested thousands of our boys and girls. Community instead of personal interests are being developed. The calf club movement is now opportune because the Government is calling on the boys and girls for assistance. Our boys and girls are willing and anyone responsible for furnishing them with good dairy calves need never be afraid of the pangs of a guilty conscience. Individual dairy machines are at work on countless run-down farms restoring the fertility and laying a foundation for future prosperity as a result of calf clubs being organized.

The club movement has a great future because the dairy cow has a great future. The fact that the dairy cow is found in all highly developed communities and associated with highly specialized men is conclusive evidence of her superior place in the general scheme of a profitable agriculture.

Communities Should Back Clubs

The State Dairy Association should be the sponsor of the movement in all communities within the state. The incentive for community enterprise very rarely comes from within, but when the incentive is incorporated in local communities it should receive spirited co-operation from the very best local dairy interests already established. In case the dairy interest is just being created, farm bureaus, commercial clubs or banks should take the initiative.

A representative of the State Dairy Association or official representative of the College of Agriculture should call a joint conference of the creamery interests, the farm bureau, or the commercial club, and establish a definite calf club policy including the financial arrangements, the appointment of local calf club leader, set the date and formulate publicity for a big community gathering to be held in the near future for the purpose of explaining the calf club idea in detail and securing signed application for calves.

The financing of calf clubs should be put on a purely business basis in order to teach the boy the responsibilities and obligations that attend the borrowing of money. The note should bear a legal rate of interest for a year's time subject to renewal and endorsed by the father. Calves should be insured to avoid the element of risk.

Pure-bred calves can be introduced with safety into an already established pure-bred environment or an environment that gives considerable pure-bred promise. It is highly impractical to expect an inexperienced boy or family to properly breed, feed, care, and manage a highly-bred dairy machine.

A grade calf club is not to be encouraged where prospects are good for a successful venture with pure-bred animals. The question of grades or pure-breds should be decided by the council under whose auspices the club is being organized and not left to the decision of the members.

Center on One Breed

A community should center its efforts on one dairy breed, preferably the one already established. It is possible for a community to center on two breeds and expect reasonable success; however, all conditions being equal, one breed for a community or county is desirable. Waukesha County, Wisconsin, has made wonderful progress in developing the Holstein and Guernsey breeds, yet the progress of either of the breeds would have been greater had not the other been present in the county. All the leading dairy breeds are good and the breed selected depends entirely on local conditions and desires. As a rule, the boys forming the club vote on the breed and the one receiving the greatest number of votes is unanimously adopted. It is better, however, to have two breeds than to let the club fall through.

Calves ranging in age from two to ten months were popular at the beginning of the calf club movement. The tendency now is to buy bred two-year-olds and the writer is inclined to favor the latter. In the first place, two-year-olds are a better investment than the younger stuff and yet not as expensive as the more matured cows in milk.

The committee selected to buy the calves should consist of two good men, one of which represents the state and the other the local community, preferably a farmer endorsed by the club. The calves should be laid down at cost and a man who is not enough interested in the boys and community to make the trip for his expenses should remain at home.

Where can the calves be located and purchased to the best advantage? If anyone can answer this question intelligently he will contribute a lot to the movement. It is nearly always advisable to visit dairy communities in states well established in the dairy business, providing tuberculosis and abortion are not too prevalent. You have a larger number to select from and as a rule they are more highly graded and are better sired. The expense of rounding up carloads is less. As a rule more reliable dealing may be made in communities like Waukesha where their dairymen are well organized and the members have a conscience and realize that every good animal they sell is a substantial foundation for future business and contributes no small part to the results of the 10 per cent spent in various ways each year in advertising their community and breed.

Even well established communities like the one mentioned above have undesirable features which purchasing parties have to contend with. More buyers are attracted to such communities, dairy stuff high-priced and pretty well picked over. Very frequently an abundance of good cattle may be had at a very reasonable figure by getting out in the "jungles," so to speak, off of automobile roads and away from such keen competition.

Less than a year ago the writer was only one of the thirteen buyers from as many parts of the United States who just happened to be stopping at a certain small hotel in one of Wisconsin's leading dairy sections.

When the purchasing committee reaches the various dairy sections is troubles are just beginning. As a rule it is properly directed to certain localities by college dairy departments, state veterinarians, dairy commissioners, county agents, etc., but when your destination is reached it is up to you to work out your own salvation. Dairy cattle speculators will stop you in every town and offer to locate the stuff you want for from $3 to $5 per head. They have huddled together on different farms hundreds of both grades and pure-bred cattle of all ages, breeds, and health conditions. When buying for calf club purposes under these conditions your judgment must be based largely on type (if grades) because you know nothing regarding the breeding of the herd the various individuals the speculators' accumulation comes from, to say nothing of abortion, tuberculosis, production of ancestors, etc. True, some speculators are honest and can give you much (too much to be true) information regarding any animal in the bunch. They are too much like the Irishman who maintained "his word was good because everybody had it." Dealers buy good stuff along with poor, but in order to get it at all reasonable you have to carry some excess baggage in the form of a few undesirable individuals.

On the other hand, if you were to land in a dairy community to buy dairy cattle independent of the "sharks," just where would you go and why? A lot of valuable time could be wasted following your own incentive in a strange land. True, you will stumble onto good individuals occasionally, but not in sufficient number to fill very many cars in reasonable time.

WHEN DREAMS COME TRUE

Scrub Cattle are Back Numbers on the Kansas Farms. The Demand for Improved Stock Will Continue to Increase



THE SHORTHORN HAS BEEN A PIONEER IN CATTLE IMPROVEMENT.—WHEREVER USED, SHORTHORN BULLS HAVE STAMPED THEIR SPLENDID QUALITIES UPON THE COMMON STOCK OF THE COUNTRY

WHERE are you boys goin' with them calves?" asked the farmer as he drew up in the road beside a team and spring wagon driven by two bright-eyed boys. The wagon contained a crate in which were caged two heifer calves, a red and a roan.

"Why, we are taking them home. Our Uncle has been writing to us about them and said if we would agree to pay half of their value he would ship them to us and we could start a herd of our own. You know Uncle Howard has full-blood cattle and he keeps them registered. So we wrote him to send us the calves and we would do our best."

"What do you have to pay him for such calves?"

"Why, we have to give him one hundred dollars apiece."

"Well for the love of Mike! One hundred dollars apiece for them little calves!"

"Yes, you see they are registered and well bred and he sells them sometimes for four hundred to five hundred dollars."

"Yes, boys, maybe he does, but you'll never see the day that you'll get your money back on them calves."

"Anyhow we know Uncle Howard does, because we have been there, and we think we can too if we take care of them like he does. And father's going to let us have all the feed we need and he is going to help us if we need him."

"Well, I wish you luck, boys, but it is an awful price to pay for calves. Why I sold ten last week and only got twenty-one dollars apiece for them and I thought I was robbin' the man."

"But you see yours are different. They aren't full-bloods like these and they aren't worth so much."

"Aw shucks, this full-blood business, there's nothin' to that only a lot of foolishness."

"Yes, but we think there is, because Uncle Howard has two farms now and he didn't have much money when he began farming, but he has always kept full-blood cattle and he says he can't raise them fast enough. The buyers come to see him from a long ways off, and father says he knows it is a good business. Anyhow we are going to take good care of these calves and if we want to sell them after a while we know Uncle Howard will help us if we need him."

"Well, I expect your calves are gettin' anxious to be unloaded so I'll drive on. Good luck to you!" And the cynical farmer drove on down the road.

As the boys journeyed on homeward with their calves they talked about what the farmer had said. They agreed that if the farmer sold his calves for twenty-one dollars that was all they were worth, for they knew he didn't take very good care of his stock anyway.

When they arrived at the farm their father helped them back the wagon to an unloading chute and the end of the crate was opened and the calves were let down the incline. They were rather gaunt from shipment, but the father quickly observed that they were well-formed and had quality. He advised the boys to let them nurse two of the cows then in milk and to see that they were fed regularly.

Many an hour these boys put in caring for their calves, and the way they filled out and grew was a delight to see. The boys had no doubt that Uncle Howard had given them a good bargain, and they became more and more attached to the calves as the months went by.

When the calves were past a year old a letter came from Uncle Howard, saying that he had a buyer who would take them if they cared to part with them, but upon the advice of their father the boys wrote back that they had decided to keep them and start a herd of their own. Then a letter came from Uncle Howard encouraging them in their decision, saying that when they needed a bull to let him know and he would ship them a calf of the breeding and type that would best serve their purpose.

It must be quite evident to the reader that there were here present the elements for the building of a herd, that two live stock improvers were here in the making. The necessary enthusiasm had been kindled. A definite purpose was taking shape. It was the beginning of a period of years in which dreams come true and hopes are realized—years of deepening interest; a basic period on which subsequent successes are built.

Let us bridge over a few years.

We are again at the point in the road where this story begins. Two sturdy young men are taking a small drove of cattle slowly along the road and the same farmer happens along just as he did a dozen years before.

"Takin' off some of your cattle?" he asks.

"Yes, we sold fifteen to a Colorado buyer."

"Gosh, you're shippin' him some nice ones."

"Yes, he picked good ones, but we could spare them and he was willing to pay the price."

"Tain't none of my business, but I would just like to know about what you got for them."

"He paid us an average of $575 a head for these and we are keeping several calves to ship to him later at $400 apiece."

"Jiminy crickets, you don't get nothin' for these cattle, do you? Why, say, I remember when you boys took your first calves home about ten or twelve years ago. Ain't you the same boys that had the two calves in the crate?"

They remembered well and said, "Yes, we are, and don't you remember how you made fun of us because we had agreed to pay $100 apiece for those calves? These have nearly all descended from those two calves."

"Well, boys, you've done mighty well, and all I got to say is that if I was a young fellow I would start in different and I would take better care of my cattle. The trouble with me is I have always tried to buy them too cheap and then I expect I didn't feed them enough. There was a time when we could make money doing that, but we can't any more, the way land has gone up and feed and labor and everything else.

"I'm glad you boys have done so well, and I want to tell you something else. It's been a great thing for this part of the country to have a herd like yours in it. I have thought a good many times about you boys and what I said to you the day you were bringing the calves home, and somehow I felt after I left you that day that, though you were just little shavers, you had the right idea about the cattle business."

And with an expression akin to sadness the farmer drove slowly on down the road.

EDITOR'S NOTE.—This little story by Frank D. Tomson appeared in a recent issue of "The Shorthorn in America." It carries some wholesome inspiration to the boys of our farms who are to be the producers of live-stock and meat products in the near future. The day of the scrub steer has passed. This story does not overstate the possibilities of pure-bred cattle in the hands of those who appreciate their value and know how to care for them.



THESE sheep have just been brought to Pawnee County from Lamar, Colorado. Most of the lambs were dropped before the ewes were shipped. They belong to W. L. Thompson, who intends to use them in cleaning up the weeds on his farm. Sheep have been very profitable farm animals in this country to those equipped to handle them. R. P. Schnacke, county agent, reports that one man at Burdett sold three fleeces last year for $16.50 and several report receipts of $5 a fleece. A. L. Stockwell, of Larned, who handles sheep extensively, is now shearing and getting on an average seven pounds of wool apiece.

A man in the edge of Stafford County has offered to let out ewes in small numbers to farmers living near him for one-half the wool and half the increase.

Destroying Cutworms

Mrs. M. H., Sedgwick County, wrote that cutworms were destroying her cabbage plants and asked for a remedy. Since she had urgent need for information, we replied by return mail. Another lady who was in our office recently told us the cutworms were unusually plentiful this year. Prompt and energetic measures must be adopted or the cutworms can do a lot of damage to young plants. Paper bands placed around the stems of such plants as tomato and cabbage when they are set out, the bands extending an inch or two above and below the surface of the soil, will protect them from the worms. Poisoned baits are sometimes successfully used. Prof. M. F. Ahearn of the Agricultural College, in a recent circular on gardening, suggests dipping small bunches of clover in a solution of paris green and placing these poisoned bunches at intervals over the plot a few days before the plants are set out.

The poisoned bran mash, which has been so extensively used in destroying grasshoppers, is also good for controlling cutworms. To prepare a small quantity of this mash, use an ounce of paris green, 20 ounces of bran, 5 ounces of syrup, and a quarter of an orange or lemon. Mix the paris green and bran dry; add the finely chopped pulp and peel of the fruit to the syrup, adding enough water to thoroughly moisten the bran. Pour the liquid over the bran and paris green, stirring it with a wooden paddle until it is all dampened evenly. It should be scattered broadcast among the plants in the evening.

A circular entitled "Insects and Plant Diseases Attacking Garden Crops" has just been issued by the Kansas Experiment Station at Manhattan. This should be in the hands of everyone who is attempting to grow a garden.

Owners of tractors which are not kept busy through the spring plowing and seeding season will perform a patriotic neighborly duty by granting use of these outfits to neighbors, who may be short of labor or hands to prepare seed beds. A reasonable rate of hire for the tractor would enable the tractors to make a return during otherwise idle periods, but, most important, will make it possible for others at reasonable expenditure to have a full acreage and add to the nation's important food supplies. The same plan might be followed, Department of Agriculture specialists point out, with regard to horses and various farm machines which should not be allowed to remain idle when a food-producing neighbor can keep them busy on victory crops.



Future Demands For Live Stock

THE war is tending to eliminate live-stock production as a feature of farming in the European countries involved. Everything must be considered in view of its immediate effect. Meat and other live-stock products can more easily be transported than many other things. It has been stated that an acre of potatoes, for example, will provide food for one man for 1,500 days, an acre of wheat for 700 days, an acre of medium pasture 40 days, and poor pasture only 8 days. Of course this must assume high production of these crops and evidently does not take into consideration the necessity for a proper balance of nutrients—simply total production.

Scotland and England have been noted for their live-stock production. Never before, however, has so much land in Scotland been placed under the plow for grain and root crops as at the present time. Official reports coming to the United States tell of extensive grazing lands in Scotland being placed under cultivation for the purpose of improving the food situation in the British Isles. Such an agricultural policy means of course a great decline in the famous sheep and general live-stock industries of Scotland, but the tillage of more land for the production of grain and root crops is considered vitally necessary. The experience of other densely populated European countries confirms this belief.

Last year Scotland produced over a million tons of potatoes, which was double its crop in 1916. There was a shortage of nearly all vegetable seeds in Scotland this year with the exception of seed potatoes, and this will probably result in another big increase in the potato crop.

After the war ends it will take months and possibly years to demobilize the armies, and there can be no material increase in the world's production of food until these millions now under arms have been on the land for six months or a year. The need of the moment seems, without question, to be the increased cultivation of such crops as will bring the greatest immediate return in food nutrients.

The necessity which is causing such tremendous changes to be made in the long-established practices of agriculture in the British Isles emphasizes the critical situation there and the responsibility of the United States for supplying cereal grains, meats, fats, and sugar in order that the British people may have a ration which is properly proportioned in nutrients.

These agricultural changes taking place in the countries of our Allies do not indicate that such methods are to be adopted in this country. The relation of live-stock production to continued agricultural prosperity has not been overthrown as a practical workable theory. These changes rather point out our future obligations in the matter of live-stock production, and especially as relates to the restocking of Europe with breeding stock after the war is over. Not only will we be called upon to furnish large quantities of live-stock products during the war, but we can be sure that for some years to come the warring countries must depend on outside sources of supply for their various live-stock products and in addition breeding animals to restock their depleted farms. The live-stock farmer should not fail to note these signs of the times. Good live stock will be a mark of good business judgment on the farms of this country in the years to come.

Program of Cattlemen's Meet

An unusually good program has been prepared for the sixth annual gathering of the Kansas cattlemen at the experiment station at Manhattan on Friday, May 17. This has been one of the popular meetings of the year for live stock men and especially those interested in cattle. The speaking program will be given this year in the college auditorium, the morning session beginning at 10 o'clock with Prof. W. A. Cochel, head of the animal husbandry department, presiding. The subjects and the speakers are as follows:

"Heavy Grain vs. Light Grain-Feeding of Cattle," W. H. Pew, professor of animal husbandry, Ames, Iowa.

"The Relation Between the Breeders of Pure-bred Live Stock and the Cattle Feeders," R. J. Kinzer, secretary American Hereford Cattle Breeders' Association, Kansas City, Missouri.

"The Live Stock Commission Man and His Relation to the Cattle Feeders," J. C. Swift, Kansas City, Missouri.

"The Farmer and the War," Major-General Leonard Wood, Camp Funston, Kansas.

At noon lunch will be served in the live stock judging pavilion. At this time prizes will be awarded the winners in the annual students' judging contest. These awards will be made by W. L. Brown, Kingman, Kansas.

At the afternoon session W. J. Tod, ex-president of the Kansas Live Stock Association, will preside. The afternoon program is as follows:

"The Meat Situation," J. P. Cotton, meat administrator, United States Food Administration.

"Live Stock in War Times," Dwight B. Heard, chairman State Council of Defense, Phoenix, Arizona.

"The Packing Industry and the Cattlemen," Thomas E. Wilson, president of Wilson & Company, Chicago, Illinois.

"Results of the Cattle Feeding Experiments," Prof. W. A. Cochel and other members of the Department of Animal Husbandry.

Opportunity will be given to see the experimental cattle in the feed lots. Five lots of calves have been full fed for market. They will be judged and valued by commission men and buyers from the Wichita, Kansas City, St. Joseph and Chicago markets.

March Receipts at Stock Yards

Receipts of cattle and hogs at stock yards during March of this year were greater than receipts in March, 1917, according to the monthly stock yards report issued by the Bureau of Markets, United States Department of Agriculture. Receipts of cattle and hogs for the first three months of 1918 exceed receipts for the same period in 1917.

March receipts at fifty-six yards were: Cattle, 1918, 1,688,029; 1917, 1,324,995; hogs, 1918, 4,372,136; 1917, 3,367,588; sheep, 1918, 1,223,120; 1917, 1,232,543.

Shipments of cattle, hogs and sheep from stock yards all showed an increase during March, 1918, over March, 1917, and the first three months' total for cattle and hogs was greater in 1918 than in 1917. Total shipments for March, 1918, were: Cattle, 642,910; hogs, 1,707,170; sheep, 552,397. The March, 1917, figures were: Cattle, 469,187; hogs, 1,151,787; sheep, 439,840. Stocker and feeder shipments as a class, included in above figures, also showed increase in March, 1918, over March, 1917.

More cattle and hogs were slaughtered at forty-five cities in March, 1918, than in March, 1917. The figures, giving 1918 totals, were: Cattle, 997,115, 810,507; hogs, 2,625,400, 2,220,476; sheep, 653,783, 782,552.

Increased receipts and shipments of horses and mules at forty-three cities are shown by the report, the March figures, with 1918 given first, were: Receipts, 117,768, 109,108; shipments, 114,076, 107,109.

Food Will Win the War

(Continued from Page Four)

application of woman's labor, by putting the boys into labor earlier than otherwise, and can make up some of the gap in our productive units. We cannot, however, compass the whole, and the deficiency can only be overcome by the reduction in the consumption of commodities.

This does not apply to food alone, it applies to every commodity of which we consume more than is necessary for our health and comfort. We must strip to the bone in order that we may afford the economic luxury of the diversion of this portion of our productive power to the destruction of war. If we do not, our exertion in this war will stop short of the task imposed upon us, and we cannot look to victory with any assurance. * * *

Another prime economic theme by which I am impressed in this war is this: The American ideal in executive work is efficiency, but efficiency does not alone mean the best appliances and the greatest numbers made for the least cost. In war it involves a new factor that transcends all others—and that is speed. Many of our present difficulties arise from our inability to get away from our trodden interpretation of the word "efficiency," and many of them from the fear of our executive officers of criticism if they fail in popular interpretation of this term.

In this light measures taken, results attained, cannot be judged by the microscopic inspection of the threads in the tapestry—its broad lines, its inspiration, must be attained quickly, not by years of careful development. It will be of no avail to us if we lose a war, even though it may cost less per unit than any war in history.

We are a discouragingly critical people. Those of us in Washington are damned if we do, and damned if we don't.

There is but one real test for Washington. Our game is to win the war, and the test is, Do we keep our eye on the ball? For, friends, this people will be cursed for the next ten generations if we don't. Nor does this test apply to Washington alone. We in the Government can often criticise also, and our right of criticism lies against that minority of people who hope for self-interest—financial, social or political—out of winning the war. This Government is nothing more than the expression of the people, and if we are to win the war, it will be only because every man, woman and child charges himself daily and hourly with the test: Does this or that contribute to win the war?

Nor is this the gospel of gloom, it is the gospel of the full health, spirits and strength of our people in maintaining the last ounce of production, the last atom of economy.

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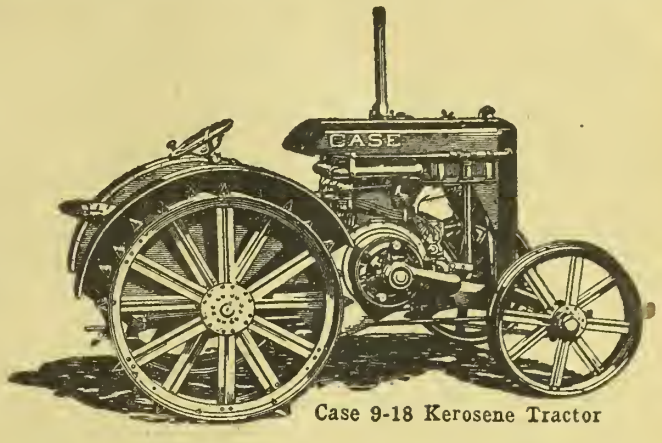

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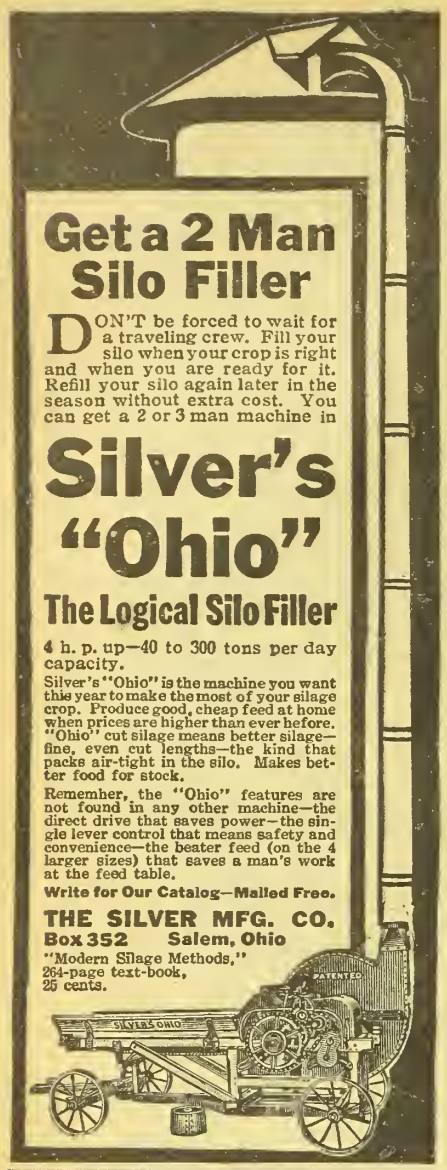

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Soiling Crops For Cows

DURING the early summer, pasture supplies an abundance of succulent, palatable feed for the dairy cows. At this season cows usually reach their best and most economical production. These conditions do not last through the whole summer season, and the fore-handed dairyman will plan to make the late summer conditions as near like the season of flush pasture as possible.

Succulent feed is important at all seasons. A dry ration is almost never equal to one of which there is a certain proportion of green or succulent feed. During the winter season silage can supply the succulent part of the ration and many dairymen are even depending on silage for summer feeding. Beginning about the first of July, pasture almost invariably begins to dry up and for the balance of the summer the supply of grass is so scanty that the cows dry up also unless some provision is made to overcome the shortage of grass by supplying green, succulent feed to take its place.

Probably the most satisfactory way of providing for pasture shortage is to feed silage during the summer months. However, if this is not possible or feasible this condition can be very satisfactorily handled by feeding green feeds or soiling crops during these months. As a rule, one acre of soiling crops will produce as much feed as three or four acres of good pasture or as much as five or six acres of short pasture. One acre will produce from six to fifteen tons of green feed under favorable conditions. The average sized cow will eat from fifty to sixty pounds of such feed a day when pastures are scanty.

The Missouri Experiment station suggests that by dividing the land to be used for soiling crops into sections or plots and planting the different crops at different times, it is possible to maintain a nearly continuous supply of green fodder for the dairy herd. A good general plan to be followed is to plant Sudan grass about June 1, at the rate of sixteen pounds to the acre. This should yield ten to fifteen tons to the acre and should be ready for feeding from about August 1 to 20. A good northern variety of corn planted about the middle of May at the rate of six quarts to the acre will become available about August 10 and can be fed whenever needed. The second crop of Sudan grass will be ready to cut about August 25 to September 1. Cowpeas planted at the rate of five pecks per acre about July 1 may be fed from about August 25 to September 10. After this time field corn may be used at any time. Sorghum crops give good results during these late summer months.

These suggestions will be applicable in Eastern Kansas.

Age for Freshening

In view of the high cost of feeds there is a weighty reason for bringing better bred heifers into production as young as possible. Some may be tempted to breed their heifers earlier than is their ordinary practice for this reason. The point to be considered is whether in the long run breeding heifers too early will not result in their productive capacity being sufficiently reduced to more than make up for the few extra weeks or months gained by having them freshen early. Some experiments conducted at the Missouri Experiment Station a few years ago by Prof. C. H. Eckles showed that this was likely to happen when heifers were bred to freshen before they had attained a fair degree of maturity.

Producing a calf is a heavy drain on a heifer, and investigation showed that during the last three months of the gestation period the young heifers did not add to their own body weight, no matter how well fed. In the final outcome bringing the heifer into milk early did not result profitably because heifers allowed to become somewhat more mature developed greater capacity and thus gave a greater total production than the heifers freshening younger.

The breed must of course be considered. The smaller breeds, as the Jersey or Ayrshire, mature younger than a Holstein. Our most experienced dairymen advise having Jersey or Guernsey heifers freshen at from twenty-four to twenty-seven months of age and Holsteins at about thirty months, this later breeding of the Holsteins being allowed for their slower maturity.

Even though feeds are unusually high at the present time, we do not believe it advisable to hasten too much the breeding of young heifers. It can hardly be expected that a heifer calving when immature and small in size can develop into a cow of normal size if she produces a calf regularly each year afterward. Some plan to have heifers calve rather young and then defer breeding for the second calf so as to give them a long lactation period with their first calf. Those following this practice claim it tends to develop early in life the milking habit and also encourages a long lactation period.

Maxims for Dairymen

If you aspire to become a good dairy farmer, the following fourteen fundamental principles for successful dairying will be worth preserving and studying carefully. These maxims, which were compiled by L. A. Higgins, dairy husbandman of the Mississippi Agricultural College, gives in concise form facts and principles every dairy farmer should know. They are:

1. That cows handled gently give more milk.
2. That cows are creatures of habit and should be fed and milked at regular intervals.
3. That milkers should not be changed except when absolutely necessary.
4. That a good milker should milk at least eight cows an hour.
5. That one good man can do all the work connected with handling twenty cows and their product, when the product is sold to a nearby creamery.
6. That a good cow has a large stomach, divided into four chambers, and that this stomach must be kept full for best results.
8. That she therefore needs large quantities of rough feeds and that this feed must be grown at home.
8. That she should be fed grain according to the amount of milk and but-



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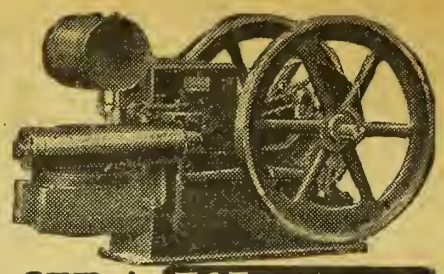

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ter fat she is capable of producing.

9. That the number of cows kept on the farm is not as important as the quality of cows kept.

10. That a prepotent pure bred bull, from a line of heavy producing ancestry, is a large per cent of the future herd and will build it up to a profitable basis.

11. That a scrub bull, whether grade or pure bred, will make himself 100 per cent of the future herd by making them all scrubs and will soon put the owner out of business.

12. That good milk cows are well developed heifers.

13. That he should not waste his skim milk on scrub bull calves.

14. That milk is an article of food and should be handled accordingly.

Co-operative Bull Association

So far as we know, the first co-operative bull association to be organized in Kansas will be the Wyandotte County Co-operative Bull Association. This county is developing rapidly in dairying. The forming of this co-operative association means the bringing about of improvement in the dairy cattle of the community at a minimum of expense for the sires used. Such associations have been in successful operation in some of our older dairy states for some years. Fifty farmers have gone into this Wyandotte County enterprise, which will result in bringing some high-class dairy bulls into that community. The organization has been greatly aided by County Agricultural Agent A. G. Van Horn. It will be completed in a meeting to be held on the farm of C. W. Lashbrook, one mile southwest of Bonner Springs, May 14. Prof. O. E. Reed of the Kansas Agricultural College and J. G. Winkjer of the United States Bureau of Animal Industry are expected to be present at this farm meeting.

Club Members Have Mumps

Claude Carter of Meridan writes that he has not been able to milk his cow for a week on account of mumps. Claude's records were first received for April, reaching us May 2. He says: "Enclosed find my April records. I am on time this month. I guess it is because I haven't had anything to do, as I am just getting over the mumps. I did not have them very hard.

"I turned my cow on pasture the twenty-sixth of April, and she sure came up on her milk, because she had fallen pretty low. Then she wouldn't eat any hay, but she eats her grain all right. My calf is sure growing since I turned it on grass. My cow and calf both look fine, and are staying pretty fat.

"My milk test here at the creamery and the one sent to Manhattan were both the same for this month, both 3.3 per cent."

Lucile Radcliffe has also been having the mumps and wrote last week that she had not been able to milk her cow for two weeks. Her brother Clarence is helping a neighbor drive cows to pasture.

Jersey Records

The American Jersey Cattle Club has compiled the following table of official Jersey milk and butter fat records. It includes yields of milk and fat in year's authenticated tests of Jerseys to February 28, 1918:

	Milk Lbs.	Fat Lbs.
3,223 Two-year-olds average ...	6,585	357
1,538 Three-year-olds average ..	7,531	408
1,164 Four-year-olds average ...	8,454	459
3,065 Five-year-olds average	9,086	480
8,990 Records, cows all ages, average.	7,842	421
Ten two-year-olds average	11,980	709
Ten three-year-olds average	14,296	785
Ten four-year-olds average	14,608	863
Ten five-year-olds average	16,485	944
Best two-year-old records	14,513	816
Best three-year-old records	17,793	910
Best four-year-old records	16,389	937
Best records at any age	19,695	999

Average per cent of fat in 8,990 tests, 5.37.

A Calf with Every Record

We wish to commend the action of the American Guernsey Cattle Club in its attitude towards advanced registry records. There have been instances where large records have been made at the expense of reproduction. The motto of the Guernsey Cattle Club has been, "A calf with every record."

It is about one year ago since the American Guernsey Cattle Club established the "Roll of Honor" for cows that complete their regular Advanced Register requirements, and in addition carry a calf at least 265 days of their testing period.

The names and records of the ten leading cows in each of the classes in the Roll of Honor were first published in the July 1, 1917, issue of the Guernsey Breeders' Journal. The list published in the April 15, 1918, issue shows that twenty-one cows have won places in this classification since the list was first prepared. During the same period of time nine cows have won places in the "single letter" classes. Six new cows have been listed among the ten leaders in Class BB whereas in the same period of time one cow has qualified as a leader in Class B. Four cows have won places among the ten leading cows in Class GG whereas the list of ten leading cows in Class G remains unchanged. The average butter fat production of the seventy class leaders in the Roll of Honor increased by almost twenty-one pounds between July 1, 1917, and April 1, 1918, whereas in the same period of time the average butter fat production of the seventy leaders in the single leader classes increased by less than 7½ pounds. The popularity of the "double letter" classes is further testified by the great amount of interest shown in them as indicated by the correspondence passing through the Cattle Club office. The new class appeals very strongly to those breeders who are dependent upon their herds for their living.

Every day the competition among breeders grows keener to have their cows qualify in double letter classes. The ten highest cows in each of the seven classes in the Roll of Honor is published twice a month in the Guernsey Breeders' Journal and almost every issue records some change in the list of the notable cows.

Testing Association Records

We are glad to give space to some of the good records made by cows owned by members of the Arkansas Valley Cow Testing Association. A testing association always tends to promote better and more profitable dairying. There should be more of them operating in Kansas. The table gives the records of the cows of this association which have produced more than forty pounds of butter fat during the month of April:

Owner—	Pounds Milk	Per Cent Fat	Pounds Butter Fat
Jake Leendertse, H.	1,104	5.0	55.200
Jake Leendertse, H.	1,230	3.5	43.050
Jake Leendertse, H.	936	4.4	41.184
Jake Leendertse, H.	1,188	3.7	43.956
F. H. Bock, J.	876	5.0	43.800
F. H. Bock, J.	855	4.9	41.895
F. H. Bock, H.	1,563	2.9	45.327
F. H. Bock, H.	1,863	2.8	52.164
F. H. Bock, H.	1,044	4.6	48.024
M. J. Ternes, H.	1,263	3.4	42.942
M. J. Ternes, H.	1,227	3.7	45.399
A. C. Dewitt, J.	1,029	4.4	45.276
C. R. Gordon, H.	969	4.3	41.667
W. M. Spurlock, H.	1,173	3.7	43.401
W. M. Spurlock, H.	1,140	4.1	46.740
J. R. Pringle, J.	1,347	4.2	56.574
J. R. Pringle, H.	1,398	3.1	43.338
J. R. Pringle, S. H.	963	4.5	43.335
Fred Harvey, H.	1,263	3.4	42.942
Fred Harvey, H.	1,122	4.0	44.880
Fred Harvey, H.	1,707	3.4	58.038
Fred Harvey, H.	1,335	3.4	45.390
Fred Harvey, G.	1,332	4.4	58.608
Fred Harvey, H.	1,128	3.6	40.608
Fred Harvey, H.	1,140	4.3	49.020
Fred Harvey, H.	1,389	3.4	47.226
Fred Harvey, G.	1,032	4.0	41.280
Fred Harvey, H.	1,332	5.2	69.264
Fred Harvey, H.	1,386	3.4	47.124
Fred Harvey, H.	1,605	3.4	54.570
Fred Harvey, H.	1,641	3.4	55.794
Fred Harvey, H.	1,665	3.3	54.947
Fred Harvey, H.	1,581	3.3	52.173
Fred Harvey, H.	1,656	3.0	49.680
P. W. Enns, H.	1,401	3.0	42.030
Dr. J. T. Axtell, H.	1,596	3.1	49.476
Dr. J. T. Axtell, H.	1,293	3.1	40.083
G. Regier, H.	1,899	3.3	62.667
E. V. Swinehart, H.	1,347	3.3	44.451
E. V. Swinehart, H.	1,116	3.6	40.176
Stubbs Farm, H.	1,809	3.1	56.079
Stubbs Farm, H.	1,269	3.3	41.877
Stubbs Farm, H.	1,188	3.6	42.768
Appleman Bros., H.	1,476	3.2	47.232
Appleman Bros., H.	1,419	3.2	45.408

NOTE.—H. stands for Holstein; J., Jersey; G., Guernsey; S. H., Shorthorn.

Oleomargarine Price

We have just received from the Commercial Research Department of Swift & Company a letter in which some explanations are given with reference to the prices of oleomargarine and butter. This letter follows:

The April 6 issue of Kansas Farmer contains an article under the caption, "Price of Oleomargarine," wherein quotations are made from a recent issue of the Chicago Dairy Produce" to the effect that oleomargarine since its introduction into trade channels has been sold from 2 to 5 cents below the price at which butter was selling; that it has never had a staple value, and that its selling price merely follows that of butter.

The relative prices of butter and oleomargarine are easily obtainable and especially so since the Federal Food Administration has published its lists of restricted prices. A comparison of retail prices taken from their Chicago territory lists shows as follows:

	Butter	Oleomargarine
October 1	50 cents	35 cents
November 1	50 cents	35 cents
December 1	53 cents	35 cents
January 1	56 cents	34 cents
February 1	55 cents	35 cents
March 1	55 cents	35 cents
April 1	49 cents	35 cents

The above figures clearly refute the claim that oleomargarine sells within 2 to 5 cents of butter prices. The actual spread has been from 14 to 22 cents per pound.

A further statement in the article that "the writer had never seen or heard of any rule or regulation governing the amount of moisture, salt or other ingredients that enter into oleomargarine," referring to Government purchases, also shows lack of information. Q. M. C. Form 120 entitled "Specifications and Conditions for Subsistence Supplies, U. S. Army," last issue February, 1918, Serial 115, states:

"Oleomargarine, best quality, standard brand, uncolored, containing not less than 10 per cent of butter fat, for export; to be strictly fresh and manufactured from extra oleo oil, No. 1 neutral lard, and vegetable oil, the latter to be choice peanut oil or refined cottonseed oil, and to be not more than 10 per cent of the mixture; all ingredients to meet the requirements of the United States Department of Agriculture. The finished product to contain not less than 2.5 per cent nor more than 4 per cent of salt, and not more than 12 per cent of moisture."

As manufacturers of oleomargarine, Swift & Company wishes to state that the price of oleomargarine it markets is based on cost of material and expense of production and marketing, plus a reasonable profit. This applies to all of Swift & Company's business whether on deliveries to the Government or through regular trade channels.

The Kansas farmer should encourage the use of oleomargarine. Oleomargarine is one of the very important channels through which the fat of the steer and the hog are marketed. The steer and the hog are of as great importance to the farmers of Kansas as the dairy cow, and any policy which depreciates the value of the products of the steer and the hog will depreciate the value of live animals.

It is a wrong attitude that assumes that oleomargarine is entirely a competitor of butter; that assumes that every pound of oleomargarine sold displaces a pound of butter. This is not true. The number of consumers who are unable to purchase butter is very great, and when the manufacturer of oleomargarine, by his advertising and selling methods, and in spite of the prejudice created against a healthful and sanitary product, is able to induce such families to purchase oleomargarine, he is thereby increasing the value of the steer and the hog, through extending the market for their products.

We are one of the largest manufacturers and distributors of creamery butter, and as such we say that it is unfortunate for both the producer and consumer that sound views do not prevail to encourage the use of oleomargarine.



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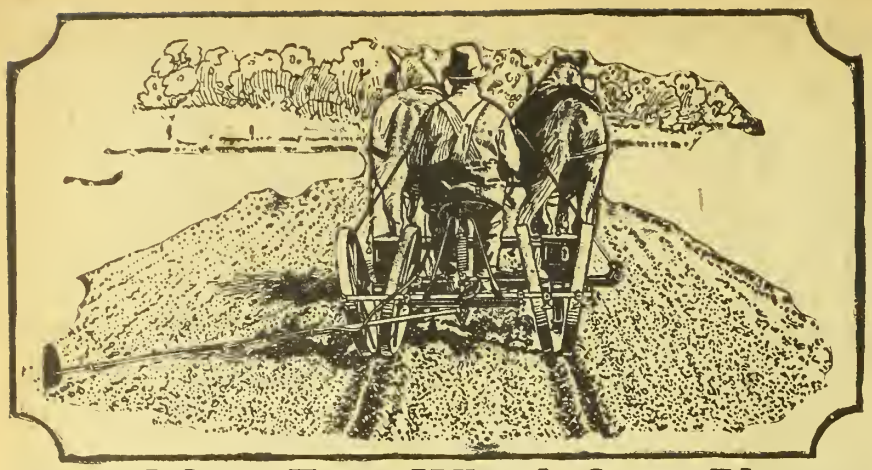

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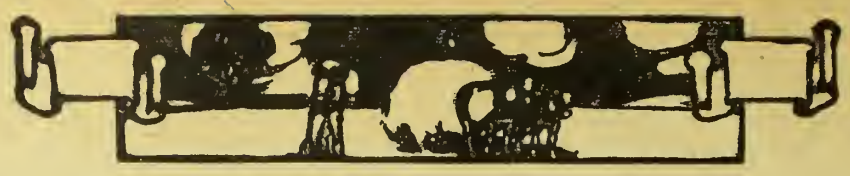

Soy Beans Promising Crop

SOY BEANS have long been grown by a few farmers here and there over our state. Our experiment station also has conducted a good many careful tests, but the crop has not been given the attention, perhaps, which it deserves. S. C. Salmon, of the Agricultural College, is now recommending soy beans as a most promising crop for many sections of Kansas. He states that they will yield more seed to the acre and are more cheaply and easily harvested than any other bean that can be grown.

Supplemented with corn, soy bean pasture makes cheap and rapid gains with hogs. Just as the grain reaches the dough stage the porkers are turned in to do the harvesting. An acre of good soy beans should maintain twenty hogs for a month. Two pounds of corn is fed daily for every 100 pounds of live hog. Soy beans are a high protein feed and corn is needed to balance the ration.

Soy bean pasture is not to be recommended where alfalfa is readily grown, but where the soil is too acid to grow either clover or alfalfa, soy beans will grow. They will also withstand drouth and wet weather well.

Any land that will grow corn will grow soy beans. It is often recommended that these two crops be grown and hogged down together. This would tend to make the ration more balanced than either one alone. The objections to this practice are that it tends to reduce the yield of corn, though not necessarily the total yield of feed, and that the hogs will eat the corn first before starting on the beans.

Chinch bugs will not attack soy beans, but rabbits are especially fond of them and may devastate small patches. Larger fields are less likely to be injured.

In the western part of Kansas this fondness of the rabbits for soy beans has caused many to give up growing them after the first trial. It seems as though the jack rabbits will come for miles to graze on a patch of soy beans. This is an indication, however, of their great value as a feed and forage crop, and as they come to be more generally known the rabbit damage will undoubtedly be minimized.

It is in the strictly corn section of Kansas, however, that the soy bean might well be used more extensively. They are being introduced quite widely in Missouri, giving the best of results. The large commercial use of soy beans for oil and for stock foods, and their increased use for human food, have resulted in a large increase in the acreage devoted to this crop throughout the United States. They deserve a more extensive trial in Kansas, especially in the eastern and southeastern parts of the state.

Tomatoes Profitable Crop

Fifty tomato plants well cultivated and well watered—if watering becomes necessary—will produce in dollars and cents average returns equal to those realized from a half acre of wheat. This is a statement made by Geo. O. Greene, specialist in horticulture, who is author of a valuable pamphlet on the growing of tomatoes. This pamphlet, which is entitled "Tomatoes," is issued by the extension division of the Agricultural College.

With the same care and attention given corn, tomatoes will produce thirteen times the gross return of corn," says Mr. Greene. "When compared with the prices paid by farmers for tomatoes in cans the returns will be approximately 169 times the returns of corn.

"No other vegetable, excepting the potato, which may be considered as a field crop instead of a garden vegetable, plays so important a part in the farmer's bill of fare. No other vegetable is so often found in the farmer's garden, nor is there another so universally purchased.

"More than half the farmers in the grain belt, where the soil is highly productive, fail to provide a good vegetable garden. The time was when it was considered a part of good farm management to force the farm, in so far as possible, to provide all of the fruits, vegetables, meat, butter, and eggs for the family. With agricultural operations on a large scale there has been a tendency to neglect the production of fruits and vegetables for the family."

Alfalfa Seeding in West

Prospects for obtaining a stand of alfalfa in Western Kansas are especially good now wherever there has been plenty of rain. This is a good time at least to try reseeding some of the borders where alfalfa has been killed by grasshoppers.

Alfalfa is being sown this spring on 65 acres at the Fort Hays Experiment Station. Most of this is corn land that has been disked and harrowed, and the rest consists of odd patches. Good Kansas alfalfa seed is being put in as shallow as possible with a wheat drill at the rate of ten to twelve pounds to the acre. A few pounds more would be sown under less favorable conditions. Bran is mixed with the seed so as to sow thin enough. A regular alfalfa drill or grain drill with an alfalfa seed attachment is, however, preferred for seeding alfalfa.

A profit of $20.33 an acre was obtained in 1917 on 300 acres of alfalfa at the Fort Hays Experiment Station according to the report made by Supt. Charles R. Weeks at the fifth annual round-up, April 10. This alfalfa is all on bottom land. Upland alfalfa is not sufficiently profitable either broadcast or in rows at Hays or farther west to warrant its extensive planting.

Bottom land at Hays gives a better profit from alfalfa than from any other field crop that is adapted to large acreages. Nearly every county in Western Kansas has some land where this would be the case.

Spring is considered the best time to sow alfalfa in Western Kansas because dry weather and grasshoppers are more often present in the fall. Nearly all the alfalfa now growing at the Fort Hays Experiment Station was seeded between April 15 and May 15.

Good common Kansas alfalfa is recommended for this state in preference to any other varieties now on the market. Kansas alfalfa has held its own and excelled most of the 175 lots of alfalfa tested by R. E. Getty at the Hays station.

Terms of Sabotage Act

The Act of Congress entitled "An Act to Punish the Willful Injury or Destruction of War Material or of War Premises or Utilities Used in Connection with War Material and for Other Purposes," which was approved April 20, 1918, is the most important and sweeping of all war statutes relating to hostile or anti-war activities. This act provides a most effective weapon for combating disloyalty as displayed in acts of this kind. The Department of Justice now has full power to punish all willful acts of destruction, and there can be no further excuse for mobs attempting to deal out justice, which is just as apt to result in injustice.

The Federal Department of Justice authorizes the following statement summarizing the provisions of this Act:

It provides a punishment of a fine not to exceed $10,000 or imprisonment for not more than thirty years, or both, for the willful injury or destruction of war material, war industries, or war utilities. The definition of "war materials" is so comprehensive as to include not only all munitions and supplies intended for the use of the military or naval forces of the United States or of the Allies, but all munitions, supplies, and articles of every description adapted to or suitable for the use of the United States or any of the Allies. It is not restricted, therefore, to munitions or supplies which are being manufactured for the United States Government by contract or sub-contract.

It includes every possible kind of supplies of a nature which could be used by the United States Government or any of the Allies in the prosecution of the war. It includes not only the finished articles, but all parts and ingredients. As almost

everything which is being grown or made today is either for the use of the United States or the Allies or suitable for such use, this bill practically protects articles and supplies of every character, the whole product of agriculture and industry in the United States. Whoever willfully destroys or injures or makes in a defective manner or causes to be made in a defective manner any of such supplies, materials, parts, or ingredients, can be punished under this act.

The act protects in the same way all war premises, which is defined to mean all buildings, grounds, mines, or other places wherein any war material, as defined in the act, is produced, manufactured, repaired, stored, mined, extracted, distributed, loaded, unloaded, or transported, and all machinery and appliances, that is, all the equipment engaged in the production or distribution of war material; also all forts, arsenals, navy yards, camps, prisons or other military or naval stations of the United States or of any of the Allies. It also includes war utilities, which means all railroads, electric lines, canals, wharves, vessels, engines, cars, aircraft, or any other means of transportation over which or on which war material or troops may be transported. It is not restricted to railroads or vessels or other transportation facilities upon which war materials or troops are being transported, but includes all those which may be used in the transportation of war material or troops.

This practically means any part of the transportation system or transportation facilities of the United States. It also includes public utilities, which supply war industry plants, such as the water, light, telephone, and telegraph service to war industry plants or to forts, camps, and other military and naval stations.

In short, practically speaking, the whole industrial and agricultural resources of the United States, all of its transportation and shipping facilities, all of its public utilities and all parts thereof and all products of industry and agriculture and all parts thereof suitable for war use fall within the protection of this act. Nor is it necessary in a prosecution under this act to prove that the person guilty of injuring or destroying any war material or war premises or war utilities intended to interfere with or obstruct the United States or one of the allies in preparing for or carrying on the war.

As the entire material resources of the United States are engaged, directly or indirectly, in the prosecution of the war, everyone has reason to believe that any injury or destruction of any of these resources may injure, interfere with or obstruct the preparations for or the carrying on of the war. The fact that the act of injury or destruction, therefore, was not committed to benefit the enemy or for the purposes of hampering the prosecution of the war, will furnish no excuse in a prosecution under this act.

For the first time, the United States, through its Department of Justice, is by this act furnished with an effective weapon against all willful acts of destruction or injury which directly or indirectly weaken or retard the preparations for the war or the actual conduct of the war.

Community Co-operation

Neighborhood and community co-operative enterprises, such as farmers' elevators, bulk buying of supplies, stores, and other projects, are most commendable movements, but before entering upon any co-operative enterprise the people concerned should have a thorough understanding of the conditions and the requirements of success. Prof. L. A. Fitz, head of the milling department of the Agricultural College, was recently asked by a community organization in Washington County about the advisability of establishing a small community mill. In reply he stated that while his department did not wish to discourage co-operative enterprises, under present conditions at least there were some dangers that should be pointed out to those considering the idea of starting a community mill.

Farmers' elevators furnish a conspicuous example of the success of rightly-managed co-operative enterprises. There are more than two hundred of these now in successful operation in Kansas. At first those in charge made the mistake of not employing trained managers, and failed to supply sufficient capital. They have learned, however, to hire men trained in buying and marketing, and now the co-operative farmers' elevators are generally successful. It is always essential that a community project have the support of the whole community. Many co-operative stores have failed because the people who should patronize them bought their things where they could be purchased most cheaply and sold where the highest price was paid. This opened the way for price-cutting campaigns by more stable concerns, which went hard with the co-operative stores.

"Small mills cannot compete with the equipment and efficient management of larger concerns," said Professor Fitz. Rapid and cheap transportation has put the small mills in direct competition with the larger concerns. Many small mills have suspended operations in recent years. The custom mill formerly operated in the old days under private ownership was in reality a community mill, but it would not succeed now except when operated under special conditions.

Facts About Sheep Industry

We have had a good deal to say in KANSAS FARMER about the growing of sheep on our farms. This has long been a much-neglected industry in our state. We have kept this subject before our readers because we have felt that the changing conditions in this particular branch of the live-stock industry offered special opportunities to the farmers of our state. The sheep industry in the United States must either adjust itself to the changed economic conditions of this day or continue the decline which has been its portion in years past. Such is the conclusion reached in a report recently issued on the sheep and wool industry by the Committee on Statistics and Standards of the Chamber of Commerce of the United States.

The principal remedies suggested in the report to arrest the present steady decline in our production of sheep are, first, the use of sheep grazing of the agriculturally worthless and cheap cut-over timber lands of the North, Northwest and South; second, the more general and systematic raising of sheep on farms, where sheep raising has been hitherto neglected largely because of frontier competition; and third, continued use of the great ranges of the West to their full capacity.

The cause of the decline in the number of sheep on our western ranges is the growth of dry farming, and the consequent reduction in the grazing range. The industry has come to depend on that range and it has not yet adjusted itself to the idea that it will now have to seek part of its range elsewhere, on cut-over timber land and on farms all over the country.

In 1900 we had in the United States .80 sheep per capita. In 1917 the figure dropped to .46 per capita. Again mutton is 21.8 per cent of the meat food of Great Britain. It is 3.78 per cent here. The reason presumably is that Great Britain with no great western ranges to depend on, has solved the problem of raising sheep cheaply and abundantly on the farm. We would use mutton extensively under the same conditions.

The figures with regard to wool production are equally striking. In 1890 we produced 4.29 pounds of wool per capita; in 1917 only 2.72 pounds per capita.

We import now 50 per cent of our wool consumption. We ought to produce that at home; and we can if we will.

Sheep increase rapidly—from 50 to 100 per cent annually as compared with the number of ewes. It is, therefore, natural to ask "Why can't we get the necessary increase at once by conserving the lambs instead of sending them to market?"

There are two reasons. One is that the western ranges already have all the sheep they can feed without deterioration of the range. The other is that many sheep raisers depend for their income as much on selling lambs as selling wool. The industry is largely on that economic basis.

It comes, therefore, largely down to a question of using for sheep raising our cut-over timber lands and our farms. That sheep can be raised abundantly and profitably on farms is evident from the experience in England. Sheep-killing dogs have always been one obstacle to this; but the dog problem is doubless solvable.

Buy a high grade engine. Good machine work costs money, and it is economy in the long run to buy a machine containing the best material and having good workmanship.

No Worry About Harvest



HAVE you noticed how discussion of the food supply situation seems to center around the number of acres it is possible to plant rather than around the harvesting of those planted acres?

It is an unconscious, but none the less wonderful, tribute to the genius of the inventors of the reaper and binder that the American public takes the harvesting of the greatest grain crop ever planted as a matter of course. The sole question now is, "How many acres can we plant?" The power and help required by the planting will be amply sufficient for the harvest where **Champion, Deering, McCormick, Milwaukee** or **Osborne** binders and binder twine are used.

And, where they are used, the harvest will be complete. No matter whether the grain be tall or short, heavy or light, standing or down, lodged and tangled, an International Harvester binder cuts and binds it all without waste.

It is an easy matter to be fully prepared for harvest. Buy the largest binder you can use. An 8-foot is better than a 7, and a 7 better than a 6 or 5 because the larger sizes conserve labor. Buy a new machine if there is any question about the efficiency of the old one. There is a limit, you know, to the dependability of repaired machines, while a new one is absolutely reliable.

Through our 90 branch houses and over 30,000 dealers, we furnish promptly either new machines or repairs for old ones. Do not hesitate to call on our organization for any help we can give in the harvesting of this year's grain crop—the most important crop ever raised. See the local dealer or write us direct.

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We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

The War Rosary

I knit, I knit,
I pray, I pray;
My knitting is my rosary.
And as I weave the stitches gray
I murmur prayers continually.

Gray loop—a sign,
Gray knot—a wish,
Gray row, a chain of wistful prayer,
For thus to sit and knit and pray—
This is of war the woman's share.

And so I knit,
And thus I pray,
And keep repeating night and day,
May God lead safely those dear feet
That soon shall wear the web of gray.

Now and again
A selfish strain?
But surely woman heart must yearn
And pray sometimes that she may hear
The sound of footsteps that return.

But if—O, God,
Not that! But if
It must be sacrifice complete,
Then I will trust that afterward
Thou wilt guide Home those precious feet.
—Westminster Review.

Until Next Harvest

The following are the restrictions upon the use of wheat, announced as a military necessity by the United States Food Administration April 1:

Cut down the consumption of wheat by at least one-half.

Households keep within a weekly allowance for each person of one and a half pounds of flour and all other wheat products.

Public cating places keep within the same allowance for every twenty-one meals served; not more than two ounces of wheat products, flour included, to be served to a guest at any one meal.

Retail purchases of flour to be limited in quantity and to be accompanied by at least equal weight of other cereals.

Bakers to keep within 70 per cent of flour formerly used; three-quarter-pound loaves to go as far as the pound loaf usually does.

No wheat to be used in manufacturing for anything but food.

Let all who can go without wheat.

Spiritual Motherhood

A mother who had taken a course in kindergarten work made a call at the school where she had studied.

"I cannot tell you of what value my training has been, but I wish I could have more," she cried wistfully. "The problems a mother has to meet are so many. For instance, my little girl has long, curly hair, and when I take her to the shops, the clerks comment upon it before her. I fear she is becoming very vain. Only the other day she said, as she posed before the mirror: 'I have pretty hair, Mama!'"

"What did you say?" asked the kindergarten trainer.

"I replied as calmly as I could 'It looks very well when you keep it neatly combed!'"

This answer showed that the mother had grasped the core of Froebel's idea when he wrote: "Mother, let your behavior be such that your child may early learn to realize that your approval is given not to his small visible person, but to his true self. . . . Whether the child strives for being, or appearance, for what is temporal or eternal rests upon the power of the mother to guide his aspiration. . . . That the bond between mother and child may not deteriorate into a purely physical one, she must be a mother not only in feeling, but with the insight and assured, deliberate deed."

Such a mother finds no drudgery in her task. Rather has she the feeling of the artist, for joy is her ruling motive, not joy in selfish possession, but joy in conquests and achievements. She is ready to pause for a song on the way, is not impatient at the length of the journey and genially following the long zigzags of the steps hewed by Nature's own slowly unfolding methods, she guides the child up the path, winding hither and thither, of the mountain of life.

Wise is the patient care of this guide, knowing no fear, even when the child errs, for has not the great Goethe told us that while man has aspirations he cannot but err? Has not the newer poet dramatist, Ibsen, for all his grave sense of human culpability, shown us Solveig, the mother, waiting at the cross-roads till Peer Gynt learns that he has chosen the wrong path, patient through all the years for him to come to her in his old age to purge his soul of dross and fill it with the truth.

"Where was I?" he asks as he kneels before her, dazed by his sense of failure, the man rich in world's success, but barren in things of the soul. "Where was I as myself, the whole man, the true man?"

"In my faith, in my hope, in my love," answered the eternal woman, undaunted in her belief in the final outcome.

"Wife, mother, sister art thou!" answered the newly inspired Peer, seeing her for the first time as she was, the woman not of flesh alone, nor of intellect nor of this world, but the spiritual mother of the race.—HARRIET FRANCES CARPENTER, for U. S. Bureau of Education.

MOTHER'S DAY

THE second Sunday of May is now generally observed as "Mother's Day," the thought being that it should be marked by some distinct act of kindness—a visit, a letter, or some gift or token showing affectionate remembrance of both father and mother, so that it is in reality a "Father's Day" as well.

The origin of the custom dates back to the year 1907, when Miss Anna Jarvis invited a friend to spend the second Sunday in May at her home to commemorate the date of her mother's death. During the day the daughter disclosed her desire to dedicate a day to all mothers. The following year the mayor of Philadelphia issued a proclamation calling upon the people of that city to celebrate the day in their churches and homes. The custom spread rapidly to other cities, and in the ten years since its first observance in the City of Brotherly Love it has become national and international.

The white carnation was chosen as the fitting emblem of a mother's love, because of its constant purity, its form and fragrance, its wide field of growth, and lasting qualities. A bright flower—usually a pink carnation—is worn for the mother who is still living.

The appeal of Mother's Day is a universal one. Every one of us has a mother, either on earth or in heaven, to whom we owe all that we are, and whose influence is only for good. The observance of the day takes many of us who are older back to childhood's simple faith and innocence, and in the light of those early lessons much of the worldly wisdom acquired since loses its supposed importance.

The day has a twofold significance. To the mother it cannot but bring a fresh realization of her responsibility and her blessed privilege.

Textile Tests

The laws of the country offer no protection to the purchaser of materials. The object in making these tests is to discover if cloth is adulterated, artificially dressed or misrepresented in any way. The following tests from Extension Circular 41, "Principles of Sewing," Missouri College of Agriculture, may be used in any home:

1. If water is dropped on cotton and linen goods, the moisture spreads rapidly on linen but will remain unabsorbed on the cotton for some time. This is not always a safe test, as cotton and linen are often heavily sized with dressing which prevents the water from being absorbed.

2. A much safer test may be made by dropping glycerine on cotton and linen. Linen will become transparent but cotton will not be affected.

3. Crushing cotton and linen materials in the hands will show the difference in the materials, as linen wrinkles more than cotton.

4. Cotton and wool mixtures when moistened wrinkle more than pure wool materials.

5. Material may be tested by pulling out threads and examining the ends. Cotton fibers are short with fuzzy ends, usually pointed. Wool fibers are short, kinky and stiff; fibers of reeled silk are long, straight and lustrous, while fibers of spun silk are short and easily broken.

6. Sizing may be discovered by rubbing the material between the hands to see if the dressing will come out. Washing will also remove dressing.

7. Each fiber has a characteristic burning test which may be easily distinguished: (a) Cotton burns quickly with flame. (b) Linen burns like cotton, but is not as inflammable, as it has less oil in the fiber and less air in the woven cloth. (c) Wool burns slowly, gives off an odor like burnt feathers, and leaves a gummy residue. (d) Silk burns more slowly and with less odor than wool. It leaves a crisp ash. Silk leaves more ash when weighted.

Saving the Babies

The Federal Government, through the Children's Bureau of the United States Department of Labor, is planning to make the year beginning April 6, 1918, a Children's Year, with the definite aim of saving 100,000 babies. Last year 300,000 American children under five years of age and 15,000 American mothers died. It is believed many of these deaths might have been prevented and that many of the children who lived might be helped to a better physical development.

The campaign will be begun with a nation-wide weighing and measuring of children under five for the purpose of determining just what the children of each community need to enable them to become strong, efficient men and women. The Federal Children's Bureau will furnish material and suggestions for the work, and is asking the co-operation of mothers and fathers.

Mrs. Max West, of the Children's Bureau, sends us the following explanation of the scope of the work to be undertaken: "About one-third of the drafted men examined for the army in this country are rejected for physical defects, many of which might have been prevented or cured in infancy and early childhood if the parents had understood how it could be done. And the defects which disqualify a man for service in the army hamper him in civil life as well.

"Is it not obvious that a nation which learns that so great a proportion of its young manhood is in something less than normal physical condition and that a large part of such weakness was easily to have been prevented, is blind and stupid if it permits such conditions to go on unchecked? So mothers especially are asked, as a patriotic service, to help make the citizenship of the future strong, efficient, unhandicapped by bodily imperfections. Mothers and fathers have not always been able to get for their children the advice of doctors and skilled nurses in guarding their children's health and in caring for the ailments that seem

little and not worth bothering about. In this way many slight physical handicaps have been allowed to develop into serious defects. But the knowledge which we now have that such defects can often be prevented makes more than ever important and hopeful the work which mothers can do in safeguarding the conditions under which the present generation of children is growing up.

"More than ten million children under five years of age in the United States are just passing through the physically most hazardous years of the whole span of life. Mothers can do more for them now than can be done at any other period to correct curable defects and especially to start them along the road to normal health and healthy development by proper food, careful attention to their hygiene, and by keeping close watch over them that war conditions shall not interfere with their welfare. Very often what their mothers can do for them now will determine their future usefulness as citizens.

"In our work for America's babies we have England's splendid record before us; for by resolutely safeguarding her mothers, infants, and young children, England brought her infant death rate for the second year of the war down to ninety-one deaths for every thousand births—a point lower than has ever been recorded before in that country, and, incidentally, one which is several points lower than the average even in time of peace for the part of the United States for which figures are available."

What are the dangers that threaten childhood—dangers made more than ever threatening by the strain of war conditions? What can mothers do to combat them? These are questions which will be discussed from time to time in these columns.

A mother's love—how sweet the name!
What is a mother's love?—
A noble, pure, and tender flame
Enkindled from above
To bless a heart of earthly mould;
The warmest love that can grow cold;
This is a mother's love.
—James Montgomery.

My mother, she's so good to me, if I was good as I could be
I couldn't be as good; no, sir; can't any boy be good as her.
—James Whitcomb Riley.

What to Do With the Flour

One and a half pounds of wheat flour goes into two and a half pounds of Victory bread. That gives just about two slices for each meal—with nothing over for cake, pastry, or anything else.

One pound of wheat flour goes into one and three-quarters pounds of Victory bread, which makes twenty-eight one-ounce slices, or four a day. That leaves half a pound of wheat flour for cake, pastry, macaroni, and incidental cooking.

Muffins and biscuit — medium size — made on a fifty-fifty recipe, use a quarter ounce each of wheat flour.

A fair slice of cake or a piece of one-crust pie, also on a fifty-fifty recipe, likewise takes about one-quarter ounce of wheat.

An ordinary serving of wheaten breakfast foods, or a half cupful of cooked macaroni or spaghetti contains an ounce of wheat.

Wheatless meals and days kept as before, and Victory bread at the remaining ten meals, will use about twelve ounces of wheat.

Going without wheat at other meals—or at all meals—let potatoes, rice, hominy and other cereals take the place of bread, or bread may be eaten that contains no wheat.

Food will win the war! Food today means, first of all, wheat.—United States Food Administration.

A Canadian Food Budget

England has gone on rations and each buyer, from the king to the humblest citizen, must present a card to secure his weekly allotment of one and one-quarter pound of meat and four ounces of butter or margarine. The Canadian Food Board is urging Canadians to adopt voluntary rationing and has issued a budget for a family of five—a man and his wife at moderate work; a boy of twelve years, and two other children of nine and three years respectively.

Compare this Canadian budget with what has been asked of you. It will provide adequate nourishment for a family of five for the week, although it calls for greater restrictions than are being asked by the U. S. Food Administration. Especially may the difference be noticed in the milk allowance.

One week's budget for a family of five:

Milk—Seven quarts whole milk.

Fruit—Fourteen pounds according to season.

Fats—Two pounds butter or oleomargarine; one pound cooking fat.

Sugars—Three pounds of sugar; one pound corn syrup, molasses or honey.

Cereal Products — Ten pounds flour; ten pounds cereals in other forms.

Fresh Vegetables—Forty pounds potatoes; fourteen pounds other fresh vegetables.

Meat and Meat Substitutes — Four pounds lean meat; two pounds fresh fish; one pound salt fish; one dozen eggs; one pound cheese; two pounds dried beans or split peas.

New Flours in Old Recipes

Many housekeepers have experimented with the substitute cereals and know just how to use them in muffins and other breads. Weight for weight these flours and brans absorb the same amount of moisture and require the same measure of baking powder to raise them as wheat flour. You can use the new flours in old recipes if you substitute equal weights for the wheat flour called for. A cupful of wheat flour sifted and measured lightly weighs four ounces; the table below gives the equivalent of four ounces of substitutes expressed in cups:

One cupful (four ounces) of wheat flour equals—

Barley flour	1⅓ cupful
Corn flour	1 cupful
Fine corn meal	1 cupful
Coarse corn meal	⅘ cupful
Buckwheat	⅘ cupful
Rice flour	⅘ cupful
Hominy grits	⅘ cupful
Rolled oats (ground)	⅔ cupful

The above equivalents represent an average on these flours, but different mills turn out different grades of flour and weight is the safest guide. If you have no scales, sift flour and measure lightly in a measuring cup.

Potato Souffle

4 cupfuls hot mashed potato
1 tablespoonful melted fat
2 tablespoonfuls milk
1 teaspoonful salt
¼ teaspoonful pepper
Yolks of two eggs
Whites of two eggs beaten stiff

Mix all but the whites of the eggs in the order given. Beat thoroughly, fold in the stiffly-beaten whites, pile in a baking dish, and cook until the mixture puffs and is brown on the top.

A Wheatless Triumph

One day late in March a conference was on at the U. S. Food Administration and the subject was "Wheat." In the midst of solemn debate a triumphant cook entered the room. She bore a tray with the evidences of her triumph — three sponge cakes, one of corn flour, one of rice flour and one of barley flour.

Not a dust of wheat flour was used in these cakes, and again the American woman had triumphed. When eggs and sugar were scarce, she baked eggless, sugarless cakes; now that there is no wheat flour to spare for cakes, she bakes wheatless cakes.

All three cakes were delicate and fine —that is, they were true sponge cakes. The cook who made them—a very distinguished expert in economics — followed the directions known to our mothers — the weight of the eggs in sugar and half the weight in flour.

Here they are. Proceed carefully; either weigh materials, following the old-fashioned rule for sponge cake, or use a measuring cup. Sift flour before measuring and measure lightly.

Barley Sponge Cake—
1⅓ cupfuls barley flour
1 cupful sugar
4 eggs
1 tablespoonful lemon juice
⅛ teaspoonful salt

Corn Flour Sponge Cake—
1 cupful corn flour
1 cupful sugar
4 eggs
2 tablespoonfuls lemon juice
⅛ teaspoonful salt

Rice Sponge Cake—
¾ cupful rice flour
1 cupful sugar
4 eggs
2 tablespoonfuls lemon juice
⅛ teaspoonful salt

Directions for Mixing: Separate the yolks and whites of the eggs. Beat the yolks until light, add the sugar, the salt and the lemon juice. Fold in alternately the flour and the stiffly-beaten whites.

These cakes are all very nice and light, texture and color good. Barley has a characteristic flavor. The corn flour cake is especially tender and all are of good texture. The extra lemon juice is used with rice and corn because these flours have a slightly starchy taste.

Wheat is needed in the front line trench "over there." Let potatoes serve as the home guard "over here."

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

HELP WANTED.

U. S. GOVERNMENT WANTS THOUsands clerks at Washington, immediately, for war preparatory work. $100 month. Quick increase. Men-women 18 or over. Seven-hour day. Thirty days vacation. Easy clerical work. Common education sufficient. Your country needs you. Help her and live in Washington during these stirring war times. Write immediately for free list positions open. Franklin Institute, Dept. P82, Rochester, N. Y.

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DWARF KAFIR, 85 GERMINATION, $3 bushel. Oscar Wilcox, Larned, Kansas.

ORANGE CANE SEED, EXTRA GOOD, $6 per cwt., sacks extra. Joseph Nixon, Belle Plaine, Kansas.

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4,000 POUNDS OF SUDAN GRASS SEED at 25 cents per pound. J. B. Pool, El Reno, Oklahoma.

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PURE-BRED WHITE ORPINGTON eggs for hatching, $1.50 per fifteen. Frank Hinson, Stockdale, Kansas.

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BUFF ORPINGTON EGGS FROM WINning pens at leading shows in West this season. Hatch guaranteed. Shipped prepaid. Write for prices. Leo Anderson, Juniata, Nebraska.

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CLAIM SALE DATES.

Jerseys.

May 24 — Glenwells Farm, Grandview, Mo. B. C. Settles, Palmyra, Mo., sales manager.

Chester White Hogs.

Nov. 7—Arthur Mosse, Leavenworth, Kan.

Samuel Drybread, of Elk City, Kansas, is one of the successful breeders of Hereford cattle in Kansas. He started eighteen years ago with only a small herd. He has paid for two good farms from the proceeds of sales of cattle and now has in his pastures more than 180 head of breeding cattle. The best blood lines have been bought to improve the herd, and a feature of the herd at this time is a splendid lot of strong young bulls. Several are of Britisher and Fairfax breeding.

Orrie Coburn, manager of Edgewood Farms, Whitewater, Wisconsin, reports a good demand for high-class dairy stock. This is one of the Wisconsin farms that is drawn upon heavily for Holstein and Guernsey calves and during the past several years a large number of Holsteins and Guernseys have been shipped from this farm to farmers and dairymen in the Southwest. Last week they shipped twenty-five head to Kansas.

Catalogs are out for the Glenwell's Farm Jersey sale to be held at Grandview, Missouri, May 24, the day preceding the picnic of the Southwest Jersey Cattle Breeders' Association at Longview Farm. This sale will be under the management of B. C. Settles, of Palmyra, Missouri. One hundred and twenty-five head will be offered in the sale and the offering will include Register of Merit cows with records up to 700 pounds of butter per year.

M. E. Gunderson & Sons, of Alderley Stock Farm, Oconomowoc, Wisconsin, report their fine herd of Holsteins doing well. This is one of Wisconsin's heavy-producing herds and many of the good Holstein herds in the country were started with foundation stock from this herd. Recent sales from the herd include a son of Victoria Canary Segis, a 22.65-pound junior four-year-old; also a fine young bull by the great herd sire, Sir Pietertje Ormsby Mercedes 43d, whose dam, Aaggie Wayne Peep, has a seven-day record of 34.59 pounds and a year record of 1,250.35 pounds butter from 27,762.5 pounds milk. They also recently sold a son of Beauty Pietertje Prince, a 32½-pound bull.

Dr. F. B. Cornell, Nickerson, Kansas, has recently bought the entire show and breeding flock of Southdown sheep owned by H. & G. Croft, of Bluff City, Kansas, to be placed on the Golden Hoof farm. Doctor Cornell has the largest flocks of registered Shropshire, Hampshire and Southdown sheep in the state and is doing much to promote the sheep industry in Kansas. He has used nothing but imported rams of the very best breeding and individuality in building up his flocks, and now has flocks noted for size, type and heavy shearing qualities. His slogan is "Weight and wool always win."

J. C. Banbury & Son, of Pratt, Kansas, are successful breeders of Polled Durham cattle. They have always maintained a herd of the double standard hornless Shorthorns. The herd was founded from the leading herds of Kansas, Indiana and Missouri. Many cows in the herd will weigh 1,400 to 1,600 pounds in flesh and are regular producers. They represent the best families and are bred as near pure Scotch as can be found. The herd bulls now used are Roan Orange by Orange Champion, and Sultan's Pride. This calf was first and junior champion in three state fairs in 1915 and won three firsts in 1916 at state fairs. His half sister was a grand champion and his illustrious sire, True Sultan, is the undefeated grand champion. The cow herd now numbers about 125 head.

F. C. Kingsley, of Auburn, Kansas, is one of the successful breeders of Shorthorn cattle in Kansas. Mr. Kingsley started his herd twenty-six years ago. His foundation stock was three choice heifers of the best breeding to be had at that time. They were all heavy milkers. One of them, Miss Lackey 2d, made a record of seven gallons of milk per day and weighed 1,800 pounds at maturity. The sires that have been used in this herd include 20th Earl of Valley Grove 122381, sire Lord Mayor 112727, by Baron Lavender 2d 72610; Baron Goldsmith 224633; Golden Dawn by Golden Prince; Dood Gaston by Maxwalton; Rosedale by Avondale; Gild Tender by Donald, and Col. Hopewell, a Thirtseltop bred bull. These sires weighed from 2,200 to 2,50 pounds. Mr. Kingsley has a very fine hred of cows, all of the best blood lines and good individuals.

E. R. McKeefer & Sons, of Ossian, Ind., owners of one of the famous herds of old original big-boned Spotted Polands, report their herd doing well. Their show herd will be remembered as one of the attractive live stock exhibits at both Topeka and Hutchinson fairs, 1917. This year they have a large number of spring pigs and also have a choice lot of fall pigs by their two great prize winning boars.

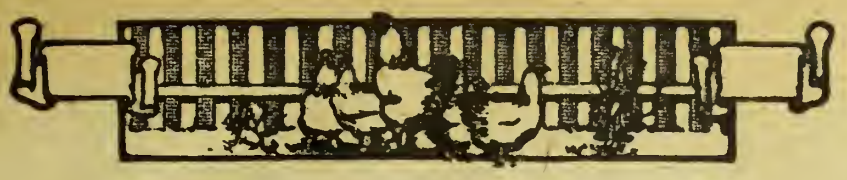
Bowel Trouble with Chicks

AT THIS season of the year we are confronted with many chick ailments of which perhaps the worst is bowel trouble. If a flock of little chicks gets bowel trouble, it is almost sure to be due to some fault of our own and could have been prevented. I know of an instance this spring of a friend taking off a hatch of 150 chicks, as lively a bunch as you would wish to see. She kept forty of these chicks and sold the rest in lots of from twelve to twenty-five. One lady who bought a dozen called me up at the end of the following week and asked me what to do, saying that Mrs. ——— had sold her a dozen chicks. In a couple of days they began to die with bowel trouble and now she had only three left. She said she was poor and not able to stand the loss and Mrs. ——— had no business to sell sick chicks.

I looked into the matter and found all the other chicks sold and the ones the lady kept for herself were growing and doing fine, with not a sick one in the lot. They had all had good care and had been kept warm and dry. The chicks that the one woman bought were put out in the woodshed in a box with no mother or artificial heat to keep them warm. Of course the result was that they chilled in the start, thus causing the trouble. Little chicks must be kept warm and dry.

There is also another cause of the trouble, which is just the opposite of the one mentioned. Do not let the chicks get overheated, as that is just as sure to cause the trouble as chilling. Also do not allow them to get wet, and do not feed musty feed. There are many causes of this trouble and few cures. The things which should be done are to take good care of the eggs before hatching; watch your incubator and don't let the heat get too high. Keep the chicks warm and dry; feed good, pure, wholesome feed, and give plenty of good, clean, fresh water, and you will need no cure. Of course there are times when things unexpected happen and in spite of precautions we have bowel trouble to deal with. Last season a sudden shower came up in the night and the wind blew up the cover of one of my brooders and let the rain beat in. The next morning I found my chicks a sorry sight. Some were almost drowned. You could see that they were just alive and that was all. All were soaking wet. I took the "dead ones," as my little boy called them, and put them under the tray of the incubator, and in two hours they were apparently as well as ever. The rest I put in a box, set it by the stove and built up a good fire. About half of the bunch got bowel trouble. I noticed this about the second or third day. The remedy which I used was one-fourth teaspoonful of soda to a tumbler of water. I did not give any water except that which contained the baking soda, and I made this slightly warm. In three or four days the trouble had disappeared.—MRS. LIZZIE B. GRIFFITH, Lyon County.

While we all know that pullets will lay more eggs than hens and are therefore more profitable simply as egg-layers, still it will not do to discard all the one and two-year-old hens, for we must depend on them, rather than on the pullets, for our new crop of poultry next season. The eggs that hens lay are much larger than those pullets lay and therefore are much better for hatching purposes, producing larger chicks which are hardier and have more vitality than chicks hatched from pullets' eggs.



Marketing The Egg Crop

THE annual poultry and egg production of the United States is estimated to be in excess of $600,000,000, equal in value to the hay or wheat crop. It is also estimated that there is a total loss of nearly eight per cent of the eggs marketed. It is evident that this question of marketing eggs is of considerable importance. Eggs have been abnormally high in price, and the present indications are that they will be high in price in the coming year. This means that in actual dollars and cents the loss will be larger than ever. In a United States Department of Agriculture bulletin on this subject, C. E. Bassett, specialist in co-operative organization, states that this great loss is due largely to improper handling between the farm and the market.

On most farms eggs are regarded too much as a by-product and the returns as so much clear gain. The hens forage for a living, eggs are gathered when convenient and kept almost anywhere. "With such carelessness," says Mr. Bassett, "and a combination of mongrel stock, dirty nests, stolen nests of brooding heus, unconfined males, late maturing pullets, and other undesirable conditions, is it any wonder that the product includes such a high percentage of small, cracked, dirty, stale, heated, and even rotten eggs.

Occasionally the accumulation of all these kinds of eggs are taken to the country merchants and exchanged for merchandise. The merchant usually buys these eggs case count, paying the same price for all kinds and sizes, provided they are eggs with an unbroken shell. Small production results in small or infrequent shipments.

Remedies suggested for preventing many of these losses are: Selecting pure breeds that lay more and larger eggs, such as the White Leghorns, Wyandottes, Plymouth Rocks, Rhode Island Reds, Orpingtons, etc.; giving better care, food, and shelter, with dry, clean, vermin-proof nests; confining males except in breeding season; collecting eggs frequently, especially in hot or muggy weather; storing eggs in a dry, clean, cool place; using small and dirty eggs at home; marketing frequently, with protection at all times from heat; selling for cash on a basis of size and quality, "loss off" instead of "case count"; using an attractive package; combining shipments as a matter of economy.

By uniting several egg producers in an association more can be accomplished in these essentials. One very successful egg company has a large incubator house with 12,000 eggs capacity, where early chicks are produced for the members at low cost. This is done in order to obtain early maturing pullets, thus securing eggs during the fall when eggs are usually scarce. The company also has a receiving room for eggs where they are candled, sorted to weight (about 24 ounces to the dozen), packed in cartons and shipped on contract orders. Their eggs are all guaranteed to be according to grade, they advertise the fancy grades on their cartons and cases, and market prices are paid to the members. Twice a year dividends are paid each member in proportion to the amount of eggs marketed through the company and the time of year eggs were brought in, a larger dividend being paid per dozen for eggs brought in during the fall and winter than for those brought in during the spring and summer, estimated by months. A regular trade is established with discriminating consumers, with city clubs, with the best class of hotels and restaurants, and with fancy grocers for a supply each day or week.

The reputation thus established enables this association to fix its price at several cents per dozen above the regular market quotations, as fancy trade is willing to pay a premium for a guaranteed article. Most egg circles co-operate in buying their chicken feed and other poultry supplies.

Community egg circles such as are here mentioned are in successful operation in Kansas. Farmers' Bulletin 656, United States Department of Agriculture, Washington, D. C., gives full details about organizing and conducting this co-operative method of marketing eggs produced on the farms. It is free for the asking.

Brooding Incubator Chicks

Thousands fail with artificial incubation, not because of hatching difficulties but because of inadequate and unsatisfactory brooding methods. Those who would succeed with incubator chicks must look ahead and make suitable preparations for raising them properly after they are hatched. It does not cost any more in the long run to raise them right than to follow improper methods, and poorly-raised chicks are almost worthless after they are grown.

There are many good brooders on the market, but authorities differ quite widely as to what are the best types to use. Many of these brooders have become quite practical, while others are still being changed as the result of the experimentation of manufacturers.

The essentials of successful artificial brooding are a brooder that is dry at all times, one that is well ventilated, having a dependable source of heat and at least two different temperatures. It should be provided with a suitable hover and an abundance of light must be admitted. Chicks will not thrive on a cold, hard floor, consequently the heat should be so supplied as to keep the chicks' feet warm at all times. The sooner it is possible to get chicks out on the ground, the better. Keeping them on a hard floor is unnatural and when necessary to keep them closely within the brooder its floor should be covered with sand or soil, which should frequently be changed.

In artificial brooding the aim should be to follow natural methods as much as possible. Close observation of the mother hen's methods in caring for chicks and their application to the operation of the artificial brooder will do much to bring about success.

Brooders should never be permitted to become infested with mites or lice. These sap the life of the little chicks and prevent their proper development. Keeping free from lice and other vermin is much easier with artificial brooding than where hens are used.

To sum it all up, success in poultry raising is not a question of the incubator or feed. The greatest source of trouble lies at the door of the brooder methods followed. All agree that it is no trouble to hatch chicks. If thoroughly practical brooding methods are followed it should be possible to raise them just as successfully as it is to hatch them. Poultry people who would succeed with artificial methods should most assuredly give the question of brooding close attention.

Hen Helps Red Cross

We hear occasionally of a hen being sold for a fabulously high price, and have attributed it to somebody's foolish fad, but here is an instance where a most worthy cause was helped through the sale of a hen at an unusually high price. The home town of a young man who is now on the fighting line in France showed its appreciation of his services by paying $541 for one of his hens, in the interests of the Red Cross. The hen had been donated by his mother to a Red Cross auction sale.

Calvin McInturff, who hails from Scott City, was an enthusiastic poultry raiser and it was his last hen that his mother offered at the auction sale which was held in Scott City in the interests of the Red Cross.

When the auctioneer put her up to be bid on, the hen was just hatching and the peep of the little chicks could be heard by those in the crowd. When she was knocked down to the highest bidder the man who bought her gave her back to the Red Cross to be sold again. She was resold several times that afternoon and the total which she brought was $36.50.

The next day was Calvin's birthday and his friends wanted to send him word that his hen had done her part for the great cause. So that evening the final purchaser gave the hen back with the suggestion that the whole town be allowed to bid on her and that she be given to Calvin's mother by the ones who contributed. That time she brought $504.50, making a total of $541 in the entire sale.

Setting hens should not be allowed to remain in the house where the laying hens are kept, for they keep possession of the nest boxes to the exclusion of the layers, and the latter are obliged to hunt another place to lay their eggs. They are often forced to lay on the floor and the eggs are then eaten by the hens and the evil habit of egg-eating is formed. There are several ways of breaking up the setting hens. Place them in a slatted coop where the air can circulate freely beneath them, and in a few days the fever will leave them. Another way is to put the setting hens in a house with a vigorous cockerel, feed liberally with meat and corn, and they will soon want to go to laying again. Anyway, take them away from the laying hens, for they are a regular nuisance.

A dust bath is very essential in ridding the fowls of lice.

The free use of an effective lice powder is always in order.

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FOR QUICK SALE—Twenty-five two-year-old bulls, twenty yearling bulls. Several Perfection Fairfax herd bulls in this lot. I will price one or a carload. Have one three-year-old and one two-year-old Percheron stallion; one five-year-old Clydesdale stallion and one five-year-old registered black jack. Come and see me.

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Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wauwatosa, Wisconsin

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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 20. TOPEKA, KANSAS, MAY 18, 1918. Established 1863. $1 a Year

CATTLE FEEDING EXPERIENCE

Silo Helps to Use Cheap Rough Feeds in Beef Production

From Address of S. W. McClure, Pettis County Missouri, Live Stock Producers' Association, Farmers' Week, 1917

CATTLE-FEEDING is becoming a science. Corn is higher priced than any of us can remember it ever having been before, and the feeder steer is higher priced than we have ever known him to be before. During the last two years there have been instances on the Kansas City market when feeders sold higher than fat cattle, wiping out all margins. So we have reached a time in cattle-feeding when we have to depend largely on gains for our profits. For these and various other reasons a great number of feeders have quit the feeder business.

Although the last few years have been rather lean for the cattle feeders, this year looks quite bright, especially for those who bought their cattle two months ago when the feeder market was considerably lower than it is at present. So considering present markets and future prospects, we should have a fair margin to work on in addition to our gains.

While it seems that the cattle feeder of today has more difficulties to overcome than had the old-time feeder, we have some advantages that the old-time feeder did not have. We have more kinds of feed from which to choose, and one in particular that every farmer and feeder could have is silage.

With the aid of the silo we can use all the cheap rough feeds we happen to have on our farms to a very great advantage in beef-making. Cattle fed on silage will eat any kind of dry feed, and a second-half stalk field makes a splendid supplement feed with silage. Some men condemn the silo, but as a rule the men who condemn it most do not have silos. The silo, like all other progressive improvements, has fought its way to the front. The greatest difficulty it had to overcome was, and still is, prejudice. We hear some men say that the filling of the silo is too expensive. Others declare that cattle fed on silage will lose their teeth. Another contention is that cattle fed on silage cannot stand the cold, because the feed is too sappy. Lastly, some men argue that cattle fed on silage will not gain on grass.

In 1911 I put up two silos, and in 1912 I bought another one. My three silos will hold about 500 tons. During the time I have had them not one has blown down and I have never missed filling them. I have fed all kinds of cattle from these silos—cattle of all ages and sizes. I have fed calves that gained 250 pounds per head in the winter feeding season. I fed these calves all the silage they would eat, together with a small quantity of shelled corn, baled hay, and wheat straw. It is not necessary to feed both hay and straw, as either will make a good supplement feed with silage.

I remember having fed ninety yearlings through one winter on twenty-five pounds of silage per day for each steer, with two pounds of cottonseed cake and all the straw they wanted. These cattle gained 150 pounds per head during the winter. I put them on grass the first of May, and weighed them the fifteenth of September. They had made a gain of 250 pounds per head on grass. Yet some folks say that silage-fed cattle will not graze good.

I have another instance in mind, that of a drove of cattle which I fattened through the winter season. About half were red cattle and the others black. The red cattle were the oldest, carried more flesh, and got fat a little ahead of the black cattle. I sold the red cattle in April. I fed these cattle a little more than a peck of corn per day, with all the silage they would eat, and kept a rack filled with hay. Their daily gain was a little better than two and three-fourths pounds. After I sold the red cattle I continued feeding the black ones. As the grass began to grow, in order to give it a start, I began to increase the silage to them until the fifty-five head of cattle got so they ate only fifteen scoopfuls of corn a day.

These cattle ate the silage better than they did the grass, and made very satisfactory gains. One of the most satisfactory features of silage is that we can use the rough feeds of our farms, which ordinarily go to waste, and get good results.

We can never feed corn again as we once did. We have to feed it very sparingly in order to hold the feed bill down. Corn is the highest-priced feed we can use, so we are naturally forced to use silage and other cheaper feeds.

Since corn has become so high priced, I have about decided to quit feeding cattle as I have been doing and get a herd of cows and raise the beef. With cows we can gather up all rough feed which has no market value, thereby turning the farm waste into profits. Then by feeding silage with this rough feed we can keep our cows in good strong flesh, and instead of falling off in winter they will gain, and will raise better calves than if we rough them too hard and keep them poor the year round.

It does not pay to rough our cows too much and let them get a "scrub" appearance. While they are gathering the rough feed of the farm we should give them a feed of silage every day. With this system of feeding they will make gains, while a steer will just about hold his own on the same kind of feed. If we expect our cows to gain in flesh, we must handle them so they will make the gain in the fall and winter, because they will naturally fall off in flesh while they are suckling the calves.

My experience has taught me that a cow, when wintered good and coming out in the spring in good, strong flesh, will just about hold her flesh while she is raising her calf. On the other hand, a cow that has been wintered poorly and comes out in the spring in a scrub condition will get poorer while she is raising her calf.

I have handled cows some, in a small way, and have been very much pleased with the results. Usually we can buy young cows in the fall, at around $45 per head, and if we will feed them on cheap rough feeds, with silage, they will come out in the spring fat enough for the butcher. The following summer their calves will sell for $30 per head and, by weaning the calves the last of August or the first of September, the cows will get fat and we can sell them for a nice profit, in case we do not want to keep them for another year. By this system of beef making we can make good profits without feeding corn, and the profit on a cow and calf will equal the profit on a big steer. It will also be made at less cost, for we can hardly make a steer fat without feeding more or less corn, and corn is what makes a costly feed bill. Then, if we do not want to sell the calves, we can feed them for baby beef, which is also a profitable way of producing beef.

On account of high priced corn and high priced cattle, these conditions have been foreed upon us, and we must meet them just as they are. We will never see cheap corn again, and if we continue to raise corn on our land, we have got to handle live stock. I think the cow, "the friend of all mankind," and "mother of the human family," is the best solution to the problem.

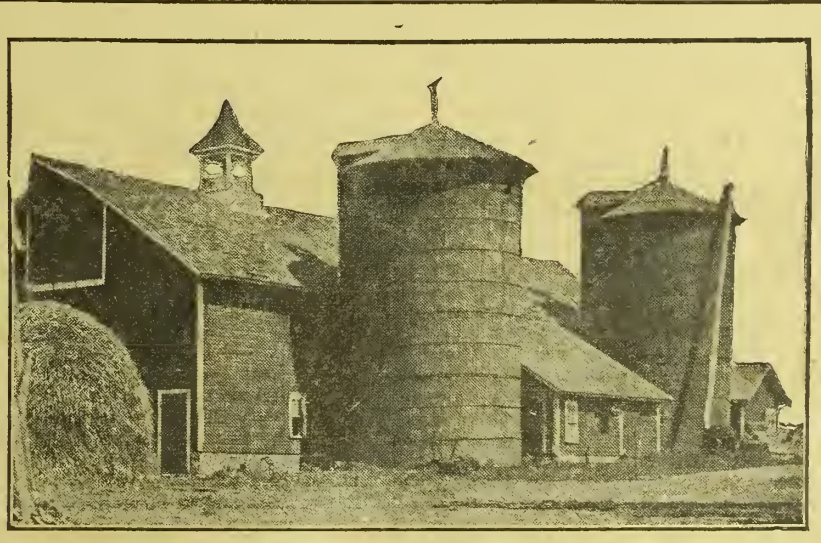
I would not think of feeding any kind of cattle without sheds for them to shelter in out of the storms and cold weather. After a steer eats and drinks he wants to lie down and rest, and if he has no place to lie down, he will not get the necessary rest. When he doesn't rest he will not put on fat. So I have found it very profitable to have good sheds, open on the south, for the cattle to go in out of the storm. I also keep my sheds bedded in bad weather, so the cattle will have a good, clean place to lie down.

Cattle are, by nature, very particular about where they lie down. In dry weather they prefer the dry ground, but in wet weather, or when cold and the ground is covered with snow, they want straw, shucks, or some kind of dry bedding to lie on. Sometimes, when snow is on the ground, and the weather is not stormy, I scatter straw outside in a good wind-break, as in clear weather cattle prefer sleeping in the open rather than in a shed.

We might think bedding cattle is a big job, but the returns in the feeding condition of our cattle, and in the manure we gather from the sheds, sleeping quarters, and elsewhere, will pay us well for all of our work and trouble. By letting our stock gather all the rough feed, such as stalk fields, straw stacks, and grass sloughs, which some of us have in our cornfields, we get profits for which we often do not give any credits.

Just one word in conclusion. In regard to the great war now raging in Europe, many hold to the opinion that cattle will get cheap when peace is declared. I disagree with that opinion, for the reason that the European countries have been eating and destroying their cattle supply, and in all of those countries that have been overrun by invading armies they have even destroyed the breeding cattle.

When peace is declared, if the Allied Powers do cut down their demands for our meat, the ports of the Central Powers will be open and their demand for our beef and pork will more than counterbalance the decrease of demand from the other countries. So if we will use caution in marketing our stock, and not get frightened, and not overload the market, there is no reason why the beef industry will not remain on a good strong basis,



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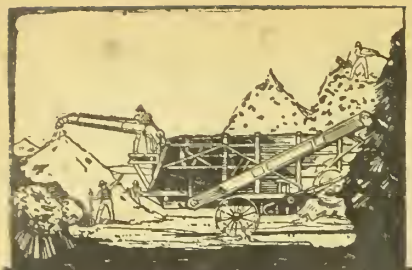

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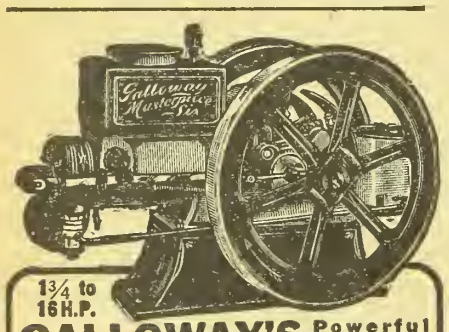

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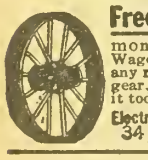

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CARE OF CAR TOP

THERE are two times when it pays to spruce up an old car; when you decide to keep it and when you decide not to. In both cases the most profitable investment you can make is in a new top, whether the returns are to be in comfort and pride or in the other fellow's money.

The production of pleasure cars for 1918 will be greatly reduced by war conditions. An unusually large number of persons will be compelled to use their old cars, and the market for second-hand cars will be extremely active. Nothing detracts more from the pleasure of owning a motor car, or from its sale or exchange value, than a shabby top. The motor may be as good as new, the chassis and body really handsome, but a delapidated top overshadows all else and makes the entire car look distressingly aged and undesirable.

Watch at some busy corner and the number of shabby-looking cars going by will surprise you. In nearly every case your estimate will be several hundred dollars lower because of a discolored, saggy or shrunken top, which could be replaced entirely for a small fraction of that sum. Obviously one cannot afford to sell a car in that condition.

A top may need re-covering long before its service is impaired. Perhaps very few of the shabby tops you notice are actually cracked or leaky. The tops that offend in their appearance only are the most numerous and stay on longest, for they give no imperative reason for replacement, and their owners hesitate to make the outlay, especially when such tops are only a few months old.

The number of tops that look badly after a few months—or weeks for that matter—is astonishing, and usually no fault of the owner except that of carelessness in selecting them. Too many purchasers look upon the top, which is undoubtedly the most important accessory of a motor car, as a very minor detail. They give it little attention in the show room, either as to material or construction, being satisfied with its freshness and newness which harmonizes with the bright varnish and polished trimmings of the car. If it becomes permanently stained or soiled after brief usage, or if it leaks in a few months, they realize that top materials must be selected with judgment.

Whether you are buying a new or recovering an old car, it is well to recognize the severe service to which a top material is subjected, so as to select one suited to the hardships it must undergo. Remember that the top is exposed to extremes of temperatures from the broiling summer sun to the below-zero blasts of winter. Throughout this entire range it must withstand frequent folding, creasing and bending without cracking, chipping or losing any of its resiliency. It must be out in rain, snow, hail and wind storms. It must stand the constant stress of the car's vibration and pitching and must resist the enormous air pressures generated by swift motion. In spite of every variation of moisture and temperature it must not shrink, sag or show the bows. It must fold compactly and lie unwrinkled when the top is raised. When it has met all the tests of service and of the elements it must still stand the rough, hurry-up and careless handling of its owner or driver.

The top material that meets all these requirements adequately is still far from ideal if it spots or stains easily, if it loses its luster, turns gray, absorbs dust, or if it cannot be kept thoroughly clean, sanitary and beautiful.

Some top materials which are fairly good from the standpoint of protection fall down badly when it comes to maintaining a well groomed and handsome appearance. Such a material is "mohair," which, no matter of how expensive a grade, becomes permanently shabby after short service. This is because it consists of an outer fabric, mohair, cemented with a waterproof gum to a lining fabric of cotton cloth. There is nothing to prevent dust, dirt and grease getting into the body of such a material—that is, between the threads, from where it cannot be entirely removed, as brushing only drives it further into the weave and cleaning liquids dissolve the waterproof gum. This applies to other materials made in the same manner as "mohair" (by the mackintosh process) and all these materials are likely to fade and to stain easily.

It is apparent that a top material to look well indefinitely must have a surface so smooth that dirt and dust cannot possibly penetrate and become embedded in it. It must not absorb grease or stains of any kind. It must be impervious and easily cleaned. There are three types of these smooth surface top materials, differing mainly in the surface coating, which may be pyroxylin, rubber or of a linseed oil base.

The pyroxylin coated top materials are best, with the rubber type a close second. They cost somewhat more but repay it in longer service and in their more elegant appearance, which can be maintained indefinitely with very little care. Plain water or, in extreme cases, soap and water will remove all the stains of travel.

Practically all smooth coated top materials are grained to resemble leather. Pyroxylin is the best medium for expressing the full beauty of these grains as well as for retaining them permanently. Pyroxylin is affected by very few chemicals and not at all by atmospheric conditions. Hence, it does not oxidize, fade or disintegrate in service, and the best pyroxylin coated top materials can be and are specifically guaranteed not to leak, crack or peal.

This guarantee also goes with the best rubber top materials and the buyer is quite safe with either type if he selects one made by a manufacturer known to have facilities for making the best materials that scientific knowledge, long experience and intelligent study of service conditions can produce. To accept a nameless or unknown top material is unwise and unsafe. Important qualities may be lacking in the same and the omission not be noticeable to the eye. For instance, the material should be non-shrinking, but to make it so is an expensive process as the manufacturer must start with goods much wider than the finished fabric and lose the excess width. The manufacturer of national reputation gladly accepts this expense. But suppose some other manufacturer elects to save the cost of this preliminary shrinking, what happens? The material shrinks after it is in the top; the top becomes badly distorted; the side curtains grow too small to fit the fasteners and when a storm comes up can only be adjusted with great effort, if at all.

For this and many other reasons the buyer should beware of every top material that is not guaranteed or on which the guarantee is indefinite. He will have no trouble in selecting a proper material from those widely advertised by manufacturers whose guarantee and responsibility everyone recognizes as beyond question. Having made his choice, he should insist, when buying a new car, upon seeing the manufacturer's tag in the top or upon some other assurance that the material is what he wants. In having an old top recovered, if the desired material is not on hand, the party doing the work can easily send and get it.

There are repair men in every section who do very good work at renewing and recovering tops. There are also several concerns who furnish top re-covers for all standard cars. These are sewed and ready to be applied to the bows by the owner himself. No great skill is required and the saving is considerable.

Usually the side and back curtains should be renewed at the same time as the top. They should also be of the same material as they must be waterproof and easy to keep clean. The envelope, for covering the top when down, should also be of a smooth-coated material, as it is sure to be often spotted with road oil, tar or mud.—MEYER FRANKLIN LEWIS, in American Motorist.

Trying to get out of a mudhole by backing up a little and then plunging forward on low gear results in the most severe strain that can be placed on the rear axle or driving gear of an automobile.

The heat generated at high speed is very detrimental to tires. The faster a car travels, the more heat is generated inside the tire. A normal speed does not increase the temperature to a dangerous point, but excess speed may raise the heat so high as to actually cause further vulcanization to take place. The high beat so developed dries out the gum between the plys of fabric and even injures the fabric itself. This results in lowering the elasticity and so weakens it that it will blow out early.

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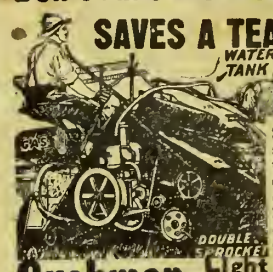

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RED CROSS BURDENS INCREASE

Our own American men are now fighting in the great battle which has been raging for over a month on the west front in Europe. The Red Cross is being taxed to its utmost in its mission of ministering to suffering humanity. Now that the names of our own boys are daily appearing on the casualty lists, the work of the Red Cross comes home in a way impossible while we were giving our money and time to help people of other lands only. Up to April 23 over 500 American soldiers had given their lives and probably ten times that number had been wounded. With the determination of the Central Powers to force a definite military conclusion on the western front this spring and summer, the urgent call comes for more and more of our men. They are being hurried across by the thousands as rapidly as transports can be found. These men—our sons, brothers, and neighbors—are cheerfully, even enthusiastically, going forth to face death in the many horrible forms in which it can come in modern warfare. Before the summer is over boys from every village and county in this whole country will be in France ready to join the Allies in crushing the power of Prussian autocracy.

Can the Red Cross rise to the needs of the hour? We answer Yes, without reserve. It has an organization, the most perfect and complete the world has ever known, comprising trained workers of all kinds, physicians, nurses, engineers, social settlement experts, wise counselors in law, hygiene, and various activities of civil and commercial life. It is a world-wide organization that knows no boundary lines. No sooner had our soldiers got into actual fighting than arrangements were made to have reserves of food stored and ready so that American soldiers who are prisoners in German war camps would receive each week a food package.

To do all this work the Red Cross asked the American people for a fund of $100,000,000 in one week. The people generously gave $103,000,000, not a penny of which has been wasted. So efficiently has it been administered that for every dollar received in donations a dollar and two cents has been expended in relief work. This has been possible because the banks allowed interest on such portion of the funds as was not immediately needed.

Up to March 1 nearly a third of the money given in that one week last June had been expended in France, where the fighting had been most severe. In Belgium, Russia, Servia, Italy, Roumania, and Great Britain, vast sums have been spent, always with that wonderful efficiency which has characterized the work of this great organization.

The fund of $100,000,000 has melted away until barely a tenth remains, but the work will go on and with added burdens due to the awful fighting of the past few weeks, which involves our own men and daily brings the war home to every hamlet and community of this whole country, money will be freely given so that there shall be no let-up in the relief work of the Red Cross. Be prepared, for the call will come soon. The drive for more money is now on.

PRICE FOR 1918 WOOL

A price of around 60 cents a pound is assured for the 1918 wool clip. The wool will be handled through the usual channels as far as possible. The Government does not buy or take over all the wool, but the agreement between representative growers and dealers of the country and the War Industry Board provides that all wool be turned over to the Government at a fixed and agreed price. Wool not needed to fill the Government requirements will be distributed for civilian use.

The plan absolutely prohibits any speculation, because dealers can handle wool only on a commission basis which is fixed by the agreement. Dr. S. W. McClure, secretary of the National Wool Growers' Association, states that there is no danger of a wool famine and people need not become unduly alarmed over prospective high prices of wool cloth. He says that the wool in an all-wool suit costs only from $4 to $6. There is a potential supply of 1,155,000,000 pounds to meet the expected consumption this year of 700,000,000 pounds.

The co-operative wool sales which have been planned in some communities in order to help small producers market their wool will be unnecessary except as collecting and shipping agencies. These plans for the collection and shipping of wool should not be dropped, for the grading and bulk shipment is just as important as ever in assuring the small grower maximum net returns for his product.

SILO MEETINGS

The silo has never been so necessary a part of our farm equipment as at the present time. Years ago when the silo was first introduced into Kansas rough feed on many farms was plentiful and cheap and it was contended that under these conditions the silo was a needless expense. Even then, however, silos were found profitable on farms where it was desired to increase the live-stock production to the maximum.

Times have changed since the silo was first introduced in Kansas and now feeds of all kinds have gone to almost prohibitive prices. As a means of feeding live stock cheaply the silo is coming into its own.

Methods of silo construction and the growing and handling of silage crops are now being discussed at 145 meetings in two-thirds of the Kansas counties. These meetings are being conducted by the extension division of the Agricultural College and three-fourths of them will be in the western part of the state where a good deal of emphasis will be placed on the pit silo, which has proven itself to be particularly well adapted to semi-arid conditions and has the added merit of costing little in actual money. In the eastern half of the state the meetings are being held mainly on the farms of large owners of dairy cattle, and here methods of construction of above-ground types of silos are being presented. The kinds of crops are also being given much consideration. The value of the sweet sorghums is especially stressed because this crop has demonstrated beyond a doubt that it is a perfectly satisfactory silage crop and will produce exceptionally large yields. On another page of this issue is given a chart showing in graphic form the results of a series of tests in comparing corn and sorghum silage on the experimental farm at Manhattan. The use of sunflowers as silage in certain sections and in seasons when other crops are not available is being suggested.

These are important meetings, and, even though they do come at a busy time of the year, we would urge that all who can possibly attend do so. A good many mistakes can be made in building silos and using silage, and these can be avoided to a considerable extent by getting all the information possible beforehand.

ORDER MACHINERY EARLY

There is vital need for ordering all kinds of agricultural machinery early this year. Reports to the United States Department of Agriculture from implement dealers emphasize this fact. Factories have plenty of farm machinery, but they hesitate to distribute it to the transfer houses until they get a reasonably definite line on the probable demand.

Congestion of traffic is certain to be a factor in handling late orders. Under normal conditions it takes several weeks and sometimes months to get farm machinery from the factory. There are delays at terminal and transfer points and also in handling and assembling it at the final destination. The war is greatly aggravating all these conditions.

Not a grain of foodstuff should be lost this year. We can help in the matter of farm implement delivery by deciding now just what machinery will be needed and then giving the dealer the order. This will enable him to place his orders without delay and facilitate the work of the railroads in making deliveries.

PRICES OF WHEAT SUBSTITUTES.

There is no justification for the high prices being charged for wheat substitutes. This has been one of the hardships of carrying out our wheat-saving program. Since the 50-50 rule went into effect stores have been keeping in stock the substitutes offered for sale with wheat flour, but the prices in most instances have been above the price charged for wheat flour. In some instances these prices have been published as fixed by local food committees, creating the impression that they were authorized by the Food Administration. This has been done in Topeka, the committee being made up with one or two exceptions of wholesale and retail grocers. The same thing has taken place in other cities of the state.

The authority to fix the prices of wheat substitutes has been questioned and checked up to our national Food Administration. Walter Innes, state food administrator, reports that the national Food Administration has been working for weeks on this question and corn, barley and oat products will soon sell at considerably less than flour. This will be welcome news to the people who have been loyally cutting wheat consumption, until we are living on forty per cent of the amount normally used. This largely voluntary compliance with the Food Administration's request is a splendid exemplification of the discipline from within which is so essential in a democracy.

The telegram received by Mr. Innes on substitute prices says:

"At present prices of corn, barley and oats, these millers are or should be offering meals and flours from these grains at prices considerably below wheat flour. In fact corn meal should be selling from the mill door at not over 25 per cent less that wheat flour and oat meal at even a less ratio. White corn flour or barley flour should be selling at not more than 10 to 15 per cent below wheat flour. There is absolutely no justification for the present price levels in these substitutes. Retailers should not take more than 16 to 20 per cent on the sale price for handling these products.

"The wholesale maximum margins have been fixed at not over 10 per cent in bulk. Therefore with these criteria to guide you we would be glad to have you follow up any prices made at higher levels where dealers still have stocks bought at higher levels than these prices. Every step in the chain of retailer, wholesaler and miller should be prepared to justify those prices as reasonable and any failure to so justify should be recommended to us for summary action.

"The time has now come when the readjustment to the prices of these grains should have taken place. We are requiring the principal corn millers to report to this office by telegraph weekly the price at which they purchase corn and the price at which they are quoting products and we are directing them to make duplicate reports to you. But without waiting for these reports you can take the above approximate levels as being indicative and instruct your county and city agents to make a drive on the reduction of prices to proper levels as the maintenance by millers and dealers of the price levels which were due to shortage in railway transport last winter has now become, in many cases, simple extortion. Where dealers have paid more than present prices they run risks of spoiling in endeavoring to hold material for prices at old levels, and the first loss of reducing prices is the smallest loss."

Make twelve ounces of bread do where sixteen served before.

G. E. THOMPSON LEAVES K. S. A. C.

It is with regret we learn that G. E. Thompson, crop specialist in the division of extension of the Kansas Agricultural College has left Kansas to become agronomist in the University of Arizona. Mr. Thompson has done much to promote the agriculture of our state, especially that of the western section. For three years he was superintendent of the sub-stations, most of which are in the western section, and for the past two years he has been with the extension division. He spent two years with the United States Department of Agriculture, following his graduation in 1911.

Mr. Thompson was thoroughly practical in his treatment of agricultural problems of the western part of the state. He saw the need for a permanent agriculture for the West, and in all his work kept clearly in mind the essentials to success ni working out safe and sane systems of farming for that section. His training and experience fit him admirably for the new work to which he is going.

Last week Raymond Montgomery, a clerk in the selective draft service, was ordered by the Federal Department of Justice to remove the captain's uniform which he had been wearing without authority. He had been employed in the Adjutant General's office, drawing part of his salary from the Federal Government and part from the state. For nine months he has been wearing the uniform of a United States officer and has been given all the military courtesies due the position indicated by his uniform. It is reported that his friends are endeavoring to obtain permission to have him continue to wear the officer's uniform on the theory that the state can authorize an employee to wear a uniform under certain conditions. This might go in times of peace, but we do not believe it would set very well with the people of Kansas at the present time, many of whom have boys wearing the United States uniform on the firing line in Europe and in the training camps. We believe every true American has an impulse to do honor to the United States uniform, whether worn by officer or private, and we do not like to feel that perhaps we are honoring someone who is wearing the uniform without authority. We should demand that it should be worn only by those who have a right to wear it.

One of the greatest gatherings of dairymen, farmers, and others concerned with various phases of the dairy business will take place in New York City May 20, the occasion being the National Milk and Dairy Exposition. The literature being sent out has across the top in prominent type the statement, "Milk is Nature's most valuable food." While a strong appeal is being made to producers all over the country to attend on account of the educational character of the exposition, the most significant feature of it all to the people out in this section is the recognition given the dairy industry and the possibilities through this great exposition of educating the consumers, who will attend in large numbers. It is a part of the nation-wide campaign to enlighten people as to the fundamental need of the great industry of dairying. It should serve as an encouragement to the producers of dairy products all over the country.

Already three members of the second Dairy Club have completed their year's record work. Clarence and Lucile Radcliffe finished in March, and Frank Greenlee has just sent in his last record. May will be the last month for several, and each of the four remaining months of the club year will see others completing the work and dropping out.

Uncle Sam is in a race against Germany for ships and food. Are you with him?

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

AS CORN planting will be about done by the time this is read, it is well to consider whether the remaiuing land for spring crops in Western Kansas should not be planted to sorghums.

The feeding value of silage from corn, kafir, and the sweet sorghums is so near the same, that yield per acre is the chief point to consider.

Average silage yields for the dozen most important grains and forage sorghums tested at the Fort Hays Experiment Station from 1914 to 1917 inclusive, ranged from six to twelve tons per acre. Corn under the same conditions averaged four tons per acre.

Two acres of red amber sorghum or pink kafir have yielded as much silage as five acres of corn during the past four years at Hays. The experiment station raised 175 acres of red amber, 215 acres of pink kafir, and 230 acres of corn in 1917. After a summer drouth which seriously and permanently injured the corn, August rains brought on a vigorous growth of all the sorghums. Six silos holding 780 tons were filled and several hundred tons of dry feed put up from these sorghum crops. Silage and straw formed the cheapest ration for wintering cows in the past winter's feeding experiments.

Farmers still needing seed of either grain or forage sorghums or Sudan grass can buy tested seed from the U. S. Department of Agriculture's reserve, addressing orders or inquiries to H. N. Vinall, 815 East Second Street, Wichita, Kansas.

How to Plant Sudan

A reader asks how to plant Sudan grass. When we first began to grow Sudan nearly everyone was anxious to raise seed. It was high in price and some of those who first took up this crop found seed production very profitable. That could not last, however, for it is too easy to produce Sudan grass seed. It is as a forage crop that it is most valuable, and a reasonable price on the seed is desirable.

If it is to be grown for seed it should be planted in rows and be cultivated. Jewell County farmers who have grown it for seed report to their county agent that their best successes have come from blank listing some days before they are ready to plant so that the ground could warm up. They then drill the seed in the rows at the rate of three or four pounds to the acre, according to its quality. If used for pasture or for forage, the best results will come from preparing the ground as for corn and then when it is well warmed up, drill in about ten pounds of seed to the acre with an ordinary wheat drill, stopping up every other hole in the drill. It is important to avoid planting the seed too deep. It should be just deep enough to be beneath the dry, loose dirt of the surface.

Typewriter Finding Favor

There are many city people today who are surprised if they receive a letter from a farmer typewritten on a printed letterhead. Their ideas of modern farming are so behind the times that they have never pictured the farmer as a business man using business methods in his work.

Yet a recent investigation among 70,000 farmers proved that 14 per cent of them own typewriters.

Those farmers give the best reasons imaginable why they bought typewriters and why, after using them for a time, they would not under auy circumstances go back to the old pen and pad. They state they can write twice as rapidly with a typewriter and with half the effort needed for pen writing; that they now preserve carbon copies of every letter they mail, in up-to-date correspondence files, and that these files have proved to be worth hundreds of dollars in cases, as carbons are accepted as evidence in the courts of what correspondence has contained; that they have had many compliments from their friends and customers on the improvement in their correspondence methods and realize the typewritten letter makes a much better impression and indicates the farmer is up to date and prosperous. They also find that they can write checks, filing cards, loose leaf accounts, etc., with their typewriters with much more ease and pleasure than with a pen. These farmers also report that the tendency is for every member of the family to learn to typewrite. This provides the children with a sort of an emergency "calling," that of typist, as well as saving their time and improving the appearance of school essays, etc.

Letters received by KANSAS FARMER from our subscribers indicate that a large percentage of our readers use typewriters. It is suggested that those who have found the machines especially valuable in saving time, saving patience, and making money, write in and tell us their experience.

A Missouri farmer recently stated that his first fifteen years at farming were unprofitable, but that five years ago he began to run his farm on a business basis and had made more money since than in the entire fifteen years preceding. One of the "farm implements" he warmly recommended was a typewriter.

Typewriters can be used for writing filing cards, loose leaf accounts, statements, diaries, and nearly every purpose for which pen and ink can be used. In purchasing, two points are important—first, buy a new machine, if possible, especially since the farmer, unlike the city man, is remote from the repair shop. The better new machines will stand up for as long as fifteen years with very few repairs; second, buy it from the maker direct, so as to get his guarantee.

Destroying Currant Worms

If you have currants or gooseberries, you are familiar with the ravages of the little green worm with black dots scattered along its body. These worms attack the gooseberry and currant bushes in the early spring and in an incredibly short time strip them of their leaves. They are a very easy insect to control by spraying. The most effective spray to use is the lead arsenate. We have saved our few gooseberry bushes a number of times by promptly applying this remedy. Last week we discovered that the worms were beginning as usual, and we immediately mixed a tablespoonful of lead arsenate paste with a quart of water and sprayed the bushes thoroughly, using one of the little hand sprayers which can be purchased for 50 or 75 cents. This equipment, however, is rather small. If you have a garden of any size you should purchase a small hand-spraying outfit of some kind. It is perfectly safe to use this poison spray unless it is too near the ripening time of the fruit. If worms are on the plants when the fruit is almost ripe, use hellebore or Persian insect powder, mixed with an equal quantity of flour. This can be sifted over the bushes with the use of an ordinary pepper can or talcum powder can.

Binder-Twine Situation

There should be no delay in ordering binder twine for harvesting this year's crops. A great deal of twine co-operatively handled by grange and other farm organizations is now being delivered. The shipping conditions are such that more time than usual must be allowed between factory and distributing points. Dealers must know your wants in order to make deliveries of twine on time. Those who have not already bought their supply should give their orders at once.

The pre-war price for Mexican sisal, which comprises the bulk of binder twine, averaged about 7 cents a pound. It was 7½ cents landed at ports of entry in June, 1916. In July of the same year it was increased to 10 cents, and held about at that point until December, 1916, when it rose rapidly to 16½ cents in March, 1917. Last August it reached 19 cents at gulf ports and 19¼ cents delivered at New York.

It was at this period that the United States Food Administration decided to act, because of the imminence of further advances by the Mexican trust. Through the efforts of the administration, a further rise in price was prevented, although the price of manilla hemp rose to as high as 30 cents a pound. The Food Administration has been trying to get a lower price, but the efforts, thus far, have not been successful, as the production lies outside the United States.

In view of the exorbitant price exacted by the Comision Reguladora, the Yucatan monopoly controlling sisal, the amount of sisal used in the United States will be much less this season than in previous years. As a result, the stock of sisal in Yucatan is rapidly increasing, while the demand in the United States is rapidly decreasing, and every effort is being made to find further substitutes, large quantities of which are being used for binder twine.

The Comision Reguladora and the planters of Yucatan must realize sooner or later that more reasonable prices must be made or the sisal business will be completely curtailed.

Every effort possible has been made to provide binding twine for the harvest of 1918 at prices as low as possible under the circumstances of inability to more than partially control the raw material. For the accomplishment of this end, the Food Administration entered into an agreement to purchase and distribute to the manufacturers all of the sisal actually required for the manufacture of binding twine. It also entered into a contract with the binder twine manufacturers, the terms of which provide that the Food Administration shall purchase and distribute the sisal as required, and that the manufacturers shall manufacture it into binding twine on a basis of the cost of raw material plus cost of conversion, plus a reasonable profit.

In conformity with these arrangements the manufacturers have made semi-monthly reports of the amount of binder twine manufactured from sisal allotments, and from the materials, and after careful investigations of the cost of manufacture by the Federal Trade Commission the cost of 500-foot twine was established at 23 cents f. o. b. factory, other grades in proportion.

The retail dealers have also agreed to distribute the twine to the farmers on a basis which, considering the necessarily high price of twine, does not seem unreasonable. An ample supply of binder twine is assured, and therefore there need be no uneasiness about the supply of twine in time to meet harvest requirements, but to make sure that the twine will be on hand when needed it should be ordered now.

Why America Fights Germany

"If Democracy is conquered in this war, all free peoples must either submit to Germany's domination or else give up a part of their democracy in order to resist her. We must fight Germany in Europe with help, that we may not have to fight her here in America without help."

In a booklet entitled "Why America Fights Germany," issued by the Committee on Public Information, Prof. J. S. P. Tatlock, of Stanford University, thus sets forth the fundamental reason for our participation in the war. He shows how Germany has drowned our citizens, sunk our ships, intrigued against us, and outraged our sentiments of right and humanity by her unspeakable outrages in Belgium and France, founded as they are on deliberate principle and precept. He adds, "If we had not fought Germany after her false and brutal conduct, we should have been despised by all the world, including the Germans."

The publication may be obtained free by writing to the Committee on Public Information at 8 Jackson Place, Washington, D. C.

Sheep Killed by Dogs

Investigation by the United States Department of Agriculture among sheep owners in fifteen states east of the Rocky Mountains shows that out of a total of 6,836,492 sheep in the 502 counties reporting, 34,683 were killed by dogs in one year (1913) and were paid for by the counties. At the same rate of loss in other farm states the total annual destruction of sheep by dogs would be 107,760.

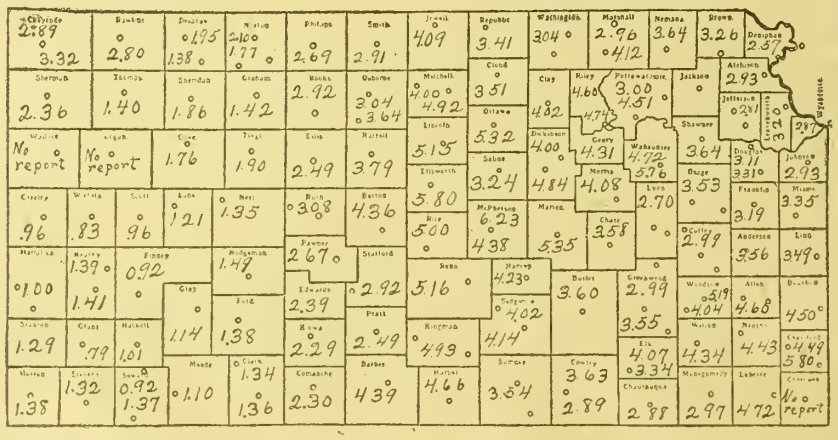
"But these figures are based only upon the number actually paid for, and it is more than probable that the true losses far exceed this," says Farmers' Bulletin 935, "The Sheep-Killing Dog." "It is known that many sheep are killed which are never reported to the county official.

"In 1913 crop reports in thirty-six farm states submitted estimates which showed that the number of sheep in those states could be increased 150 per cent without displacing other live stock. Such an increase would place approximately 34,000,000 more sheep in these states than there are now. Of 1,411 answers received to the question as to whether sheep raising is profitable in the farm states, 887 answered 'Yes.' Of 894 answers as to the causes preventing increase in the numbers of sheep, 531 said 'Dogs.'"

Uniform state laws are advocated by the bulletin as being the most effective method of dealing with sheep-killing dogs.

Precipitation of April, 1918

Reports Furnished by S. D. Flora, Meteorologist, Weather Bureau, Topeka
(Amounts given include moisture from rain and melted snow.)



THERE was more rain in Kansas during April, just passed, than in any other month since last August, and almost as much as during January, February, and March, combined. The weather was ideal for wheat, which stooled well and made a strong, vigorous growth. Even in the extreme western and the north central counties, where immense areas had been abandoned on account of winter-killing, a great many fields that were considered hopeless took on new life and were promising when the month ended. In the extreme southern counties heads were forming in the boot when the month ended. Stands of oats and barley were entirely satisfactory and alfalfa was knee high in the southern counties. Pastures were a little slow on account of the general lack of warmth and sunshine. All farm work was delayed by continued wet weather.

STANDARDIZATION OF CROPS

Neighborhood Co-operation in Growing Adapted Crops Profitable

By H. N. VINALL

FOR each section of Kansas there is a best variety of corn, a best wheat, a best kafir, a best sweet sorghum for fodder, and so on through the entire list of field and garden crops. Each community should determine this variety and grow it and it alone. Standard blackhull kafir is the most productive strain of kafir in Southeastern Kansas, pink kafir is most dependable in North Central Kansas, and dwarf kafir is best in Southwestern Kansas. Why not have communities organize in these different parts of the state to grow these best varieties to the exclusion of all other kinds of kafir? The gain would be immediate and decisive. Cross pollination would be lessened, mongrel types would disappear, uniform grain would be delivered to the dealers and uniformity in color and quality always commands a premium on the grain markets. Every year we see mixed grain selling at a discount of at least 15 cents a bushel. There is no difference in the feeding value of this mixed corn or kafir and the pure seed. This loss is entirely because of the market preference for a uniform type of grain.

The keynote of this age is efficiency. War demands efficiency, first in the army, navy, and executive departments of the government, but none the less in the productive forces of the nation. Manufacturers gain efficiency by standardizing their products. Henry Ford's automobile factory has long been pointed to as an example of efficiency, because he has made standardization his motto. Why not learn this lesson and apply the principle to our farming operations?

Live stock men especially in Europe long ago recognized the value of community action in growing cattle and horses. We find certain localities producing Ayrshires, others Holsteins, and others Shorthorns. This practice has become so well established that buyers always look to these communities for that particular breed of cattle. Crop men can profit by this example. Climatic conditions in Kansas are quite variable especially as to rainfall. Is it not time that we recognize the value of community action in respect to crops and not continue the scattered planting of a long-seasoned variety of kafir in Northwest Kansas where an early-maturing strain is demanded by climatic conditions?

Community action in the standardization of crops is difficult to attain, but a beginning can be made by the organization of local seed growers' associations. These associations will become centers for the production of pure and improved seed and by providing a recognized source of good seed they can wield an influence over the selection of crops in their immediate vicinity. Kansas is behind in the development of these seed growers' associations. Wisconsin, Minnesota, and certain eastern states have very efficient organizations. Oklahoma, although it began only recently, has several well defined local seed growers' associations which have been able to deliver a large quantity of first class seed this year.



FIELD OF WELL-BRED KAFIR.—NOTE UNIFORMITY IN HEIGHT

When an effort was being made to accumulate a supply of good planting seed of the sorghums this winter in Kansas and Oklahoma, it was found much easier to obtain pure seed in Oklahoma than in Kansas. This was due almost entirely to these local organizations of seed growers. Besides benefiting the state at large by becoming a source of improved seed, the farmers in these associations realized a handsome profit on the advanced price their seed commanded.

Kansas should not fall behind in this movement toward the production of better crops. Co-operation and community effort will result in larger yields and a better quality of grain. County demonstration agents are always ready to assist in organizing communities for such purposes. A beginning should be made by establishing a center in Southeastern or South Central Kansas for the production of blackhull kafir seed, one in North Central Kansas for pink kafir seed, one in Southwestern Kansas for dwarf kafir and another in the same part of the state but in a different locality for dwarf milo seed. Centers for the production of the seed of black amber sorgo could be located in Northwest Kansas for red amber, and orange in Central Kansas, and for sumac in Southern Kansas. All this would be but preliminary to the more important work of standardizing crop production by communities. There is everything to gain and nothing to lose in this movement for the production of improved seed. Let's have more activity in local pure seed associations this year.

Save All the Crop

Every year there is a tremendous waste of the feeding value of corn and other fodder crops. "While we are conserving human food, why not give some thought to saving stock food?" asks A. L. Haecker, of Nebraska. "By so doing we will save human food and that in large quantities.

"By the use of silos on our stock farms we could increase live stock products 30 per cent and greatly lower the cost of production. We could add millions to our material wealth and give to the consumer a cheaper product. We could better rotate our crops, plant wheat on the corn stubble and corn on the wheat stubble. We could conserve the fertility of the land and increase the stock-carrying capacity of the farm, lower the item of labor, and altogether make a more permanent and substantial line of farming.

"A crop of corn can be put in the silo any time during a month, while many crops must be harvested at once when ripe or they waste. This distributes the farm labor and makes it possible to get the greatest efficiency from the help.

"Silage will keep many years in a silo, and in this way we can carry over a food supply for an unfavorable year. In a good corn crop 40 per cent of the nutriment is found in the stalk and leaves, while in a poor crop it often extends to 60 per cent or more. Can we throw away this 40 or 60 per cent? Perhaps our prosperity will allow it, but it is poor business to do so, and sooner or later, through competition, the stockkeeper will find it necessary to use a silo.

"Silos were never cheaper in terms of crop values, and now is a good time to put up that long-needed silo.

"We are now called upon by a hungry world to save and here is our opportunity to do it and at the same time greatly benefit ourselves."

The return ticket for our boys in France will be secured largely through American savings of wheat, sugar and fats.

Use of the Harrow in Cultivation

IT IS possible to reduce labor cost 40 per cent and do one of the important jobs of the farm in one-third of the time ordinarily taken. We refer to the practice of using the harrow more extensively in the cultivation of such crops as corn, kafir, etc. This enables the work to be done very rapidly and does not involve buying new implements. It is simply a different use of those already on practically all farms. This rapid method of cultivation is simply to use a weeder or the ordinary spike-toothed harrow instead of the usual cultivator.

This use of the harrow is described by one of the crops specialists of the United States Department of Agriculture. He points out that on well-prepared ground which is free from stones, clods, and trash, a two-section harrow or a twelve-foot weeder can be used for all but the heaviest cultivating until the crops are from five to six inches high and will do the work in one-third the time required by a two-horse cultivator. By using the larger implements the cost of cultivation is reduced from 35 per cent to about 20 per cent of the cost of growing the crop, besides releasing valuable farm labor for other work during the busy season. If desired, the crops can be cultivated twice as often during the first part of the season, in which case there will be little cultivating to do during haying. In either event the weeds are killed wholesale in May instead of a row at a time in June.

Driving a weeder or even a harrow over a young growing crop is not as severe treatment as would appear. Most crop plants are tough and heavily rooted and are not damaged permanently either by the harrow or the horses. A few plants are uprooted and there is some tearing of the larger leaves, but this can be entirely offset by seeding a little more heavily than usual. Weeds, on the other hand, are mostly shallow-rooted, and are nearly all destroyed. However, the harrow or weeder must be used before the weeds exceed an inch in height in order to be effective. Perennial weeds, of course, like quack grass, Canada thistle, and milkweed, can not be destroyed in this manner after they have become well established.

Injury to the stand is avoided by slanting the teeth of the harrow backward about 30 degrees, although an excessive slant is undesirable. When a weeder is used the teeth directly over the rows are often removed. Either tool had best be used in the afternoon or on a hot, dry day when the plants are wilted and limp. The period of greatest danger to the stand is just as the plants are coming through the ground, at which time and for a few days thereafter harrowing is inadvisable. A short trial will demonstrate whether the injury is greater than the saving, although one should not lose courage too quickly.

Harrowing can not be expected to give good results unless the surface soil is in good tilth. The object of harrowing is to maintain, not to make, a seed bed. For this reason the practice is most popular on the lighter types of soil, as these are easily prepared and worked. Very good results are secured, however, on heavy clay loam soils, and the practice is rapidly extending as the requirements become more generally understood.

Stiff clay soils, wet soil, and soil on which a hard crust has formed should not be harrowed, as the implements must be weighted so heavily that they will injure the crop.

Harrowing may begin as soon as the crop is planted and should be repeated after every rain, or as often as the fine little weed sprouts appear. Do not wait until the field is green, but watch the ground closely and catch the weeds as they are germinating. In case of continued wet weather the harrow must give way to the cultivator.

On light soils, as a rule, the harrow is run in the direction of the rows when the crop is in ridges, and across the rows or diagonally when planted level. On heavy soils running with the rows is apt to drag out more plants than cross-harrowing. Experience will indicate the best plan in each case.

Harrowing need not be discontinued until the crop shows signs of severe injury. The small grains can be cultivated with a weeder until they begin to head out, if necessary, while corn, sorghum, and Sudan grass will withstand the harrow until the plants are five to six inches high. With the broader-leaved crops the period is somewhat less.

A light-weight steel-frame spike-tooth harrow with thirty or more half-inch steel teeth per section, is probably the best tool for general use. The spring-tooth weeder is better on light, sandy soil and for cultivating while the crops are very small and very large. Weeders are now made with teeth stiffer and heavier than formerly, so as to work better in heavy ground. Spring-tooth harrows, and the old-fashioned A-shaped wooden harrow are not suitable for this class of work.

Give King Corn a royal welcome to your home.

Co-operative Organization Policies

Personal Acquaintanceship Among Members Fundamental Priciple of Success

By CLINTON GANO

IT IS said that no system will work unless you work it. But it is also true that some systems wont work even then. In co-operative marketing it is highly important to have leaders with ability to work the plan, but it is equally important to have a plan, to begin with, that has fair chances of working. Some co-operative plans, so-called, have failed because the plan itself was clumsy, inefficient, faulty, illogical.

A chain is no stronger than its weakest link, so it is fair to assume that the biggest co-operative success on record must be strong in all its links. It follows that, in considering what kind of co-operative plan and policies are best, it should be worth while to investigate those on which the California Fruit Growers' Exchange is founded. This organization, remember, controls nearly 70 per cent of California's $200,000,000 citrus fruit industry, has over 8,000 farmer members, markets in a normal year about 12,000,000 boxes of citrus fruits, and spends for advertising, normally, about half a million dollars annually.

Probably the fundamental principle on which the Exchange is founded is personal acquaintanceship among members. Of course 8,000 farmers can't all know each other personally. But they can be subdivided into small working units whose members do know each other personally. These units can elect representatives to district managing boards, and the group of representatives can soon get personally acquainted. The district boards can elect representatives to the Central Exchange, and these representatives—the directors of the organization—can soon become personally acquainted. So if Smith, of the Pasadena Orange Growers' Association (a local), doesn't know Jones, of the Redlands Orange Growers' Association (another local), at least Smith knows a district representative who knows a director who knows another director who knows a district representative who knows Jones. The degree of personal acquaintanceship between any two of the 8,000 members of the Exchange need be no slighter than that.

The organization is thus made up of three kinds of groups: The local associations, of which there are about 160; the district exchanges, of which there are seventeen; and the Central Exchange. The local associations, averaging about fifty members, each own a packing house in which the fruit is assembled, graded, packed and made ready for shipment. They determine destination of all carloads shipped by them, and set their prices, also, but act usually on advice from the Central or District Exchange. The District Exchanges order cars, attend to their placing for loading, keep records of cars shipped, act as clearing houses for market information, and receive payment for shipments direct from market, which they pass along to the various locals, after deducting cost of operation. The Central Exchange has been defined as "an instrument of convenience in purchasing supplies and selling the fruit crop." It is the central managing body, directing the national sales staff consisting of salaried agents at the various markets, attending to all litigation, maintaining a traffic department, a supply company, an insurance department, an advertising department, a field organization department (educational), and being owner of the Sunkist brand. In short, the central office represents, for business, legal, and directing purposes, the entire organization.

Thus, that the unit must lie in a restricted area is seen to be the first organization principle.

Rules Fair to All

The second organization principle may be said to be practical, common sense, fair-to-all rules. It is highly significant that the Exchange does not subscribe to what many writers and organizers have upheld as ideal in the matter of voting power—namely, one vote for each member. The Exchange, as it happens, is an organization in which property interests vary widely, and that the grower who entrusts $100,000 worth of fruit to the Exchange should not be expected to stand on the same basis of responsibility in the management or in liability, as a fellow grower who sells only $5,000 of fruit a year, is one of its tenets. Voting power is in proportion to number of bearing acres. This basis appeals to the members as fair, as experience has shown. Other important rules are that members must sell only through the Exchange, that marketing is to be done strictly at cost, that members can withdraw from the Exchange only by filing written notice during the first fifteen days of August in any year.

The Exchange believes that the basis of true co-operation is the individual, not capital. It was largely instrumental, therefore, in securing the passage of the co-operative corporation law of California, permitting corporations having no capital stock and thus paying no dividends on capital. The Central and District Exchanges are non-profit, non-capital-stock corporations, as a consequence pay no dividends whatever, and pro-rate all earnings above expenses back to the growers, thus operating strictly at cost. This is not technically true of all the local associations, however. Many were formed before the co-operative law was passed and have never re-organized. But though stock corporations in form they do not pay dividends on their stock, and thus they operate practically as if they were non-stock corporations.

Membership Contracts

The third great organization principle of the Exchange may be said to be the insuring of members' loyalty by means of binding contracts. Experience has shown that associations are likely to fail that rely on the honor of the members to hold them together and exact no written agreement. This, however, may be viewed rather as a reflection on the frailty of human memory than of human honor. It is easy to forget the details of an oral agreement, or to forget that one solemnly subscribed to it. Mr. Powell, general manager of the Exchange, has declared that the very foundation stone on which the stability of a co-operative organization depends is the written membership agreement, stating clearly the obligations of each member and of the organization, and signed by both parties to the contract. These agreements provide for liquidated damages in case of breaches, the most important being that provided where fruit is sold outside of the Exchange.

The effort in this article is to deal with broad organization principles, not details. The last which will be discussed will be the matter of managers. For efficient management is just as important as is loyalty of members.

While managing power is vested in a board of directors elected according to the usual democratic principles, and the Exchange has the usual executives to carry out the wishes of the directors, these directors and officers are usually themselves large fruit growers. They seldom find it possible to devote their main thought to the affairs of the Exchange, and the Exchange has always believed in employing a general manager to do the real work of carrying out the policies of the directors and officers. This general manager has been a business man of the first caliber, a high-salaried man, capable of real leadership. He is held responsible for the development and execution of the directors' policies.

G. Harold Powell, formerly of the United States Department of Agriculture and for several years general manager of the Exchange, in his book on co-operative marketing defines the successful manager as follows: "The manager who succeeds is he who holds the confidence of the directors and the interest of the members, who utilizes the suggestions of the directors and of the members and who shapes them into a working policy, who acts on matters of policy only after the approval of the directors, and who, at the same time, takes the initiative in the development of a progressive, constructive business policy for the directors to adopt. On the other hand, the manager who fails to hold the confidence of the directors or members, who becomes a dictator of the policies and thereby drifts away from the spirit of the organization, or who is merely a clerk to carry out the undeveloped business policies which a board of directors acting alone is likely to develop, will invariably fail."

STATE AID TO FARMERS

By H. A. CRAFTS

CALIFORNIA takes her place as the pioneer in the United States in the policy of extending state aid to farmers. At the last session of the legislature a land settlement act was passed carrying with it an appropriation of $250,000 for the purchase of agricultural land, the subdivision of the same, and its resale to those who desire to become permanent and thrifty farmers.

The scheme is modeled after those which have given such good results in Ireland, Germany, Norway, Sweden, Denmark, and New Zealand and Australia.

The management of the enterprise is lodged in the hands of a committee appointed by the governor of the state. At the head of this committee is Prof. Elwood Mead, the well-known irrigation expert and economist. Professor Mead has made a deep study of state-aided agriculture in foreign lands and brings thorough knowledge and much enthusiasm to the work.

The purchase of the land which is proposed to be colonized under the act has already been consummated, and arrangements have been made to give purchasers possession of their respective tracts in May of this year.

The land lies in Butte County, which is in the northeastern section of the Sacramento Valley. It consists of 5,000 acres of alluvial bottom land and 1,000 acres of foothill land adjoining. The tract will be divided into small farms, ranging in area from ten to 150 acres. It is the purpose of the committee, however, to so control land as to make the majority of the farms about forty acres in area, or in other words, two-man farms.

The price of land to settlers will range from $10 to $150 per acre, but the average price will be about $100 per acre.

The land, when so desired by the purchaser, will be sold at 5 per cent down as first payment, the balance to be arranged in amortized notes to run for twenty years at 5 per cent interest. These annual payments will be equivalent to about 8 per cent interest upon the whole investment.

Further aid will also be extended to settlers. Farm houses, barns, and fences will be built by the state when so desired by the settler, who will be required to pay one-third of the cost down, the balance to run on long time at 5 per cent interest.

As to general farm policy, the committee reserves both plenary and advisory rights. Settlers must become good and thrifty farmers in order to maintain their rights of possession. Extreme leniency, however, will be exercised in cases of crop failure, sickness, or misfortune encountered by the individual settlers.

General farming will be urged by the committee rather than specializing. Special stress will be laid upon the sound policy of raising high-grade and pure-bred live stock, especially hogs, cows, and sheep.

Cultivation of the soil will be based largely upon the production of feed for this class of stock. The old theory of relegating live stock to barren hillsides and coarse forage will be reversed, the best land and the best methods to be devoted to the production of the maximum yields of the best classes of forage.

Professor Mead is a firm believer in the policy of the small farmer raising a flock of high-bred sheep in order that the wool industry of the country may be advanced to the position of importance it once held.

In live stock it will be the endeavor of the committee to so guide the policy of the colony that not more than two of the best strains of hogs, cows, and sheep shall be kept, thus bringing uniformity and co-ordination into the general scheme of farm development.

For instance, in the line of dairy stock two such sterling breeds as the Jersey and Holstein will be recommended. A like policy will be advocated in the handling of hogs and sheep.

It is hoped that the live-stock raisers of the colony may be able to organize among themselves a live-stock association for the better development of the industry.

Growing Beans in Kansas

Again the question of growing beans is being agitated over Kansas. Last year we advised people generally to be somewhat cautious in putting out large acreages. It is a most valuable food crop and it would be well to try to produce some beans, providing good common sense is exercised in planting the crop and handling it. Beans require a well-prepared seed bed and intensive cultivation. Indifferent work over a large area was the cause of many failures in growing beans last year. Prof. Albert Dickens of the horticultural department of the Agricultural College is authority for this statement. He has investigated the cropping results with beans over the state, and finds that in most cases the same quantity of beans could have been produced on less ground.

A large acreage should be avoided by growers of limited experience. The production of this crop, as is the case with other farm crops, requires some definite knowledge that will come only with actual experience. A small acreage will furnish experience and produce results as well as a larger acreage, and at much less expense in money and muscular energy.

The bean is an economical food and also a good soil builder, but it is a most uncertain crop. Under normal conditions a fairly good crop may be produced. In wet weather pod rust and mildew are likely to attack the plants. In dry, hot weather the blossoms may blight and fail to pollenize. The plants and seed cannot stand the slightest frost.

Beans should be planted the last of May or the first of June. Occasionally a good crop is obtained when the planting is delayed until the first of July. At least ninety days are required for the crop to mature and if the season is dry it may take 120 days. The seed should be tested for germination before planting, as beans injured by frost will not grow, although they may look as good as others.

Most of the cultivation should be done before planting. It is necessary to work the ground in the spring enough to insure a firm seed bed. Fall plowing is recommended to conserve the moisture.

Beans are shallow-rooted and require shallow cultivation. The ground should be stirred after a heavy rain to preserve the moisture, but one must avoid working in the field when the vines are wet, as this practice will spread any disease that may have attacked the plants. Weeds should be kept down by hoeing if necessary, as they will interfere with the harvesting later.

Field beans grown in Kansas last year were largely of the pinto and navy varieties. The pinto is fairly drouth resistant, and is preferred when a dry summer and fall are to be expected. Navy beans were grown mostly in the eastern counties.

A Stitch in Time Saves Nine

A bolt in that hole will save a casting. Remember repairs are high this year and slow getting here after you order. A bolt missing or loose permits undue strain, causing some casting or part to break. An assortment of bolts will be a good investment this year.

A rainy day comes—there are several minor repairs and odd jobs that could be done in the shop or barn, if you could just remember what they were. A little notebook in the hip pocket will do the remembering for you if you'll just jot them down when you notice them.—Jewell County Farm Bureau News.

GRAIN SORGHUM PLANTING

THE planting of kafir and others of our grain sorghums on our abandoned wheat acreage is in line with our program of food production. These grains are bread grains, although it is as feed for stock that we commonly plant them. They are practically sure of making feed crops, and if the season is reasonably favorable, grain will be produced if adapted varieties are planted. This grain can be considered as human food and is capable of releasing an equal amount of wheat.

The seed is of low vitality this year and this makes it of more than ordinary importance to follow those practices most sure of giving a good stand. The corn is practically all planted, and probably a considerable portion of the grain sorghum acreage, but there still remains time to seed these crops in some sections of the state. In that most valuable bulletin, "Growing Sorghums in Kansas," C. C. Cunningham, its author, points out that the time to plant the sorghums varies with the season, the locality and the variety. The growing season in Southern Kansas is from two to three weeks earlier than in the northern part of the state. In Western Kansas planting must be somewhat later than in the eastern part of the state, because of the altitude. In the northeastern and north central parts of Kansas the sorghums are planted from the middle to the last of May, while farther south they may be planted from two to three weeks earlier. In Northwestern Kansas it is not safe to plant sorghum until the last of May, and in cold wet seasons it may be planted as late as the first of June. The sorghums are all hot-weather crops and will not germinate and grow satisfactorily in any part of the state until the ground is warm. When planted too early the plants make a slow growth, and weeds are likely to outgrow them, making it difficult or impossible to keep the crop clean. As a rule, sorghum should be planted about ten days later than corn in the same locality. The early sorghums may be planted later than those that mature late. Sorghum may be planted on dry soils earlier than on wet soils, because a dry soil warms up earlier in the spring. It is largely for this reason that they may be planted earlier in Western than in Eastern Kansas. In Southern Kansas, especially on thin upland, planting as early as conditions will permit is usually advisable in order that the plants will be well along toward maturity before the hot, dry weather of midsummer. Early planting also often avoids injury from kafir ants, which are likely to attack the germinating seed.

The grain sorghums with soft seeds, such as feterita and milo, are more easily injured by cool weather during the germinating period than other varieties. Feterita seed rots very quickly and should not be planted until the ground is thoroughly warm.

Sorghum for hay is usually planted later than for grain or silage. It can not be cultivated, and if weeds get started they are likely to crowd out the sorgbum. It is good practice to plant so the crop will be in the right stage for cutting late in the growing season, preferably just before frost.

Rate of Planting

It is often difficult to obtain a good stand of sorghum. The general tendency is to plant much too thick, with the bope that enough will survive to furnish a satisfactory stand. This practice is not the best, since if conditions for germination are favorable the stand will be too thick for the best results. A good practice is to plant from 50 to 100 per cent thicker than the desired stand, since there is almost always a considerable loss of plants from insect injury, rains and covering during the early cultivation. A small early-maturing variety should be planted much thicker than a large late-maturing one. The rate of planting should be thicker on rich, fertile soils than on poor soils, and where the rainfall is heavy than where the annual precipitation is light. Sorghum for grain is seeded at the rate of six to eigbt pounds per acre in Eastern Kansas and from three to four pounds per acre in Western Kansas. When grown for stover or silage, twice the amount of seed is used. When planted for hay broadcast or with a grain drill, from one to two bushels per acre is used, depending on the size of the seed and the type of the soil. A smaller amount of seed of Sumac sorghum than of other varieties may be used, because the seeds are smaller. Less than a bushel to the acre of any variety is usually not advisable. If seeded too thinly the stalks grow so large that they cannot be bandled conveniently, and a coarse bay of poor quality results.

Depth to Cover Sorghum

Sorghum seedlings are not as vigorous as those of corn or the other cereal crops. The seeds, therefore, should usually not be planted as deep. They should be placed in moist soil if possible, and covered deep enough to prevent drying out. The depth necessary to insure this is governed largely by the nature of the soil and by its moisture content at the time of planting. As a rule, one or two inches is about the right depth. On wet, heavy soils, one inch is usually sufficient, while on light sandy soils two inches and possibly more is necessary for the best results. Comparatively deep covering is necessary in Western Kansas to prevent drying. Feterita is more easily injured by deep planting than other varieties. Nor sorghum should be planted deeper than is necessary to insure germination.

The cultivation for sorghum should be the same as for corn in the same section. The principal purpose is to kill the weeds. If the ground is crusted by heavy rains, cultivation to break this crust is advisable. Otherwise considerable moisture may be lost by run-off or through evaporation. More cultivation than is necessary to kill the weeds and to keep surface soil in condition to absorb moisture usually does not pay. Many weeds may be killed by good preparation of the ground and by disking and harrowing before planting. The rotation of crops also reduces the damage from weeds. Proper attention to these matters will greatly reduce the amount of cultivation necessary.

During the early stages of growth the spike-toothed harrow can often be used to advantage on sorghum planted in furrows. Sorghum planted on the surface in the usual way is likely to be seriously injured by harrowing, especially if a heavy steel harrow is used. An ordinary corn cultivator may be used after the sorghum is too high to harrow. Six-shovel cultivators are considered better than those with only four shovels. Listed sorghum is usually cultivated with the lister cultivator, such as is used for corn. The lister cultivator is used twice, first with the disks set to throw the soil away from the plants, and second with them set to throw the soil to the plants. An extra cultivation is sometimes advantageous, throwing the soil either in or out. The cultivator should be set to kill or cover all the weeds in the row, as those which escape the early cultivation are difficult to destroy later. This applies to all early cultivation of sorghum, regardless of the method of planting or the kind of implement used.

The proper depth of cultivation depends on the time when the work is done; usually two or three inches deep is best. While the plants are small, and before the roots occupy the space between the rows, the ground may be stirred deep with good results. Deep cultivation early is often necessary where the ground has been single-listed without any previous preparation, as it is important that the ridge between the rows be thoroughly loosened After the roots spread through the soil it should not be stirred to a depth of more than three inches, preferably less. Practically all tests show that deep cultivation at this time does more harm than good.

Waste in Threshing

Wheat has never been a product of such importance as it will be this year. Kansas will be the first state to harvest and thresh wheat in any quantity and all eyes will be turned to our wheat fields in a month from the present time. Such is the demand for wheat for immediate consumption that threshing will follow harvest as rapidly as labor conditions will permit.

Harvesting and threshing are always rush jobs, and much waste results because of the feverish haste with which we drive these operations through. It has been conservatively estimated that last year the loss in Kansas due to wheat going over into the straw amounted to a half million bushels. There are many other preventable wastes. Last summer in several places careful threshermen followed up careless crews and made good money rethreshing straw stacks.

An attempt is now being made to forestall such losses in threshing this year's crop. A county threshing committee is to be formed in each county with the county food administrator as its chairman and a retired thresherman and the county agent, where there is one, as members of the committee. It will be the duty of this committee to do all within their power to prevent carelessness in threshing in their respective communities.

This is a good move and we hope it will have the hearty co-operation of all the parties concerned. It will mean additional money in the pocket of the wheat grower and we can ill afford to lose any of the wheat under present war conditions. It seems almost a crime to permit avoidable waste to take place when this grain is so vital to our war program.

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KANSAS FARMER DAIRY CLUB

Who is a Successful Dairyman?

A DAIRY farmer might be defined as one making the milking of cows the main project of his farm business, all his other lines of farming being worked out to fit into the main program of using milk cows to market the crops grown.

The milkman who sells whole milk to a town or city trade might not be a dairy farmer at all; in fact many of the men who try to sell a large amount of milk, either wholesale or by retailing it to their customers, produce only a very small proportion of the feed they use. This is a phase of dairying to which many risks are attached. The almost prohibitive prices of feed has compelled many of this class to sell their cows and go out of business.

The safest form of dairying is that which does not contemplate keeping more cows than the help available can handle and at the same time grow at least all the rough feed needed.

To succeed in dairy farming one must first of all have an inherent love for good dairy cows. There is no stock kept on the farm that is more responsive to good care and treatment. The man who would succeed in dairying must be progressive and must study closely the requirements of his cows. The production of milk is associated with motherhood, the milk primarily being secreted for the support of the young. The more nearly the man who handles a cow can take the place of the calf, the better the returns in milk production. It is for this reason that in the barns of the most progressive and successful dairymen all profane language and noisy scolding is prohibited. The men who work with the cows are not permitted to abuse them in any way. In fact the kind of treatment the cow gets contributes very largely to the flow of milk. The man who has been accustomed to handling cattle on horseback only does not as a rule take kindly to dairying. The methods of handling the cows are so different from those to which he has always been accustomed that he finds it very difficult to make the change.

Souring of Milk

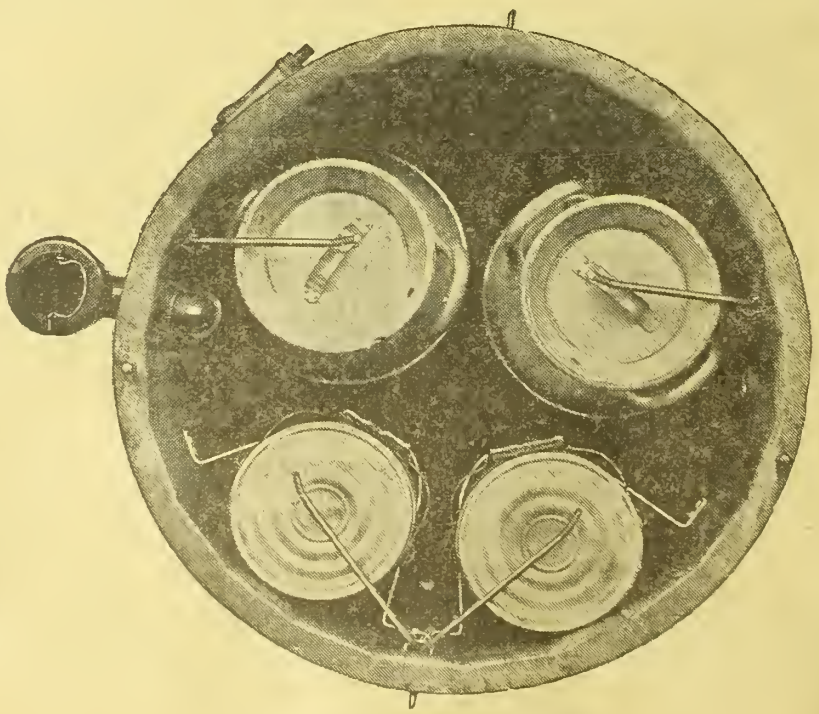
You cannot handle milk and cream successfully during the summer without having some means of cooling it quickly and keeping it at a low temperature. Souring of milk is almost entirely due to the action of bacteria which gets into it after it is drawn. These bacteria reach their greatest activity and multiply most rapidly when the temperature of the milk is high. They multiply very slowly at lower temperatures, and for this reason milk should be cooled as soon as possible in running water tanks, these being kept cool by a constant stream of water direct from a well. Souring is always hastened by lack of cleanliness in milking and handling the milk. The more dirt and dust or other foreign material that gets into the milk during this process, the more quickly will the milk sour. Keeping milk sweet and in good condition thus involves cleanliness and the use of some method of cooling it so that the bacteria getting into it in spite of the precautions taken cannot increase in numbers with sufficient rapidity to cause it to spoil quickly.

Milk should be strained as soon as possible after milking into the cans in which it is to be cooled. The pump should be going so that fresh water, direct from the well, will be flowing through the cooling tank. It may be possible to get along without a milk house or milk room, but the best results in keeping milk or cream in good condition will come from having a room planned for the purpose of handling it in the best manner possible. The cooling tank is perhaps one of the most essential features of milk room equipment.

Separate a Thick Cream

There are a number of good reasons for separating a cream having a high test. Cream might be considered simply as milk from which a considerable portion of the serum containing the casein, albumin, and milk sugar has been removed. If the separator does its work properly, practically all the butter fat globules will be in the cream. The skim milk will contain only the whey, milk sugar, casein, and albumen. In skimming a thin cream there will be a relatively large amount of cream in the cream can. For example, in skimming a cream testing 25 per cent, the cream will contain 75 per cent or seventy-five pounds to the hundred of other material than butter fat. In skimming a 50 per cent cream the cream can will contain only fifty pounds to the hundred of skim milk, or the same amount of butter fat will be contained in half the quantity of cream.

In figuring the advantage of skimming the thick cream, we can perhaps place first the extra amount of skim milk saved for feeding to the various farm animals, such as calves, pigs, and chickens. The cream sells to the creamery strictly on the basis of the butter fat it contains—you receive nothing for the skim milk. The thick cream is more easily cared for and kept in good condition than the thin cream, since there is a smaller quantity to handle. In the matter of transportation there is less express to pay and less weight to haul to town. All of these advantages have a distinct money value. If you are selling cream on the basis of butter fat for butter making purposes, set your separator to skim a thick cream and save all the skim milk and labor and expense possible in handling the product.



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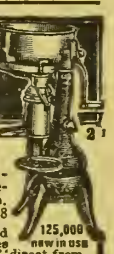

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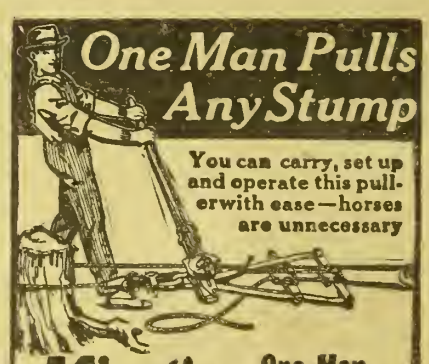

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County Holstein Association

Dickinson County, the home of the Pioneer Cow Testing Association, now has a county Holstein Breeders' Association. The cow testing association was a big forward step in the dairy farming of this county. Practically none of the dairymen were keeping record on their cows prior to the forming of this testing association. Some of the original members dropped out after the first year because they found they were losing money. Not desiring to change their methods, they simply quit milking cows and took up other lines of production. The greater proportion of the members, however, accepted their shortcomings, as shown by the detailed figures of the cow testing work, as a challenge to do better.

There is now no more prosperous-appearing community in Kansas than the dairy farming section of Dickinson County. On every hand as one drives through are seen evidences of thrift and prosperity. There are fine farm houses, modern barns and silos, garages, and other improvements on practically all the farms where dairy farming has been consistently followed for a period of years.

With the adoption of better methods and improvement in the capacity of the cows for production came naturally the desire to have pure-breds instead of grades. The results of the cow testing work demonstrated the value of good dairy breeding. The good grade cow owes her character as a producer to her pure-bred ancestry. Herd after herd in this county has been changing from grades to pure-breds. Holsteins have been the most favored breed and now the Holstein breeders of the county have perfected an organization which will help them to direct attention to the fact that here in this county where dairy farming has so long been intelligently practiced will be found a large number of pure-bred herds of this well known dairy breed.

Why Dairying Is Profitable

In estimating the value of a cow it is not fair to consider only the cash returns from the cream produced. It is always well for the dairyman to find out whether his cow produces enough butter fat to make her profitable from that standpoint alone, but in figuring the profits of dairying we should not lose sight of the other sources of revenue which come from milking good cows.

In estimating whether a cow is profitable or not, many dairymen have figured that she must produce at least 140 to 150 pounds of butter fat in a year. This is a better return of butter fat than comes from the average cow milked in Kansas. Based on butter fat alone this production would be very discouraging. This amount of butter fat is far below the standard which every dairyman should set for his herd. This amount of butter fat, however, under normal conditions will pay for the actual cost of feeding a cow for a year, allowing good prices for the feeds consumed. The other sources of revenue, however, should also come in for consideration. It is possible to figure at least seven different sources from which revenue comes in handling dairy cattle.

First, there is the butter fat, which should return a revenue of about $105 a year for 300 pounds of fat at 35 cents a pound.

Second, a certain amount of milk and cream produced by the cow is used by the family for table uses is milk, cream, and butter. The value of this should not be overlooked.

Third, the calf immediately after its birth requires a certain amount of whole milk as feed until it is old enough to be fed on skimmed milk and other feeds. The value of this milk required by the calf is equal to that of any of the whole milk produced by the cow.

Fourth, there is the value of the calf at birth amounting to from $3 to $10.

Fifth, there is the skim milk fed to calves, pigs and chickens. The skim milk is worth at least 25 cents a hundred pounds for feeding purposes.

Sixth, the manurial element is extremely valuable as a means of maintaining the fertility of the soil. The amount produced annually by a cow reaches about 17,000 pounds and is worth about $2.50 a ton, based on the commercial value of the three important fertilizing elements it contains, namely, nitrogen, phosphoric acid and potash. The value of this yearly product, therefore, is about $20. This is on the basis of pre-war prices of fertilizers. They are much higher now.

Seventh, when her use for milking is over, the cow still has a value for beef. The amount of this value, of course, is determined by the market conditions.

To determine the real value of the cow, therefore, the value of the butter fat should not alone be considered. Due credit should be given to the six remaining sources of revenue.

Dairy Club Honor Roll

The April feed and milk records were received promptly at the end of the month from the following club members:

Thelma Adams
Harold Bentz
Claude Carter
Gary Cook
Alfred Davis
Floyd Gerardy
Frank Greenlee
Merrill Greenlee
Melvern Lee
Theresa O'Mara
Elise Regier
Glen Romig
Roland E. Roney
Hazel Shriver
Paul Studdard
John Voorhees
Ernest A. Worthington.



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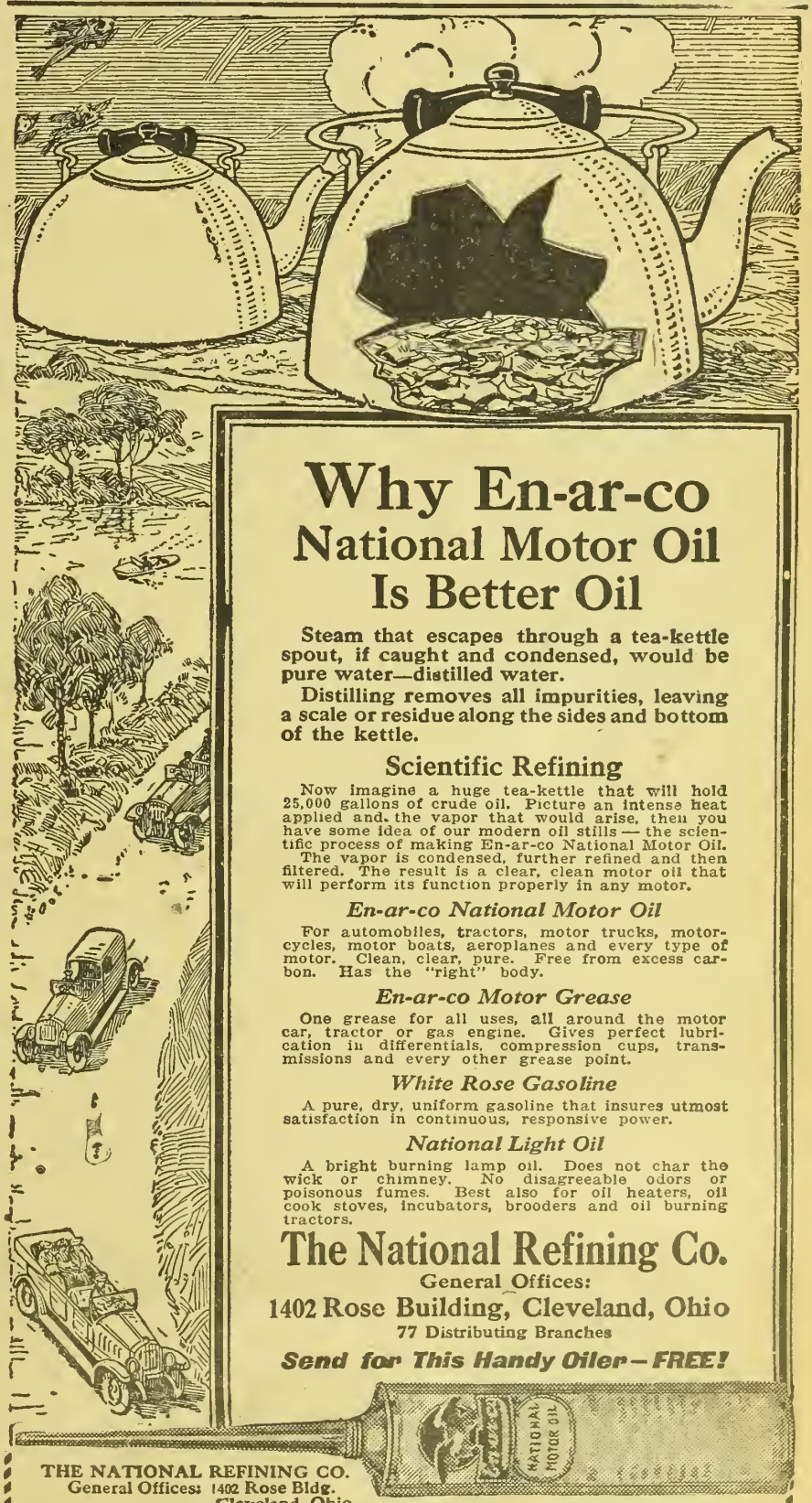

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Now imagine a huge tea-kettle that will hold 25,000 gallons of crude oil. Picture an intense heat applied and the vapor that would arise, then you have some idea of our modern oil stills — the scientific process of making En-ar-co National Motor Oil. The vapor is condensed, further refined and then filtered. The result is a clear, clean motor oil that will perform its function properly in any motor.

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A pure, dry, uniform gasoline that insures utmost satisfaction in continuous, responsive power.

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Mother to Child

For the sake of my child I must hasten to save
All the children on earth from the jail and the grave,
For so, and so only, I lighten the share
Of the pain of the world that my darling must bear—
Even so, and so only.
—Charlotte Perkins Gilman.

Let All Who Can Do More

Doing the best we can do, there will not be enough wheat to meet all needs. We cannot make up the submarine losses nor replace the spent reserves.

Doing our utmost, not everyone in this country can keep within the allowance. Masses in crowded cities, with no proper kitchen outfits, depend on bakery bread and ready-cooked food. Their habits are controlled by their circumstances.

Those who can must de more to maintain the margin.

Some wheat in any case must be brought from Argentine, the less the better. For every voyage to the Argentine is the same as taking two vessels from the short Atlantic ferry. Every vessel taken from that traffic keeps a regiment from the front.

Going without wheat adds directly to our forces in battle. Going without wheat loosens the shipping tension which limits our armed strength.

A splendid response comes instantly. Hundreds of hotels have pledged themselves to go without wheat until harvest. Households, communities, counties all over the land have cut down wheat to the limit or given it up altogether.

But the best we can do is too little. Let all keep within the allowance of not to exceed a total of one and one-half pounds per week of wheat products per person. Let all who can do more.

When to Begin Care of Baby

By Mrs. Max West

Mothers are just beginning to realize that the better care which babies must have if 100,000 of them are to be saved during Children's Year should commence before the baby is born. Every year three times that number of children under five die and are lost to the country before they have lived beyond infancy. A large part of this vast multitude of young Americans perishes needlessly, because many of the deaths could have been prevented by proper and sufficient care.

At what age do most of these preventable deaths occur? What are the proven methods by which babies' lives may be saved? From the answers to these questions mothers will appreciate the special work for children which they can do during Children's Year.

The first and largest number of deaths among little babies is due to what are called the pre-natal causes. This group includes the babies which were born prematurely or too weak to survive, perhaps with some defect of the body which forbids their living, and also those who are so injured by the birth process that they can not be saved. All of these causes of death are effective either in the period of pregnancy or at childbirth itself. The babies' lives can be saved only if their mothers have proper care at these most important periods.

The essential features of good care for expectant mothers are proper and sufficient food, rest, freedom from overtaxing forms of work and from worry, medical supervision of her general condition and prompt attention to small ailments as they arise. A prospective mother needs a light, nutritious diet of digestible foods such as she likes and her appetite demands. Fried and greasy foods, heavy puddings, and all heavy and underdone pastries, or an excess of any one article, should be eliminated from the diet, as well as anything she does not readily digest. It is also important that the expectant mother should drink a sufficient quantity of water each day.

During the last eight weeks before the baby comes the mother should as far as possible be spared all forms of heavy and taxing labor, in order that her strength may be built up in anticipation of the coming demand upon it. The baby's proper development also depends largely upon the mother's condition at this time, since the baby gains half his weight in the last eight weeks of pregnancy. The mother's ability to nurse her baby depends largely upon the care she has during these last weeks and immediately after confinement.

The mother should be under the care of a good doctor as long before the birth as possible in order that he may watch for and correct any untoward symptoms that may arise. It is exceedingly important that the ailments of pregnancy be dealt with in the beginning before they develop into more serious matters. At the first appearance of swollen hands and feet, or persistent headache, or pain in any part, of hemorrhage, or of spots before the eyes, a good doctor should be called. It is much easier and far cheaper to see that mother and baby have the right kind of food and proper care during the brief period before birth than it is to undo the results of improper food and care at this decisive time.

The Children's Bureau, Washington, D. C., will send to any one asking for it a pamphlet giving simple directions to mothers-to-be. The bureau will upon application furnish information to associations or communities as to starting prenatal clinics or consultation centers for mothers, where the services of a good doctor are made readily available for all mothers.

Value of Country Life

The great, great beauty and value of country life for the child lie in his closeness to Nature and all sorts of natural processes which go on about him. But even here he needs his mother's help, for without it he must lose much time in misdirected effort. When he is so tiny that he can only look on, his mother, if she is wise, will see to it that he has a chance to look on, that he sees the horses watered, the cows milked, the chickens fed, the garden planted, the butter made, the washing done and the hay cut. As fast as he can understand, she will give him a simple explanation of all these vital events, and as soon as he is strong enough to take part in these activities she will use her ingenuity to devise ways for him to take a genuine part in the family life. Of course he will bother more than he helps at first, and nobody but his mother will have the patience to respect his bungling attempts to join the work done about him. But to her they will be inestimably precious and necessary for his development and she will take the greatest pains not to discourage him. If in addition to the hand-work mentioned above, the country mother will see that her children are not cheated out of their birthright of a share in the processes of country life, she need have small fear for their health, happiness and moral development. — DOROTHY CANFIELD FISHER, for U. S. Bureau of Education.

Little Americans
Do your bit



Eat Corn meal mush-
Oatmeal-Corn flakes-
Hominy and rice with milk. Eat no wheat cereals.
Leave nothing on your plate.
UNITED STATES FOOD ADMINISTRATION

For the Gardener

A circular on Spanish peppers has been prepared by the Bureau of Plant Industry of the United States Department of Agriculture, for members of boys' and girls' clubs who are making demonstrations with this garden product. Directions for growing the plants and canning the peppers, and recipes for the use of both fresh and canned peppers, are given in this pamphlet, which may be obtained by writing the Division of Publications, U. S. Department of Agriculture, Washington, D. C.

Yours an Age-Old Task

In this great hour it is necessary that all women live greatly. At the battle front they have performed prodigies of valor and have been decorated with the Cross of War for heroism under fire. You too would like to drive an ambulance and bring out the wounded under shell fire; but the work behind the lines is even more important. It is not the single act of heroism that will win the fight, but the steady sticking to the job.

Do not be confused; let nothing turn you aside. It is not a new task that you are called to, but the age-old task of feeding the family. Like the tribal woman of old we have sent forth our men children to war, and we must take up the great first task of fending for the family. But unlike that tribal woman whose horizon was bounded by the tribal hunting ground, our horizon is the world. Our family that must be fed is made up of the great nations whose armies united under a single leader are facing the enemy. For those women who have eyes to see, this is the coming back into a lost kingdom.

Meatless Day Suspended

The Food Administration has suspended meatless day and meatless meals for the present. The thing that is of greatest importance now is the saving of wheat. Two wheatless days a week — Monday and Wednesday — and one wheatless meal each day, is what we are now being asked to observe.

It will not be a difficult matter for the resourceful housewife to plan wheatless means with the restrictions removed from meat and with fresh vegetables coming on.

A Tragedy in Four Acts

I.
Pretty cottage,
II.
Faulty flue;
III.
Cottage burned,
IV.
Owner too.
—Fire Marshal's Report.

For Wheatless Meals

Co-operating with Uncle Sam to make his food supply "reach around" to all of us and to our Allies, too, has become an interesting matter to American housewives.

Boston brown bread served with beans has been found an aid in planning the meatless as well as the wheatless meal. Who should care with meat along with baked beans? One can bake the beans on ironing day to conserve fuel, or can use the fireless cooker.

The following proportions of ingredients will make three loaves of Boston brown bread: One cupful rye meal, one cupful corn meal, one cupful graham flour, three-fourths teaspoonful salt, two teaspoonfuls baking soda, two teaspoonfuls cream of tartar, two cupfuls sour milk, one-half cupful molasses. Another cupful of graham flour may be substituted for the rye meal. This recipe saves seven cupfuls of white flour which would be used in making a similar amount of white bread.

Mix the dry ingredients thoroughly.

Turn the molasses and sour milk into a mixing bowl, add the dry ingredients, then turn at once into oiled molds, filling only two-thirds full. Steam at least three and one-half hours, remove from the molds and dry in the oven for a few minutes.

Good molds may be made from one-pound baking powder cans. Pierce holes in the lid to allow the escape of steam. A steamer may be made by using a kettle or bucket with a support in the bottom to allow the molds to rest upon and prevent water from coming above the lower ends of the molds.

In following this recipe for corn bread the housewife saves six cupfuls of white flour which would be used in making a batter the consisteney of corn bread. Use three cupfuls of corn meal, one tablespoonful sugar, two teaspoonfuls salt, four tablespoonfuls melted fat, two cupfuls sour milk, and two teaspoonfuls soda. Sift together the dry ingredients, add milk, a beaten egg if you wish it, and fat. Bake for thirty minutes.

The corn dodgers deseribed have been tested by persons who were raised in the South. No leavening agent is used, and the application of much heat during a long period of time brings out the rich flavor of corn meal. There is a comparatively large amount of crust, but many persons like corn dodgers for this reason. The following receipe makes six dodgers, saving three cupfuls of white flour: Three cupfuls corn meal, one teaspoonful salt. one and one-fourth teaspoonfuls sugar, one-fourth cupful fat, and one cupful scalded milk or boiling water. Mix dry ingredients and melt the fat. Scald the corn meal with boiling water, and cook for five minutes, stirring well. Add fat and cool, then shape with tablespoon or hand. Cook in a hot oven one hour.

Left-over breakfast food may be utilized in making oatmeal muffins. The following receipe makes twelve muffins: One and one-half cupfuls cooked oatmeal, two and one-fourth cupfuls flour, three-fourths cupful sour milk, one or two eggs, and three teaspoonfuls melted fat. Mix and sift the dry ingredients, add one-half the milk, then the well-beaten egg, and the remainder of the milk mixed with oatmeal. Beat thoroughly, then add the fat. Bake in hot oiled gem pans. The cooked oatmeal used should be old and thick.—CHARLOTTE RUSSELL.

Hot Milk Drinks

Hot milk is the most restful of drinks when one is tired, and a sleep-inviting drink before going to bed. Hot milk is an agreeable change to offer children, and a real addition to the supper meal. Why not hot milk between meals instead of the customary piece of bread? Bring the milk to a simmer but don't allow it to boil.

COCOA.—Children should have milk, yet some dislike it. Cocoa, the universal favorite, is a solution. Cocoa and bread makes a good supper. For children, less cocoa can be used than the receipe calls for and they like it just as well.

1 teaspoonful cocoa
1 teaspoonful sugar
½ cupful water and ½ cupful milk, or
1 cupful milk.

Mix the sugar and cocoa and stir in enough boiling water to make a paste. Add one-half cupful boiling water, cook fifteen minutes. Add milk, heat, and serve. If all milk is used, boil the cocoa and sugar with just enough water to make a thin paste. Then add the milk.

FRENCH COFFEE.—For the grown-ups this is a nourishing drink as well as a stimulating beverage.

Make strong black coffee and while hot add to it one-third or one-half as much scalding milk. Cover and set in boiling water until needed. Add cream when served.

EGG BROTH.—This hot drink is a meal in itself. It is especially useful in the diet of babies over a year old and for invalids:

1 egg
½ teaspoonful sugar
1 teaspoonful butter
1 pint hot milk
½ teaspoonful salt.

Beat egg and sugar together; add hot milk and butter and beat thoroughly. Add salt and serve at once.

Potatoes a la Golden Rod

2 cupfuls cubed potatoes
4 hard-cooked white eggs
4 hard-cooked egg yolks
1 cupful white sauce
1 tablespoonful parsley
½ cupful cheese, grated
1 green pepper
Buttered bread crumbs.

Cook and drain potatoes. Separate yolks from whites of eggs. Chop the whites, mash and season the yolks and force through a sieve. Add potatoes, parsley, chopped green pepper, chopped whites and cheese to the white sauce—prepared by thickening one cupful of milk with two tablespoonfuls of flour and adding two level tablespoonfuls of butter, meat fryings, or other fat. Turn into a baking dish. Sprinkle the yolks and buttered bread crumbs over the top, and brown. The crumbs are buttered by melting one tablespoonful of fat in a pan, adding four or five tablespoonfuls of bread crumbs and mixing thoroughly.—MIRIAM HAYNES, Colorado Agricultural College.

Steam Pudding

1 egg, well beaten
1 cupful sorghum molasses
1 cupful seeded raisins or dates
1 cupful sweet milk
1 teaspoonful soda dissolved in a little of the milk
Lump of butter or lard size of walnut
3 cupfuls of graham flour.

Steam two hours and serve with the following lemon sauce:

1 cupful boiling water
1½ tablespoonfuls cornstarch
½ cupful corn syrup
1 tablespoonful butter
1 lemon, juice and grated rind
1 egg yolk.

Mix the cornstarch with the syrup and add it to the boiling water. Cook the mixture until it thickens, stirring it constantly. Add the butter, the lemon juice and rind, and the beaten egg yolk. Cook the sauce until the egg thickens.—MRS. EMMA CHRISTIE, Topeka.

Home-Made Yeast

The following recipe for home-made yeast is used by Mrs. F. L. Stevens at the University of Illinois School for Housekeepers:

2 cupfuls water
1 cake dry yeast
2 tablespoonfuls sugar
2 tablespoonfuls flour
½ cupful boiled mashed potato
¼ teaspoonful salt.

Soak yeast in one cupful of water. Mix dry ingredients, add mashed potato and the other cupful of water. Add soaked yeast, beating it thoroughly. Let rise over night. The yeast will be ready for use in the morning.

The man or woman, whether rich or poor, who is voluntarily idle in this hour of the nation's need, is a slacker and is aiding the enemy little less than those under arms against us.

"A mule," said Uncle Eben, "should be a warnin' against kickin'. De better he does it de more unpopular he gits."—Our Dumb Animals.

If I speak with the tongues of men and of angels and have not love, I am become sounding brass or a clanging cymbal. And if I have the gift of propheey and know all mysteries and all knowledge; and if I have all faith so as to remove mountains and have not love, I am nothing. And if I bestow all my goods to feed the poor, and if I give my body to be burned but have not love, it profiteth me nothing.—THE APOSTLE PAUL.

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This department is prepared especially in New York City, for Kansas Farmer. We can supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10 cents each, postage prepaid. Full directions for making, as well as the amount of material required, accompanies each pattern. When ordering, all you have to do is to write your name and address plainly, give the correct number and size of each pattern you want, and enclose 10 cents for each number. We agree to fill all orders promptly and guarantee safe delivery. Special offer: To anyone ordering a pattern we will send the latest issue of our fashion book, "Every Woman Her Own Dressmaker," for only 2 cents; send 12 cents for pattern and book. Price of book if ordered without pattern, 5 cents. Address all orders for patterns or books to Kansas Farmer, Topeka, Kansas.



No. 8327—Ladies' Sport Coat: Cut in sizes 34 to 42 inches bust measure. This coat is one of the best that has been brought out this season, for it has good lines, is easy to make, and has the latest style features, such as the pointed collar which is convertible, and the pockets which stand out from the coat, giving the new barrel silhouette. A narrow belt o the material slips under the pockets, and one end is shrown over the other in front. **No. 8349—Boys' Russian Suit:** Cut in sizes 2, 4 and 6 years. The Russian suit shown is one of the most popular styles that has ever been designed for boys. The blouse is single-breasted and may be bade with long or short sleeves. The three good sized pockets will be a delight to the small boy. Straight knee pants are included in the pattern. **No. 8342—Ladies' Waist:** Cut in sizes 36 to 42 inches bust measure. The plaited fronts of this waist give it a softness of line which is very becoming. The center front closing is trimmed with three large buttons, and the convertible collar may be worn open or buttoned snugly about the throat. The regulation long shirtwaist sleeves may be finished with either of two styles of cuffs. **No. 8338—Ladies' Apron:** Cut in one size. Whether she be a busy housekeeper or a garden lady, she really ought to have several of these handy slip- on aprons, as they are inexpensive and quickly made, and they afford ample protection for the dress. The pattern is cut exactly like a butcher's apron and it is all in one piece. A band which slips over the head easily, buttons at the side of the front. **No. 8328—Children's Dress:** Cut in sizes 4 to 12 years. One of the best liked styles for the junior girl is the ever popular suspender dress. This dress is quite simple and girlish, but yet it is distinctive. The separate guimpe closes at the center front, and the sleeves may be elbow length or long ones gathered into cuffs. A one-piece straight gathered skirt closes at the center back. **No. 8340—Ladies' House Dress:** Cut in sizes 36 to 44 inches bust measure. This is a model which is especially good for a working dress, as it may be slipped on and fastened in a jiffy. The long or short sleeves may be used, but the latter are really more practical for general wear. The skirt is in three pieces, the right side lapping far over onto the left side, and the back is gathered at the slightly raised waist line.

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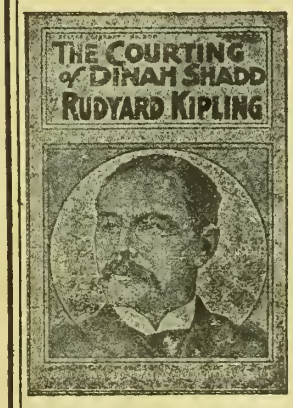

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BARRED ROCKS THAT PRODUCED 175 eggs each in 1916; 120 eggs seven months, 1917. Four ribbons, 1917. Pens standardized, Hogan system, eggs, $2 per fifteen, $10 hundred. Mating list free. For sale, two pens, to make room for young chicks. Write Farnsworth, 224 Tyler St., Topeka.

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CHOICE SILVER LACED WYANDOTTE eggs, fifteen $1.25, fifty $3.50, hundred $6. Mrs. Philip Schuppert, Arrington, Kansas.

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SEVEN GRAND PENS ROSE COMB REDS headed by roosters costing $15 to $50. Fifteen eggs, $3; thirty eggs, $5; fifty eggs, $8. Special utility eggs, $7.50 per hundred. Baby chicks. Catalog. W. R. Huston, Americus, Kansas.

THE STRAY LIST.

TAKEN UP—BY ARTHUR KEMP, GRANT Township, Sherman County, Kansas, one three-year-old black male mule, appraised at $120. Doris E. Soden, County Clerk, Goodland, Kansas.

In transplanting tomato plants, they should be dug instead of pulled from the hot bed or place in which they are grown. Pulling destroys too many of the roots and a poor stand will result. If the roots have been badly damaged, a considerable portion of the stem can be covered with dirt in setting. This will sometimes save a plant that would have been lost otherwise. It is always a good plan to guard against cutworms by placing a cardboard band, two or three inches in diameter and three or four inches high, around each plant as it is set. These bands should extend into the ground about an inch.



Working The Broody Hen

MOTHER'S way of breaking the setting hens was to shut them in a rail pen called the jail for three or four days on an allowance of bread and water, usually without the bread. This was a practical method for the farmer's busy wife twenty-five years ago when eggs were 10 cents a dozen and feed was proportionately cheap. But with conditions as they are at present it behooves us to make the hens lay as soon as possible after an attack of brooding fever begins.

Accordingly it is best to feed plenty of protein food, fresh water, and grass, and have the hen laying again in a few days rather than to put her out of commission for a much longer period by starving her while shut away from the flock.

A very satisfactory method is to build an A-coop with base about four by six feet and three feet bigh. Place a door in one end and cover this end—or about half the coop—with boards and rubberoid or other roofing. Cover the rest of the frame with poultry wire. A coop of this kind gives protection from sun and cold rains and applies fresh air treatment that aids greatly in curing the incubation fever.

By moving the coop to a fresh spot of grass with each lot, it is easily kept clean. As it requires from two to four days to effect a cure, it is well to bave at least two such coops. Some hens will sit on the nest in the daytime only, for several days. Such bens may be found by their clucking at feeding time and caught with a wire hook, or if the flock is not too large they may be noted and taken from the nest the following day. Not all hens that scold or peck when on the nest are broody. The quicker a hen is given new quarters after starting to cluck, the easier it is to get her to work again.

In addition to clean water and grass the hens sbould have a box of egg mash and be fed wheat screenings, barley, or oats. Corn is too heating. Clabbered milk, if fresh and clean, is a valuable feed for all chickens, and especially so for the broody hen.

Hens treated as directed above will probably lay 50 to 100 per cent more eggs than if daily thrown from the nest, as practiced by some poultry keepers.— FRANK UHL, Manbattan.

Profitable Age for Fowls

The question as to wbich is the most profitable breed of fowls is very frequently asked. There are undoubtedly differences in breeds, but undue importance should not be placed upon breed. Tbe trap nest has shown that there is more difference in individuals than in breeds. Breed isn't everything. We must get away from that idea in poultry keeping. If a man starts in tbe poultry business, and bas with it the notion that breed is everything, he will meet with inevitable failure. The breed may be all right, but the fowls must be encouraged to do tbeir best by good care and management. When eggs are firm at 40 cents a dozen and the hens fail to respond, the owner is likely to become unreasonable and take up with anotber breed, and most likely the fault was not in the breed. The fault is usually onc of two things: either the hens are of a poor or non-productive strain of the breed, or the management is poor.

It is a point of management that I wish to speak of here, one point in many that must be taken into account if poultry keeping is to be made a success. It is a question of the most profitable age of the hen. Poultrymen who have kept in touch with poultry investigations during the past few years are pretty well informed on this point, but the importance of this subject is not yet generally appreciated. The writer carried on for several years at tbe Utah Experiment Station a line of experiments with the object of determining the value of the hen at different ages of egg production. The same hens were kept year after year under similar conditions and a record kept of production and of food consumed. These experiments proved that the hen is different from the cow, which retains or improves her productivity with age. The first year was the most profitable, and there was a gradual decrease in productiveness each succeeding year. It is safe to figure this decrease at 25 per cent each year. Witb average prices for food and for eggs it is not profitable to keep hens after they have finished their second year of laying. The first, or pullet year, is very profitable, tbe second will give a satisfactory profit, but during tbe third year the egg yield will seldom pay for the food consumed.

These conclusions apply only, of course, where tbe eggs are sold at market prices. Fowls tbat have a special value as breeding stock should be kept longer, but the notion tbat "tbe old speckled hen" is the good layer should not be cherisbed unless she is caugbt in tbe trap-nest. The fact that she sings a joyful lay, paints her comb a brilliant red and scratches a vigorous scratch, should not be accepted as sufficient ground for commuting sentence.

It is safe to say tbat the poultry keepers of tbis state would be many thousands of dollars in tbe pocket by vigorously killing off the hens every two years and replacing tbem with new stock —with the exceptions noted above.

Where tbe pullets and hens are allowed to run together it will be necessary to mark tbem; otherwise it will be difficult to separate the old stock from tbe young when it is desired to market tbem. The usual method of marking is to punch a bole in the web between the toes when the chicks are hatched. Tbis is easily and quickly done witb a punch wbich may be purcbased from the poultry supply houses for 25 cents. A number of different markings may be made in this way. Where the practice is to dispose of the hens every two years it will be sufficient to mark them every other year.—JAMES DRYDEN.

Leghorns for Meat

The Leghorn fowl owes its popularity so largely to its egg-producing capacity that the meat possibilities of tbe breed have been neglected by most Legborn breeders. Such failure to recognize the potential food value of birds kept to produce a special food product may have been excusable under pre-war conditions, but in the present need for utilizing to the full every capacity of every food-producing animal, breeders of Leghorns sbould give due attention to tbe development of their table qualities.

Discussion of tbe meat value of a breed must note and take due account of tbe fact that tbe markets—tbat is, the dealers and consumers—do not recognize breed differences in poultry, except as in a few localities particular breeds may be generally kept and may become known locally, or in special trade lines for excellent table quality. The poultry breeder, therefore, in planning how to make the most of the meat values of his stock, considers what market demands can be filled with poultry of the breed whicb he keeps.

Average Leghorn hens weigh only about three pounds alive. Many of them will dress only two to two and a half pounds. This is not a desirable size for a table fowl, being too much under the weights (four to five pounds) which most people prefer when buying a fowl.

Besides being small herself, the average Legborn ben produces cbicks so small that they do not remain very soft-meated until they have reached tbe size the market demands in broilers, and so the cockerels can not be sold for poultry at that stage with the same profit as cockerels from larger stock.

The standard weights for mature Leghorns are: Males, 5½ pounds; females, 4 pounds. By making tbese the minimum weights for birds used in breeding, and by giving the preference to the largest specimens that show Leghorn type without coarseness, strains of Leghorns may be developed that with no loss of laying capacity have considerable merit as table fowls in a limited range of uses.

Leghorn hens which alive weigh four pounds or more are heavy enough to meet the demand for dressed fowls a little under the weights generally pre-

ferred, and there is enough demand for fowls at this weight to take all the supply.

The cockerels bred from hens of four pounds weight and over, if properly grown, will make broiler size as quickly as the chicks of most of the larger breeds. They will also be soft-meated up to about two or two and a half pounds weight. After that they are apt to harden quickly and their flesh is not so tender. Leghorn cockerels produced from very large males and females—that is, from males that weigh upward of six and a half pounds and females upward of five and a half pounds—frequently keep quite soft-meated until they reach four to five pounds weight. Such birds make very satisfactory small roasters for home use, though they will not sell as well on the market as birds of the same weight of a slower-growing breed.

Even when good-sized Leghorns are used for breeding, the chickens will not make good poultry unless they are well grown. In a measure this is true of any chickens; those that are poorly grown never make the development or have the table quality of those that are well grown.

But, the Leghorn breed being at the lower limit of size for good table poultry, and the cockerels having a tendency to become hard-meated at an early age, good growth is absolutely essential if passably good table quality is to be secured.

Save the Chicks

No doubt there has been millions of baby chicks hatched this season. The percentage of these which mature and develop into strong, vigorous and profit-making birds is a question which should concern every poultry raiser.

Much of the loss of young chickens in summer months can often be traced to the lack of shade. If the young stock is not protected from the hot sun on a summer's day the chicks are certain to be dwarfed to a great extent and deaths are sure to result. The drinking vessels should be kept in the shade and the fowls given protection from both sun and rain. If you can't provide for a corn field near the poultry yards, then sow some sunflower seed, set out some cherry trees, or place grape vines around the fences surrounding the poultry yard, or provide shade in some other way that will not detract from the appearance of your place. You had just as well grow a crop of grain or a crop of fruit on land on which you raise poultry as not. If you can't provide shade in any other manner, drive some stakes and cover them with a light frame, and on this tack some burlap, canvas, or something of this nature. This will give the birds a comfortable resting place on a hot summer's day.

Neglecting the drinking pan, especially during warm weather, and allowing the chicks to go without water, sour milk or buttermilk during the hot days of summer will cause greater injury to the young stock than the lack of sufficient food. Also the use of stale, dirty and stagnant water will often lead to a complication of chick diseases and digestive disorders. Water is very cheap in price and it is pure neglect on the part of the poultryman to allow his chickens to suffer for water. A man who neglects to keep fresh water before his chickens at all times does not deserve to succeed. Moisture is an absolute necessity in the life of the young chick for the following reasons: (1) To soften the food in the crop; (2) to dilute concentrated food; (3) to regulate the temperature of the body; (4) to aid in the digestion and assimilation of the food; (5) to carry nourishment throughout the body; and (6) to carry waste out of the system.—T. E. QUISENBERRY.

Charcoal Valuable Remedy

Charcoal is one of the very best preventatives that can be given to fowls to guard against the many diseases they are incident to, and it can be procured very cheaply and on every farm. A very excellent charcoal can be made by burning corn cobs till they turn red, extinguishing the fire and, when dry, grinding small enough for the hens to eat.

Charcoal is not a food, though fowls gain in flesh and egg production through its use; it simply puts them in good condition for work. It prevents disease because of its great capacity to absorb gases, acids and impurities. It is an alterative, changing diseased conditions to normal, disinfecting the digestive tract and toning up the system.

In putrid diseases, like roup, in fermentations, like sour crop, in intestinal maladies, like diarrhea or cholera, it is of great benefit. In spring and in summer, when the fowl's blood is sluggish, it is needed as a purifier to ward off diseases incidental to these seasons.

It should be kept before the fowls in size to suit their age, and where fowls refuse to eat it in the kernel form, fine ground charcoal should be mixed in the mash occasionally.

Where corn cobs are not at hand, charcoal can be made by burning any wood till it gets to live coals, then extinguishing the same before the wood is burned to ashes. Where one uses wood for fuel enough charcoal will be found in the ashes to supply the average flock of fowls.

Boys and girls should be encouraged to start in the poultry business. It requires little money to invest, and the current expenditure may be reduced in part by utilizing farm and home wastes. If the project begins with a laying flock the return begins early, especially by supplementing the food supply of the home.

All farmers should keep pure-bred poultry. There is no economy or profit in common barnyard stock. They eat no more, and certainly an intelligent farmer prefers the blooded fowl, and will keep it and no other. A good farm should naturally demand good stock; certainly they are in harmony with each other. Keep your fowl on the same footing that you keep your cattle, and you will surely be rewarded.

Cold, damp, poorly lighted and ventilated poultry quarters favor the spread of such diseases as roup. Such contagious diseases as these are difficult and sometimes impossible to control unless given attention in the early stages. Wherever preventive measures fail, separate sick birds from the flock as soon as there is evidence of disease, and then consult expert advice to effect a cure.

Not only is there a flock of poultry on nearly every farm in the country, but in towns and cities flocks are not rare. With the present high price of eggs even a more general interest should be taken in poultry raising. Too frequently the home flock consists of a mixture of breeds. Pure-bred poultry are more profitable.

Water is in ceaseless demand in the hen's body and is as essential as feed. Many well-fed hens do not lay because they do not have the water necessary in the formation of the egg. Lack of water is a chief cause of hens on the farm not laying in winter. The water must be clean, pure and palatable and within reach of the hen whenever she wants it. She will not drink enough if the water is lukewarm in summer or when it is mixed with ice in the winter. Infected water is as dangerous for hens as for humans and as likely to bring disease.

Save Man Power

Now, when saving farm labor is a matter of vital national importance, it is of the utmost importance that the use of large implements be generally adopted by those farmers who are still following the traditional two-horse method on three-horse or five-horse farms. Last year many farmers, speeding up their work by more efficient methods, were able to increase their crop acreage in the face of a decrease in help. This practice must become more general, in the opinion of officials of the United States Department of Agriculture, if production of food is to be increased.

Not many years ago the majority of farmers drove two-horse teams. This practice is still common in some sections of the country, while in others larger machines and teams of larger size are used. That the latter practice can be increased to the advantage of the farmer as well as to the nation seems certain. If such practice, desirable at all times, is adopted where present conditions demand, in all probability it will become habitual when normal conditions are restored.

"All the resources of the country are hereby pledged"—now is the time to work them to the limit.

Soft-shelled eggs are often caused by fowls being confined, becoming overfat, and from lack of mineral matter.

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

TREES, SEEDS AND PLANTS.

DWARF KAFIR, 85 GERMINATION, $3 bushel. Oscar Wilcox, Larned, Kansas.

ORANGE CANE SEED, EXTRA GOOD, $6 per cwt., sacks extra. Joseph Nixon, Belle Plaine, Kansas.

SUDAN SEED RECLEANED AND graded, 18c pound, any quantity. Sacks free. Geo. Buntz, Chase, Kansas.

SUDAN, WELL MATURED, 20 CENTS per pound, $18 per cwt. D. M. Bantrager, Box 30, Haven, Kansas.

SEED — TEPARY BEANS FOR PLANTing, ten pounds, $1.50. Jas. S. Finney, El Dorado, Kansas.

4,000 POUNDS OF SUDAN GRASS SEED at 25 cents per pound. J. B. Pool, El Reno, Oklahoma.

CANE SEED, BLACK AMBER. WILL sell on good note. Write for price. F. M. Curyea, Wichita, Kansas.

CANE SEED, AMBER AND ORANGE, five dollars hundred. Sacks free. Fort Scott Fuel Supply, Fort Scott, Kansas.

FETERITA, $3.00 BUSHEL, WELL MAtured, recleaned, graded. Sacks free. D. W. Little, Conway Springs, Kansas.

ONE HUNDRED FIFTY BUSHELS GOOD recleaned alfalfa seed for sale, $9 per bushel if a quantity is taken. V. O. Johnson, Aulne, Kansas.

SUDAN SEED, $19 HUNDRED POUNDS, $10 fifty pounds. Recleaned, guaranteed free Johnson grass. Red top cane, 7½ cents; orange cane, 7 cents. Robinson Bros., Lubbock, Texas.

SWEET POTATO PLANTS—RED BERmuda, Southern Queen, Early Golden, Yellow Jersey, $4 thousand by express; 60c hundred postpaid. T. F. Pine, Lawrence, Kansas.

PLANTS—CABBAGE, TOMATO. LARGE tough plants, 500 75c, 1,000 $1.50. Prepaid parcel post. Peppers, 100, 50c. Years in the plant business. Co-Operative Plant Company, Ponta, Texas.

NANCY HALL SWEET POTATO PLANTS ready May 1. Tomato plants. Frost-proof cabbage plants ready now. Prices, per hundred, 50 cents; per thousand, $3.50, delivered. S. & H. Plant & Truck Farm, North Enid, Oklahoma.

OKLAHOMA DWARF AND STANDARD broom corn seed, cream and red dwarf maize, dwarf kafir and common millet, $7; feterita, $8; amber, orange and Texas red canes, $8; Sudan, $21. All per 100 pounds, recleaned, freight prepaid; prepaid express, $1 more. Claycomb Seed Store, Guymon, Oklahoma.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

FOR SALE — SCOTCH COLLIE PUPS from working stock. R. L. Skubal, Route 1, Jennings, Kansas.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

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CLAIM SALE DATES.

Jerseys.

May 24 — Glenwells Farm, Grandview, Mo. B. C. Settles, Palmyra, Mo., sales manager.

Chester White Hogs.

Nov. 7—Arthur Mosse, Leavenworth, Kan.

W. R. Huston, Americus, Kansas, owner of one of the best herds of Durocs in the Southwest, reports his herd doing well and young stock growing out fine. Mr. Huston keeps his herd immune and all pens and feed lots in a sanitary condition and always has a healthy, growthy lot of hogs. At this time he has a fine lot of young stock sired by Taylor's Model Chief 126455, winner at the American Royal Stock Show and the Missouri State Fair. This lot of youngsters includes a choice lot of Taylor's Model Chief gilts bred to Mr. Taylor's Great Wonder and Pathfinder herd boars. The breeding and individuality of these boars place them in the list of very high-class Duroc sires now in service. Both have priven to be sires of exceptional merit.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE — FOUR RED REGISTERED Shorthorn bulls, 10 to 13 months. John Thorne, Kinsley, Kansas.

ONE HUNDRED CHOICE HOLSTEIN cattle — springers, fresh cows and young stuff. Herd sire a 30-pound bull. C. S. Simmons, Belmont, Wis.

TWENTY-FIVE TWO-YEAR-OLD HIGHgrade Holstein springers. A few Holstein heifer calves, four to six weeks old, $22.50 each. Oakwood Farm, Whitewater, Wis.

HIGH GRADE HOLSTEIN CALVES, either sex, well marked, from heavy producers; four to six weeks old; fifteen-sixteenths pure; $25 each, crated and shipped to your station. Express and all charges paid here. Highland View Place, Whitewater, Wis.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

THRIFTY YOUNG HOLSTEIN CALVES, either sex, five to seven weeks old, practically pure-breds, beautifully marked, from high-producing dams. $25, guaranteed safe arrival and express prepaid to your station. Buy your calves from one of the largest dairy herds in Kansas. Magee Dairy Farm, Chanute, Kansas.

REAL ESTATE.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 56th St., Chippewa Falls, Wisconsin.

Real Estate For Sale

STOCKMAN'S SPECIAL

480 ACRES, 99 miles from Kansas City, on main line railroad, one mile from town of 1,000 people, three railroads; good churches and schools; about 100 acres in cultivation; 40 acres of bluestem meadow, balance bluegrass and white clover pasture, real bluegrass. All tillable land if you want to break it up; good land, fine location; 9-room house; two good barns. Best stock proposition in Southeastern Kansas. To see it will be to buy it. Price for immediate sale, $57.50 an acre. Very liberal terms if needed. Send for complete description. Address

Allen County Investment Co.
Iola, Kansas

Beautiful 160-Acre Shawnee County, Kansas, farm, near Topeka, only $75; two-thirds cash, twenty years on balance. Can fit you out in any size farm desired. List free.

J. E. THOMPSON
(The Farmer Land Man) Tecumseh, Kansas

WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

G. Regier, of Whitewater, Kansas, reports his great herd of Holsteins making a fine record. Mr. Regier has built up one of the heavy-producing herds of Holsteins. The high records made by his herd demonstrates the value of record breeding in a herd. From the foundation of this herd to the present time record-bred bulls only have been used. The result is a very profitable herd.

S. M. Knox, of Knox Knoll Stock Farm, Humboldt, Kansas, reports his herd of Mulefoot hogs doing well. Mr. Knox has one of the best herds of Mulefoot hogs in the West and at this time he has a choice lot of young stock in his herd. He also owns one of the high-class herds of Scotch and Scotch-topped Shorthorn cattle.

R. C. Brownlee, of Holden, Missouri, reports his herd of Red Polled cattle doing well. Mr. Brownlee owns one of the good herds of that breed now assembled. He reports the recent sale of a fine yearling bull to Miller & LaRue, well known breeders of Red Polled cattle at Hodginville, Kentucky. A feature of his herd at this time is the fine lot of young stock, including several choice young bulls.

H. L. Faulkner, of Jamesport, Missouri, famous throughout the corn belt as the owner of the noted Highview Farms herd of old original big-boned Spotted Polands, reports the usual heavy demand for breeding stock and has already booked orders for over a hundred spring pigs. Mr. Faulkner now has 300 head of Spotted Polands in his herds. He commenced breeding Spotted Polands twenty years ago. He soon demonstrated that the old original Spotted Poland China was a great hog for the farmer and feeder. The combination of size, quality and early maturity makes them a very profitable hog. While Mr. Faulkner has greatly increased the number of breeding animals in his herds, the increased demand takes all surplus stock each year.

HEREFORD CATTLE

FOR QUICK SALE—Twenty-five two-year-old bulls, twenty yearling bulls. Several Perfection Fairfax herd bulls in this lot. I will price one or a carload. Have one three-year-old and one two-year-old Percheron stallion; one five-year-old Clydesdale stallion and one five-year-old registered black jack. Come and see me.

SAM DRYBREAD - - - - ELK CITY, KANSAS

HOLSTEIN CATTLE. HOLSTEIN CATTLE.

CLYDE GIROD, At the Farm F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

HOLSTEIN COWS FOR SALE

NINETY HEAD REGISTERED AND HIGH GRADE:

Forty two-year-old heifers bred to freshen May and June. Ten yearlings. Forty cows three to six years old. Priced to sell. Farm adjoins town. Come and see me.

C. A. BROCK - - - NORTONVILLE, KANSAS

HOLSTEIN CATTLE

I am offering for sale from my registered herd, four cows from four to six years old; two heifers, two years old, extra good; four yearling heifers and four high-grade cows; four registered bulls of serviceable age. Write or come and see my herd.

J. W. MEYER, NORTONVILLE, KANSAS.

MAURER'S HOLSTEIN FARM

Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

REGISTERED HOLSTEIN BULLS

For Sale—Several young bulls by Pontiac Beauty De Kol Segis, a grandson of King of the Pontiacs and King Segis. These bulls are out of high-testing yearly record cows. We breed for yearly production. Come and see my herd. H. D. Burger, Seneca, Kansas.

HOLSTEIN BULL CALVES

Sired by a 34½-pound bull, and from young dams with A. R. O. backing. Write for description and prices.

M. E. GUNDERSON & SONS
Oconomowoc - - - - Wisconsin

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON, KANSAS

$23 HOLSTEIN AND GUERNSEY CALVES $23

When in need of good high-grade calves, calves from good milk producers, well marked, crated and satisfaction guaranteed, send order or write

R. C. FREEMAN, LONE OAK FARM
Route 2 Whitewater, Wisconsin

Holstein Calves

We offer for sale choice beautifully marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated, f. o. b. cars: One to two weeks old, $17 each; three to five weeks old, $20 each; six to eight weeks old, $25 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

REGIER'S HOSTEIN-FRIESIANS

For Sale—Young bulls, bred heifers and cows. All sired by the great bull, Sir Rag Apple Korndyke De Kol. Two cows will be fresh this month. Fourteen-thousand-pound milkers.

G. REGIER & SONS, Whitewater, Kansas.

RED POLLED CATTLE.

RED POLLED BULLS

FOR SALE—Thirty head coming yearling bulls. Come early and get the best. Our experience has been those that come late found us sold out. Write or come at once.

E. E. FRIZELL

FRIZELL, (PAWNEE COUNTY), KANSAS

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.

CHAS. L. JARBOE - QUINTER, KANSAS

RED POLLED BULLS FOR SALE.
Address
R. C. BROWNLEE, HOLDEN, MO.

GUERNSEY CATTLE.

GUERNSEY BULLS.

Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to twelve months old. ADAMS FARM, Gashland, Mo., 12 miles from K. C.

CHESTER WHITE HOGS

CHESTER WHITE BOARS



For Sale — Fifteen fall boars ready for service, big husky fellows. Priced to move quick. I need the room for my spring pigs.

ARTHUR MOSSE
Route 10 Leavenworth, Kansas

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wauwatosa, Wisconsin

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

REGISTERED HOLSTEIN BULLS

I have a few choice young bulls from my best record cows. They are splendid prospects for herd bulls and priced to sell.

BEN SCHNEIDER, NORTONVILLE, KAN.

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

CHOICE HOLSTEIN CALVES

High grade, beautifully marked, sired by registered bulls and from heavy milk producing dams, ten days old, $15; three weeks, $17; six months, $40. For thirty days only. First draft takes them.

Mt. Pleasant Stock Farm, Gilberts, Illinois.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.

H. B. COWLES, 608 Kan. Av., Topeka, Kan.

HORSES AND MULES.

Percherons—Belgians—Shires



2, 3, 4 and 5-year stallions for sale or let on shares. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.

FRED CHANDLER, Route 7, Chariton, Ia., Above Kas. City.

Eighty-eight Imported and American-Bred Percheron and Belgian Stallions and Mares, some weighing from 1,600 to 2,350, from $450 up. Durham, Angus, Galloway and Hereford calves and yearlings from $75 up. Illinois Horse Co., Good Block, Des Moines, Iowa.

SHORTHORN CATTLE.

SHORTHORN SHOW BULL

For Sale—Choice roan Shorthorn bull, good breeding, fine show prospect if fitted.

E. E. FISHER - STOCKTON, KANSAS

PARKER'S SHORTHORNS

CHOICE SHORTHORN BULLS FOR SALE.
WILLIAM B. PARKER
Lakin - Kearney County - Kansas

SHORTHORN BULLS — Bulls of good quality, registered and ready for service. Priced right. Paul Cashatt, Oskaloosa, Kan.

Meadow Brook Shorthorns

We have all the popular blood lines. Stock all ages for sale. Shipping station, Valencia, Kansas. F. C. Kingsley, R. 24, Auburn, Kan.

GALLOWAY CATTLE.

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.



Government Takes Wool

THE Government has taken absolute control of the marketing of this year's wool clip. The supply of wool has been practically commandeered, and the results of the Government regulation are already beginning to be felt. This does not mean that all the wool of the country will be needed for army and navy use, but in order to get the grades needed for military purposes the Government evidently thought it would be better to commandeer all the wool and by so doing obtain just the amount and grades needed. The army and navy will receive first consideration, and what remains will be turned over to manufacturers for the production of civilians' goods.

All wool must be handled on a consignment basis and sold to the Government at the market value of July 30, 1917. No speculation or any form of buying directly or indirectly is to be permitted. All grades will be handled on a commission basis only. By official order of the War Industries Board, the commission to be allowed for the handling of wool will be 3 per cent for graded and 3½ per cent for ungraded. This handling charge is to be allowed but once between the grower and the Government. The percentage is figured on the basis of the gross sale value of the wool. In addition the grower must stand his freight charges to the market. The specified commission will cover drayage, full fire insurance, storage, all warehouse handling, and the necessary selling charges. The wools are to be graded according to Government regulations. The prices which the Government will allow for the different grades are on the basis of scoured wools, which makes it a little difficult for the wool grower to figure out exactly what he should expect for his clip. The price for raw wool, however, will range from 40 to 70 cents a pound, according to the length of the staple and other conditions.

Wool should be shipped so as to effect the greatest economy possible in transportation. In a neighborhood where there are a number of small producers of wool it would be well for them to cooperate and send their clip to market in a bulk shipment, instead of each one shipping his clip independently. When the wool reaches the market it will be valued by the Government valuation committee, the grower depending on his commission man to represent him.

It has been announced that a method of handling fleece wool in sections where the clips are small is being worked out and will be made public in the near future. The full schedule of prices will also be published soon. Wool growers can have no object in holding this year's clip, since the prices are definitely established, and the sooner the wool goes to market, the better.

Protect Stock from Lightning

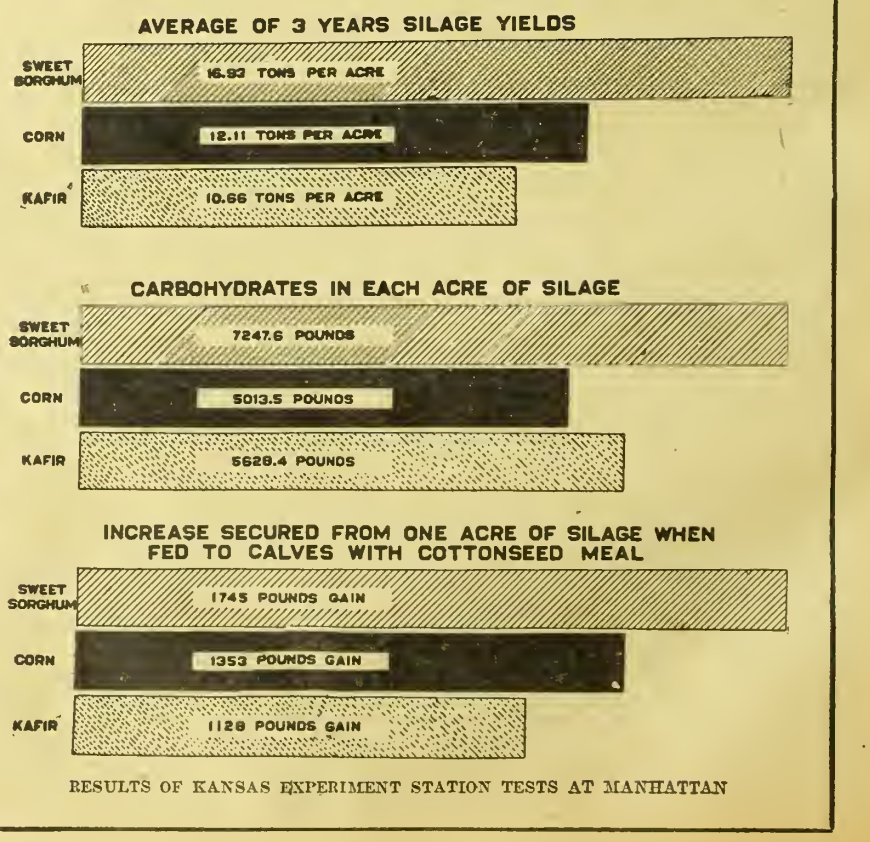
The season of thunderstorms is at hand and soon we will begin to read in the newspapers of stock in pastures being killed by lightning. These losses nearly always occur as a result of lightning following a wire fence. In a storm stock always drift until they come to the fence. If this is a wire fence on wood posts, a bolt of lightning may run along the wires for a considerable distance, killing the animals bunched up against the fence. Wood is a non-conductor of electricity and the lightning bolt follows the wires, which are good conductors, until it finds a suitable path to reach the ground. The bodies of the animals are much better conductors than the wood posts, even when they are wet. Even when stock are eight or ten feet from the fence, lightning may jump from the wires and thus kill them.

The simple way to avoid this danger is to ground all wire fences at frequent intervals. This can be most easily done by driving a small galvanized iron rod down into the ground three feet at a post and connecting all the wires of the fence with it. It is also a good plan to have a piece of wire six or seven inches long projecting above the post at this point where the wires are grounded. This acts as a sort of lightning rod. All the connecting wires must be bright and clean and care must be taken to see that perfect contact is made at each point. This grounding of the wires is unnecessary where metal posts are used.

Hogging Off Corn

Using hogs to harvest corn is now recognized as a distinctly labor-saving proposition. It has been found a very profit-

A COMPARISON OF CORN, KAFIR, AND SWEET SORGHUM FOR SILAGE.



RESULTS OF KANSAS EXPERIMENT STATION TESTS AT MANHATTAN

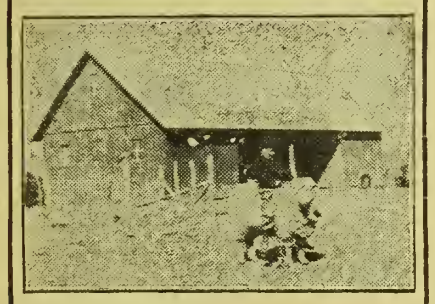
able farm practice in many sections. In planning for this year's planting, it is well worth while to figure on the proposition of harvesting part of the crop at least by means of hogs. In Indiana a statewide campaign is being conducted at the present time for the purpose of increasing the amount of corn to be hogged off next fall. Practical co-operative demonstrations over the state with leading farmers show that greater profits come from this method of harvesting and using the corn crop than by almost any other means of handling it. The hogs gain more rapidly and economically than when fed by hand, and the labor and cost of harvesting the corn is saved. This amounts to at least ten or twelve cents a bushel.

The best time to plan for doing this work is when the crop is being planted, so that an early-maturing variety can be planted on some of the land. It is always important to have some corn matured sufficiently to turn the hogs in early in the fall. It is also suggested that where corn is to be hogged off, the planting of some soy beans with the corn is a distinct advantage. In the co-operative experiments conducted in Indiana, hogging off combination crops of corn and soy beans produced 179 pounds more pork to the acre than corn alone.

Shawnee County Sheep Record

From an investment of $210 in thirty ewes, made three years ago, C. M. Tod, Shawnee County, has sold up to the present time $1,216.64 worth of lambs and wool from his little flock. In addition he has retained forty-one lambs and added them to his flock besides butchering a few for home consumption.

Mr. Tod bought these thirty ewes in December, 1914, paying $7 apiece for them. During May and June of the following year he sold thirty lambs for $219, and 262 pounds of wool at 23 cents for $60.26. Eight lambs saved were valued at $47.80. The next year he sold twenty-nine lambs for $253.18, and 320 pounds of wool at 31 cents a pound for $99.20. The thirteen lambs saved were valued at $104. The third year, 1917, he sold thirty-two lambs for $357, and saved twenty, valued at $200. The wool



THIS RAM IS BROKE TO RIDE

clip of 380 pounds was not sold until the spring of 1918, bringing 60 cents a pound, or $228.

Up to May 6 this year thirty-one ewes had produced forty-seven lambs. The yearling ewes did not produce lambs. Many of these lambs were dropped in January and now weigh seventy-five or eighty pounds. The original flock were grade Shropshires, but a Lincoln ram is now being used. Mr. Tod finds that one of the difficulties in handling a small flock in this way is to get full value for the lambs, since he does not produce enough for a carload shipment. He has put a partition in a car and shipped with hogs, but this arrangement compels the payment of sheep rates on the whole car. About the only way to overcome this is through a system of co-operative marketing in which a number of neighbors combine and ship their lambs together. This is perfectly feasible and has been worked out in some communities.

Silo-Building Campaign

Indiana is going to fight the war in the corn field. Not that Indiana is a slacker in any other way, but through the silo it hopes to hit the kaiser one more hard knock.

The campaign already under way is without doubt the most comprehensive of its kind ever organized in America. The State Council of Defense, the State Committee on Food Production and Conservation, the Extension Department of Purdue University, the county agricultural agents, the farm press and daily papers, the builders of various types of silos, hundreds of patriotic farmers, bankers and merchants, are all directing united effort to accomplish in a single year what ordinarily would be considered the work of ten or more.

Indiana says, "If you can't put a gun on your shoulder, put a silo on your farm." Indiana farmers are keenly alive to the situation and it is unquestioned that their silo-building achievements this year will have a most important bearing on the economical production of live stock and dairy products in the Hoosier state.

This campaign is one which should be organized and carried through to successful ending in every state in the Union.

Stock Hogs from Stock Yards

Government and state authorities have arranged so that stock hogs may be shipped out of the Kansas City market the day they are bought, to any point in the states of Kansas, Oklahoma, Nebraska, Iowa and Illinois. Government inspectors make the inspection and do the testing, but the purchaser has to arrange with a competent veterinarian to do the vaccinating. Either the "serum-alone" method or the "simultaneous inoculation" method may be used, and hogs have to be dipped and held three hours before being loaded for shipment. All the facilities for doing the work have been installed by the Stock Yards Company, the first shipment under this ruling having been made April 23, to Iowa.

This new ruling puts the stock hog trade at Kansas City on the same basis as the stock cattle trade. It makes it possible for the farmer or feeder who desires to buy stock hogs to go to the market at Kansas City and get them promptly, in any numbers, and at an established market price. It also creates a better market for the hog raiser who, because of lack of feed or other reason, finds it desirable or necessary to sell shoats before maturity.

Breed Mares to Best Jacks

Big heavy-boned mules are the kind worth the most money. All mules are higher in price than ever before in the history of the state, but the big ones have a marked advantage.

The buyers have bought so heavily during the last three years that there are now few mules to spare. This heavy purchase has been in part due to the high quality of mules now raised in Kansas.

Many farmers will breed their mares to jacks this year. Dr. C. W. McCampbell, secretary of the Live Stock Registry Board, advises mule raisers to remember that in the future as at present the big heavy-boned mule will bring the highest price. They should breed their mares to the best jacks that can be obtained and feed the mule colts liberally so that they will grow into the big money-making kind.

Mule raising will continue to be a profitable side line on the farm, but the farmer must remember that it takes a good mare to raise a good mule. Good mares are also extremely high in price and a profitable farm product.

DISPERSAL SALE OF 125 HEAD

GLENWELL'S FARM JERSEYS

"The Western Home of the Raleighs"

GRANDVIEW, MISSOURI, FRIDAY, MAY 24
(FIFTEEN MILES FROM KANSAS CITY)

The day preceding the Annual Picnic of the Southwest Jersey Cattle Breeders' Association, at Longview Farms.

REGISTER OF MERIT COWS with records up to 700 pounds butter per year, and their progeny. The blood of Raleigh, Pogis 99th of Hood Farm, and Sultana's Jersey Lad. The greatest producing herds to be sold in the West for years to come. We pay one-half the freight on carload lots to any part of the United States.
KUPPER HOTEL headquarters at Kansas City, where auto bus will take visitors to farm day of sale.

Write for catalog to

B. C. SETTLES, SALES MANAGER, PALMYRA, MISSOURI
COL. PERRY, AUCTIONEER

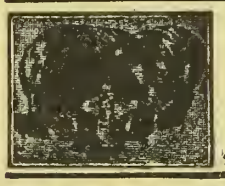
GLENWOOD FARM'S SHORTHORNS AND POLAND CHINAS

SHORTHORNS
Sires in Service—Emma's Valentine 412453, Golden Searchlight, and Master Goods.
For Sale—Emma's Valentine 412453, Master Butterfly 10th 582866, and Secret's Valentine 648605. Real Herd Bulls.
PRICES REASONABLE.

POLAND CHINAS
Sires in Service — Expansion King, King Wonder II by Big Bob Wonder, and Wonder's Joe by Giant Joe.
For Sale—Twenty gilts bred for summer and fall litters, sired by Expansion King or King Wonder II, bred to Wonder's Joe or King Wonder II. A few fall boars.
C. S. NEVIUS & SONS, CHILES, KANSAS

POLAND CHINAS.

POLAND CHINAS



Faulkner's Famous Spotted Polands
THE WORLD'S GREATEST PORK HOG
Three hundred pigs for June shipment, when weaned. Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.
H. L. FAULKNER, Box K, JAMESPORT, MO.

DEMING RANCH QUALITY
Big-Type Poland China Hogs
A choice lot of September and October boars. One real herd boar prospect. Fifty bred sows and bred gilts. 250 spring pigs. Write or come and see us.
H. O. Sheldon, Herd Manager
OSWEGO, KANSAS.

Poland China Fall Gilts
For quick sale, fifteen fall gilts, sired by Giant Joe, sold open and priced $35 and $40. First check or draft gets choice. I have eighty-five spring pigs and need the room.
H. E. Myers, Gardner, Kansas

Poland China Fall Boars
For quick sale, several fall boars sired by Buster Over, the Indiana grand champion, and W's Giant, one of the big boars in the East. These pigs have size and quality and will be priced reasonably.
Francis E. Moore & Sons
Gardner - - - - Kansas

SPOTTED POLAND FALL BOARS
Gets of our two prize-winning boars, real herd headers. Immuned. For prices write
E. R. McKEEFER & SONS, OSSIAN, IND.

When Writing to Advertisers, Please Mention Kansas Farmer

REDFIELD'S SPOTTED POLANDS. Booking orders for spring pigs. Well spotted, choice boars. Priced for quick sale. CHAS. H. REDFIELD, Bucklin, Kansas.

Pliley's Spotted Polands
All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
J. EDW. PLILEY - GILMAN CITY, MO.

HENRY'S BIG-TYPE POLANDS
October boars and gilts. September gilts bred to order. Booking orders for spring pigs at weaning time, sired by Smooth Prospect, Mammoth Orange, Big Bob 2d.
JOHN D. HENRY, LECOMPTON, KANSAS

GRAND VIEW POLANDS
Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.
ANDREW KOSAR - DELPHOS, KANSAS

LANGFORD'S SPOTTED POLANDS
Last call for fall gilts.
T. T. Langford & Sons, Jamesport, Missouri

FASHIONABLE STOCK PLACE POLANDS
Herd headed by Big Wonder. This outstanding son of Big Bob Wonder was first in junior yearling class at Topeka and second at the National Swine Show in competition with the world. Breeding stock for sale at all times. Immune. Satisfaction guaranteed.
V. O. JOHNSON - - AULNE, KANSAS

TOWNVIEW HERD
Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. Chas. E. Greene, Peabody, Kan.

JERSEY CATTLE.

100 GOOD JERSEYS FOR SALE
We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.
J. W. BERRY & SON, Jewell City, Kansas.

BROOKSIDE JERSEYS
Registered Jersey Bulls, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.
THOS. D. MARSHALL, SYLVIA, KANSAS

Breeders' Directory
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D. J. White, Clements, Kan.
George McAdam, Holton, Kansas.
RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS
Best breeding, best type. Stock for sale.
GEO. W. ELA, Valley Falls, Kansas

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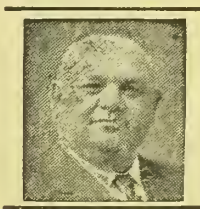
FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. VALLEY FALLS, KANSAS

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri



P. M. GROSS
Live Stock Auctioneer
Twelve years on the block.
Pure-bred sales a specialty. Sales made anywhere.
4230 Paseo
Kansas City, Mo.

ANGUS CATTLE

Edgewood Farm Angus
I have for sale
40 REGISTERED COWS
20 REGISTERED YEARLING BULL.
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.
D. J. WHITE, Clements, Kan.

MULEFOOT HOGS.

KNOX KNOLL MULEFOOTS
Still have a few choice pigs from big litters. For prices and catalog address
S. M. KNOX - HUMBOLDT, KANSAS

DUROC JERSEYS.

Otey's Durocs
Hercules 3d, a giant 900-pound boar in breeding flesh, and Pathfinder Chief 2d, the largest and smoothest of all the sons of the mighty Pathfinder, head our herd. Fifteen gilts bred for summer and fall farrow for sale. Write or come and see them.
W. W. OTEY & SONS, WINFIELD, KAN.

DUROC JERSEY SWINE
For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. W. J. Harrison, Axtell, Kan.

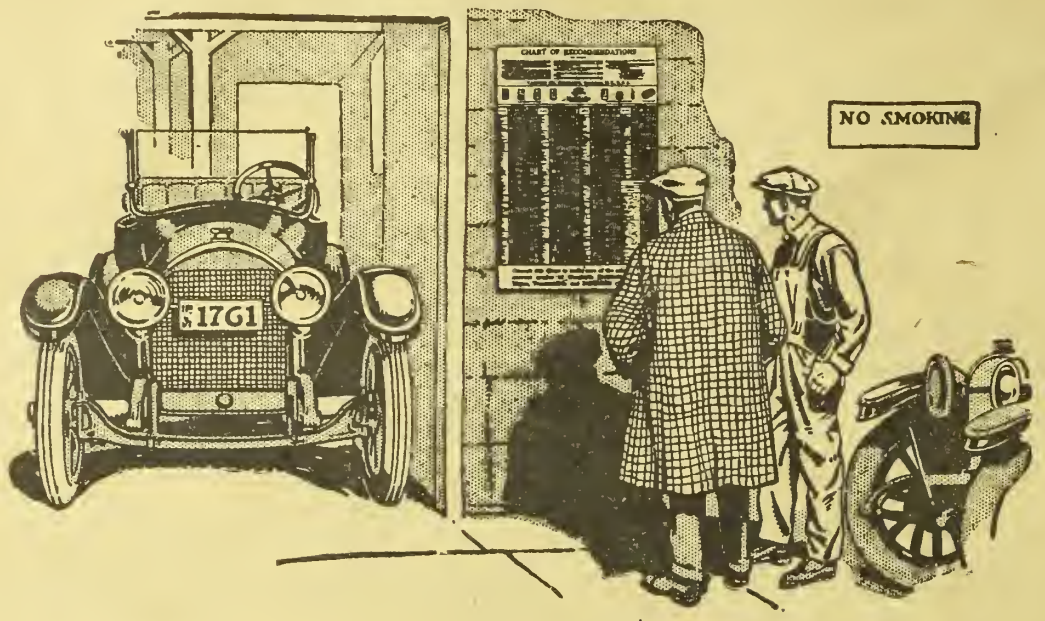
WOOD'S DUROCS
For Sale—Duroc Jersey boars, best blood lines. Illustrator, Bonaccord, Kansas King and Gano's.
WOOD'S DUROC FARM, Wamego, Kansas

DUROCS FOR SALE. — Fall and winter boars by Colonel's Wonder 222495. Immunized. Colonel's Wonder for sale or trade for pigs or gilts. Priced right.
HOMER DRAKE - STERLING, KANSAS

Durocs of Size and Quality
Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on fall boars and gilts, from Crimson Wonder, Golden Model, Illustrator, Defender breeding.
JOHN A. REED & SONS, LYONS, KANSAS

CHOICE IMMUNED DUROC BOARS
Sired by Taylor's Model Chief 126455, winner at American Royal and Missouri State Fair. Also gilts bred to Great Wonder and Pathfinder boars.
W. R. HUSTON - AMERICUS, KANSAS

Make this Chart your guide



Look for it on your dealer's wall

EVERY time you stop for oil you face a question which is vital to the life of your car.

What will the dealer pour into your oil reservoir? Will it be just "oil"—or will it be the correct lubricant for *your* engine?

The better type of dealer and garage man now realizes that something like 50% of all engine troubles are due to incorrect lubrication.

He realizes, too, that scientific lubrication is a problem for specialists. And since the dealer has neither time nor equipment for studying this intricate subject he draws on the experience of a recognized authority.

That is why the large Chart of Recommendations, issued by the Vacuum Oil Company, is now fastened to the walls of thousands of supply shops and garages.

When you ask one of these dealers for "oil", he notes the make of your car—and the year's model. He runs his finger down the Chart (shown above in miniature) until he finds your car's make and model. Then he supplies you with the grade of Gargoyle Mobiloils specified for your car by the Chart.

This oil will effectually seal your piston rings against power-waste, gasoline-waste and oil-waste.

* * *

THE Vacuum Oil Company for 50 years have specialized in scientific lubrication. Today their world-wide leadership in lubrication matters is unquestioned in scientific circles. For years their Chart of Recommendations has been recognized as the scientific guide to correct automobile lubrication.

In keeping this Chart up to date, each new model of every automobile is carefully analyzed. This work involves lengthy and painstaking engineering study by the Vacuum Oil Company's Board of Engineers. The recommendations of this Chart are proven correct by repeated practical tests.

But nothing has given dealers such faith in this Chart as their experience with the oils themselves. For no one knows better than the dealer how difficult it is to secure efficient lubrication and how much efficient lubrication means.

GARGOYLE

Mobiloils

A grade for each type of motor

Write for 64-page booklet containing complete discussion of your lubrication problems, list of troubles with remedies and complete Charts of Recommendations for Automobiles, Motorcycles, Tractors and Motor-boat Engines.

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If the dealer has not the grade specified for your car, he can easily secure it for you.

VACUUM OIL COMPANY, New York, N. Y., U. S. A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world

Domestic Branches: Detroit, Boston, Kansas City, Kan., New York, Chicago, Philadelphia, Indianapolis, Minneapolis, Pittsburgh, Des Moines

Correct Automobile Lubrication

Explanation:—The four grades of Gargoyle Mobiloils, for engine lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "E"
Gargoyle Mobiloil "Arctic"

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A," "Arc" means Gargoyle Mobiloil "Arctic," etc. The recommendations cover all models of both pleasure and commercial vehicles unless otherwise noted.

This Chart is compiled by the Vacuum Oil Company's Board of Engineers and represents our professional advice on Correct Automobile Lubrication.

AUTOMOBILES	1918		1917		1916		1915		1914	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Abbott	Arc	Arc								
Abbott-Detroit			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)					A	A	A	A		
Allen	A	Arc	A	Arc	A	Arc	A	Arc	A	A
Apperson	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Auburn (4 cyl)					A	Arc	A	Arc	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (6-38 & 6-39)			A	Arc	A	Arc				
" (6-39B)(Teetor H)	A	Arc								
" (6-39B)(Cont'l)	Arc	Arc								
Autocar (2 cyl)	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Briscoe	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (8 cyl)					A	A				
Buick	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
Cadillac	A	A	A	A	A	A	Arc	Arc	Arc	Arc
Case	Arc	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Chalmers	A	A			Arc	Arc	Arc	Arc	A	A
" (6-40)					A	Arc				
" (6-30)			A	A	A	A				
Chandler Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (8 cyl)	A	A	A							
" (F A)	A	Arc								
Cole					Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A	A	A		
Cunningham							Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Dart	A	Arc	A	Arc	A	Arc	Arc	Arc	A	A
" (Mod. C)			A	Arc	A	Arc	A	Arc	A	A
" (2 & 3½ ton)	A	A								
Detroiter			Arc	Arc	Arc	Arc	A	Arc	A	A
Dodge	A	Arc	A	Arc	A	Arc	E	E		
Dort	A	Arc	A	Arc	A	Arc	A	Arc		
Empire (4 cyl)	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc				
Federal	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod. S-X)	A	A	A							
" (Special)	Arc	Arc								
Flat	B	A	B	A	B	A	B	A	B	A
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	A	A	A	A	A	A	A	A	A	A
Grant	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Hal-Twelve			A	A	A	A				
Haynes	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (12 cyl)	A	A	A	A	A					
Hollier (6 cyl)	A	Arc	A	Arc						
" (8 cyl)	A	A	A	A	A	A				
Hudson					Arc	Arc	Arc	Arc	Arc	Arc
" (Super Six)	A	Arc	A	Arc	A	A				
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Jackson			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Jordan	Arc	Arc	Arc	Arc						
Kelly Springfield	A	A	A	A	A	A	A	A	A	A
King							A	Arc	A	A
" (8 cyl)	A	A	A	A	A	A	Arc	Arc		
" (Com'l)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Kissel Kar	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (Mod. 48)					A	A	A	A	A	A
" (12 cyl)	A	A	A	A						
Lexington			Arc	Arc	Arc	Arc	Arc	Arc		
Liberty (Detroit)	Arc	Arc	Arc	Arc						
Lippard Stewart	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod. M)			A	Arc	A	Arc				
" (Mod. MW)			A	Arc						
Locomobile	A	E	E	E	E	E	E	E	E	E
McFarlan	A	Arc	A	Arc	A	A	A	Arc	A	A
Madison	A	Arc	A	Arc	A	Arc	A	Arc		
" (8 cyl)			A	A	A	A				
Marmon	A	A	A	A	A	A	A	Arc	A	Arc
Maxwell	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Mercer	A	A	A	A	A	A	A	Arc	A	Arc
" (22-70)							Arc	Arc		
Mitchell	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (8 cyl)					A	A				
Moline-Knight	B	A	A	A	A	A	A	A	A	A
National	Arc	Arc	Arc	Arc	A	Arc	A	Arc	A	A
" (12 cyl)	A	A	A	A	A	A				
Oakland	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)					A	A				
Oldsmobile	A	A			Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Overland			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Owen Magnetic	A	Arc	A	Arc	A	Arc	A	Arc		
" (Mod. M25)	Arc	Arc	Arc	Arc						
Packard							A	Arc	A	Arc
" (12 cyl)	A	A	A	A	A	A				
" (Com'l)	A	A	A	A	A	A	A	A	Arc	Arc
Paige (4 cyl)							A	Arc	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
" (6-36)					A	Arc	A	Arc		
" (6-38-39)			A	Arc						
" (6-40)	A	Arc								
Paterson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Pathfinder			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (12 cyl)			A	A	A	A				
Peerless	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Pierce Arrow	A	A	A	A	A	A	Arc	Arc	Arc	Arc
" (Com'l)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Premier	A	A	A	A	A	Arc	A	Arc	A	Arc
Regal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)					A	A	Arc	Arc		
Renault (French)					A	Arc	A	Arc	A	Arc
Reo	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Riker	A	E	E	E						
Saxon	E	E	E	E	E	E	E	E	E	E
Selden			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (¾ ton)			A	Arc						
Simplex			A	A	A	A	Arc	Arc	Arc	Arc
Stearns-Knight	B	A	A	A	B	A	B	A	B	A
" (8 cyl)	B	A	A	A	B	A				
Studebaker	A	Arc	A	Arc	A	Arc	Arc	Arc	A	Arc
Stutz	A	A	A	A	A	A	A	A	A	A
Velie (4 cyl)							A	Arc	A	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (2 & 3½ ton)	Arc	Arc								
" (¾ ton)	A	Arc								
Westcott	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
White	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (16 valve)	A	A	A	A						
Willys-Knight	B	A	A	A	B	A	B	A	A	A
Willys Six			Arc	Arc						
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc

YOUR TRACTOR

also may be lubricated efficiently with Gargoyle Mobiloils. On st we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

20,5
KAF

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 21. TOPEKA, KANSAS, MAY 25, 1918. Established 1863. $1 a Year

DAIRYING AFTER THE WAR

Butter Not Likely to Sell Below Forty Cents for Some Years

J. F. HASKELL, Before Kansas State Dairy Association

WE HAVE in Kansas some excellent dairy herds and good dairymen, but we are, generally speaking, dairying as a side line. The fertility of the Kansas soil has made crop raising the principal industry of the state. This fertility has greatly depreciated as a result of the constant cropping of the past twenty-five years. Dairy farming is the most profitable, the most logical, and in fact the only practical means of returning that fertility to the soil. We must do more dairying to save ourselves.

We have heard of the extent and success of dairying in some of the states known as dairy states. It has been estimated that in one county in Wisconsin last year farmers sold $6,400,000 worth of dairy products. There are 105 counties in Kansas, many of which are much better adapted to dairying than this Wisconsin county—better from the standpoint of climatic conditions, the winters not being as long or as severe, and better from the standpoint of adaptability to the raising of feed for dairy cows. For instance, alfalfa, which is not grown there, is bought in our own state at the prevailing high prices and shipped to Wisconsin, as well as to New York State, to produce milk.

Our conditions should enable us to more than equal the production of this Wisconsin county. That would mean that during the past year Kansas farmers would have produced dairy products valued at approximately $630,000,000. As a matter of fact, based on what figures are available, I consider I would be making a sufficiently high estimate to say that last year Kansas produced not more than $25,000,000 worth of dairy products, this including creamery and farm butter made in Kansas and from Kansas cream bought by creameries outside of the state, condensed milk, whole milk, and cheese.

But the county in question in Wisconsin boasts of an average of twenty cows to the quarter section of land. The State of Wisconsin taken as a whole had, a few years ago, twenty-eight cows to the square mile, while at the same time Kansas could show but seven and a fraction cows to the square mile.

Outside of and in addition to the value of dairying from the standpoint of reclaiming the soil, I do not know of any more steadily dependable or more surely profitable farm practice than dairying. And I will not qualify that statement by saying it is "profitable if properly conducted" either. The theory of some of our many eminent dairy authorities is all right from their standpoint. They take the average Kansas cow, charge her full cost of feed, full cost of labor, interest on money invested in cow-barn, etc., and sometimes prove her not a world-beater from the standpoint of clear, net profit. My contention is that such figures are wrong, for the reason that the average Kansas farmer keeps so-called dual-purpose cows and so the other purpose for which those cows are kept should stand its share of the expense.

It would be just as reasonable for a man running a combined dry goods and grocery store to charge all his expense and his overhead to the grocery department and none to the dry goods as it would be to charge all the expense of a dual purpose cow against the returns for milk and cream.

For example, J. B. Klassen, out at Syracuse, Kansas, sold 411.5 pounds of butter fat at the cream station during August last year, for which he received a handsome check. Mr. Klassen admits that he could probably double his cream check if he kept pure-pred and high producing cows. As long as we desire to keep a dual purpose cow, as long as we look partly to the beef-raising side of the business, as long as we desire to raise calves that will develop into good, heavy beef steers, we are not justified in charging everything to milk or cream, and thereby assuming that our dairy herd is not overly profitable. Stock will be kept, and was kept on the Kansas farms before the advent of the many creameries into the state, for the reason that the average farm can and will produce sufficient feed for stock. The cream checks are really in the nature of so much velvet, and a mighty handsome amount of velvet at the present time.

Now, I am not talking against the pure-bred, high-producing dairy cow, and I admit also that many Kansas farmers are weak in that by proper breeding and proper culling they could double productiveness and the profitableness even of the so-called dual purpose cow. But I have no patience with those who attempt to prove to the Kansas farmer that his herd is losing him money when they furnish the only market for feed that otherwise would have little or no market value.

Exactly what the future will bring forth none of us know. But from our knowledge of conditions in this country as well as abroad, we may make a few deductions and draw some conclusions. I believe that the consumption of butter will increase as time goes on for the reason that people in general are coming to a realization of its value from a nutritive and consequently a health standpoint, and from the standpoint of growth in children. Prof. C. F. Hunziker, one of our foremost dairy scientists, says:

"Butter and butter fat contain accessory substances, or so-called vitamines, which are capable of promoting growth and which have curative powers. These accessory substances are not present in ordinary fats, such as vegetable fats like cottonseed oil, olive oil, sunflower oil, etc., or animal fats, such as lard, tallow, etc.

"In experiments with white rats, numerous nutrition investigators, chief among them Doctors McCullum and Davis of Johns Hopkins University, and Osborn and Mendel of Yale University, have discovered that when the fat portion of an artificial diet containing all the necessary food elements in their proper proportions consisted of an ordinary vegetable or animal fat, such as cottonseed oil, olive oil, etc., or lard or tallow, the rats would cease to grow long before they had reached their full normal size; that they would decline in weight and health and finally die. When a part of the vegetable or animal fat was replaced by butter or butter fat at this critical point or any time prior to the death of the rats, these animals would at once resume their growth and continue it until they had reached their normal size. Diseases, such as infectious sore eyes, etc., which these rats developed in the absence of butter or butter fat, were immediately cured, and the decline in weight was succeeded by gain in weight."

Europe at present could use vastly more fats—more butter—than she has or is able to get. At the close of the war the opening of the Bosporus together with the resumption of normal ocean traffic will result in opening the wheat from Russia, Australia, and Argentine's vast wheat acreage to Europe's consuming centers. The return to peaceful pursuits of the many soldiers now under arms will result in maximum production. We cannot expect abnormally high wheat prices for very long after the war. The same will be true of all other farm crops that Europe normally grows.

During more than three years of world war, and especially during the past year, large numbers of dairy cows have been slaughtered in practically all countries at war as well as in a number of neutral countries, such as Holland and Denmark. I cannot vouch for the accuracy of the figures and do not know whether or not the disposal of cows was eventually carried out on as large a scale as was predicted, but reports last summer were to to effect that Holland alone would have to slaughter 500,000 cows the winter of 1917-1918, as they could not get feed. We can be sure that large numbers of milk cows have been and will be slaughtered.

Now, wheat shortage can be overcome in an ordinarily good season. The same is true of other crops of which Europe is short on account of war conditions and the devastation of territories. It will take years, however, to rebuild the dairy herds of the dairy countries of Europe. That is something which cannot be done in a year, two years, or five years. For years after the close of the war, therefore, Europe will afford a market for considerably more than the surplus butter that we produce, or will produce.

Again, this country is exporting practically no butter to neutral countries at the present time. We are not permitted to do so for the reason that fats of this nature are far from plentiful in this country or among our Allies. Very little butter has, in fact, been supplied our Allies during the past year. Reviewing the progress of the campaigns for increased production to meet war demands and conditions, Secretary of Agriculture Houston in his annual report made public in December says that while the number of milk cows in the United States has increased during the past year, "with destruction of live stock in Europe and the great demands from there for meats and fats, the supply of meats and fats will not be adequate to meet the domestic needs and those of the nations with which we are co-operating."

This condition will not be improved during the continuance of the war. The scarcity of butter and the demand for the same in European countries will not cease with the cessation of hostilities, for the reason, as stated, that dairy herds cannot be rebuilt in a few years. It is true that Australia, a dairy country, normally has an export surplus of butter of about 40,000 tons, which she has had difficulty in marketing in European countries on account of shortage of refrigerator space to England. But this surplus if marketed in Europe promptly and regularly would amount approximately to only one-fourth of a pound of butter per person per annum for the population of our principal Allies only. Mexico and Cuba are begging for butter right now; we are not permitted to export butter to neutral countries. The

(Continued on Page Seven)



MILKING COWS TURNS THE FEED OF THE FARM INTO CASH AND KEEPS THE FERTILITY AT HOME

Beat the Straw



Just As You Would Do By Hand With a Pitchfork

TAKE the short cut to effect thorough separation. Do not wait for the grain to drop out, but BEAT IT OUT with

The Big Cylinder
The Man Behind the Gun and the Beating Shakers

the way to get all the grain quickly and without waste.

Join hands with the national movement and save all your grain. Handle more jobs and bigger jobs and make more money for yourself.

The Red River Special saves enough more of the farmer's time and grain to pay his thresh bill.

If you want a thresher for your own use, learn about our "Junior" Red River Special.

Write for circulars.

Nichols & Shepard Co.
In Continuous Business Since 1848
Builders Exclusively of Red River Special Threshers, Wind Stackers, Feeders, Steam and Oil-Gas Traction Engines.
Battle Creek Michigan

Stack Your Hay The Easiest Way *the Jayhawk*

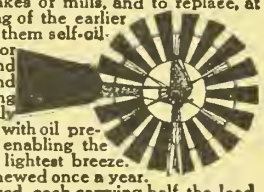


Stackers and Sweep Rakes
Harvesting hay the Jayhawk way means time, men and money saved. Jayhawk Stackers and Sweep Rakes make it easy to harvest and save every hay crop. Pays for itself the first year. Fully guaranteed. Sold direct at manufacturers price. Write today for free catalog and price list.

F. WYATT MFG. CO., 910 N. 5th ST., SALINA, KANS.

THE SELF-OILING WINDMILL

has become so popular in its first three years that thousands have been called for to replace, on their old towers, other makes of mills, and to replace, at small cost, the gearing of the earlier Aermotors, making them self-oiling. Its enclosed motor keeps in the oil and keeps out dust and rain. The Splash Oiling System constantly floods every bearing with oil preventing wear and enabling the mill to pump in the lightest breeze. The oil supply is renewed once a year. Double Gears are used, each carrying half the load. We make Gasoline Engines, Pumps, Tanks, Water Supply Goods and Steel Frame Saws.



Write AERMOTOR CO., 2500 Twelfth St., Chicago

BEE SUPPLIES LOWEST PRICES

Big money for you in keeping bees this year. Full line of everything needed. Write for new 1918 catalog and full information about different size outfits and supplies.

Clemons Bee Supply Co., 166 Grand Ave., Kansas City, Mo.

Much time will be saved in making machinery repairs if all tools and repairs are kept in their proper places. Do not keep all sizes of bolts or screws mixed together in a single receptacle, but fit up suitable boxes or bins, so that the supplies may be accessible on short notice.

The ideal proportion of gasoline and air is a mixture consisting of .07 pound of gas to a pound of dry air. It is possible to use a mixture containing as much as .12 pound of gasoline to each pound of air. This rather wide range results in considerable wastage of gasoline in operating a car. Car owners are more apt to use the maximum richness of mixture than the minimum, which would give them better results. In so doing they are using almost twice as much fuel as is actually needed.

FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

THE Council of National Defense recently authorized the following statement: After thorough investigation the Highways Transport Committee of the Council of National Defense has urged upon the state councils of defense the promotion of rural motor express lines to connect the farms with the cities, thus expediting the production of foodstuffs. The plan is to use the return-loads system, by which farmers can ship into the city all varieties of farm products such as milk, dairy products, calves, hay, grains, and particularly perishable products, and receive in return from the city farm implement parts, seed, fertilizers, and other supplies.

The supplies which the farmer needs from the city can be ordered by the farmer in the morning over the phone and delivered at his gate the same afternoon. These rural expresses have already been started in many localities and have proved their value by promoting an increase in food production. In many farm communities where the express is in operation the farmers state that any interruption of the service would immediately result in reduced production.

The development of the rural motor express, the Highways Transport Committee hopes, marks the beginning of a system of universal farm transportation over all the main highways, making the farmer's gate a shipping platform alike for his outgoing products and his incoming supplies.

One of the main advantages of the rural express system is that it reduces labor. In some places the hauling formerly done by five men with wagons is now being done, at many times the speed, by one man with a truck. The other men relieved from their task at hauling are at work in the fields cultivating additional acres. Most of the express lines already established are private enterprises. They can be started to advantage by individuals in the country who know intimately the problems of the farmers in their particular sections.

Don't Sacrifice Your Car

The tremendous decrease in passenger car manufacture brought about by Uncle Sam's need of materials and of the facilities with which automobile factories are equipped to turn out Government work, has brought the car-owning and car-buying public to a fuller realization of the possibilities of the used car. Many car owners, who formerly traded in their old cars annually for new ones or else sold them at a sacrifice, are now contenting themselves with repairing and renovating such cars. The multiplicity of uses which have been found for the automobile have also tended to continue the old car in service.

Dealers all over the country have been quick to grasp the possibilities in the situation and are promoting and featuring used car sales with gratifying financial results, especially in those cases where they have made their cars attractive in appearance to the buying public.

A Boston firm which deals exclusively in Ford cars purchased fifty used Fords last winter, gave them a thorough engine overhauling and furnished them with new tops, new upholstery and a coat of paint and varnish. These cars were labeled "Renewed Fords." The firm added 20 per cent to the selling price to cover the "renewing" process and the cars sold readily at a good profit.

The used car department of a large manufacturing corporation has adopted a clever "camouflage" stunt to aid in the sale of its used cars. A used car is divided through the center by a partition of beaver board, on which is painted a sky line tapering off into a cloudy haze, which merges well with the ordinary sky effect. A phoney steering wheel is placed in position on the side opposite the regular steering wheel. One side of the car is splashed with mud and oil and fitted with old tires and old cushions. The other side of the car is resplendent in new paint, new tires and new upholstery. The effect is strange and startling, especially when the car is driven up and down the streets with a driver seated at each steering wheel. The idea, of course, is to show what care and renovation can do in making an old car attractive.

Owners who have become ashamed of the shabby appearance of their cars should adopt the remedy suggested above. An investigation of the cost of painting, retopping and reupholstering will show its negligibility in comparison with the extension of life granted their cars and the increased protection, comfort and pride they will derive therefrom.

Labor Savers

The use of labor-saving machinery to the limit seems to be the only hope of the farmer in these days of labor shortage. The extensive use of machinery has been a characteristic feature of American Agriculture. It has made it possible for the American farmer to stand at the top in the production of crops based on the efficiency of the man and not the acre. There are other countries where the acre yields are greater, but in no other agricultural country does the individual man produce as much as he does in the United States.

Two-row cultivators are coming into more general use all through the corn belt and wherever row crops are grown which require rapid cultivation. We have before us a report of nine typical counties in one of our distinctly corn producing states, which shows that last year one implement concern sold thirty-six two-row cultivators to dealers in this territory, while in the present year the same concern has sold 106 two-row cultivators to the same dealers. In one instance a local dealer sold but five of the two-row machines last year compared with twenty-six this year.

The advantage of the two-row cultivator over the old single-row cultivator which has been in use for years is shown by the report of a single farmer in the state referred to. On this man's farm it took one man ten days to cultivate eighty acres of corn with the single-row plow. Figuring his wages, board and lodging at $2 a day makes a total of $20, and the use of the two horses at $3 a day would mean $30, or a total of $50. Using the double-row cultivator, it took one man just five days to do the same work. His pay and keep on the same basis would thus amount to only $10, and the use of the three horses for the five days $22.50, or a total cost for cultivating the eighty acres of $32.50, as against $50 by the old method. The saving in three or four cultivations on an eighty-acre tract would go a long way toward paying for the improved and labor-saving equipment. Practical farmers throughout the state from which this report comes who have used both types of cultivators say the two-row cultivator will do work as well as a single-row cultivator and is just as easy for one man to operate as the one-row outfit.

The Government has expressed itself strongly in its recognition of the utility of the motor truck in relieving the transportation situation. A recent announcement is as follows: "The Council of National Defense approves the widest possible use of the motor truck as a transportation agency, and requests the State Councils of Defense and other state authorities to take all necessary steps to facilitate such means of transportation, removing any regulations that tend to restrict and discourage such use." In pursuance of this policy, the highway transport committee of the National Council of Defense is working energetically to promote more efficient use of trucks in relieving the congested railroads, particularly as it affects the transfer of freight within cities and short hauls by the highway.

Tire trouble is often due simply to the fact that the inner tube has not been properly inserted. In putting in a new tube, the first thing to do is to give the bridge nut at the base of the valve stem above the metal plate a tightening twist with a pair of pliers. After the tube is placed in the casing, jar the tire a few times to seat it firmly. The tire is then to be mounted and fully inflated before fastening securely the rim nut, which works around the valve stem above the rim. By using proper care in fitting the tube, many tire troubles may be avoided.

Automobiles, motor trucks or tractors in which the cylinder lubrication depends on the splashing of oil in the crankcase, should have the crankcase drained of the old oil at intervals, and the draining followed by rinsing with kerosene. The draining should be done after the motor has been running long enough to agitate the oil thoroughly, so that the dirt will be in suspension rather than settled and adhering to the bottom.

Gasoline is one of the most powerful agencies being used in the great world war. It also does wonders on the farm. Here are some of the stunts of a single gallon of gasoline: It will milk 300 cows, bale four tons of hay, mix thirty-five cubic yards of concrete, move a ton auto truck fourteen miles, plow three-fifths of an acre of land, and make enough electricity to keep eight lights going in a farmhouse for thirty hours.

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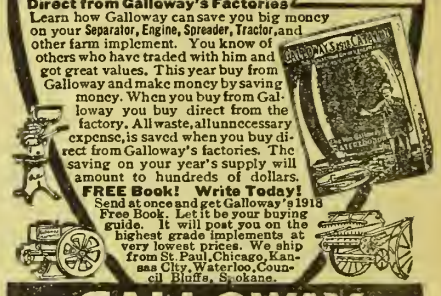

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FOOD ADMINISTRATION SPEAKER

Dr. Alonzo E. Taylor, who is one of the most scholarly and at the same time most brilliant speakers in the National Food Administration, will deliver the Commencement Day address at the Kansas Agricultural College Wednesday forenoon, May 29. Doctor Taylor is a chemist, physician, university professor, and food specialist. For the period of the war he has become a member of the Food Administration, where he is rendering most valuable service. He knows conditions in Germany as well as in the United States, and will bring to those in attendance at the commencement exercises next week an authoritative message on the actual food situation.

Doctor Taylor is a native of Iowa, receiving his early education in the institutions of that state. Later he studied in other states and also in Europe. For some years he was professor of pathology at Chicago University, and since 1910 has been professor of physiological chemistry at Pennsylvania University. He is an authority on human nutrition and in connection with our war program wide publicity has been given to his positive statements on the using of other grains than wheat in the dietary of the people of this country. He states that our preference for wheat has no foundation other than habit and taste. In so far as nutritive value is concerned, the substitutes can be used with perfectly satisfactory results. Students, faculty members, and visitors who will be present on Commencement Day will have a rare treat in hearing Doctor Taylor. No more appropriate speaker could have been obtained for this place on the program.

The spirit of war will permeate the commencement week festivities. The graduating class will be conspicuous by reason of the small number of men receiving degrees in the different divisions. About the usual number of young women will graduate, there being over eighty in the home economics division alone. The gymnasium is being used as a barracks for the men sent to the institution for an intensive sixty-day course of training in the engineering division. Thousands of men are being sent by the War Department to different institutions all over the country for this sort of training. The usual commencement dinner cannot be given on account of the gymnasium being used by these men, but there will be ample cafeteria service on the grounds for the visitors who may attend.

PROF. W. A. COCHEL RESIGNS

Just as we are going to press we learn that Prof. W. A. Cochel, head of the animal husbandry department of the Kansas Agricultural College, has resigned his position to take up work with the American Shorthorn Association. Professor Cochel during the period he has been connected with the Kansas Agricultural College and the Kansas Experiment Station has rendered most valuable service to the live stock interests of the state. His constructive work in solving the problems of beef production under Kansas conditions has attracted the attention of cattlemen all over the Middle West. As we have not as yet received an official announcement of Professor Cochel's resignation, we will not say more at this time.

MEAT PRODUCERS' COUNCIL

Live stock men of Kansas and other states concerned have ratified the proposed federation of council of meat producers' associations tentatively formed at Lafayette, Indiana, April 12. This action was taken at a meeting held in Manhattan May 16, the day preceding the annual cattlemen's meeting at the Agricultural College. Representatives of the live stock associations of Pennsylvania, Ohio, Indiana, Illinois, Michigan, Wisconsin, Iowa, Nebraska, Kentucky, Missouri, and Kansas, were present at this meeting. The purpose of the council, as we pointed out in KANSAS FARMER in our issue of April 27, is to unify the action of the various meat producers' associations. This seems more than ever necessary in view of the many problems arising from the war. At the meeting last week the object was set forth in the constitution adopted, as follows: "To further the interests of the Government, and in so far as consistent with the best interests of the Government, to further the interests of the meat producers of the United States."

The formation of this council or federation is not a duplication of the work or purposes of already existing national organizations. It gives voice in a national and united way to the rank and file of meat producers in a manner impossible heretofore. We believe it will serve a most useful purpose. Those who promoted the federation felt that through its efforts the feeders of the corn belt section could have more representation in the making of the rules applying to the marketing of meat animals. Through the agency of this council it is thought that it will be possible to crystallize into concrete form the suggestions of the various state organizations and thus be in a position to present to the Food Administration suggestions and information that will represent the unanimous opinion and experience of the feeders of the whole country. C. E. Yancey, a practical feeder of Missouri now associated with Mr. Cotton of the Food Administration, stated that a council of this kind made up of men thoroughly familiar with feedlot problems would be in position to render valuable service to the Food Administration, and urged that it be perfected as soon as possible. George M. Rommel, representing the United States Department of Agriculture, also pointed out the need of such a federation of the meat producers' associations in giving adequate representation to the feeders of the Middle West.

COLLEGE CALVES MAKE MONEY

The report of the results of the baby beef experiment was the central feature of the cattlemen's meeting held at Manhattan last week. Fully a thousand people were present on this occasion. There was a more representative attendance of cattlemen from all sections of the state than at any previous meeting. The experimental feeding conducted during the past year was reviewed by Prof. W. A. Cochel. The figures were distributed in tabular form and the cattle feeders present studied most carefully and thoughtfully the results of this winter's test in finishing calves for market. They were especially impressed with the value of silage in reducing beef-making costs. As he has always done, Professor Cochel urged the importance of considering live stock largely as a means of marketing grain and other feeds produced on the farm.

The Kansas Experiment Station is peculiarly fortunate in having the branch station at Hays, where forage crops and grass may be grown cheaply. This condition is typical of the western part of the state, and it is here that the Experiment Station maintains its grade breeding herds and produces the cattle used in the experimental work at Manhattan, which is located in the section where alfalfa and corn are the leading crops.

In the experiment concluded last week the efficiency of the different kinds of Kansas-grown feeds in finishing baby beef for market was studied. The fifty calves fed were from Angus and Galloway cows and were sired by a white Shorthorn bull. This cross produces an animal which is quite often spoken of as a blue-gray. The calves were grown at Hays and shipped to Manhattan, the experiment beginning December 17 and continuing for 150 days. The calves were divided into five lots, considering uniformity of size and type with the greatest of care, so as to have the different lots as nearly equal as possible. In three of the lots silage constituted a part of the roughage ration. In these lots, Nos. 30, 33, and 34, the cost of a hundred pounds of gain was $16.28, as compared with a cost of $17.04 where no silage was fed in lots 31 and 32. The gains in the silage-fed lots averaging 2.48 pounds daily and in the lots receiving no silage, 2.33 pounds daily.

The profits from feeding these calves were rather unusual. Professor Cochel pointed this out in reporting on the experiment. He also stated that in the six years past, a carload or two of cattle and a bunch of hogs having been fed each year, not a single load had lost the station money. These calves were put in the feed lot at $8.75 a hundred, that being slightly more than it was estimated they would bring on the market. On the day of the meeting they were valued at from $16 to $16.75 a hundred. There would have been money in feeding them with a much narrower margin between their cost in the feed lot and their value when ready for market. On the basis of the figures given, the steers in the three lots receiving silage averaged $4.80 more profit per animal than the ones receiving no silage. The silage was valued at $8 a hundred, and the least mature corn and the poorest of the cane and kafir were used in the making of the silage.

There was also a comparison in this test of the efficiency of cottonseed meal and linseed oil meal as a protein supplement. In lots 30 and 33 the only difference in the ration was that lot 33 was fed cottonseed meal and lot 30 linseed meal. The profits in the linseed meal lot were $4.19 a steer more than in the cottonseed meal lot, these supplements being priced the same, $60 a ton. This difference was largely due to the fact that the linseed meal calves had made better gains, and showed more finish, being valued at 50 cents a hundred more than the cottonseed meal lot. This is in line with most previous experimental work with calves, although with older cattle there is as a rule very little difference in the efficiency of these two protein concentrates. The greater palatability of the linseed meal seems to be more noticeable in feeding baby beef animals.

The calves in lot 34 were fed ground corn instead of shelled corn, as were those in lot 30, the balance of the ration being the same for each lot. This ground corn lot made the largest gain of any lot in the test, and the calves showed more finish. No attempt was made to keep track of the pork produced in the different lots. The difference in favor of the ground corn lot was so slight that it probably would have been overcome by the somewhat larger amount of pork produced in lots where the cattle were fed the shelled corn.

Market values were placed on the calves on the day the experiment closed by a committee of commission men and packinghouse buyers from Chicago, Kan. City, St. Joseph, and Wichita markets. A value of $16.75 was placed on lot 34, which had been fed ground corn, linseed oil meal, alfalfa hay, and silage. Lot 30, which had been fed the same combination except that the corn was shelled instead of ground, was valued at $16.50 a hundred. Lot 31, fed shelled corn, linseed meal, and alfalfa hay, was valued at $16.25 a hundred. Lot 32, fed shelled corn and alfalfa hay, was valued at $16, as was lot 33, fed shelled corn, alfalfa hay, cottonseed meal, and silage. In figuring the profits, corn was calculated at the rate of $1.50 a bushel, although buying corn all through the season the actual cost of the corn fed figured out somewhat less than this. Alfalfa hay was charged at the rate of $20 a ton, hay costing even more than that in the early part of the test, but later in the season hay was purchased as low as $10 or $12 a ton, so the actual cost of the hay fed was less than the estimated cost. Silage was charged at the rate of $8 a ton. The cattle were not credited with any of the pork produced and were not charged with the labor of feeding.

GETTING THE SAVING HABIT

Thrift as a habit means much to the future welfare of our country. The impetus given to thrift lessons on our public schools will have a much more far-reaching effect than merely helping out in supplying our immediate war necessities for money.

The idea of war saving is now practiced by the children of Kansas in a way to shame the poor excuse at war saving their elders boast. In the schools of the state the boys and girls are working out problems of saving in their arithmetic lessons, they are writing thrift essays in their English compositions and orating on war economics in their class debates. The result is seen in the hundreds of war savings societies now organized among youthful savers and hundreds more of societies in process of organization.

April, just closed, has been a very good month in Kansas for the war savers. While P. W. Goebel, state director, and practically all of the men and women in the war savings organization, have been speaking and working to oversubscribe the state's quota of Liberty Bonds, the sales of war savings and thrift stamps has gone right along. Not only was there no falling off in the sales of these stamps in April, but it was the best month yet for the organization of war savings societies, in which ten or more persons pledge themselves to save systematically and invest their savings in these securities. Hundreds of such societies are now organized and in full operation in Kansas, particularly in the public schools, and with thousands of persons enrolled as members they can not fail to have a wholesome influence on the future of the state and its people.

L. E. CALL ACTING DEAN

The Board of Administration has appointed L. E. Call, head of the agronomy department of the Agricultural College, acting dean of the agricultural division and acting director of the experiment station. Professor Call began his work at the Kansas Agricultural College in 1907 as assistant in agronomy. He has been promoted from time to time, becoming professor of agronomy in 1913 when President Jardine, who had been holding that position, was appointed dean of agriculture and director of the experiment station. Professor Call has rendered valuable service to the farmers of Kansas in his crop improvement work. In assuming the duties of the new office he can be expected to continue his good work for Kansas agriculture.

The Sedition Bill giving the Government broad new powers to punish disloyal acts and utterances has finally passed both houses of Congress. A vigorous enforcement of its provisions by the Department of Justice should tend to stop the disposition in some quarters to resort to mob law in punishing those suspected of disloyal acts and utterances. The resort to mob law is a disgrace to any community. Now that we have a law drastic enough to handle the situation, those having knowledge of disloyalty in act or utterance should quietly report to the federal authorities. These reports must be actual facts and not rumors. No good purpose is served by repeating mere gossip. Quietly get the facts from personal knowledge and report to the proper authorities. By so doing, justice will be done and an effective check put to expressions of disloyalty and malicious insults to our flag.

The war calls for the team work of soldier son and soldier father—the hero of the trenches and the hero of the furrow.

Raise a freight-saving, year-around, cellar-and-pit garden.

GETTING RESULTS FROM HENS

Future for Farm Poultry Promising---Poultry Products Are Necessities

From Bulletin of American Incubator Manufacturers' Association

IT MAKES little difference to the modern farmer or poultryman which came first, the egg or the hen. The most important job today is not the "why" of the black hen that lays white eggs, it is to get the eggs—to get enough to meet Uncle Sam's needs and to do it at a profit. "The Lay of the American Hen" is famous the world over, but her lay must be increased to meet new and changing conditions of production costs and profits.

"Results from Chickens" resolves itself into the subject of egg production. The improvement of meat breeds of poultry is a matter receiving very little consideration in this country compared with egg laying. And yet the average American hen, according to our Government census figures, lays only eighty-five eggs per year, and at this rate it has been estimated poultry keepers are suffering an aggregate annual loss of $20,000,000 under present prices. On the other hand heavy laying poultry is making more money for their owners over feed costs than ever before. Between six and seven dozen eggs from a hen used to pay for her annual feed cost, and whatever more she laid helped pay the other expenses and the profit to her keeper. Now it takes at least eight or nine dozen eggs to pay for the feed, and most of the other expenses have increased also. What does all this mean? Simply that the egg yield must be increased to make poultry raising profitable and a real pleasure as it ought to be, and we speak from the standpoint of the poultryman or the farmer himself and those powers which are directly within his control. Discussion of market prices on eggs or on feed is not contemplated in this article. But it is a self-evident fact that if the poultry keeper can get more eggs from the same number of hens with the same expense or cost of production and with little or no more labor, he is sure to reap rewards proportionate to the increase.

Egg production in poultry is influenced by three essential factors: breeding, feeding, and management. We name them in the order of their relative importance; breeding is the foundation factor — of prime importance. Recently published educational matter from the feed manufacturers' association has carried this bold headline: "There is more in the feed than there is in the breed." This is misleading to say the least. Why is the emphasis put on breeding in the dairy industry and the dairyman urged to cull out the "scrub cow?" Herd owners pay long prices for high milk or butter fat record cows, and for bulls from record cows in families of known productive quality because the supreme importance of good breeding is unquestioned. With other live stock it is the same. And similarly in our grains productive varieties have been established through careful breeding and selection. Due regard is paid to the feeding of the soil to obtain good yield, but the wise farmer first satisfies himself that he is starting with a good productive strain or kind of seed.

You can't "feed out" eggs that are not "bred into" a bird. All manner of good feed and good feeding won't make a hen lay if she hasn't the natural ability to do so under favorable conditions. Some hens do not lay simply because they are not bred to lay—they have not the ability—and to expect feed to "do the trick" is as sensible as to try and squeeze blood out of a turnip.

Laying is a characteristic, or an inherent quality. And there are all the gradations one might expect to find from the non-productive loafer to the efficient egg machine which shells out the eggs to the record of 200 or more per year.

Feeding is important, but we must quit feeding good feed to unprofitable birds. It is quite as unpatriotic as it is unprofitable to do so. It is a shame and a disgrace to keep unprofitable fowls around, and with what we now know about accurately selecting the good layers and the loafers there is no excuse for it longer. Insult is added to injury by the fact that the poorer layers lay when eggs are the cheapest and rest when egg prices are high.

The selection of good feeds and their proper use cannot be underrated in importance. Given a flock of hens possessing high productive qualities and provide wrong feed and reckless feeding practices is akin to starving a herd of fine heavy-milking Holsteins.

Numerous bulletins from state experiment stations, the U. S. Department of Agriculture and other institutions including the feed manufacturers, give information on feeds and feeding to obtain best possible results. They are usually available without cost and will be mailed promptly to any inquirer.

About 85 per cent of the total amount of feed required for a laying hen is used for body maintenance. The other 15 per cent is that which goes into the eggs—that which enables the hen to develop the egg cells. If only the 85 per cent is fed, hens do not lay. If only 95 per cent is fed, just the very best hens lay. Again if the full amount is fed—as much as birds will eat without waste—the maximum egg yield is obtained, assuming, of course, that egg-bred stock is selected to begin with.

Like the feeding factor, the matter of management must be considered. The efficiency of a workman is impaired if the house he lives in or the building he works in is not comfortable, clean and well aired. No less is the efficiency of a flock of layers affected by their housing conditions and the treatment received. Elaborate and expensive equipment is entirely unnecessary. Almost any kind of a house will do under ordinary conditions if it is clean, free from lice and mites and without cracks or any openings except in the front or south side. Fresh-air houses, free from drafts, frequently disinfected and not overcrowded, are the best. We dwell on the subjects of feeding and management but briefly because of the desire to emphasize the importance of keeping only selected stock and breeding for constant improvement.

The process of elimination has always been the first and easiest step in improving quality. The thing to do is to cull out the boarders, get rid of the drones and thus give more room, more time and 100 per cent feed to the layers so that they may be able to work to their full efficiency. To tell a good layer, watch the moulting. Good layers are invariably late moulters—they do not have to moult early because they are in good condition and keep right on laying. The best layers mature quickly, start laying at an early age and continue to lay until late, when they moult. The comb of a good layer is pliable and warm, usually well colored and of a soft velvety texture. When a hen is not laying her comb shrivels and shows white scales on its surface when closely examined. The yellow shanks and beak in white birds and sometimes in others will be pale, often white, in the layer. This is because the yellow pigment from the body goes to make up the coloring matter of the egg and the color fades in the legs and beak as this takes place. These points and the typical oval-shaped body make it easy for anyone to select layers in a flock without handling a single bird.

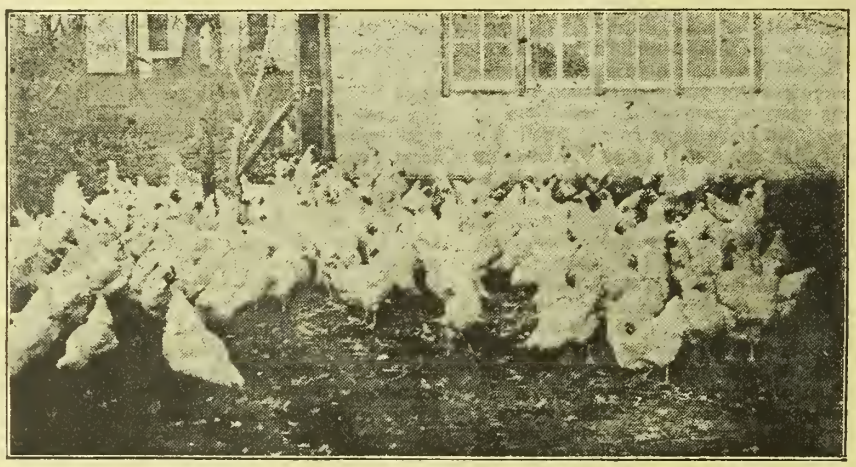
By examining the abdomen of a hen another sign of laying can be detected. For three weeks before laying the oviduct increases in length from five or six inches to about eighteen inches. The body becomes full and changing in shape and the pelvic bones spread to permit the passage of the egg. The great width between pelvic bones will enable anyone to distinguish a layer.

A "star boarder" or non-layer has yellow shanks, yellowish feathers (in white varieties), yellow beak and a shriveled comb. She moults early, has narrow pelvic measurement and carries her body upright. It is claimed further that in the yellow-legged breeds, such as Rocks, Reds and Wyandottes, whether or not the hen has been laying can be told by the pigment of the red ring around the eye. The red color fades if the hen has been laying. If the ring is a rosy red the hen is probably a non-layer, especially if her comb is also shriveled.

The season is at hand or fast approaching when the flocks should be culled. The one shame of the past is that so many poultry keepers have let the wrong hens go to market. The ragged-looking individuals have been marketed in the fall—the late moulters and layers—and the nice-looking non-producers which had finished their moult early were kept in the flock. Cull your flock with certainty and keep only the birds which can at least pay for their board.

The next move is the improvement of the inherent qualities of the flock by introducing blood from some reputable producer's strain of egg-bred stock. This is commonly done by the purchase of male birds for the breeding season or by buying eggs or baby chicks and raising the males from them. One well-known breeder uses the following illustration to emphasize the value of a good male: "An egg-bred male in your flock will increase your egg yield. Many authorities claim an increase of as high as fifty eggs per hen in the offspring the first year. Suppose we figure only twenty-five eggs, and that's very conservative. One hundred to 150 well-selected layers should be the product of one male and his mates the first year, depending on the breed. Increased production of twenty-five eggs per bird on 125 (we'll take the average figure) is over 3,000 eggs, which at only 3 cents an egg means practically $100. And the male is good for at least two or three years." However this may bear out in actual experience, the fact remains that investment in eggs, chicks or male birds of good egg breeding is a decidedly wise and profitable move. If you can't afford to buy the very best, buy the very best you can afford. Buying cheap poultry for breeding to save money is like stopping the clock to save time.

The future for farm poultry is very promising. Eggs and poultry products are a human necessity and not a luxury. High feed costs, uncertain markets and decreased production have operated to cause a big deficiency in poultry. This deficiency can be overcome and poultry-keeping made far more profitable and pleasurable if poultry keepers of America will start right, right now, and stay right. The question is just as much one of patriotic duty as of profit. Getting results from chickens now will mean much more for the future.



YOU CAN'T "FEED OUT" EGGS THAT ARE NOT "BRED INTO" A BIRD

War-Time Methods

Assistant Secretary of Agriculture Clarence Ousley has the following to say about some of the labor problems of the farm:

"It is not possible for us to wage a war of such proportions as that in which we are now engaged and at the same time maintain peace practices and indulgences. We must all sacrifice; we must all do things in other ways than the ways to which we are accustomed. If we can not get the best, we must take the next best. War industries can not be suspended; ship building must go on; munition plants must be operated; soldiers must go to France. With all these activities drawing upon our man power in increasing volume it will become more and more necessary, from week to week and from month to month as long as the war lasts, for each of us not engaged to readjust and reorganize as the circumstances require. More effective than any law that can be enacted by the National Government is the force of public opinion.

"The best agency for the solution of these problems is the agency of community action. If the people of a community resolve that a thing shall be done they will find the means of doing it. There is no power in the Government to create labor, nor have we yet reached the point of national peril where it is necessary to conscript labor or to require farmers by law to grow certain crops. The true test of a democracy is its ability to meet a local emergency without the compulsion of a national law. At any rate, it is impossible this year to organize a system of federal administration of agricultural labor, but it is easily possible for each state, each community, and each neighborhood to solve its own problems. Notwithstanding labor difficulties last year, production was greatly increased; the situation this year is but little if any more difficult, but the more difficult it becomes the more necessity there is for united community action.

"There is a widespread movement to mobilize town men of farm experience for a few days at a time, or for certain days of the week during the periods of labor strain, in planting, cultivating, or harvesting. That was done successfully last year in many of the grain regions, and in some places the stores were closed for two or three days at a time and everybody joined in saving the crops. This is not the best farm labor; the town men are not 'hard,' but they can at least work a few hours a day and in the aggregate they can furnish the necessary man power for emergencies.

"Many thousands of school boys between sixteen and twenty years of age have been enrolled to do farm work. This is not the best labor, but it will serve in an emergency. In many places last year the boys after a few days learned to be quite skillful in certain farm tasks. If the farmers will be patient with them they can become very useful.

"For many of the lighter labors on the farm, such as dairying, vegetable cultivation, and fruit gathering, women can render efficient service. They have been successful in such endeavors in many places throughout the United States. Most important of all, women can relieve the men in the towns so that they may go to the farms temporarily or for a few days.

"In many places sheriffs and town marshals are rigidly enforcing local laws against vagrancy and loafing. In most towns it is against the law to loaf on the streets. A rigid enforcement of such laws will compel able-bodied men to find work of some sort, and whether they go to the farms or find other employment, the effect will be to release labor and increase the man power of the country. In view of the demand for labor it is proper for communities, by law or by public sentiment, to insist that every man, whatever his wages or his wealth or his condition, shall put in full time."

THE WOMAN ON THE FARM

Farm Life from the Point of View of a Farmer's Wife

MRS. W. R. MILLER, Before Berryton Grange Institute

WHEN we stand very close to that which we are examining, our conclusions are apt to be distorted, small things loom large, and those really greater hut more remote do not assume proper proportions. If we desire to get a true perspective we must look at it from different angles, if possihle; get away some distance and hy comparison see more truly.

This lack of perspective is especially true of the country housewife, for shc has such a multitude of ordinary routine things to do, every day or every week—things which may vary with the season perhaps, hut which, like the seasons, are ever-recurring.

It is the housewife's business everywhere to keep the home clean and in order, a task requiring never-relaxing vigilance. Under city conditions, with sprinkling carts, paved streets and sidewalks, the army of dirt does not march quite so rapidly, nor is it given quite such entrance hy membors of the household, and when it does arrive it is not so hard to rout. Just send for the vacuum cleaner and in an hour or so all the rugs and furniture and hangings are free from dust, and as electricity is the power used, the rest of the cleaning is easy.

The laundry work, simplified even in the country over ye olden days by washing machines and wringers, and in many cases hy the farmer's gasoline enginc, yet takes time and energy. The oil stove lightens the hurden of ironing day, but still does not lift it as does the electric iron, or so completely as does the laundry wagon which will call at the city home every week or in any emergency.

To the housewife falls the duty of feeding her family. Every day in the year menus must he planned and meals served. The farmer's wife cannot depend on the grocer and huckster, but must take a long look ahead, and in the winter preserve at least a portion of the summer's meat supply and plan for the next year's garden. In the summer she must gather and use and store fruits and vegetables against the winter's need. Some farmer-men like to make garden and do not turn the vegetahles over to Friend Wife until they are ready to enter the kitchen, but some others will plow and harrow the plot, and perhaps linger to scatter a few seeds, then he must go away to the field, and that particular corner sees him no more. Not that he does not appreciate crisp lettuce, early cucumhers, tomatoes, and the like, but there is too much else for him to do ahout the place, and his wife can do this work. It is good health-giving work for her, too, if it is not overdone—far better for her and her grandchildren than an accumulation of embroidered pillow cases or crocheted centerpieces. But the planting and cultivation and gathering of the garden crops, such part of it as comes to her to do, added to the cooking and canning and serving, do consume considerahle time and effort.

When we think of the garden, we also have in mind the strawberry patch, the raspherries, blackberries, cherries, all the fruits to be gathered by wife and children. Of course few farms will have all the fruits home-grown, hut it is worth the effort required to raise all the climate and soil conditions will permit of such things as the family relishes, for hoth fruits and vegetables lose much of their flavor and desirability when they are shipped.

And right along the same line comes the heautifying of the home grounds. What woman does not love flowers? And you will not find many homes where therc is not at least some flowering shruh, some patch of annual flowers, or some blooming potted plants, if there is not opportunity for anvthing more. Where the farmer as we..as his wife has this love of beauty it is much easier.

Just when we are husiest about the garden it is time to start the incubator. We used to set the hen, but that is too slow; hesides, Biddy is somewhat notionate, and does not always appreciate our ambition to have fried chicken to go with the first peas and early potatoes. Yet we must not omit the chicken industry when looking at woman's work on the farm. Time was when the proceeds from the eggs added quite considerably to the farm income, but in these topsy-turvy days there is room for debate whether it would not hc more profitable to sell the flock and the grain which they require. But what sort of a farm would it he without chicken for dinner occasionally, or what sort of a springtime without the brood of cunning downy chicks?

These are some of the home labor items that fall to the lot of the farmer's wife. I will not speak of mending and sewing, milking and other dairy work, and the occasional bit she may do in the field to help in an emergency. According to her capability will these consume her time and strength and interest. In common with womankind everywhere she has her social life, her intellectual life, her religious life, and I am not sure that these interests of hers are any different from those of the male membors of her household.

Once I read of two women who were schoolmates, and who went away to college together. After graduation one of them took a business course and in a few years secured a responsihle position with a firm doing a large business. Thc other, after a year or so, married a farmer. The business woman of course lived in a city, with all its opportunity for attending concerts, lectures, and so forth, and she availed herself of these privileges. She helonged to a large city church which she attended regularly. The farmer's wife had her home duties, her growing family and her part in the community and church work, entertaining, as did her neighbors, such strangers as came to the community. As her children became older and less dependent she took more part in church, Grange and other community activities. At fifty she had met and entertained in her home many eminent peoplc of her state, and her influence extended far heyond the confines of her immediate neighborhood. Her girlhood friend had her business associates, but because of the environment in her life she had not heen able to develop as had other women, for in rural communities there is so much more chance for individuality.

Life is not a simple matter anywhere. The world, because of such vast improvements in methods of communication and travel, is not nearly so large as it used to he. We can know what is happening on the other side of the globe in less time than it used to take for the news to travel across the state. The telephone links cities together, joins town and country, and hinges neighhorliness to farm dwellers living miles apart. The daily delivery of mail with papers and magazines and friendly letters, puts us in touch with world affairs, and we learn of the events of the day almost as soon as the city people. The automohile, in ever-increasing numhers, coupled with good roads demanded by the autoist, but the henefit of which extends to every one, is another great boon for farm folks.

The one great objection to the farm used to be its isolation, and now that has been removed to a very great degree. The other extreme is as ohjectionahle. In the centers of population one is with people all the time. There is no escape except in the privacy of one's own room. Under such conditions it is difficult to keep one's poise and judgment, and not to be unduly influenced by puhlic opinion. It hecomes easier to go with the crowd, to dress and eat and play as the crowd does. Here in the country we now have the advantage. We come, or at least can come, in contact with people often enough and closely enough to get in sympathy with their viewpoint, hut we are also alone enough ahout our own business to ponder and sift and form our own opinion. Emerson says "It is easy in the world to live after the world's opinion, it is easy in solitude to live after our own, hut the great man is he who in the midst of the crowd keeps with perfect sweetness the independence of solitude." Farm folks can have a nice balance between the crowd and solitude.

The mother in the country has a much better opportunity to keep in touch with the lives of her children. How many a thoughtful mother envies you on the farms, because when school is out your children can be happily occupied at home! No need to wonder and worry ahout where and with what associates they are. There is no place in the world like a farm for growing children, especially hoys. Then it is not so hard for the country mother to know about the school life of her children, for the schools are not so large but that it is possihle for every mother to entertain and get acquainted with her child's teacher, that she may co-operate with the school, and all concerned are benefited therehy.

Can you tell me of any place where there is more freedom than on the farm? Freedom to come and go without permission from another, freedom to think and feel without undue pressure of public opinion, freedom from the dictates of arhitrary fashion. Some may question this last freedom, hut while we have some regard for style in dress and other matters, we in the country do not judge so much by apparel or possessions as we do hy real worth, character. I do not think we appreciate this freedom, nor realize how, hecause of it, we can he our own selves, hecause of it we can give our thought to things outside of self.

Then, where hut in the country can we so cultivate our love of heauty? How many times in the early spring do we pause for an instant to admire the lacy green of the new-leafing trees, or hunt for the songhird among its hranches? Or where but in the open can we watch the cloud shadows chase each other across hill and meadow? Or at evening with the children find pictures in the clouds? We see the various works of God on every hand, the color of the flowcr, the symmetry of the trees, the fragile daintiness of the butterfly, the heauty of the waving fields of ripening grain, the grandeur of the sunset, the quiet solemnity of the starlit sky. And so, I think farm life is conducive to real religious life. We know from our actual experience that "As a man sows, so shall he reap," and that "We cannot gather figs of thistles." If we are thoughtful at all we know that this applies to the deeper, the unseen things as well. And in the country church the women of the farm and the men as well may join together in worship, find inspiration for servicc, and so, in home and community, do their part in lifting the world to a truer way of living.

Life on the farm? What is life any place? Just a time given to earn a livelihood? Work? Yes, we needs must work, on the farm or elsewhere, but the work is not the end and aim of life. Work is lighter when our aims are beyond the mere labor.

An old mountaineer was perfectly content to cultivate his five acres of corn. True, he and his family lived in one room and a lean-to, and subsisted on pork and corn, hut he didn't see any use in planting ten acres when they could manage to get along on five, and then he had so much more time to rest, and he did like to rest. He would sit by the hour in his rickety old chair tilted back against the cahin "resting." The county agent came along and, after several seasons spent in allaying the old man's suspicions, finally succeeded in persuading him to make a visit to town, the guest of the county agent, where he and his helpful interested young wife did their best to give him a good time. He was polite but not very much interested in many of the things by which they sought to entertain him, but he did enjoy hugely and persistently the Morris chair. When they went down town he wanted to know where he could get a "cheer" like that one, and when shown was amazed at the price. The next spring when the county agent was again in that section he was surprised to learn that the old man had fifteen acres of corn in fine condition. He was going to have "a cheer to rest in" and was willing to work for it, as it was the only way for him to get it. Of course he got it, and in its train followed other improvements so that all the family could rest too.

The slogan of this institute is Community Welfare, and an up-to-date slogan it is, too. All our advantages and enlightenment and added conveniences bring opportunity and responsibility for service. We are living in a day of unrest, the forces of good and evil have been more definitely arrayed against each other than ever before. The temperance movement has challenged John Barleycorn and the end of the fight is drawing near. The Red Cross and the Y. M C. A. and the Y. W. C. A., the Boy Scouts and the Campfire Girls, the young people's societies and brotherhoods in every church—these are some of the forces recently organized to combat the forces of evil. And we farm women are interested in these things, for our boys and our girls will he helped or hindered hy the environment in which they find themselves.

The woman on the farm occupies such an inconspicuous place that she may think she doesn't count. The women of Glenwood organized a mother-daughter canning club a few years ago. Just a community of average country women. They canned thousands of quarts of fruit and vegetables, and became the inspiration for the whole country to help in food conservation as a war measure, hy saving what otherwise would largely have gone to waste. These women, along with providing good nourishing food for their families, furnished a wholesome interest for their growing girls and established fellowship with them, to the everlasting henefit of both mother and daughter.

In any community where there is comparatively little change, there is a tendency to form cliques. While it may be true that old friends are hest, it is also true that we are hroadened hy contact with people of many types. This Glenwood community was no exception to the old-settler type of neighhorhood, but in their enthusiasm for the club to make a record with the numher of quarts canned, the cliques were forgotten. In-

(Continued on Page Nine)

MOTHERS BUILDERS OF CHARACTER

OF COURSE a woman never makes the success of business that a man does," complacently observed the Successful Business Man. "Most of us don't care to," I hastened to explain. "That is, we don't consider business the most important thing in our lives and we are not usually willing to give to it the years of training and experience that a man will."

Then I caught the quizzical look in his eye and knew he hadn't really meant it. "Well, it is rather a strange thing, when you stop to think of it," he went on, seriously now. "A woman may know nothing about business and perhaps could not handle it at all, and yet she teaches her son the things which help him to succeed. Every bit of success a man makes in his work he owes to his mother, because she it is who helps him to build up a character, and that is the essential thing after all."

SAVE VEGETABLES BY DRYING

Community or Municipal Drying Plants Proven a Success

PRESERVING fruits and vegetables by drying is a method which might be much more generally practiced. Establishment by municipalities from municipal funds of drying plants for fruits and vegetables where conditions are favorable is referred to in Farmers' Bulletin 916, A Successful Community Drying Plant, published by the United States Department of Agriculture.

In municipal plants, the bulletin says, the work should be supervised by the city council or other authorities. If the plant is not a municipal plant, it is best to place it under the guidance of some association already in existence, such as a civic improvement club, commercial club, home-school garden club, or a special community club organized for the purpose.

As an example of a club that can be formed for the purpose, the bulletin tells of one community that has a drying plant and in which a special community club of approximately 60 farmers has been organized primarily to look after the operation of the drying plant. The officers—president, vice president, secretary and treasurer—constitute the executive committee and are intrusted with power to act. A simple form of constitution and by-laws has been adopted, and meetings of the club are held monthly or oftener, usually at the drying plant, which in this instance is in a room of a church building.

Municipal or Government owned drying plants have been in successful operation in European countries for years. Such plants provide village communities with a convenient and simple method of drying all sorts of produce of the home garden and orchard, as well as the vegetables and fruits shipped to the community, which might be allowed to go to waste at the stores and market places. The drying plant described in the bulletin follows closely the specifications of a community drying plant at Lincoln, Nebr., and eleven others in that general section, all of which were operated successfully during the summer and fall of 1917.



The advantage to the busy farmer's wife in the country community can not be overestimated, says the bulletin. Her work is heaviest in the summer when vegetables and fruits must be saved for winter use. The establishment of a community drying plant at a consolidated school, country church, or centrally located farm home would offer a great relief from kitchen duties.

The drying plant described in the bulletin uses an adaptation of the electric fan process of drying. A stream of dry air is caused to flow continuously over the products being dried. The humidity of the air, the method of preparation of the vegetables, and the velocity of the air current have much to do with the rapidity of drying. It is a utilization of the same principle by which winds will dry roads after a rain or by which damp clothes hung in a breeze will dry much more quickly than those hung in the quiet air. Another feature of the drying plant described is that instead of the air being forced across the vegetables it is drawn across them. Laboratory tests indicate that drying is considerably accelerated when the suction method is used, although the force method will dry satisfactorily and is used in at least one Nebraska plant. The bulletin says that such a plant should be operated without expert help and by power easily available, and can be built complete for $250 or less. Plans and specifications for building such a plant are given in the bulletin.

The most important feature to watch in the construction of a drying plant of this type is the fan. The main point to keep in mind is to get one that will move a sufficient quantity of air. If the fan will move air fast enough for the suction to hold a piece of cardboard or other material 1 foot square and weighing 8 ounces against the wire screen at the intake end, the drying will proceed satisfactorily. Any type of fan can be used, and among those that have been found efficient are the old silage cutter blower fan, a separator fan used on a blower threshing machine, and a fan which had been discarded at a planing mill after use there in drawing sawdust and shavings from the planing machines. The fan may be operated by an electric motor of from 2 to 5 horsepower, or by a gasoline engine of similar power.

Nebraska's experience with community drying indicates that ordinarily a better colored and better flavored product is obtained if no artificial heat is applied. Even in arid countries, however, and always in humid countries, it is best to have equipment for heating. This will be needed when the air contains much moisture. An effective method of heating the air is by the use of a hot water radiator at the intake end of the drier.

Fruits and vegetables meant for the drier should be prepared by cleaning as for table use. After cleaning they should be sliced thin. The slicing process may be hastened by use of a slicing machine.

After a sufficient amount of moisture apparently has been removed, it is well to keep the product for several days in a large container which can be protected by either a cloth or a wire screen. After a few days, if there are no indications of moisture collecting on the dried product, it should be placed in pans in the oven or exposed to the sun or air currents for a few hours and then packed in permanent containers. The enemies of dried fruits and vegetables are moisture, insects, and rodents, and successful storing will depend on protection against them.

Any person interested in the subject of community drying of fruits and vegetables will find valuable suggestions in Farmers' Bulletins 841, 903 and 916. They may be obtained free upon application to the Division of Publications, U. S. Department of Agriculture.

Speculation in Land Values

ABOLITION of land speculation and high monopoly prices for land is absolutely necessary if we are to lower the cost of living, increase food production, and provide land for our returning soldiers. This was the message carried to the farmers of the Northwest by William Kent, member of the Federal Tariff Commission and himself a practical farmer and stockman on a large scale.

Mr. Kent, one of the most influential and interesting figures at Washington, went to St. Paul to address a mass meeting of farmers as the representative of the federal government. Discussing the land question, he said:

"Permit me for a moment to take up in this regard something that you must meet, and I know you are willing to meet if you are going to create a movement of real democracy. The land question is a matter of the most firm importance. You can't raise your products cheaply on high-priced land, because land must be paid for out of the produce of the land. We have got to stop this process of handling. Everything, your implements, and the added land values are putting a perpetual tax on the food.

"I wanted to offer a prize worth while for the best essay on the cost of producing a ham, showing the portion of the cost of the ham shown in land prices. It would be a very instructive essay.

"I used to sell land out in Nebraska at twelve dollars and a half an acre, and at that time six crops of 20-cent corn would keep a farmer alive and pay for the land that it would now take more than six crops of 75-cent corn to do the same thing.

"Now all that falls back on the fellow that has no land. The cost of that ham is found in the cost of the feed that goes into the hog, and the cost of the land upon which the hog grows, and the fellow working in the city in the factory, he has no means of recouping that added charge. Take the prices of city real estate—the cost of those great alleys of over-built buildings, tremendous extravagances all of which has to rest upon the backs of those who are creating useful production.

"There isn't any more free land that is worth anything. When people get up, as Senator Harding did a short time ago, and talk glibly about putting the soldiers that return from the trenches back on the land, he will find that they are controlled privately, that there will be somebody owning the land that has any value, and that they will put a price on that land in accordance with the demand for it. If a man were told now to 'go west and grow up with the country,' he probably would keep going until he dropped off at Seal Rocks or at the Cliff House in the Pacific Ocean and wet his feet. There isn't any more free land. Some way or another, through some process or another, we have got to recognize the fact that while permanent tenure of land is good, and tends to the permanence of society, we have to recognize the fact that that tenure should depend upon the highest possible use of that land, and society should demand that there should be no fee simple title, whereby a man is entitled to ruin his land and leave it barren. There should be no chance for unproductive land speculation. I can talk here feelingly because I have had a land mania that I have inherited from my ancestors away back, and I have bought and sold and speculated in land in about a quarter of the states of the Union, and it's too easy—it's taking marbles from children. It's a contemptible way of making money, but my time was so devoted to other business affairs that I just took this on incidentally, thinking to myself that somebody was going to make some money, and I might spend it better than the other fellow.

"Now I want to speak for a moment about the land credit system. We are working out farm loans by the Government, they are valuable, they help, but they are utterly inadequate; they don't get at the real symptoms. If a man has land worth $150 an acre he can borrow $75 an acre on it, but he don't need the $75 as much as the poor fellow that has to make his land worth something needs help. I indulged in land speculation in North Carolina. There were two neighbors within a short distance of where I bought. One of them was from Ohio, who knew nothing of North Carolina but had a good deal of money and lots of nerve, and the people down there said he had no sense. He bought land at five dollars an acre, force-cleared it—that is, took all the stumps out of it at once. I think it cost him about eight dollars an acre, and although everybody said it couldn't be done, he planted and raised a tremendous quantity of tobacco of good quality, and he paid for his land, the clearing of it, and the growing of the crop, in one crop. That was five-dollar land. I suppose it might have cost him seventy-five dollars to get the crop, but he got it. That is the sort of thing we must work out in this country.

"We must work out a plan whereby a man will be staked up to the point where he can make a crop. That can't be done generally freely out of Uncle Sam's pocket—that would be too much like 'money from home.' The man might forget to raise a crop. It should be done as it was done in Denmark by co-operative agencies, by men who can watch and see that the work is done, and see that credit is deserving."

Garden Irrigation Inexpensive

Reports from sixty windmill operators who irrigate gardens have been obtained by J. B. Marcellus, drainage and irrigation engineer of the Agricultural College extension division. These show an average of four acres being irrigated by each plant. The average cost of the plant was $155 without a reservoir and $41 extra where a reservoir was included. In view of the fact that some method of pumping water must be installed whether the pump is kept going for irrigation purposes or not, the added cost for irrigating a garden is very light. Mr. Marcellus says that one windmill can successfully irrigate five gardens if a reservoir is constructed. The family having a five-acre garden irrigated when necessary and well tended need have little fear of a food famine.

The slope of the ditches between the rows should be about two inches to the hundred feet. If the grade is necessarily steeper, little dams must must be made to hold the water until the soil is soaked. Straight rows look better, but if the land is not uniform in slope the furrows can follow the contour of the ground so as to get as near the ideal fall as possible.

The supply ditch should be large enough to carry water for about a dozen row furrows. When irrigating let the water trickle through the furrows to the end of the rows, then turn it into another set of furrows. Sometimes it is necessary to turn the water into the furrows several times before the ground is sufficiently soaked. Always cultivate or hoe the surface to hold moisture as soon as the surface is dry enough.

A garden irrigated at the proper time will return much larger yields and the quality will be much better. In fact occasionally an irrigation will save an entire crop.

Physiologists all agree that a wholesome diet need not include wheat. The South fought the Civil War three years on corn. Early New England did without wheat five years at a time with no ill effects.

Kansas Patriotism Ranks High

THE close of the third Liberty Loan campaign finds Kansas away "over the top" and a strong contender among the states of the nation for high patriotic honors in the per capita investment of money in Government war securities. It also develops, as the Liberty Loan campaign discloses, that the people of Kansas are fully alive to the urgency of giving their unstinted support to their Government in this war crisis—not only in Red Cross and camp welfare work, in the many activities that have to do with supplying the soldiers and sailors with things of comfort and cheer, and in the conservation of food and fuel, but in the lending of money to the Government to prosecute the war to a successful finish.

It probably is true that in no other state in the nation is there so practical a demonstration of true patriotism as is exhibited here in Kansas where practically every man, woman and child in the state is engaged in some form of activity having to do with the war.

This is clearly shown by the manner in which the people are taking up and pushing the sales of War Savings and Thrift Stamps or Baby Bonds, since the Liberty Loan was put over. While there was no apparent lagging of sales of these securities during the intensive drive for the Liberty Bonds, the renewed activity in the war savings campaign is an indication that the people as a whole are now vitally interested. Thousands of persons who were previously giving no support to the campaign are now buying War Savings and Thrift Stamps and are determined to help put over the $35,000,000 quota for Kansas by the end of the year 1918.

So many persons in Kansas had become accustomed to talking about money in large denominations that they were inclined to look upon the 25-cent Thrift Stamp, or the $4.16 War Savings Stamp, as of little use in a scheme of financing a great undertaking. But these persons are now beginning to realize what an immense sum of money can be accumulated from the millions of 25-cent pieces lent to the Government by the army of war savers, and they are falling over themselves in an effort to get in on the big saving plan.

The school children of Kansas, according to P. W. Goebel, state director of war savings, are going to plan the most popular savings project ever devised. For not only does it give every child the opportunity of doing something to help win the war, but it makes every child —and through the children thousands of grown-ups—a saver in a practical way that is a great help to future prosperity.

These school children are organizing war savings societies by the hundreds, and thousands of members are added weekly to the army of school savers. In Kansas City, Kansas, alone 140 of these War Savings societies are now organized, while in nearly all other towns and cities throughout the state the ranks of the savers are growing in about the same proportion.

Giving Thrift Stamps as "change" at the retail stores is also doing a great deal to advance the sale of these stamps, and the system that became general over the state on May 1 is to continue.

So, with all the activity in the war savings campaign it is now apparent that Kansas is to go "over the top" in the most popular of all the war finance projects.

Dairying After the War

(Continued from Page One)

same applies to South American countries. At the close of the war, if we have the butter to spare, those markets as well as European markets will be open to American butter. Speaking recently at a marketing conference in connection with the National Dairy Show, a well known and well informed creamery and produce man stated that a larger production of butter is necessary and gave it as his opinion that butter is not likely to average below 40 cents a pound for some years.

From the standpoint of patriotism, as well as from the standpoint of a steady, reliable income for years to come, the Kansas farmer will do well to consider seriously the possibilities of the dairy business. I would urge the average Kansas farmer who is milking and who has a fairly good bunch of cows, to stay with them—to stick with the dairy business—to continue to build up that herd. Don't chase the rainbow which may appear from time to time. We are sometimes inclined to do that, and we usually lose in the long run. There is a tendency on the part of some farmers with a good dairy herd and a profitable dairy business to quit that business because for a few months they consider they can do a little better at something else. The farmer who does that has wasted the effort of years in building up a sure and profitable business and in many cases his new venture proves a will o' the wisp, not as profitable as he had anticipated.

To those who make dairying a main issue and not a side line, and who conduct their business systematically and scientifically, I wish to say this: I have heard of some such dairymen seriously considering the matter of discontinuing the business. Such a decision generally comes at a season of the year when the herd as a whole is at its lowest period of lactation and feed is rather high and profits are consequently slim. You are not by any means alone in experiencing such conditions and periods. There are in fact few businesses that do not have months of the year during which the expenses equal the profits and sometimes the bookkeper has to dip into the red ink. This is true in conducting a creamery and it is true in many other businesses. But there are sometimes reasonably good periods and so the business man does not give up and quit, but considers his average or his profit for the year. And while it is true that you have your lean months when things perchance look somewhat blue, you likewise have your fat months when your cows are on pasture, which is the best feed you can get for a dairy cow, and the cash received for your product does not have to be paid out for feed.

Experiment stations and experimental farms are not conducted primarily for profit. Their purpose is distinctly educational. The superintendent of the North Platte Experimental Farm in Nebraska, in speaking of this point, says: "Hogs are raised here not to make money as a first consideration, but to show the farmer how he can avoid raising hogs at a loss and how he can make money out of them." In this connection this man made the statement that if the seventeen thousand hogs in Lincoln County, Nebraska, a year ago had been fattened as one particular lot was at the experimental farm, it would have meant $93,500 more profit for the farmers of the county than they made by the methods followed. In the experiments conducted with a number of lots of hogs, some lost money, others made small profits, and still others made good profits. The thing for the farmer to do is to seize upon the results of such experiments and put them into practical operation on his own farm.

Now is the time to get the early spring fly. SWAT!

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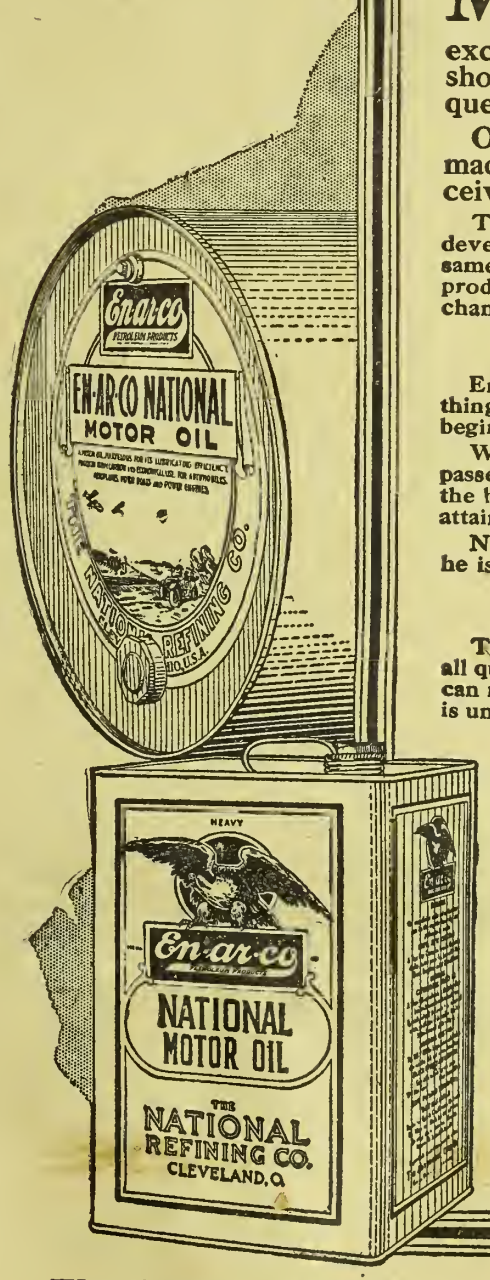
En-ar-co National Motor Oil will give utmost satisfaction — a matchless lubrication service. This *uniform* oil means more power, less carbon—longer life to the motor and least upkeep expense.

Motor Oil Made By Graduate Workmen



Note How En-ar-co Refiners Have Solved Motordom's Lubrication Problem

MOTOR users face a problem of motor oil selection that puzzles even the most experienced. Hundreds of brands confront them. Many are good. Some excel others. But which oil to use is perplexing. "Why should I use this brand in preference to others?" is a question often asked.

Oils excel as do the men who make them. When nature made the crude, she knew no favorites. Refiners received the same raw materials. All were supplied alike.

Then certain fundamental methods were perfected. Formulas were developed. Tests were standardized. The crude followed much the same routine from the wells, through the refinery, to the finished product. Yet these lubricants differed. Often a refiner's own product changed from time to time.

How En-ar-co Quality Originated

En-ar-co systems now change all this. We knew there was something more than mechanical methods. And so we started at the beginning—with the workmen.

We established well defined standards of efficiency. Each man passed through a primary course of refining instruction. Then through the higher grades of En-ar-co training. As these high standards were attained, the workmen were awarded their degree.

Now each workman strives for his master degree. For without it he is not entrusted with the responsible tasks.

Scientific Refining

Thus we have developed Scientific Refining. We have eliminated all quality fluctuation. We have produced the best that skilled men can make. For 35 years we have given the world a lubricant that is uniform—En-ar-co National Motor Oil.

We ask only that you try En-ar-co National Motor Oil. Regardless of the motor you use, whether in automobile, tractor, motor boat or engine, your investment demands that you lubricate with oil made by "men who know" — men who are graduate workmen.

Get This FREE Handy Oil Can

We Also Send Facts You Should Know

Be sure to fill out and send the coupon below. We will send a new-style special design oiler that reaches the hard-to-get-at places. You can't find another like it anywhere.

We will also send vital lubrication facts that you should know. We want you to have them now, early in the season. Send today.



Sent FREE

The National Refining Co.,
1427 RoseBldg.
Cleveland, Ohio

I own .....
(Give name above)
automobile or tractor and enclose one 3-cent stamp. Send me Handy Oil Can Free. Please give nearest shipping point in state and quote prices on items I have marked. I will be in the market about .....
(Give date above)

I use....gals. gasoline per year
I use....gals. motor oil per year
I use....lbs. axle grease per year
I use....auto grease per year. I use....gals. kerosene per year. I use.....gals. tractor oil per year.

My name is .....
R. F. D.....Postoffice.....
County..... State.....

Tear or Cut Out—Mail Today

NOTE: This can will not be sent unless you give make of your auto or tractor.

The National Refining Company

Branch Offices in 77 Cities
General Offices: Cleveland, Ohio (77)



THE "ACID" TEST OF VALUE

At an auction sale the buyer makes the price.

Auction prices are apt to be lower than the real value warrants, rather than higher.

In any case, auction prices represent the estimate of value placed on the article by the buyer and not the seller.

During the past few months, the cow owner's appreciation of the unusual values offered in De Laval Cream Separators has been demonstrated in a most remarkable way.

From one state after another have come reports of the sale of De Laval machines at farm auctions—machines which had been in steady use for several years—at prices, in most cases, only two or three dollars less than the sale price when new; sometimes at practically the same price at which the machine was sold when new; and, in several instances, at even more than the original list price.

In February, at a Missouri auction sale, a De Laval in use two years was sold for $1.25 above the original purchase price. In Kentucky a farmer paid for a De Laval $2.00 more than the original price, at an auction sale. Last January, in West Virginia, a second-hand De Laval sold at auction for $2.50 less than the original catalog price. On January 15, in Ohio, a De Laval machine in use a year was sold at auction for exactly the same price it brought when new, and at another point in Ohio a De Laval in use several months brought several dollars more at auction than the original list price. In the province of Ontario, early in April, a De Laval in use since 1916 brought at auction a price $5.00 higher than the owner paid for it when new.

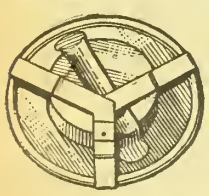
In contrast with these prices paid for De Lavals at farm auctions, it is interesting to note that when other makes of cream separators are offered they are usually listed simply as a "cream separator," and not by name. Often there is no bid for such machines and their usual auction prices run from $10 to $15. We have never heard of one that sold at auction for half its original cost.

Perhaps you may not have had an opportunity to learn of the cleaner skimming, easier turning, the great durability and the splendid service given by the De Laval machines, but here is the strongest and best sort of evidence that those who know cream separators appreciate that the man who buys a De Laval gets good and generous value for the purchase price. And further, that even after a De Laval has been several years in use, it is practically as good as new.

If you are without a cream separator or in need of a new or better one, why not see the local De Laval agent immediately? If you don't know him, address the nearest De Laval office as below, for any desired particulars.

THE DE LAVAL SEPARATOR CO.

165 Broadway, New York 29 E. Madison St., Chicago



NO MORE SPILT MILK! Government reports show $18,000,000 worth lost in one year. HELP SAVE IT. Conservation is the foreword and sligan of the nation. Much of the milk product is lost at shipping stations. STOP THIS LOSS with **HENTHORN'S MILK CAN LOCK.** It locks and seals the can securely from the time it leaves the producer until it arrives at its destination. With this lock it is impossible for cream or milk to be spilled or pilfered. **Price, 65 Cents.** Ask your dealer, or write

Milk Can Lock Mfg. Co., Osawatomie, Kansas

The safest way to select a dairy bull is to choose a mature one that already has daughters in milk so that it will be possible to judge how he transmits dairy qualities. This plan is especially valuable for the man who has a herd already well developed. The Agricultural College of Missouri used this method in selecting Sultana's Virginia Lad. The average record—9,000 pounds of milk and 511 pounds of fat as two-year-olds—of his first five daughters to freshen, shows the marked success of the plan in this case. Difficulties are experienced in many cases in obtaining such a bull, and as a rule only the owner of a pure-bred herd can afford the time and expense involved in finding such an animal. However, it is always well to be on the lookout for such a bull, and to keep a highly-bred bull once used in the herd until the results in breeding can be ascertained.

Meet the wheat crisis by recognizing it—join the "wheatless-till-harvest" club.

KANSAS FARMER DAIRY CLUB

Feeding Value of Skim Milk

IN ORDER to understand why skim milk is such a valuable feed, we should first know what milk contains, and, second, what is taken out when it is separated and what remains. The following table represents what would be found in an average hundred pounds of milk, the figures being those of Professor Babcock:

Water	87.17
Fat	3.69
Milk sugar	4.88
Casein	3.02
Albumen	.53
Ash	.71
	100.00

When the cream is removed by the cream separator, practically all the butter fat is taken out. The skim milk which remains contains everything but the fat, and the second table shows what is left of the hundred pounds if nothing but butter fat is removed. Of course it is impossible to skim a 100 per cent cream, thus taking out only butter fat, but a 50 per cent cream is possible, and this would remove less than four pounds of other material than fat from a hundred pounds of milk so that there would remain over ninety-two pounds of skim milk for feeding.

What remains after separation:

Water	87.17
Fat	.02
Milk sugar	4.88
Casein	3.02
Albumen	.53
Ash	.71
	96.33

The skim milk has a feeding value because, although the fat has been extracted from it, it still contains the proteids; that is, casein and albumen, which are known as the flesh-forming constituents of food. The function of the proteids is to furnish material for the formation of lean flesh, blood, tendons, nerves, hair, horns, and wool. The fat taken from the milk with the cream is the energy-producing constituent of food—it is stored up in the body either as fat, or it is burned in the system to produce heat and energy. The equivalent of the fat taken with the cream may be added to skim milk in the form of corn chop, oil meal, or other ground feed.

From the tables given it will be seen that the percentage of protein in skim milk is greater than in a whole milk, and as protein is what produces bone and muscle, the feeding value of skim milk is apparent. The fat taken from the skim milk can be readily supplied in the fat and starch contained in grain.

The secret of success in feeding skim milk lies in feeding it when it is warm before it has a chance to become a breeding place for undesirable germs. The butter fat which has been taken from the milk can be easily replaced by adding corn meal or other starchy grain, which is a great deal cheaper material than butter fat. This serves to balance the skim milk, since the calf or pig uses the starchy grain to take the place of the butter fat removed. For feeding young pigs, skim milk in connection with corn meal is worth from 25 to 75 cents a hundred pounds, depending upon the price of corn. At the present price of corn a proper use of skim milk in feeding pigs should return a value not far from the maximum figure given.

Professor Henry in "Henry's Feeds and Feeding" says: "The principal reason for the high value of skim milk as a feed for growing pigs is that it is essentially a growth-producing food, containing all these elements ordinarily in the milk. It is a well known fact that in the corn belt the tendency is to feed pigs too much of a fattening ration in the form of corn. Such a ration lacks the growth-making elements which are supplied in the best form by skim milk and butter milk."

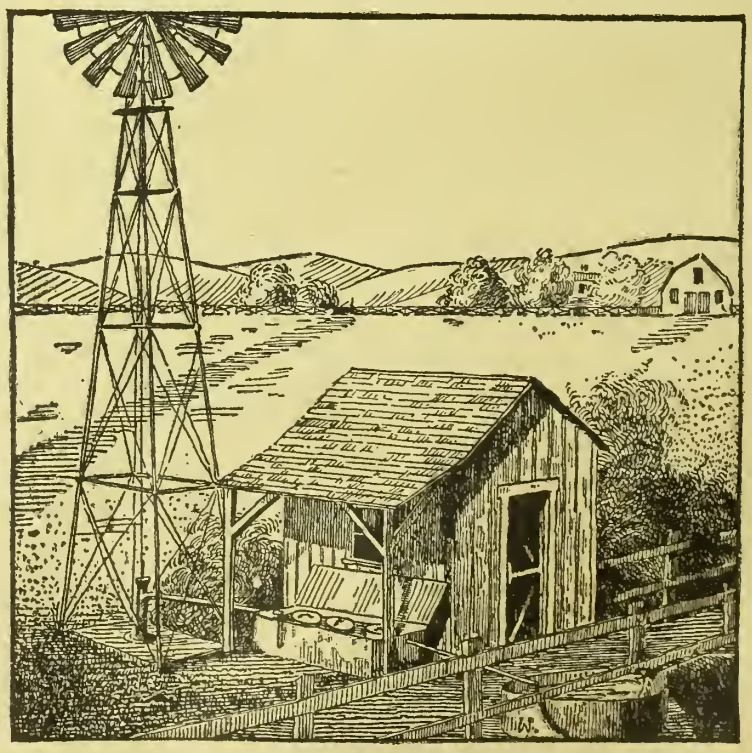
In some recent trials made by the West Virginia Experiment Station it was found that with eggs selling at 20 to 25 cents per dozen, skim milk used for moistening the mash fed to chickens had a feeding value of about 2 cents a quart.

Purpose of Calf Clubs

In the organization of calf clubs, bankers and other enthusiasts anxious to develop dairying in their respective communities should not overlook the training of the boys and girls concerned. It is a fine thing to get some good dairy cattle into a community, but it is a finer thing to train the young people to love stock and teach them the best and most profitable methods to follow. The work is only begun when the calves are distributed. The promoter must carry out a systematic follow-up campaign or the club will not accomplish that for which such clubs are formed.

We agree with the sentiment recently expressed in Hoard's Dairyman that the calf club is a means of making the care and handling of dairy cattle a pleasure and not a drudgery. "It is an effort," says the editor, "to induce boys and girls to care for and raise dairy calves—and to be interested in the work. The chief object is to encourage among boys and girls a love for live stock which will lead them to become caretakers of animals. The club teaches thrift.

"Half of the good of club endeavor is lost when a sale of the calves is held. The fullest benefits follow the plan of growing the calves until they become a part of the milking herd. Carried to its largest purpose, club work engenders a liking for animal husbandry and an un-



MAKE THE WINDMILL COOL YOUR CREAM

derstanding of the things of the farm. It helps make the farm a place where boys and girls want to continue to live."

At this time of the year many of the boys and girls in the Dairy Club are feeding smaller amounts of grain than in the winter. Where only a few pounds are fed each day it is inconvenient and unnecessary to weigh each day's ration separately if the total amount fed during the month is known. Twenty-five or a hundred pounds can be weighed out at a time more conveniently than a few pounds each day. The grain can be fed by measure and then at the end of the month whatever is left can be weighed and this amount deducted from the original weight. This is really more accurate than attempting to weigh small amounts daily. When this is done, all that it is necessary to indicate on the record is the total amount of each kind of grain fed during the month.

Cows of Coming Generation

The right kind of breeding on the side of the sire is of even greater importance in improving the production capacity of a whole herd than simply culling and raising calves only from the highest-prodncing cows. In speaking before a dairy convention at Yakima, Washington, recently, Prof. C. H. Eckles of the Missouri Agricultural College raised a question as to whether constant culling out of our inferior cows would not result in the next generation having fewer cows. "The statements I am going to make I am aware are not in accordance with popular opinion," said Professor Eckles, "bnt our ideas must be modified from time to time in the light of recent scientific knowledge. I will say it is entirely possible and in fact probable that if we depend upon the elimination of poor cows alone, the next generation will contain almost as many inferior ones as does this one. To make it more concrete, I will say that in a herd where the animals are much the same breeding, a heifer calf from one of the best cows in the herd stands some chance, but a very small one, of being better than a heifer from one of the average cows in the herd, provided both heifers are by the same bull. I fear some who are not members of the cow testing association are going to be disappointed along these lines in the future. Those who assume that the heifers raised from the cows that are retained on account of profitable production will average the equal of their dams are due to disappointment. Unless a sire is used much better than the cows, the heifers raised will have to be culled almost as much as were their dams. While it certainly is advisable to raise the heifers from the best cows in preference to those from inferior ones, this by no means solves the problem of getting a higher proportion of good producers in the coming generation.

"The situation as I have presented it," continued Professor Eckles, "may look a little gloomy, but there is a way out. I have said that the cow tends to transmit the average of her strain or family, not necessarily her own peculiar qualities, if she is above the average of her family. Evidently then what we need to do to improve the average of the herd making 250 pounds of fat before any animals have been culled out is to introduce blood of a higher strain; that is, one that has an average inheritance of say 300 pounds.

"One way would be to dispose of all these low strain cows and replace them with cows of a strain having a higher average dairy inheritance. This is not generally practical. Clearly there is one practical way to introduce such blood in most cases; that is through a sire belonging to a higher strain, that is having a better inheritance than the dams."

Silo-Building Begins

We note from a news item in the Valley Falls paper that six silos have already been ordered in that community. In various communities all over the state it will be found that silos are already being planned for storing the feed crop next fall. The phenomenally high prices of the past season have increased the interest in the silo as a means of getting away from high feed bills. The silo is simply a means of saving all the crop raised and turning it to productive purposes. With a good supply of silage the dairyman or beef cattleman is fairly independent of purchased concentrated feeds.

These six silos in the Valley Falls territory are only starters, for there will be many more who will decide to build before fall. It is a good plan to begin early. Past experience has shown that many who wait until the crop is ready for the silo lose out. The six ordered are to be put up as soon as possible. One of the men has had a silo for several years and intends to use this second one for summer feed. He has figured out that he can produce more milk at less cost from silage than by using pasture exclusively. We believe every well-equipped dairy farm should have a summer silo. In no other way can production be maintained so cheaply through the summer season.

Weed Out Slacker Cows

Income from dairy cows advances at a remarkable rate as milk production increases. This is why poor producers should be weeded from the dairy herd. Tabulations of 5,587 cow testing association records gathered by the United States Department of Agriculture from various parts of the country, covering a period of four years, show that as the average butter fat production increased from 150 to 200 pounds the income over cost of feed advanced from $21 to $34; that is, a gain of fifty pounds, or 33⅓ per cent, in production gave an increased income of 62 per cent over cost of feed. The next gain of fifty pounds raised the income over cost of feed to $50, the next to $63, the next to $74, the next to $87, the next to $100, and the last to $118.

As the butter fat production increased from 150 pounds to 300 pounds, the income over cost of feed advanced from $20 to $63; in other words, as production doubled income over feed cost advanced three times. When the butter fat production increased from 150 pounds to 450 pounds—that is, trebled—the income over cost of feed advanced from $21 to $100, or almost five times as much.

At this rate of increase, when only cost of feed is considered, one cow that produced 450 pounds of butter fat a year would show as much income over cost of feed as twenty cows whose average production was 100 pounds.

A study of the records, says the Department of Agriculture, showed that the cost of roughage was about the same for all the cows, regardless of production. The cost of grain was considerably higher for the more productive cows than for the low producers, but it was much lower per pound of butter fat. The increased income, however, though it should be credited in part to better feeding, was evidently due more largely to better cows.

Dairy Cattle Congress

The ninth annual Dairy Cattle Congress will be held September 30 to October 6, 1918, in its permanent home at Waterloo, Iowa. This is the great yearly event in the dairy industry in the middle western states and the 1918 show promises, like each of its predecessors, to surpass every previous show as a comprehensive exponent of the great industry it represents. Such events are for the purpose of encouraging both conservation and production and have not only the sanction but the hearty recommendation of the Government.

From the standpoint of the visitor, the Cattle Congress is of untold importance. In the first place, it brings him face to face with the latest achievements along manufacturing lines. It shows him what the manufacturing world offers in the way of labor-saving machinery, and those conveniences which are fast taking the drudgery out of every phase of farming.

The programs which form a most important feature of the Cattle Congress bring together the best authorities on subjects that are of vital importance to the men who believe in keeping thoroughly posted and up to date in their business. Dairying is a business just as much as merchandising or manufacturing. It is one of the most important lines of activity in touch with human life. This has been brought out with decided emphasis during the recent investigations that have been made along the lines of the foods that are best adapted to the nourishment of the human race.

Last winter during the coldest period, J. W. Hamm, of Humboldt, sold $200 worth of butter fat and eggs monthly. This farm is one of the show places of the county. It is equipped with a modern dairy barn, silo, and a splendid tile block chicken house.

All roads of "service" lead to France.



"Lafayette, Here We Are"

Through remote French villages resounds the unaccustomed tramp of American soldiers. But a little while ago and these men were in the quiet of their homes in a peaceful country. Today, in a strange land, they are facing the world's bloodiest struggle.

Pershing at the tomb of America's old time friend months ago reported, with true soldier eloquence, "Lafayette, here we are." And it is for us of the great American democracy to rally all our might to the support of our army and our allies.

From our shores to the battlefields of France are thousands of miles which must be bridged with ceaseless supplies to our troops. Every day calls for action here, no less than there. Cooperate! Sacrifice! These are the watchwords sent over the land by the Government.

In this national effort the Bell System has served with every other essential industry in order that communication, manufacture and transportation may be kept at the peak of efficiency to provide the munitions, ordnance and supplies so urgently needed.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy *One System* *Universal Service*

This is your first chance to defend the flag. Go the limit.

Plant an acre for the shell-hounded farmers of "No Man's Land."

The Woman on the Farm

(Continued from Page Five)

cidentally they built up the church into a live flourishing condition, and all the moral forces of the community were strengthened by their efforts.

A normal woman's home has always been and is yet her chief interest. And it seems to me that nowhere is the opportunity for building the ideal home better than in the country nowadays. Nowhere else do you find a more real partnership between husband and wife than in the business of farming, for the work of the one is as necessary to the welfare of the firm as the work of the other. Nowhere else can the children, without harm to their growing young bodies, help in the business, working under the parent's direct watchfulness and supervision, that all—father, mother and children—may share in the play-time later on. We have profited by so many of the labor-saving devices in the house as well as on the farm, that labor is not so confining as it used to be. True, we are as busy as busy can be, but how many days in a week do you women give to activities outside the home?

Our feeling of home has been stretched in the last few years, stretched to take in our home community at least. And so as we take thought for our homes, to make them stand for love and truth and high ideals, we shall also have the welfare of our community upon our hearts.

WOOL

Growers and Buyers

Get full information regarding maximum prices on wool paid by the

United States Government

Highest prices paid **only** when wool is shipped to Central market.

In order to keep posted regarding the maximum price and other **necessary** information, your name must be on our mailing list.

52 Years of Satisfying Shippers Is Our Record

Write us today. Price lists, and shipping tags, etc., will be sent FREE. Just a postal will do.

S. SILBERMAN & SONS
"World's Greatest Wool House"
1159 W. 35th St. Chicago, Ill.

During the next few years the manure spreader will justify its existence more than ever before. All stable waste should be spread over the land before any of its fertility is lost.

Stand behind the boys at the front—but not too far behind.

WEEKLY EAGLE
WICHITA KANSAS
65 CENTS FOR 3 YEARS
KANSAS' GREATEST FARM WEEKLY

HOME CANNER
Many are making $15.00 and up per day canning fruits and vegetables for market, neighbors and home by using a
"FAVORITE" HOME CANNER
Made better, last longer no waste, gives best results, uses less fuel, easy to operate. Prices, $4.50 and up. We furnish cans and labels. Write for FREE BOOKLET.
We also manufacture Home and Community Steam Pressure Outfits.
Carolina Metal Products Co.
Post Office Box 130 Wilmington, N. C.

DAISY FLY KILLER placed anywhere, attracts and kills all flies. Neat, clean, ornamental, convenient, cheap. Lasts all season. Made of metal, can't spill or tip over; will not soil or injure anything. Guaranteed effective. Sold by dealers, or 6 sent by express prepaid for $1.
HAROLD SOMERS, 150 DeKalb Ave., Brooklyn, N. Y.

CAPPER ENGRAVING CO.
TOPEKA-KANSAS
Machine Etched
HALFTONES & ZINC ETCHINGS

SCHOOLS AND COLLEGES
BETHANY LINDSBORG COLLEGE
Business course prepares for government positions guaranteeing $900 annually. Expenses low. 814 students from 16 states. For catalog write
PRES. E. E. PIHLBLAD
Lindsborg - - - Kansas

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Business College
OTTAWA, KANS. CATALOG FREE

A New Crochet Book—Yokes



Crocheted camisole, gown, and corset cover yokes. A collection of pretty patterns with illustrations and complete instructions. In ordering be sure to ask for Book No. 7. Price, postpaid, 10 cents.
FANCY WORK DEPT., KANSAS FARMER, Topeka, Kansas.

The purchase of meat for our army and navy and for our Allies has recently been placed under a single head. This is a step that will be approved by all. The following statements from the Food Administration announce the plan. The allotment of meat purchases for the army, navy, marine corps, and the Allies will henceforth be consolidated in a single bureau with headquarters in Chicago, with E. L. Roy of the Food Administration in charge. Mr. Roy has agreed for the purpose of carrying on this work to take a commission in the quartermaster-general's department. Gordon Hatley of Chicago has joined the Food Administration and will assist Mr. Roy in provision purchases for the Allies.

Plenty of pure, fresh water, grit, shell, and green feed should be available to baby chicks from the first day.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

Memorial Day

Whom shall we greet Memorial Day?
Old friends, and old foes too, for they
Fought as befits men of our race,
Against all odds and sturdily;
No braver men on earth there be
Than those who met us face to face,
Until at Appomatox Ford
Grant scorned to take Lee's stainless sword.
God send them all His gifts and grace.

Whom shall we miss Memorial Day?
Well it is that long years allay
The burdens of the laboring heart
In joy or sorrow, for the list
Is long of loved ones we have missed
From camp and banquet, field and mart;
In ancient foray, field, or fray,
And peaceful deathbeds passed away,
They from our hearts were torn apart.

What shall we say Memorial Day?
That we tread fearlessly the way
From Manhood's prime to Age's frost;
As in the grand, grim past we trod
The wine-press of the wrath of God
Regardless of the pain or cost;
That still we prize o'er wealth and power
Our fatherland, and Freedom's dower,
For which such precious lives were lost.
—Charles Winslow Hall.

Meals Wheatless at College

The cafeteria of the Kansas Agricultural College has discontinued the use of wheat flour in any form. This has been done not only to save wheat that would otherwise be used at the cafeteria, but also with the hope of accustoming its patrons to the use of other foods in its place.

Miss Flora Monroe, manager of the cafeteria, says that any home can conform to the same rulings, and thus give more wheat to the Allies. More rice and more potatoes are used, these two starch foods making up for the absence of wheat. Corn bread, corn muffins, barley muffins, and other combinations of wheat flour substitutes are served. Pastries are made from wheat flour substitutes, such as flour made from barley, rice, corn, potatoes, tapioca, kafir, and oatmeal. A pie crust made with half corn flour and half barley is a much recommended recipe for a household using small proportions, as the barley flour is difficult to obtain in large quantities. For thickening, corn starch and rice flour are used.

Soy bean is another new wheat flour substitute used in pastry, but it is not used extensively because of the large amount of protein contained in this glutinous bean. When combined in the proper proportion with a starchy flour, such as rice, it takes less fat in baking because of the oil.

Baking with these combinations will doubtless be an added expense to housewives, as the ingredients, which are comparatively expensive, will require more fat, more salt, and more labor. Twice the amount of labor is required to make a pie crust with these substitute flours, as the crust must be thicker. "An effort to win the war should be foremost in the mind of every housewife," said Miss Monroe, "regardless of labor and expense."

Food Survey of the Home

The real work of woman since we entered the war has been conservation. We must hold every position we took last year and go forward to new ground this year. A food survey to determine the year's needs will help. Back up your gardening plan with a cellar and pantry plan.

How many potatoes and how many beans will you need? How many jars of tomatoes and how many of peaches? Sit down with pencil and paper and make a definite plan, remembering that every woman's real war work is to make the home pantry as independent as possible of the world pantry. Take stock of what you used during the winter and of what you have left on hand. Make an estimate of your grocery orders for the past winter and plan this year to reduce these to a minimum by substituting your own products. For instance for sugar, substitute sorghum syrup and honey if they are available; for candy, home-made crystallized fruits and fruit pastes; for raisins, dried cherries; for tropical fruits, native fruits; for Brazil nuts, walnuts and hickory nuts; for canned meats, home-canned meats; for shipped breadstuffs, neighborhood meals and flours.

To sum it all up—stop eating freight. Transportation is the greatest problem of the war and shipping space the most precious thing in all the world. Above all, don't eat from the pantry of the hungry Allies. With a little planning and much hard work you can fill your pantry with home-grown foods.

Before giving up this survey exhaust all home resources, then extend your survey to the neighborhood in a five, ten or fifteen-mile circuit, according to circumstances, and plan to eat home products.

Children Willing Workers

The occupations of grown-ups have great attraction for children. A few simple regular duties should be given them every day. Work is one of the greatest means of spiritual development, and the wisest of all teachers for little children. A child's offer to help should never be refused. To be sure, the mother may at first find it far more of a hindrance than a help, but children of four or five can learn to dress and undress themselves, wipe the dishes, dust the chairs, help make beds, carry small pieces of kindling, empty scrap baskets, water plants, and help in many other ways.

If the mother's spirit is right, children will always love to help. Children are little reflectors, and soon catch the spirit of cheerful, willing work. If they see work done complainingly, what wonder if they also begin to feel badly used when asked to perform some simple helpful service—and to look upon work as a disagreeable hardship.—Mrs. Elvira Hyatt.

Are You a Kansan?

Since the Draft Law went into effect there have been many requests to the Kansas State Board of Health for certified copies of birth registration certificates. These could not be furnished because the vital statistics law providing for the registration of births and deaths did not become effective until 1911.

The State Board of Health has now arranged for the filing of birth certificates antedating the Kansas law. It will accept a certificate showing the name, sex, date, place, residence, full name of father and maiden name of mother and a certificate by the attending physician or midwife. If the signature of the attending physician cannot be secured, the board will accept the certificate of reputable persons who may have definite knowledge of the birth. This certificate will be filed with the vital statistics department of the Board, and these records are maintained forever. There are many cases known in Kansas now where the failure to have definite birth records has prevented inheritances, and in a few cases has prevented the payment of claims of various kinds.

Following the close of the great war there will be hundreds of claims of various kinds appear, and in many of these a demand will be made for a certificate of birth. If this certificate were on file with the Kansas Board of Health it could be had in a few minutes' time. If it is not on file, the claimant would be required to go to considerable effort and expense to furnish the proper proofs.

This service and the records are available to any native Kansan, and it is hoped that all will avail themselves of the opportunity to fix a permanent record of their birth. Any physician will furnish a blank copy of birth certificate on request, or they may be obtained in any quantity from the city or township clerk. Properly filled out and returned to the State Board of Health it becomes a permanent record, accepted by the Government and the courts everywhere as the final proof of nativity.

A birth certificate is now required to obtain a passport to a foreign country, to obtain a soldier's pension, and to establish American citizenship.

A birth certificate may be required to establish identity; to enter school; to employment under child labor laws; to inherit property; to establish liability for military service and exemption therefrom; to vote; to hold title, to buy or sell real estate; to marry.

Later a birth certificate will probably be required to obtain a soldier's allowance for dependents, which is at present $15 for the wife, $10 for the first child, $7.50 for the second, and $5 for each of the succeeding children.

If you are a Kansan, file a record of your birth today.—Lydia Allen DeVilbiss, M.D.

Editor's Note.—Doctor DeVilbiss writes us, "Not a day passes but some bewildered person comes to this office seeking proof that he is an American citizen and a Kansan." We are glad to learn that the State Board of Health is establishing files antedating 1911 and sufficiently complete to include every citizen who will avail himself of the privilege. These records will become increasingly important to succeeding generations. Registration blanks may be obtained by writing the Kansas State Board of Health, Topeka.

Economy in Buying Clothing

The women of this country are realizing that an intelligent expenditure of the family income is an essential part of efficient home-making. An examination by investigators of the household budgets of families living on moderate incomes shows that from 15 to 25 per cent of the income is spent for clothing and home furnishings. Women are increasingly the direct retail purchasers, 90 per cent of the money expended for home maintenance in this country being spent by women.

The homemaker who is the purchaser of the family clothing and household fabrics should know how to buy economically. Even the most expert buyers today are sometimes deceived in the quality of the fabrics they select. If the woman who buys is going to be able to choose honest materials, she must have certain standards of quality and cost, and must be able to judge for herself as to whether or not she is getting the thing which she thinks she is paying for. The following useful hints for the shopper are from a bulletin on textiles just issued by the University of Minnesota:

"Do your buying at the store that has a reputation of handling honest goods.

"Standard materials are generally what they are represented as being. Learn from merchant or buyer what are the standard grades and trade names. Know these fabrics and learn to judge for yourself of the quality of other fabrics by comparison.

"As a general rule, if you wish durability, avoid buying sale specials and the noveltics of the season.

"Consider carefully width of material with relation to price per yard and economy in cutting. According to investigations of the possibilities of cutting for ready-to-wear women's garments, 54-inch material cuts to the best advantage.

"Know the amount of material needed for your purpose when you go to buy. Do not depend upon the salesman to tell you.

"A good salesman will cut off material by a cross thread, thus avoiding waste for both purchaser and seller. See that this is done.

"In buying wool fabrics, select firmly-woven worsteds, such as serge, epingle, and gabardine, for service. Woolens such as broadcloth and velour are more dressy but cost much more and will not stand the same wear and tear.

"Avoid cotton and wool union fabrics in which groups of cotton yarns appear. The wool will shrink more than the cotton in sponging, pressing, or wetting, giving the surface of the fabric a wavy effect as a result. In a wool and cotton mixture like covert cloth, where cotton and wool yarns are twisted together in a two-ply yarn, no difficulty is experienced.

"Avoid buying for dresses or suits the loosely-woven basket cloths or any material in which the yarns push on each other. The garment will pull out of shape and yarns will push at the seams.

"The buying of silk is a lottery. As a rule, do not buy silk remnants or silks that have been in stock more than six months or a year. If they are heavily weighted, they will not be worth making up.

"Do not buy cheap silks. They may be heavily weighted and marked down

to close out the stock. They may be made of a cheap grade of spun silk. They may not be silk at all.

"The soft crepe silks and taffetas at $2 a yard and up are not likely to be over-weighted, but the stiff, rustling taffetas at from $1 to $1.50 a yard are heavily loaded.

"It is wise to buy for every-day underwear muslin, longcloth, or cambric at from 18 to 25 cents a yard. Prices of fabrics are so rapidly advancing that these figures may have to be advanced from 20 to 50 per cent.

"It does not pay to buy or to make up into dresses cotton fabrics like gingham, chambray, or poplin, that do not prove to have fast colors.

"Colored mercerized fabrics are more expensive than the unmercerized fabrics, but the colors are more likely to be fast.

"Yarn-dyed and yarn-mercerized cotton fabrics are of better quality than piece-dyed and piece-mercerized.

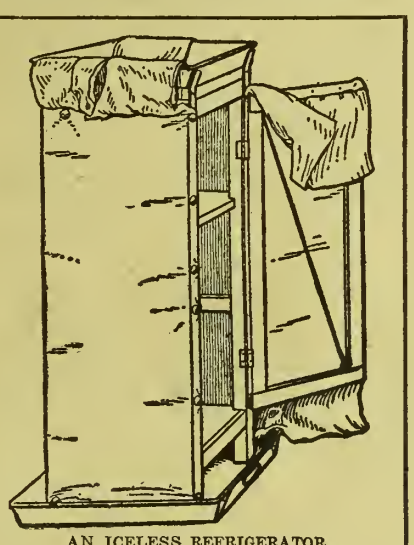
"Colored linens do not wash well and commonly fade in sunlight, because the flax fiber does not hold the dye.

"The high price of medium and fine grade linen damasks is making them prohibitive. The high grade mercerized cotton damasks will give far better service than the poor grades of all linen or linen and cotton union damasks."

An Iceless Refrigerator

An iceless refrigerator depends for its efficiency on the cooling effect of evaporating water. An open framework of shelves is surrounded by a cloth kept moist by means of a large pan of water on the top. A good current of air to evaporate the water is essential. The refrigerator will work wherever cloth will dry readily, but it must be kept in a shady place, since a low temperature is the main object. A temperature of about 55 degrees F. can be maintained.

Make a strong set of shelves open on four sides with a solid top and bottom. Raise it on short legs. Screen this on three sides, and fit a screen door to the fourth side. The efficiency will be greater if the shelves and the bottom are made of reinforced screening to allow a more free circulation of air.



AN ICELESS REFRIGERATOR

Cover the four sides entirely with canton flannel, smooth side out, buttoning it closely to the frame. This may be done easily by sewing buttons on tape and tacking this tape firmly around the upper edge of the case on three sides, also down each side of the framework next the door and on the upper and outer edges of the door. Allow a flap of flannel to extend past the outer edge of the door to be buttoned over on the framework. It will be necessary to unbutton and button this flap when opening the case. Make buttonholes in the flannel covering corresponding to the buttons on the case. Around the top of the covering sew four flaps of canton flannel a little narrower than each side of the case and large enough to extend up over the top and dip into the pan of water. These will serve as wicks to keep the entire surface of the flannel moist. A pan must be placed underneath the refrigerator to catch the water that drips down.

An extra flannel covering should be made for the case so that one may be washed each week.

It is desirable, but not essential, to paint the case with enamel. A non-rusting wire must be used for the screening.

The following dimensions are suggested, and the amount of material required is indicated: Height, 4 feet 8 inches; base, 24 inches square; space between shelves, 11 inches. Materials: Three yards of 24-inch opal zinc screen wire; one pint of flat coat white paint for first coat; one pint of white enamel for second coat; 50 feet of board ¾ x 3 inches for frame and door; 16 feet of board 1 x 12 inches for four shelves; four feet of board 1 x 24 inches for top and bottom; 46 feet of screen molding; two hinges; one cabinet catch; 2¾ dozen white china buttons; ten yards of white corron tape; nails; tacks; thirteen yards of 30-inch canton flannel—two covers.—Extension Service, New York College of Agriculture.

Vitamines

"Vitamines" are substances occurring in minute quantities in certain food materials, which have been found to be essential to growth and complete nutrition. If these are not included in sufficient quantity in a child's diet, its growth is impeded. In the case of adults, lack of these results in certain diseases. These growth accessories should be supplied generously from their best sources, and growing children should be liberally provided with food containing them. Digestive disturbances, stunting of growth, and improper development are danger signals. One need not avoid foods lacking in vitamines, however, if combined with them are foods in which they are present.

Some foods relatively rich in vitamines are: Egg yolk, ox heart, milk, beef and other fresh meat, fish, beans, peas, oats, barley, wheat, corn, fresh vegetables and fresh fruits. The following foods are relatively poor in these substances and should be served with foods in which they are more abundant: Sterilized milk, sterilized meat, cabbage, turnips, carrots and other vegetables of this type, highly-milled cereals, starch, pork, dried vegetables, and dried fruits.

Anger

Anger is a weakness which many people mistake for strength.

Anger creates a poison within the body which upsets the digestive apparatus.

This explains why the grouch is a dyspeptic.

Anger burns up bodily energy just as much as hard work.

Anger is as bad for the nervous system as sand is for the gearing of a machine.—Bulletin Kansas State Board of Health.

Butter a Food Necessity

Experiments conducted recently by leading scientists and chemists have given a sure foundation to the dairymen's claim that butter fat is a better food than the many so-called substitutes, composed of fats and vegetable oils. As a food, butter fat contains certain growth-building and life-giving properties, properties without which normal growth in children does not take place.

One pound of butter on an energy basis equals: 11.6 pounds potatoes; 3 loaves wheat bread; 40 pounds lettuce; 3½ dozen eggs; 4 pounds sirloin steak; 8 quarts oysters; 34.3 pounds tomatoes.

Every housewife should, in her study of economy, give careful consideration to these facts before she eliminates butter from the diet of her family.—Roud McCann, Colorado Agricultural College.

How Sweet Is Syrup?

A cup of syrup is not as sweet as a cup of sugar, but will frequently be found sweet enough. There is a tendency to oversweeten foods. The table below gives the sweetening value of different amounts of corn syrup in terms of sugar and will be found useful in making sugar-saving substitutions in your recipes:

SUGAR	CORN SYRUP
1 cupful equals	1⅜ cupfuls
¾ cupful equals	1⅛ cupfuls
½ cupful equals	⅝ cupful
1 tablespoonful equals	1⅜ tablespoonfuls

Half syrup and half sugar give better results in cooking than all syrup. With one cupful of syrup use one-fourth cupful less liquid.

Sandwich Filling

Bread for sandwiches should be sliced moderately thin, and buttered. Cutting the sandwiches in fancy shapes adds to their attractiveness. All scraps should be saved of course and used in dressing or as "crumbs."

Cottage cheese may be moistened with boiled salad dressing, cream, or a little lemon juice, and used as sandwich filling in the following ways:

Cheese with chopped peppers, red or green.

Cheese with chopped nuts, raisins, figs or dates.

Cheese with chopped parsley or celery.

Cheese with chopped pickles, dill, sweet or sour, with chopped olives.

A layer of cottage cheese covered with a layer of some tart fruit conserve.

A delicious sandwich filling may be made from sardines put up in oil, by removing the bones, chopping up the fish, adding chopped hard boiled egg, and mixing with salad dressing. A can of tuna fish mixed with salad dressing makes a good filling which resembles chicken.

Wheatless Griddle Cakes

The following combinations of wheat substitutes are suitable for griddle cakes:

Barley, buckwheat, and rice flours in equal quantities.

Barley and corn meal.

Corn meal, buckwheat, barley.

Corn meal, bran.

Rye and corn meal.

Barley and bread crumbs.

Rye, barley, and corn meal.

Corn flour also makes delicious griddle cakes.

Oat and Corn Flour Bread

¾ cupful liquid
4 tablespoonfuls fat
4 tablespoonfuls syrup
2 eggs
6 teaspoonfuls baking powder
1 teaspoonful salt
1½ cupfuls corn flour
1 cupful ground rolled oats
Nuts, raisins, or dates if desired.

Mix the melted fat, liquid, syrup, and egg. Combine the liquid and well-mixed dry ingredients. Bake as a loaf in a moderately hot oven—400 degrees F.—for one hour or until thoroughly baked. The ground rolled oats are simply rolled oats run through the food chopper. This wheatless bread is extremely good, especially if nuts or raisins are used.

Boiled Salad Dressing

1½ cupfuls milk
2 eggs slightly beaten
4 tablespoonfuls sugar
2½ teaspoonfuls mustard
½ cupful vinegar
2 teaspoonfuls salt
3 tablespoonfuls butter or other fat
1½ tablespoonfuls flour or 1 tablespoonful cornstarch.

Mix the dry ingredients and blend with them one quarter cupful of milk. Heat the remainder of the milk to boiling, add the butter, thicken with the first mixture, and boil for two minutes. Cool a little, add the vinegar slowly, and pour this hot liquid cautiously over the slightly beaten egg, stirring constantly. Cook over hot water until it thickens. Cool immediately in order to prevent curdling, and pour into a scalded glass jar. This rule makes more than a pint of rather mild dressing, which will keep for a long time in a cold place. It may be used just as it is, or mixed with an equal quantity of sweet cream as used.

Those who are careless and wasteful are helping the kaiser, no matter how loyal their hearts. We should prove our hearts by our actions.

Quick lunches make slow funeral processions.



No. 8486—Girls' Suspender Dress: Cut in sizes 8 to 14 years. The dress consists of a blouse, one-piece skirt and a separate belt. **No. 8485—Ladies' Skirt:** Cut in sizes 24 to 36 inches waist measure. The skirt is cut in three gores. **No. 8496—Ladies' Apron:** Cut in sizes 36, 40 and 44 inches bust measure. The apron is to be slipped on over the head.

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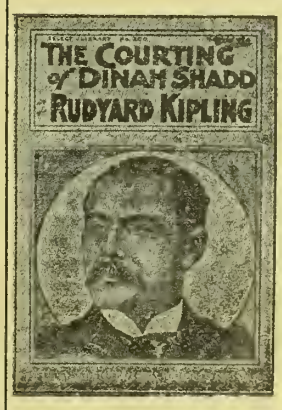

1—Marian Gray, by Mary J. Holmes.
2—Rosamond Layton, by Mary J. Holmes.
4—Beulah, by Augusta J. Evans.
8—The Homestead on the Hillside, by Holmes.
12—East Lynne, by Mrs. Henry Wood.
13—A Romance of Two Worlds, by Marie Corelli.
20—Deserted Wife, by Southworth.
21—The Light That Failed, by Kipling.
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35—Plain Tales from the Hills, by Kipling.
36—Beyond the City, by A. Conan Doyle.
37—Kidnaped, by Robert Louis Stevenson.
39—The Cloister and the Hearth, Vol. I, by Charles Reade.
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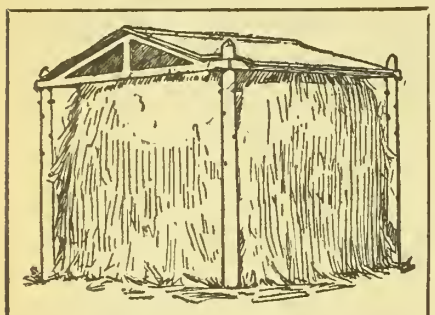
Alfalfa Harvest Has Begun

THE secretary of our State Board of Agriculture, J. C. Mohler, points out that the 1918 harvest has already begun in Kansas. He refers to the harvesting of that wonderful crop, alfalfa. The first cutting of alfalfa is under way in the southern and southeastern counties, and will progress northward as the season advances. The first cutting is ready for the mower about a week earlier than usual, and the yield promises to be heavy. In the next thirty days a million acres of alfalfa will be harvested. For the next five months haying on the alfalfa farm will be an almost continuous performance.

There never was a time when it was so highly important that every ton of this valuable forage be saved, and in the best condition possible. The hay should be properly protected from the weather, under either a good roof or a well-made stack cover. Where one is not prepared to thus store the hay, the greatest care should be exercised in protecting tops and bottoms of stacks



MOVABLE ROOF TO PROTECT HAY

against loss, by providing a foundation of other material and covering adequately with slough grass or some cheap kind of hay, and the whole well weighted down.

One point that should be closely watched, and especially as alfalfa seems to be farther along than usual, is the stage of growth of the plant. In the first cutting, and in wet seasons particularly, the shoots of the second crop usually start before any blossoms show. Hence if one waits for the field to become one-tenth in bloom before starting the mower there is great danger of cutting off the young shoots of the second crop. This will not only cause injury to the second cutting but may seriously endanger the life of the field. For this reason it is best, in the case of the first cutting at any rate, to start the mower when the shoots of the second crop appear, regardless of the bloom.

At this season of the year there is apt to be considerable danger of loss by rain. Rain on alfalfa while it is yet green and has not started to cure seems to do little injury; it is rain that falls on alfalfa which is partially cured that does the harm. Alfalfa should be harvested when it is ready, and most growers prefer to cut and take their chances with the weather. This is probably the best plan to follow as a general thing.

As every farmer knows, the alfalfa must be gotten from the swath to the shed or stack in the least time possible, consistent with the proper curing of the hay.

As high prices for well-cured alfalfa will doubtless continue, every extra effort put forth to save the alfalfa in prime condition will be handsomely rewarded.

Cucumber Beetles

The simplest method of protecting small cucumber and melon plants from the striped cucumber beetle is to cover them with cheesecloth or fine screen wire. This can be spread over a frame made by cutting a barrel hoop in two to form two semi-circles. Sharpen the ends of the half hoops and thrust them into the ground, crossing them at right angles to each other. Fasten the cheesecloth or screen over this frame, taking care that there is no space for the beetles to crawl under.

They can be poisoned also with lead arsenate, using an ounce of the paste or a half ounce of the powdered form to a gallon of water.

Cucumbers and melons should be well fertilized so they will make rapid growth. This helps overcome insect injury.

Cleaning up all vines as soon as the crop is gathered and destroying all the refuse will help keep these beetles under control. They will be deprived of their fall food supply and be forced to hunt other places for protection through the winter. This will result in many of them perishing.

Men Can Handle Farm Work

We believe the average Kansan will agree with the ideas recently expressed regarding women for farm work in Greater Iowa, the official publication of the Iowa State Fair. This writer says he is not ready to concede the necessity of sending the women folk into the fields as has been suggested from certain quarters. Not so long as there is an idle man in the country, and there are still a good many doing nothing and piling it up notwithstanding the insistent demand for labor on every hand.

"The city woman is not ready to tackle field work. In the first place she doesn't want to do anything of the kind and in the second place she couldn't do it if she wanted to. This bunk about farmerettes in trouserettes looks big and brave on paper and the farmerettes look very 'fetching'—put your own interpretation on that word—when posed before the camera; but they would find life anything but a dream in a haymow with the thermometer registering 98 in the shade and they wouldn't stack up very high at the tail of a modern threshing machine.

"Oh, yes, to be sure, we will cheerfully admit that an occasional husky specimen of sweetness can make a pretty good hand in the field. And we know men that can knit and make pretty good biscuits. But exceptions to the general rule prove nothing.

"The American farm women have their hands full and running over. This daylight-saving law means nothing to them because they had to utilize every blessed minute of daylight anyway. Up in the morning ahead of the robins—and that enterprising bird is always tuning up before daylight—she accomplishes something like a million tasks before the day is at last declared ended and the batter cakes mixed, the fire laid and the bacon sliced ready for breakfast, which is several hours closer than the one past.

"A home without a good woman at the helm is generally a sorry place to dignify with the name. A farm without a woman—well, there's nothing to it. And a woman who keeps up her end of the farm 'evener' has too much on hand to think of going into the field and grabbing a pitchfork. Take it from us, she can do vastly more to keep the farm work going smoothly and profitably by running the household end than by climbing into overalls and attempting to pitch hay.

"We are fighting an enemy that for generations past has driven the women into the fields while the lords of creation put in the most of their time soldiering, both literally and figuratively. America is not going to emulate any such example."

Cabbage Worms Big Eaters

If you have cabbage worms in your garden, you are familiar with the ravages of the cabbage worm. Geo. A. Dean, entomologist at our Agricultural College, estimates that it requires about two-thirds of our Kansas production of cabbage to satisfy the hunger of these worms, which are the larvæ of the white cabbage butterfly with which all are familiar. The worms are a velvety green in color, and more than an inch in length when full grown.

Paris green or arsenate of lead is the remedy, applied either by dusting or spraying. Dusting is inexpensive and probably is the best method for the small garden patch of cabbage. Mix one-half pound of paris green or a pound of finely powdered lead arsenate with five pounds of hydrated lime or dry flour. To apply, use cans with finely perforated lids, walking between the rows with a can in each hand, shaking the poison dust over the cabbage leaves. This should be done when the leaves are dry and when there is little or no wind, and should be repeated at intervals of from one to two weeks, depending on how often it rains. The limit should be two weeks, however, whether it rains or not.

To prepare a spray, use an ounce of paris green, three ounces of powdered lead arsenate or six ounces of lead arsenate paste to six gallons of water. Since the spray tends to collect in drops that roll off the cabbage leaves, it is a good plan to mix in four ounces of soap or six ounces of flour in the form of paste with this amount of the poison spray. This will cause the poison to remain evenly over the entire leaf surface.

The paris green and lead arsenate are violent poisons and should always be carefully handled, especially remembering to keep them out of reach of children and live stock. There is no danger from eating cabbage that has been poisoned, for the cabbage head grows from the inside. The poison will always be on the outside leaves which are removed before the cabbage goes to the table. Professor Dean states that careful tests have shown that in average spraying or dusting if all the poison remained on the cabbage, one person would have to eat twenty-eight cabbages at one time to get enough of the poison to cause any poisonous effects.

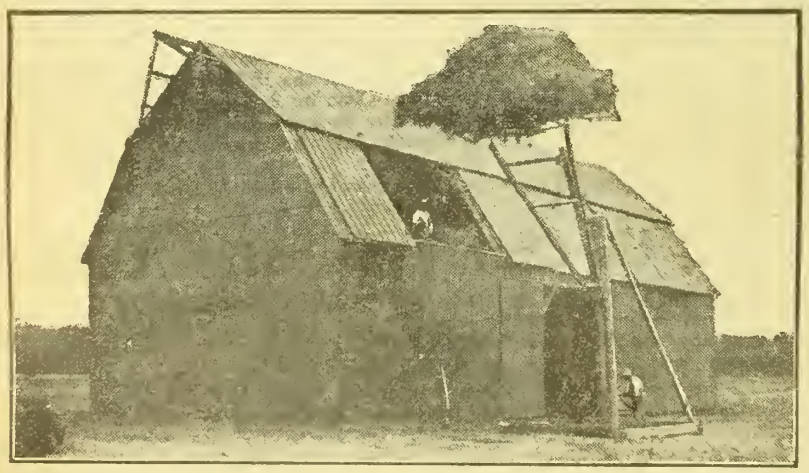
A Striking Comparison

Wheat requirements of European nations may be judged from figures compiled by the Food Administration. The Western European Allies normally consume 900,000,000 bushels of wheat annually, of which they import 400,000,000 bushels—nearly half. With present reduced harvests the Allies required much more.

The Central Powers on the other hand normally require for their total needs about 500,000,000 bushels of wheat, of which they raise all but 70,000,000 bushels. It will be observed that in peace times the Western European Allies receive six times as much wheat from other countries as do the Central Powers.

These facts emphasize the necessity for the United States to furnish the wheat which cannot be secured from India, Australia and other remote countries, because of shortage in ships.

Lloyd George recently declared that the British have 2,000,000 horses engaged in this war. It is estimated that on the whole western front the number of horses and mules in service is close upon 5,000,000.—Canadian Countryman.



TYPE OF HAY DOOR HAVING MANY ADVANTAGES

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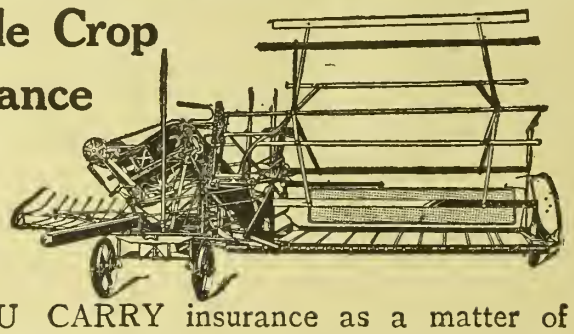

YOU CARRY insurance as a matter of course. It is good business to be protected from loss, so you keep your policies in force and pay the premiums regularly.

But there is one kind of insurance you may not know about, which requires no premiums, on which you realize every year, and which this year is fully as important as any other insurance you carry. **When your crops are ready for cutting, International Harvester binders and twine insure the harvesting of the whole crop.** No matter whether the grain be heavy or light, tall or short, standing or down, lodged and tangled, an International Harvester binder cuts and binds it all without waste. That is what we mean by whole crop insurance.

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Government Report on Wheat

The Government crop report for Kansas based on conditions May 1 indicates that of the 9,480,000 acres sown to wheat last fall Kansas will probably harvest 6,730,000 acres as compared with 3,713,000 acres last year and 7,552,000 acres the 1912-1916 average. The condition of the Kansas crop remaining for harvest is estimated at 84 per cent of normal compared with 59 per cent a year ago and 81 per cent the 1912-1916 average. This condition forecasts a possible production of 96,104,000 bushels of winter wheat in Kansas in 1918. The production in 1917 was 45,670,000 and the average production 1912-1916 was 111,553,000 bushels.

The rains of April and the general growing conditions of the month brought about a great change in the condition of wheat. While much of the wheat in north-central and other western districts was dead beyond recall a month ago, as was indicated by the large abandoned acreage given by the State Board of Agriculture in its report of April 13, every slender thread of life preserved through the winter and the trying conditions of March has been coaxed back to a condition of robust vigor. Fields that looked like failure a month ago now promise a fair crop and will be left for harvest. The Government estimates that 29 per cent of the wheat sown last fall has been abandoned to fallow or other crops. Its May 1 estimate a year ago was 53 per cent abandoned and later the year's abandonment as indicated by the Government reports amounted to 61 per cent. The average abandonment for the years 1912 to 1916, inclusive, as estimated May 1, was 15.9 per cent.

For the United States it is estimated that 13.7 per cent of the winter wheat has been abandoned this year as compared with an estimate of 31 per cent on May 1 last year and 10.9 the 1912-1916 average. This leaves 36,392,000 acres for harvest this year compared with 27,430,000 acres last year and 34,059,000 the 1912-1916 average. The average condition in the United States of the 1918 winter wheat crop remaining for harvest on May 1 is estimated to be 86.4 per cent of normal. A year ago it was 73.2 per cent and the 1912-1916 average was 85.7 per cent. This condition forecasts a possible production of 572,539,000 bushels of winter wheat this year. The 1917 production was 418,070,000 and the 1912-1916 average was 552,594,000 bushels.

It is estimated that 101,000 acres of rye were sown in Kansas last fall which now promises 90 per cent of a normal crop, forecasting a production of 1,545,000 bushels. The condition of rye in Kansas a year ago was 81 per cent and last year's production 1,140,000 bushels.

Rye in the United States on May 1 was reported to promise 85.8 per cent of a normal crop compared with 88.8 per cent last year. A production this year of 82,629,000 bushels is forecasted. Last year's production was 60,145,000 bushels.

Kansas alfalfa fields have seldom looked better at this season of the year or shown larger growth. Very little winter killing of any tame hay is reported. It is estimated that all wild and tame hay meadows in Kansas are in 91 per cent condition. The condition a year ago was 88 per cent and the 1912-1916 average, May 1, 86 per cent. Crop reporters estimate that 261,000 tons of old hay are still on hands in Kansas and 11,096,000 tons in the United States. A year ago the estimate was for 298,000 tons of old hay on hands in Kansas and 12,659,000 tons in the United States.

Spring work was delayed during April due to the cold damp weather. Oats, barley and spring wheat were sown early and all made rapid progress during the month. Very little corn had been planted by May 1. It is estimated that 62 per cent of the spring plowing and 45 per cent of the spring sowing has been completed in Kansas. It was estimated that 69 per cent of the plowing and 60 per cent of the sowing was complete by the corresponding date last year. Pastures have been very slow in starting, but moisture is ample and warm weather will produce spring grazing in abundance soon. The pastures are reported as showing 83 per cent of a normal condition of promise as compared to 80 per cent the same date last year.

Marketing of Bred Sows

Reports from the large live stock markets to the United States Department of Agriculture indicate that the rumor of a general tendency to sell bred sows for slaughter is without foundation. At most of the stock yards the percentage of sows docked for advanced pregnancy has decreased since the first of the year and is smaller for the first three months of 1918 than for the corresponding months of 1917. At a few markets a larger percentage of sows than normal showed advanced pregnancy, but this appears to have been due to delays in getting cars for shipments.

The territory tributary to the Missouri River markets is the only section in which there appears to be any ground for the fear that an unusually large number of bred sows were marketed, and the explanation for that section is that, owing to inability to get freight cars, shippers who would have marketed their hogs in December were forced to hold them until late in January and, in some instances, until well in February. It is the general practice of feeders to breed all sows as soon as possible after they are turned into the feeding lot. If such sows are marketed promptly, no dockage is incurred, but when there are delays, dockage for advanced pregnancy results. Under such circumstances a considerable increase in dockage does not indicate a tendency to sell brood sows for slaughter.

Such a showing, in normal times or in the absence of special propaganda for increasing the national meat supply, probably would not have been noticed. The U. S. Department of Agriculture, after diligent inquiry, concludes that not only has there been no increase in the marketing of brood sows but that the number of brood sows retained on farms has increased, certainly by about 10 per cent.

Kill the Stomach Worms

In "The Shepherd's Calendar," a little pamphlet prepared by Anthony Gould of the American Sheep Breeder, he refers to the dog and the stomach worm as two enemies of the sheep. He advises keeping bells on a few of the sheep so that if the dogs worry them during the night they can be heard. Many men find it advisable to keep the flock in a lot at night with a high dog-proof fence.

The stomach worm is described as a thread-like worm, one inch to one and a quarter inches in length, with a thin red strip running spirally through its length. They mature in the fourth stomach of sheep, cattle and other ruminants, and produce small eggs that pass out with the drippings. Under suitable conditions the eggs hatch in from a few hours to several weeks and the larvæ develop to a stage where they can crawl up blades of grass. It is here that they are eaten by sheep and are able to develop again in the fourth stomach. Thus it is seen that by continuous use of pasture and overstocking, the danger is greatly increased, and that if the sheep can be kept from the same area for a couple of years and rotated from one temporary pasture to another every two weeks, the trouble may be avoided.

The effects of stomach worms are due to the fact that the parasites extract blood from the animal as well as nutriments from the fluids in the stomach, and that red corpuscles of the blood are destroyed by a poisonous substance secreted by the worm and absorbed by the blood. That is why animals become pale, thin, weak, stunted, and may even die because of poor condition. The skin becomes white and paper-like and the membranes of the mouth and eyes lose color. In advanced stages watery swellings develop between the jaws.

Frequent changes of pasture, the use of fields that have been under cultivation, and the avoidance of wet and undrained areas and removing sick animals from the flock, are means of reducing the trouble. The Department of Agriculture strongly recommends the use of copper sulphate or bluestone as a cure. One quarter of a pound of this in the powdered crystal form should be dissolved in a pint of hot water, using a porcelain or enamel dish. Enough cold water should be added to make the solution to three gallons, being sure to avoid the use of metallic containers. This is sufficient to dose a hundred adult sheep. For lambs the dose is one and three-fourths ounces, and for adult sheep three and one-half ounces. It should be given as a drench after the sheep have been starved over night. The Department favors the use of this solution once a month from May until September.

Accuracy in measurements and care in administration of the dose are emphasized by the Ohio Experiment Station as important in preventing any losses of sheep in using this treatment. When the solution is made only slightly stronger than an ounce of blue vitrol in two quarts of water, some deaths in the sheep will likely result.

According to tests at the Ohio Station two fluid ounces of a solution made by dissolving an ounce averdupois of copper sulphate (blue vitrol) in two quarts of water is sufficient for a yearling, while a two-year-old needs three fluid ounces. A long-necked bottle or a rubber tube and funnel may be used to give the dose.

If any sheep shows it has been given an overdose, a teaspoonful of laudanum in a tumblerful of milk should be administered.

FARM AND HERD.

L. G. Wreath, of Manhattan, Kansas, has built one of the good herds of Duroc Jersey swine in Northeast Kansas. Mr. Wreath is well qualified to manage a pure-bred herd, having been in charge of the swine department at the Kansas Agricultural College at Manhattan for years, and later manager of a large herd of Shorthorn cattle. At the head of his herd is the great breeding boar, Giant Illustrious, a grandson of Illustrator 2d. The sows in the herd are from such families as Orion, Sensation, Illustrator 2d and Select Chief. A feature of the herd at this time is a splendid lot of spring boar prospects that are very promising for herd header material.

William D. Brigham, manager of Adams Farm, Gashland, Missouri, reports their fine herds of Guernsey cattle and Duroc hogs doing well. They have a very fine lot of young Guernseys of May Royal, May Rose and Masher Sequel breeding. This year they have the best lot of Duroc pigs in the history of their herd. These pigs are of Crimson King, Tatarrax and Ohio Col. breeding. Their herd is kept immune.

J. B. Porter, of Lewistown, Missouri, the owner of Haverhill Stock Farm, reports his fine herd of Shorthorn cattle doing well and a good demand for high-class Shorthorn breeding stock. Among recent sales from this herd he reports the following: Eight calves and seven yearlings to Gus Benson, of Bucklin, Missouri; one bull calf to John Lard, Gregory's Landing, Missouri; and one bull calf to Claud Wallace, Canton, Missouri. Mr. Porter believes the outlook for the Shorthorn breed is very bright. In addition to his choice herd of Shorthorns he owns a fine herd of Poland China hogs and breeds some of the best draft horses in Missouri.

Olivier Bros., of Danville, Kansas, have had the misfortune to lose their great show and breeding Poland China boar, A Wonderful King. This hog was grand champion Poland China aged boar in 1916 of Kansas, Oklahoma and Texas state fairs, and sired a splendid lot of choice pigs that went to head herds in several states. Olivier Bros. have a splendid son of this noted hog, Olivier's A Wonder, to take his place. This hog will be heard of later in the show ring.

Elmer B. Myers, of Hutchinson, Kansas, has announced November 1 for a fall sale of his Poland China hogs. About fifty head will be offered to the public, including a number of spring boars and gilts and several fall yearling gilts sired by Jumbo Bob by Big Bob out of Miss Jumbo Expansion 4th and Joe Orange by Maple Grove Black Orange. The sow herd consists of such sows as Miss Joe Wonder by Mc's Big Joe, Bob's Josie by Mellow Bob, Goldie by Columbus Defender, and several granddaughters by Ferguson's Big Timm and Old A Wonder. This will be Mr. Myers' first Poland China sale and the offering promises to be one of the big, useful, quick-growing type of Poland Chinas, that will make good on any farm with a little care. This sale will be held on the Kansas State Fair Grounds, November 1, 1918.

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 60,000 farmers for 5 cents a word per week. No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. Terms, always cash with order.

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted free of charge for two weeks, for bona fide seekers of employment on farms.

REAL ESTATE.

FOR SALE — MY BEAUTIFUL SUBURban home, "Del Bonita Gardens," strictly modern, brick buildings, one mile from court house, rock road, five acres. A. A. Mosher, Sterling Heights, Iola, Kansas.

SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price $10 to $15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address E. T. Cartlidge, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kan.

THE STRAY LIST.

TAKEN UP—BY J. W. GATTSHALL, OF Smoky Township, Sherman County, Kansas, on the 30th day of April, 1918, one horse, color black with star in forehead, 15½ hands high. Doris E. Soden, County Clerk, Goodland, Kansas.

TAKEN UP—BY HARVEY A. REED, OF Gridley, Liberty Township, Coffey County, Kansas, on the 21st day of April, 1918, one steer, weight about 800 pounds; color red with white face. Brand CS on left hip. Appraised at $85. Geo. Bruce, County Clerk, Burlington, Kansas.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE — FOUR RED REGISTERED Shorthorn bulls, 10 to 13 months. John Thorne, Kinsley, Kansas.

TWENTY-FIVE TWO-YEAR-OLD HIGHgrade Holstein springers. A few Holstein heifer calves, four to six weeks old, $22.50 each. Oakwood Farm, Whitewater, Wis.

HIGH GRADE HOLSTEIN CALVES, either sex, well marked, from heavy producers; four to six weeks old; fifteen-sixteenths pure; $25 each, crated and shipped to your station. Express and all charges paid here. Highland View Place, Whitewater, Wis.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

FALSE TEETH

CASH FOR OLD FALSE TEETH, WORTH as high as $21.50 per set (broken or not). Send at once—package held five to fifteen days subject to owner's approval. Highest prices paid for old gold jewelry, crowns, bridges, platinum, silver. United States Smelting Works, Inc., 347 Goldsmith Bldg., Opp. P. O., Milwaukee, Wisconsin.

TREES, SEEDS AND PLANTS.

SUDAN SEED RECLEANED AND graded, 18c pound, any quantity. Sacks free. Geo. Buntz, Chase, Kansas.

SEEDS—KAFIR, 5c PER POUND; FETerita, 8c per pound. L. K. H. Laws, Camargo, Okla.

SUDAN, WELL MATURED, 20 CENTS per pound, $18 per cwt. D. M. Bantrager, Box 30, Haven, Kansas.

SEED — TEPARY BEANS FOR PLANTing, ten pounds, $1.50. Jas. S. Finney, El Dorado, Kansas.

4,000 POUNDS OF SUDAN GRASS SEED at 25 cents per pound. J. B. Pool, El Reno, Oklahoma.

CANE SEED, BLACK AMBER. WILL sell on good note. Write for price. F. M. Curyea, Wichita, Kansas.

FETERITA, $3.00 BUSHEL, WELL MAtured, recleaned, graded. Sacks free. D. W. Little, Conway Springs, Kansas.

ONE HUNDRED FIFTY BUSHELS GOOD recleaned alfalfa seed for sale, $9 per bushel if a quantity is taken. V. O. Johnson, Aulne, Kansas.

PLANTS—PEPPERS: CHINESE GIANT, Ruby King, Long Hot; Egg Plant, $1 hundred prepaid. Sweet Potatoes: Yellow Jersey, Nansum, Red Bermuda, Southern Queen. Cabbage: Wakefield, Winningstadt, Early Flat Dutch, Late Flat Dutch, Summer Drumhead, Danish, Ballhead. Tomatoes: Earliana, Dwarf Stone, Champion, Kansas Standard, Ponderosa, Acme, Beauty, New Stone, Matchless, Bonny Best, Giant Dwarf, 50c hundred postpaid. Cabbage, 1,000, $3; tomatoes, 1,000, $4, unprepaid. John Patzel, 501 Paramore, North Topeka, Kansas.

MISCELLANEOUS.

SOUTHERN QUEEN SYRUP CANE, BEST for syrup, 15 cents per pound. A. R. Quigg & Son, Elk City, Kansas.

FOR SALE — COMPLETE THRESHING outfit in good condition. Henry Kleihage, LaCrosse, Kansas.

FOR SALE—BELGIAN HARES, FAWN, gray, black; young stock; $8 pair. Express prepaid. Safe delivery guaranteed. G. J. Arnold, Manchester, Kansas.

BARBED WIRE CUTS ARE DANGERous. For all cuts, wounds, sores, use Dietze's Black Poultice Salve, 25c. Best salve known for general farm use. Agents write. Dietze Mfg. Co., Lincoln, Neb.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

PATENTS.

PATENTS PROCURED, BOUGHT AND sold. International Patent Co., Brandeis, Omaha.

Yes, they are holding the line, but the folks back home must bring up the reserves.

Reliable Poultry Breeders

PLYMOUTH ROCKS.

WHITE ROCK EGGS, $5 PER HUNDRED. Nora Lamaster, Hallowell, Kansas.

WHITE ROCKS—100 EGGS, $4. MRS. J. W. Hoornbeek, Winfield, Kansas.

PURE BARRED ROCKS—EGGS, $5 PER hundred. Baby chicks, 12½c. Mrs. Lillian Marshall, Raymond, Kansas.

PURE BARRED ROCK EGGS, $1.00 PER fifteen, $5.00 per hundred; farm range. Mrs. H. Buchenan, Abilene, Kansas.

EGGS FROM HIGHEST QUALITY Barred Rocks, fifteen, $1.50; hundred, $6. Carl Brummund, Clay Center, Neb.

PURE-BRED WHITE PLYMOUTH ROCKS —Fine birds. Pen No. 1, eggs, $1.50 per fifteen; No. 2, $1. Hopewell Stock Farm, Valentine Swartzendruber, Hydro, Okla.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swaim, Geuda Springs, Kansas.

BARRED ROCK EGGS (RINGLET strain), from large, vigorous, splendid-marked birds, $1.25 per fifteen; 100, $6. S. R. Blackwelder, Isabel, Kansas.

WHITE ROCKS, SIZE AND QUALITY; good egg strain. Eggs, fifteen, $1.25; fifty, $3.50; hundred, $6. G. M. Kretz, Clifton, Kansas.

WHITE ROCKS — PRIZE WINNERS, farm raised. Eggs, $1.50 fifteen, $3.50 fifty, $6 hundred. Special pen, $3.50 fifteen. Mrs. Ben Miller, Newton, Kansas.

BRED-TO-LAY BARRED ROCKS—FINE, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, $1 setting, $5 hundred; guaranteed. Belmont Farm, Topeka, Kansas.

BARRED ROCKS THAT PRODUCED 175 eggs each in 1916; 120 eggs seven months, 1917. Four ribbons, 1917. Pens standardized, Hogan system, eggs, $2 per fifteen, $10 hundred. Mating list free. For sale, two pens, to make room for young chicks. Write Farnsworth, 224 Tyler St., Topeka.

LEGHORNS.

L. B. RICKETTS, BREEDER OF PRIZE Winning Single Comb White Leghorns, Greensburg, Kansas.

EGGS (YOUNG'S 288 S. C. W. LEGhorns, costing $20 setting), $7 hundred. Elsie Thompson, Mankato, Kansas.

RANGE EGGS, 100, $4; PEN, 100, $6; 15, $1.50. Karr's Buff Leghorn Farm, Route 4, LaCygne, Kansas.

SINGLE COMB WHITE LEGHORN EGGS —100, $5.50 prepaid. Quality guaranteed. Dave Baker, Conway Springs, Kansas.

PURE-BRED ROSE COMB WHITE LEGhorn eggs for hatching; fifteen, $1; fifty, $2.85; hundred, $5.50. N. C. Dewey, Stafford, Kansas.

S. C. BROWN LEGHORNS BRED 22 years; 222 to 266-egg lines. Eggs, fifteen, $2; fifty, $4; hundred, $6. Gorsuch, Stilwell, Kansas.

LANGSHANS.

BIG BLACK LANGSHAN COCKERELS and eggs, score cards furnished. Guaranteed satisfaction. H. Osterfoss, Hedrick, Iowa.

BLACK LANGSHAN EGGS, 7c EACH; over 100, 6c. Baby chicks, 20c. Mrs. Geo. W. King, Solomon, Kansas.

BABY CHICKS.

YOU BUY THE BEST CHICKS FOR least money. Guaranteed alive or replace free. Shipped anywhere. Colwell Hatchery, Smith Center, Kansas.

TURKEYS.

FIVE PURE BLOOD BOURBON RED laying turkey hens, $4 each. Mrs. J. W. Harshbarger, Milo, Kansas.

BOURBON RED TURKEYS—EGGS FROM choice stock in size, color and markings, $5 and $4 per eleven. Free catalog. Mrs. Clyde Meyers, Fredonia, Kansas.

SEVERAL BREEDS

FOR SALE—EGGS FROM ALL KINDS of pure-bred poultry, Geese, 7 kinds of ducks, Pearl and white guineas, Bantams, Fancy Pigeons, Canarles, Rabbits, Guinea pigs, Dogs. Write wants. D. L. Bruen, Platte Center, Nebr.

ORPINGTONS.

S. C. WHITE ORPINGTON EGGS, $6 PER hundred. C. L. Hill, Filley, Neb.

BUFF ORPINGTON EGGS, HALF PRICE after May 15. Winners at leading shows in West this season. Write for prices. Leo Anderson, Juniata, Nebraska.

WYANDOTTES.

CHOICE SILVER LACED WYANDOTTE eggs, fifteen $1.25, fifty $3.50, hundred $6. Mrs. Philip Schuppert, Arrington, Kansas.

ROSE COMB WHITE WYANDOTTE EGGS now $4 per hundred. Mrs. Geo. Rankin, Gardner, Kansas.

SILVER WYANDOTTES — EGGS, FIFteen, $1.50; fifty, $3.50; hundred, $6. Mrs. Edwin Shuff, Plevna, Kansas.

COLUMBIAN WYANDOTTE EGGS FROM Kansas and Missouri prize winners, $1.50 setting, $8 for hundred. J. J. Pauls, Hillsboro, Kansas.

WHITE WYANDOTTE EGGS AT $1.50, fifteen; $3.25, fifty; $6 hundred. Winning, laying strain, fertility and satisfaction guaranteed. Andrew Kosar, Delphos, Kansas.

DUCKS AND GEESE.

EMBDEN AND TOULOUSE GEESE — Stock and eggs. Will take Runner ducks or Leghorns in trade. Emma Ahlstedt, Roxbury, Kansas.

ANCONAS.

SHEPPARD S. C. ANCONA EGGS FROM extra stock, $6 hundred. Lottie DeForest, Peabody, Kansas.

RHODE ISLAND REDS.

SINGLE COMB R. I. RED OR WHITE eggs. E. J. Manderscheid, Seward, Kansas.

SINGLE COMB RED EGGS—HUNDRED, $4.75; thirty, $1.75. Mrs. Rosa Janzen, Geneseo, Kansas.

BRED TO LAY SINGLE COMB REDS— Pure-bred, rich red, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, setting, $1.00; hundred, $5.00; guaranteed. Belmont Farm, Topeka, Kansas.

SEVEN GRAND PENS ROSE COMB REDS headed by roosters costing $15 to $50. Fifteen eggs, $3; thirty eggs, $5; fifty eggs, $8. Special utility eggs, $7.50 per hundred. Baby chicks. Catalog. W. R. Huston, Americus, Kansas.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

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CLAIM SALE DATES.

Shetland Ponies.
June 20—R. J. Foster, Topeka, Kansas.

Holsteins.
Sept. 4—E. S. Stoughton, Hutchinson, Kan.

Spotted Poland Chinas.
Oct. 5—W. J. Honeymoon, Madison, Kan.
Oct. 19—C. A. Gooch, Orrick, Missouri.

Poland Chinas.
Oct. 15—H. B. Walter & Son, Effingham, Kansas.
Oct. 16—Dr. J. H. Lomax, Leona, Kansas.
Oct. 29—Hill & King, Topeka, Kansas.
Oct. 31—Adams & Mason, Gypsum, Kansas.
Nov. 1—E. B. Myers, Hutchinson, Kansas.

Duroc Jerseys.
Oct. 19—W. W. Zink, Turon, Kansas.

Chester Whites.
Oct. 23—J. H. McAnaw, Cameron, Missouri.
Nov. 7—Arthur Mosse, Leavenworth, Kan.

R. J. Foster, of Topeka, Kansas, has announced June 20 for a complete dispersion sale of his herd of Shetland ponies. Owing to poor health Mr. Foster is compelled to disperse his fine herd of about fifty head of mares and colts, including two very fine Shetland stallions. Mr. Foster has shown at all the leading fairs and has taken many premiums. He will also offer at this sale ten head of high-grade three-year-old Holstein heifers now giving milk. These young cows are just in their prime and have been cared for in a way that will insure their usefulness as producers.

We have just received Volume 37 of the Holstein-Friesian Herd Book. This volume contains entries covering the period of time from March 1, 1917, to September 1, 1917. The bull registrations cover 14,060 entries and the cow registrations 25,980, making the total number of entries 40,040. Volume 37 contains the report of the thirty-second annual meeting of the Holstein-Friesian Association of America, together with a list of members admitted up to June, 1918. It also contains the constitution, by-laws, reports of business meetings held during the year, index matter showing the name and number of each animal registered in the volume, and the name and address of each person whose name appears in the volume as breeder or owner, together with the numbers of the animals registered in his name.

Coleman & Crum, of Danville, Kansas, will exhibit one of the strongest show herds of Chester White hogs this year that they have ever brought to the leading fairs. The grand champion sow, Tip Top, her mother and full sister, are among the best Chester White sows in Kansas, and they will be presented at the Topeka Free Fair showing better than ever before. Mr. Crum, of this firm, knows how to fit and show hogs and always takes home a large portion of the money and ribbons. A feature of the herd at this time is five December boars out of the grand champion sow, Tip Top.

S. E. Stoughton, of Hutchinson, Kansas, owner of the Pond View herd of registered Holstein cattle, has announced a complete dispersion sale of his Holstein herd on September 4. The offering will consist of fifty cows and heifers in milk, fifteen two-year-old heifers, fifteen long yearling heifers, twenty spring heifer calves and two herd bulls. Mr. Stoughton has been sixteen years breeding this herd of record-producing Holsteins. He has made them a great source of profit. Several of the cows have A. R. O. records and come from the best known foundation stock.

C. A. Gooch, of Orrick, Missouri, has announced October 19 for his fall sale of Spotted Poland Chinas. Mr. Gooch has at the head of his herd Spotted Lad by Honest Abe. This hog was bred by H. L. Faulkner and he is one of the very best Spotted Poland China boars at the head of any herd in Missouri. Mr. Gooch will offer on October 19 fifty head of spring boars and gilts sired by Spotted Lad and Pioneer Chief.



June Work with Poultry

JUNE is one of the most important months of the year. This is the time when too many poultrymen become slackers and lax with their poultry work and methods. This is the time when "an ounce of prevention is worth a pound of cure." This is the time when "a stitch in time saves nine." During this month many little things demand attention and often mean the difference between profit and loss.

In the first place, if you have not hatched as many chicks as you will need for either layers, breeders or for exhibition purposes, we would advise you to continue to hatch throughout the month of June. These birds nearly always carry off the prizes at the late winter shows and if properly fed and cared for will usually begin to lay about January 1.

During the hot days of this month see that the drinking pans are never allowed to go dry. The lack of water will greatly reduce your egg yield and also stunt the growth and development of your young stock. Keep the drinking water in the shade.

No doubt many of the yards are beginning to be more or less barren of green food and perhaps in many cases are filthy. We would advise plowing the yards or stirring the soil and to encourage the birds to work in same. Sow some wheat, oats or other grain in the yards and keep some tender, succulent green food available for them.

See that your growing stock does not lack for anything that is necessary for their growth and development. Provide shade and give them as much moist mash each afternoon as they will eat with a relish in fifteen to thirty minutes.

Many of your older birds will now be ready for the roosting poles. Chicks of this age are liable to pile up on cool nights and many poultrymen suffer greater losses when the chicks have reached this age and when they are practically raised than they do when the chicks are first hatched. To prevent the chicks from crowding and to encourage them to take to the perches, we would advise building temporary roosting poles so that they are about one foot or eighteen inches from the floor. Build a light frame or slanting runway from the floor to the first roost pole and cover the underneath side of this runway and the entire underneath side of the roost poles with poultry netting. Build these temporary roosts so that they will just fit and entirely cover the rear portion of your colony house or roosting quarters. This will prevent the chicks from dropping down between the roosts and the house. This device protects the chicks from their droppings. Even if the chicks should crowd on the wire and on these temporary roosts, the weaker ones are still protected because the wire below permits them to breathe and prevents smothering, even though they are covered by the larger chickens. But you will find that the chicks will soon take to these temporary roosts and it insures plenty of room for each bird. They grow rapidly and their plumage is kept clean and they are kept in good health at a very critical time. No time is so dangerous as when you take the heat away and are trying to teach the chicks to go onto the perches.

Throughout the hot season your brooding coops, colony houses, roosting poles, nests, laying houses and breeding houses should be thoroughly sprayed once a month with some good liquid lice killer, or mix two gallons of crude oil, one gallon of kerosene and one gallon of crude carbolic acid and use this mixture as a spray. All nests, roosts, cracks and crevices should be painted with this mixture at least once a month during the summer season.

Keep the weeds and grass cut down around your poultry yards or else confine your chicks to their coops and houses each morning until after the dew has left the grass. Don't allow the hens to drag the chicks about the farm on damp rainy days.

You will perhaps have more hens become broody this month than during any month of the year. Don't allow them to remain on the nest after they have stopped laying. If there are fertile eggs in the nest this will start chick development and also encourage the growth of mites and lice. By breaking up broody hens promptly, every poultryman can increase his average egg yield during the year fifteen to twenty-five eggs per hen.

If you are through hatching, we would advise you to remove the males from the laying pens for the remainder of the season and produce infertile eggs. This will prevent the loss of a large number of eggs that will go on the market during the hot season. While the eggs are being held for market, keep them in a cool place.

Males that are intended for next year's breeding purposes should be given the very best of feed and care. Give them plenty of range and an abundance of green food. It is advisable to saw their spurs off within about one-fourth of an inch of their legs and also blunt the points of their beaks so that if two or more are placed in one pen you will not run the risk of injuring a good male. Birds that are intended for breeders the following year should be kept with a few females.

If you intend to do any caponizing, you should begin to select the males which you expect to use for that purpose. This is one of the best months in which to caponize your young cockerels. They can be placed on range with the pullets and kept in good growing condition until time to market them.

Hens that are not intended for breeders or layers, that are not suitable to carry over for another year, should be sorted out during this month and sold before the market is flooded with friers and broilers. Keep such birds as you know have been good breeders, good layers, or that have made a good test according to the trap nest or according to the Hogan method. Cull and make room for the growing stock.—T. E. QUISENBERRY, American School of Poultry Husbandry.

Lice and Mites

Chicken lice and mites get busier than ever with the coming of warm weather. Unless they are controlled at this season they will have a marked effect on the number of eggs produced by laying hens, and the number of chicks raised. Specialists of the Department of Agriculture recommend that houses be thoroughly cleaned, whitewashed or sprayed with kerosene or kerosene emulsion at this season. The hens should also be provided with a good dust box, and insect powder should be dusted among their feathers.

Mites usually stay in the cracks of the henhouses and under the roosts in the daytime, where they lay their eggs. At night when the fowls go to roost the mites come out of their hiding places, attach themselves to the fowls, and feed by sucking blood from them.

Provide a good dust box containing a mixture of road dust or wood ashes and allow the hens to dust themselves. Dusting the hens by hand is effective and is especially recommended for setting hens and fowls that are very much infested with lice. A good home-made dust or louse powder is made by mixing together one and one-half pints of gasoline and one pint of crude carbolic acid with four quarts of plaster of paris. Allow it to dry, crush to a powder, and work it well into the feathers by hand.

One of the most effective ointments used to destroy lice is a mixture of equal parts of blue ointment with vaseline or lard. Mix these ingredients thoroughly and apply a small portion (about the size of a pea) to the top of the head, under the wings, and around the vent.

Blue ointment should not be used on hatching hens and small chicks.

Benefits from Egg Storage

Storage facilities for eggs are an advantage both to the producer and to the consumer. Without storage, eggs would be a glut on the market during seasons of high production, and they would soar

to prohibitive prices during the periods of low production.

A clear understanding of cold storage as a factor in enabling American people to have eggs at all times of the year, at prices justified by original cost plus any necessary handling expenses, is shown in figures announced by the U. S. Food Administration. In April 478 cold storage houses were reported as used for storage of eggs. These warehouses are distributed throughout the United States.

According to the U. S. Department of Agriculture, the smallest number of cold storage warehouses in any of the eight geographical groups of states is thirty-seven and the largest number is ninety-seven. The average is about sixty. Thus the distribution is fairly uniform geographically. More than 400 of the storage houses are owned and controlled independently of the large packing interests.

Public storage houses frequently have as many as 500 counts and each person or company storing eggs ordinarily disposes of them to several hundred customers. As eggs are generally sold on contracts specifying future delivery during the season of little or no production, the number of persons now owning the eggs stored reaches into tens of thousands; no owner has sufficient holdings to dominate the market. Furthermore the trade which distributes these eggs is now under the general supervision of the U. S. Food Administration. New regulations prohibit all unnecessary trading and are expected to stop the wasteful practice of re-sales within the trade.

In the past it was a frequent practice for dealers to buy from each other on a rising market, each time taking a profit. This practice obviously added to the ultimate price paid by consumers. Only one reasonable wholesale profit is now permitted and the eggs in storage—amounting on May 1 to nearly three million cases—will reach the public next fall on a fair price basis. Cold storage is necessary for the most efficient untilization of the nation's perishable products and under the present form of control both producer and consumer should fully share in its benefits.

Poultry Bulletins

A list of state circulars and United States Government bulletins on poultry for free distribution is given below. Cut it out and check ones desired and mail to L. W. Burby, Extension Poultry Husbandman, Manhattan, Kansas, for your copies.

Special attention is called to the Kansas circulars which deal specifically with Kansas conditions.

Kansas Circulars: No. 60, "Chicken Management of the Farm." No. 61, "Chicken Houses," No. 27, "Capons for Kansas." No. 51, "Improving the Kansas Egg."

United States Bulletins — Farmers' Bulletins: No. 287, "Poultry Management." No. 355, "A Successful Poultry and Dairy Farm." No. 390, "Pheasant Raising." No. 452, "Capons and Caponizing." No. 528, "Hints to Poultry Raisers." No. 562, "Boys' and Girls' Poultry Clubs." No. 574, "Poultry House Construction." No. 585, "Natural and Artificial Incubation of Hens' Eggs." No. 594, "Shipping Eggs by Parcels Post." No. 624, "Natural and Artificial Brooding of Chickens." No. 656, "Community Egg Circle." No. 682, "Simple Trap Nest for Poultry." No. 684, "Squab Raising." No. 697, "Duck Raising." No. 767, "Geese." No. 791, "Turkey Raising." No. 801, "Mites and Lice on Poultry." No. 806, "Standard Varieties of Chickens, I—The American Class." No. 858, "The Guinea Fowl." No. 889, "Back Yard Poultry Keeping."

Chemistry Circular: No. 61, "How to Kill and Bleed Market Poultry; and Knife for Killing Poultry." No. 64, "Studies of Poultry, Farm to Consumer. (Cold Storage Eggs.)"

Department Bulletin: No. 561, "Feed Cost of Egg Production."

Kansas Fairs in 1918

The following is a list of the fairs to be held in Kansas in 1918, their dates (where they have been decided on), locations and secretaries, as reported to the State Board of Agriculture and compiled by Secretary J. C. Mohler:

Kansas State Fair, A. L. Sponsler, secretary, Hutchinson; September 14-21.

Kansas Free Fair Association, Phil Eastman, secretary, Topeka; September 9-14.

Allen County Agricultural Society, Dr. F. S. Beattie, secretary, Iola; September 3-6.

Allen County — Moran Agricultural Fair Association, E. N. McCormack, secretary, Moran; September 20-21.

Barton County Fair Association, Porter Young, secretary, Great Bend; first week in October.

Bourbon County Fair Association, W. A. Stroud, secretary, Uniontown; September 10-14.

Brown County — Hiawatha Fair Association, J. D. Weltmer, secretary, Hiawatha; August 27-30.

Clay County Fair Association, W. F. Miller, secretary, Clay Center; October 8-11.

Cloud County Fair Association, W. H. Danenberger, secretary, Concordia; August 27-30.

Coffey County Agricultural Fair Association, C. T. Sherwood, secretary, Burlington; October 4-9.

Comanche County Agricultural Fair Association, A. L. Beelery, secretary, Coldwater; September 11-14.

Cowley County — Eastern Cowley County Fair Association, W. A. Bowden, secretary, Burden; September 4-6.

Dickinson County Fair Association, E. W. Elwick, secretary, Abilene; October 1-4.

Douglas County Fair and Agricultural Society, C. W. Murphy, secretary, Lawrence.

Elk County Agricultural Fair Association, Fred R. Lanter, secretary, Grenola; August 27-29.

Ellsworth County Agricultural and Fair Association, George Inman Seitz, secretary, Ellsworth; September 17-20.

Ellsworth County — Wilson Co-Operative Fair Association, J. W. Somer, president, Wilson; September 24-27.

Franklin County Agricultural Society, L. C. Jones, secretary, Ottawa; September 24-28.

Franklin County—Lane Agricultural Fair Association, Floyd B. Martin, secretary, Lane.

Gray County Fair Association, C. C. Isely, secretary, Cimarron.

Greenwood County Fair Association, William Bays, secretary, Eureka; August 27-31.

Harper County—The Anthony Fair Association: L. G. Jennings, secretary, Anthony; September 24-27.

Haskell County Fair Association, Frank McCoy, secretary, Sublette; probably no fair in 1918.

Jefferson County—Valley Falls Fair and Stock Show, V. P. Murray, secretary, Valley Falls; September 18-20.

Labette County Fair Association, Clarence Montgomery, secretary, Oswego; September 18-21.

Lincoln County—Sylvan Grove Fair and Agricultural Association, W. H. Becker, secretary, Sylvan Grove.

Lincoln County Agricultural and Fair Association, Ed M. Pepper, secretary, Lincoln; September 10-13.

Linn County Fair Association, E. D. Bennett, secretary, Mound City.

Logan County—Inter-County Fair Association, F. W. Irwin, secretary, Oakley.

Marshall County Stock Show and Fair Association, C. J. Brown, secretary, Blue Rapids; October 8-11.

Meade County Fair Association, Frank Fuhr, secretary, Meade; September 3-6.

Mitchell County Fair Association, W. S. Gabel, secretary, Beloit.

Montgomery County Fair Association, Elliott Irvin, secretary, Coffeyville; September 17-20.

Morris County Agricultural Fair Association, H. A. Clyborne, secretary, Council Grove; August 6-9 (race meet only).

Nemaha Fair Association, J. P. Koelzer, secretary, Seneca; September 3-6.

Neosho County Agricultural Society, Geo. K. Bideau, secretary, Chanute; August 13-16.

Norton County Agricultural Association, A. J. Johnson, secretary, Norton; August 27-30.

Ottawa County Fair Association, J. E. Johnston, secretary, Minneapolis; August 13-16.

Pawnee County Agricultural Association, H. M. Lawton, secretary, Larned; September 25-28.

Phillips County—Four-County Fair Association, Abram Troup, secretary, Logan; September 10-13.

Pottawatomie County—St. Marys Racing Association, S. R. Santee, secretary, St. Marys; August 6-8 (race meet only).

Pottawatomie County Fair Association, C. Haughawout, secretary, Onaga; September 4-6.

Pratt County Fair Association, E. L. Shaw, secretary, Pratt; September 10-13.

Republic County Agricultural Association, Dr. W. R. Barnard, secretary, Belleville; August 20-23.

Rooks County Fair Association, F. M. Smith, secretary, Stockton; September 3-6.

Rush County Agricultural & Fair Association, T. C. Rudicel, secretary, Rush Center; September 3-5.

Russell County Fair Association, H. A. Dawson, secretary, Russell; possibly October 1-4.

Saline County Agricultural, Horticultural and Mechanical Association, F. D. Blundon, secretary, Salina; September 3-7.

Sedgwick County—Wichita Fair and Exposition, Chas. Mosbacher, secretary, Wichita; September 30-October 12.

Smith County Fair Association, Miles Elson, Secretary, Smith Center; September 3-6.

Trego County Fair Association, S. J. Straw, secretary, Wakeeney; September 16-21.

Wilson County Fair Association, Max J. Kennedy, secretary, Fredonia; August 20-24.

Crowd the incubators for a month yet, or longer. Even if a little late for hatching breeding stock and layers, it is not too late for raising broilers and fryers, and when properly fed and fattened these birds bring the money.

ANGUS CATTLE

Edgewood Farm Angus

I have for sale

40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.

D. J. WHITE, Clements, Kan.

JERSEY CATTLE.

TESSORO PLACE

OWL INTEREST FINANCE JERSEYS (REGISTER OF MERIT)

Buy a bull from a R. of M. cow and be more certain in your herd building. Every cow in milk in our herd has a year's test or one now on. Our two-year-olds will average 400 pounds of butter. Write for prices and other information.

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REGISTERED JERSEY BULLS

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Route 2 Topeka, Kansas

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Breeders of High-class Jerseys. Stock for sale at all times.

Write Us Your Wants.

IDYLWILD STOCK FARM

Place your order for a Sophie Tormentor, Jacoba Irene, spring bull calf to increase your production.

C. F. Blake - Glasco, Kansas

Longview Jerseys

(Register of Merit Herd)

Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.

Longview Farm
LEE'S SUMMIT - - MISSOURI

THREE GOOD JERSEY COWS
Soon fresh
C. F. PFUETZE, Route 4, Manhattan, Kan.

JERSEY CATTLE.

100 GOOD JERSEYS FOR SALE

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.

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Registered Jersey Bulls, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.

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Write for catalogs.

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From Register of Merit and tested cows; Register of Merit sire.

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Registered bull calves — some ready for service. Sale or exchange for bull or heifers.

TREDWAY & SON, LA HARPE, KANSAS

POLAND CHINAS.

GLENWOOD FARM'S SHORTHORNS AND POLAND CHINAS

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Sires in Service—Emma's Valentine 412453, Golden Searchlight, and Master Goods.

For Sale—Emma's Valentine 412453, Master Butterfly 10th 582866, and Secret's Valentine 648605. Real Herd Bulls.

PRICES REASONABLE.

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For Sale—Twenty gilts bred for summer and fall litters, sired by Expansion King or King Wonder II, bred to Wonder's Joe or King Wonder II. A few fall boars.

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Faulkner's Famous Spotted Polands

THE WORLD'S GREATEST PORK HOG

Three hundred pigs for June shipment, when weaned. Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

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Big-Type Poland China Hogs

A choice lot of September and October boars. One real herd boar prospect. Fifty bred sows and bred gilts. 250 spring pigs. Write or come and see us.

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For quick sale, fifteen fall gilts, sired by Giant Joe, sold open and priced $35 and $40. First check or draft gets choice. I have eighty-five spring pigs and need the room.

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For quick sale, several fall boars sired by Buster Over, the Indiana grand champion, and W's Giant, one of the big boars in the East. These pigs have size and quality and will be priced reasonably.

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Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.

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Last call for fall gilts.

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HALCYON HERD HAMPSHIRE HOGS

One hundred spring pigs priced in pairs and trios. Geo. W. Ela, Valley Falls, Kansas

C. F. Pfuetze, of Manhattan, Kansas, reports his Jerseys making a good record. Mr. Pfuetze is breeding Jerseys for production and by using only record breeding he has the type of Jerseys that is profitable.

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Herd headed by Big Wonder. This outstanding son of Big Bob Wonder was first in junior yearling class at Topeka and second at the Nataional Swine Show in competition with the world. Breeding stock for sale at all times. Immune. Satisfaction guaranteed.

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Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. Chas. E. Greene, Peabody, Kan.

Breeders' Directory

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D. J. White, Clements, Kan.
George McAdam, Holton, Kansas.

RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.

DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.

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I make sales anywhere
Write for date. VALLEY FALLS, KANSAS

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SHORTHORN SHOW BULL

For Sale—Choice roan Shorthorn bull, good breeding, fine show prospect if fitted.

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CHOICE SHORTHORN BULLS FOR SALE.
WILLIAM B. PARKER
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Meadow Brook Shorthorns

We have all the popular blood lines. Stock all ages for sale. Shipping station, Valencia, Kansas. F. C. Kingsley, R. 24, Auburn, Kan.

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Percherons—Belgians—Shires
2, 3, 4 and 5-year stallions for sale or let on shares. I can spare 75 young registered mares in foal. One of the largest breeding herds in the world.

FRED CHANDLER, Route 7, Chariton, Ia., Above Kas. City.

Eighty-eight Imported and American-Bred Percheron and Belgian Stallions and Mares, some weighing from 1,600 to 2,350, from $450 up. Durham, Angus, Galloway and Hereford calves and yearlings from $75 up. Illinois Horse Co., Good Block, Des Moines, Iowa.

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OLYDE GIROD, At the Farm — F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

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NINETY HEAD REGISTERED AND HIGH GRADE:

Forty two-year-old heifers bred to freshen May and June. Ten yearlings. Forty cows three to six years old. Priced to sell. Farm adjoins town. Come and see me.

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I am offering for sale from my registered herd, four cows from four to six years old; two heifers, two years old, extra good; four yearling heifers and four high-grade cows; four registered bulls of serviceable age. Write or come and see my herd.

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Is offering pure-bred females of various ages with extra good breeding, and a number of registered bulls; also grade cows and heifers of a high order. All priced to sell. For further particulars write, wire or call

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HIGH GRADE COWS AND HEIFERS

Carload lots and less. Calves fifteen-sixteenths pure-bred for sale at all times. $20 crated for shipment.

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For Sale—Several young bulls by Pontiac Beauty De Kol Segis, a grandson of King of the Pontiacs and King Segis. These bulls are out of high-testing yearly record cows. We breed for yearly production. Come and see my herd. H. D. Burger, Seneca, Kansas.

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Sired by a 34½-pound bull, and from young dams with A. R. O. backing. Write for description and prices.

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Buy your next bull calf from a herd that won the butter test over all breeds.

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When in need of good high-grade calves, calves from good milk producers, well marked, crated and satisfaction guaranteed, send order or write

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For Sale—Young bulls, bred heifers and cows. All sired by the great bull, Sir Rag Apple Korndyke De Kol, Two cows will be fresh this month. Fourteen-thousand-pound milkers.

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RED POLLED BULLS

FOR SALE—Thirty head coming yearling bulls. Come early and get the best. Our experience has been those that come late found us sold out. Write or come at once.

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ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.

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CHESTER WHITE BOARS



For Sale — Fifteen fall boars ready for service, big husky fellows. Priced to move quick. I need the room for my spring pigs.

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CHESTER WHITE HOGS

Five December boars ready for service, out of my grand champion sow, Tip Top. Spring pigs from other good sows for sale.

COLEMAN & CRUM, DANVILLE, KANSAS

GALLOWAY CATTLE.

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

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CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wauwatosa, Wisconsin

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

REGISTERED HOLSTEIN BULLS

I have a few choice young bulls from my best record cows. They are splendid prospects for herd bulls and priced to sell.

BEN SCHNEIDER, NORTONVILLE, KAN.

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

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CHOICE HOLSTEIN CALVES

High grade, beautifully marked, sired by registered bulls and from heavy milk producing dams, ten days old, $15; three weeks, $17; six months, $40. For thirty days only. First draft takes them.

Mt. Pleasant Stock Farm, Gilberts, Illinois.

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For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

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BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.

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DUROC JERSEYS.

Otey's Durocs

Hercules 3d, a giant 900-pound boar in breeding flesh, and Pathfinder Chief 2d, the largest and smoothest of all the sons of the mighty Pathfinder, head our herd. Fifteen gilts bred for summer and fall farrow for sale. Write or come and see them.

W. W. OTEY & SONS, WINFIELD, KAN.

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. W. J. Harrison, Axtell, Kan.

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on fall boars and gilts, from Crimson Wonder, Golden Model, Illustrator, Defender breeding.

JOHN A. REED & SONS, LYONS, KANSAS

CHOICE IMMUNED DUROC BOARS

Sired by Taylor's Model Chief 126455, winner at American Royal and Missouri State Fair. Also gilts bred to Great Wonder and Pathfinder boars.

W. R. HUSTON - AMERICUS, KANSAS

ADAMS FARM DUROCS

March pigs of Crimson King, Tatarrax and Ohio Col. breeding. Immune. See our Guernsey ad next week. ADAMS FARM, Gashland, Mo. Twelve miles from K. C.

Wreath's Durocs

A Choice Lot of Spring Pigs

Ship at weaning time. Priced in pairs or trios. Write or come and see my herd.

L. G. WREATH, MANHATTAN, KANSAS

MULEFOOT HOGS.

KNOX KNOLL MULEFOOTS

Still have a few choice pigs from big litters. For prices and catalog address

S. M. KNOX - HUMBOLDT, KANSAS

Mating Sows Suckling Pigs

THE Ohio Experiment Station has worked out a method whereby a sow can be successfully bred while suckling a litter of pigs. Pigs are often weaned at a younger age than they would be if it were thought possible to raise two litters each year from sows which are allowed to nurse their pigs for a longer time. The belief seems to be prevalent that it is impracticable to breed the sow that is nursing a litter or at least that this cannot regularly be done while the pigs are depending largely upon her for their sustenance.

Either an extended lactation period or breeding for late spring litters as was recommended in case a larger number of sows were not bred at the usual time makes the practice of breeding prior to weaning necessary if sows are to produce litters twice yearly and reach a maximum production, for, to be most ecouomically produced, fall pigs generally should be farrowed not later than early October.

W. L. Robertson, of the Ohio Station, reports as follows on these tests:

"In his 'Physiology of Reproduction,' F. H. A. Marshall makes the statement that by partially weaning the young and feeding the sow liberally it is possible to get five litters in two years. The possibility of breeding sows prior to the time the pigs are weaned and while the pigs are comparatively young was first called to the attention of the station by the late C. O. Snyder, of Holmes County, and at different times the plan has been successfully practiced by the station.

"The method followed is to separate the sows and pigs each night. Usually after the sows have been kept away from their pigs over night for four or five successive times they come in heat. In some instances a longer time was necessary but in only one case did the plan fail. The indications are that sows will come in heat almost or quite as readily under this treatment as when their pigs are entirely weaned before the sows are bred. In a recent trial after a sow was taken away from her pigs over night for five consecutive nights rutting took place when her pigs were only thirty days of age."

Four seasons were covered in these tests, from three to five sows being bred each season while still suckling their pigs.

"The pigs sucking the sows were from forty-three to fifty-six days of age at the time the dams were bred," says Mr. Robinson. "The litters ranged in number from three to eleven pigs. While the data are not sufficiently extensive to be conclusive, the indications are that conception is just as likely to occur and if auy difference is noticeable the resulting litters are larger than those from similar sows not bred until after weaning time. Based on the comparative number of pigs saved and their weights at eight weeks of age, there is nothing to indicate that the sows are overworked or less capable of nourishing the resulting litter than are those given a short period of rest between suckling the litter and rebreeding.

"The rate of gain of course may be influenced by factors other than the milk flow, but so far as shown by the gains made by the pigs for the two periods from birth until their dams were mated and from then until weaning and the comparative gains for similar periods made by the pigs from sows not bred, the milk flow does not seem to be affected by conception or by separating the sows and pigs.

"The advantages of sometimes breeding sows during lactation are obvious. Sows which farrow later than the others in the herd can be bred at about the same time and thus the difference in the age of the subsequent crop of pigs may be kept at a minimum. The least possible variation in age is desirable. In order to secure pigs as nearly uniform in age as possible, the station has been following the practice outlined. If it is desirable to have pigs farrowed late in the spring, the use of this method does not also necessitate late farrowing of the fall pigs. Sows can be allowed to suckle their pigs for more than eight or nine weeks and two litters each year still be raised."

Beef from Silage

"Don't forget your silo," is the advice to the beef-cattle farmer by specialists of the United States Department of Agriculture.

In every case, a sufficient acreage to provide crops to fill the silo should be provided by beef-cattle farmers. This will assure that the silo investment will yield its proper annual return and prevent losses coming from giving the cattle more expensive feeds. The cheapness with which cattle can be fitted for market or carried through the winter with silage insures that well-filled silos will be a paying investment.

It is a good farm practice to put more acreage to silage crops than it is estimated under ordinary conditions will be necessary to fill the silo. Dry weather or a hail storm at the crucial stage of growth may cause a marked decrease in the tonnage yield. A few extra acres should be planted to sorghum to make up this probable shortage.

Beef cattle men generally are beginning to realize the value of silage in getting cattle ready for market at the minimum of expense. A practical demonstration of the value of silage in feeding cattle cheaply was noted on the Wichita stock market last week. R. H. Rhoades, a cattleman from the western part of Sedgwick county, sold three carloads of silage-fed cattle, weighing an average of 1050 pounds at $15.50 a hundred. These cattle were not highly finished, but went to the packers as killing cattle and netted him a good profit.

Half of them were bought last March at $7 a hundred, and were grazed through the summer and roughed through the winter. The remainder were bought late in the summer, grazed for a time and rough fed through the winter. They were not full fed at any time. Silage was largely responsible for their condition when sold. Mr. Rhoades attributes their finish largely to the fact that he let his corn get well matured before putting it into the silo. He believes that beef cattle men should not make the mistake of putting in their silage too green.

Silent pro-German appetites are as hostile to the Allied cause as disloyal utterances.



THIS young lady is Jennie Opal Browning, of Linwood, Kansas. She is doing her bit in helping to supply Uncle Sam's soldiers with wool for their uniforms and blankets. Last year she drove sheep to and from the pasture for her father, H. B. Browning. She received as pay one of the lambs being fed for market. When the fat lambs were sold she invested the amount received for her sheep in a high-grade Shropshire ewe. The lamb she is holding is only ten days old. She is also a member of the Linwood Dairy Calf Club.

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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 22. TOPEKA, KANSAS, JUNE 1, 1918. Established 1863. $1 a Year

PRODUCTION OF BABY BEEF

Experiment Station Shows Economy of Silage in Fattening Calves

THE statement heading this page was printed on the program of the annual cattlemen's meeting in Manhattan May 17. At least a thousand people were in attendance at this meeting. The primary purpose of the gathering was to present for study and discussion the result of the winter's test in feeding five lots of calves for market. In addition to this, however, the relation of meat production and distribution to our war program was freely discussed.

The magnitude of the business of feeding our Allies was brought within the comprehension of those present by the statement of J. P. Cotton of the National Food Administration that we were supplying our Allies with pork products at the rate of 16,000 pounds a minute and beef 6,000 pounds. He explained how last fall the different allied nations and our own army and navy were all in the field as competitive buyers of meat products. In November the Food Administration united the buying of meat under one head and now England and France submit each month to the Food Administration detailed lists or requisitions showing their needs. These are carefully checked over in consultation with our own army and navy buyers, estimates and prices are made, and finally the orders are apportioned among the different packing houses. The apportionment is based as far as possible on the pre-war export business of the different concerns, but the tendency has been to increase the relative proportion going to the smaller packing houses.

Mr. Cotton insisted that the only power he had to regulate prices of meat was through this uniting of the allied purchases and those of our own army and navy. He said that as he came through Chicago on his way to attend this meeting he had placed an order for 1,200,000 tons of pork on the basis of a $17.50 price. Up to last November the allied governments were buying practically no frozen meat from the United States. Their supply was coming from Australia and Argentine mainly. Beginning in November, the Allies began buying frozen meat in the United States, taking low grade beef carcasses. Prices for corn-fed cattle in this country were far from satisfactory. Mr. Cotton admitted that the beef men were hard hit by the prices of last winter. Delegation after delegation came to Washington to protest. The result of all this was that C. E. Yancy, a well known practical feeder of Missouri, was drafted to assist Mr. Cotton in his work as meat administrator. The Allies were also persuaded to buy better and heavier carcasses, which greatly improved the price situation. These, in Mr. Cotton's judgment, were both important results. We believe he impressed his hearers with his honesty of purpose in doing his best to make it possible for production to continue and in addition give due consideration to the consumer at the other end. He stated, however, that the Food Administration could not be expected to protect the foolish buyer against loss. The big thing in his judgment was that in spite of the many complications and difficulties, production had gone on and we had been able to keep a steady stream of meat going to our Allies.

THE United States and her Allies are engaged in war and, to win, the fighting forces must have munitions and food as well as the unwavering support of the people at home. The importance of keeping these forces well supplied with meat and meat products and of furnishing meat to the civilian populations in sufficient amounts to strengthen their support makes it essential that the cattlemen do their full share in the undiminished and economical production of beef.

Ex-Governor Stubbs, who followed Mr. Cotton on the program, objected to the placing of Mr. Yancey in the meat administration without giving him any real authority. He maintained that the live stock business was the biggest business in the country and that it should by all means be given due consideration. The keynote, however, of the Stubbs speech was the winning of the war at the earliest possible moment. He said that it was up to the United States to win it and to the United States must come the credit of the final victory or the everlasting odium which would follow defeat. "The way to make it impossible to lose is to utilize every resource we possess," said Mr. Stubbs, "not only in men but in all the materials and munitions necessary to wage war successfully. Everything else must be subordinated to this one aim. We can lose if we drift along with only about 10 per cent of our people whole-heartedly enlisted in the fight and the other 90 per cent trying to live and work as we did before the war cloud overshadowed us." It was ex-Governor Stubbs' plea that every man, woman, and child should get in with both feet, working at whatever job he can best perform. If we do that, nothing under Heaven can stop us. He insisted that millions of men are still engaged in non-essential industries. "If I had the power now possessed by the President of the United States," said Mr. Stubbs, "I would close every brewery in the country inside of twenty-four hours and stop this waste of food value in this worse than useless business."

The patriotism of the students trained in the animal husbandry division of the Agricultural College was referred to by Professor Cochel in his opening remarks. Almost 30 per cent of the 233 graduates from this division and the seniors of the 1918 class are now wearing the olive-drab, twenty as commissioned officers and fifteen as non-commissioned officers. In addition three men from the animal husbandry faculty are officers, and seven men are now in officers' training camps.

In speaking of the experimental work, Professor Cochel said it was their constant aim to anticipate the need for information and plan experiments so as to have the facts and figures when they were needed. In other words, an experiment station must keep ahead of the game. It would be a useless waste of public money to conduct experiments after feeders have learned through the expensive school of experience the facts determined by the experiment. It has been apparent that old methods of feeding cattle could not continue under present conditions. They saw that the time was near at hand when cattle would have to be put on the market younger but just as good and just as well finished as in the old days. In studying the history of the cattle business it will be found that the men who have followed it with profit are those who were quick to change methods with changing conditions. The old method of feeding shocked corn to fattening cattle has long since become obsolete. "We must now use grass more extensively in making beef," said Professor Cochel, "and delay the feeding of concentrated feeds as long as possible, using rough feeds to make growth and flesh." It is evident that the cattle must be better bred and be kept growing and developing from birth until ready for the block.

R. J. Kinzer, secretary of the Hereford Record Association, who preceded Professor Cochel as head of the animal husbandry department of the Agricultural College, presented a paper on the relation between the breeder of pure-bred cattle and the cattle feeder. All through this paper Mr. Kinzer emphasized the need of ever keeping in mind the fact that the ultimate end of beef cattle is the block, and the breeder who does not recognize this is doomed to ultimate failure and will have made no contribution to the cause of better-bred stock. We hope to be able to report this address in more detail in a later issue.

During the luncheon period sandwiches were served in the live stock pavilion and a most interesting and instructive demonstration was staged showing the material available at the college for teaching the student to know and appreciate the value of good beef cattle. The college now owns 150 head of pure-bred cattle.

The Shorthorn exhibit consisted of the three herd bulls—Matchless Dale by Avondale, Narcissus Type by Cumberland's Type, Marauder by Revolution; four Matchless Dale cows, four Matchless Dale bull calves, four Narcissus Type calves out of Matchless Dale cows, and four cows from the twenty-year experiment planned by Professor Cochel to study the relation, if any, between type and production.

Matchless Dale needs no introduction to the general public, as it is well known that he has sired more prize winning steers than any other bull living or dead.

Narcissus Type is a wonderfully smooth, deep, thick, low-down, quality kind of bull that gives promise of making a great sire. His first crop of calves are splendid prospects.

Marauder, a late junior yearling, is developing into a bull of striking individuality, impressive character, and splendid quality. He is the most intensely bred Avondale in America today.

The Matchless Dale cows, all bred by the college, with their broad backs, tremendous depth of body, smoothness of conformation, thick covering, and sweet, feminine heads, are exceptionally good ones.

The four Shorthorn experimental cows attracted unusual attention not only because of their splendid beef type and quality but also because of the fact that they have each produced an average of 5,342 pounds during their present milking period which averages five months for each cow. This means a daily average of four and one-fourth gallons. The cow producing the highest daily average is pure Scotch and two of the others are almost pure Scotch, one being a granddaughter of White Hall Sultan. The fourth is a Scotch-topped cow. Bull calves from these cows are selling up to $750 at weaning time.

The Hereford exhibit consisted of Prince Rupert 12th by Prince Rupert 8th out of Belle Donald 71st; four cows bred by the college, and their calves sired by Prince Rupert 12th. In spite of the fact

(Continued on Page Nine)



EXPERIMENT STATION CATTLE LEAVING THE FEED LOTS FOR MARKET, WHERE THEY SOLD FOR AN AVERAGE OF $6.46 A HUNDRED

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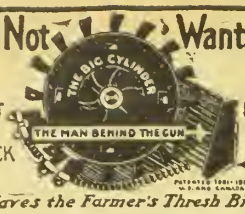

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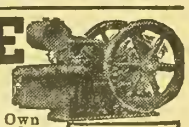

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Need For Gasoline Economy

CAN the petroleum industry keep pace with the development of auto truck transportation?" I answer: "It can, and it will, because it must.

It was inevitable that motor trucks should become an increasingly important factor in our transportation systems. An instance of this was the successful operation in such a winter as last of a motor truck express route between New York and Philadelphia. Since then the service has been extended to Baltimore, Washington, Boston, and other points.

The possibilities opened up by these and like transportation ventures emphasize that we must avail ourselves to the fullest extent of the service of the motor truck, and I am hopeful that there will be sufficient gasoline to provide for all the commercial as well as passenger vehicles in operation during 1918. Even should there be a shortage of gasoline, the development of the auto truck should not be retarded, even though it should become necessary to restrict the use of gasoline by passenger vehicles for pleasure uses.

When in July last year I issued a statement on behalf of the Council of National Defense, I said "People should look upon their automobiles as necessities to be used only when needed. Not a gallon of gasoline should be used in the present emergency except for some useful end."

The warning is more than ever necessary now. The conservation of gasoline may no longer be a matter of choice. It may become necessary to set down definite and drastic regulations to restrict needless consumption.

Here are the salient facts. At the beginning of 1916 there were about 2,400,000 cars and trucks in the United States. At the beginning of 1917 that number increased to over 3,500,000. The total automobile and truck registration in the country as of January 1, 1918, according to official figures furnished from all of the forty-eight states, is 4,941,276. This figure does not include duplicate registrations and, of course, does not include hundreds (perhaps thousands) of cars in remote districts, all of which are not registered. In round figures, there must have been close to 5,000,000 automobiles and trucks in the country on January first this year.

Before considering what this means to the petroleum industry, we may analyze the truck and pleasure car situation a little further. For our purposes, the rough estimate prevailing the motor truck industry may be accepted as sufficiently accurate, and these figures place the number of trucks in operation in this country at the beginning of this year at 351,000.

A comparison of this figure with the total of 5,000,000 cars at once suggests the wide possibilities for development of motor trucks, and the industry would appear to be in excellent shape to take care of such a development. There are 378 commercial vehicle plants in this country, as against 195 automobile factories. But we can look forward to a development of the motor truck industry, and current estimates of motor truck output today run as high as 22,000 per month.

It is when we turn to the part that petroleum must play that the figures assume grave significance. Roughly, 5,000,000 motor vehicles in the United States will require about 50,000,000 barrels of gasoline this year. Gasoline exports to the Allies last year totaled nearly 8,000,000 barrels. They will be more this year. So that the total demand made on the petroleum industry for gasoline this year will be over 60,000,000 barrels. In 1917 our production was from 50,000,000 to 55,000,000 barrels.

In view of the increased demand, what are the conditions in regard to the production of crude oil? Here, again, the general facts, on the face of them, are not encouraging.

In 1917 our consumption was in excess of our production and our importations of crude oil from Mexico, and it is fair to assume an increased consumption in 1918. Our production does not at present measure up very well to these anticipated demands, and furthermore, it is propable that, owing to lack of shipping facilities, our importations from Mexico this year will decrease.

On the other hand, there are factors which tend to make the situation more encouraging. Apart from the possibility of relief in shipping conditions, and therefore of more oil from Mexico, we can hope for improved conditions in our own production. Most of last year and early this year, drilling operations were largely curtailed by the virtual impossibility of getting drilling tools and casing materials. Even prospecting was restrained somewhat by the uncertainties surrounding the future of the oil industry.

Many of these uncertainties have now been cleared away, thanks to the frank and liberal spirit in which M. L. Requa, representing the oil division of the Fuel Administration, has dealt with the industry. Realizing the situation, all oil operators are keen to develop production with all possible dispatch.

There is, above all, the broad, general fact that there are millions of acres of prospective oil territory, and the possibilities of future development in still practically virgin territory are encouraging. For the immediate present, another feature is the improved process of manufacture, by which larger quantities of gasoline can be produced from the crude, which heretofore has sold as fuel or gas oil.

The development of motor transportation comes in as one aspect of a many-sided problem in which the fuel oil requirements for our own and the Allies' naval and merchant marine furnish another complication.

I mention fuel oil because it may have an important bearing on gasoline supplies, in that much gasoline is obtained from what would otherwise be fuel oil. If, however, fuel oil itself is in urgent demand, it naturally ceases to be available as a source of gasoline supply, and it is even possible that the fuel oil demand might be so urgent that crude, which is at present run for gasoline, might have to be run for fuel oil, thus still further limiting the source of gasoline supply.

In the main, however, although I have told frankly and in detail of the difficulties with which the petroleum industry is faced, I still remain firm in the belief that these difficulties will be overcome and that all the really important gasoline requirements of the country at large will be provided for amply.

But let me again repeat, because I feel very deeply the seriousness of it—every consumer of gasoline must endeavor to purge himself of his share of reproach because of any unnecessary use or waste of gasoline, remembering there is still great demand for our own and our allies' war needs.—A. C. BEDFORD in The Nation's Business.

Getting Out of Soft Ground

When you get stuck in the mud or in soft ground with your car, the natural impulse is to jam down the accelerator in order to get all possible power from the motor. If the car has stalled because the rear wheels cannot take hold of the soft ground and are slipping, this is not the best way to get out. The faster the wheels spin, the deeper the car will settle in the mud. It is better after shifting into low gear to let the motor run at a comparatively low speed and edge the clutch in gently. The rear wheels will have a better chance to take hold than if the full power is jammed on suddenly. Sometimes it is easier to get out under these conditions if there is a load in the rear seat.

If the wheels continue to slip, it will be necessary to tie ropes about them and throw straw or brush into the hole so as to give footing. If the car is a light one you can sometimes help it forward by using a plank or pole under the rear axle as a lever, thus giving a lift forward while the man at the wheel applies the power slowly.

If in driving a car the water in the radiator begins to boil, look to the following as possible causes: Lack of oil, lack of water, fan belt broken and fan stopped, broken water pump, or too rich a mixture of gasoline.

In shifting gears in driving any kind of a motor vehicle, always be sure the clutch is entirely disengaged, then wait a second or two in order that the two gears to be meshed shall be revolving at nearly the same speed, and gradually re-engage the clutch.

In going down steep hills you can save your brakes from excessive wear by braking with the motor. To do this, slacken the speed of your car at the top of the hill, throttle down the motor, and shift into a lower speed, according to the steepness of the hill.

If your motor will not start, there are a number of things which may be the cause. The switch may not be on, gasoline may be exhausted, gasoline of poor grade or mixed with water, ignition may be poor, the ignition contact points out of adjustment, the ignition units short-circuited, water on the coils or terminals, an over-rich mixture by continued use of the choke, or the motor may be cold. This last may be remedied by pouring hot water over the carburetor. If the engine is not too cold, has good, clean gasoline in the carburetor, and a good spark at the plugs, the motor should start if properly handled.

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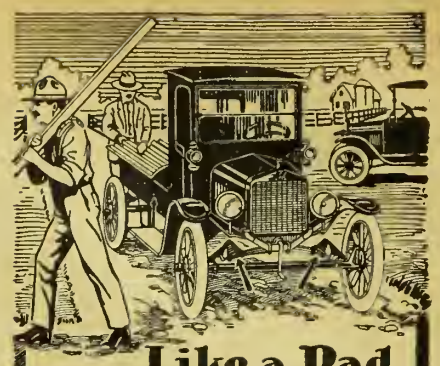

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K. S. A. C. COMMENCEMENT

Of the 191 young men and women sent out by the Kansas State Agricultural College this week, twenty-eight of the men received their degrees in absentia. They had already answered the call of their country and were in the training camps or on the battle line in Europe rendering the fullest service possible in order that the ideals for which this nation has already shed so much blood might not perish from the earth. The baccalaureate sermon by Dr. E. J. Kulp of Topeka and the commencement day address by Dr. Alonzo Taylor of Pennsylvania University, now temporarily connected with the National Food Administration, were alike in holding up the ideal of service to humanity as the great opportunity open to the man or woman going out with such equipment for service as is given by a course of training at the Kansas Agricultural College.

This great institution at Manhattan in every department has arisen to the occasion and no call for help from the various war activities of our Government has been in vain. Commencement week visitors were impressed with the efficient manner in which the institution is fulfilling its mission in these times of stress and strain. While the commencement festivities were in progress a company of men sent here by the War Department was daily going through a schedule involving the most strenuous training in the various lines of mechanical work, in order that they might take their places in the war machine we are creating. The gymnasium was given up to these men for sleeping quarters, so the usual commencement day dinner could not be given. In its stead the graduating class and invited guests were entertained at a luncheon given by the Alumni Association. The reception in the evening of commencement day, given by the Manhattan local alumni association to visiting alumni, faculty members, and friends, was held in the domestic science building.

As has been the custom for many years, the college cadets gave a military drill and dress parade in the afternoon commencement day. As we watched these khaki-clad boys go through the various evolutions with the most perfect military precision, we realized more fully than ever before the circumstances under which the Morrill Act creating the agricultural colleges was passed July 2, 1862. This was one of the most far-reaching and statesmanlike strokes of educational policy ever initiated by any government. Created in the midst of that great conflict which hinged around the idea that this nation could not exist half slave and half free, these institutions now find themselves in these later days peculiarly fitted to serve the nation in this present conflict which is to settle the question of whether the world is to be ruled by democracy or the pagan ideals of the Prussian autocracy.

COMMON SENSE IN FARMING

The following ideas relative to the combination of good sense and special training in agriculture, as expressed in the Kansas Industrialist a few weeks ago, are especially appropriate this week when the Agricultural College is sending out its annual quota of graduates:

"Common sense is the farmer's greatest asset. It implies not only a breadth of view but a practical knowledge of various industries. The general farmer must be, to a great extent, a mechanic, a naturalist, an agronomist, a live stock specialist, and a business man. Yet his understanding of all these lines must be well balanced. He must guard against specializing in one subject to the neglect of the others. If he tinkers with his automobile when he should be cultivating corn, he may eventually have a good running machine, but it is doubtful if he will have much of a corn crop.

"Few farmers, it is true, have an equal grasp of, or an equal ability in all lines pertaining to agriculture. It is only natural that they should take greater interest in one division of industry than in another.

"Likewise, the student who attends an agricultural college, if his ultimate object is to learn the business of farming, does well to get a proper understanding of values. When he returns to the farm he will have learned a number of things that his father does not know. Yet if his father is making a success of farming, he should not be hasty in condemning his methods. His college training should enable him to improve these methods. He should not be the slave of any one system or branch of agriculture, unless he is certain that greater success will result by adopting it. His technical training should not render him impervious to further improvement. If local conditions demand a different application of science, he should be capable of adapting his knowledge to the change. He should value an idea for what it is worth, no matter from what source it may have sprung. This is only common sense.

"There is prejudice among some farmers regarding the practical value of an agricultural education. If there is ground for such prejudice, it is probably the observation of some persons who are as much at sea with knowledge as they are with ignorance. If an agricultural education fails to benefit the student, the failure must rest with the student himself. If he hasn't any sense when he comes to college, he cannot expect to leave with any.

"There are many successful farmers who never had the advantage of a technical education, but they have succeeded not because of the lack of such education but in spite of it. The chances are that if they had been more thoroughly educated they would have attained even greater success—and this with a less expenditure of energy."

LABOR FOR HARVEST.

With a crop of almost a hundred million bushels of wheat fast approaching maturity in Kansas, the problem of labor to save this crop is becoming our chief concern. It will not be a difficult matter to take care of the wheat in sections where diversified farming is generally practiced, for in these sections the acreage is not large and what little extra labor is necessary during the harvest period can be drawn from the towns or obtained through exchange among farmers themselves.

In the real wheat belt where there are counties like Barton, Pratt, Stafford, or Reno, with over 200,000 acres of wheat to the county to harvest and a present condition indicating a possible yield of three and a half million bushels to the county, the situation is critical. These counties are not densely populated and have habitually depended on outside sources for harvest labor. The usual supply of transient labor will not be available this year. The only way to save this precious wheat is to recruit the necessary labor from the cities and towns of the state, and for the past few weeks the state farm labor director, E. E. Frizell, has been organizing a campaign to enlist this reserve supply of labor.

Some are poking fun at the idea of the city man going out into the harvest field, and possibly the man who has been doing indoor work will not make much of a harvest hand. He may be willing enough and have had the necessary past experience, but is not hardened to the work in the hot sun. He can do a good many things, however, if the necessity arises, and can at least be trusted not to practice the methods of the I. W. W. laborers who have made so much trouble in the harvest fields in times past. The building trades of all kinds, however, can supply labor accustomed to working in the open, and rather than to lose any of the wheat through lack of help to harvest it, every building job, all contracts, and city work of all kinds should stop for the period of harvest so the men can go to the fields to save the wheat. Such action will undoubtedly be taken by the various municipalities, and large employers of labor can be expected to co-operate to the fullest extent possible. The men themselves are not going to hang back. They are well organized and it is comparatively easy to apprise them of the situation. As an illustration, here in Topeka where there are over fifty organized local unions federated in the form of the Topeka Industrial Council, a committee with Mr. Frizzell was given the privilege of speaking in a meeting of this council in which representatives of all the different unions were present. The laboring men through their representatives expressed themselves as able to enroll five thousand men in Topeka to help out in the harvest field. In all the large cities similar action is being taken. The actual enrollment of the men will be conducted much as the Red Cross campaign for funds has been carried on. In every county labor committees will be listing the labor needs of their respective counties and through the federal and state labor bureaus the men of the Harvest Army of Kansas who sign the enlistment cards will be directed to the places where they are needed.

SPREADING WAR INFORMATION

Winning the war is the big thing before us just now and everybody wants to help. Millions of people are making patriotic sacrifices. The United States is a country of enormous resources, having mighty man power, and the only question before us is, Have we the will to win?

We speak of the morale of a nation or people, meaning the spirit which animates their united action. To build up a morale, we need the constant spreading of information about the war and war purposes. The Committee on Public Information has 30,000 speakers, known as four-minute men, who are helping in this task of carrying the messages of the Government direct to the people. They speak in all the movie theaters, giving the reasons back of the war and presenting the latest facts from Washington. Is your community in touch with this source of information? The committee referred to is anxious to know whether the people of the open country go to the movies and whether the official four-minute men are appearing. You can help in creating this united spirit of determination on the part of our whole people by reporting to the Committee on Public Information at 10 Jackson Place, Washington, D. C., suggesting names of men who might be made official speakers or local chairmen of committees to plan for furnishing four-minute speakers. Remember a good four-minute speaker is not necessarily an orator. A good speaker is just an earnest man who understands the facts and can present them in a good sane way to honest Americans.

SORGHUMS FOR LATE PLANTING

Do not overlook the sorghums for late planting. These crops are especially adapted to conditions over the greater part of our state and can be planted much later than corn. Where corn fails it is quite often possible to replace it profitably with some one of the sorghums. They will produce forage, silage, or pasture, and if not planted too late most of them will produce grain under reasonably favorable conditions.

For forage alone the sweet sorghum, or cane, will yield a larger tonnage than kafir or others of the grain sorghums. In the western part of the state there is no variety that surpasses the red amber. In the eastern part of the state the orange, sumac, or red top are the best varieties to plant.

Kafir, feterita and milo can be planted for grain. The standard blackhull kafir matures too late for western planting, but can be safely planted in Eastern Kansas as late as the last of May or the first of June and stands a chance of producing some grain with even later planting. It is the heaviest yielding grain sorghum grown in the state, and is the kind to plant in Eastern and East Central Kansas. The pink kafir can be planted ten days later than the standard blackhull variety. When the season is too far advanced, or on poor soil, in the eastern part of the state, this variety will give better results than the standard variety. Only dwarf kafir should be planted in Western Kansas where grain is desired.

Feterita is a valuable grain sorghum throughout the west and west central sections for late planting. It may be planted as late as the middle of June. It is a little more difficult to get a stand of feterita than of kafir and the crop is a little more difficult to harvest. In Northwestern Kansas dwarf yellow milo is a more certain crop than either wheat or corn. Our experiment station is authority for the statement than over a period of years the dwarf yellow milo will produce more grain in this section than any other crop that can be planted. It can be planted as late as June 20.

If you are having trouble getting good seed of any of the grain sorghums, do not overlook the fact that the Federal Government has established a distributing agency in Wichita and is able to send out limited quantities of carefully selected and tested seed of the various sorghums. Address H. N. Vinall, 815 East Second Street, Wichita.

We spoke last week of the report that Prof. W. A. Cochel, head of the animal husbandry department of the Agricultural College, had resigned. On another page of this issue is an official announcement from the American Shorthorn Breeders' Association of Professor Cochel's employment as field representative for that organization. It is to be regretted that such an organization can outbid an agricultural college and experiment station in the opportunities and compensation it is able to offer such men as Professor Cochel. Those familiar with the constructive work he has done along experimental lines in live-stock production recognize him as the peer of any college or experiment station animal husbandry man in the country. In all the time he has been with the Kansas college and station he has consistently striven to advance the live-stock interests of the state as a whole, and has ever kept to the front the idea that animal husbandry, or live-stock production, is a part of farming and that all teaching and experimental work must recognize that fact. It is with sincere regret that we see Professor Cochel sever his connection with the Kansas Agricultural College. We wish him well in his new work and feel sure that in this field he will have wide opportunities for usefulness in extending the gospel of better live stock.

If you have corn that has failed and cannot get the right kind of seed for replanting, why not try a patch of soy beans? This crop is well worth giving a trial in Kansas. Soy beans can be planted all through June in the sections adapted to corn. They are a splendid forage crop, and the beans are very rich in nutrients. Hogs will gather them without waste and eat the forage part of the plant as well. They furnish an ideal feed for balancing corn.

President Wilson has greatly strengthened himself in connection with the criticism of the War Department in calling on Charles E. Hughes to assist the Attorney General in sifting to the bottom the charges of graft and incompetence in our aircraft production. People generally have the utmost confidence in Mr. Hughes' judicial fairness, and know from his past record that he is a terror to grafters of all kinds.

CONDUCTING DAIRY CALF CLUBS

Prepare Definite Detailed Plans and Follow Them Closely

DAIRY calf clubs are becoming popular as a means of interesting boys and girls in the dairy industry and in farm life. In a recent issue we gave an article by E. J. Trosper, district agricultural agent for Northeast Missouri, on the organization of calf clubs. It is important that those promoting calf clubs should have their plans for handling the various details well matured and prepared in advance. Mr. Trosper has had a great deal of experience in the organization and handling of dairy calf clubs, and is able to give some very valuable suggestions. From lack of space we were unable to give these in full in the previous article. In what follows we draw on Mr. Trosper's experience in handling dairy calf clubs.

Applications for membership in calf clubs can be made by using the following form:

I, ..., hereby make application for membership in the calf club now being organized by..... and the Kansas State Dairy Association and College of Agriculture co-operating.

I prefer a grade (pure-bred) of the..... breed. (The choosing of grades is advised if the herd has not previously been dairy cattle.)

I favor the purchase of heifer calves of one of the special dairy breeds and will abide by the choice of the majority of the members, providing I am not assured of access to a pure-bred bull of the breed I prefer at the time of purchase.

I will execute and deliver to..... Bank a note to cover the purchase price of calf, signed by my father or guardian, payable at or before the date of the sale, drawing.....per cent interest per year. It is agreed that the sale price shall include the cost of insuring the life of the calf at full purchase price for a period of six months.

I further understand that the Kansas State Dairy Association and State Agricultural College will co-operate in purchasing the heifer calves and that the greatest precaution will be exercised in securing good animals at a minimum cost.

The calves shall be between.....and..... months of age and each individual shall be subject to tuberculin test before or after purchase indicating that it is free from and comes from herd free from all other contagious diseases as far as the purchaser can determine.

I further agree to enter the calf which I purchase in a show to be held at..... on the date of....., 19..... The note given to the bank will be paid in full on or before the day of the show if I wish to keep the calf as my property. If not, a six weeks' notice will be given previous to the time of the show in order to enter the calf in a public sale. I, as owner of the calf, shall receive the difference between the selling price and face of the note and the interest.

The distribution of said calves shall be by lot, and each calf shall be tagged with a number and the club members shall draw for duplicate numbers on or before date of delivery.

I agree to breed the calf which I secure to a pure-bred registered bull of the same breed. This shall not be done before the calf is sixteen months of age.

I agree to abide by the rules and regulations of the club, to furnish all reports and information and to care for my heifer according to instructions given.

Signature.....
Town.....State.....

I hereby grant my son or ward permission to execute the above application for the purchase of the calf or calves selected for him.

Father or Guardian.....
Dated this.....day of....., 191...

It is very important that the purchasing committee make a record of the purchase of each animal. In order to keep such a detailed record for the information of the club member and the purchasing committee, Mr. Trosper suggests the use of the following form:

Date: March 26, 1918.
Purchased from: William Jones
Address: Circleville, Ohio
One Holstein Calf. Age: 2 years. No. 23
Paid: $150. Expense of purchase: $8
Dam: Bess Burk Ormsby. Record: 33
Owner: Ralph Brown
Signed: John Smith, Purchaser.

When the allotment is made the record sheet or card containing this information is turned over to the club member.

The purchasing committee should supply themselves with inexpensive numbered tags which should be strapped to calf's neck and a record of number kept in note book. Chains for this purpose are easily broken, tail tags lost, numbers pasted on back wear off, and clipping numbers in hair too much trouble.

Animals worth buying are worth insuring against loss. It is a purely business measure and relieves the community and purchasing committee from worry and enlists the confidence of all.

Alloting the Calves

When the shipment of calves reaches its destination the purchasing committee together with a disinterested local committee should make the final summary of expenses, pro-rating, etc. Such a measure is necessary in order to give each club member a fair chance. For instance, it is next to impossible to buy a car or more of calves without getting bargains for certain calves and paying too much for others. An appraisal will be necessary if each of the boys gets value received.

Each calf has a number and slips containing the following information are made to put in a hat to be drawn by the boys: Neck number: 23. Ear tag: 1246. Price: $250.

Club Must Have Good Bull

A calf club without a good bull would be more worthless than an army without a general. Too often calf clubs are established in communities where the services of a good bull are not recognized or appreciated. The bulls owned in such communities are very often apt to be of the mongrel or beef type and even when well-bred bulls are bought for club purposes some of the members persist in patronizing the same old scrub bulls that have retarded progress for years.

It is an easy matter to find a well-bred bull for a very reasonable figure when buying females. Young bulls of very excellent breeding may be had for $200, which amount should be pro-rated and added to the boys' notes. The club bull must be put into the hands of a good dairyman and easily accessable to the majority of club members. Any club member who refuses to use the club bull should lose his membership. If other bulls are available in the community the club advisor should give the club members special permission to use them.

Where the State Calf Club movement is under the general supervision of the agricultural college or state dairy association a lot of time and expense is saved by purchasing calves for several clubs on one trip. Both Missouri and Illinois have had train loads consigned in one shipment for the boys and girls in the various communities. The organization of a calf club should be agitated in a general way with the understanding that on a certain date the various clubs should be organized and their wants made known to the association in charge. A train load of dairy cattle introduced into any state is an educational and advertising feature well in harmony with the movement.

Follow-Up Work.

The entire membership of the club should meet at least twice a year to transact official business and give a program. If the club is to be alive and get the most out of the movement they should hold regular monthly meetings, have debates, outside speakers, and instructions in dairy methods. The day the notes are signed a definite program for the year should be adopted. Such subjects as "Developing Dairy Calves," "Use of a Pure Bred Sire," etc., should be studied up and reported on at meetings. Competitive judging contests should be put on and a dairy short course be arranged for. Good dairy books and bulletins can be obtained without cost. County fair officials should offer special prizes for calf club members.

The day the calves are distributed among the "future dairymen" can be, in fact has been, made the biggest day in the history of the town and community. A purchasing committee, selected because of their capabilities, will return to your community with dairy-bred stock you can well be proud of. The club members should be called to order by their distinguished president and official business transacted with proper decorum, but with plenty of pep and vim. This should be followed by a "brass band awakening" parade, community dinner, constructive program, allotting of calves, practical dairy talks, and distribution of helpful literature among the members. A movement worth starting is worth doing right.

Once a year the community should stage a calf club show, offering the usual prizes and program.

Inspection Tours

One of the very best ways to keep up interest and enthusiasm among the members and community in general is to conduct well-planned and advertised automobile tours, participated in by town and country alike. Nothing will mutualize the interests of country and town more than to get out and rub elbows in a carefully planned visiting trip. Each of the members will be greatly interested in knowing how the other boys and girls are caring for their calves and the general educational value of such a trip will be a step in the right direction and contribute greatly to the success of the club.

The organization of a second club in a community depends almost entirely on the success of the first one. In nearly all communities where the calf club has been properly organized and supervised arrangements are being made for other clubs. In other communities where the calf club has fallen into the hands of the grafters and cheap politicians, the benefits of the club have been lost and the dairy interests for the community could properly be draped in black.

Results from Calf Club Movement

The calf club movement has been responsible for a national dairy awakening. Thousands of mature dairy cattle have been introduced into all parts of the United States.

Last year one Northeast Missouri county organized seven large calf clubs within its bounds and in addition 600 matured dairy cattle were shipped in.

Monroe City, Missouri, organized a grade Holstein club of 100 boys. The calves were laid down in Monroe for $50 a head. A few months later they sold for $80 a head. Most of the boys bid their calves in. A pure-bred club will be organized in the near future. Stop and figure what 100 high grade dairy heifers will mean to the boys and community in ten years' time. Without question many good things to be gained justifies continuation of the movement and every community should have one. Each breed association should adopt the slogan, "A calf club for every community."

The results of the establishment of a calf club in any community will be determined largely by the leadership, which organizes it, the follow-up work and the interest which the boys manifest.

If it fails to interest the boys and fails to develop in them a love for live stock, if it does not form a permanent attachment of the boy to the farm, then the club is a failure.

The development of dairy interest, the bringing in of a better class of dairy cattle, the arousing of interest among the pareuts, all these are incidental to the main proposition, but each is a factor in itself, contributing something to the general plan.

In many communities a successful sale at the end of a year is the factor sought for and the success of the club movement is determined by the increased sale price over the purchase price of the calves. This should not be. A sale has its advantages, but it must not be paramount.

If the calves are all sold and no more calves bought, then the club has not measured up to its possibilities. Let us remember that it is boys first and foremost.



IN THE Edmund Butler sale of imported Jerseys the cow here shown—Oxford Briar Flower—brought $10,000, which was a record price.

The sixty Jerseys sold in this sale averaged over $1,000 a head.

The original number in the importation was ninety-five animals, but thirty-five were lost by the sinking of a ship.

The Normal Boy

Most of the contributors to these columns show that they have expert knowledge of seeds, swine, sheep, or kine, but do you have a normal boy in your home, between seven and thirteen, so abnormally normal that when he comes home from school the hens begin to cackle, the turkeys to gobble, the dog capers a welcome, the cat scoots under the porch, and every living thing on the premises begins to sit up and take notice; who is the torment of his little sister, the plague of his big one, the care of his mother, the problem of his dad; who can mix work and play fifty-fifty; who is sure that water was made only to drink and bears visible evidence of his belief; who gets all the fun going, carries no care, hungry and eating every waking hour; who spends all of his money, but happy whether broke or flush; in fact one who is so much like you were when a kid that your own vivid memories make it hard for you to lick him for his tricks?

This normal boy of yours, and his chums, who look to you as an example, and make you try to be the man you ought to be in the sight of your boy and your God; for whom your future hopes are high, he and his companions, the present concern and the future molders of the destiny of the nation—I say, do you have one or more of these animals in your home? Then God bless you and help you, for you have that in your life which gives you the incentive to do and live right.

Ira L. White, the author of the above lines, which appeared recently in the Jewell County Farm Bureau News, is now on his way to France to serve our boys under the banner of the Y. M. C. A. Hundreds of such men have heard the call and are putting on the uniform marked by the red triangle. Mr. White is well known as a breeder of pure-bred Poland China hogs. His wife, with the help of her father, who is a skilled farmer though well along in years, will carry on the farm.

Tudor J. Charles, another farmer of Republic County, is going into the War Y. M. C. A. service, leaving his wife and two young boys to carry on the farm. He has older sons in the army and daughters who are Red Cross nurses.

Summer Session, K. S. A. C.

The summer session of the Kansas Agricultural College begins May 31 and ends August 2. This is designated as a special war session, emphasis being placed upon preparation for efficient service in this time of special need.

Training is given to fit the student for work in government positions, in teaching, in business, and in the home. Courses are offered for women teachers in manual training, rural engineering, agriculture, and mathematics and physics, to enable them to take the places of men who have been called into the service of the country.

This year for the first time commercial courses are introduced to prepare students for government positions or for places in the business world. An intensive course in commercial subjects will be given for the nine weeks of the session under the direction of Prof. D. L. Burk, who has had wide business experience and who previous to coming to Kansas won a stenographic championship. Shorthand—the Gregg system—typewriting, office organization and management, and commercial law will be taught. This is an exceptional opportunity for the teacher who wishes to study commercial subjects, either with a view to taking up this line of work herself or of teaching it, to spend the summer vacation to good advantage.

Do not let the vegetables remain too thick in the row. Too many beets to the foot in the row is just as bad as weeds. Get the maximum results from your ground by thinning and good care.

COMMUNITY STOCK BREEDING

Co-operative Live Stock Improvement Success Thoroughly Demonstrated

THERE are some sections of the country that have become noted for the quality of the live stock they produce. In most instances this is found to be the result of concentrated effort. The State of Wisconsin offers a splendid illustration of what can be accomplished through community breeding associations. Here are to be found 136 organizations devoted to the breeding of high-class live stock. Of this number, 108 are promoting cattle of the different dairy breeds; two, beef cattle; ten, horses; two, swine; and fourteen, general live stock. These associations have met with marked success and prove conclusively that community live stock breeding is not an experiment when thoroughly organized and properly conducted. Livingston County, Michigan, and a considerable section of New York, particularly the region adjacent to Syracuse, are famous for their dairy cattle. In Iowa prominence has been gained in swine raising. The bluegrass region of Kentucky, noted as the center of American saddle-horse breeding, affords a further example of the success resulting from unity of effort and purpose. There are still other sections where attention is being given to the production of the different classes of live stock. Each is noted as a breeding center, and buyers who pay the highest prices are attracted from other states and even foreign countries.

The organization of a community co-operative live-stock breeders' association requires the services of a leader, as do all movements that have for their object the improvement of unsatisfactory conditions. The leader in an enterprise of this kind should be one of the successful breeders of the community—aggressive as well as progressive. With such a man at the head of the movement, little trouble should be experienced in interesting others and securing their co-operation. A preliminary organization should be effected, a committee appointed to draft a constitution and by-laws, and a definite breed selected which the association is to promote.

Selection of Breed Important.

The selection of a breed is of great importance. If the best results are to be gained. individual taste should be disregarded and a breed selected which has proved profitable in the community. The action taken in this respect should be unanimous, and every effort should then be made in improving the type of stock to which the organization is committed. When the breed has been decided upon, the first step is to procure a number of sound pure-bred sires of that breed to be mated with the females owned by the members. If there are a few good privately owned sires in the community they can be put out for service and the expense divided on a pro rata basis.

If additional sires are found necessary, it should be possible for the association to secure them at a considerable saving in price through the selection of a competent man authorized to make the purchases. It will in some cases be advisable to have a qualified veterinarian as one member of the committee.

At the opening of the breeding season the sires should be placed at the most convenient points and put in the hands of capable and efficient men who understand the breeding question and who will take proper care of the animals in their charge. After each second season it may prove advisable to change or shift sires. This will allow each breeder to procure the services of a new sire and at the same time make it possible to determine which are the best producers so that those not making good can be disposed of.

A sufficient number of the best females from the successful sires should be retained, and in some cases male offspring may be put into service in the neighborhood. This will obviate the necessity for any further extensive purchases and give a constant supply of good blood and uniform quality. In addition, it will provide an adequate number of animals to take the place of those that die, are injured, or sold. The serviceable sires crossed with the females retained will be of incalculable value in the continued production of animals of outstanding merit.

One of the reasons for the lack of uniformity in the quality of our live stock is the fact that many of our individual farmers and breeders have not adhered to one type or breed of sire. The results provide a striking example of the need of organization. With the organized community many advantages are to be gained. First of all, greater interest will be taken in the proper methods of breeding, feeding, etc., with the result that a definite community type will be established and the members will work together in maintaining the ideal. United action is brought about in the prevention and eradication of disease, combined action along this line being far more effective and economical than individual effort. The good effect of combined action on the part of the breeders of a community in preventing the spread of such a disease as hog cholera, for instance, can be readily appreciated. Much can also be accomplished in a similar manner in stamping out contagious diseases among other classes of live stock, and by the adoption of proper sanitary methods further outbreaks in the community can be avoided. A reputation for sound, healthy stock is a most desirable and valuable asset.

Marketing Advantages

Additional advantage is obtained in marketing the surplus stock. The individual breeder is compelled to seek his own market. A further drawback is the higher freight rate and lack of railroad facilities owing to shipments having to be made in lots of less than a carload. With the organized community the market is established and freight charges are reduced by carload shipments, which may be made up of stock belonging to several persons. Shipments made in this way insure better railroad service, and the small breeder shares with the larger breeder the benefit of reduced transportation charges.

The successfully organized community centralizes the matter of buying, and purchasers will pay better prices than would be the case if they were compelled to go to the added expense of traveling from place to place in order to get the required number of animals of the quality they desire. These satisfied customers will be an additional agency whereby the reputation of the community and the quality of its live stock will be spread to other sections and states.

Additional publicity is to be gained through advertising. Attractive, well-prepared advertising judiciously placed is an important factor in drawing attention to the community as a breeding center and attracting customers.

Promote Neighborly Feeling

Through the regular meetings of the association the members are brought in contact with each other, matters of general interest are discussed, a spirit of friendly rivalry is stimulated, and a more neighborly feeling prevails. These meetings will also have much to do in maintaining the proper enthusiasm so essential to the success of the organization and the good of the community in general.

It will also be found desirable and helpful to have occasional addresses by prominent stockmen and scientists from the state agricultural colleges and experiment stations. In this way various subjects are discussed in detail and many difficult problems solved.

The history of the associations and districts mentioned is one of continued success. Their growth and influence have been marked, and their example can well be followed by other sections where such organizations do not exist. The department gives assistance, through its agents in the field, in forming local associations for live stock improvement.

Still Place for Horse

There have been tremendous developments in the use of mechanical power, but the horse is still a staple product. J. C. Mohler, secretary of the State Board of Agriculture, recently made the statement that there are more horses in Kansas now than in the year immediately preceding the outbreak of the war, and that the horse population of the United States is on the increase. "The motor has its place," says Mr. Mohler, "and so has the draft horse. So far as farm work in Kansas is concerned the horse is our main dependence. This is made plainly apparent when it is considered that Kansas has in the neighborhood of 180,000 farms, 1,050,000 horses, and 5,000 tractors—an average of about six horses to the farm, and one tractor to every thirty-six farms. Even in the city the horse still reigns supreme for the short haul. Conceding the demonstrated utility of the tractor, there are many operations on the farm where horses must be used, because they are cheaper and more practical, and long experience has taught that they are indispensable for farm work and splendidly adapted to the variant conditions that exist on nearly every farmstead.

"While the motor may profitably supplement the horse, it will never supplant him. It is true that certain types of horses have been largely displaced by machinery that performs the service better and more economically, as, for example, the electric street car and the automobile. Machinery has also greatly improved the labor of men. It did not put men out of business; it put a premium on skill and raised standards. Both men and horses are, as a result of inventions and improved machinery, retiring from the cheaper service into the better.

"Men reach their highest efficiency by specializing along certain lines, concentrating on the things they are best qualified to do. Horse breeding must follow the same general course, to produce horses for a special purpose, not for all purposes—that day is past.

"As the world progresses, many changes come, affecting many if not all businesses, and to keep abreast of the times we must adapt ourselves to these changes. Changed conditions have brought about a development in the horse industry that breeders recognize, and that is that the ill-bred mongrel is not wanted because he does not meet present needs and that the future demand will be largely for the powerful, heavy draft animal, of approved type and conformation, of docility and high intelligence. There is a scarcity of this type, and the farmer who will keep a few brood mares and breed to a good, sound, pure-bred draft stallion and raise draft colts, will be in line to profit by the improved market that is surely coming. Of all the nations, the United States is the only one to which the world can look for any considerable draft surplus.

"I am thoroughly convinced that the farmer who appreciates a good horse and knows how to raise and handle him, has a right to feel optimistic over the future, for there is not only profit but pleasure in raising high-class animals of the right type. And the breeder who takes a long look into the future, through a careful analysis of the situation, cannot lack confidence in the prospective market for quality horses, and he will see more than ever the value of educating the public to a knowledge of what goes to make up quality horses.

"A phase of this education, and an important one, is the horse exhibits at the fairs. The small as well as the extensive breeder should plan to maintain interest in the horse industry by grooming their best specimens for the local and state fairs. There is no better way to advertise the business, or to bring about improvement, than to exhibit animals of merit at these expositions. Such exhibits stimulate breeders to excel, to outdo their competitors for honors. They indicate the trend of the times. They manifest the breeder's faith in the industry and serve to educate the public as to the permanency of the horse and the high appreciation in which he continues to be held. A showing such as is justified by the importance of the horse in the world's affairs would mean that the horse stalls at every fair next fall will be filled. Horsemen owe it to themselves and to the proud history of the equine, to see that this is done."

Training Men for War Service

A COMPANY of drafted men from all parts of Kansas began a six weeks' course of instruction in the shops of the Kansas Agricultural College last week. Many of them offered themselves for service ahead of their regular call that they might receive specialized training here. They are being housed in the Nichols gymnasium, which has been remodeled so as to be suitable for use as a barrack. The main gymnasium floor is used as sleeping quarters, and the wrestling room in the southwest corner of the building has been fitted out as a lounging room. The officers in charge of the men have offices on the second floor.

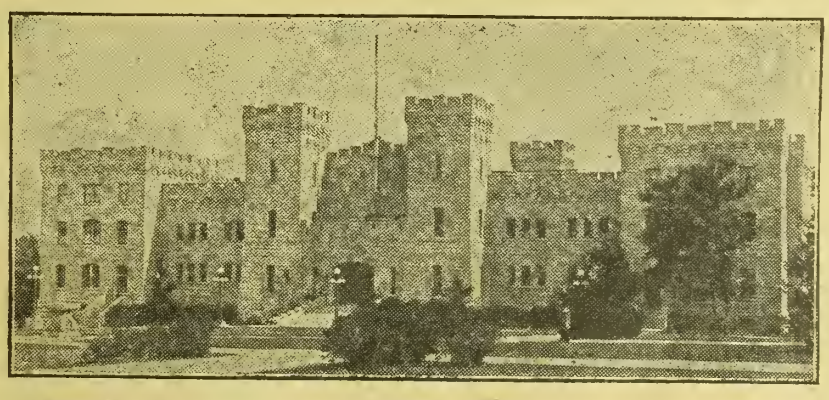
Two rooms on the second floor of Kedzie hall have been remodeled, and will be used as dining rooms. A dumb waiter has been built in and will hoist food from the kitchens of the college cafeteria below. Regular army rations will be fed the soldiers.

New instructors are being added to the engineering staff to care for the soldiers. The schedule calls for an eight-hour day. They will have breakfast at 7:15 o'clock, attend classes from 8 to 12 o'clock, eat dinner at 12:30 to 1:15, attend classes from 1:30 to 5 o'clock, and eat supper at 5:30 o'clock.

More than half of the men will be instructed in automobile mechanics. Groups of twenty each will be trained as mechanics, blacksmiths, carpenters, electricians, and wireless operators.

"Our engineering plant will be running to full capacity the year round," said Dr. W. M. Jardine, president of the college. "In addition, we will be rendering a very valuable service to the War Department."

Six army officers will be stationed with the men, with Capt. George Sturges, U. S. R. C., in command. A similar group is being trained at the Kansas University at Lawrence.



NICHOLS GYMNASIUM, K. S. A. C., WHERE DRAFTED MEN NOW RECEIVING SPECIAL TRAINING ARE BEING HOUSED

If you believe in peace you will fight to get it.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

THE U. S. Food Administration has announced a new schedule of maximum prices which mills may charge for wheat by-products. The margins show a general reduction downward compared with those previously in force.

The maximum bulk price of bran per ton bears the same relation to the price of wheat as formerly—38 per cent of the average cost to the mill of a ton of wheat. The price of flour middlings which before was $9 a ton over bran prices has been reduced to a $2 differential. Red dog has also been reduced to a maximum of $2 a ton over the price of bran, whereas the former difference was $15.

Mixed wheat feed prices, according to the new schedule, must not be more than $1.25 a ton over the price of bran. The former difference was $4 a ton. These new price margins are the outcome of an investigation into present methods of milling. With the larger percentage of flour now being milled from wheat, the quantity of flour middlings and red dog is considerably less and these products have been placed in the same by-product group as shorts, standard middlings, gray shorts and gray middlings. The bulk price of all these feeds must not exceed bran prices by more than $2 a ton.

Although these new price margins are already in force, the Food Administration emphasizes that they are for bulk carloads at the mill. Persons buying in small quantities at retail should consider freight, dealer's profit and cost of sacks. The last item alone is at present between $5 and $6 a ton. Both jobbing and retail profits have been limited, however, to a moderate fixed maximum, and as soon as mill feeds now in dealers' hands have been moved the new stocks milled after May 7 will reach farmers on the basis of the schedule announced.

The total amount of wheat mill feeds is admitted to be small in proportion to the demand and the most practical means of reducing feeding costs lies in a more general use of the coarse grain by-products of which there is now an abundance. Mill prices of hominy feeds have lately declined by from $25 to $30 a ton, rye and barley feeds in proportion. Oil meal is particularly low in price when compared with other feeds on a nutritive basis.

Far-seeing farmers may advantageously plan to secure their winter supply of feed in September and October when danger of spoilage is past and avoid the uncertainty of deliveries during the winter when the demand for feed usually exceeds the output of the mills.

Present Dairy Situation

We have referred to the systematic campaign of education being conducted to acquaint people with the fundamental nature of the dairy business. Dairy products are likely to become more and more recognized in the dietary of our people generally. Largely because of transportation troubles we will have a fairly abundant supply of dairy products in this country in the period just ahead of us, and it is to the interest of producers to have people realize the value and importance of dairy products. This campaign of education should encourage those interested in dairy farming. It gives them reason to believe that their industry will suffer no set-back due to the abnormal conditions now prevailing.

With the season of maximum milk flow at hand, a clear understanding of developments in the nation's dairy industry and its relation to the world food supply is vitally necessary.

According to the National Food Administration, France and Great Britain face a serious shortage of milk. French food regulations forbid public eating houses to serve or consume butter except in the preparation of food. Consumption of cheese is prohibited, the probable explanation being that the milk is needed for direct consumption. Cream is forbidden entirely in public eating houses and the use of fresh or condensed milk is strictly limited. The entire milk supply is estimated at scarcely two-fifths normal.

Great Britain is also confronted with a scarcity of dairy products, chiefly the result of shortage in cattle feeds. Permits to buy milk are issued for certain classes of the population, including children under five years, invalids and nursing mothers. Others are on their honor not to buy milk unless it is for these classes.

The statement is made on excellent authority that "an adult cannot buy in London a glass of milk, even if willing to pay $20 for it." Not only butter but all kinds of fats are obtainable only in extremely small quantities. Some families are without any fats for nearly a week at a time. Ice cream disappeared from the market more than a year ago.

The explanation of such conditions abroad and the impending plenty of milk in the principal dairy districts of the United States is one of ocean transportation. The Allies' needs for dairy products are pressing, but their requirements for breadstuffs are regarded as still more urgent. Until the projected cereal requirements are supplied, exports of dairy products including butter, cheese and condensed milk, are not likely to increase.

The United States food leaflet No. 11 entitled "Milk, the Best Food We Have," issued jointly by the Department of Agriculture and the Food Administration, is an expression of the Government's purpose to foster the liberal use of dairy products in the United States. Important recommendations in this publication follow:

Give your children milk, a quart a day for every child, if possible. A pint without fail.

Plenty of milk will help give all your children, big and little, the chance for health they ought to have.

Save on other things if you must, but not on milk, your child's best food.

Spread among the mothers the knowledge that milk is our best food.

Another official statement advises, "Buy at least a pint a day for every member of your family."

It is fully appreciated that prices of milk must bear some relationship to other farm products, and that to prevent depression of the dairy industry, a rise in the cost of producing milk must be accompanied by a rise in the price received for it. Even at an apparently high price, milk is a cheap food for children, and efforts are now being directed toward acquainting the public with this fact. The liberal use of milk, even at prices resulting from war conditions, is necessary for the best nourishment of the people and especially for young children.

The Food Administration has also urged a wider use of cheese, which is now plentiful in the United States. Liberal consumption of ice cream, made with a minimum of sugar, is likewise approved.

The butter situation is closely related to the general program of fat conservation, which is subject to international developments. Conditions affecting the use of butter are therefore subject to modifications largely depending on the shipping situation. But during the period of maximum production this year the relatively freer use of dairy products is encouraged especially to the extent that they can be substituted for those foods of which we have a known shortage.

In a broad way the world's supply of dairy products and dairy animals is at present divided unequally on both sides of the Atlantic. There is a relative abundance in America, and a serious shortage in Europe, due to insufficient transatlantic movement.

But neither our herds nor our supplies are large enough to justify any form of waste. When the time for free international distribution comes either through more ships, through peace, or both, American dairymen must be ready to meet the demand, and American consumers must be ready to share our maximum production with the Allies.

Canning Club Unites Community

ANOTHER striking illustration of the way in which working together in a common cause unites the different forces of a community or consolidates neighboring communities is furnished in the work of the Bethel-White-Church Canning Club. The towns of Bethel and White-Church on the Missouri Pacific Railroad in the northern part of Wyandotte County have always been more or less united in church and social affairs, but not until a year ago did they have a single organization serving both communities, meeting alternately at the two centers and working under a name which shows the identity of both towns. Since the organization of this canning club all boundary lines between the two communities have been obliterated, and the members of both have worked together, entertained to-City, Kansas. This fact makes more gether, and contested together as one big, loyal, warm-hearted neighborhood.

The doors of the churches in both towns have been opened wide to this club, and the fact that one is a Methodist and the other a Presbyterian church has kept neither young nor old, layman nor clergyman, old-timer or newcomer from giving loyal and unreserved support to this common child of the two centers. The club usually holds one meeting in one church and the next meeting in the other.

As land here is worth from one hundred to five hundred dollars an acre, it is too expensive to admit of farming on a large scale, and the agriculture consists largely of truck gardening, orcharding, and dairying. Most of the products are sold on the open markets in Kansas City, Missouri, and Kansas striking the friendly, co-operative spirit between the two centers, so different from the feeling which often exists between rival towns.

That the club is living up to its motto, "Food—Let's produce it and let's save it," was demonstrated by the exhibit of over three hundred jars of canned products shown at the Bethel Church early in October following the organization of the club in May. This exhibit was later sent to Bonner Springs, where it won second honors in competition with some of the oldest and strongest clubs in the state.

The old saying that "the teacher is the school" is very nearly true in the case of such organizations as the Bethel-White-Church Canning Club. The president of this club, Mrs. Clara W. Shuyler, is a leader of unusual ability. She is a graduate of the Kansas Agricultural College who has had considerable experience as a home economics teacher and leader in various ways, and is perhaps one of the most efficient leaders to be found among the more than two hundred canning clubs throughout the state. The influence and assistance of the vice-president, Miss Gertrude Brune, another very efficient officer, have meant much to Mrs. Shuyler. The club's treasurer is Miss Grace Wood and its secretary Miss Ina May Wostemeyer.

At the close of the canning season last fall the club did not cease to hold regular meetings, but turned its attention to Red Cross work, which was continued through the winter months. By the first of April it had completed and sent in to the Red Cross headquarters more than two hundred finished garments.

A meatless and wheatless picnic dinner was given as a part of a recent program at the Bethel Church. All the canning clubs in Wyandotte County and several in Leavenworth County were invited to send representatives. It was indeed a red letter day. Women, children, and men of the two communities met together, entertained visitors and friends together, and enjoyed the program planned by the officers and members of the club. Miss Ellen Batchelor, home demonstration agent for the county, and Otis E. Hall, state club leader from Manhattan, were present and took part in this program.

The club has its summer work definitely outlined, and all who know Mrs. Shuyler and her co-workers are prophesying that the Bethel-White-Church Senior-Junior Canning Club will not be at the end of the list when the state prizes and honors are awarded at the close of the year to those clubs whose leadership and inspiration as community organizations and as promoters of food conservation stand out as achievements worth while.



How Value Is Put on Wheat

Wheat is used for making flour and some feed is secured as a by-product. It would seem plain that the value of the flour and feed should be the basis in setting a price on the wheat. How far this comes from being the case is brought out by E. F. Ladd and Thomas Sanderson, in a bulletin of the North Dakota Agricultural College. The data for the years 1911 to 1916 shows that when the grades were mixed the difference between the value of the mill products and the market price of wheat was 44 per cent greater than was the case when No. 1 Northern was milled alone. In 1916 this difference was 283 per cent, which shows the variation between the value of the mill products and the prices paid for the wheat according to the system of grading used. In general the milling industry figures the cost of flour on the basis of No. 1 Northern wheat, but it uses all it can of the lower grades and keep up the quality of the flour. The cost of the flour is reduced in proportion to the amount of the lower grades used. This becomes as shown above an added profit. And it also follows that if the price paid for No. 1 Northern is fair, that the prices paid for the lower grades of wheat are too low.

Don't let up on the garden work. There is still much to do to get the crop well started. An hour in the garden now is worth several a week or two later.

Concrete Watering Trough

CONCRETE watering troughs and tanks have many advantages over those built of other materials. Concrete will not rust nor rot. It will not go to pieces in the sun and wind; it can easily be kept clean, and most of the necessary materials for making concrete can be found on the farm or near by.

Certain practice must be observed to make the work successful. Sand and pebbles or broken stone must be clean and properly graded. Reinforcing steel must be properly placed in the concrete to prevent cracks due to temperature changes and to pressure from expansion if water in the tank should freeze. The work must be protected for a few days when finished, to prevent drying out.

Tanks and troughs must of course be water-tight. A 1:2:3 concrete mixture should be used for the construction; that is, one sack of Portland cement to two cubic feet of clean, coarse sand, to three cubic feet of clean pebbles or broken stone. Sand should range in size from the smaller particles to those not greater than one-fourth inch in largest dimension. Pebbles or broken stone should range in size from one-fourth to three-fourths inch or one inch, depending upon the thickness of the section in which the concrete is to be used. Generally speaking, in thin sections the largest pebbles or particles of broken stone should never be larger than one-half or three-fourths inch. After having selected clean, well-graded materials and mixed them in correct proportions, enough water must be added to the combined materials to make a concrete of quaky or jelly-like consistency. This mixture must be thoroughly spaded when placed in the forms so as to produce a dense water-tight mass with a smooth surface. It must especially be well spaded next to the form faces.

When building concrete tanks or troughs, it is best to carry on the work from start to finish without stopping, so there will be no construction seams between different days' concreting, through which leakage might later take place.

One of the most frequent mistakes made in concrete work is the use of natural bank-run gravel in place of the definite concrete mixture specified. Many persons think that a 1:2:3 mixture is just the same as a 1:5 mixture. Bank-run gravel should always be screened to separate the sand and pebbles and the two then proportioned correctly.

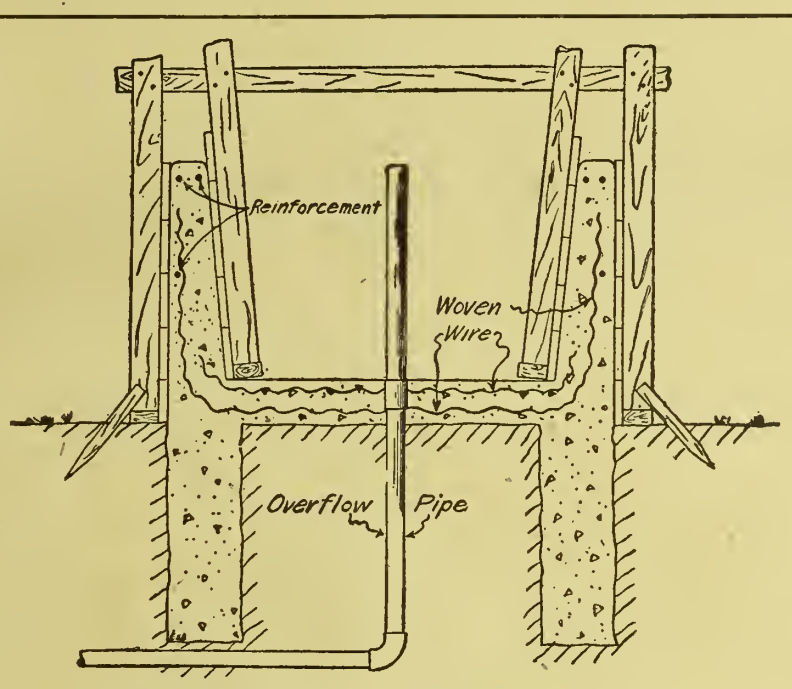
Forms for rectangular troughs or tanks are easier to make than for round tanks, therefore the rectangular trough is preferred by those who do their own concreting. The cut shows a cross section of a tank with the forms in place. It will be noticed that the inside face of the tank walls is sloped so that the walls are thinner at the top than at the bottom. This helps to relieve pressure from ice if the tank should freeze over. A water-tight connection between floor and side walls is secured by inserting a continuous strip of sheet metal in the concrete along a line corresponding to the center of the walls and at floor level so that part of this strip will project above floor level and will therefore be embedded in the concrete of the side walls when the latter are placed. When inserting this metal strip to prepare for stopping work, the concrete each side of the strip should be left slightly rough in the forms. When concreting is again started, this surface should be well cleaned by scrubbing and washing, and immediately before placing fresh concrete the old concrete surface and the projecting portion of the metal plate should be thoroughly painted with a paint of cement and water mixed about as thick as cream. This will prevent leakage if the new concrete is placed before the cement paint has commenced to harden.

In tanks or troughs of this kind, provisions are usually made for water inlet and outlet pipes. Great care should be taken when setting such pipes in the concrete to make certain that the concrete is thoroughly tamped all around the pipe fittings, thus producing a leak-tight joint.

For a trough the outside dimensions of which are 3 feet 2 inches by 8 feet, the measurements are as follows: Walls, 4 feet 1 inch deep, including foundations; floor, 5 inches thick; concrete mixture, 1:2:3; volume of concrete, 2½ cubic yards.

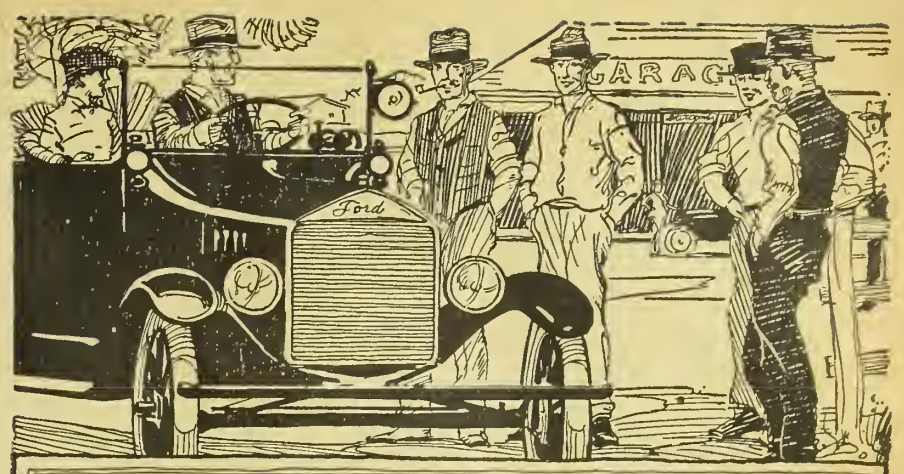
Material required: 18 sacks Portland cement; 1¼ cubic yards sand; 1¾ cubic yards pebbles or broken stone; 141 feet ¼-inch round rods (24 pounds), or woven wire reinforcing.

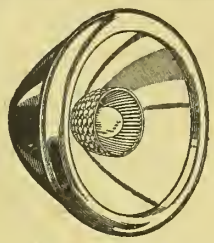
For each additional foot of length add to the foregoing quantities 1 sack Portland cement, 2 cubic feet sand, 3 cubic feet pebbles or broken stone, 13 feet ¼-inch round rods (2¼ pounds).



CROSS SECTION OF TANK SHOWING FORM CONSTRUCTION AND PLACING OF REINFORCEMENT

One of the significant early acts of the Kansas Council of Defense was the passing of a resolution, one part of which urged prohibition of the use of grain and potatoes in making intoxicants, the other part supervision and, if necessary, control of the food supply by the Government. These resolutions as adopted were as follows: Be it resolved by the Kansas State Council of Defense, that as a war measure the use of grain and potatoes in the manufacture of intoxicating liquors should be absolutely forbidden; that the Government should assume supervision and, if necessary, control of the food supply of the country to the end that by the elimination of excessive profits and of extravagant and wasteful methods of distribution and the prohibition of speculation and gambling in life's necessities, a fair price may be insured the producer and a reasonable cost guaranteed the consumer.





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There is Satisfaction in Knowing You Have the Best

When your friends gather about your Ford and notice the accessories on it, it is gratifying to hear their remarks approving your choice.

It is satisfying to know that you have used good judgment. The things your friends say, count for a lot. You like to hear them say nice things about your Ford and its accessories—not to hear criticism.

You will hear nothing but favorable comments if your Ford is equipped with Stewart Automobile Accessories.

Everyone knows that the Stewart Accessories on your Ford are the best that money can buy. The mere fact that they bear the name Stewart is evidence of highest quality. And, it is proof of your discriminating taste. It shows that you are a careful and particular buyer.

Take the Stewart Speedometer and Instrument Board for example. This Stewart Product is an absolute necessity on any car. Observe that 95% of the automobile manufacturers use the Stewart Speedometer as standard equipment.

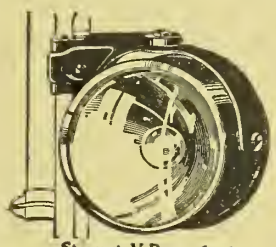
You are depriving yourself of half the pleasure of motoring if you have no Stewart Speedometer. You need it to tell you how far and how fast you drive. You need it to avoid arrest for speeding. You need it to check your gasoline and oil consumption and your tire mileage. You need it for following road guides. You need it wherever and whenever you drive.

The Stewart Instrument Board will "dress up" your car—adds to its appearance. Fills up that unsightly gap below the windshield. Brings the speedometer up into position where it can be easily seen. Rests tight against the steering column. Eliminates vibration from the steering wheel. Easily installed in a few minutes. No bolts, screws or brackets to fuss with. Clock, headlight switch, starter control and other accessories can be easily added. Made of wood with black satin egg-shell finish. Speedometer is mounted flush. Adds a finishing touch of elegance to the Ford car.

Then there are the other Stewart Accessories for your Ford. The Stewart Autoguard for the front and rear are needed for your car's protection. The Stewart V-Ray Searchlight is indispensable. Stewart Lens makes every road bright and clear as day. The Stewart Warning Signal warns and clears the way for you in any traffic. Stewart V-Ray Spark Plugs put an end to your spark plug troubles.

You will experience complete satisfaction by equipping your Ford with Stewart Accessories. Suppose you have it done right away.

Stewart Accessories are sold by leading jobbers, accessory dealers and garages everywhere.



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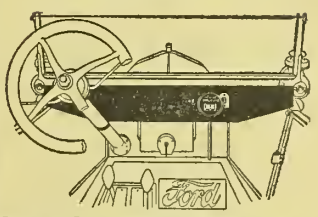
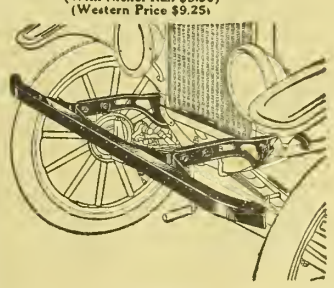
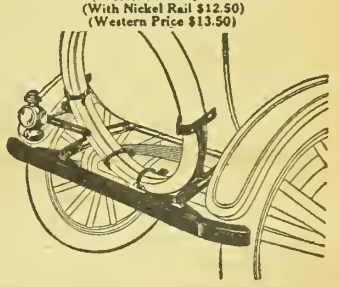


Stewart Speedometer and Instrument Board for Ford Cars $12
Western Price $13.00
Sedan and Coupelet Model $15
(Western Price $16.00)

Stewart Autoguard for Ford Cars . . $7.50
(Western Price $8.25)
(With Nickel Rail $8.50)
(Western Price $9.25)



Stewart Autoguard Tire-carrier for Ford Cars . . $11.50
(Western Price $12.50)
(With Nickel Rail $12.50)
(Western Price $13.50)



Stewart-Warner Speedometer Corporation
CHICAGO, U. S. A.



Build a Silo

Stop wasting 40 per cent of the corn crop. Make green pastures last through the winter.

A silo is a crop savings bank—a bank that you will own, and pay the profits from to yourself. Many silos have paid for themselves in one season. After that they return 100 per cent profit yearly.

Build a Concrete Silo

—because concrete is rotproof, ratproof, windproof, fireproof, permanent.

Write for Bulletins Nos. 55 and 56. They are free for the asking.

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Concrete for Permanence



Easy to figure the Profits

Where in **Western Canada** you can buy at from **$15. to $30. per acre good farm land** that will raise **20 to 45 bushels to the acre of $2. wheat**—it's easy to figure the profits. Many Western Canadian farmers (scores of them from the U. S.) have paid for their land from a single crop. Such an opportunity for **100% profit** on labor and investment is worth investigation. Canada extends to you a hearty invitation to settle on her

FREE Homestead Lands of 160 Acres Each

or secure some of the low priced lands in **Manitoba, Saskatchewan or Alberta.** Think **what you can make** with wheat at **$2. a bushel** and land so easy to get. Wonderful yields also of **Oats, Barley and Flax. Mixed Farming** and cattle raising. The climate is healthful and agreeable, railway facilities excellent, good schools and churches convenient. Write for literature and particulars as to reduced railway rates to Supt. Immigration, Ottawa, Canada, or to

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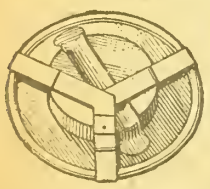
160 ACRE FARMS IN WESTERN CANADA FREE



NO MORE SPILT MILK! Government reports show $18,000,000 worth lost in one year. HELP SAVE IT. Conservation is the foreword and slogan of the nation. Much of the milk product is lost at shipping stations. STOP THIS LOSS with **HENTHORN'S MILK CAN LOCK.** It locks and seals the can securely from the time it leaves the producer until it arrives at its destination. With this lock it is impossible for cream or milk to be spilled or pilfered. **Price, 65 Cents.** Ask your dealer, or write

Milk Can Lock Mfg. Co., Osawatomie, Kansas

When spraying or dusting a tree or plant with an insecticide, do a thorough job. See that no spot is left untouched in which an insect may hide. Many of the insects propagate very rapidly and even one will do lots of damage.

Generally it does not pay to keep hens after they are two or three years old unless they are strong and especially valuable for breeding purposes. Fowls should be marked so as to indicate their age.

KANSAS FARMER DAIRY CLUB

Butter a Necessary Food

PEOPLE who milk cows are producing a form of human food for which there is no substitute. In spite of the fact that scores of concerns are putting on the market so-called substitutes for butter, these products only partly take the place of butter made from the butter fat produced by the dairy cow. We even have a condensed milk on the market now made from skim milk and having the butter fat replaced by vegetable fats. These substitute products are having a wide sale, but in spite of that they can never take the place of the genuine article because man has never been able to manufacture an artificial product that has the same effect in the human dietary as the butter fat manufactured by the cow.

In order to keep our minds clear on the permanent, enduring character of the dairy business, we should understand thoroughly just why butter fat cannot be replaced in the human diet by some other form of fat which perhaps may have the same theoretical energy-giving value. In thinking about the future of the business, we should never forget that Nature only has as yet manufactured a product especially designed for producing growth in the young. In discussing this point before a meeting of dairymen in Ontario, G. L. McKay made the statement that milk fat differs from other fats in that it contains certain life-giving substances that are essential for promoting the growth of the young. The all-wise Creator has placed this substance in the milk fat of all animals. The same substance, we are told by eminent physiologists, is found in the leaves of some plants.

"Before discussing oleomargarine," said Professor McKay, "I wish to make a few remarks concerning butter. Historians tell us that butter is one of the oldest foods known to men. We are told that the Hindoos used it 2,000 years before the birth of Christ. The quality of butter at that early date was very different, no doubt, from what we are using today. Butter standards were unknown at that time. The product was known then as cow-cheese and was made by placing the whole milk in sacks and subjecting it to severe agitation. It undoubtedly was a conglomeration of casein, water, and fat.

"We are told that the Greeks and the Romans did not use butter as food, but as a cosmetic and for medicinal purposes. The Scandinavians appear to be the first to deal in butter as an article of commerce, and we find records of their exportation of butter in the twelfth century. The Germans shipped carloads of wine to Norway in exchange for butter and dried fish, until the Scandinavian king, considering such traffic injurious to his subjects, put an end to it. During the thirteenth century Norway was the only country exporting butter. In the seventeenth century we read of the Irish making butter and burying it in their peet bogs. Whether this was done to store it against invaders or to develop flavor is not known. During this early period in the history of butter we find that it was regarded not only as a food, medicine, and cosmetic, but also as a source of wealth. Its possession distinguished the rich from the common people. Today it is one of the staple foods of mankind in all civilized countries.

"Notwithstanding the number of years butter has been used as a food and the number of analyses that have been made in many countries by chemists, it is less than four years since the physiologists discovered that butter contained certain food elements that had hitherto escaped the investigations of the chemist. Dr. E. V. McCollum of Johns Hopkins University, one of the greatest physiologists of the day, says:

"'One of the most important things to realize is that the chemical analyses of foodstuffs, no matter how complete or by whom made, cannot give the slightest evidence as to the biological values of the foods. Such knowledge can be gained only by properly conducting feeding tests.'

"Doctor Halliburton, the celebrated London writer on foods, has recently completed an important investigation of the numerous butter substitutes on the British market particularly with reference to the fat soluble growth factor. He found by feeding experiments on animals that what he calls the 'accessory growth substance,' which is present in milk fat in great abundance, is absent from the majority of oils of vegetable origin. Nut butter and lard substitutes are also destitute of growth substance. Doctor Halliburton states that the results of his investigations show the importance of butter as an essential part of the diet of a nation at war. In his opinion, war imposes different standards of diet on people. In the case of children he thinks that the growth substance of fat must be supplied, and the way to accomplish this is to provide an abundance of fresh milk.

"Dr. Harvey Wiley stated in a recent issue of Good Housekeeping:

"'As far as I am concerned, I should never give my children nut margarine, oleomargarine, or any other margarine, as a substitute for butter. Butter contains a vital principle necessary to the growth of children which none of its substitutes possesses. I should never give children nor grown persons in my family food products containing a preservative, such as benzoate of soda. Benzoic acid is regarded as a toxic agent by all physiologists. The human body also regards benzoic acid as a toxic agent, and immediately converts it into hippuric acid, in order that it may do as little harm as possible. Food products that contain benzoate of soda are inferior in quality to similar foods manufactured without it.'"

Herd Still Increasing

It is really astonishing how rapidly the herds of some of our Dairy Club members are increasing. The latest report from Harvey Russell, of Scott City, is that he has just added another producing cow to his herd. Harvey bought a grade Holstein cow two years ago to milk in the Kansas Farmer Dairy Club. She had a heifer calf in April, 1916, which Harvey named Bonnie. This heifer was sired by a good pure-bred bull, and Harvey writes that she has now freshened at about twenty-five months of age. He says in his letter: "You know Bonnie was Daisy's first calf. She has a heifer calf and has been doing pretty well. She has given as high as thirty-three pounds of milk a day and I think she will keep on increasing for a while."

Harvey has been especially fortunate in getting heifer calves. His original cow, Daisy, dropped a heifer calf last year, and a Jersey cow which he purchased over a year ago in order to supply his increasing milk trade, also presented him with a heifer calf. He will have quite a dairy herd by the time he is through high school.

Summer Butter-Making

The farm butter maker has direct control of the raw material and should be able to make the best of butter. The creamery butter maker must take the cream as it comes to him, and it is remarkable how well he has been able to overcome the effects of poor handling of the milk and cream before it gets into his hands.

The first essential of good butter, whether made at home on the farm or in the creamery, is good, clean milk. With a modern centrifugal separator it is not difficult to get cream of ideal quality for making good butter if the milk has been properly handled. In addition to so handling the milk as to get the best of cream for butter making, farm butter makers should keep the following points in mind: The cream should always be cooled to 50 degrees Fahrenheit, or as near that as possible, before mixing it with cream from previous milkings. When enough cream has been separated for a churning, it should stand about twelve hours at a temperature of from 65 to 75 degrees to ripen. During this ripening process the cream should become thicker and assume a glossy appearance and should be only mildly sour.

The best churning temperature is from 52 to 60 degrees, and the cream should be held at this temperature for about two hours before churning. Too much care cannot be taken to keep the churn and all other utensils clean and free

from all odors. When the butter granules are about the size of wheat kernels, stop the churning and draw off the buttermilk. Then thoroughly wash the butter while still in the churn, using water of about the same temperature as the buttermilk.

If the butter gets too soft, use wash water a few degrees cooler than the churning temperature. In salting the butter, use about three-fourths of an ounce of salt to the pound of butter, working the butter sufficiently to dissolve the salt and remove the water. If butter is overworked it will have a salvy texture which is undesirable.

BABY BEEF PRODUCTION

(Continued from Page One)

that Prince Rupert 12th was developed on buffalo grass, sage brush, and cactus, after he was a year old, he is today at the age of eleven years a splendid type—wide, deep, low set, unusually deep and thick in the round, and showing great character and masculinity. His calves out of Beau Royal cows are a uniform lot possessing a rare combination of size, smoothness of conformation, thickness of covering, and quality. The indications are that Prince Rupert will do for the Herefords of the college herd what Matchless Dale has done for the Shorthorns.

The Angus cattle of the college herd are a well-bred lot, and some of the best individuals were shown, among them being the herd bull Eristocrat by Undalato Black Cap Ito 2d and out of the famous producing cow, Erica 15th of Keillor Park. This bull has great depth and thickness, wonderful smoothness, splendid character, style, and quality. He is a half brother to the champion Angus bull, Epiatos. The four calves shown with him were a splendid lot of the right type and were sufficient evidence that he is well worthy of a place at the head of the college herd of Angus cattle.

The visiting breeders and feeders took the keenest interest in this exhibit of pure-bred cattle. Prince Rupert 12th and Eristocrat, the Angus herd bull, are shown in the cut.

The experimental baby beef calves were shipped to Kansas City and sold on the May 20 market. Forty-eight head sold for $16.50 a hundred, and two for $15.50, or an average of $16.46. The fifty steers averaged 801 pounds, a shrinkage from the Manhattan weight of May 16 of 39.5 pounds a head. We reported the results of the feeding test in a general way in last week's issue, but cattle feeders will be glad of the opportunity to study the figures as shown in the table on this page.

BABY BEEF FEEDING EXPERIMENT
DECEMBER 17, 1917-MAY 16, 1918—150 DAYS

	Lot 30	Lot 31	Lot 32	Lot 33	Lot 34
Initial weight	473.3	471.6	489.6	476.8	477.4
Final weight	845.3	827.8	833.3	844.3	854.2
Total gain	372.0	356.2	344.7	367.5	376.8
Average daily gain	2.48	2.37	2.30	2.45	2.51
Average Daily Ration:					
Corn	9.87	9.88	10.46	9.71	9.89
Linseed meal or cottonseed meal	1.68	1.68	....	1.68	1.68
Alfalfa hay	4.53	9.79	10.30	4.70	4.49
Silage	10.31	....	....	10.35	10.35
Cost of feed per day	$ .401	$ .412	$ .383	$ .399	$ .411
Cost of 100 pounds gain	16.20	17.40	16.68	16.29	16.36
Cost of feed per calf	60.25	61.99	57.50	59.76	61.76
Initial cost per calf at $8.75	41.41	41.26	42.87	41.72	41.77
Total cost per calf	101.66	103.25	100.37	101.48	103.53
Final value per hundredweight	16.50	16.25	16.00	16.00	16.75
Value per calf	139.47	134.42	133.33	135.09	143.08
Profit per calf	33.58	27.03	28.79	29.39	35.18

Rations Fed: Lot 30, shelled corn, linseed meal, alfalfa hay, and silage; Lot 31, shelled corn, linseed meal, and alfalfa hay; Lot 32, shelled corn and alfalfa hay; Lot 33, shelled corn, alfalfa hay, cottonseed meal, and silage; Lot 34, ground corn, linseed meal, alfalfa hay, and silage.

Ten calves in each lot. Cost of grinding corn, 10 cents per hundredweight. Fifty cents per hundredweight deducted from profits for cost of marketing.

Price of Feeds: Corn, $1.50 a bushel; linseed meal and cottonseed meal, $60 a ton; alfalfa hay, $20 a ton; silage, $8 a ton.

Feed Cows as Individuals

Dairy cows cannot be fed economically unless they are fed as individuals and not as a herd. Men who feed steers for market feed them in a lot together, the whole bunch going to the feed trough at the same time. Milk cows cannot be profitably fed in this way. Some are almost certain to get too much, while others will get too little. Of course this applies mainly to the feeding of concentrated feeds. In grazing and in feeding roughage it is not practical to handle the dairy cows as individuals, although in feeding such roughage as silage in the barn it will be found that it will pay to feed some cows more than others.

It should never be forgotten that each cow has a different capacity for using feeds for milk production, and her capacity as an individual must be studied. Every cow will use a certain amount of what she eats for keeping up her own body, whether she is giving milk or not. In average animals probably 50 per cent at least of all they eat is used for their own body maintenance. It is only the feed the cow eats over and above that required for maintenance which produces either growth, in the case of young animals, or milk, in the case of producing cows.

From an economic standpoint it is a poor practice to allow a good milk cow only just about enough feed for keeping up her own body. You are practically wasting all she eats, for nothing will be produced and the expense of maintenance continues. Early in the season when the pastures are luxuriant, the average cow may need little additional feed, but we cannot afford to overlook the fact that later the pasture may become less productive so that the cows will be getting only just about a maintenance ration. Under these conditions they are certain to fall off in milk flow, since the first demand to be supplied is that of maintaining their own bodies.

By watching the milk record each day and the condition of the cow, it is usually possible to learn whether the cow is being fed enough or not. Her condition must also be observed. A cow which is getting heavier in weight and laying on flesh while at the same time decreasing in milk flow is plainly being overfed in so far as milk production is concerned. On the other hand, if the cow falls off in weight while producing milk, it is an indication that she is not receiving enough feed. Cows of pronounced dairy temperament quite often go on producing milk when the feed falls off, actually drawing on their own bodies for the material from which to make milk. This can go on, however, for only a short time.

It is only those who are keeping individual milk and feed records who can feed their cows to the very best possible advantage. This is one of the important lessons to be learned by the work of the Kansas Farmer Dairy Club.

Hog Losses Small

The death rate in swine from all diseases for the year ending March, 1918, announced by the United States Department of Agriculture as 42.1 per thousand, is the lowest in thirty-five years, according to the records kept during that period.

This unprecedentedly low rate of mortality presents a great contrast with those of earlier periods, particularly with the losses of 133.8 per thousand in 1887, 144 per thousand in 1897, and 118.9 per thousand in 1914, years marked by severe outbreaks of hog cholera. This is even a remarkable reduction from the normal low rate of losses which has remained slightly above fifty per thousand when the disease was least prevalent.

The approximate number of hogs on hand January 1, 1918, was 71,374,000. The loss of 42.1 per thousand for the year ending March, 1918, therefore represented approximately three million of these animals, equivalent to the consumption of pork and pork products by the entire population of the United States for 1917 for twenty-five days.

These recent losses should be compared with that of seven million hogs in 1914, which curtailed production to the extent of the national consumption for that year for thirty-seven days.

The marked reduction in the losses of swine in 1918 over preceding periods, in view of the fact that 90 per cent of these losses are due to hog cholera, indicates clearly the benefit from the combined efforts of state and federal agencies in protecting the farmers against the ravages of this exceedingly fatal disease.



AGRICULTURAL COLLEGE HERD BULLS—ERISTOCRAT, THE ANGUS, AND PRINCE RUPERT 12TH, THE HEREFORD

Concrete for Granary Floors

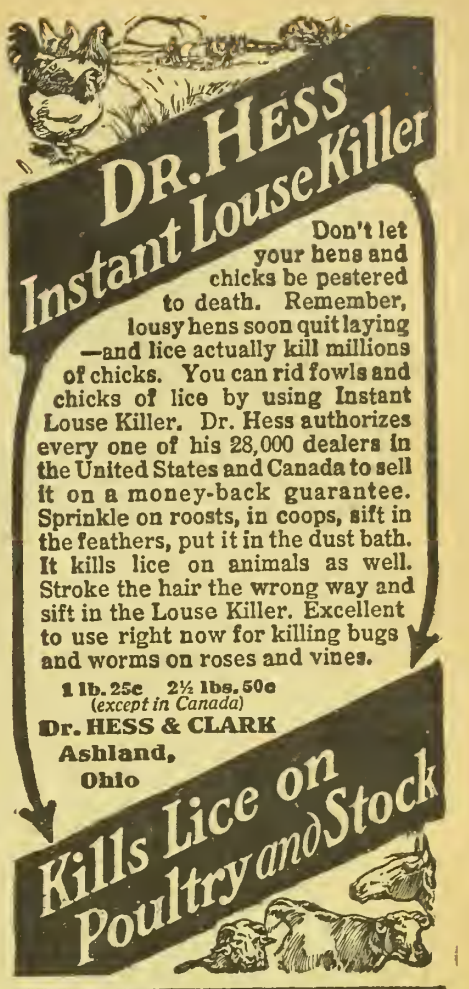
There are many beliefs among farmers that are based upon nothing more than tradition. One such belief is that concrete floors for cribs and grain bins are entirely out of the question because "they draw dampness and cause the grain to mold." Even normally intelligent men have been heard to make such a declaration, evidently firmly believing what they said.

Of course there may be extenuating circumstances, but let us carefully consider the proposition. A good concrete floor, of a dense mixture, is practically waterproof, for it contains no pores into which moisture may gain entrance. If it cannot absorb moisture how can it "draw dampness"? True, it may be cold, and when cold moisture may condense upon it to a greater extent than upon wood. However, the essential condition for mold growth is a condition of warmth and dampness. A wood floor is very porous, and will absorb moisture much more readily than concrete, and since it is warmer than concrete, mold growth should occur to better advantage on a wood floor than on concrete. The facts of the case are that when the concrete floors are properly made, they are the best kind of floors that a crib or granary can have—but they must be made right.

To make a good concrete granary floor there must first be good drainage. Excavate or fill when necessary, making sure of the firmness of the soil. The foundation wall, which should be about eight inches thick, should extend to below the frost line and have a footing twelve or fifteen inches wide, depending upon the load carried. The floor, which is laid upon a six-inch bed or sub-base of cinders or gravel, should be six inches thick. The bottom layer, five inches thick, is of a 1:2:4 mixture of cement, sand and pebbles or broken stone, and the finish coat, one inch thick, of a 1:2 mixture of cement and sand, is applied before the first coat has begun to set, and very carefully troweled. It should slope to the outside slightly to take care of any surplus storm water that may be driven in. Do not load the floor for three or four weeks.

Experience indicates that a well made concrete floor is altogether desirable, for it is permanent, substantial, rat-proof, rot-proof, easy to work on, and does keep the grain satisfactorily.—K. J. T. Ekblaw, K. S. A. C.

It is not enough to take off your hat to the flag—take off your coat and roll up your sleeves.





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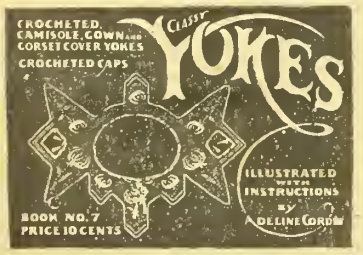

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We see with our vision imperfect
Such causes of dread or fear.
Some that are far in the distance
And some that may never be near;
When if we would trust in His wisdom
Whose purpose we cannot see,
We would find, whatever our trial
As our day, our strength shall be.
—Cary.

I believe in my home. It isn't a rich home. It wouldn't satisfy some folks, but it contains jewels which cannot be purchased in the markets of the world. When I enter its secret chambers, and shut out the world with its care, I am a lord. Its motto is Service, its reward is Love. There is no other spot in all the world which fills its place, and heaven can be only a larger home, with a Father who is all-wise and patient and tender.—REV. CHARLES STETZLE.

Value of Cheerful Letters

"This visit home did me so much good," said a soldier lad on his way back to an army camp at the end of his furlough. "My mother gave me more encouragement than I have gotten any place else. She doesn't feel badly about my going to France. She is glad to have my brother and me in the service." He smiled proudly, and it was easy to see his determination that his mother should not be disappointed in him.

The boys cannot come home very often even while they are on this side of the water, and when they go across the only thing we can do to lessen the distance is to write them frequent cheery letters full of the wholesome atmosphere of home. Let them feel that the home folks are with them. Let us fight our own battles as bravely as we expect them to fight theirs and never be guilty of sending a discouraging letter that will make their task more difficult.

The War Department states that one of the most common causes for absence from duty and desertion is the discouraged and exaggerated letter from home. The value of cheerful letters is beyond estimate and the harm of the unhappy one equally detrimental, it says. A division commander wrote as follows:

"I find that many of the families of the men write to them of unsatisfactory conditions at home, sickness of relatives, and how much various members of the family wish to see the soldier. These letters, as far as sickness, etc., are concerned, are often overdrawn, but, combined with the homesick feeling, often result in the man going absent as a deserter.

"Many young soldiers, fresh from home, suffer from homesickness, no matter how army officers may try to make their surroundings pleasant and comfortable and provide proper amusements. Extraordinary measures have been taken by the War Department during the past year to keep the young soldier actively engaged while in camp with sports, amusements, and comforts that a wholesome psychology might be sustained. Still, a type of soldier will yearn for home and fall into a brooding mood. It is obvious how harmful to him and to the service a discontented letter from home might be."

Storing Winter Clothing

Most of us have been reluctant to pack away our winter clothes this spring, preferring to keep them where they are easily accessible during the capricious spring weather. But now that it seems warm weather has come to stay and we may safely put away the winter clothing and furs, the old problem of how to protect them from moths again presents itself.

The United States Department of Agriculture has published a bulletin dealing with this subject, Farmers' Bulletin No. 659, "The True Clothes Moths." After describing the different species of moths, this bulletin gives various methods for preventing the damage they are likely to do. It recommends a thorough beating, shaking, or brushing, and exposure to air and sunlight to destroy any eggs or larvæ already present, and then packing in a cedar chest or wardrobe or in boxes or trunks which have been lined with the heavy tar paper used in buildings. Such receptacles should be newly papered every year or two. Clothing and furs may also be protected by wrapping tightly in stout paper or inclosing in well-made bags of cotton or linen cloth or strong paper.

The tarred paper moth bags obtainable at dry goods houses are of some value if the materials have first been thoroughly brushed or beaten to remove all eggs and larvæ. Such repellants as tobacco, camphor, naphthalene cones or balls, and cedar chips or sprigs also have a certain value. The odors of these repellants are so disagreeable to the parent moths that they are not likely to come to deposit their eggs as long as the odor is strong. As the odor weakens the protection decreases. If the eggs or larvæ are already present, these odors have no effect on their development, while if moths are inclosed with the stored material so that they cannot escape they will of necessity deposit their eggs and the destructive work of the larvæ will be little if at all restricted.

Dr. L. O. Howard has adopted the following inexpensive and satisfactory plan: For a small sum he secures a number of the large pasteboard boxes such as tailors use and in these packs away all winter clothing, gumming a strip of wrapping paper around the edge so as to seal up the box completely and leave no cracks. These boxes with care will last many years. With thorough preliminary treatment it will not be necessary to use repellants, which may be objectionable on account of the odor.

After a good brushing or beating, clothes, furs, and carpets can be hung away in clothes closets which have been thoroughly cleaned and, if necessary, sprayed with benzine about the cracks of the floor and the baseboards. If no other protection is given, they should be examined at least once a month during summer, and brushed, and if traces of moths are found, exposed to the sunlight. It is more convenient, however, to inclose or wrap stored garments, as suggested above, so as to prevent the access of the moths.

How Do You Feed Baby?

Good food and right methods of feeding will play a very important part in the success of the campaign to save the lives of 100,000 babies during the Children's Year, begun on April 6 by the Children's Bureau of the U. S. Department of Labor at Washington, working through the woman's committee of the State Councils of National Defense. As soon as the baby is born his food becomes a matter of paramount importance, as he loses no time in letting everyone know. Happy that baby who is supplied with breast milk, which is the best food for a baby throughout the greater part of the first year of life. The seriousness of depriving a baby of its natural food is shown very tragically in the fact that in 1915 in the registration area of the United States, 32,000 babies died in the first year of life from diseases of the stomach and intestines. This vast army of babies—enough to make up the entire population of a respectably large city—died chiefly, without doubt, from bad food, meaning partly dirty milk, and entirely unsuitable table foods, but also and probably largely from the substitution at too early an age of other food for breast milk. It is plain, therefore, that a great many of these babies died needlessly, because in the first place many mothers who did not, could have nursed their babies if they had had the right kind of care and advice, and many could have nursed them longer if they had understood the necessity.

The younger the baby the greater the necessity of breast milk, if that baby is to live and grow into health. A recent investigation made by the Children's Bureau shows that of certain babies who had been exclusively breast-fed during the first six months of life, only a little

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No. 8600—Ladies' Waist: Cut in sizes 36, 38, 40 and 42 inches bust measure. The fronts of the waist are gathered to the back shoulder edges which extend over to give the effect of yoke. The sleeves are set in without fullness and are trimmed with odd-shaped pieces of the plain material. **No. 8582—Ladies' Bungalow Apron:** Cut in sizes 36, 40 and 44 inches bust measure. The apron buttons at the center back, and a narrow belt holds in the fullness at the waistline. The large pockets are a great convenience. **No. 8560—Girls' One-Piece Dress:** Cut in sizes 4, 6, 8, 10, 12 and 14 years. The dress is in one piece from shoulder to hem, with a Russian side closing. The long sleeves have cuffs with laps to match the collar. A broad leather belt marks the waistline.



No. 8591—Ladies' Shirtwaist: Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. The waist has a convertible collar which may be buttoned up to show a neat turnover at the top. The long, full sleeves are gathered into deep cuffs, which have turnovers to match the high collar. **No. 8590—Children's One-Piece Dress:** Cut in sizes 4, 6, 8, 10 and 12 years. The dress hangs straight from the yoke, but a belt of contrasting material holds the fullness in place. The sleeves may be long or short. **No. 8570—Misses and Small Women's Dress:** Cut in sizes 16, 18 and 20 years. The dress has the Russian side closing, and the two-gored skirt is gathered all around to the slightly raised waistline. The long close-fitting sleeves are finished with gauntlet cuffs.

more than 2 per cent died during the first year of life, while the proportion of babies dying who had been artificially fed during the same period was about six times as great. It is plain that, as has been often said, "every mouthful of breast milk is important to the baby," and that in the first six months it is the principal safeguard of life.

The Children's Bureau, U. S. Department of Labor, Washington, D. C., has published a small pamphlet called "Infant Care," which it will be glad to send free to anyone who asks for it. Many mothers who now wean their babies too early could keep up the breast milk longer, and many who do not nurse at all could do so if they had better care, better food, and, often, better advice. Much depends upon proper care of the mother before the baby is born, and especially at the time of the baby's birth. After she is up and about the greatest pains must be taken to insure the permanence and sufficiency of her milk by careful attention to her food, but more especially to her general hygiene. The nervous mechanism which regulates the mammary glands is so sensitive that the unhappy, overworked, sick, or worried mother is very likely to have a depleted milk supply, but in many cases upon the removal of these conditions the milk returns and all goes well. In some cases milk may be restored under skillful management even after it has apparently disappeared. It is wise, therefore, to make sure that every means to conserve the supply has been tried before subjecting the baby to the risk involved in artificial feeding, especially in the first three months of its life.—MRS. MAX WEST.

Teacher, Stick to Your Job

A recent address by Dr. Anna Howard Shaw, chairman of the Women's Committee of the Council of National Defense, emphasized the need for teachers in the national emergency. She said that there is no national asset so much to be desired today as a completely filled school house, and this demands teachers who see their call to patriotic service in the school room.

Speaking to a group of 1,400 teachers she said: "Country teachers write to the headquarters of the Women's Committee in Washington in great numbers, asking what they can do in the city, yearning for some expression of their patriotism which will take them away from the drudgery and hardship of most of the country schools. There never was a time when the nation needed its teachers on the job in the country as much as it does now. They should stay by their schools, stand to their posts with the military spirit of a soldier on duty. The country boy and girl needs education more than ever. Parents need persuasion to keep the children in school these days when there is fear that labor will run short. The country and city teacher's influence is greatly needed in every locality.

"Appeals come from hosts of young women who want to leave the school to do patriotic work. To the stranger or to the woman of my own acquaintance, I say the same thing. A teacher I had known long asked me to advise her what new line to take up. A little woman I had never heard of in a great city, begged similar advice. I told them both, 'Drill the young soldiers in the school room'."—VIRGINIA H. CORBETT, Colorado Agricultural College.

Doing Without Wheat

Bread and milk make a meal; so will mush and milk.

Bread and gravy go together; potatoes and gravy are just as nourishing.

Toast and fruit are fine for breakfast, but any other cereal with fruit will stay the stomach as effectively.

Griddle cakes, muffins, all sorts of quick breads, can be filling and appetizing without any wheat.

After all, what we have to do is eat less bread. Often we eat it to convey other food; we even use bread to push mouthfuls upon the fork.

There is one test. Wherever bread is used for convenience, that is the place to leave it out.

Habit tells us to use bread; the body's needs tell us only to provide sufficient nourishment. We must learn to think in terms of nourishment and not let habit hinder us.

Changing our habits is none too easy. But it is no easy task to win the war. Going without wheat wherever we can is one thing we can do to win the war—perhaps the largest contribution we can make.—United States Food Administration.

Conserving Sugar and Fats

Reduce the number of fried dishes. This method results in loss of fat through burning.

Do not use butter in cooking. Vegetable fats and oils with the addition of a little salt may be satisfactorily substituted in its place. Save butter for table use.

Choose recipes calling for small amounts of fat and sugar.

In yeast breads, fat may be omitted entirely, and in quick breads the fat from meat drippings, chicken fat, or cracklings may be used for shortening.

Substitute other sweet foods for sugar.

Use cakes without frosting.

Chopped figs, dates, or raisins cooked with cereals will give a sweet flavor without the addition of sugar.

Use more fresh and dried fruits in place of rich pastries and sweet puddings.

Use less sugar in tea and coffee and be sure that it is all dissolved.

Victory Bread Recipes

The Food Administration has just made public a baker's formula for making Victory bread, which under ordinary conditions could not have been obtained from the baker at any price. This trade secret was revealed as a war measure because there are a few bakers who have been unsuccessful in producing first class Victory bread. Bread made by this formula has been tasted by experts who say it is the equal of pure wheat bread. The baker who furnished the formula is one of the best known men in his trade in the state.

Following is the baker's bread formula:

Sponge—Eight ounces salt, 130 pounds water, 11¼ pounds corn meal, 4½ pounds yeast, 11¼ pounds corn flour, 177½ pounds wheat flour. Time, 4 hours. Temperature, 80 degrees.

Dough—159½ pounds wheat flour, 45¼ pounds corn starch, 45¼ pounds corn flour, 133 pounds water, 1 pound yeast, 8 pounds salt, 10 pounds sugar, 4 pounds vegetable oil, 6 pounds condensed milk. Punch this dough in one hour and then bake it in fifteen minutes. Total time of dough, 1¼ hours. Temperature of room should be about 80 degrees.

Victory bread formulas for the housekeeper vary, according to her experience in the use of substitutes. The general advice is to start with a little substitute and gradually increase the amount. Housekeepers who do not succeed with a batch of bread should try again, for it is not infrequent to make a failure when attempting something entirely new. Following are the recipes:

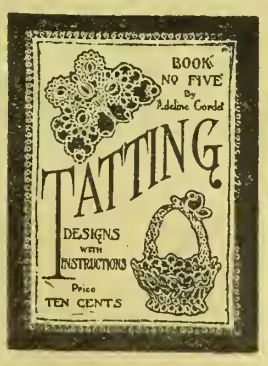
John Pershing Bread—2½ cupfuls of liquid; ⅛ to ¼ yeast cake; 1½ teaspoonfuls salt; 2½ cupfuls wheat flour; ½ cupful rice per loaf. Boil the rice first until soft and then add flour.

Admiral Sims Bread—1 cupful liquid; 1½ teaspoonfuls salt; ⅛ to ¼ cake yeast softened in ¼ cupful lukewarm water; ½ cupful oatmeal; ½ cupful corn meal; 2½ cupfuls flour. Add raisins, and the children will be delighted with this bread.

Leonard Wood Bread—1¼ cupfuls mashed potato packed solid; 1½ teaspoonfuls salt; ⅛ to ¼ yeast cake softened in 2 tablespoonfuls lukewarm water; 2¼ cupfuls flour—more or less flour may be needed. Sweet potato or squash may be substituted for the potato.

Remember the amounts of substitute can be increased as experience in baking justifies.

NEW TATTING BOOK



A collection of sixty pretty tatting designs with instructions, by Adeline Cordet. Price, postpaid, 10 cents. Ask for Book No. 5 when ordering. Address Fancy Work Dept., Kansas Farmer, Topeka, Kansas.

Spanish Rice

In the Kansas Grange Monthly Mrs. Mabel Pomeroy gives the following recipe for cooking rice as her Spanish sister-in-law in Chile, South America, prepares it:

Use one cupful rice. Wash thoroughly. Put two tablespoonfuls of butter, or one of butter and one of meat fryings, into a skillet and set over the fire. Add the rice and cook, stirring frequently until the rice is slightly browned. Be careful that it does not burn. When browned, add a teaspoonful of salt and put the rice into a double boiler or fireless cooker, adding enough water to cook it. Serve as a vegetable. It can be cooked in a saucepan on the back of the stove if one has neither a double boiler nor a fireless cooker.

Baked Potato Don'ts

The Irishman claims that the only thing better than a good baked potato is two baked potatoes. Here are some baked potato don'ts:

Don't have your oven too hot, or the potatoes will crust over so that the steam cannot escape, and a soggy potato will result.

Don't have different sized potatoes.

Don't delay in getting them into the oven—they will not hurry when the time is short.

Don't fail to allow from forty-five minutes to an hour for a medium-sized (six-ounce) potato.

Don't select potatoes that are too big.

Don't put them into your oven dripping with cold water.

Don't forget to scrub them with a vegetable brush if possible.

Don't fail to serve potatoes as soon as possible after they are done.

A Correction

We are very sorry that a typographical error crept into Miss Russell's article entitled "For Wheatless Meals" in our issue of May 18. The word "old" was substituted for the word "cold," making her directions for oatmeal muffins read: "The cooked oatmeal used should be old and thick," instead of "cold and thick," which was what we intended to say. We apologize to Miss Russell and wish to assure our readers that it was not her intention to carry food conservation to the point of using stale cereals.

It is better to eat a corn dodger than to be one.

Prune Whip

1 cupful strained stewed prunes
3 egg whites
½ cupful sugar
1 tablespoonful lemon juice

Beat the eggs until stiff, add sugar, and beat again until smooth. Fold in prunes and lemon juice, and pile on glass dish. Serve cold with whipped cream or custard made from the yolks. Apricots or any dried fruit may be used in place of prunes.

Codfish Puff

2 cupfuls mashed potato
1 cupful shredded codfish, freshened
3 eggs, whites and yolks beaten separately
¾ cupful milk
Seasoning.

Combine the potato, codfish, beaten egg yolks, milk and seasonings, folding in the beaten whites of the eggs last. Bake in a quick oven until the egg white is set.

Cottage Cheese

Cottage cheese ranks higher as a meat substitute than almost any other dairy product; that is, it contains a larger percentage of protein or body-building material than most meats, and has the advantage of being much less expensive.

The following compilation by the United States Dairy Division gives the protein value of one pound of cottage cheese as compared with that of meats of various kinds:

1.27 pounds sirloin steak
1.37 pounds chuck rib beef
1.46 pounds fresh ham
1.58 pounds loin pork chop
1.09 pounds round steak
1.42 pounds fowl
1.44 pounds smoked ham
1.31 pounds hind leg lamb
1.37 pounds breast of veal

This is particularly significant when one remembers the high prices of meats and the relatively low cost of cottage cheese. Furthermore, cottage cheese may be made into a number of savory dishes in combination with vegetables to make it more agreeable to those who do not like it plain as ordinarily served.

Do not fail to make provision for a bed of parsley in your garden. It will give soups, creamed potatoes and fish, browned potatoes, and salads, an appetizing flavor and will come in handy for garnishing meats as well. In the fall a plant may be taken up and kept in a flower pot indoors for use during the winter. The leaves from the rest of the bed can be dried for use in soups.

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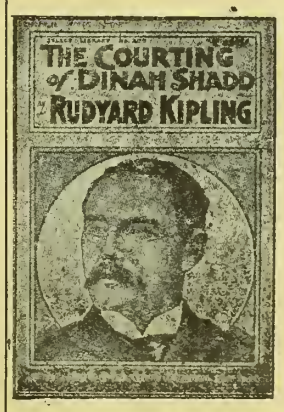

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BRED-TO-LAY BARRED ROCKS—FINE, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, $1 setting, $5 hundred; guaranteed. Belmont Farm, Topeka, Kansas.

BARRED ROCKS THAT PRODUCED 175 eggs each in 1916; 120 eggs seven months, 1917. Four ribbons, 1917. Pens standardized, Hogan system, eggs, $2 per fifteen, $10 hundred. Mating list free. For sale, two pens, to make room for young chicks. Write Farnsworth, 224 Tyler St., Topeka.

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LEGHORNS.

EGGS (YOUNG'S 288 S. C. W. LEGhorns, costing $20 setting), $7 hundred. Elsie Thompson, Mankato, Kansas.

RANGE EGGS, 100, $4; PEN, 100, $6; 15, $1.50. Karr's Buff Leghorn Farm, Route 4, LaCygne, Kansas.

SINGLE COMB WHITE LEGHORN EGGS—100, $5.50 prepaid. Quality guaranteed. Dave Baker, Conway Springs, Kansas.

S. C. BROWN LEGHORNS BRED 22 years; 222 to 266-egg lines. Eggs, fifteen, $2; fifty, $4; hundred, $6. Gorsuch, Stilwell, Kansas.

S. C. B. LEGHORN BABY CHICKS, $12.50 per hundred. Two-year-old Brown Leghorn hens, also March cockerels. Eggs, $2.50 per setting and $5 per hundred. Sweepstakes and first prize cockerel Kansas State Fair; first pullet, first cockerel, Joplin, Mo. Paradise Poultry Farm, Carona, Kansas.

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BLACK LANGSHAN EGGS, 7c EACH; over 100, 6c. Baby chicks, 20c. Mrs. Geo. W. King, Solomon, Kansas.

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YOU BUY THE BEST CHICKS FOR least money. Guaranteed alive or replace free. Shipped anywhere. Colwell Hatchery, Smith Center, Kansas.

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EGGS, BROILERS, HENS, AND OTHER fowls wanted. Our paying prices published in Daily Capital. Coops, egg cases loaned free. The Copes, Topeka.

DUCKS AND GEESE.

EMBDEN AND TOULOUSE GEESE—Stock and eggs. Will take Runner ducks or Leghorns in trade. Emma Ahlstedt, Roxbury, Kansas.

ANCONAS.

SHEPPARD S. C. ANCONA EGGS FROM extra stock, $6 hundred. Lottie DeForest, Peabody, Kansas.

RHODE ISLAND REDS.

SINGLE COMB RED EGGS—HUNDRED, $4.75; thirty, $1.75. Mrs. Rosa Janzen, Geneseo, Kansas.

BRED TO LAY SINGLE COMB REDS—Pure-bred, rich red, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, setting, $1.00; hundred, $5.00; guaranteed. Belmont Farm, Topeka, Kansas.

SEVEN GRAND PENS ROSE COMB REDS headed by roosters costing $15 to $50. Fifteen eggs, $3; thirty eggs, $5; fifty eggs, $8. Special utility eggs, $7.50 per hundred. Baby chicks. Catalog. W. R. Huston, Americus, Kansas.

Poultry Don'ts

Don't allow your hens to eat decayed flesh of any kind unless you want them to get limberneck and have many of them die from the effect of it.

Don't allow filth and dampness in and around your poultry roosting house; it will promote roup and its various attending ills.

Don't let the mites and lice get the upper hand about your place and cause you untold trouble and loss of both old and young stock.

Don't be afraid to give your fowls an abundance of green stuff at all seasons and all times; it is their salvation, whether they are old or young.

Don't be afraid to invest a few dollars in good stock any more than you would in improved seeds and grain to insure success.

Don't keep any males with the females unless you intend hatching the eggs. Eggs for market will keep much longer if they are not fertile.

Don't put all sizes, shapes and colors of eggs in one lot for market; learn to grade them so they will look as much like one hen laid them all as possible.

Don't allow a dirty stale egg to go into your market basket, no matter how high they are or how badly you need the money.

Don't be afraid to work with your poultry the year round, as it is the only road to success and one must stick to the right track. Keep up interest in your poultry both winter and summer. No matter what other duties you have, they should not be neglected.

Don't expect every egg to hatch when you buy eggs for that purpose from some good breeder. Your own eggs as a rule will not do that well.

Don't attempt to raise more than one kind of good standard-bred chickens. Learn to specialize.

Hold Onto Poultry

According to Edward Brown, F. L. S., the noted English poultry authority, the war will give a great impetus to the poultry industry. During his recent visit to Kansas, Missouri and other states he expressed the firm conviction that the future holds great possibilities for the poultry keepers of the Central West. In Belgium, Germany, Russia, Northern Italy, Holland and Denmark, poultry has almost entirely disappeared as a result of war conditions. When peace is declared the hen will be one of the most important animals in restoring the devastated countries.

FARM AND HERD NEWS NOTES

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CLAIM SALE DATES.

Shetland Ponies.
June 20—R. J. Foster, Topeka, Kansas.

Holsteins.
Sept. 4—E. S. Stoughton, Hutchinson, Kan.

Spotted Poland Chinas.
Oct. 5—W. J. Honeymoon, Madison, Kan.
Oct. 19—C. A. Gooch, Orrick, Missouri.

Poland Chinas.
Aug. 8—Fred B. Caldwell, Howard, Kan.
Oct. 15—H. B. Walter & Son, Effingham, Kansas.
Oct. 16—Dr. J. H. Lomax, Leona, Kansas.
Oct. 31—F. J. Dowe, Hiawatha, Kan.
Oct. 29—Hill & King, Topeka, Kansas.
Oct. 31—Adams & Mason, Gypsum, Kansas.
Nov. 1—E. B. Myers, Hutchinson, Kansas.
Nov. 7—Schmitz Bros., Seneca, Kan.
Nov. 8—Ketter Bros., Seneca, Kan.

Duroc Jerseys.
Oct. 19—W. W. Zink, Turon, Kansas.
Oct. 18—Wreath & Givens, Manhattan, Kan.

Chester Whites.
Oct. 23—J. H. McAnaw, Cameron, Missouri.
Nov. 7—Arthur Mosse, Leavenworth, Kan.

Fred B. Caldwell, of Howard, Kansas, the owner of the world's grand champion Poland China boar, Caldwell's Big Bob, has claimed August 8 for his next annual bred sow sale. On this date he will offer forty-five head of Poland China sows. Every one will be bred and safe to Caldwell's Big Bob. Mr. Caldwell owns one of the best hog farms in Southeast Kansas and has one of the best herds in the state. He handles his herd sows in a way that they always go out and make good in other herds. There are now over 200 spring pigs on the farm that are coming in fine shape.

C. S. Nevius & Son, of Chiles, Kansas, have raised 160 spring pigs and have forty Poland China sows to farrow in June and July. They are contemplating holding an August bred sow sale and offer a lot of bred sows and sows with litters to the farmers and breeders. A feature of the Nevius herd is that all the sows sold in their March 4 bred sow sale fallowed and saved better than eight pigs for each sow. Nevius & Son care for their hogs in a way that insures their future usefulness.



Successful Raising of Late Chicks

WE ARE still at war and should raise all the late chicks possible to help out in the greatest food shortage that the world has ever known. We must not stop as long as we can raise a bite of food. Our sister countries across the water are having to exist on short rations and we would not stop as long as we can hatch and raise a chick and increase the supply of our greatest food—meat.

The successful feeding and raising of late-hatched poultry is naturally a matter of careful study and experience. We can very successfully use the feeds grown on the average farm.

In raising my late-hatch chicks I try as nearly as possible to make the conditions similar to those of early spring. This can be done by providing good, clean, fresh feed at each meal. The feed later in the season very quickly sours and molds. This is very often the cause of losses.

Then, too, fresh water must be provided often, as it gets warm and stale so quickly. We like fresh water ourselves; early in the season a bucket of water will be good to drink all day or as long as there is any left, but later in the season we want fresh water often. It is the same with the chicks. They must also have plenty of shade. If the weather is very warm, throw a bucketful of water or so in the shade on the ground and see how the chicks enjoy the cool, damp spot. This seems almost unreasonable, as the old adage says, "Keep chicks dry." This in a measure is true, but somehow on a very warm day they seem to find a cool, damp, shady spot very much more comfortable.

There is also another very important point, and that is to keep down the lice and mites. The late chicks are more likely to be infested with lice and mites. At this season of the year they must be kept entirely free from vermin if they are expected to do their best or even to thrive at all. I have raised chicks and had them do well when they came off the fourth day of July, but they were kept cool and in clean quarters with plenty of pure, fresh water and fresh feed at every feeding. Try this year to raise at least a few late chicks and do another bit toward feeding the world and winning the war.—MRS. LIZZIE B. GRIFFITH, Lyon County.

Chickens Self-Feeders

Chickens will "pick up" a good part of their living from waste that otherwise would never become of any value. They will feed themselves, to an extent, from grass, weeds, insects, and crumbs and small scraps that if not eaten by chickens would not become of food value to man. They will eat the eggs and larvæ from which come various destructive insects, particularly orchard pests. In some orchards where chickens range the browntail moth has almost disappeared, while near-by orchards, where chickens do not run, are damaged by the pest.

Most of the attention required by farm flocks can be given by the women and children of the household. The question of labor is not a puzzling and uncertain problem in the poultry production program. If the farmer increases his flock to a size suitable to fit in as a by-product of his general farming, it will not require extra help.

Because of these facts—that poultry, as a by-product of general farming, find much of their feed in waste and require no extra labor—it is possible to produce meat food at the very lowest cost. Home consumption of this will cut down living expenses and make it possible to sell more of the animal meat produced. The poultry producer will be making more money himself, and at the same time he will be helping Uncle Sam win the biggest war the world has ever known.

Separate Cockerels and Pullets

The young cockerels should be separated from the pullets as soon as they begin to annoy them. With light breeds this means not later than the eighth week and with heavy breeds possibly from the tenth to the twelfth week. Cockerels intended for market at from one to two and a half pounds weight should be fed the same ration as the pullets up to within two weeks to one month of marketing.

To finish off growing stock for market, increase the quantity of ground grains fed and also of protein. Range-raised birds will generally stand up under this forced feeding in confinement for from ten to twenty days, but should be fed liberally of green food and watched carefully for digestive disorders meanwhile. Birds will stand up longer under forced feeding where the increased protein is given in the form of milk rather than beef scrap. A ration for finishing off growing stock for market is herewith given:

Feed three times daily, all the birds will eat in a half hour, of equal parts by weight of corn meal, wheat middlings, ground oats and beef scrap or cottage cheese, salt to season. Use buttermilk or sour milk for moistening, to a consistency such that it can be poured. Give the birds, in addition, water and sour milk to drink, green food, grit and charcoal, but no whole grains.

Develop the Pullets

We cannot afford to neglect the pullets that are expected to become the layers of next winter. They should be given every chance possible for proper development so as to be able to produce a maximum number of eggs next season.

In the development of pullets it is not wise to force those intended for egg production or breeding. In order to have them mature for winter laying they should be hatched early enough to allow them to reach their proper development normally and without forcing.

Any deviation from normal development tends to lessen vitality and reproductive powers. If a pullet is a breeder and is to stand up under the strain of being forced for heavy egg production after she begins to produce vigorous offspring, she should have the benefit of a normal development prior to that time.

At the same time the cockerels are removed for forcing and finishing, the pullets should be placed on a grassy range. The ration fed them should be one to promote health and to produce substantial growth rather than quick growth. The pullets should be left on range until they begin to lay, when they should be moved into their permanent quarters.

Experts state the hens of the United States lay an average of sixty eggs a year. Take an ordinary flock, cull out the old, the weak and the poor ones, saving only the pullets and yearling hens that are active layers and the average can be brought up to 120 eggs a year per hen. Thorough culling will double the egg production without increasing by a single cent the cost of production. There are many large flocks that average twelve dozen eggs per year per hen and every poultry raiser should determine to keep his flock up to or above this standard. A few flocks average 175 to 180 eggs and the best breeders are trying to establish flocks of hens that average 200 eggs per hen a year. They have not succeeded as yet.

Surplus cockerels are unprofitable boarders. It is a common mistake to keep two many males. This is frequently due to a natural desire to avoid killing desirable breeders, and with a hope that if they are retained they may be sold alive for high prices. After they become large enough for market, most cockerels do not make enough growth to pay for the food they eat. They also injure themselves or others by fighting. The room they occupy, the food they eat, and the labor they require might better be bestowed on early-hatched pullets. They should seldom be allowed to go into winter quarters. They usually fail to grow well in cold weather and occupy valuable space that should be used by better stock. They are unable to wrestle with larger individuals and generally remain undersized.



Percherons in Shawnee County

THE demand for draft horses is increasing rapidly. Argument to convince a farmer of the advantage of using heavy horses is no longer needed. He knows it. Farm sales reflect the situation. Roomy, drafty mares — grades — standing from 16 to 16.2 hands, and weighing 1,600 pounds or over, will, if of reasonable age, command $500 to $600 a pair in almost any farm sale; and there are never enough of this sort to satisfy the clamorous demands of hard-headed farmers who want good teams. Small stuff and animals of draft breeding but too young to work, may sell at a discount, but draft animals of serviceable ages are keenly sought after by farmers in all sections of this country. For a time last fall they sold below their real value, on account of the attempts of many owners to cut down on feed bills during the winter, in the hope that they might thereby be able to buy at a figure this spring which would make the venture profitable, but prices on good grade draft mares have advanced fully $50 per head in the last sixty days, and men who sold themselves short last fall are destined to pay dearly for their experience this spring.

Shawnee County breeders made an exceptionally good showing in 1917, according to recent information sent out by the Percheron Society of America. This county can easily be made a Percheron breeding center. Percheron men of the county registered twenty-four colts during the year, or one to every 22.66 square miles. This makes Shawnee County stand second in the state in the registrations for this period.

The horse business is on its way to better times. The Percheron Society of America reports that "during the fiscal year ending October 31, 1917, 10,508 Percherons were registered — over 1,000 more American-bred colts than were ever recorded before in one year. Over 11,000 horses were transferred on the records of the society in the time mentioned. In spite of expensive feeds and a scarcity of farm help, the Percheron horse has had a greater year's business in 1917 than ever before."

The majority of the twenty-four colts recorded from Shawnee County were 1916 foals, although the figures include two head produced prior to that year, and five were 1917 colts.

In number of Percherons recorded in the time mentioned, on the basis of area Harvey County stands first with thirty-three head, or one animal to each 16.36 square miles. Shawnee County comes second with twenty-four, or one to each 22.66 square miles. Mitchell is third, having recorded twenty-five head, or one to each 28.52 square miles. Next comes Jefferson with nineteen, or one to each 28.57 square miles. The fifth county is Osage, with twenty-five head recorded, or one to each 28.72 square miles; sixth, Douglas, with sixteen head recorded, or one to each 29.31 square miles; seventh, Butler, with forty-seven, or one to each 30.51 square miles; eighth, Rice, with twenty-one, or one to each 33.66 square miles; ninth, Riley, with sixteen, or one to each 37.75 square miles; and the tenth, Crawford, with sixteen, or one to each 37.81 square miles.

Of the Shawnee County breeders, W. E. Dustin recorded eight; John W. Foster, two; D. F. McAlister, seven; John A. Peck, one; Lester B. Pence, one; W. T. Pence, two, and O. N. Wilson, three.

Experiment Hogs Made Money

In a hog-feeding experiment just closed at the Kansas Experiment Station the corn fed returned a value of a trifle over $2 a bushel. This was after computing every possible item of cost against the price received at market for hogs. In this experiment the feeds used were pasture, shorts, tankage, and corn. Sixty-six pigs were fed. They were put into the feed lot at an average initial weight of fifty-four pounds and at a price of $15.50 a hundred. After feeding these hogs three and one-half months, the results were calculated on the basis of a sale price of $15.50 a hundred and the returns for corn shown as stated above. The actual purchase price of the hogs was $8 a hundred in Kansas City, and the actual sale price was $19 a hundred in Chicago.

The results of this test would indicate that even with the present high prices of corn it is possible to feed hogs profitably for market. It requires well-bred hogs, however, and they must be cared for by a painstaking feeder and the ration must be properly balanced. Under present conditions corn alone cannot be fed without loss. In fact very seldom is it a profitable practice to feed hogs on corn only. Supplemented with feeds high in nutritive value, and especially feeds rich in protein, corn produces cheap and rapid gains. Prof. J. I. Thompson, who had direct charge of this experiment, states that a hundred pounds of tankage will replace 350 to 450 pounds of corn in the feed lot. With corn at $3 a hundred, tankage should be worth $5.50 to $6.50. Its present market price is only $5 a hundred. Mr. Thompson also points out that when feeding three pounds of skim milk to one pound of corn, only 65 to 70 per cent as much grain is needed for a hundred pounds of gain as when corn is fed alone. We cannot report further details on this experiment at the present time.

Docked Lambs Preferable

It has been a common experience of many sheep men in marketing spring lambs that docked lambs have an advantage over undocked lambs. This comes about first by the fact that they look better. They look more uniform and docking squares up the hind quarters and makes them appear larger and fuller. The first impression that a buyer gets of a load of lambs has very much to do with the sale of them. On weak and unsteady markets salesmen in the "sheep house" say that docked lambs will have the preference in every case over undocked lambs of equal quality. It is a common opinion of salesmen that docked lambs are worth about 25 cents more than undocked ones.

In regard to castrating, Howard Hackedorn, of the Missouri College of Agriculture, says that up until the first of July little difference is made in the price of entire and castrated lambs; however, after the first of July, February and March lambs which have not been castrated will be discriminated against. In the first place, they usually will be in poorer condition than wether lambs, as rams do not fatten as readily as wethers; in the second place packers claim that the grain and flavor is not quite so good with the rams as with the wethers. Docking and castrating may be done with very little danger. Probably the best plan is to dock and castrate lambs from a week to three weeks old, at which time the shock of the operation is felt very little. Hot irons are used in docking lambs because in this way all danger from loss of blood is avoided, since the hot iron sears the blood vessels and thus closes them.

Breeders Offer Trophies

The ceremony of presenting the trophies offered by breeders for the students' stock judging contest at the Agricultural College was an interesting feature of the cattlemen's meeting at Manhattan May 17.

This judging contest, which was held March 30, is an annual event. One of the most important factors contributing to the success of this year's contest was the kindly interest shown by the breeders and live stock men of the state and their splendid generosity in offering these valuable and attractive trophies.

In spite of the large percentage of upper classmen who have left college for army service, the interest was more intense, competition keener, and the number of contestants greater than in any previous contest. Three of the girls specializing in animal husbandry entered the contest and won two of the loving cups offered by Kansas breeders, as well as ranking fourth and fourteenth in the contest.

Eight classes of live stock were judged —two each of cattle, horses, swine, and sheep. The five ranking winners were L. V. Ritter, Memphis, Tennessee; J. J. Moxley, Osage City, Kansas; C. W. Howe, Garrison, Kansas; Miss Helen Carlyle, Calgary, Canada, and R. A. Axtell, Dimmett, Texas.

Five beautiful silver loving cups were offered by breeders and live stock men. These were formally presented to the winners immediately following the showing of pure-bred cattle. The cattle judging trophy offered by Carl Miller, Hereford breeder, Belvue, Kansas, was won by J. J. Moxley, Osage City, Kansas; the horse judging trophy offered by J. C. Robison, Towanda, Kansas, by Miss Luella Schaumberg, LaCrosse, Kansas; the sheep judging trophy offered by the Kansas City Stock Yards Company by L. V. Ritter, Memphis, Tennessee; the swine judging trophy offered by H. B. Walter & Son, Effingham, Kansas, was won by Miss Helen Carlyle, Calgary, Canada, and the Clay-Robison Commission Company trophy for highest ranking contestant by L. V. Ritter. The Robert H. Hazlett prizes, in the form of baby bonds, for the five highest ranking freshmen, were won by J. J. Moxley, C. W. Howe, H. L. Bunger, Wheat Ridge, Colorado; H. E. Moody, Riley, Kansas, and A. D. Weber, Horton, Kansas. The Saddle and Sirloin Club, a student organization, offered a silver, a gold, and a bronze medal to the three highest ranking contestants.

Dip the Sheep

Dip the sheep each year as soon as possible after shearing, advises A. M. Paterson, of the Kansas Agricultural College. Less dip is required at this time because there is less wool on the sheep. The dip penetrates into the skin better when there is no wool.

Ticks are on the lambs by this time and are giving the lambs a great deal of trouble. The lambs should be dipped at this time. By shearing time the weather is warm enough so that there will be no danger of the sheep's chilling.

There are three advantages in dipping sheep. It rids the animals of external parasites, puts them in a healthier condition, and causes a more luxuriant growth of wool.

The best kind of dip to use is a tobacco dip called "black leaf forty." Lime-sulphur and coal tar dips are also effective. It is best to dip sheep in a regular sheep-dipping tank. The entire sheep should be immersed in the dip for about a minute. The dip should be heated slightly to take off the chill.

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 60,000 farmers for 5 cents a word per week. No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. Terms, always cash with order.

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted free of charge for two weeks, for bona fide seekers of employment on farms.

HELP WANTED.

WANTED, IMMEDIATELY: FARMERS, men-women. Thousands government war jobs open. $100 month. Write for list. Franklin Institute, Dept. R-82, Rochester, New York.

PATENTS.

PATENTS PROCURED, BOUGHT AND sold. International Patent Co., Brandeis, Omaha.

THRESHING MACHINES.

FOR SALE — COMPLETE THRESHING outfit, $1,750. Consists of a 40-80 gas tractor and a 34-56 Buffalo-Pitts steel frame separator. All in good condition and ready to go to work. Outfit has run about fifty days and is a bargain. Come and see for yourself. Come to St. Marys or Paxico, Kansas, and see Carl Miller, Belvue, Kan.

WANTED

WANTED—CLEAN FRESH EGGS — DIrect from producer. Eastern markets are demanding clean fresh eggs direct from farms. We wish to buy your eggs the year around. We will pay you highest market eastern prices, which are always higher than your home markets. Philadelphia and New York City prices, May 22, '18, clean fresh eggs are worth 36c to 38c per dozen in case or more lots. You can just as well have the full profit off your eggs as a half dozen egg buyers. In this time of war producers of food products should have full price. Under our plan you receive your money promptly and weekly prices. Write us today for our plan. We furnish highest of reference. Address Great Western Egg Exchange, 517 Mutual Life Building, Philadelphia, Pa.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE — FOUR RED REGISTERED Shorthorn bulls, 10 to 13 months. John Thorne, Kinsley, Kansas.

TWENTY-FIVE TWO-YEAR-OLD HIGHgrade Holstein springers. A few Holstein heifer calves, four to six weeks old, $22.50 each. Oakwood Farm, Whitewater, Wis.

HIGH GRADE HOLSTEIN CALVES, either sex, well marked, from heavy producers; four to six weeks old; fifteen-sixteenths pure; $25 each, crated and shipped to your station. Express and all charges paid here. Highland View Place, Whitewater, Wis.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

USED CAR BARGAIN.

FOR SALE—MODEL 35 JACKSON FIVEpassenger touring car. Not latest model but has had good care and is in good condition. Good top, tires nearly new, Presto lights, jack, pump and other tools go with car. Is good for several years' service. Cost $1,300 when new. Price, $300 cash. Owner, 625 Jackson St., Topeka, Kan.

FALSE TEETH

CASH FOR OLD FALSE TEETH, WORTH as high as $21.50 per set (broken or not). Send at once—package held five to fifteen days subject to owner's approval. Highest prices paid for old gold jewelry, crowns, bridges, platinum, silver. United States Smelting Works, Inc., 347 Goldsmith Bldg., Opp. P. O., Milwaukee, Wisconsin.

TREES, SEEDS AND PLANTS.

SUDAN SEED RECLEANED AND graded, 18c pound, any quantity. Sacks free. Geo. Buntz, Chase, Kansas.

SEEDS—KAFIR, 5c PER POUND; FETerita, 8c per pound. L. K. H. Laws, Camargo, Okla.

SUDAN SEED, HEAVY, RECLEANED, one pound, 22c; fifty, 20c; 100, 18c. Elias Schlabach, Thomas, Oklahoma.

ONE HUNDRED FIFTY BUSHELS GOOD recleaned alfalfa seed for sale, $9 per bushel if a quantity is taken. V. O. Johnson, Aulne, Kansas.

SUDAN SEED, 16c PER POUND, GUARanteed pure. June is best time to plant. Only requires one-third as much seed as sorghum. M. H. Loy, Milo, Kansas.

FOR SALE — ORANGE AND AMBER fodder cane, $5.50; red top cane, $6.50; white kafir corn, $5; feterita, $5.50; red kafir, $6; yellow milo maize, $5; Sudan, $18; all per 100 pounds f. o. b. Lawrence. Seed corn from $3.50 to $4 per bushel. Order quick. The Barteldes Seed Co., 802 Massachusetts St., Lawrence, Kan.

REAL ESTATE.

YOUR PROPERTY PROMPTLY SOLD, any locality. New method. You pay no commission. Particulars on request. Commercial Service Co., Dept. C, Lincoln, Neb.

NO. 2501: FORTY ACRES, MILD CLImate; $4,100. All arable except three acres woodland; ½ acre all kinds of fruit; near county seat; bordering river; fish, oysters, etc.; 9-room frame dwelling, porch; two barns; corn house; shade; 60-foot well. Russell Realty Co., Baltimore, Md., catalog.

AUTO TIRES.

TIRES — FORD, $6.50. LARGER SIZES equally low. "Wear like iron." Booklet free. Economy Tire Co., Kansas City, Mo.

MISCELLANEOUS.

SOUTHERN QUEEN SYRUP CANE, BEST for syrup, 15 cents per pound. A. R. Quigg & Son, Elk City, Kansas.

BARBED WIRE CUTS ARE DANGERous. For all cuts, wounds, sores, use Dietze's Black Poultice Salve, 25c. Best salve known for general farm use. Agents write. Dietze Mfg. Co., Lincoln, Neb.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

When Writing to Advertisers, Please Mention Kansas Farmer

HOLSTEIN CATTLE.

OLYDE GIROD. At the Farm F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

HOLSTEIN COWS FOR SALE

NINETY HEAD REGISTERED AND HIGH GRADE:

Forty two-year-old heifers bred to freshen May and June. Ten yearlings. Forty cows three to six years old. Priced to sell. Farm adjoins town. Come and see me.

C. A. BROCK - - - NORTONVILLE, KANSAS

HOLSTEIN CATTLE

I am offering for sale from my registered herd, four cows from four to six years old; two heifers, two years old, extra good; four yearling heifers and four high-grade cows; four registered bulls of serviceable age. Write or come and see my herd.

J. W. MEYER, NORTONVILLE, KANSAS.

MAURER'S HOLSTEIN FARM

Offers special attractions in pure-bred females of all ages with high class breeding, and a number of choicely bred yearling bulls; also grade cows and heifers with size and quality. Don't fail to see this herd before you buy, as they are all bred RIGHT and priced RIGHT.

T. R. MAURER & CO - - - - EMPORIA, KANSAS

Holsteins

HIGH GRADE COWS AND HEIFERS

Carload lots and less. Calves fifteen-sixteenths pure-bred for sale at all times. $20 crated for shipment.

MAPLE LAWN STOCK FARM

C. W. HODGE, MAPLE JUNCTION, WIS.

REGISTERED HOLSTEIN BULLS

For Sale—Several young bulls by Pontiac Beauty De Kol Segis, a grandson of King of the Pontiacs and King Segis. These bulls are out of high-testing yearly record cows. We breed for yearly production. Come and see my herd. H. D. Burger, Seneca, Kansas.

HOLSTEIN BULL CALVES

Sired by a 34½-pound bull, and from young dams with A. R. O. backing. Write for description and prices.

M. E. GUNDERSON & SONS

Oconomowoc - - - - Wisconsin

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON, KANSAS

$23 HOLSTEIN AND GUERNSEY CALVES $23

When in need of good high-grade calves, calves from good milk producers, well marked, crated and satisfaction guaranteed, send order or write

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REGIER'S HOSTEIN-FRIESIANS

For Sale—Young bulls, bred heifers and cows. All sired by the great bull, Sir Rag Apple Korndyke De Kol. Two cows will be fresh this month. Fourteen-thousand-pound milkers.

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RED POLLED CATTLE.

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.

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RED POLLED BULLS FOR SALE.

Address

R. C. BROWNLEE, HOLDEN, MO.

CHESTER WHITE HOGS

CHESTER WHITE HOGS

Five December boars ready for service, out of my grand champion sow, Tip Top. Spring pigs from other good sows for sale.

COLEMAN & CRUM, DANVILLE, KANSAS

GUERNSEY CATTLE.

GUERNSEY BULLS

Stock of May Royal, May Rose and Masher Sequel breeding, one to twelve months old. See our Duroc ad next week. Adams Farm, Gashland, Mo. Twelve miles from K. C.

THE STRAY LIST.

TAKEN UP—BY J. W. GATTSHALL, OF Smoky Township, Sherman County, Kansas, on the 30th day of April, 1918, one horse, color black with star in forehead, 15½ hands high. Doris E. Soden, County Clerk, Goodland, Kansas.

TAKEN UP—BY HARVEY A. REED, OF Gridley, Liberty Township, Coffey County, Kansas, on the 21st day of April, 1918, one steer, weight about 800 pounds; color red with white face. Brand CS on left hip. Appraised at $85. Geo. Bruce, County Clerk, Burlington, Kansas.

TO WHOM IT MAY CONCERN: TAKE notice, that the undersigned, who is a resident of Cedar Township, in Jackson County, in the State of Kansas, has this day taken up, and now has in his possession, in said township, as an estray, to be dealt with according to law, a certain stray steer found on his premises, and described below: Description of estray: Color, red; age, short two year old; marks, white tail and belly; brands, none. Dated this 20th day of May, A. D. 1918. Sanders Kennedy.

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wauwatosa, Wisconsin

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

REGISTERED HOLSTEIN BULLS

I have a few choice young bulls from my best record cows. They are splendid prospects for herd bulls and priced to sell.

BEN SCHNEIDER, NORTONVILLE, KAN.

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

CHOICE HOLSTEIN CALVES

High grade, beautifully marked, sired by registered bulls and from heavy milk producing dams, ten days old, $15; three weeks, $17; six months, $40. For thirty days only. First draft takes them.

Mt. Pleasant Stock Farm, Gilberts, Illinois.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.

H. B. COWLES, 608 Kan. Av., Topeka, Kan.

DUROC JERSEYS.

Otey's Durocs

Hercules 3d, a giant 900-pound boar in breeding flesh, and Pathfinder Chief 2d, the largest and smoothest of all the sons of the mighty Pathfinder, head our herd. Fifteen gilts bred for summer and fall farrow for sale. Write or come and see them.

W. W. OTEY & SONS, WINFIELD, KAN.

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. W. J. Harrison, Axtell, Kan.

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on fall boars and gilts, from Crimson Wonder, Golden Model, Illustrator, Defender breeding.

JOHN A. REED & SONS, LYONS, KANSAS

CHOICE IMMUNED DUROC BOARS

Sired by Taylor's Model Chief 126455, winner at American Royal and Missouri State Fair. Also gilts bred to Great Wonder and Pathfinder boars.

W. R. HUSTON - AMERICUS, KANSAS

Wreath's Durocs

A Choice Lot of Spring Pigs

Ship at weaning time. Priced in pairs or trios. Write or come and see my herd.

L. G. WREATH, MANHATTAN, KANSAS

WOODDELL'S DUROCS

Herd boar, Chief's Wonder, 75 spring pigs, priced for shipment at weaning time. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

MULEFOOT HOGS.

KNOX KNOLL MULEFOOTS

Still have a few choice pigs from big litters. For prices and catalog address

S. M. KNOX - HUMBOLDT, KANSAS



Wheat Prospects Improved

Wheat Prospects Improved

KANSAS may produce this year the third largest wheat crop in its history. No wheat crop ever grown has meant so much to this world as the crop soon to be harvested. All eyes are turned to Kansas, the great granary of the United States, where fully one-fourth of all the winter wheat in the whole country is approaching maturity.

In the State Board of Agriculture's report on the state's crop situation on May 18, the statement is made that, based on conditions existing on that date, growers estimate a prospective yield of 98,411,822 bushels of winter wheat this year, or an average yield per acre of 15.6 bushels, on the 6,302,224 acres of growing wheat as now reported by correspondents. It should be borne in mind, however, that the acreage figures are subject to revision later, when the official returns of assessors are received. Should this indicated yield be realized, the crop would be the third largest in the history of the state, the productions of 1914 and 1916 only exceeding it, according to the Board's records, and 137 per cent greater than the output of 1917.

There has been marked improvement in the wheat prospect as a whole in the past month, owing to abundant rains in the eastern two-thirds of the state immediately following the Board's canvass of conditions April 13. Much wheat then regarded as of such poor promise in certain portions that it would be abandoned will now be left for harvest. This gain, however, is more than offset by further losses in a number of counties prominent for large acreages sown, and especially in the western third. Here additional wheat perished because of lack of moisture. Recent high winds did much damage in a wide area and dried out the soil. Rains of the past week, however, have largely repaired the situation in the eastern and north central parts, but elsewhere moisture is needed. Probably no Kansas wheat crop has been more free from insects than the present one.

Of Kansas' prospective yield of more than 98,000,000 bushels of wheat this year, approximately 60 per cent, or 58,000,000 bushels, is promised in a block of twenty-six counties comprising the southern two-thirds of the central third of the state, and famed as the "wheat belt." Sumner County leads all others with a probable aggregate output of 4,072,628 bushels, followed in order by Barton, Reno, Pratt, Stafford, and McPherson, each with 3,000,000 bushels or more. Outside of this so-called "wheat belt" there are only twelve other counties that will likely produce a million bushels or more of wheat each—one to the west, four in the extreme northwest, two to the north, four in the northeast, and one in the southeast.

Counties reporting the highest prospective acre yields are in the southeast, Lyon leading with twenty-eight, followed by its neighbors on the east and west, Coffey and Chase, with twenty-five and twenty-four bushels respectively.

The average condition of the state's spring wheat is given as 90. Outside of about half a dozen northwestern counties very little spring wheat is grown in Kansas.

The prospect of oats continues flattering, although the present condition of 85.65 for the state is less than a month ago by five points. The counties having the larger acreages in oats range in average condition from 85 to 94, the latter, the highest, in Labette. The estimated area sown to oats this spring exceeds that of any other year and amounts to approximately 2,600,000 acres.

The condition of barley is rated uniformly as good, the general average for the state being 85.6 per cent. Of the 978,000 acres probably sown—an increase of 14.4 per cent over last year—practically all is in the western counties.

Reporters suggest that only about 80 per cent of the 8,800,000 acres it is expected will be devoted to corn, is planted, and that much of the planted corn has not yet made its appearance through the ground. It has been rather cool for corn, and in the extreme southeast too wet. On that account, and also because of damage by cut worms, considerable replanting has been necessary. Throughout the principal corn-growing regions, soil conditions as a whole have been quite favorable for planting and vigorous growth. The general average condition of the state's growing corn is 83.2 as against 79.3 a year ago, 100 representing a satisfactory stand and development.

Based on 100, the condition of the state's alfalfa is given as 88. The first cutting is being harvested in the counties of the south and east. A lighter yield than usual is promised in most localities, because of heavy frosts this spring following a period of growing temperatures, and the dry weather of 1917-1918. To the latter cause also may be attributed unsatisfactory progress of the grasses in the northeastern and western parts of the state; elsewhere meadows and pastures are reported in good condition.

Potatoes, especially in the Kaw River Valley district, are making good headway, and the outlook is encouraging.

Cochel Goes to New Job

The American Shorthorn Breeders' Association has just announced that one of the most important actions taken by its board of directors is the selection of W. A. Cochel, head of the animal husbandry department, Kansas Agricultural College, for the extension work of this association. His peculiar fitness for this important field is widely recognized. Mr. Cochel is an authority on live-stock breeding. He is a practical cattle feeder and his activity among the cattlemen of Kansas has been of unlimited value to the industry.

It was to a large extent through Mr. Cochel's efforts that the Bureau of Animal Husbandry at Washington co-operated with the Kansas college in the matter of founding a herd of high-class Shorthorns at the college farm for the purpose of carrying on a twenty-year breeding experiment. Probably no single venture in cattle breeding affairs has attracted such general notice as this. The cows which Mr. Cochel selected for this important experiment were carefully picked from good herds and represented the blood of the great sires of the present decade. While the impression has gone forth to a greater or less extent that these were milking Shorthorn cows, the fact is that they are beef cows, but it was also required that they show a fair amount of milk flow. It is of interest to note that one of these cows, Pride's Bessie, of intense Scotch breeding, has been admitted to the advanced registry as a dairy Shorthorn on the basis of her milk yield; and her bull calf was champion at the Central Shorthorn Breeder's sale at Kansas City in 1917. Several other cows of this group have shown remarkable milk production. In fact they are all making a most creditable showing. Yet, as stated, they all come from beef herds and are of the approved beef type. It will be recalled that for two years the Shorthorn steers sent out by the Kansas college were conspicuous winners in the most important shows. They were sired by Matchless Dale, that is reputed to have sired more prize-winning Shorthorn steers than any other bull living or dead.

Mr. Cochel began his college work at Purdue University as assistant to Dean Skinner and became very active among the practical cattlemen of Indiana. From Purdue he went to the Pennsylvania State College where he was instrumental in building up useful herds of Shorthorns and Angus at the institution and he centered the interest of cattle feeders upon more economical methods of feeding.

From Pennsylvania he came to Kansas, and his accomplishments here along the line of better standards and better methods in cattle feeding and breeding are of untold value to these interests,

not only in Kansas, but to the country at large.

Mr. Cochel has served as president of the American Society of Animal Production and the Federated Meat Producers' Association; he is also a member of the executive committee of the Kansas Live Stock Association and of the advisory committee of beef cattlemen for the United States Food Administration. It is to Mr. Cochel's credit that in these various connections his services have been attended by important and useful results.

He comes to the American Shorthorn Breeders' Association with a broad knowledge of the needs and possibilities of live stock improvement and the basic value of pure blood for economical production. His selection by the association is a most fortunate one and is in line with the policy of this association to draw to its working force men of recognized ability and constructive value.

Report on Packers

The advisory committee of twenty-three agricultural and live stock producers appointed by Secretary Houston and Food Administrator Hoover was in session for several days in Washington and their report issued on April 6 contains the following statement:

"While we neither forget nor condone past offences of the American beef packers, but, upon the contrary, insist on discontinuance of all forms of market immorality, we none the less advocate constructive rather than destructive practices in dealing with these great agencies of internal and international commerce. We recognize and cheerfully concede the fact that the packers may and should occupy a position of distinct economic advantage to the country in that their capital, extraordinary facilities for manufacture and distribution of meats, meat products and by-products, coupled with long experience and highly developed efficiency, should enable them to find markets and carry on distribution at home and abroad at a minimum average net cost of doing business.

"In order that the exceptional equipment of these great organizations may yield a maximum service to the country on terms alike to themselves, as well as to producers and consumers, we are of the opinion that Government supervision and control should be continued and extended in a businesslike manner, and that any unreasonable margin of profit standing between producer and consumer should be located and eliminated. We are further of the opinion that neither Government operation nor Government ownership is practical and advisable at this time."

Regulations Become Effective

Before Government regulations of the by-product feed business became effective, live-stock men, especially those milking cows and feeding hogs, had serious cause for complaint. Dairymen simply could not afford to buy the feed at the prevailing prices, and some herds were dispersed. In others roughage only was fed, which of course greatly reduced production. The fortunate individuals were those with plenty of good silage and good alfalfa hay. We are glad to note that feed movements are now much more direct. Round-about and expensive methods of getting feed from mills to the ultimate consumer have practically ceased and with the closer supervision now exercised, a more direct movement of feed stuffs is assured.

One of the principal causes of high prices of wheat feeds early last winter before control took effect, was the practice of re-sales within the trade. The majority of mills had over-sold their output and dealers began buying from one another. In one conspicuous instance, a lot of several hundred tons of feed changed ownership seven times. The first owner was also the sixth; and altogether seven profits were taken. In peace times re-sales within the trade were frequent on a rising market. It is believed that prices of bran last winter might have risen, in the absence of control, to $70 or more a ton, other feeds in proportion.

Now only one reasonable wholesale profit and one retail profit are permitted. If goods pass through more hands, the profit must be divided and the total cannot exceed the amount of the single profit allowed; but this does not mean that feed must pass through both wholesale and retail channels. On the contrary, the most direct course possible is sought.

Retailers frequently buy directly from the mill; consumers also may secure their feed at the mill door. In the latter case the mill is permitted to take only one reasonable profit, which is no more than is considered necessary to prevent disintegration of the business.

It should be remembered that the controlled prices for mill feeds are wholesale prices, for bulk car lots at the mill. Persons buying at retail, in small quantities or at a distance from the mill, should make allowance for sacks, handling and freight costs, in judging the fairness of feed prices.

The Food Administration also emphasizes the necessity for purchasers of feed to keep all bags. Those in good condition now have a return value. Demand for jute bags to be filled with earth or sand for lining trenches and other military purposes has gradually increased the value of all bags and makes conservation of the present supply extremely important.

Washing of soil on sloping land is best stopped by beginning at the top or head of the ditch and filling in with brush, straw, or any kind of crop residue. Driving stakes into the ditch at intervals or piling in rock will aid materially and stop the washing of the soil. Always dam the soil, but never attempt to dam the water, as it will invariably cut under or around the filler and the owner will not have accomplished his aim.

Kansas Fairs in 1918

The following is a list of the fairs to be held in Kansas in 1918, their dates (where they have been decided on), locations and secretaries, as reported to the State Board of Agriculture and compiled by Secretary J. C. Mohler:

Kansas State Fair, A. L. Sponsler, secretary, Hutchinson; September 14-21.

Kansas Free Fair Association, Phil Eastman, secretary, Topeka; September 9-14.

Allen County Agricultural Society, Dr. F. S. Beattie, secretary, Iola; September 3-6.

Allen County — Moran Agricultural Fair Association, E. N. McCormack, secretary, Moran; September 20-21.

Barton County Fair Association, Porter Young, secretary, Great Bend; first week in October.

Bourbon County Fair Association, W. A. Stroud, secretary, Uniontown; September 10-14.

Brown County — Hiawatha Fair Association, J. D. Weltmer, secretary, Hiawatha; August 27-30.

Clay County Fair Association, W. F. Miller, secretary, Clay Center; October 8-11.

Cloud County Fair Association, W. H. Danenberger, secretary, Concordia; August 27-30.

Coffey County Agricultural Fair Association, C. T. Sherwood, secretary, Burlington; October 4-9.

Comanche County Agricultural Fair Association, A. L. Beelery, secretary, Coldwater; September 11-14.

Cowley County — Eastern Cowley County Fair Association, W. A. Bowden, secretary, Burden; September 4-6.

Dickinson County Fair Association, E. W. Elwick, secretary, Abilene; October 1-4.

Douglas County Fair and Agricultural Society, C. W. Murphy, secretary, Lawrence.

Elk County Agricultural Fair Association, Fred R. Lanter, secretary, Grenola; August 27-29.

Ellsworth County Agricultural and Fair Association, George Inman Seitz, secretary, Ellsworth; September 17-20.

Ellsworth County — Wilson Co-Operative Fair Association, J. W. Somer, president, Wilson; September 24-27.

Franklin County Agricultural Society, L. C. Jones, secretary, Ottawa; September 24-28.

Franklin County—Lane Agricultural Fair Association, Floyd B. Martin, secretary, Lane.

Gray County Fair Association, C. C. Isely, secretary, Cimarron.

Greenwood County Fair Association, William Bays, secretary, Eureka; August 27-31.

Harper County—The Anthony Fair Association: L. G. Jennings, secretary, Anthony; September 24-27.

Haskell County Fair Association, Frank McCoy, secretary, Sublette; probably no fair in 1918.

Jefferson County—Valley Falls Fair and Stock Show, V. P. Murray, secretary, Valley Falls; September 18-20.

Labette County Fair Association, Clarence Montgomery, secretary, Oswego; September 18-21.

Lincoln County—Sylvan Grove Fair and Agricultural Association, W. H. Becker, secretary, Sylvan Grove.

Lincoln County Agricultural and Fair Association, Ed M. Pepper, secretary, Lincoln; September 10-13.

Linn County Fair Association, E. D. Bennett, secretary, Mound City.

Logan County—Inter-County Fair Association, F. W. Irwin, secretary, Oakley.

Marshall County Stock Show and Fair Association, C. J. Brown, secretary, Blue Rapids; October 8-11.

Meade County Fair Association, Frank Fuhr, secretary, Meade; September 3-6.

Mitchell County Fair Association, W. S. Gabel, secretary, Beloit.

Montgomery County Fair Association, Elliott Irvin, secretary, Coffeyville; September 17-20.

Morris County Agricultural Fair Association, H. A. Clyborne, secretary, Council Grove; August 6-9 (race meet only).

Nemaha Fair Association, J. P. Koelzer, secretary, Seneca; September 3-6.

Neosho County Agricultural Society, Geo. K. Bideau, secretary, Chanute; August 13-16.

Norton County Agricultural Association, A. J. Johnson, secretary, Norton; August 27-30.

Ottawa County Fair Association, J. E. Johnston, secretary, Minneapolis; August 13-16.

Pawnee County Agricultural Association, H. M. Lawton, secretary, Larned; September 25-28.

Phillips County—Four-County Fair Association, Abram Troup, secretary, Logan; September 10-13.

Pottawatomie County—St. Marys Racing Association, S. R. Santee, secretary, St. Marys; August 6-8 (race meet only).

Pottawatomie County Fair Association, C. Haughawout, secretary, Onaga; September 4-6.

Pratt County Fair Association, E. L. Shaw, secretary, Pratt; September 10-13.

Republic County Agricultural Association, Dr. W. R. Barnard, secretary, Belleville; August 20-23.

Rooks County Fair Association, F. M. Smith, secretary, Stockton; September 3-6.

Rush County Agricultural & Fair Association, T. C. Rudicel, secretary, Rush Center; September 3-5.

Russell County Fair Association, H. A. Dawson, secretary, Russell; possibly October 1-4.

Saline County Agricultural, Horticultural and Mechanical Association, F. D. Blundon, secretary, Salina; September 3-7.

Sedgwick County—Wichita Fair and Exposition, Chas. Mosbacher, secretary, Wichita; September 30-October 12.

Smith County Fair Association, Miles Elson, Secretary, Smith Center; September 3-6.

Trego County Fair Association, S. J. Straw, secretary, Wakeeney; September 16-21.

Wilson County Fair Association, Max J. Kennedy, secretary, Fredonia; August 20-24.

POLAND CHINAS.

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Sires in Service—Emma's Valentine 412453, Golden Searchlight, and Master Goods.

For Sale—Emma's Valentine 412453, Master Butterfly 10th 582866, and Secret's Valentine 648605. Real Herd Bulls.

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For Sale—Twenty gilts bred for summer and fall litters, sired by Expansion King or King Wonder II, bred to Wonder's Joe or King Wonder II. A few fall boars.

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A choice lot of September and October boars. One real herd boar prospect. Fifty bred sows and bred gilts. 250 spring pigs. Write or come and see us.

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FASHIONABLE STOCK PLACE POLANDS

Herd headed by Big Wonder. This outstanding son of Big Bob Wonder was first in junior yearling class at Topeka and second at the National Swine Show in competition with the world. Breeding stock for sale at all times. Immune. Satisfaction guaranteed.

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For quick sale, fifteen fall gilts, sired by Giant Joe, sold open and priced $35 and $40. First check or draft gets choice. I have eighty-five spring pigs and need the room.

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Poland China Fall Boars

For quick sale, several fall boars sired by Buster Over, the Indiana grand champion, and W's Giant, one of the big boars in the East. These pigs have size and quality and will be priced reasonably.

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REDFIELD'S SPOTTED POLANDS. Booking orders for spring pigs. Well spotted, choice boars. Priced for quick sale. CHAS. H. REDFIELD, Buckiln, Kansas.

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For sale quick, five September and October fall boars, large, well grown, sired by Jumbo Bob, he by Big Bob Wonder. Priced to sell. We need the room for our 100 spring pigs. Write or come at once.

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40 REGISTERED COWS
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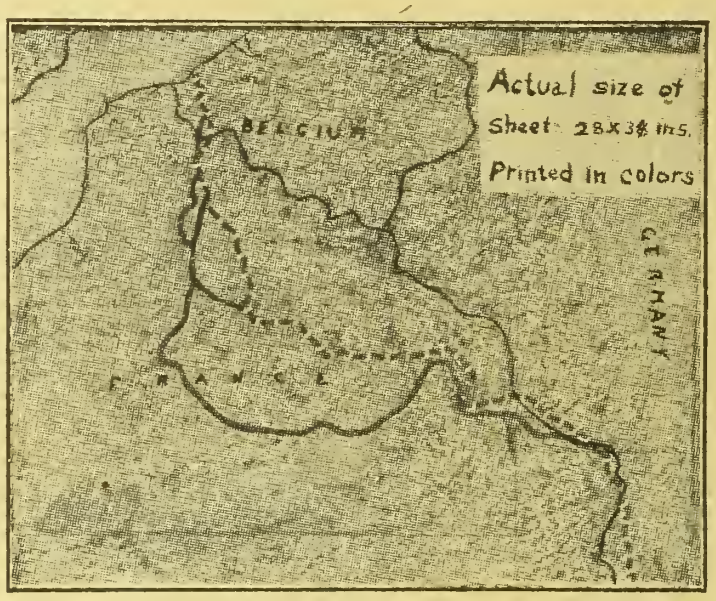

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For the improvement of the Farm and Home

Volume 56, Number 23. TOPEKA, KANSAS, JUNE 8, 1918. Established 1863. $1 a Year

LAMB FEEDING RETURNS PROFITS

Shelled Corn and Alfalfa Hay Most Profitable Ration Fed

SHELLED corn and alfalfa hay returned a profit of 40 cents a lamb and a value of $1.94 for each bushel of corn fed in an experiment just closed at the Kansas Experiment Station. This was the most profitable of the five lots fed. The rations were as follows:

Lot 15, shelled corn and alfalfa hay crowded; Lot 16, shelled corn and alfalfa hay; Lot 17, shelled corn, sweet clover and silage; Lot 18, shelled corn, alfalfa hay and silage; and Lot 19, whole kafir grain and alfalfa hay.

The lambs in Lot 15 were fed all the feed they would consume from the beginning of the experiment, and were off feed several times. The other lots were started slowly and were gradually increased to full feed. There was no loss in any of the lots.

The corn used in the test was figured at $1.68 a bushel, kafir at $3.50 a hundred, or $1.96 a bushel, alfalfa and sweet clover hay at $25 a ton, and silage $8 a ton.

Sixty lambs were fed in each lot. In making the division, care was taken to have the lots as nearly uniform as possible. The three hundred lambs fed were from New Mexico, and were purchased on the Kansas City market last fall at $16 a hundred.

At the close of the experiment the final or market value of the different lots was estimated by the sheep salesmen of Clay Robinson & Company, Kansas City, Missouri. In calculating the profits, freight to and from the feed lot, commission, yardage, and a five-pound shrinkage on each lamb was deducted.

The lambs in Lot 15 weighed an average of 60.5 pounds when put on feed. They consumed an average daily ration of 1.46 pounds of shelled corn and 1.54 pounds of alfalfa hay. At the close of the feeding period, they weighed an average of 86.3 pounds, having made an average daily gain of .44 pounds. It cost $14.67 to make 100 pounds of gain.

The lambs in Lot 15, fed shelled corn and alfalfa hay and crowded from the start, returned a value of $1.81 for each bushel of corn fed.

Lambs in Lot 16, fed shelled corn and alfalfa hay and put on feed gradually, returned a value of $1.94 a bushel for corn fed.

In Lot 17 the lambs fed shelled corn, sweet clover hay, and silage, returned a value of $1.69 a bushel for corn fed.

Lambs in Lot 18, fed shelled corn, alfalfa hay, and silage, returned a value of $1.84 a bushel for corn fed.

In Lot 19 the lambs fed whole kafir grain and alfalfa hay returned a value of $1.62 a bushel for kafir fed.

Alfalfa and sweet clover were charged at $25 a ton; silage, $8 a ton; corn at $1.68 a bushel, and kafir at $3.50 a hundred, or $1.96 a bushel.

The lambs in this lot were graded as choice, and valued at $17.30 a hundred, making a net profit of $.21 on each lamb, or returning $1.81 per bushel of corn fed.

Return $1.94 per Bushel

The lambs in Lot 16 weighed an average of 61.2 pounds when put on feed. They consumed an average daily ration of 1.42 pounds of corn and 1.76 pounds of alfalfa hay. At the close of the feeding period, they weighed an average of 87.8 pounds, having made an average daily gain of .44 pounds. It cost $14.56 to make 100 pounds of gain. The lambs in this lot were graded as prime and valued at $17.45 a hundred, making a net profit of $.40 a lamb, or returning $1.94 for each bushel of corn fed.

The lambs in Lot 17 weighed an average of 61.2 pounds when put on feed. They consumed an average daily ration of 1.37 pounds of corn, 1.02 pounds of sweet clover hay, and .81 pound of silage, At the close of the feeding period, they weighed an average of 83.7 pounds, having made an average daily gain of .37 pound. In this lot it cost $15.22 to make 100 pounds of gain. They were graded as choice and were valued at $17.30 a hundred pounds, making a net profit of $.02 for each lamb, or returning $1.69 for each bushel of corn fed.

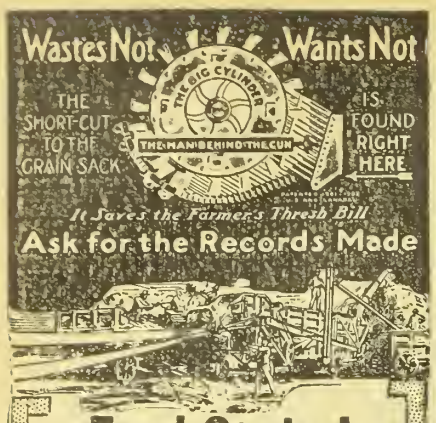
The lambs in Lot 18 weighed an average of 60.4 pounds when put on feed. They consumed an average daily ration of 1.37 pounds of corn, .95 pound of alfalfa hay, and .81 pound of silage. At the close of the feeding period, they weighed an average of 83 pounds, having made an average daily gain of .39 pounds. In this lot, it cost $14.37 to make 100 pounds of gain. They were graded as choice and valued at $17.30 a hundred, making a net profit of $.23 each, or returning $1.84 for each bushel of corn fed.

The lambs in Lot 19 weighed an average of 59.9 pounds when put on feed. They consumed an average daily ration of 1.39 pounds of whole kafir grain and 1.74 pounds of alfalfa hay. At the close of the feeding period they weighed an average of 84.8 pounds, having made an average daily gain of .41 pounds. In this lot, it cost $16.98 to make 100 pounds of gain. They were graded as good, and valued at $17.15 a hundred, making a net loss of $.50 on each lamb, or returning $1.62 for each bushel of kafir fed.

Many horsemen are so dubious about the future prospects of the horse industry that the number of colts in some districts has been materially reduced. While it is true that in cities a vast number of motor-driven vehicles are doing the delivery work formerly done by horses, and that the tractor and the truck have invaded the rural districts, yet the prospects are that within a short time there will be a greater demand for horses than the available supply can satisfy. This is due to the fact that large numbers of horses are being slaughtered in war and at the same time horse production abroad has practically ceased. The person who raises colts at this time will without doubt realize prices for them at maturity which will repay him well for the feed and care involved. In view of the fact that a number of people are discouraged, it would seem that now is the time to stay in the game. The old rule that it does not pay to follow the crowd might be applied here, and if the crowd is inclined to quit the horse business it is very possible that the few who have nerve enough to continue will be well repaid.



THE BREEDING FLOCK ON THE EXPERIMENT STATION FARM IS GRAZED ON THE CAMPUS AND ALONG THE ROADSIDES AND OTHER WASTE PLACES.—TWO SMALL BOYS ACT AS HERDERS AND KEEP THE SHEEP FROM DOING DAMAGE



Food Control Begins at the Thresher

SAVING grain means saving the nation's food. Too many threshers have been losing grain in the straw stack. Save all your grain this year—make more money and have your crop do more to help the food problem. Buy or hire a

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and note the way the famous "Man Behind the Gun" and the Beating Shakers *beat out* the grain. Other threshers simply allow the grain to drop out.

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Stack Your Hay The Easiest Way *the Jayhawk*



Stackers and Sweep Rakes
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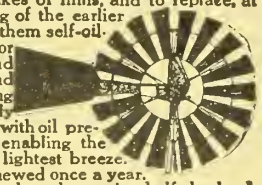
has become so popular in its first three years that thousands have been called for to replace, on their old towers, other makes of mills, and to replace, at small cost, the gearing of the earlier Aermotors, making them self-oiling. Its enclosed motor keeps in the oil and keeps out dust and rain. The Splash Oiling System constantly floods every bearing with oil preventing wear and enabling the mill to pump in the lightest breeze. The oil supply is renewed once a year. Double Gears are used, each carrying half the load.



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FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

THE President, by a proclamation signed May 14, 1918, requires all individuals, partnerships, associations and corporations, except those specifically exempted by the Food Control Act, engaged in the importation, manufacture, storage and distribution of tools, utensils, implements, machinery and certain other farm equipment, to secure federal licenses not later than June 20, 1918.

The Secretary of Agriculture is directed to carry out the provisions of the proclamation and the regulations thereunder. Licensees are required to furnish information regarding their businesses whenever it is thought necessary by representatives designated by the secretary, and must permit such representatives to inspect the property and records pertaining to their business. Information obtained in this manner is not to be disclosed without authority. Unjust profits, resales within the trade without reasonable justification, attempts to monopolize, unreasonable increase of prices or restriction of supplies, and willful waste of farm equipment are prohibited. Also, licensees are forbidden to sell farm equipment to persons known to have violated the Food Control Act.

Applications for licenses must be made to the Law Department, License Division, United States Food Administration, Washington, D. C., upon forms prepared for that purpose.

To assist in the enforcement of the regulations, the Secretary of Agriculture has appointed Junius F. Cook, of New York, as assistant to the secretary. Mr. Cook is to act as the immediate representative of the secretary in the execution of the powers conferred upon the Secretary of Agriculture by the President's proclamation.

Farm Implement Retailers

Retailers of farm equipment are not required to secure licenses, as are manufacturers and jobbers, but they must not profiteer. A statement from the U. S. Department of Agriculture following the President's proclamation of May 14, points out that the provisions of the Food Control Act of August 10, 1917, under which the proclamation was issued bringing under license the manufacture, importation, distribution and storage of tools, implements, machinery and certain other farm equipment, expressly exempt retailers as such from the licensing requirements and define a retailer as "a person, co-partnership, firm, corporation, or association not engaging in the wholesale business whose gross sales do not exceed $100,000 per annum." However, under the provisions of the Food Control Act, retailers will not be allowed to profiteer; under the regulations issued with the President's proclamation retailers engaging in such practice will not be able to secure a supply of farm equipment.

The regulations provide that a license shall not, without the express sanction of the Secretary of Agriculture, sell any farm equipment to any person engaged in the business of selling or utilizing such equipment, if the licensee has knowledge that such person, after the regulations became effective, has violated the provisions of the Food Control Act by making an unjust or unreasonable rate or charge in selling or otherwise handling or dealing in such equipment or by holding, contracting for, or arranging for a quantity in excess of the reasonable requirements of his business for use or sale by him for a reasonable time.

Bankers for Good Roads

The Kansas Bankers' Association, at their annual convention at Hutchinson, May 21-22, passed the following resolution:

Resolved, that we endorse the state-wide campaign of education looking to the building of 365-day roads on all of the Federal Aid and main market highways in Kansas. We realize that war conditions will hinder the construction of these roads but we approve the program of doing the preliminary work at this time so that actual construction may begin without needless delay as soon as war conditions will permit or justify.

This is a sensible and patriotic stand to take on this big campaign in Kansas that will some day mean the starting of a road-building program that will lead to the construction of many thousand miles of hard roads. While Kansas leads all but four states in the matter of value of farm products, she stands almost at the foot of the list in the matter of 365-day roads.

As a rule it requires from ten to eighteen months to do the preliminary work of securing petitions, checking and approving same, surveying, making estimates and state and federal inspections and building grades, culverts and bridges before the hard surface can be constructed. With so much time required to "get ready," every friend of good roads believes that now is a good time to secure the petitions and start preliminaries.

Farmhouse Conveniences

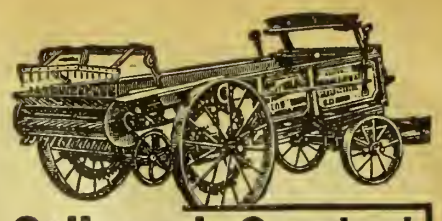
The modern conveniences can today be had in the country and they do much to make the home more pleasant as well as more sanitary. A water system for instance that makes it possible to have water by merely turning a faucet, cuts out a lot of hard work and it also results in more water being used. The water supply makes possible the bathroom and indoor toilet. A furnace keeps the whole house warm and all the muss is kept in the basement. Then again any kind of fuel can be burned in most furnaces. The electric light is another great convenience but it does not save as much work and add so much to health as the water and furnace. One sick spell may cost enough for installing a water system or furnace. One funeral will certainly cost as much.

Man has taken much of the drudgery out of farm work by using labor-saving machines and the modern conveniences now available for the farm home will take much of the drudgery out of woman's work as well as add much to the health and comfort of all members of the family.

Size Shafting to Use

In small shops employing short shafts the following method may be employed to determine the correct size of shafting. Take fifty times the horsepower to be transmitted and divide the product by the speed of the shaft in revolutions per minute. Extract the cube root of the quotient. The result is the shaft diameter in inches.—L. S. FOLTZ, Colorado Agricultural College.

Knocking of a motor engine may be caused by overloading, loose bearings, or carbon deposits.



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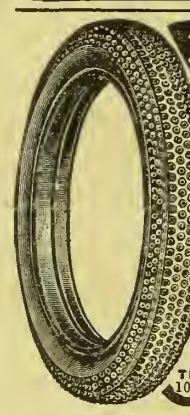

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	ELEMENT	EVERY DAY	EVERY 500 MILES	EVERY 1,000 MILES	EVERY 2,000 MILES
ENGINE PARTS	Oil reservoir	Examine or replenish with engine oil			
	Fan bearings	Engine oil or grease			
	Valve stems	Engine oil			
	Water pump bearings	Grease			
	Magneto	Engine oil			
	Electric starter		Engine oil	Grease	
CLUTCH	Lever bearings of foot-pedal		Engine oil		
	Cone clutch bearings		Grease		
	Cone clutch leather surface			Neatsfoot oil	
	Multiple disk clutch			Clutch oil	
TRANSMISSION	Friction drive	Engine oil	Grease		
	Gear shift lever		Engine oil		
	Gears		Gear oil	Grease	
	Planetary—Ford	Oil supplied automatically by engine oiling system			
UNIV. JOINTS			Gear oil	Grease	
DIFFERENTIAL	Gears		Gear oil	Grease	
CHAIN DRIVE	Driving chains	Gear oil		Clean and soak in hot tallow and graphite	
	Sprocket bearings	Grease			
STEERING GEAR	Knuckles	Grease			
	Rods	Engine oil	Grease		
	Worm and sector		Grease or gear oil		
	Top of post			Engine oil	
BRAKES	All bearings		Engine oil	Grease	
SPEEDOMETER				Grease	
SPRINGS	Spring end and shackle bolts	Grease	Engine oil		
	Spring leaves				Grease
WHEELS	Front and rear				Grease

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DRAFTING LABOR.

We have gone a long way in curtailing what is commonly spoken of as personal liberty in the short period we have been engaged in the war. Now comes an order compelling men of draft age to get into some employment contributing to the general good or else be inducted into the military service. This order, which comes from the Provost Marshal General's office and is issued in connection with administering the selective draft act, even enumerates some of the classes of employment which are to be considered as non-useful. Pool hall loafers, employees or attendants of bucket shops and race tracks, persons engaged in serving food and drink, operators of passenger elevators, doormen, footmen, and other attendants of clubs, hotels, stores, apartment houses, office buildings, and bath houses are included and a number of other occupations of similar nature.

Those who have seen their sons drop out of occupations unquestionably essential and go as soldiers will welcome this order directed toward men working in non-essential occupations. If it is honestly administered it will put the professional loafer into the uniform or make him get into some occupation essential to the war. The principal of the selective draft act is universal liability to service. The passage of the act is one of the remarkable things done by this country in preparation for war. It is not merely a means of picking out by lot or chance enough men for service in the army. That is the highest possible service in terms of personal sacrifice, but every true citizen of this nation, whether of draft age or not, is obligated to fall into line and get busy where he can do the most good. If he refuses to accept this obligation voluntarily, this order from General Crowder's office will compel all men of draft age to either work where their work will count the most or get into the uniform and fight.

SOLDIERS MOVING TO THE FRONT

For a period of two or three weeks soldiers have been moving east through Kansas by the trainload, all eager and excited at the prospect of action at the front in the near future. At the camps and all along the line fathers, mothers, sisters, wives, and sweethearts, have been bidding their soldier boys God-speed.

It has torn the heartstrings to give up the boys, and even though inspired by the highest feelings of patriotism and devotion to our country and the ideals for which it stands, it is but natural for mothers, wives, or sweethearts, to cling to their sons or husbands and wish in their hearts that they might have them at home for a few days or weeks before they leave for the battlefield. But every day is precious in preparing these citizen soldiers of ours to meet the enemy. Some of the boys who have recently left Camp Funston have had less than a month's training. We happen to know of one such instance, where a father and mother, after only the briefest opportunity to bid the boy farewell, expressed as their deepest regret the fact that he has had so little military training before being sent to battle with the most scientifically organized and trained armies the world has ever known. These parents have no patience with that demand which is being fostered for furloughing the boys back to the farms for a few weeks. In their minds the demand to have the boys sent home to help harvest the crop is not born of true, unselfish patriotism, or even sensible love for the boys, because the better they are trained the better they will be prepared to take care of themselves.

War is a horrible business. It is kill or be killed, and in addition to more quickly bringing the victory through fitness to wage war effectively, the individual soldier who is thoroughly trained is far less apt to be killed or seriously wounded. Those who love their boys and men unselfishly will not wish them to be deprived of a single hour of training, hard as it may be to forego having them home for a few days or weeks before they leave for the front.

CONSERVATION THROUGH CANNING

We have gone entirely too far in this country in our specialization of industries. Even farm families have been too much in the habit of buying their various food products ready prepared instead of utilizing their raw materials at home to the extent of at least supplying the needs of the family. The heavy demands made upon our transportation facilities and special demands upon certain branches of industry as a result of war have brought us face to face with this weakness in our industrial system.

Canning clubs are becoming a potent factor in overcoming this tendency to purchase our foods ready prepared. We have in Kansas nearly 300 mother-daughter canning clubs, having an aggregate membership of 15,000. It is the avowed purpose of these clubs to can and save the surplus products. Nearly a million quarts of vegetables, fruits and meats will probably be canned by these clubs this year. In 1917 more than 750 tons—500,000 quarts of products—were preserved for home use by the 8,000 members of 199 clubs.

The canning of vegetables is the big conservation measure of the canning club program, because vegetables can be produced during the garden season greatly in excess of immediate needs. An enormous waste takes place every year because the surplus cannot be consumed. During the remainder of the year we have been buying in canned form at high prices the very products that have gone to waste. Frequently these products have been shipped long distances.

Meats are also being successfully preserved by these canning clubs and this adds to the possibilities in the way of conservation. By following carefully the instructions now available it is possible to can almost anything.

Kansas boasts not only the oldest mother-daughter club in the United States, but the largest, these being the Glenwood and the Wichita clubs respectively. Let the good work go on. This is one way of cutting out the tremendous waste of energy and effort between the grower of the crop and its consumer. Under our extravagant system fully one-fifth the cost of living for the average American family is freight and express.

HOGS AND CORN.

The promise of last November to make a 13 to 1 hog-corn ratio the policy of the Food Administration was reiterated by J. P. Cotton of the Food Administration in his address before the Cattle Feeders' convention in Manhattan May 17. Mr. Cotton again pointed out that it was only a statement of policy, but in pursuance of that policy he proposed to use to the utmost the influence of his buying power for the Allies and our own army and navy and to maintain the ratio of a hundred pounds of pork, average packers' droves, for the price of thirteen bushels of corn.

From a fourth to a third of our total pork products are required by our Allies and the army and navy of the United States, and in the placing of orders for these supplies from month to month Mr. Cotton proposes to hold the prices of the 1918 farrow to the promised ratio. He called attention to the fact that the packing houses are operating under Government license and are restricted to a profit of 2½ per cent on their total sales of meat products and that further limitations have been applied to the Big Five. Through this limitation of profits it is assumed the packers can be so regulated as to prevent their manipulating prices either for their raw material or for the finished product. We gathered from Mr. Cotton's remarks that he thought the price of corn was too high as compared with wheat, but he is opposed to any further attempts at actual price fixing and especially as applied to live stock.

Mr. Cotton reminded his audience that we have done two things remarkably well; namely, the raising of the army through the selective draft law, and the feeding of our Allies. He gave the patriotic and intelligent farmers of the country a large measure of credit for making it possible to keep the stream of food supplies going to our Allies and the suffering peoples of Europe.

The 13 to 1 ratio does not offer large profits to the producer of hogs, but it will permit the hog man to go on producing. As Mr. Cottle stated in regard to cattle feeding, the Food Administration cannot be expected to protect against foolish buying or the practice of extravagant methods. The Kansas Experiment Station has just reported on an experiment in hog feeding in which the corn fed returned a value of slightly over two dollars a bushel. It was supplemented, however, by such feeds as pasture, shorts, and tankage. It is almost never possible to feed straight corn to hogs and make a profit. While this 13 to 1 price is not especially generous, it is enough to leave a small margin, providing the hog man uses every means within his power to economize and reduce the cost of production. It is a time in every walk in life and in every phase of production to strive for the utmost economy.

RATES FOR HARVEST LABOR

Lower railroad rates for harvest labor was pointed out at the state labor meeting in Salina May 25 as a means of making it much easier to secure labor from all parts of the country for saving the hundred-million-bushel wheat crop in Kansas which is rapidly approaching maturity. State Farm Labor Administrator E. E. Frizell had previous to this meeting pulled every wire he could think of in the effort to bring about some concessions in railway rates for harvest help, even going to Secretary McAdoo direct. The question came up at the state labor meeting, and a demand was made for special harvest hand rates in the form of a resolution. On another page we print the resolutions passed at this meeting.

Following the Salina meeting a message embodying the demand for rates was prepared and sent to Washington, being signed by State Farm Labor Administrator Frizell, H. J. Waters of the Kansas City Weekly Star, President W. M. Jardine and Dean Edw. C. Johnson of the Agricultural College, H. M. Bainer, agricultural commissioner of the Santa Fe Railroad, and A. L. Barkman, regional director of farm labor for the United States Department of Labor.

We have more and better machinery for handling the harvest labor situation than ever before. Every effort has been made to get this machinery in the best of running order in advance of the emergency which the harvesting of the big wheat crop brings. The effectiveness of the organization work that has been done remains to be seen. We are very hopeful that the results will be most favorable, and that labor will be forth coming as the demand develops. With the heroic example of our Allies before us we certainly should be able to save the crop that has been grown.

President Wilson's War Savings Proclamation

THIS war is one of nations, not of armies, and all of our one hundred million people must be economically and industrially adjusted to war conditions if this nation is to play its full part in the conflict. The problem before us is not primarily a financial problem, but rather a problem of increased production of war essentials and the saving of the materials and the labor necessary for the support and equipment of our army and navy. Thoughtless expenditure of money for non-essentials uses the labor of men, the products of the farms, mines and factories and overburdens transportation, all of which must be used to the utmost and at their best for war purposes.

The great results which we seek can be obtained only by the participation of every member of the nation, young and old, in a national concerted thrift movement. I therefore urge that our people everywhere pledge themselves, as suggested by the Secretary of the Treasury, to the practice of thrift to serve the Government to their utmost in increasing production in all fields necessary to the winning of the war, to conserve food and fuel and useful materials of every kind, to devote their labor only to the most necessary tasks and to buy only those things which are essential to individual health and efficiency and that the people as evidence of their loyalty invest all that they can save in Liberty Bonds and War Savings Stamps. The securities issued by the Treasury Department are so many of them within the reach of everyone that the door of opportunity in the matter is wide open to all of us. To practice thrift in peace time is a virtue and brings great benefit to the individual at all times. With the desperate need of the civilized world today for materials and labor with which to end the war, the practice of individual thrift is a patriotic duty and a necessity.

I appeal to all who now own either Liberty Bonds or War Savings Stamps to continue to practice economy and thrift and to appeal to all who do not own Government securities to do likewise and purchase them to the extent of their means. The man who buys Government securities transfers the purchasing power of his money to the United States Government until after the war and to that same degree does not buy in competition with the Government.

I earnestly appeal to every man, woman and child to pledge themselves on or before the twenty-eighth of June to save constantly and to buy as regularly as possible, the securities of the Government, and to do this as far as possible through membership in War Savings Societies. The twenty-eighth of June ends this special period of enlistment in the great volunteer army of production and savings here at home. May there be none unenlisted on that day.

(Signed) WOODROW WILSON.

AMERICA'S RACE WITH GERMANY

Immediate Duty to See That Our Allies and Our Own Army Are Fed

From Address of DR. RAY LYMAN WILBUR, President Leland Stanford University

THE world stands breathless today watching the greatest race in all human history, the race between the United States and Germany, Germany trying to close up the war before America can get into it, and America trying to get in before it is too late. Those dread words, "Too late," we have heard altogether too often in this great crisis. Lloyd George said, "England too late at Gallipoli, England and France too late to save Serbia," and we ourselves with England and France were too late to save Northern Italy or to keep Russia from going into complete collapse. Must we again be too late in this great crisis? President Wilson tells us that this is the critical year of the war. Not that the war will end this year — far from that, for he knows better than we that peace this year would mean a German victory, the crime of all the ages. The only short way possible out of this war with a victory for us would be the finding of a complete solution for the submarine, and that has not been obtained. We must fight our way out with men. Our program is a program of the future. It takes time to prepare for war. Our safety now as a nation depends upon the integrity of the peoples of Great Britain, France and Italy.

At this critical period, while we are training our armies and manufacturing instruments of war and building ships, our civilian population is fighting the battle of America in the front line trenches. Upon them and what they do now and hereafter in relation to the food and other problems depends the outcome of the war. Three times a day at the table you can fight the submarine, by helping to defeat its object. Its object is to prevent the bringing up of the men, food and supplies needed for the western front, along the slender thread of ships stretched across the Atlantic and on which the life of this nation is now suspended. These are the most momentous days since those of the Man of Galilee. On the other side of the water those fighting our battles look to us and say, "When will America be ready to put her full force into this war? How long can we hold the line and wait for her to prepare?" We must realize that we can no longer send explanations to France and England. We must send food and men and guns. We have not measured up to our possibilities, and the only way we ean ask them to go on into more years of bloody war is to show them that we are coming, that our eyes are open to the world danger and that we will see the war through to a final victory, no matter what the cost or how long it may take.

Americans must face their duty, harsh and disagreeable as it may be. They must realize that they came late into the war because of their inability to see its outstanding features more clearly at an earlier date. We are as yet a great amateur nation, untrained in large world problems. We have acted somewhat like the big, athletic boy who is slated for a contest with a professional, and who spends some of the time he ought to put in on training every muscle and every nerve hoping that the professional will die of heart disease before the contest comes off. We have hoped that Germany would collapse internally, have talked of peace, of starvation and submarine crew mutinies, of strikes, etc., instead of unitedly getting ready every minute of every day. It has been necessary for us to think in new terms. It took us months to see our danger and the danger to democracy and to civilization. We must act faster in the future, or Might may win the world. How many Americans realize today that unless we put Serbia back on her feet, every square foot of her territory, Serbian territory again, we will have lost the war and Germany will have won it? Germany started this war to get Serbia.

Germany now has realized her dream of Middle Europe. She sees Europe almost within her grasp. Victory has followed victory as she has sent her armies to various parts of Europe, and now we have the supreme period of the war and soon the world will have a decision based largely upon what we do as to whether it shall be ruled by the Golden Rule of Christ or the military rule of a prince maintained by the bayonet and bomb.

Our immediate pressing duty is to see that the peoples and armies of Great Britain, France and Italy are fed, so that they will not collapse as Russia and as Finland have done because of the disorganization due to German propaganda, injustice and, above all, lack of food. It is imperative that we save and send wheat and other foods absolutely required in Europe during the months before the next harvest. We cannot do it unless we stop using them here. We must realize that food is the weapon with which America is going to be able to maintain a position in this war long enough to win it. We are not asking that food be saved to save money, but to save the lives that will win the war. Think of our problem when you realize that shortly before this great German offensive the limit upon our export of wheat reduced the bread allowance of the French people to practically two-thirds of that hitherto maintained.

No Time to Talk of Profits

This is no time to talk of money or of profits, for the world is using a new medium of exchange today, in order to obtain that liberty, freedom and justice which it demands. That medium of exchange is the precious blood of men and boys, the best that we have, and we are sending them by the hundreds, yes the hundreds of thousands. They go forth singing: "As He died to make men holy, let us die to set men free." The man who comes out of this war with one dollar more than he had when it began has taken it from the blood of the men who died for him. May God forgive him. The American people never will.

Reviewing the work of the Food Administration, my mind naturally reverts to the early problems of its organization. Knowing then the probable crop shortage, the imperative needs ahead, a method of saving food suitable to the American people was vital. An appeal to its idealism was decided upon. Certain factors had to be considered. Control of consumption must be either by rationing, by high prices or by voluntary effort. An early introduction of rationing into this country would have resulted in an inevitable reaction, because of our surplus of food. Besides, on the basis of the rationing systems adopted by the European countries for certain staple foods, it would demand about $400,000 per month, or $4,800,000 per year for the printing of the necessary ration cards. Aside from the necessary preliminary inventories and inspections, it would take about one official for every one thousand families to take care of this distribution. This would necessitate a salary roll of something like $20,000,000 a year. In fact, on the European basis, about $45,000,000 a year would be required for expenses of the rationing system applicable to staple foods. The control of consumption by high prices was too unfair to merit consideration in such a country as ours. It means conservation for the rich at the expense of the poor. The voluntary system, based upon widespread educational and publicity eampaigns was selected because of the moderate expenditure—$2,000,000, and the opportunity offered to use the great surging desire of the loyal American to serve his country!

Saving in Wheat

The success of the food conservation campaign and the enormous volume of saving brought about through the war spirit and self-sacrifice of the American people can now be measured with considerable accuracy.

The surplus of the 1917-18 harvest based on normal consumption was 20,000,000 bushels. Up to the time of the advent of the 1918 harvest, if the present rate of saving by the American people continues, we will be able to deliver abroad 150,000,000 bushels of wheat. By this remarkable effort we will have satisfied the Allies in their most pressing bread needs.

Exports of Pork and Beef

Careful analysis of the figures in regard to hogs indicates that we were five to seven million hogs short at the period when the conservation program was started with the American people. The average export of hog products per month was roughly estimated at 55,000,000 pounds before the European war. In the last half of the year 1917, because of the decrease in the number of hogs in the country, it fell below the somewhat increased level due to war demands. In March, 1918, we were exporting 300,000,000 pounds per month and can see our way clear, with the present saving and production, to go forward at this rate for an indefinite period. We have now in storage 1,100,000 pounds of pork products which provides an ample reserve for a steady flow to meet the allied demands as well as the demands of this country. This represents wholly the voluntary conservation of the country, as it does not reflect the present increase in the hog population.

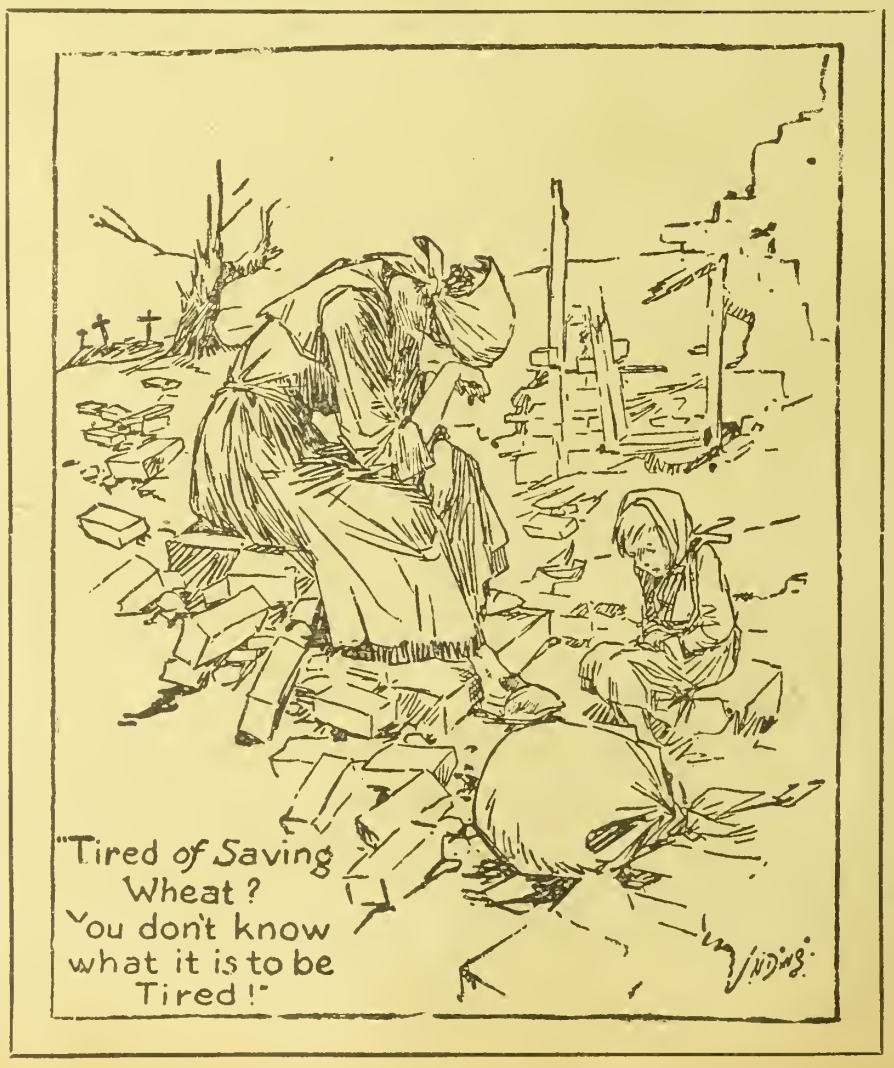
Before the war we were exporting two to three million pounds of beef monthly. After the European war began there was an increase of 23,000,000 pounds per month. Now we are exporting 130,000,000 pounds of beef per month and with the continuation of conservation and production, there is no reason for anticipating other than a continuation of this vital program.

The Food Administration began its preliminary work in May a year ago as part of the fighting program of the United States. It set as its goal the provisioning of the armies and peoples of the governments associated with us in the war. There have been necessary adjustments on both sides. France aud England have recently reduced their already lowered food consumption in order to make ships available for the sending of our troops abroad. If the American people continue their present voluntary food-saving plan and Nature is kind to us in the coming harvest, we can not only care for the needs of our own people and our army and navy, the needs of the fighting armies in Europe and the civilian population back of them, take care of such of the famished people in the war zones as are available by the existing shipping, but can build up the necessary reserve of food absolutely vital for future success.

The winning of the war depends upon the development of great offensive strength on the part of the United States. This offensive must include ships, men, supplies and food. With the inerease in the size of our army, there is a necessary decrease in our productive capacity in food. Harvests are bound to vary with seasonal changes. The only safe procedure for us and for the Allies is to provide enormous reserve stocks of staple foods both in Europe and here to meet any emergency. In a later period of the war, to have to stop in a critical phase of it in order to put unusual emphasis upon agricultural production might be fatal to our final success. There must be no let-down in the program of conservation with the new harvest. Heartened by our success and by the spirit of devotion and self-sacrifice shown by the American people, we must go ahead more than ever convinced of our responsibility to those who fight with us and to those unfortunate peoples who look to us as the only source of the food supply necessary to keep them from destruction. We have to keep the plate of the soldiers of the allied armies full. That is the ultimate goal to be attained by the food-saving program of the American people.

Pledged to War of Victory

We must realize that we are deeper in this war than any other nation, for we have said, through our President, that our peace is to be with the German people, not with the Hohenzollern. We have then the problem of providing the additional offensive strength needed to defeat the greatest war lord in history with millions of trained veterans under his control. To do this we must see the issues clearly and back up those at the front by our actions each hour of each day. The morale of the fighting armies will settle this war. We must see that the morale of our men and that of those who fight with us is kept at high tide. We can do so if they can feel our support all of the time. Now is the great opportunity of the American people to demonstrate that our form of government is a success. If we do not all of us, at once, voluntarily and willingly get behind those who fight and die for us, in every phase of our life, and now particularly realize that wheat is powder to win the war, then we are going to fail in this, our immediate pressing duty, and be a despised and humiliated nation. Six months from today we must be a great united democracy fighting our way forward toward a final victory.



SILAGE FEEDING EXPERIENCES

Cattle Feeders, Dairymen and General Farmers Report Favorably on Silo

FULLY 95 per cent of the 184 customers replying to a series of questions submitted by a well-known silo company reported most satisfactory results. In all 600 letters were mailed the latter part of February to men in Missouri, Kansas, Oklahoma, Arkansas, and Colorado, asking their experience with their silos. The object of these questions was to get just as many replies as possible, stating the number of acres of crop necessary to fill the silos, the condition of the crop used, the number of cattle fed and an expression from the customers as to results of their operations and whether they were satisfied with their purchases.

Replies were received from all the states named above and came from cattle feeders, dairymen, and general farmers. Practically one-third of those addressed replied, which is a splendid showing, for it is very seldom indeed that one can get a greater percentage of replies than this from any miscellaneous list of names. "Experience teaches us," says the compiler of the report, "that in the compilation of statistics the reports made by these men are a fair barometer of the entire situation, and we have every reason to believe that had the entire 600 replied, the general results and averages would not have been changed."

The conditions in the territory covered by these reports were widely varied. The crops used in filling the silos were corn, kafir, milo, feterita, cane, and some cow peas and soy beans. In some sections the crop failed to mature owing to drouth and in others was frosted before it could be harvested. Other conditions operated against the making of a good crop in many localities, and as we will show further on, a vast amount of the crop used in these silos was absolutely unmarketable.

The following is a recapitulation of the answers given:

Number of questionnaires mailed, 600; number of replies received, 184; number of silos used by 184 men making replies, 194; tons of silage put up in 194 silos, 14,051; number of acres of crop used, 2,552; average yield of grain per acre in bushels, 19; acres of crop marketable in full, 1,090; acres of crop marketable in part only, 328; acres of crop not marketable at all, 1,134; number of cattle fed from 194 silos, 4,918.

Besides the cattle a very large number of horses, mules, sheep, hogs, and chickens, were reported as having been fed silage.

It will be noted from these figures that 184 farmers fed a total of 4,918 head of cattle (besides other live stock) from 2,552 acres of crop that yielded but an average of nineteen bushels of grain per acre and over one-half of which was wholly unmarketable. Some of these cattle were fed nothing but silage while others were fed a well-balanced ration. The cattle were about evenly divided between beef cattle and dairy cattle. Where beef cattle were fed very satisfactory gains were reported, and dairy cattle either increased their milk flow or produced their normal amount at considerable less feeding cost. It is specifically pointed out that 1,134 acres of this crop was wholly unmarketable and 328 acres marketable only in part, so there was but 1,090 acres of good crop left. It is safe to assume that the cattle fed a well-balanced ration were mainly in the districts where the crops were good, and those subsisting on silage alone or silage with the addition of a little straw or dry fodder were from the districts showing poor crops, which comprised over one-half the whole.

These figures show that approximately two head of cattle were fed from one acre of crop, half of which was unmarketable. What would have become of this unmarketable crop had it not been put into the silo? Does this not prove that one acre in the silo is worth two in the field and that when crops are poor and not fit for market a silo is absolutely necessary to save it?

If these farmers had not saved this 1,462 acres wholly or in part not fit for market, can you not see their feed bills mount to the very sky, with corn at $1.50 a bushel, hay $30 a ton, and other feeds proportionately high?

Let us now find out what they have to say about keeping more cattle on the same acreage. The question asked was, "Can you keep more cattle on the same acreage than before you used a silo? If so, give increase." This question was answered in 143 of the total 184 replies received. The different answers and number of men making the same answer are as follows:

One said five times as many; two said four times as many; four, three times as many; forty-nine, twice as many; three said 85 per cent more; one said 75 per cent more; twenty-four said 50 per cent more; two, 40 per cent more; twenty-two, 33⅓ per cent more; three, 30 per cent more; six, 25 per cent more: three, 20 per cent more; two, 10 per cent more; nineteen simply answered Yes, one said None, and one answered Don't know.

Here we find that out of a total of 143 answers received to the above question, 141 farmers said they could keep from 10 to 50 per cent more cattle on the same acreage with the silo than without, and only one man said he could not and the other did not know.

Would you not accept the judgment of 141 men agreed on any subject rather than that of one man?

Surely this is convincing proof of the claim long made for the silo that you can keep two head of cattle with silage where you keep one without.

The next and one of the most important questions is one in which every farmer who keeps live stock is interested. That is the feed bill. The question was as follows: "How much if any did silage reduce your feed bill the past winter?" This question was answered in 134 of the 184 blanks returned and the answers which follow are just as they were given in the replies:

Two said 66⅔ per cent; one said 60 per cent; forty-one said 50 per cent; two said 40 per cent; eleven said 33⅓ per cent; six said 25 per cent; three said 20 per cent, and one said 10 per cent.

One said he saved $830; one, $600; one, $500; two, $400; four, $300; one, $250; one, $225; one, $200; five, $150; one, $100; one, $75, and one, $50.

Eight said they saved the cost of the silo; seven saved considerable; six said very much; one said many dollars, and one, $100 a month.

One said satisfied; one, some cheaper; ten didn't know; one, had hay to sell; two simply answered yes; one said very little; one, not much; two, none; one said it cost more.

These answers are made in many different ways, but by carefully comparing the reports as to the size of the silos, number of cattle fed, etc., it is easily determined that the saving made by the 121 farmers who say they did save will average at least 50 per cent. Only three men of the 134 said there was no reduction in the feed bills and 10 did not know.

Woud you not accept the judgment of 121 men agreed on any subject rather that that of three men?

Can any farmer keeping live stock afford to pass by any proposition that will reduce his winter feed bill 50 per cent?

Does this not prove that silage will cut the feed bill one-half?

In answer to the question: "Do you consider the silo a profitable investment for the average farmer?", 173 of the 184 replied as follows: 160 yes, four no, two didn't know, and one will try again.

These men have used the silo, they know what it did for them. One hundred and sixty-six or 95 per cent of all do not hesitate to say that it is a profitable investment for any farmer and only four or less than three per cent say it is not.

The next question was: "After your experience would you be satisfied to feed cattle without silage?" One hundred and sixty-seven of the 184 replied as follows: 163 no and four yes.

Almost 98 per cent of the men answering this question definitely state they would not be satisfied to do without silage and less than three per cent say they would. Experience is the best teacher in the world, and these questions were answered after actual experience.

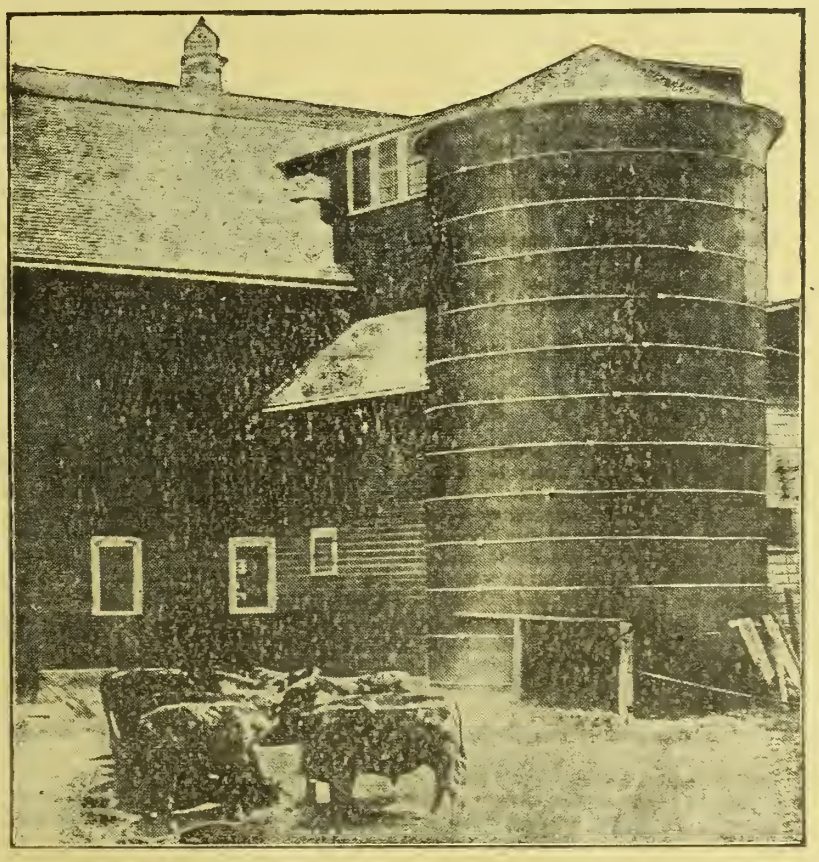
The last question was: "Do you consider the silo a saver of both money and labor?" To this question 166 of the 184 replied with the usual result: Yes, 159; no, six; costly, one.

Again the weight of opinion is in favor of the silo. This is the only question in the list bearing on labor and 95 per cent of all are agreed that labor is saved by means of the silo.

Summing up this entire report, we find that 184 farmers filled 194 silos having an average capacity of 72½ tons from 13 1-6 acres of crop to the silo, more than half of which was not marketable. Each silo fed an average of more than 25 head of cattle and other live stock, with most satisfactory results. We are safe in saying that had the entire crop been good and marketable, the silos would have been filled with at least 25 per cent less acreage.

In this report it is shown that 95 per cent of these silo users have agreed that they can keep more cattle on the same acreage, that the feed bills are reduced 50 per cent, that they believe the silo to be a profitable investment for any farmer, that they would not be satisfied to feed without silage, and that the silo saves both money and labor.

The questions asked were straightforward and to the point, and the answers were the same, being made absolutely free from any influence except experience. The few who had any complaint to make or were not entirely satisfied with their experience do not hesitate to say so. Probably these men made mistakes that need not be repeated and can be easily remedied by good advice. The firm making this investigation feels that the manufacturer of any product who can show 95 per cent of perfectly satisfied customers has a clean record, and any prospective purchaser is safe in accepting the judgment of this 95 per cent.



CATTLEMEN FIND SILO LESSENS COST OF FEEDING AND INCREASES LIVE STOCK CAPACITY OF THEIR FARMS

Fruit Prospects for Kansas

O. F. Whitney, secretary of the State Horticultural Society, reports that Northeastern Kansas at this time has a prospect of 75 per cent of last year's yield. The loss was caused by a cold period at blooming time about the second week in April. Even with this loss of 25 per cent of a normal crop, Northeast Kansas at this time has a prospect which indicates that the orchardists may yet harvest over a million bushels of apples. The Arkansas River Valley district has a prospect for a larger crop than last year.

The set in some localities is more uniform and with better facilities for controlling the codling moth, the harvest should be 25 per cent better than last year. Other localities over the state where there are only a few commercial orchards report a better prospect than a year ago at this time. Some orchardists report as high as 150 per cent of last year's harvest.

This summary is based on reports from orchards which have received proper care as applied to spraying, pruning and cultivating, and from individuals who are commercially engaged in the production of apples.

Pears received more damage from cold weather than other fruits. Indications are that we will have almost one-third of a crop. There will be a small crop of peaches in the southern part of the state. The most reliable tree fruit crop in the state is the cherry. This year it has also suffered with the others, bnt not to as great an extent. The prospect averages over the state about 75 per cent of a crop. Grapes as usual show a great prospect for a 100 per cent crop.

The problem of securing pickers for strawberries is more difficult each year, and the commercial grower is seriously handicapped when it comes to harvesting his crop of berries. This fruit should be planted extensively all over the state in a way that each family which has access to the land may raise enough berries for its own seasonable use and some to can for the winter. The commercial strawberry plantations of Atchison, Doniphan, Jackson and Leavenworth counties will average abont 50 per cent of a crop with quality better than 100 per cent.

Tribute to Red Cross Workers

It fills my imagination to think of the women all over this country who are busy tonight and are busy every night and every day doing the work of the Red Cross, busy with a great eagerness to find out the most serviceable thing to do, busy with a forgetfulness of all the old frivolities of their social relationships, ready to curtail the duties of the household in order that they may contribute to this common work that all their hearts are engaged in, and in doing which their hearts become acquainted with each other.—PRESIDENT WILSON.

The doctor who fails to record the birth of a child is doing that child a great injustice and possibly an irreparable legal injury.

Better than money because they earn money—buy a War Savings stamp today.

GROWTH OF THE FARM LOAN

Money Is Necessary to Increase Agricultural Production

By FREDERIC J. HASKIN

THERE are now as many national farm loan associations as there are counties in the United States. This means that 3,003 associations have been chartered by the Federal Farm Loan Board during the first year of actual operation of the twelve federal land banks. It does not, of course, mean that there is an association in every county, for not all counties are agricultural.

These farm loan associations have a membership of about fifty thousand farmers, and to these men nearly a hundred million dollars have been loaned by the federal land banks. That means, among other things, that in this time of food scarcity the national government has been the means of putting into the hands of the farmers who produce the food one dollar for every inhabitant of the nation. There is no place where the investor's dollar could do him more good just now.

The distribution of these farm loan associations over the map of the country is irregular, showing that the credit offered by the federal land banks flows where it is needed, acting as a regulator of interest rates, and supplementing other banking facilities where they are inadequate. In such states as Ohio, Iowa, Illinois, and Southern Wisconsin, where land values are high and well standardized, and where the wealth of great cities is near at hand, the farm loan associations are few. Nevertheless the farm loan system has not been without influence even in these regions of prosperity, for there has been a decrease in the interest rates charged by the established mortgaging concerns.

But the federal land banks have found their great field of usefulness in the South and the Southwest, from the tidewater regions of the Atlantic to the dry-farming country of Western Kansas and Eastern New Mexico. Throughout this region a variety of circumstances had made it hard for the farmer to obtain money. Land values are not fixed and well known; agriculture is often in an experimental and hence temporarily uncertain stage; large cities with the strong and perfected financial systems, which make now interest rates possible, are lacking. As a result, the southern and southwestern farmer has often paid as high as 13 per cent for short-time personal credit, while loans on land have brought from 8 to 9 per cent with the additional expense of commissions on frequent renewals. Incidentally, this is the region to which the nation must look for considerably increased production which it needs—a region of swamp, timber, brush and second growth in the East, of irrigable arid lands farther West.

Money is necessary to multiply its production and money is what it lacks. That is why Texas has 259 farm loan associations, and Mississippi 129. The Ninth Farm Loan District, including Colorado, Kansas, New Mexico and Oklahoma, has the largest total among the districts, with 376 associations.

Another region where the farm loan system has conspicuously come into its own is the Northwest, where cut-over timber lands are waiting to be made into farms. Thus Washington has the second largest number of associations among the states, with 130; while North Dakota has 124. In the mountain states of the West where mining and cattle ranching replace small grain agriculture, the farm loans are in relatively little demand as yet, Arizona having but four associations and Nevada three. These two states are at the foot of the list.

A farm loan may be as small as one hundred dollars and can not exceed ten thousand. The average size is $2,270. There is now a vigorous agitation to have the limit raised to twenty-five thousand dollars, as a ten-thousand-dollar loan is too small for the purposes of many farmers, and the limit has checked the spread of the farm loan system in a few of the best farming regions in the country.

The average number of members in a farm loan association is seventeen. The minimum allowed by law is ten. Some of the associations have from forty to eighty members, these large associations usually being the result of the consolidation of smaller ones. During the year that the farm loan system has been in operation there have been thirty-three cancellations of charters, and nearly all of these are due to such consolidations to form stronger organizations.

The future growth of the farm loan system is an interesting subject for speculation. Although in one year the board has formed as many associations as there are counties, and has loaned practically a hundred millions, it is still extending its activities at a rapid rate, and has a great field before it. There are something over six million farms in the United States, and of these 40 per cent are mortgaged, which means that approximately two and a half million farmers are borrowers of money. Even if the farm loan system should continue to supply fifty thousand farmers every year, it will be many years before it has reached the limit of its possible extension. Of course, many of these farmers are in regions where other credit facilities are as good as the federal farm loan system has to offer. On the other hand, in the West and South men are daily buying and taking up unimproved lands, and these are the farmers to whom the federal loans are especially valuable. Many of them could not obtain long-time credit from any other source. And these pioneers, who are putting new lands under the plow, are especially deserving of federal aid, for an adequate food supply in the future will depend to some extent upon them.

There is no slowing down, as yet, in the rate at which new associations are being formed, for the Board has issued sixty new charters during the past month. The volume of business is also growing by the addition of new members to the associations, and by the growth of the borrowing capacity of charter members. For example, the first man who borrowed money from Uncle Sam under the Farm Loan Act of the Wichita bank one year ago, used his first loan so well that he has subsequently had his land reappraised with the result that he was able to obtain an increased loan thereon. The officials of the Farm Loan Board confidently expect that many of their customers, like this one, will "come back for more."

The Flag of Our Country

PROBABLY all Americans believe that they know their national flag when they see it, yet many are certainly unable to distinguish between the standard Stars and Stripes and its spurious imitations. A. Y. Leech in "Holy Days and Holidays" says that it is desirable for all to remember that the flag is not a haphazard arrangement of alternate stripes of red and white with stars on a blue field, but an emblem fashioned in a manner prescribed by law and official regulations. Mr. Leech goes on to give some of these regulations in the following words:

"The first national legislation on the subject bears the date of June 14, 1777, when Congress in session at Philadelphia adopted the following: 'Resolved, that the flag of the thirteen United States be thirteen stripes alternating red and white: that the union be thirteen stars, white in a blue field, representing a new constellation.' This was about one year subsequent to the signing of the Declaration of Independence.

"No further action relative to the flag was taken by Congress until after Vermont and Kentucky were admitted to the Union. Then on January 13, 1794, Congress enacted: 'That from and after the first day of May, 1795, the flag of the United States be fifteen stripes, alternate red and white; that the union be fifteen stars, white in a blue field.'

This flag was the national banner from 1795 to 1818, during which period occurred the war of 1812 with Great Britain, but soon five additional states—Tennessee, Ohio, Louisiana, Indiana, and Mississippi—were admitted to the Union and required representation on the flag. So Congress on April 4, 1818, enacted:

"First, 'That from and after the fourth day of July next the flag of the United States be thirteen horizontal stripes alternating red and white; and that the union have twenty stars, white in a blue field.'

"Second, 'That on the admission of every new state into the Union, one star be added to the union of the flag; and that such addition shall take effect on the fourth of July next succeeding such admission.'

"The debate in Congress shows that the return to the thirteen stripes of the 1777 flag was due in a measure to a reverence for the standard of the Revolution; but it was also due to the fact that a further increase in the number of stripes would make the width of the flag out of proportion to its length unless the stripes were narrowed, and this would have made it hard to see them at a distance. . . .

"No act has since been passed by Congress altering this feature of the flag and the standard is the same as originally adopted, except as to the number of stars in its union. . . .

"In none of the Acts of Congress relating to the flag has the manner of arranging the stars been prescribed, and in consequence there has been a striking lack of uniformity in this matter. Designs of the flag in the keeping of the Government show that the early custom was to insert the stars in parallel rows across the blue field. This custom has, it is believed, been observed in the navy, at least since 1818, at which time the President ordered the stars to be arranged in this manner on the national flag used in the navy. In the army, too, it is believed the stars have always been arranged in horizontal rows across the blue field, but not always in vertical rows, the effect, however, being the same as the navy flag. Hereafter there will be no difference in the arrangement of stars between the army and navy, as an agreement has been arrived at between the War and Navy departments.

"American bunting only is now used in the manufacture of the Stars and Stripes, and these flags are woven for the Government on American looms.

"The national colors carried by regiments of infantry and artillery and the battalion of engineers on parade or in battle are made of silk. They are six feet six inches long and six feet wide and are mounted on staffs. The field of the colors is thirty-one inches in length and extends to the lower edge of the fourth red stripe from the top."

Method of Displaying Flag

There is no federal law now in force prescribing the manner of displaying, hanging, or saluting the United States flag. In response to the many inquiries received by the War Department, the adjutant-general has made the following statement, which is meant to be merely suggestive and not authoritative:

"It has been suggested that as far as possible the hanging of the flag should be restricted to suspending it from a flag pole, in the regular way, and not to displaying it otherwise; that for purposes of decoration only the national colors should be arranged in the form of bunting and not used in the form of the flag; that if it is nevertheless the desire to use the flag for decorative purposes it should always be hung flat whether on the inside or the outside of buildings, with the union—the stars—to the north or east, so that there will be a general uniformity in the position of the union of each flag displayed; that the flag should rarely be displayed in a horizontal position or laid flat; that under no circumstances should it be hung where it can easily be contaminated or soiled, or be draped over chairs or benches to be used for seating purposes, and that no object or emblem of any kind should be placed above or upon it. This department has made the statement that it sees no objection to flying the flag at night on civilian property provided it is not so flown for advertising purposes.

"It is becoming the practice throughout the country to display the national flag on all patriotic occasions, especially on the following days: Lincoln's birthday, February 12; Washington's birthday, February 22; Mother's day, the second Sunday in May; Memorial day, May 30; Flag day, June 14, and Independence day, July 4. It seems appropriate that where several flags or emblems are displayed on a pole, or otherwise, the United States flag should always be hoisted first and hung or displayed at the top; that in any parade the United States flag should always have the place of honor, and that the flag should never be hung or displayed with the union down except as a signal of distress at sea. Existing regulations governing the army provide that when officers and enlisted men pass the national flag, not encased, they will render honors as follows: If in civilian dress and covered, they will uncover, holding the headdress opposite the left shoulder with the right hand; if uncovered, they will salute with the right hand salute. A flag unfurled and hung in a room in which officers or enlisted men of the army are present will be saluted by them the first time they have occasion to pass it but not thereafter. The hand salute is as follows: Raise the right hand smartly till the tip of the forefinger touches the lower part of the headdress above the right eye, thumb and fingers extended and joined, palm to left, forearm inclined to about 45 degrees, hand and wrist straight; at the same time look toward the person saluted; drop the arm smartly to the side.

"Old or worn-out flags should not be used either for banners or for any secondary purpose. When a flag is in such a condition that it is no longer a fitting emblem for display, it should not be cast aside nor used in any way that might be viewed as disrespectful to the national colors, but should be destroyed as a whole, privately, preferably by burning or by some other method lacking in any suggestion of irreverence or disrespect due the emblem representing our country."

FLAG RAISING DAY

DO NOT fail to provide yourself with your country's flag and to display it on June 14, the one hundred forty-first anniversary of the adoption by the Continental Congress of our present national flag. This anniversary received its first public recognition in 1894, when at the request of the "Sons of the Revolution" the Governor of New York ordered that the Stars and Stripes be raised on all public buildings in the state.. In the same year the day was fittingly observed in Philadelphia by request of the "Colonial Dames of America." The observance of Flag Raising Day in our public schools and in our homes has become very general. It is a means of giving expression to our feelings of patriotism and so confirming and strengthening them. It is also an opportune time for teaching the young something of what the old flag means to us

The thought of those who are now fighting under this banner across the sea and of the cause in which they are enlisted makes the colors doubly sacred to us at this time. Let us consecrate our lives once more to the emblem of our country and the ideals for which it stands, each resolving to do our utmost "that government of the people, by the people, and for the people shall not perish from the earth."

Work for War, Not Self

AGRICULTURE a Public Utility," was the subject of the commencement address of Dr. Alonzo E. Taylor at the Kansas Agricultural College last week.

"There is too much individualistic selection of the work that each must do, and the conditions of its fulfillment," said Doctor Taylor. "The boys who go abroad become mobilized units in a national program. Shall you and I be less? The soldier accepts what is offered to him in pay, clothes, food, toil, danger, instruction, and pension. Have I the right to stipulate the exact terms on which I will support him? In a smaller sense, does not each of us share with the soldier the privilege of service, fidelity and sacrifice? We risk so little and stipulate so much, he risks so much and stipulates so little.

"When it falls to the lot of your boy to go over the top or to carry on, he does not look to the right or to the left to see what others are doing. Across the seas, from the Vosges to the plains of Flanders, American boys face the east, face the enemy. They do not look back at us, they trust us, behind their backs, to do our part. Our part is to work for war and not for self. Force, force to the uttermost for them. Work, work to the uttermost for us."

Pointing out that agriculture is one of the direct public utilities of wartime, though not always so regarded, the speaker traced the methods that have been followed in warring countries for the control of such utilities. From his wide study of food problems, and his experiences in European countries, both before and during the war, Doctor Taylor discussed agricultural conditions and requirements in a scholarly and interesting manner.

The deflection of agricultural labor to other occupations, he pointed out, has been a regular result of the war. By October, 1916, 30 per cent of the agricultural labor of England had left the land, while in France 60 per cent of the male workers had departed. Prior to the war, 42 per cent of the German workers of the soil were women. This figure had risen, by the fall of 1917, to 80 per cent. In this country the male agricultural labor has not yet been reduced more than 25 per cent.

In addition to discussing labor, Doctor Taylor took up problems of seed, fertilizer, machinery, acreage, disposition of produce, the rationing of domesticated animals, the price of agricultural products, and remuneration. In each case he showed what had been done in European countries, and discussed also conditions in the United States.

"Every farmer, laborer, merchant, banker, and manufacturer must expect to suffer losses as the result of war," said the speaker, "the sole exception being agencies that are directly engaged in the manufacture of implements of warfare, and from these it is the practice in Europe to remove the excess profits by appropriate taxation. Ship owners alone have been permitted to profit exorbitantly during this war, partly as an expression of the appreciation of the dangers to which shipping is exposed, and partly as the result of inability to control the operations of international commerce.

"In every country it will be found at the close of the war that few individuals have profited. The vast majority have lost, and the efforts of the state in its control of industry should be guided always by the policy of so distributing the losses as to render them equitable. Nowhere among warring nations, or among the neutral nations closely concerned, has the agricultural class profited relatively as the result of the war, except in Germany.

"The most that agriculture can expect is to break even, in the same sense that this would have occurred during peace time. The farmer must conduct his operations with the definite recognition that he is excluded from participation in increased returns through the operation of the law of war supply and war demand. He must conduct his operations without war profits, but with a war conscience. The farmer farms because he must. He is impelled by fidelity to his craft, loyalty to his rule of agricultural practice and inspired by patriotism. In the nature of the economics of his craft there is no war reward but the blessing of conscience."

Doctor Taylor pointed out that in the case of some public utilities, remuneration might be definitely fixed, because there is an economic basis on which remuneration can be computed. On the other hand, because of the large number of farmers, and because of the difficulty of figuring costs of production, even on the individual farm, this is impracticable in the case of agriculture.

Save the Beans

More and more we are coming to feel that all food belongs to a common store to be distributed to meet the needs of the hour, and that if some of those who are dependent on America's food supply starve it will be because some of us here have been guilty of stealing more than our share from the common supply. Just now more meat is needed abroad, while at home we have a surplus of beans. As beans are a good meat substitute, the sensible thing to do would seem to be to eat more beans and less meat. The needs of the army and navy from the 1917 bean crop have been protected, and now our surplus must be utilized before it becomes infested with weevils. Once such a waste in warehouse or grocery store meant only that somebody had lost money on beans, but now it is a sin that may be paid for in the blood of our sons.

This unseasonable surplus of beans the Food Administration declares to be due not to over-production but to lack of transportation and distribution facilities when beans were most needed.

For the coming season bean growers are confronted with the problem of meeting the demands of the army and navy and the Allies and of supplying the home market. The high price of meat and the call for meat conservation has increased the demand for beans, and the coming winter will no doubt show increased consumption.

Where farmers have on hand only a small supply of beans, the best conservation is to eat them now. If the supply is big enough to carry over, these beans can be stored, if free from weevils, in paper sacks or "seamless" cloth sacks. Beans that have any weevils should be treated as recommended by the Department of Agriculture, in Farmers' Bulletin 799, which may be obtained by writing the Division of Publications, United States Department of Agriculture, Washington, D. C.

A chicken of any breed or age that shows signs of sickness or weakness should be removed at once and doctored, or killed and burned. Prompt action may prevent further trouble. Delay is almost certain in the end to have serious results for the rest of the flock.

War is an ugly thing, but a German peace is uglier. Russian farmers are producing German food.

France allows one person one and one-half pounds of sugar per month; Switzerland, one; England, two. We use seven.



How the Armies' need for meat was answered

IN a fighting man's ration, meat is the important item. Twenty ounces of fresh beef, or its equivalent, is called for daily.

To supply the meat needs of an army that was suddenly expanded from 100,000 to 1,500,000 is a tremendous task. Added to the needs of the Allies, it is a staggering one.

The American stockman and the American packer may justly take pride in the way they have met these needs.

During 1917, stockmen sent to market nearly 2,000,000 more cattle than during 1916. Yet at the end of 1917, the Department of Agriculture reports more cattle remaining on American farms than at the beginning of the year. The production of hogs has also been increasing. All of this in spite of high feed prices, and scarcity of labor.

How the packers have done their part is shown by the fact that in one week, Swift & Company was called upon to supply the Allies and the American Armies abroad 24,000,000 pounds of meat and fat—enough to have fed America's peace-time army for more than six months.

An order of this size means the dressing of 13,000 cattle and 200,000 hogs.

To move the finished products, 800 freight cars were needed. Of these 650 were from the Swift refrigerator fleet.

Three days after the order was received by Swift & Company, shipments began, and the entire amount was rolling seaward within a week.

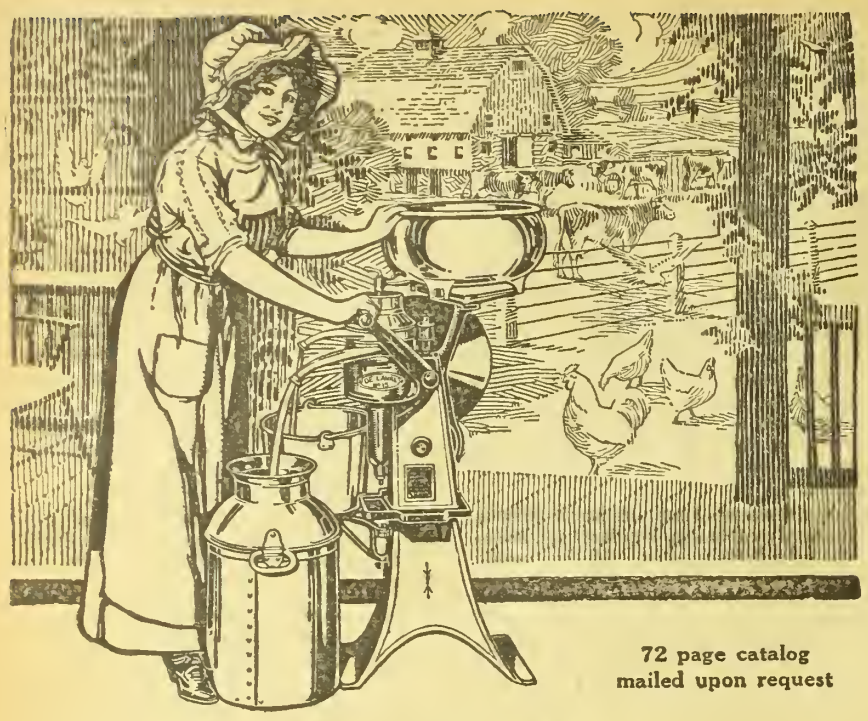
Since January 1, 1918, over 400 carloads of our products per week have been shipped abroad on war requirements.

The nation's meat supply machinery has stood the test.

Not once has there been a failure on the part of the American farmer or the American packer to supply the government's needs.

On their part, Swift & Company performs their service without governmental guarantee of profit and with a limit of 9% return on capital employed in the Meat Departments, which means about 2 cents on every dollar of sales.

Swift & Company, U.S.A.



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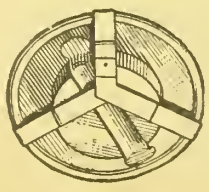
War Takes Horses

Seventy-five thousand sound Kansas horses—an average of 750 from each county—have been shipped across the sea. Dr. C. W. McCampbell, of the Agricultural College, and secretary of the Live Stock Registry Board of the state is authority for this statement. He believes that many thousands must follow to help win this great war. In numerous instances horses that could not well be spared have been sacrificed, and this materially lessened the horse power of the state.

"High class draft horses are bringing higher prices at farm sales than ever before," said Dr. McCampbell. "This is probably the best evidence of the present shortage of good work horses in this country.

"The effect of the war is more noticeable in Europe. Recently at Hereford, England, 58 grade geldings and mares sold at public auction at prices ranging from $500 to $850 each. In the issue of the Hereford Times reporting this sale, there also appears the following notice: 'The executive committee of the Herefordshire war agricultural committee has decided that no horses suitable for work on the land, under six years of age, may be sold out of the country.'

"Reconstruction processes after the war will add to the present demand and the United States with its excellent natural advantages will be expected to furnish the horses needed. As only one out of every twenty of the horses of the state will classify as a draft horse and weigh 1,600 pounds or more, each Kansas farmer should breed every mare he owns showing a predominance of draft breeding to a good, sound, purebred draft stallion in 1918. Such a policy will be profitable as well as patriotic."



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KANSAS FARMER DAIRY CLUB

Grain for Skim-Milk Calves

IN ONE sense a good test of the successful dairyman is his ability to raise skim-milk calves. To continue in the business and make progress in herd improvement it is necessary to raise calves and they must be well raised. The scrawny, pot-bellied, under-sized calves frequently seen on farms where cream is sold are an advertisement of failure in this important feature of dairy farming. The stock cattle man in derision applies the name "buttermilk calves" to these poorly fed individuals and steers clear of the farm where such calves are raised when he is picking up stock for feeding. The reason for the poor results many get in feeding skim-milk calves is not that skim milk is low in feeding value. It has a high feeding value, but its limitations must be recognized. After removing the butter fat it is unbalanced and does not make a perfect feed when fed alone, but it contains practically all the materials necessary for growth, and when properly used calves almost if not fully equal to calves suckled by their mothers can be raised on skim milk.

After recognizing the necessity for absolute cleanliness in handling the skim milk fed the calves, perhaps the next lesson is to learn how important is the grain ration in the diet of the skim milk calf. It is only as the calf is able to eat and digest grain that a balanced ration can be provided when skim milk is fed. The change from whole milk to skim milk can usually be made when the calf is about three or four weeks old. The exact time depends on its size and vigor and the matter of getting it to eating grain, for until a calf is eating and digesting some starchy grain like corn it cannot thrive on separator skim milk. If the calf is doing well at the age indicated, begin to change from whole milk to skim milk gradually and at the same time make a persistent and definite effort to teach it to eat grain. There is probably no better way than to throw a little dry corn chop and bran into its mouth as soon as it gets through with the milk. The grain will stick to the calf's mouth and it will usually get to chewing it and acquire a taste for it. A little chop and bran can be put in the bottom of the pail or feeding vessel after the milk has all been taken out and the calf will soon be eating it. Never mix grain with the milk because starchy feeds must be chewed so that the proper juices of the mouth are mixed with it before it is swallowed. This is a very important part of the digestion of starch. If swallowed without chewing, the grain would be very imperfectly digested and the starch would not take the place of the butter fat which has been removed from the milk.

When the calf is young a small handful of the grain is all it will take, but as it grows older the amount can gradually be increased. If the calf is to be marketed or fed out for market later, it is not a bad plan to give it practically all the grain it will eat. The dairy bred heifer, however, should not be over fed on corn. As it gets older other feeds rich in protein, such as alfalfa, can be supplied. It is also well to combine other grains or concentrated feed with the corn. A good grain mixture to feed to growing calves is a mixture of 500 pounds of ground corn, 300 pounds of dred pounds of linseed oil meal. When oats are too high in price, they can be oats are too high in p rice, they can be reduced in quantity or left out entirely and still leave the ration a good one for developing dairy bred calves. Oats, however, are an exceptionally good grain for developing growing animals of all kinds and should not be left out unless they are very high in price or difficult to obtain.

Of course, being a ruminant, and having the four stomachs, the calf should early have the opportunity to eat bulky feeds, such as hay; and during the first few months of its life there is probably no hay better than that made from the native prairie grass. Alfalfa is not a good hay at this time, as it is too laxative and the calf is getting all the material necessary for growth in the skim milk.

There are a number of calf feeds or calf meals on the market which are very good for supplementing skim milk, but as a rule it is just as well to depend upon the home grown feeds mentioned, if plenty of skim milk can be fed. Where calves must be raised on a very limited amount of milk some of these specially prepared calf meals can be used with a fair degree of success. It is much more difficult, however, to raise calves if the milk must be limited.

Feeding Grain with Pasture

Does it pay to feed grain to milk cows on pasture, is a question frequently asked. It depends almost entirely upon the amount of milk cows are giving and the character of the pasture. It is not customary to feed average milk cows any grain while the pasture is good, as it usually is during the early summer months. The cow is able to eat all the grass necessary for maintaining an average flow of milk and at a very low cost. A cow producing less than a pound of butter fat a day can get all the nutrients required from good pasture. The cow having a capacity for producing more than a pound of butter fat a day can usually be fed some grain with profit. This means that a Jersey cow giving not to exceed twenty pounds of milk or a Holstein giving twenty-five or thirty pounds a day does not need grain in addition to good pasture.

Cows producing more milk than the amount mentioned simply cannot eat and digest enough grass to supply the necessary nutrients for the larger quantity of milk and butter fat, and for such cows it will usually pay to add some grain even when they are running on the best pasture. A rule followed by the dairymen at the Missouri Experiment Station is to feed about five pounds of grain daily to a cow producing a pound and a half of butter daily, and seven or eight pounds of grain when the cow gives two pounds of butter a day. In feeding these rather limited amounts of grain, corn or other starchy grain can be used alone. In case of high producing cows requiring larger quantities of grain, additional protein must be supplied and it is advisable to add some bran and cottonseed meal to the mixture. Of course these suggestions as to grain feeding are dependent on the cows having the run of good, luxuriant pasture. Every dairyman knows that when the weather gets hot and the rains do not come pasture gets very short and cows simply will not keep up the milk flow without receiving considerable extra feed. During the late summer when this condition is almost sure to exist feeding silage or some kind of green forage crop is almost necesary to help out the pasture.

Dehorning Dairy Animals

Horns are a nuisance on cattle and especially on dairy cattle. Dairymen almost inevitably follow the practice of dehorning cows, so they cannot injure each other and thus reduce the milk production. In pure-bred herds there is a sort of a sentiment attached to the appearance of the horns and it is usually customary in such herds to leave them on. Considered strictly from the standpoint of milk production, horns have no place in a dairy herd. The advantages of having the horns removed will more than offset the temporary decrease in the flow of milk caused by the dehorning operation. It is not a good plan, however, to dehorn mature cattle at a season of the year when flies are present and liable to infect the wounds.

The ideal time to remove horns is before they ever start. In case this has been neglected, it is usually best to wait until the animals are about two years old, for if the horns are cut before they reach this age they are likely to develop stubs. The old method of removing the horns was to put the animals in a chute and saw them off, but dehorning shears are now manufactured and sold which are designed to remove the horns of young animals quickly and easily.

To nip the embryo horn in the bud so it will not develop, it must be treated when the calf is from three to five days of age. The treatment consists in burning the horn button with caustic potash. To do this, first clip the hair around the button so it can be seen and felt. Then take the stick of potash, holding it in such a manner that none of it can get on the fingers, and after moistening the end rub the little button or embryo horn

(Continued on Page Nine)



The Road Ahead

AS A cattle feeder, an admirer of all beef breeds and a breeder in a small way of Herefords, I have been asked to write something concerning the desirability of closer co-operation and a fuller measure of understanding, emulation and cordiality between the advocates of the various breeds. I am glad of the opportunity at this time to give my views on these matters, particularly since I am now separating myself for an indefinite period from a calling to which I have long been devoted and which, I am sure, is destined to attain a most brilliant future in the hands of men of clear vision and high ideals. What I shall write, therefore, being somewhat in the nature of a valedictory to the followers of my chosen profession, will, perhaps, possess a certain frankness and possibly a lack of tact that I might hesitate to employ under other circumstances.

The great war, to the victorious prosecution of which our country is now committed, will inevitably rebuild the world, not only politically and economically, but socially and spiritually as well. Of all spheres of human activity that will be affected by it, it seems to me that none will undergo greater changes than will the professions that have to do with the raising of food products. When the war finally ends a distressed and hungry world will clamor to be fed and the owners of the sources from which alone its needs can be satisfied will find themselves in a position that will rank in both honors and emoluments at the very top of the list of man's vocations. The day of the agriculturist is certainly about to dawn. Never before have the fruits of agriculture been recognized so universally as paramount to the products of all other industries. Never before has the world held such sure promise of honor and usefulness for the man who produces them.

To make the best of his opportunity the farmer must meet it with new vision and new standards. He must fit himself and his descendants for the new dignity that is about to clothe him. If, tired and discouraged by the drudgery of a hard struggle on a farm that in the past has yielded only a bare living to his best efforts, he has gone to town to exist on the rental that a tenant skims from his soil, he should take steps to reestablish himself on the farm with a new outlook, with more intelligent methods than he used formerly and with every assurance of a brighter and more useful future. He should engage in reasonable efforts to improve rural social conditions, to make country life the most desirable life, for as such it is destined to be universally regarded in the very near future. And most of all he should strive to anchor firmly in the soil of the home farm the hearts of his children. Sturdy and sanely educated men and women should be the farm's best product.

In preparing for his new honors and responsibilities the farmer's first consideration on the technical side must be the fertility of his land, and this he can best conserve by enlightened practice of the highest branch of agriculture, namely, the breeding and growing of live stock. Here he will find not only his surest profits, but engaging problems that will awaken his imagination and ambition and add infinitely to the zest of living.

As with all else, so with this industry, the human problem is the most important item. Indeed, in the production of pure-bred live stock the human factor holds a unique and pre-eminent place, since the value of an animal is enhanced by a recorded pedigree only to the extent that the honor of the man who signs the application is unimpeachable. Without men of undoubted honesty behind its published records a breed association is worse than a delusion and a farce because it is guilty of acquiescence in fraud.

So also the new era will insist that an uncompromising stand be taken against every appearance of circumstance that may lead to the suspicion of fake sales or deceptive practices in public auctions. In no surer way can a breeder destroy his own future and hamper the progress of his breed than by giving just cause for the incubation of such suspicion.

Rivalries, of course, will persist, but it is reasonable to hope that they will be more tolerant in quality and more generously tempered by kindliness than in the past. Indeed, it would be a colorless man and of little value to his calling who would not prefer the animals of his choice to those of any other breed, but his advocacy of his own animals should be modified by his admiration for his rivals' and a generous recognition that there is room for all. In fact, the devotion of any honest and intelligent man to any breed of live stock is in itself a complete justification for the existence of that breed and entitles it to an honorable place among its rivals.

I'm sure it takes no prophetic gift to certainly foretell the quick arrival of the conditions here forecast. The new world that the war creates will honor the farmer as never before and on the ownership and intelligent cultivation of land and its unselfish use for the benefit of a new and more just and happier social order will be based, very probably, the only recognized claims to such aristocracy as our traditions will countenance. The sooner we clear the way for its advent by conforming our lives and our practices to its requirements, the quicker will the new era be established and the fulfillment of its promises begin.

I must congratulate the American Shorthorn Breeders' Association on having anticipated, as I sense it, something of the coming changes. It seems to me that the plan and purpose of physical structure of this very magazine reflect something of the coming epoch and exhale something of the atmosphere of the new order. It seems to have called a truce to intense commercial rivalries. Dignity and beauty characterize it, while the boastful display of the feature advertisement is conspicuously absent. Its aim is very evidently toward higher standards and less sordid ideals in the live stock world. Its example is certain to be adopted by every breed association as the old order fades and the new arrives.

Meanwhile my best wish for all associations of live stock breeders in this country is that the honor of their members may always excel the excellence of their beasts.

DEHORNING DAIRY ANIMALS.

(Continued from Page Eight)

until it appears red, indicating that the caustic has burned through the outer skin or tissue. If properly done, the little button or embryo horn will be destroyed, leaving a slight depression. If the first treatment is not effective, burn the button again in three or four days. Keep the calves out of the rain or some of the caustic may run down the side of the face and possibly get into their eyes.

The sticks of caustic potash very quickly absorb moisture from the air and lose their stick form. They can be kept in wide-mouthed bottles tightly corked and will retain the stick form longer if some pieces of blotting paper are kept in the bottle to absorb the surplus moisture.

Cleanliness in Handling Milk

Too much importance cannot be placed on practicing absolute cleanliness in the handling of milk during the summer season. Milk can be kept sweet a great deal longer if thoroughly sanitary measures are followed in milking and if it is cooled as soon as possible to at least the temperature of well water. Prof. O. E. Reed of our Agricultural College recently called attention to the fact that cleanliness and low temperature are the things most essential in handling milk successfully during the hot summer months. It is comparatively easy to handle milk so it will keep sweet during the winter months. During the summer period it is very difficult to keep milk sweet for any length of time. The lactic acid bacteria, which are the organisms causing milk to sour, thriving best at a temperature of from 70 to 90 degrees. It is impossible to keep these organisms from getting into the milk, but by cooling it quickly to 50 degrees or lower if possible they will develop or increase in numbers very slowly.

The most practical way to cool milk on the farm is to use water pumped direct from the well, stirring the milk in the can in order to cool it as quickly as possible. If ice is available, the milk can be cooled more quickly and to a lower temperature. Cream for butter making should be handled just as carefully, because good butter cannot be made from cream which has become too sour.

Milk would never sour if it were possible to keep all the bacteria or organisms out of it, but these organisms get into it in spite of our efforts to keep them out. Every particle of dust, dirt, or hair falling into the milk while it is being drawn carries large numbers of these organisms which cause milk to sour. Keeping out as much dirt as possible reduces the number of bacteria. This can be done by using the partially covered pail and wiping the flank and udder of the cow with a moist cloth just before milking, or even washing if these parts are very dirty.

Two states are now on an absolutely wheatless basis until after harvest. Texas was the first state to go on a wheatless basis until harvest and similar moves have been made by single counties in the South. Montana is the first large unit in the North to become wheatless. This state through a referendum to the counties has voted unanimously to ship all flour stocks on hand out of the state and abandon all traffic in wheat flour and wheat products. "Montana is absolutely wheatless until July 1 and until August if necessary," is the message sent to the Federal Food Administration by Alfred Atkinson, food administrator for the state. "County administrators today declared that their people are ready for such measures. The vote was unanimous." This means that the mills of that state will ship out all wheat products milled from this day forth. Bran will be the only wheat product used in the state, since it is fed to live stock and cannot be shipped to Europe.

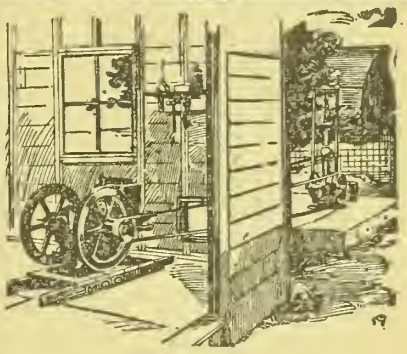
CAPTAIN DAN CASEMENT is recognized as one of the foremost breeders of Herefords in this country, and this article was prepared by him for "The Shorthorn in America" just before his departure for France on the ill-fated Tuscania. A cable from him later read, "Still in fighting trim."

"Captain Casement is a man of keen discernment and broad vision," says Frank Tomson, the editor. "He is an asset of inestimable value to American live stock husbandry, a deep student of its problems, a man of unselfish motives, of patriotic inclination and practices.

"His published expression here is in harmony with his progressive ideas and touches the chord of fraternal relationship existing among all live stock improvers of whatever breed or creed."







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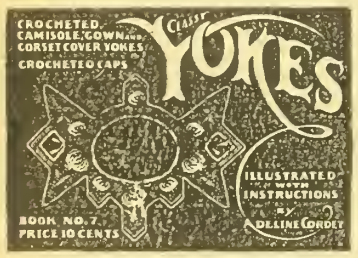

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FANCY WORK DEPT., KANSAS FARMER, Topeka, Kansas.

It may sound rather strange to talk of washing a fowl in soap before cooking it, but if you have never tried it you will be surprised at the amount of dirty oil which can be removed in this way. Scraping off the outside layer of skin with a knife after singeing the fowl, then washing thoroughly with a cloth in a pan of warm soapy water, and rinsing in clear water, insures cleanliness and gives a white, attractive skin. Of course only a pure soap should be used.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

A Toast to the Flag

Here's to the Red of it—
There's not a thread of it,
No, nor a shred of it
In all the spread of it
From foot to head,
But heroes bled for it,
Faced steel and lead for it.
Precious blood shed for it,
Bathing it Red.

Here's to the White of it—
Thrilled by the sight of it,
Who knows the right of it
But feels the might of it
Through day and night.
Womanhood's care for it
Made manhood dare for it.
Purity's prayer for it
Keeps it so White.

Here's to the Blue of it—
Heavenly view of it,
Star-spangled hue of it,
Honesty's due of it,
Constant and true.
Here's to the whole of it,
Stars, stripes, and pole of it.
Here's to the soul of it—
Red, White and Blue.
—John J. Daly.

Children are the hands by which we take hold of Heaven.—HENRY WARD BEECHER.

The Children's Hour

Do you make a practice of reading to your children? If you are too busy to find time during the day, a bedtime story takes only a little while and is a pleasure to the mother as well as to the child. One mother who has several small children says she has found that nothing else hastens the getting of the sleepy little ones ready for bed like the promise of a story. As soon as they are in bed she reads something simple and easily understood by the youngest, and when they have dropped off to sleep something that will be enjoyed by those a little older. As a result of this practice, she is cultivating in her children a love of good literature which is very evident in those of the children who are now old enough to read for themselves.

Sunday afternoon or evening is an especially good time for reading and exchanging confidences with the children. There should be some time during the day when the family can get together for the intimate home life for which there is so little time during the week.

Don't expect the little ones to care for just the same kind of reading you would choose for yourself. Their taste in reading is immature and undeveloped as yet, and they have a power of imagination which we who are older might well covet for ourselves. Allow the childish fancy to have full play, directing it along wholesome lines. This quality is going to play an important part in later life if it can be retained and developed.

We read a few chapters from "Alice in Wonderland" to an imaginative child, who was so delighted with the story that we let her take it home with her. The next day she brought it back with the shame-faced explanation, "Mamma didn't like it." "Why," I inquired, "did she think it was foolish?" The little girl nodded. Her interest in the story and the innocent pleasure it had given her were gone. The illusion was destroyed. Of course the fanciful childish tale sounded foolish to the practical mother when she read it from the viewpoint of a mature woman. Her perspective was wrong; the book was not written for the serious consideration of men and women. Can we not learn to turn "to children the heart of a child"? Their minds are not much occupied as yet with the practical affairs of this workaday world. Let us be thankful that it is not necessary for them to be. Perhaps it is they who are wise and we foolish.

Simple poetry always pleases children if the figures of speech which occur so often and are so puzzling are explained to them. A love for poetry which will enrich the entire life is easily acquired in childhood.

As the boys and girls grow older let them read to you. This is excellent training for them and gives opportunity for an interchange of thought regarding the subject matter which helps the child to "find himself."

Choosing the Wardrobe

The woman who possesses a few carefully selected, well made garments, of material and style that will look well as long as the garments hold together, always appears well dressed. The following suggestions are made for planning and buying the clothing:

Take stock of all the available clothing in the house—in other words make a careful clothing inventory—once a year.

On the basis of income and past expenditure, make a clothing budget; that is, a detailed plan of anticipated clothing expenditure for the coming year, if possible for the next three years. De-

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TO THE LOCAL POSTMASTER:—Kindly have letter-carrier deliver to me on _____ (Date) for which I will pay on delivery:

_____ (State number wanted) $5. U. S. WAR-SAVINGS STAMPS at $_____ (See prices below) each

_____ (State number wanted) 25c. U. S. THRIFT STAMPS at 25c. each.

Name _____

Address _____

W.S.S. WAR SAVINGS STAMPS ISSUED BY THE UNITED STATES GOVERNMENT

W. S. S. COST DURING 1918					
April	$4.15	July	$4.18	Oct.	$4.21
May	4.16	Aug.	4.19	Nov.	4.22
June	4.17	Sept.	4.20	Dec.	4.23

W. S. S. WORTH $5.00 JANUARY 1, 1923

HAVE you a son or a brother in the service? Then shield him and hasten his return by buying war savings stamps. Throw about him the protective curtain of your dollars—dollars that place in his hands a sufficiency of the best weapons of defense and offense American ingenuity can devise—rifles, bayonets, knives, machine guns, cannons, tanks, airplanes, and all the other materials that are necessary to make our fighting men invincible. With a lack or an inferiority of weapons he is handicapped; with an abundance and a superiority of weapons he has a distinct advantage. You can do no less.

FASHION DEPARTMENT

All patterns, 10 cents.



No. 8575—Ladies' Matinee and Cap: Cut in sizes 34, 38 and 42 inches bust measure. The matinee is all in one piece, with graceful points at the sides and on the sleeves. The cap may be made to correspond. **No. 8603—Ladies' Long-Waisted Dress:** Cut in sizes 36, 38, 40 and 42 inches bust measure. The long waist is perfectly plain and a sash is tied to give a more graceful effect. A two-piece skirt with side draperies is stitched to the waist. **No. 8584—Children's One-Piece Dress:** Cut in sizes 2, 4, 6, 8 and 10 years. The dress is made with panels at front and back. The side sections of the dress at front and back are gathered to narrow shoulder straps. The sleeves may be long or short.



No. 8577—Ladies' Waist: Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. The waist has the Russian side closing and it may be made with a high, close-fitting collar. Two styles of sleeves are given—the long, plain sleeve, and the long full sleeve. **No. 8562—Ladies' and Misses' Coat:** Cut in sizes 34, 36, 38, 40 and 42 inches bust measure. The coat is double-breasted and has a large convertible collar. The coat hangs straight from the shoulders, but it is belted in at the normal waistline. **No. 8564—Misses' and Small Women's Two-Gored Skirt:** Cut in sizes 16, 18 and 20 years. The front gore is fitted, but the back gore is gathered from seam to seam at the slightly raised waistline. The pockets are stitched to the ends of the side tabs.

termine what percentage of the income is going into clothing.

Plan to purchase essentials only, carefully omitting all unnecessary articles.

Choose those fabrics and garments that will give back for the material and labor expended the greatest amount of satisfaction and value.

Wherever possible or advisable, instead of buying all-wool materials, buy those which are made in part or altogether of other textile fibers, such as cotton, silk, and artificial silk, thus releasing wool for the war needs, for which there is no substitute. At present no wool is so satisfactory as silk.

In choosing designs for garments, select those that require the least practical amount of cloth.

Limit the number of colors worn. Choose, therefore, standard colors, those that are becoming and those that will harmonize with the rest of the wardrobe. Avoid the novelty colors that appear each season. They are extravagant because they never harmonize with anything else.

Select materials with reference to the weave structure. The standard twill and panama weaves are durable. Novelty weaves should be avoided. They are usually less serviceable and more expensive.

Put good materials into the garments designed for service. Put less expensive materials into garments that receive only occasional wear.

Buy clothing that is conservative in style; that is, garments that are good in color and line; that give to the figure a simple silhouette; that are appropriate for the use to which they are to be put; that are suited to the individual. Such garments can be worn, without making over, as long as the material lasts. Suits, coats, hats, and dresses, especially, should be purchased with these points in mind.

Learn to know the standard fabrics and the purposes they serve best.—University of Minnesota Bulletin.

Can the Cockerels

Can the cockerels when it no longer pays to feed them, is the advice the United States Department of Agriculture is giving to the boys and girls of the poultry clubs in the North and West. Canning saves feed and puts on the pantry shelves material for a chicken dinner when poultry is highest in price. This is the method taught to club members:

Kill fowl, dress at once, cool; wash thoroughly, draw, then cut into convenient sections. Dip into cold water to insure cleanliness. Place in wire basket or cheesecloth and boil until meat can be removed from bones easily. Then remove from boiling liquid to separate the meat from bones. Take the meat off in as large sections as possible; pack hot meat into hot glass jars or enameled cans; fill jars with pot liquid after it has been concentrated one-half; add level teaspoonful of salt per quart of meat, for seasoning; put rubbers and caps of jars into position, not tight. Cap and tip tin cans. Sterilize for the length of time given below for the particular type outfit used:

Water bath, home-made or commercial (quart jars), 3 hours; water seal, 214 degrees, 3 hours; five pounds steam pressure, 2 hours; 10 to 15 pounds steam pressure, 1 hour.

Remove jars, tighten covers; invert to cool and test joints.

Caution—Use only the very best types of rubbers.

Use Barley—Save Wheat

Hundreds of millions of bushels of barley are raised yearly in the United States. This has heretofore been used chiefly for stock feed or for malting, but under present conditions the greater part of the crop is being milled into flour, which, since it is both palatable and nutritious, may well be used to meet the increasing demand for wheat substitutes.

You may find barley flour one of the best of these substitutes. Delicious breads and cakes can be made by using it to replace all or part of the wheat flour. The use of barley flour for such purposes, though new to most of us, is not new to some people. Not many years ago barley was used more extensively than wheat for bread-making in many of the European countries. Let us revive the art of barley cookery and by so doing "stretch" our supply of wheat flour so that it may go further to meet the need of our Allies. We can easily do this and at the same time serve our families with delicious bread, muffins, biscuits, and pastry.

The Office of Home Economics of the United States Department of Agriculture has found barley flour very satisfactory for hot bread, if you replace one-fourth of the wheat flour with barley flour you will get very good results. With the present need of saving flour we are asked to make less yeast bread than usual, as one cannot use so large a percentage of wheat substitute in yeast breads as in hot breads. Very good pie crust can be made with all barley flour or by using one-half barley and one-half wheat flour. It is best to buy barley flour in small quantities, as it does not keep so well as wheat flour.

The recipes which follow have been tested by food experts in the experimental kitchen of the Office of Home Economics. All measurements are level. Additional recipes for the use of barley flour are given in Circular No. 111, Office of the Secretary, which may be obtained by writing to the United States Department of Agriculture, Washington, D. C. Give barley flour a trial—you will wonder why we did not use it more before the war.

Barley Drop Biscuits

2 cupfuls barley flour
1½ teaspoonfuls salt
6 teaspoonfuls baking powder
4 tablespoonfuls fat
1 cupful milk

Baked in a sheet, this makes a good shortcake buttered and served with fresh crushed berries or other fruit.

Barley Waffles

2 cupfuls barley flour
1 teaspoonful salt
3 teaspoonfuls baking powder
1½ cupfuls milk
2 eggs
3 tablespoonfuls melted fat

Sift the dry ingredients together and add slowly the milk, beaten egg yolk, and melted fat. Fold in stiffly-beaten whites. Beat thoroughly and cook in hot well-greased waffle irons.

Barley Muffins

2¾ cupfuls barley flour
1 cupful milk
2 tablespoonfuls corn syrup
4 teaspoonfuls baking powder
1 tablespoonful fat
1 egg
¼ teaspoonful salt

It is not necessary to go without cake when such delicious products can be made that use no wheat flour and little sugar.

Gingerbread

1½ cupfuls barley flour
½ cupful molasses
½ cupful milk
2 teaspoonfuls baking powder
¼ teaspoonful soda
1 teaspoonful ginger
1 teaspoonful cinnamon
½ teaspoonful salt
2 tablespoonfuls fat

Bake about thirty minutes in moderate oven. Good texture and flavor.

Hermits

2 cupfuls barley flour
2 tablespoonfuls fat
1 egg
½ teaspoonful ginger
¼ cupful chopped raisins
1 teaspoonful baking powder
½ cupful corn syrup
¼ teaspoonful salt
½ teaspoonful cinnamon
¼ cupful nuts
1 tablespoonful milk

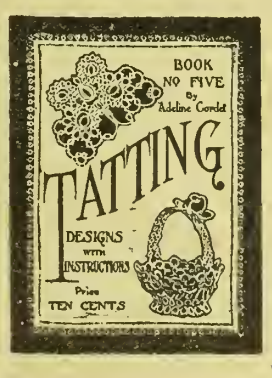
Drop in greased pan like cookies and bake in moderate oven.

Honey, maple sugar, or maple, beet, apple, or sorghum syrup, which can be made at home, can be used in the same way as corn syrup in the foregoing recipes to save sugar.

You waste valuable salts when you throw away the water in which you cook vegetables. Sometimes the flavor is not desirable, but if it is good, save the water for soup or gravy. Even better, cook them in as little water as possible, so there is none left to drain off. Or bake or steam them.

Inserting the end of a curtain rod in a thimble or a cork will enable you to slip it easily and quickly through the hem and will also avoid catching threads of the material and tearing or pulling it out of shape.

NEW TATTING BOOK



A collection of sixty pretty tatting designs with instructions, by Adeline Cordet. Price, postpaid, 10 cents. Ask for Book No. 5 when ordering. Address **Fancy Work Dept., Kansas Farmer, Topeka, Kansas.**

Roses in Your Home

ALL YEAR

Beautiful climbing roses of brilliant colors, fragrant roses of upright growth, and trailing roses with delicate tints; all yielding most delicious perfume. Our New Collection of Native American and Japanese Roses is

GROWN FROM SEED



The seed germinates quickly, and the plants make rapid growth, bearing hundreds of beautiful roses. If grown in the house they will bloom all the year around. They can be grown outdoors during the summer, and if taken inside for the winter will continue to bloom. Nothing is prettier than the fragrant flowers and "berries" of these Native Roses.

You Can Have This Beautiful Window-Box of Roses in Your Home

We will send you a big packet of the seed of our new Rose Collection, together with full instructions for planting and for making a window box, as shown in the picture. If you take advantage *now* of our liberal offer, and plant the big packet of Native American and Japanese Rose Seeds, you will have hundreds of beautiful roses blooming in your home the year around. They require very little attention, except for an occasional watering.

Plant NOW! Roses in 8 Weeks!



Just do us the favor of sending us one NEW TRIAL subscription to KANSAS FARMER for three months at 25 cents, and we will send you the big packet of Rose Seed FREE and postpaid, with full instructions for planting. Send today to

KANSAS FARMER,
Topeka, Kansas

Gentlemen: Send me FREE and postpaid, your big packet of Native American and Japanese Rose Seeds, with instructions for planting and for making the Window Box.

Name.....R. F. D.....

Town..... State.....

I enclose 25 cents, for which you will please send KANSAS FARMER three months to the following address:

Name.....R. F. D.....

Town..... State.....

PURE BRED POULTRY

PLYMOUTH ROCKS.

FOR SALE—BARRED ROCK ONE AND two-year-old hens, high bred, extra layers. Farnsworth, 224 Tyler St., Topeka.

PURE-BRED WHITE PLYMOUTH ROCKS —Fine birds. Pen No. 1, eggs, $1.50 per fifteen; No. 2, $1. Hopewell Stock Farm, Valentine Swartzendruber, Hydro, Okla.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swaim, Geuda Springs, Kansas.

BRED-TO-LAY BARRED ROCKS—FINE, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, $1 setting, $5 hundred; guaranteed. Belmont Farm, Topeka, Kansas.

THOROUGHBRED BARRED PLYMOUTH Rock, White Plymouth Rock, Buff Orpingtou, White Orpington, Buff Leghorn, White Leghorn, Brown Leghorn, White Wyandotte, Silver Laced Wyandotte, Rose Comb R. I. Red and Single Comb R. I. Red eggs for hatching. Sent prepaid, $5 per hundred; $2 per thirty. Will assort. Eighty per cent fertility guaranteed. George Cloon, LeLoup, Kansas.

LEGHORNS.

RANGE EGGS, 100, $4; PEN, 100, $6; 15, $1.50. Karr's Buff Leghorn Farm, Route 4, LaCygne, Kansas.

SINGLE COMB WHITE LEGHORN EGGS —100, $5.50 prepaid. Quality guaranteed. Dave Baker, Conway Springs, Kansas.

S. C. BROWN LEGHORNS BRED 22 years; 222 to 266-egg lines. Eggs, fifteen, $2; fifty, $4; hundred, $6. Gorsuch, Stilwell, Kansas.

S. C. B. LEGHORN BABY CHICKS, $12.50 per hundred. Two-year-old Brown Leghorn hens, also March cockerels. Eggs, $2.50 per setting and $5 per hundred. Sweepstakes and first prize cockerel Kansas State Fair; first pullet, first cockerel, Joplin, Mo. Paradise Poultry Farm, Carona, Kansas.

LANGSHANS.

BLACK LANGSHAN EGGS, 7c EACH; over 100, 6c. Baby chicks, 20c. Mrs. Geo. W. King, Solomon, Kansas.

ORPINGTONS.

BUFF ORPINGTON EGGS, HALF PRICE after May 15. Winners at leading shows in West this season. Write for prices. Leo Anderson, Juniata, Nebraska.

WYANDOTTES.

ROSE COMB WHITE WYANDOTTE EGGS now $4 per hundred. Mrs. Geo. Rankin, Gardner, Kansas.

WHITE WYANDOTTE EGGS AT $1.50, fifteen; $3.25, fifty; $6 hundred. Winning, laying strain, fertility and satisfaction guaranteed. Andrew Kosar, Delphos, Kansas.

DUCKS AND GEESE.

EMBDEN AND TOULOUSE GEESE — Stock and eggs. Will take Runner ducks or Leghorns in trade. Emma Ahlstedt, Roxbury, Kansas.

ANCONAS.

SHEPPARD S. C. ANCONA EGGS FROM extra stock, $6 hundred. Lottie DeForest, Peabody, Kansas.

RHODE ISLAND REDS.

BRED TO LAY SINGLE COMB REDS— Pure-bred, rich red, large, hardy, hen-hatched, free range, heaviest winter layers. Eggs, setting, $1.00; hundred, $5.00; guaranteed. Belmont Farm, Topeka, Kansas.

SEVEN GRAND PENS ROSE COMB REDS headed by roosters costing $15 to $50. Fifteen eggs, $3; thirty eggs, $5; fifty eggs, $8. Special utility eggs, $7.50 per hundred. Baby chicks. Catalog. W. R. Huston, Americus, Kansas.

MINORCAS.

SINGLE COMB BLACK MINORCA EGGS, 100, $4.50; 15, $1.20, postpaid in Kansas. Sarah Peters, Nashville, Kansas.

POULTRY WANTED.

FOR QUICK RETURNS, FAIR TREATment and accurate weights, ship broilers, hens, roosters, other poultry to The Copes, Topeka. Coops loaned free.

Sacrifice for War

Fortunate the Americans in this land of plenty who can find day after day some hardship to endure! Happy the "wheatless-till-harvest" citizens.

Let those who have murmured over mixed breads read this bill of fare:

Breakfast—Acorn coffee, two slices of bread made of rye, sawdust and potato flour.

Dinner—Soup with a small piece of tough beef, coarse turnips and no potatoes.

Supper—Soup again, with two slices of bread.

This represents the fare of fifteen American prisoners in Germany, according to a Canadian soldier recently escaped from a German prison. These men were captured in a trench raid last October and since then had been marched many miles on these rations.

Our men, said the Canadian who had talked with them, had not received parcels of food like other soldiers. As a result of their treatment they were thin, weak, and mentally dazed. In this condition they had been exhibited from village to village as a proof that the American army could not stand against German trained soldiers.

In the lines and behind the lines America is giving daily proof that she can stand against any amount of German training. There is no better evidence of this fighting spirit than the continued response to the Food Administration's wheat-saving campaign. The hotel men led off, pledging 500 hotels all over the country; the hotels in Arkansas and hundreds elsewhere followed; then the dining cars and clubs came in. Entire counties have given up their holdings of flour, and two states—Idaho and Texas—pledged their willingness to give up wheat if necessary. Total abstainers clubs have been formed in Ohio, and from a Florida town came the wheatless pledge "Until we whip the kaiser." The General Federation of Women's Clubs meeting in Little Rock, Arkansas, pledged each delegate to go home and enlist in the wheatless ranks the twenty million members of the federation.

If days and weeks and even months to come are wheatless, let no whiner call himself an American. In this world of heroic suffering, fortunate the Americans who can find some hardship to endure!

One of the most useful and labor-saving tools for the garden is the wheel hoe. It is much more efficient than the ordinary hoe.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

Address All Communications to Kansas Farmer, and Not to Individuals

Personal mail may have to be held for several days, or be delayed in forwarding, and Kansas Farmer cannot assume any responsibility for mistakes occurring thereby

CLAIM SALE DATES.

Shetland Ponies.
June 20—R. J. Foster, Topeka, Kansas.

Holsteins.
Sept. 4—E. S. Stoughton, Hutchinson, Kan.

Spotted Poland Chinas.
Oct. 5—W. J. Honeymoon, Madison, Kan.
Oct. 19—C. A. Gooch, Orrick, Missouri.

Poland Chinas.
Aug. 8—Fred B. Caldwell, Howard, Kan.
Oct. 15—H. B. Walter & Son, Effingham, Kansas.
Oct. 16—Dr. J. H. Lomax, Leona, Kansas.
Oct. 31—F. J. Dowe, Hiawatha, Kan.
Oct. 29—Hill & King, Topeka, Kansas.
Oct. 31—Adams & Mason, Gypsum, Kansas.
Nov. 1—E. B. Myers, Hutchinson, Kansas.
Nov. 7—Schmitz Bros., Seneca, Kan.
Nov. 8—Ketter Bros., Seneca, Kan.

Duroc Jerseys.
Oct. 19—W. W. Zink, Turon, Kansas.
Oct. 18—Wreath & Givens, Manhattan, Kan.

Chester Whites.
Oct. 23—J. H. McAnaw, Cameron, Missouri.
Nov. 7—Arthur Mosse, Leavenworth, Kan.

John A. Reed & Sons, of Valley View Stock Farm, Lyons, Kansas, reports their great herd of Durocs doing well and the young stock making a fine growth. This herd is headed by Reed's Gano, a consistent winner of first prizes at the big state fairs and one of the best sires of the breed now in service. A feature of their herd at this time is the extra fine lot of young boars and gilts of Crimson Wonder, Defender, Superba, Illustrator, Gano, Golden Model and Critic B blood lines. This lot of youngsters was sired by boars weighing from 750 to 900 pounds and are out of dams weighing from 400 to 600 pounds. They have bred a large number of gilts to Reed's Gano, their undefeated champion herd boar, for September farrow.

S. D. Seever, of Smith Center, Kansas, owner of Spring Creek Hereford Farm, reports his Herefords doing well. Mr. Seever has built up one of the choice herds of Hereford cattle in this state. All of the popular blood lines are represented in his herd and a feature at this time is the fine lot of young stock.

Dr. J. A. Roberts, of Oconomowoc, Wis., owner of Roberts Stock Farms and one of Wisconsin's famous herds of Holstein cattle, reports his herd making a fine record again this year. Doctor Roberts has built up one of the great producing herds now assembled and his herd is made up of representatives of the great producing families of the Holstein breed. In addition to his pure-bred herd he also has a choice lot of high grades, including a very fine lot of young stock.

R. J. Foster, of Topeka, owner of one of the noted prize winning herds of Shetland ponies, announces that on account of failing health he will disperse his entire herd of Shetlands June 20. This is one of the noted herds of Shetlands now assembled and is famous for its winnings at the big state fairs. The offering will consist of forty-five head from yearlings to brood mares with colts. Mr. Foster will also sell a choice lot of Holstein cows and heifers, a number of work and saddle horses, and thirty head of hogs.



Many Ways to Lose Chickens

THERE are at least twenty-five ways of losing chickens. In nearly every case the losses are due to neglect. Good care and proper attention at the right time will eliminate most of the losses. Open post holes, uncovered swill pails and water pails, loose rolls of poultry wire into which the chickens can tumble or crawl, loose ravelings in the brooder curtain by which they are hung, crows, hawks, rats and foxes, all have to be reckoned with. Many of these causes of loss can be anticipated and avoided; it is small satisfaction to apply the remedy after the chickens have been destroyed. A little thoughtfulness about open pitfalls, felt curtains instead of cloth for brooder curtains, steel traps and shotguns for crows and hawks, anise, molasses and strychnine on fresh meat for rats and foxes, will help to decrease the mortality among chickens.

The "gapes," like most other poultry parasitic diseases, is more easily prevented than cured. The parasitic worm which causes the trouble lives in the ground from year to year. If chickens are kept on board floors for a few weeks when young, or, what is better, if they are reared on entirely new ground each year, and not allowed to run where the coops or brooders have previously stood, little if any trouble will be caused by the gapes.

The loss in growth and vigor caused by lice and mites is very great. Many a flock of chickens otherwise well cared for support hoards of parasites that sap their vitality and cause great mortality. A good natural or prepared dust wallow should be provided. Grease or insect powder should be applied to all young chickens which are infested, and most chickens that have been hatched or brooded under hens are troubled with external parasites. Some of the liquid lice-killers, when painted on the perches, appear to be effective in killing body lice. The mites, which apparently cause even greater loss than the lice, can be destroyed by frequent application to the perches of kerosene or crude petroleum and crude carbolic acid. Whitewash and petroleum, mixed, are also very effective. Every crack and crevice must be covered, or the few survivors will "multiply and replenish" the roost in a very short time.

Constant vigilance is the price of success in rearing chickens. A final inspection with a lantern, to see that the doors are all closed, that no chickens have been locked out, that the lamp flame is neither too low nor too high, that the gates are shut, that the chickens are under the hover and all is snug and comfortable for the night, is the most valuable time spent in rearing chickens except perhaps the time just before a heavy storm, when the chickens are hurried in out of the wet.

A dozen fair-sized eggs contain a pint of water, and large quantities of water are constantly being used and afterwards secreted in the digestion of food and the performance of active life. Water is in ceaseless demand in the hen's body and is as essential as feed. Many well-fed hens do not lay because they do not have the water necessary in the formation of the egg. Lack of water is a chief cause of hens on the farm not laying in the winter. The water must be clean, pure and palatable and within reach of the hen whenever she wants it. She will not drink enough if the water is lukewarm in summer or when it is mixed with ice in the winter. Infected water is as dangerous for hens as for humans and as likely to bring disease.

Entries are already coming in for the next American egg-laying contest, which is to be conducted by the American School of Poultry Husbandry at Leavenworth. "It is our intention," says Mr. Quisenberry, "to construct new houses and new yards on fresh soil. It is our desire to limit the entries to something like sixty pens. This year we had nearly 150 entries, therefore we would advise all who make entries to send in same as soon as possible. Not less than a total of three pens of each variety will be permitted to compete. Entries will be closed as soon as the houses and yards reserved for that variety have been filled. We will use both pens of pullets and hens, providing there are as many as three or more entries. Hens do not compete with the pullets and a separate set of prizes are offered for each. The contest begins November 1 and the entries will close as soon as the pens for each variety are filled. The entry fee is $20 per pen of six birds, five to compete and one held as a reserve. One-half may be paid at the time of entry and the remaining ten dollars on or before October 1."

Remove Roosters

The estimated loss from the production of fertile eggs in the summer months is $1,500,000 every year.

Kansas is now organized against the production of fertile eggs in summer. "Rooster week" is the time when all roosters are removed from the flock. Valuable breeding birds are removed to separate pens and saved for the next year. Males, worthless from the breeding standpoint, are sold on the market. This aids in producing better eggs and feed is saved. June 3 to 8 was official Rooster Week. Next week is not too late.

Infertile eggs keep much better than fertile eggs. It is a common statement that food will win the war. Production of infertile eggs is one way of producing good food. Fertile eggs develop "rots" in the summer months, and "rots" are usually a total loss.

Infertile eggs do not command a higher price on the market at present, but such an effort will soon be started to bring this about.

Some may want to hatch longer this year than usual in order to produce more meat. The eggs remain fertile for ten days or two weeks after the cock is removed and can be used for hatching purposes in this time.

Shade for Chickens

Provide plenty of shade and fresh water for late-hatched chicks this year, says Ernest H. Wiegand, state poultry club leader of Kansas.

Chicks suffering from exposure to the sun during the summer do not make profitable gains from the food given them. Pull the coops out into the orchard, near the berry bushes, or out to the edge of the corn field. The corn will not suffer because the chicks are ranged there, and at the same time the chicks are protected from the sun and from the hawks. They will find many grubs and insects and will make a good healthy growth. Do not waste good feed by neglecting to supply the growing stock with shade.

Boiled Oats for Chickens

It is a sure proposition that this year's chicken crop cannot have much wheat and the thing for the poultry keeper to do is to substitute boiled oats.

Boiled oats fed once or twice a day will raise as good chickens as wheat will. They will like it as well, grow as well and eventually lay as well as if fed wheat this summer. This statement is made by a Pennsylvania poultryman.

Small chicks four weeks old are big enough to be fed boiled oats, the only precaution necessary being not to allow them to gorge themselves on it the first week or two.

The proper way to boil oats is to first swell them in cold water over night and then boil for an hour or two, although boiling them twice this time will not hurt them. A very small quantity of salt can be added by dissolving same in the water used for swelling the oats, but the amount of salt should be very small. If not all the liquor is boiled away (as it should be) save for the next lot.

Feed warm or cold. Never feed hot. Feed on a flat, clean board, at a clean place. Never feed in litter or dirt. When fed twice a day find out occasionally by test how much the chicks will eat at 10 o'clock and then feed half this amount.

At 4 o'clock feed all they will eat up clean. If fed only once a day, noon is the best time to feed.

Feed laying hens this same boiled oats the same way.

Really cheap chicken feed and cheap chicken feeding during this year will be feeding good, thrifty chickens only, killing off all others and feeding heavily of real feeds to those that are left.

These ideas were fully tested out last summer by many of the largest poultry farmers in Pennsylvania, on the advice of the Pennsylvania Department of Agriculture, and had it not been for this boiled oats feed and careful and constant culling many of them would have gone to the wall financially.

Two things must be guarded against when feeding boiled oats: feeding too much or more than will be promptly eaten up clean and feeding any lot that accidentally has soured.

The old hens that have stopped laying and the old roosters are not likely to prove profitable stock to carry over to next season. It is much better to get rid of them in some way and give the room to the young stock. Not only this, but old hens molt later every year and get their new feathers so late that they do not get to laying before cold weather sets in. Thus they are unprofitable all through the winter when eggs are high in price. Hens make better breeding stock than pullets, but no one wants to carry over more hens than is needed for this purpose. If you have only a few old fowls, the best way to get rid of them is to kill them and sell them to customers, or to some local butcher, either alive or dressed. But if you have a large number, the only way to get rid of them is to send them to some larger market. In warm weather it is not easy to ship dressed poultry long distances unless thoroughly cooled and well iced. It is much easier to crate them alive and ship them. Old fowls, unless very nice and fat, will not bring a high price, but they are always worth something. The roosters should be put in separate crates, for they sell at a lower price than the hens, and unless kept separate will knock down the price of the whole crate. When the hens begin to molt it is too late to try to feed them up. With liberal feeding, the feathers will come off the faster and before you get them fat you have a naked lot of hens that nobody will buy. It is better to sell them for what they will bring than to try to do anything with them.

Kansas Fairs in 1918

The following is a list of the fairs to be held in Kansas in 1918, their dates (where they have been decided on), locations and secretaries, as reported to the State Board of Agriculture and compiled by Secretary J. C. Mohler:

Kansas State Fair, A. L. Sponsler, secretary, Hutchinson; September 14-21.

Kansas Free Fair Association, Phil Eastman, secretary, Topeka; September 9-14.

Allen County Agricultural Society, Dr. F. S. Beattie, secretary, Iola; September 3-6.

Allen County — Moran Agricultural Fair Association, E. N. McCormack, secretary, Moran; September 20-21.

Barton County Fair Association, Porter Young, secretary, Great Bend; first week in October.

Bourbon County Fair Association, W. A. Stroud, secretary, Uniontown; September 10-14.

Brown County — Hiawatha Fair Association, J. D. Weltmer, secretary, Hiawatha; August 27-30.

Clay County Fair Association, W. F. Miller, secretary, Clay Center; October 8-11.

Cloud County Fair Association, W. H. Danenberger, secretary, Concordia; August 27-30.

Coffey County Agricultural Fair Association, C. T. Sherwood, secretary, Burlington; October 4-9.

Comanche County Agricultural Fair Association, A. L. Beelery, secretary, Coldwater; September 11-14.

Cowley County — Eastern Cowley County Fair Association, W. A. Bowden, secretary, Burden; September 4-6.

Dickinson County Fair Association, E. W. Elwick, secretary, Abilene; October 1-4.

Douglas County Fair and Agricultural Society, C. W. Murphy, secretary, Lawrence.

Elk County Agricultural Fair Association, Fred R. Lanter, secretary, Grenola; August 27-29.

Ellsworth County Agricultural and Fair Association, George Inman Seitz, secretary, Ellsworth; September 17-20.

Ellsworth County — Wilson Co-Operative Fair Association, J. W. Somer, president, Wilson; September 24-27.

Franklin County Agricultural Society, L. C. Jones, secretary, Ottawa; September 24-28.

Franklin County—Lane Agricultural Fair Association, Floyd B. Martin, secretary, Lane.

Gray County Fair Association, C. C. Isely, secretary, Cimarron.

Greenwood County Fair Association, William Bays, secretary, Eureka; August 27-31.

Harper County—The Anthony Fair Association: L. G. Jennings, secretary, Anthony; September 24-27.

Haskell County Fair Association, Frank McCoy, secretary, Sublette; probably no fair in 1918.

Jefferson County—Valley Falls Fair and Stock Show, V. P. Murray, secretary, Valley Falls; September 18-20.

Labette County Fair Association, Clarence Montgomery, secretary, Oswego; September 18-21.

Lincoln County—Sylvan Grove Fair and Agricultural Association, W. H. Becker, secretary, Sylvan Grove.

Lincoln County Agricultural and Fair Association, Ed M. Pepper, secretary, Lincoln; September 10-13.

Linn County Fair Association, E. D. Bennett, secretary, Mound City.

Logan County—Inter-County Fair Association, F. W. Irwin, secretary, Oakley.

Marshall County Stock Show and Fair Association, C. J. Brown, secretary, Blue Rapids; October 8-11.

Meade County Fair Association, Frank Fuhr, secretary, Meade; September 3-6.

Mitchell County Fair Association, W. S. Gabel, secretary, Beloit.

Montgomery County Fair Association, Elliott Irvin, secretary, Coffeyville; September 17-20.

Morris County Agricultural Fair Association, H. A. Clyborne, secretary, Council Grove; August 6-9 (race meet only).

Nemaha Fair Association, J. P. Koelzer, secretary, Seneca; September 3-6.

Neosho County Agricultural Society, Geo. K. Bideau, secretary, Chanute; August 13-16.

Norton County Agricultural Association, A. J. Johnson, secretary, Norton; August 27-30.

Ottawa County Fair Association, J. E. Johnston, secretary, Minneapolis; August 13-16.

Pawnee County Agricultural Association, H. M. Lawton, secretary, Larned; September 25-28.

Phillips County—Four-County Fair Association, Abram Troup, secretary, Logan; September 10-13.

Pottawatomie County—St. Marys Racing Association, S. R. Santee, secretary, St. Marys; August 6-8 (race meet only).

Pottawatomie County Fair Association, C. Haughawout, secretary, Onaga; September 4-6.

Pratt County Fair Association, E. L. Shaw, secretary, Pratt; September 10-13.

Republic County Agricultural Association, Dr. W. R. Barnard, secretary, Belleville; August 20-23.

Rooks County Fair Association, F. M. Smith, secretary, Stockton; September 3-6.

Rush County Agricultural & Fair Association, T. C. Rudicel, secretary, Rush Center; September 3-5.

Russell County Fair Association, H. A. Dawson, secretary, Russell; possibly October 1-4.

Saline County Agricultural, Horticultural and Mechanical Association, F. D. Blundon, secretary, Salina; September 3-7.

Sedgwick County—Wichita Fair and Exposition, Chas. Mosbacher, secretary, Wichita; September 30-October 12.

Smith County Fair Association, Miles Elson, Secretary, Smith Center; September 3-6.

Trego County Fair Association, S. J. Straw, secretary, Wakeeney; September 16-21.

Wilson County Fair Association, Max J. Kennedy, secretary, Fredonia; August 20-24.

State Labor Meeting

Following the eight district conferences on the question of harvest hand wages, the state convention called at Salina by Federal Farm Labor Director E. E. Frizell, voted to establish a wage of 45 cents an hour for ordinary harvest labor, leaving the wages for stackers of headed grain open for individual agreement.

Twenty-six counties were represented at this conference, which was held in Salina, most of them wheat belt counties. While there was only one accredited delegate from each county, approximately 150 men were in attendance.

Considerable difference of opinion developed in the effort to settle upon a uniform wage scale for the state. In the big wheat counties the demand was for a high wage, while the counties where the harvesting of wheat is not such a big item and where putting up alfalfa, cultivating corn, and the many other tasks of the diversified farm greatly extend the period when extra labor is in demand, urged a lower wage scale. It seemed for a time that these two opposing factions could not be reconciled. The first attempt at an agreement by means of a vote — each county represented in the conference being allowed one vote for each 10,000 acres of wheat to be harvested in the county—failed. After considerable heated argument a motion was made and passed making it the unanimous sentiment of the conference that the wage scale for harvest labor should be 45 cents an hour. It was also decided that ten hours should be a working day and that any time over this should be paid at the same rate per hour.

Men who can stack headed grain are always scarce and command high wages, and it was voted to leave the wages of stackers open. A price of 30 cents an hour for teams was agreed upon unanimously and it was voted that the wages for cooks for crews should be $3 a day, and for assistant cooks $1.50 a day. The subject of threshing prices was discussed briefly and it was voted to leave the question to each county.

The following resolutions, prepared by the Resolutions Committee—J. M. Rinker of Trego County, H. M. Laing of Russell County, and J. A. Crawford of Rawlins County—were submitted and passed by the convention:

Whereas, we are of the opinion that the production of the United States, of which that of Kansas forms no small part, is very essential to our American army and our Allies in the winning of this war, and that the growing wheat crop is very necessary and one of the largest guns that can be fired at the enemy, that it should be zealously protected, economically harvested, threshed, and placed where it will do the most good at the time when most needed.

Resolved, that we demand of our United States Government (it having control of the railroads at this time) that laborers for harvesting and threshing this crop be transported at a cost not to exceed one cent per mile, and very respectfully urge that free transportation be granted.

Be it further resolved, that we call the attention of the Government to the necessity of this work and in the absence of any contingency in sight at this time we ask that the boys in camp not going to the front be furloughed to return to their respective localities to help care for this crop.

Whereas, it has been customary among a certain class of farmers to raise the wages in order to get men away from their fellow farmers,

Be it resolved, that we ask our State and County Councils of Defense to take recognition of this condition and, if necessary, take action as they see fit to stop this practice.

Whereas, we have governmental regulations of the price of our wheat,

Be it resolved, that we ask our State and County Councils of Defense to make the wages offered here a state standard.

Be it further resolved, that we invite our neighboring states to consider our wage scale as adopted so that adjoining counties along the state lines may be benefited.

You never can buy character at a bargain. It costs struggle, stern self-denial, and agonizing effort. One must pay the price of virtue, and I think that the price of virtue, like that of other things, has advanced. A young man must be better than his grandfather or he is not as good; a young woman cannot be as good a woman in this day as her grandmother was in hers unless she is a great deal better than her grandmother was.—Pres. P. P. Womer, Washburn College.

The kaiser's order to American housewives would be: "Waste food. Do not substitute foods." Are you in the kaiser's service?

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement **here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

HELP WANTED.

WANTED, IMMEDIATELY; FARMERS, men-women. Thousands government war jobs open. $100 month. Write for list. Franklin Institute, Dept. R-82, Rochester, New York.

REAL ESTATE.

A FEW GOOD FARMS FOR SALE, WITH or without crops; in Northern Montana. If interested in Montana lands, write J. F. McLaren, Pondera, Montana.

BARGAINS—BARGAINS—FARMS, UNIMproved lands and exchanges. Send for free magazine. Western Sales Agency, Minneapolis, Minn.

SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price $10 to $15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address E. T. Cartlidge, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kan.

PATENTS.

PATENTS PROCURED, BOUGHT AND sold. International Patent Co., Brandeis, Omaha.

THRESHING MACHINES.

FOR SALE — COMPLETE THRESHING outfit, $1,750. Consists of a 40-80 gas tractor and a 34-56 Buffalo-Pitts steel frame separator. All in good condition and ready to go to work. Outfit has run about fifty days and is a bargain. Come and see for yourself. Come to St. Marys or Paxico, Kansas, and see Carl Miller, Belvue, Kan.

BEES.

ITALIAN BEES FOR SALE CHEAP—Free from disease. H. Gentz, Herington, Kansas.

MISCELLANEOUS.

FOR SALE—BATES STEEL MULE AND three-bottom Grand Detour plow. I am in Class 1 in the selective draft and am not farming this season. Price, $700. W. H. Mulch, Munden, Kansas.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

TWENTY-FIVE TWO-YEAR-OLD HIGHgrade Holstein springers. A few Holstein heifer calves, four to six weeks old, $22.50 each. Oakwood Farm, Whitewater, Wis.

HIGH GRADE HOLSTEIN CALVES, either sex, well marked, from heavy producers; four to six weeks old; fifteen-sixteenths pure; $25 each, crated and shipped to your station. Express and all charges paid here. Highland View Place, Whitewater, Wis.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

FARMS WANTED.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 56th St., Chippewa Falls, Wisconsin.

USED CAR BARGAIN.

FOR SALE—MODEL 35 JACKSON FIVEpassenger touring car. Not latest model but has had good care and is in good condition. Good top, tires nearly new, Presto lights, jack, pump and other tools go with car. Is good for several years' service. Cost $1,300 when new. Price, $300 cash. Owner, 625 Jackson St., Topeka, Kan.

FALSE TEETH

CASH FOR OLD FALSE TEETH, WORTH as high as $21.50 per set (broken or not). Send at once—package held five to fifteen days subject to owner's approval. Highest prices paid for old gold jewelry, crowns, bridges, platinum, silver. United States Smelting Works, Inc., 347 Goldsmith Bldg., Opp. P. O., Milwaukee, Wisconsin.

TREES, SEEDS AND PLANTS.

SEEDS—KAFIR, 5c PER POUND; FETerita, 8c per pound. L. K. H. Laws, Camargo, Okla.

SUDAN SEED, HEAVY, RECLEANED, one pound, 22c; fifty, 20c; 100, 18c. Elias Schlabach, Thomas, Oklahoma.

ONE HUNDRED FIFTY BUSHELS GOOD recleaned alfalfa seed for sale, $9 per bushel if a quantity is taken. V. O. Johnson, Aulne, Kansas.

SUDAN SEED, 16c PER POUND, GUARanteed pure. June is best time to plant. Only requires one-third as much seed as sorghum. M. H. Loy, Milo, Kansas.

MR. FARMER, DO YOU ALWAYS BUY the best field and garden seeds you can buy? If not, why not? We sell the best. Write for prices. Watson Bros., Wholesale Seed Merchants, Milan, Missouri.

SUDAN SEED RECLEANED, GUARANteed free of Johnson grass seen; 16c per pound; and red top and orange cane seed, 6c per pound. Robinson Bros., Lubbock, Texas.

PIMA OR YELLOW TEPARY BEANS for seed. Most prolific and drouth-resistant bean known. Vines fine, leafy, good as alfalfa for cows. Ten pounds $1 postpaid to points in West Kansas and West Oklahoma. Plant between June 15 and July 15. H. Willis Smith, Garden City, Kansas.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

THE STRAY LIST.

TAKEN UP—BY J. W. GATTSHALL, OF Smoky Township, Sherman County, Kansas, on the 30th day of April, 1918, one horse, color black with star in forehead, 15½ hands high. Doris E. Soden, County Clerk, Goodland, Kansas.

TAKEN UP—BY HARVEY A. REED, OF Gridley, Liberty Township, Coffey County, Kansas, on the 21st day of April, 1918, one steer, weight about 800 pounds; color red with white face. Brand CS on left hip. Appraised at $85. Geo. Bruce, County Clerk, Burlington, Kansas.

TO WHOM IT MAY CONCERN: TAKE notice, that the undersigned, who is a resident of Cedar Township, in Jackson County, in the State of Kansas, has this day taken up, and now has in his possession, in said township, as an estray, to be dealt with according to law, a certain stray steer found on his premises, and described below: Description of estray: Color, red; age, short two year old; marks, white tail and belly; brands, none. Dated this 20th day of May, A. D. 1918. Sanders Kennedy.

HOLSTEIN CATTLE.

CLYDE GIROD, At the Farm — F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

ONE HUNDRED AND FIFTY HOLSTEINS

High-Grade Springing Cows and Heifers. Fifty young cows three to five years old, will freshen in next fifteen to thirty days. Forty largo growthy two-year-old heifers due in fifteen to forty days. Sixty exceptionally fine largo heifers due to freshen in September and October. All cows and heifers are beautifully marked and are bred to high record registered bulls. All stock tuberculin tested and guaranteed to be as represented. Can spare a few two-year-old heifers and registered cows due in the fall, in calf to one of the highest record bulls in the country whose sire's dam made 1,271 pounds of butter in a year and at that time held the world's record. Also a few good light colored young registered bulls. Have a limited number of fine, thrifty, practically pure-bred Holstein calves, either sex, at $25.00, express prepaid to your station and guaranteed to meet with your approval.

MAGEE DAIRY - - - - CHANUTE, KANSAS

HOLSTEIN COWS FOR SALE

NINETY HEAD REGISTERED AND HIGH GRADE:

Forty two-year-old heifers bred to freshen May and June. Ten yearlings. Forty cows three to six years old. Priced to sell. Farm adjoins town. Come and see me.

C. A. BROCK - - - NORTONVILLE, KANSAS

HOLSTEIN CATTLE

I am offering for sale from my registered herd, four cows from four to six years old; two heifers, two years old, extra good; four yearling heifers and four high-grade cows; four registered bulls of serviceable age. Write or come and see my herd.

J. W. MEYER, NORTONVILLE, KANSAS.

MAURER'S HOLSTEIN FARM

Offers special attractions in pure-bred females of all ages with high class breeding, and a number of choicely bred yearling bulls; also grade cows and heifers with size and quality. Don't fail to see this herd before you buy, as they are all bred RIGHT and priced RIGHT.

T. R. MAURER & CO - - - - EMPORIA, KANSAS

Holsteins

HIGH GRADE COWS AND HEIFERS

Carload lots and less. Calves fifteen-sixteenths pure-bred for sale at all times. $20 crated for shipment.

MAPLE LAWN STOCK FARM

C. W. HODGE, MAPLE JUNCTION, WIS.

$25 Holsteins $25

The Best That You Can Buy

Five weeks old, 15-16ths pure. When you buy from Roberts you get value received. Cows also $150 crated. Write or call

Dr. J. A. Roberts Stock Farms

Oconomowoc, Wisconsin

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

REGISTERED HOLSTEIN BULLS

For Sale—Several young bulls by Pontiac Beauty De Kol Segis, a grandson of King of the Pontiacs and King Segis. These bulls are out of high-testing yearly record cows. We breed for yearly production. Come and see my herd. H. D. Burger, Seneca, Kansas.

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON, KANSAS

$23 HOLSTEIN AND GUERNSEY CALVES $23

When in need of good high-grade calves, calves from good milk producers, well marked, crated and satisfaction guaranteed, send order or write

R. C. FREEMAN, LONE OAK FARM

Route 2 Whitewater, Wisconsin

REGIER'S HOSTEIN-FRIESIANS

For Sale—Young bulls, bred heifers and cows. All sired by the great bull, Sir Rag Apple Korndyke De Kol. Two cows will be fresh this month. Fourteen-thousand-pound milkers.

G. REGIER & SONS, Whitewater, Kansas.

RED POLLED CATTLE.

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.

CHAS. L. JARBOE - QUINTER, KANSAS

RED POLLED BULLS FOR SALE.

Address

R. C. BROWNLEE, HOLDEN, MO.

CHESTER WHITE HOGS

CHESTER WHITE HOGS

Five December boars ready for service, out of my grand champion sow, Tip Top. Spring pigs from other good sows for sale.

COLEMAN & CRUM, DANVILLE, KANSAS

HEREFORD CATTLE.

SPRING CREEK HEREFORDS

Good big two-year-old Hereford Bull.

S. D. Seever - - Smith Center, Kansas

MULEFOOT HOGS.

KNOX KNOLL MULEFOOTS

Still have a few choice pigs from big litters. For prices and catalog address

S. M. KNOX - - HUMBOLDT, KANSAS

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wauwatosa, Wisconsin

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

REGISTERED HOLSTEIN BULLS

I have a few choice young bulls from my best record cows. They are splendid prospects for herd bulls and priced to sell.

BEN SCHNEIDER, NORTONVILLE, KAN.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

CHOICE HOLSTEIN CALVES

High grade, beautifully marked, sired by registered bulls and from heavy milk producing dams, ten days old, $15; three weeks, $17; six months, $40. For thirty days only. First draft takes them.

Mt. Pleasant Stock Farm, Gilberts, Illinois.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.

H. B. COWLES, 608 Kan. Av., Topeka, Kan.

DUROC JERSEYS.

ADAMS FARM DUROCS

March pigs of Crimson King, Tatarrax and Ohio Col. breeding. Immune. See our Guernsey ad next week. ADAMS FARM, Gashland, Mo. Twelve miles from K. C.

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. W. J. Harrison, Axtell, Kan.

CHOICE IMMUNED DUROC BOARS

Sired by Taylor's Model Chief 126455, winner at American Royal and Missouri State Fair. Also gilts bred to Great Wonder and Pathfinder boars.

W. R. HUSTON - AMERICUS, KANSAS

Wreath's Durocs

A Choice Lot of Spring Pigs

Ship at weaning time. Priced in pairs or trios. Write or come and see my herd.

L. G. WREATH, MANHATTAN, KANSAS

WOODDELL'S DUROCS

Herd boar, Chief's Wonder, 75 spring pigs, priced for shipment at weaning time. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on boars and bred gilts from Crimson Wonder, Golden Model, Illustrator, and Defender breeding. JOHN A. REED & SONS, Lyons, Kansas.

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS

One hundred spring pigs priced in pairs and trios. Geo. W. Ela, Valley Falls, Kansas



Use of Paint True Economy

WE HEARD a prominent platform speaker make the statement recently that the word "tractor" had a magic sound in these days in which we are striking out all non-essentials and only spend our money for those things which contribute directly to the waging of successful warfare. On the other hand there are many things over which we should ponder most carefully before making investment. The question of essential and non-essential industries as applied to war conditions is bobbing up more and more frequently as time goes on. Following the work or fight order issued by Provost Marshal General Crowder, President Wilson made a public appeal to the people of the country to drop all non-essential industries, cut out all luxuries, and devote their entire time and efforts to win the war more quickly.

"This war is one of nations, not of armies," said the president, "and all of our 100,000,000 people must be economically and industrially adjusted to war conditions if this nation is to play its full part in the conflict. The problem before us is not primarily a financial problem, but rather a problem of increased production of war essentials and the saving of the materials and labor necessary for the support and equipment of our army and navy. Thoughtless expenditure of money for non-essentials uses up the labor of men, the products of the farm, mines and factories, and overburdens transportation, all of which must be used to the utmost and at their best for war purposes."

It is not always so easy to decide questions of this kind. Of course if we have a fairly comfortable house we recognize that it would not be patriotic to construct an expensive new house at this time, thus drawing upon labor and materials which should be utilized to the fullest extent possible in war work. But take the matter of paint. Paint is too often considered as a beautifier, and for that reason not enough thought is given to its protective functions. It is pointed out in a recent issue of the Du Pont Magazine that a building coated with sheets of rubber would not be as well protected from decay as a structure that has been well painted, because the rubber is not nearly so durable as an elastic film of properly prepared paint. A paint film one one-thousandths of an inch in thickness, as long as it remains intact, will protect the surface to which it is applied indefinitely from moisture and decay. In this sense keeping buildings painted becomes an essential, for if permitted to deteriorate and decay from lack of paint they will soon run down and be unfit to serve the utility purpose for which they were constructed. The protective value of paint is no longer confined to wooden structures. No matter what the material, wood, metal, or cement, dwellings, barns, sheds, posts, fences, wagons, tools, implements and silos all can be preserved practically without limit from decay and deterioration by the use of paint.

True economy is in keeping farm buildings well painted at all times. A paint film on a few square yards of surface costs but little, yet it will protect and beautify several dollars' worth of surface for many years. To leave a surface unpainted for several years will "save" in paint by a few cents for every square yard of surface, but it will cost several dollars in structural materials wasted and beyond repair. When buildings are painted frequently, they are always well protected, the surface is in better condition for repainting, less paint is required and the appearance of the property is always at its best. The cost represents the lowest possible rate of insurance.

Nothing shows more clearly the value of good painting and repairs than the attitude of bankers in making loans on farm property. A careful inquiry of leading bankers shows that a farmer can borrow all the way from five to fifty per cent more when his buildings are well painted and in good condition than when they appear neglected.

The average increased loan value under such conditions is considerable. Bankers take this attitude not only because well painted buildings are well preserved and better security but because where houses, barns, fences and tools are well taken care of the assumption is that the farm is a profitable proposition and the farmer a good client. A well-kept farm is invariably an indication of thrift, and the banker knows that money can be safely loaned to the thrifty farmer.

The influence of well-looked-after buildings on bank loans varies in different parts of the country. In Minnesota, it is customary to loan twenty to twenty-five per cent more if the buildings are in good condition. In Ohio, twenty-five per cent is the average. In Iowa the average is about the same. In Illinois, some banks loan as much as fifty per cent more on a farm when the buildings are well painted and in good order than on run-down property. The attitude of bankers in general is well summed up in the statement by an Illinois banker that "there probably are many farmers good financially and morally who permit their buildings to remain unpainted, but as a rule the substantial people who live in the country keep their buildings well painted."

As a general thing, the standpoint of the banker is that farm buildings out of repair indicate that the owner is inefficient and careless, and, therefore, likely to be slow pay. Usually such a farm is rated at about one-third of the assessed value for the purpose of making loans. When the buildings are well painted the rating is usually one-half to even higher.

Some banks even go so far as to refuse a loan on any basis in the case of farms where the buildings have not been kept up. The general appearance of the outbuildings in addition to the house, barn and also the condition of the fences and farm implements have a great deal to do with influencing the banker for or against your loan.

The same line of reasoning applies, of course, to the selling value of farm property. Farms with buildings in good order invariably sell more readily and for a higher price than those whose appearance indicates that the farm was an unprofitable venture. It is common knowledge among real estate men that well-painted farm buildings bring an increased price out of all proportion to the cost of maintaining them in good condition and keeping them well painted.

Not only is good maintenance a sound business proposition that no farmer can afford to put off to a later time, but it is also especially desirable at the present time, for the preservation of building materials, as a means of further conserving our national resources. There can certainly be no better way of aiding in the war against waste than by protecting through every means at our disposal the enormous investment we have in our dwellings and farm buildings as well as city property.

Soldier and Sailor Insurance

In all of our war measures and activities there is nothing wiser and better fraught with more good to our fighting men and the Nation than our soldier and sailor insurance. That the members of the military and naval forces of the United States for whose benefit the insurance was established, are availing themselves of it is something that all good Americans will rejoice at.

More than two million members of America's fighting forces are now insured by the Government for more than sixteen and a half billion dollars. Up to the close of business Monday night, May 13, 2,029,886 insurance applications, aggregating $16,663,514,000, had been received by the Military and Naval Division of the Bureau of War Risk Insurance. The average amount of insurance applied for is $8,209, the maximum permitted by law being $10,000.

Approximately 11,000 applications for Government insurance are being received daily. In the last two weeks $1,000,000,000 of insurance was written on the lives of soldiers and sailors. This indicates that the new men joining the colors are taking out Government insurance.

Men are being urged to insure immedi-

ately upon enlistment, inasmuch as application must be made withing 120 days after joining the service.

An official bulletin issued by the Treasury Department, Washington, D. C., entitled "Uncle Sam's Insurance for Soldiers and Sailors" gives full information about this Government insurance. In the foreword of this circular appear the following statements by Secretary McAdoo: "It is to the advantage of everyone entitled to do so to take out this insurance, and since the time within which it may be secured is limited, I desire to bring the fact promptly to the attention of the soldiers and sailors of the nation so that they may be advised of their rights.

"This pamphlet is designed to explain as clearly and briefly as possible some of the essential facts that should be known by the men and women who are applying for war insurance. The questions and answers are based on inquiries that have come to the treasury from soldiers and sailors. The Bureau of War Risk Insurance, Treasury Department, Washington, D. C., will be glad to answer any further questions relating to this subject.

It is dangerous to delay. The Government is making a liberal, an unprecedented offer to its fighting forces; but the offer is open for only a limited period. Now is the time to act."

We would urge parents or relatives of men in the United States service to get copies of this circular. It is free for the asking.

Silage for Farm Stock

It was as a feed for dairy cattle that silage was first recognized to have distinct economic value. For a good many years its value for beef animals and sheep was not very well known. In Kansas, Missouri, Iowa, Indiana, and other mid-west states it is now definitely known that silage is also very valuable for beef cattle. By making silage the principal feed of stock cows, they can be carried through the winter about as cheaply as they can be fed in summer. Dry cows will do well on a daily ration of thirty pounds of silage, perhaps four or five pounds of alfalfa, and the run of a straw stack or stalk field. They will not only be maintained on this ration, but gain consistently through the winter. A fact which is rather hard to explain is that stock cattle being fed silage will consume a great deal more wheat straw than cattle being wintered on ordinary dry roughage. Of course cows suckling calves during the winter will require a little grain in order to keep them up in condition.

It is now also known that silage will actually reduce the feed cost for fattening steers. It aids in making larger gains and silage-fed cattle gain as high finish and require less grain than fattening cattle fed dry roughage only. We recently had our attention directed to the value of silage in making baby beef at the Kansas Experiment Station. The North Dakota Experiment Station has found that it costs forty-six cents less to make a hundred pounds of gain on steers fed silage than on steers dry fed.

Wide use is also being made of silage for sheep, but these are such that the man of ordinary intelligence can safely use the silage for feeding sheep and thereby greatly economize in maintaining breeding stock and also in the finishing of sheep for market. Some of our most extensive feeders of sheep in Kansas are using silage with the greatest success in fattening sheep. Silage must be fed rather cautiously to breeding ewes and just previous to and following lambing time it is well to feed it in rather limited quantities, since it is apt to stimulate too heavy a milk flow.

A decided advantage of this method of preserving feed crops is that the crop will make some sort of silage in almost any stage of development, although to make the best silage corn, kafir, or cane should be nearly mature. In making silage this is an important point, but in case the season is so unfavorable that the crop does not reach the proper stage of maturity before being checked by frost, it can still be stored as silage and be worth a great deal more than if left in the field and allowed to cure as dry forage.

The man who would feed his stock most economically must almost of necessity plan for a silo. In this connection it is interesting to note that at a recent meeting of cattle feeders in Indiana 84 per cent of those present were using one or more silos on their farms. The majority of the remaining 16 per cent indicated they contemplated making a change in their feeding methods and expected to adopt the silo.

The Farmers Bought Bonds

Next to the aggregate number of subscribers perhaps the most striking feature of the Third Liberty Loan was the support given it by the farming and rural populations of the country. Not only did the farmers purchase liberally of the bonds, but the rural communities as a rule were more prompt in completing their quotas of the loan than the larger cities. More than 20,000 communities in the United States subscribed or oversubscribed their quotas, many of them on the first day of the campaign. The majority of these were not cities but country districts.

Iowa, a typical agricultural state, was the first to subscribe its quota, and was followed by Oregon, Arkansas, Kentucky and other states in which agriculture is the leading industry.

It is impossible to give accurate figures, but it is estimated that while only two per cent of the farming population of the United States subscribed to the first and second loans, probably ten times as many subscribed to the third. The significance is increased by the fact that the heavy subscription was made at a season when the farmers are ordinarily on the borrowing and not on the lending side of the market, and when the farms of the country are speeded up to the limit.

This wide distribution of this third loan among the whole people shows that the body of the nation has become aroused and gone into action—that the sense of duty and the necessity for individual support of the country has permeated the whole people. Secretary McAdoo may justly be enthused over the result and call it the soundest national financing in the world. Every Liberty Bond holder is an active force backing the Government.

Our soldiers in France and our Allies are heartened and strengthened by the knowledge that 17,000,000 American citizens are backing them with their money, and our enemies must learn with fear and dread of this great reserve force upon which their adversaries can rely.

To keep the good work up the American people must adopt scientific saving methods; save money, save material, save labor, save time. Thus we will bring the war to an earlier and victorious close and save the lives of American soldiers, and save our rights and liberties and save the world to democracy, justice, and civilization.

Hold Your Liberty Bonds

The American who buys a Liberty Bond and forthwith sells it has performed only a half service for his country. To buy bonds and then sell them immediately tends to make the war burden of the country heavier instead of lighter, as it decreases the market value of the bonds.

Liberty bonds are the safest and soundest and one of the best investments in the world. To sell them unless imperatively required is not good business, is not good Americanism.

No wheat has as yet been requisitioned in Kansas. All over the state farmers have responded to the call and marketed wheat or returned flour in order that it might be redistributed, thus helping to increase the supply in France, where the allowance of bread both to the soldier and the civilian has been reduced almost to a minimum. In a few instances representatives of the Food Administration in Kansas have had to go to certain individuals and present rather forceful arguments to show the necessity for marketing stored wheat or flour, but up to the present time no wheat or flour has actually be requisitioned by the Government.

JERSEY CATTLE.

TESSORO PLACE
OWL INTEREST FINANCE JERSEYS (REGISTER OF MERIT)
Buy a bull from a R. of M. cow and be more certain in your herd building. Every cow in milk in our herd has a year's test or one now on. Our two-year-olds will average 400 pounds of butter. Write for prices and other information.
R. A. Gilliland, Mayetta, Kansas

THREE GOOD JERSEY COWS
Soon fresh
C. F. PFUETZE, Route 4, Manhattan, Kan.

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MAKES A SPECIALTY OF MANAGING JERSEY SALES.
Write for catalogs.
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FINE YOUNG JERSEY BULLS
From Register of Merit and tested cows; Register of Merit sire.
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Allen Center Stock Farm
Registered bull calves — some ready for service. Sale or exchange for bull or heifers.
TREDWAY & SON, LA HARPE, KANSAS

REGISTERED JERSEY BULLS
Butter-Bred, from High-Producing Cows.
Photo furnished.
MAXWELL'S JERSEY DAIRY
Route 2 Topeka, Kansas

J. B. PORTER & SON
MAYETTA, KANSAS
Breeders of High-class Jerseys. Stock for sale at all times.
Write Us Your Wants.

When Writing to Advertisers, Please Mention Kansas Farmer.

POLAND CHINAS.

GLENWOOD FARM'S SHORTHORNS AND POLAND CHINAS
SHORTHORNS
Sires in Service—Emma's Valentine 412453, Golden Searchlight, and Master Goods.
For Sale—Emma's Valentine 412453, Master Butterfly 10th 582866, and Secret's Valentine 648605. Real Herd Bulls.
PRICES REASONABLE.
POLAND CHINAS
Sires in Service — Expansion King, King Wonder II by Big Bob Wonder, and Wonder's Joe by Giant Joe.
For Sale—Twenty gilts bred for summer and fall litters, sired by Expansion King or King Wonder II, bred to Wonder's Joe or King Wonder II. A few fall boars.
C. S. NEVIUS & SONS, CHILES, KANSAS



Faulkner's Famous Spotted Polands
THE WORLD'S GREATEST PORK HOG
Three hundred pigs for June shipment, when weaned. Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.
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For sale quick, five September and October fall boars, large, well grown, sired by Jumbo Bob, he by Big Bob Wonder. Priced to sell. We need the room for our 100 spring pigs. Write or come at once.
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Big-Type Poland China Hogs
September and October boars. One real herd boar prospect. Fifty bred sows and bred gilts. 250 spring pigs.
DEMING RANCH - - OSWEGO, KANSAS
H. O. Sheldon, Herd Manager

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Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.
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Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.
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All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
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Breeders' Directory
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George McAdam, Holton, Kansas.
RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.
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Meadow Brook Shorthorns
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At Farm Two Miles South of Country Club, Topeka, Kansas,
Thursday, June 20, 1918
On account of failing health, my entire herd of prize-winning Shetland Ponies will be dispersed on above date. The offering will consist of 45 head of ponies from yearlings to brood mares with colts. Our show herd will be included. Will also sell ten head of choice high-grade Holstein cows and heifers, thirty head of hogs, and a number of work horses, also some saddle horses. Sale commences promptly at 10 a. m. Take Country Club car. Out of town buyers will be met at the end of Country Club car line. Lunch served at noon by local Red Cross.
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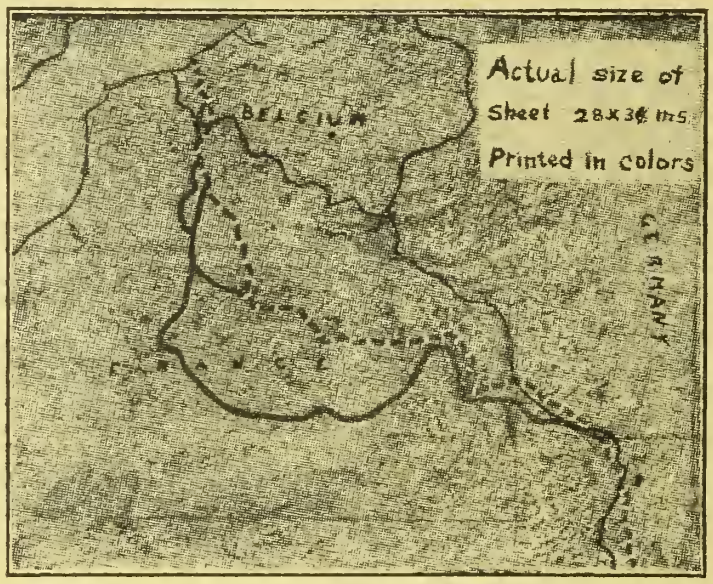

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For the improvement of the Farm and Home

Volume 56, Number 24. TOPEKA, KANSAS, JUNE 15, 1918. Established 1863. $1 a Year

PROLIFICACY IN BROOD SOWS

Small Litters a Handicap to Economical Pork Production

By W. W. Smith, Purdue University
Before Kansas Swine Breeder's Ass'n.

THE first essential of an ideal breed or herd of hogs is that the brood sows possess the ability to produce large, even litters; i. e., the sows must be prolific. The experience of the corn-belt farmer with the lard hog has supplied plenty of evidence in support of the claim that prolific breeding qualities is the most valuable trait of which any breed can boast. If is a fact that, to a very large extent, a breed is popular or unpopular according as the sows are prolific or not prolific. Under practical conditions on the farm, the value of a sow is not determined by her pedigree, her show-ring performance, or by her good looks, but by the number and quality of the pigs which she is able to produce.

The reasons for this are obvious. We keep brood sows on the farm for the sole purpose of raising pigs, and it costs money to raise and keep them. With present prices of feed, with dollar corn and other feeds in proportion, it costs for feed alone approximately thirty dollars to produce and raise a litter of pigs to weaning time, when one litter a year only is raised. This means that the sow which produces a litter of six, charges you five dollars for each pig at weaning time. If she raises five only, it means that each pig has cost six dollars, while with four pigs to the litter the initial cost is $7.50. If she is prolific and succeeds in raising eight pigs, the cost is reduced to $3.75 per head, and for a litter of ten it is three dollars.

Let us compare the prolific sow which raises eight pigs to the litter with the sow that raises but four. Suppose the pigs from both these litters are sold on the same market at an average weight of 250 pounds. A little figuring will show that if each pig in the litter of four is to make as much money as each pig in the litter of eight, it will be necessary for the former to sell for approximately one and one-half cents a pound above the latter. The difference of $3.75 in the initial costs of these pigs is equivalent, therefore, to a difference of a cent and a half a pound in selling price. In other words, the herd of sows which averages only four pigs to the litter is carrying a handicap equal to a sacrifice of a cent and a half a pound in selling value when the pigs are sold. That brings the matter home and shows emphatically why it is that the prolific sow is the money maker and the low or uncertain producer is the one which loses us money. These costs were for the mature sow producing one litter a year only. For a sow raising two litters instead of one the average feed cost of each pig would be reduced approximately one-third.

Increasing Size of Litter

Now the real question which we as breeders and feeders are interested in is, how can we increase the number of pigs to the litter? The number of pigs which a sow produces and raises depends upon tho things: first, upon her individuality and breeding, and second, upon her feeding and care.

Although we are here chiefly concerned with how we can breed hogs possessing inherent fecundity, I want to say in passing that the breeder cannot do it all. The most prolific sow in the world will not regularly produce and raise large even litters of strong pigs if she is not properly fed and given intelligent care. Feeding has more to do with the size of the litter than it is usually given credit for. The most important points in feeding and care which will guarantee the maximum litter from the ordinary sow is, first, to have her in the late summer in a rather thin vigorous condition as the result of plenty of grass aud exercise, and little or no grain. About two weeks before you expect to breed the sow, begin feeding so as to have her gaining in weight at the rate of about a pound a day until she is safely in pig. During the winter let her gain about sixty or sixty-five pounds in weight, give her opportunity to take exercise every day, and be particular to give her something besides corn alone, a month before she is due to farrow. Light, laxative rations during the farrowing season will reduce the losses to a minimum. Then, of course, careful attention to the details of feeding and sanitation will be necessary to bring the pigs to weaning time in a strong, thrifty condition.

Keep Only the Fertile Sows

With the best of care and feeding there are a good many sows which fail to produce profitable-sized litters, and our problem is to show how this can be done by the breeder. Of course it is easier said than done. But when accomplished it is always the result of the careful selection of the breeding stock. There are three or four fundamental facts which I think will guarantee success if we are careful of the selections which we make.

The first of these is this: Keep in the breeding herd only those sows which have demonstrated by actual performance their ability to produce and raise large litters. In other words, we can surely improve the herd in prolificacy if we are quick to fatten and market every individual which is not a producer.

This policy of rigorous culling on the basis of breeding performance should, in my opinion, be one of the rules in every pure-bred herd of hogs. This culling should be carried out in the case of every sow regardless of her pedigree, her show-ring attainments, or her actual money cost. At the close of every breeding season, when the pigs have been weaned, an accounting should be made with the sows. The shy breeders, the pig killers, the poor milkers, the sows with mean dispositions, the gilts which did not perform up to expectations, should all go into the fattening pen. Any breeder who fails to do this is propagating a type which will surely doom any breed to failure. We have all seen enough of this to know it is true.

Prolificacy Not Question of Breed

Some breeds may have the reputation of being more prolific than other breeds, but I do not believe there is any best breed in this particular. There are all kinds to be found in every breed. Any breeder who does not have a reliable producing herd has himself and not the breed to blame. The herd and the breed are what the breeders make them. The breed is often the victim of the breeder, but the breeder can never truthfully claim that he is the victim of the breed.

Select Gilts from Large Litters

The second rule which will guarantee improvement in the size of the litters is to be careful to select the gilts which are to be retained for the breeding herd from the large litters only. If this practice is followed year after year the breeding average will be maintained or improved. The sows which produce the large litters, which milk down and become thin during the nursing period, are the kind which transmit prolific breeding qualities to their pigs.

This point is of such importance as to warrant more attention when reading and writing pedigrees. A pedigree which does not include the statement of the number of pigs in each litter fails to tell us what it is most important for us to know. It is to be regretted that some breed associations do not make the number of pigs in the litter a matter of official record.

Boar from Prolific Strain

The third point to which attention should be given is, that the sire is supposed to influence equally with the dam the ability of a gilt to produce large litters. This being true, it is as important that the boar be selected from the large litter and the prolific strain as it is for the gilt. Of course, the size of the litter is limited by the number of eggs produced by the sow. The boar to which the sow is mated is believed, therefore, to have no influence on the size of the resulting litter, provided he is vigorous. Although this is true, the ability of the sow pigs in this litter to produce when they reach maturity is influenced as much by the sire as it is by the dam.

In conclusion, then, the three methods which have been suggested as means of increasing the size of the litter and the reliability of our sows as producers, are, first, to retain in the herd only those sows which have demonstrated by actual performance their ability to produce and raise good litters regularly; second, to select the gilts from the prolific mothers and fertile strains; and, third, to see to it that the herd boar also has a dam and grand-dams noted for fertile breeding qualities. And, finally, to re-emphasize the importance of fertile breeding qualities, I want to say that it is my conviction that if there is one vital fault more common in our herds of pure-bred hogs than any other, it is the failure of the sows to be regular and prolific breeders.



TO BE PROFITABLE, BROOD SOW MUST FARROW AND SUCKLE LARGE LITTER

SEND FOR YOUR FREE WAR MAP

Shows Just Where Our Boys Are Fighting. See Back Page For Particulars



Grain Production is the Thing That Counts

A LETTER to Nichols & Shepard Company, of Battle Creek, Michigan, will bring to you the experience of seventy years of success in the making of threshing machinery exclusively—success that is of value to you.

Grain threshing is a game where no manufacturer can fool with side lines, and at the same time build a machine that is always on top. Nichols and Shepard Company has confined its efforts and resources to threshing machinery alone, longer than any other manufacturer in the world.

The result is that the Red River Special, with its "Man Behind the Gun," the Beating Shakers and the Big Cylinder, stands at the very top of the list as a grain thresher.

It Saves the Farmers' Thresh Bill

Write us for information about the "Junior" if you want a machine for your own use. Write for circulars.

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GRASS is CASH



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GALLOWAY'S 1918 **Sanitary Separator**

90 Days' Trial

It's the sensation of all separators. Sensational in construction, clean skimming, sanitation, easy cleaning and durability. The features of the Galloway Sanitary Separator combine the new and best advantages of all high grade separators. Buy a Galloway and you get the best of all embodied in one perfect machine. Four big sizes at four low prices. Every size guaranteed to skim to rated capacity. Sold on 180 milking test in your own dairy before you decide to keep it.

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Galloway also makes Engines, Spreaders, Tractors and sells them direct, too, at lowest factory prices. Don't order any implement until you get Galloway's factory price.

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CATALOG FREE Write today for lowest prices, also building blocks and Climax Ensilage Cutters. Address
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WILL NOT HARM NOR HEAT YOUR FORD! ASK A FARMER WHO USES ONE
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Culbertson Bldg. Oklahoma City, Okla.

FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

EFFICIENT motive power is essential to increased agricultural production. There is no greater problem confronting the people of Kansas today than the production of food. To fulfill our obligations in carrying out the Government's agricultural war program we must utilize fully and most efficiently the motive power available in Kansas for farm work. To assist in making the horse and machine power of the state render the greatest possible service, the Horse and Machine Power Committee of the Kansas Council of Defense recently got together and went into this question in considerable detail. As a result a brief list of suggestions was prepared in pursuance of the policy outlined above.

Since the horse is our main dependence in performing farm work, he is given first consideration. To increase the efficiency of our horsepower, the following suggestions are offered by this committee:

1. Treat kindly and give him the best of care.
2. Water frequently. It increases his endurance and power.
3. Feed regularly a uniform ration.
4. Feed about one and one-third pounds of grain and one pound of hay for each hundred pounds live weight.
5. Feed heavier for severe work conditions.
6. Allow rest periods occasionally.
7. Watch the horse carefully. Drooping ears, unsteadiness of gait, short and quick breathing, and a sudden ceasing to sweat are danger signals demanding prompt attention.
8. If the horse suffers a heat stroke, remove the harness, protect him from the sun, apply cold to the head—either water or ice—wash out his mouth and nostrils, and sponge his entire body with cold water.
9. Provide as cool a place as possible for the work horse at night.
10. Avoid overspeeding and fretting.
11. Eliminate lice, worms and flies.
12. Groom the work horse thoroughly.
13. Clean the collar every time it is put on the horse, and keep its bearing surface hard and smooth.
14. If possible, sponge off the work horse, especially where the collar and other parts of the harness have left their marks when he comes in from work. Sponge out his mouth, nose and eyes. Wash his shoulders every night for a few weeks with cold salt water.
15. Exchange work with the tractor owner, using your horses to cultivate his corn, etc., while he disks and plows your fields with his tractor in the hot months of July and August for fall wheat.

Reconstruction processes after the war will add to the present demand for horses of quality of the right type, and the United States with its excellent natural advantages will be expected to furnish the horses needed. As only one out of every twenty horses of the state will classify as a draft horse and weigh 1,600 pounds or more, each Kansas farmer should breed every mare he owns showing a predominance of draft breeding, to a good, sound, pure-bred draft stallion in 1918. Such a policy will be profitable as well as patriotic.

The tractor is being largely used to supplement the work of horses, especially in performing such heavy work as plowing, during the hot season, when much of the labor of preparing for wheat must be done. To make the tractors owned in the state perform the most efficient service possible in our food production drive, the following suggestions are offered.

1. Don't let the tractor be a slacker. Give it good care and proper attention, but show it no mercy.
2. Use for your neighbor when possible. Exchange work.
3. Use the tractor for heavy work, releasing horses for plowing corn, etc.
4. Be prepared. Have everything ready for continuous work.
5. Do your own tractor work at the earliest practical moment.
6. Remember that experiments and experience prove that early preparation of ground for wheat brings higher yields.
7. Work the tractor night and day. Provide light for night work.
8. Use the tractor for pulling harvester. Necessary hitches are easily provided.
9. Give the machine a careful looking over after each day's work. Systematic care insures constant efficiency.
10. Teach some one else the care and operation of the tractor. Girls and young women soon become competent to operate tractors.

Rural Motor Express

The extension of the rural motor express is regarded by the Food Administration as an aid to food production and distribution. In a recent letter to the Highways Transport Committee of the National Council for Defense, Mr. Hoover says:

"The development of the rural motor express idea in my opinion is in line of progress and should redound to the benefit of the producer, the consumer and the railroads. This means of transportation should facilitate delivery, conserve labor, conserve foodstuffs and should effect delivery of food in better condition."

The rural motor express plan which is already in operation in the vicinity of numerous cities is essentially a regular motor truck service enabling farmers to send farm products to town and get supplies, machinery and repairs without making a personal trip.

The National Council of Defense recently passed the following resolution:

"The Council of National Defense approves the widest possible use of the motor truck as a transportation agency, and requests the State Councils of Defense and other state authorities to take all necessary steps to facilitate such means of transportation, removing any regulations that tend to restrict and discourage such use."

Its purpose in urging the establishment of rural motor express lines is the conservation of food and man power as well as the furnishing of regular, convenient and economical transportation to the rural sections. A pamphlet has been prepared by the Highways Transport Committee on the rural motor express in which are given the details as to putting it into operation and the present development of the idea.

Plows Eight Acres in One Day

The Prairie Dog Tractor is a wonder. It is a small, light tractor with great strength and speed. It will do your plowing, harrowing, listing, planting, drilling. It pulls your binder, mower, corn harvester, manure spreader, and is equipped with belt pulley with 18 horsepower under the belt that will grind your feed, pump your water, saw your wood, and do every kind of farm work. The Prairie Dog is a time-saver and a money-maker. The price is surprisingly low. There is some satisfaction in this machine, as you can run it on high or low speed, handle it like an automobile, and it is full spring mounted and rides as easy as a buggy.

The Prairie Dog Tractor will do the work in one day that a team will do in four, and you can plow your ground and work it while it is in good shape to work—ahead of the drouths and ahead of the floods. Remember the price is right. Send for free circular and full information today. It will pay you big.

Kansas City Hay Press Company, Kansas City, Mo.—(Advertisement.)

Auto Makers Play Part

Very properly the efforts of the entire automobile industry for the last twelve months have been concentrated on winning the war. Production of automobiles—even automobile trucks—for ordinary commercial and domestic purposes has ceased to be the paramount concern of automobile manufacturers; for the makers of motor cars have been too busy converting to government uses the energy, the ingenuity, the resourcefulness and the efficiency which in the last two decades have enabled the automobile industry to revolutionize manufacturing methods and to develop quantity production to a point not before dreamed of.

The conversion of energy has taken many and divergent forms. Not all of the automobile factories are actually producing munitions of war, although the production of trucks for military service, of airplane engines, of anti-submarine craft, of artillery tractors and a thousand and one other things which the United States and her Allies need most urgently for direct use in winning the war is engaging a surprisingly large part of the productive capacity of many of the biggest automobile factories in the country.

In view of the assistance which the automobile industry already has rendered the Government, we shall not be accused of sordid commercialism or of a lack of patriotism if, even at this time, we digress for the purpose of attempting to diagnose the future of this mammoth industry itself. For, while our present duty is to give ourselves wholeheartedly to the winning of the war, the injunction, 'In time of war, prepare for peace,' was never more clearly applicable than today.

At the best, there is certain to be a period of sharp industrial and commercial readjustment as soon as hostilities shall cease; and it is equally certain that the necessity for liquidating the enormous war debts that are now being piled up will result in an international race for commercial supremacy. — HARRY HAMMOND.

If the cooling fan of your auto is of a type having metal blades riveted to a metal hub, examine it occasionally to be sure the blades are all secure. The speed at which a fan revolves tends to shake the blades loose.



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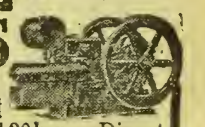

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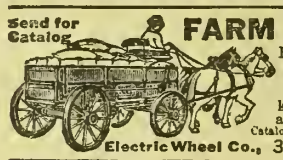

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HARVEST CREW CHALLENGE

In the old days when the cradle and the scythe were the tools for harvesting the crop the personal prowess of the men using these implements was a most important factor in speeding up the work of saving the crops. Every neighborhood had its champion which it was ready to pit against all aspirants for championship honors. Every young man envied these champions of the cradle or scythe and strove to emulate their achievements. In these modern days when complicated machinery has so obscured the part man plays, the old spirit of rivalry has largely ceased to exist. The need for rapid and efficient work in the coming harvest, however, has awakened the old spirit of physical prowess in performing farm tasks. This is evidenced by the challenges flying thick and fast in western Kansas. The first of these to come to our attention was the challenge of the champion header crew and the champion binder crew of Rawlins County to similar crews in Cheyenne, Thomas, and Ellis Counties.

The three counties challenged by Rawlins have officially accepted and now the four have issued a state-wide challenge to header and binder crews. It is framed up as follows:

"Rawlins County having challenged Cheyenne, Thomas, and Ellis Counties to produce a header crew that will harvest and put in the stack in a ten-hour run, more wheat than the champion header crew of Rawlins County, as well as a binder crew that will harvest and shock more wheat in a ten-hour run than the champion binder crew of Rawlins County, and Cheyenne, Thomas, and Ellis Counties having accepted this challenge, we, the undersigned harvest labor representatives of the above mentioned counties do hereby challenge all of the other counties in the state to produce header and binder crews that will harvest more wheat than the champion crew of the above mentioned four counties.

"It is understood that the contest is to be conducted under the rules and regulations of a committee to be appointed by E. E. Frizell, labor administrator." This challenge is signed by J. A. Crawford, Atwood, Kansas, Rawlins County; R. W. Crayshau, Colby, Thomas County; C. A. Snell, McDonald, Cheyenne County, and Louis Kraus, Hays, Ellis County.

These challenges should stir up some enthusiasm in the counties of Kansas. We offer the columns of KANSAS FARMER as a medium for giving publicity to the achievements of the champion header and binder harvest crews.

TRAVELING MEN OFFER SERVICES

Never in the history of Kansas has there been such a unity of thought and effort in planning to save the wheat crop. It was fairly well understood last fall when farmers were urged to put out a large acreage of wheat that the usual floating labor would be missing when harvest time came. Farmers of Kansas with splendid patriotism put out almost ten million acres, or fully one-fourth of the total winter wheat acreage of the United States, in spite of the fact that there apparently would not be labor to harvest the crop. Due to weather conditions, this has shrunk to about seven million acres, but conditions have been such that even with this reduced acreage the crop will probably be the third largest in the history of the state.

As illustrating the spirit of co-operation on the part of other occupations and industries in the state, the recent action of Sunflower Council No. 21 of the Order of United Commercial Travelers is well worth repeating. J. C. Samuels, secretary-treasurer, in a letter to E. E. Frizell, farm labor administrator, written April 27, says:

"At a special meeting of the council recently, with about fifty members present, they one and all committed themselves to the following program: To go to the farms if they are needed, to work for such wage as the good husbandman decided they had earned, to pay such wage if any be earned to the Red Cross if the good man decided they had not earned their board to make up to him the difference, he to pay the money so gained to the Red Cross. This we think is somewhat better terms than the farmers could get from the I. W. W.'s. We think we can do as much work as many of that gentry.

"We will keep this matter before the men, and I think we can render some assistance in the event of a labor shortage.

"Will be glad to hear from you at any time on this matter."

FIGHT GERMAN PROPAGANDA

Germany's greatest victories have not been those of distinctly military character. We are at the present time in more danger in this country from her Bolshevik propaganda than from her military power. We cannot afford to do otherwise than guard against this sort of propaganda. All proposals of peace at the present time are ill-advised and seditious. We must have a tenacity of purpose in this country that cannot be appeased until the real purposes for which we are fighting have been achieved. In the Outlook of May 8 Porter Emerson Brown wrote as follows concerning this insidious propaganda which is being conducted in our midst:

"In this war Germany has unsheathed and brought into play one weapon that the Allies and ourselves didn't even know existed. And it is with this weapon that she has won her greatest victories. With this weapon she has beaten Russia from a great and powerful nation to a helpless, writhing pulp. With this weapon she tore from Italy the fruits of three years of desperate, valiant fighting. With this weapon she is daily confusing and rendering difficult the best efforts of America to win the war; encouraging treason; aiding and abetting sedition; cultivating depression; tainting honest criticism with the innuendo of treachery; fanning the fire of Bolshevikism, disunion, disorganization, anarchy and disaster. It is the deadliest known weapon that a nation has ever used since this old earth was born. . . . And it is propaganda. . . . It is stated . . . that Germany spent two hundred million dollars for propaganda in Russia, against a few thousand dollars spent there by the United States! . . . Like the submarine it must be met and defeated."

In the State of Minnesota as the time for the primary election approaches the political fight is resolving itself into a clear-cut loyalty proposition. Governor Burnquist, who is candidate for re-election, stands on a square-cut solid platform of loyalty and support of the war, while his opponent, Lindburg, wrote a book within the last year entitled "Why Your Country Is at War," which we would consider anything but loyal from the extracts we have seen. We have not seen a copy of the book, but have been reliably informed that such statements as the following are made:

"We have been dragged into this war by the intrigue of speculators."

"Wealth saw to it that the conditions would be created which would make it practically impossible for us to keep out of the war."

"No one can reasonably justify entrance into the war solely because some of our citizens were unlawfully murdered."

"It has indeed been humiliating to the American people to see how the wealth grabbers, owners of the big press, actually attempted by securing editorials and specially prepared articles to drive the people as if they were a lot of cattle to buy bonds, subscribe to the Red Cross, to register for conscription, and all the other things."

This Minnesota campaign has some special interest to Kansans because of the fact that Lindburg is the candidate of the Non-Partisan League. We have already stated our views on this organization, and the more we learn of its methods and plans the more firmly we are convinced that we had better go a little slow in hooking up with such an organization. We are giving space in this issue to a letter written by W. W. Liggett, of the publicity department of the League. We leave it to our readers to decide for themselves whether he has cleared up any of the charges made against the organization.

HAVE YOU HARVEST HELP?

ALL over Kansas most carefully worked out plans have been put into operation to enroll the necessary emergency workers to save the wheat crop. There are a lot of things that can be put off, but wheat will not wait when it is ready for the sickle. The machinery for enrolling and distributing the help needed is in good working condition. The U. S. Labor Bureau is the agency for connecting up the men ready for harvest field work with the wheat growers. It is maintaining branch offices in Abilene, Dodge City, Hutchinson, Kansas City, Parsons, Wichita —803 East Douglas Avenue, and Topeka—112 East Fifth Street.

A. L. Barkman, who handled the central western harvest last year as officer in charge of the Kansas City office of the U. S. Employment Service, has general charge of this emergency work in the West. He is ably assisted by all the county agricultural agents and farm help specialists of the Federal Department of Agriculture, President Jardine of the Kansas Agricultural College, H. J. Waters, chairman of the agricultural committee of the Kansas City Chamber of Commerce, E. E. Frizell, state farm labor commissioner, State Labor Commissioner McBride, and representatives of various commercial bodies and other volunteer organizations.

If you need help, report at once to your county agricultural agent, secretary of the commercial club, or the local post master. Supply definite and positive information as to just how many men are needed and the time. If you have not already put in your application for harvest help, do it now. The officers of the labor bureau must have time to go over the list so as to be able to send to each applicant the men best adapted to his conditions. The men must be notified and they must have time to get to the place where they are needed. Do not fail to call on these agencies for help. The spirit of co-operation has never been more in evidence. All organizations, federal, state, and private, and every man, woman, and child are united in the effort to furnish the labor necessary to harvest our enormous wheat crop.

GOVERNMENT CROP REPORT

The monthly crop report of the United States Department of Agriculture, issued June 7 by Edward C. Paxton, field agent located at Topeka, forecasts a prospective yield of 97,114,000 bushels of winter wheat in Kansas on the 6,730,000 acres left for harvest. This is a most gratifying report. Men who travel over Kansas are unanimous in reporting on the fine condition of the wheat in most sections of the state. The wheat crops of 1914 and 1916 are the only ones that have exceeded the forecasted production of the present year. The crop was so near to harvest when the observers made their reports and moisture is so ample that it hardly seems possible for the total production to fall below the Government estimate. In some of the counties in the western two-thirds of the state and in the northeastern portion wheat was damaged by the strong winds of May, but the widely distributed rains of the latter part of the month greatly improved the outlook. No Hessian fly is reported, and the chinch bugs are not numerous enough to seriously menace wheat fields in any section.

Mr. Paxton believes that when the assessors' returns are in it will be found that a much larger acreage of wheat was sown in the eastern third of the state than was estimated last fall. In this part of the state the conditions are universally good and excellent yields are in prospect.

Spring wheat is not much of a crop in Kansas, being confined to a restricted area in the Northwest, but the acreage this year is considerably increased. In some counties where the crop was not grown last year two or three carloads of seed was sown the past spring. The acreage of spring wheat in the state is given as 51,000 and the condition is rated at 84 per cent of normal. This would indicate a yield of 622,000 bushels, which will be quite a noticeable addition to our total wheat production.

The acreage sown to oats in the state is somewhat less than it was last year. Last year it was estimated 600,000 acres of oats were sown on abandoned wheat land. This year most of the abandoned wheat land was west of the line in the state where oats are grown successfully. The condition of the oat crop is universally good, being greatly improved by the recent rains. It is rated as 84 per cent of normal, which would indicate a total production of 65,600,000 bushels.

It is estimated that 730,000 acres were sown to barley this year, which is 30,000 less than a year ago. Barley is sown on abandoned wheat land largely, and for that reason there will be no assessors' figures with which to check this report later. The forecasted production is 14,400,000 bushels, almost double that of last year.

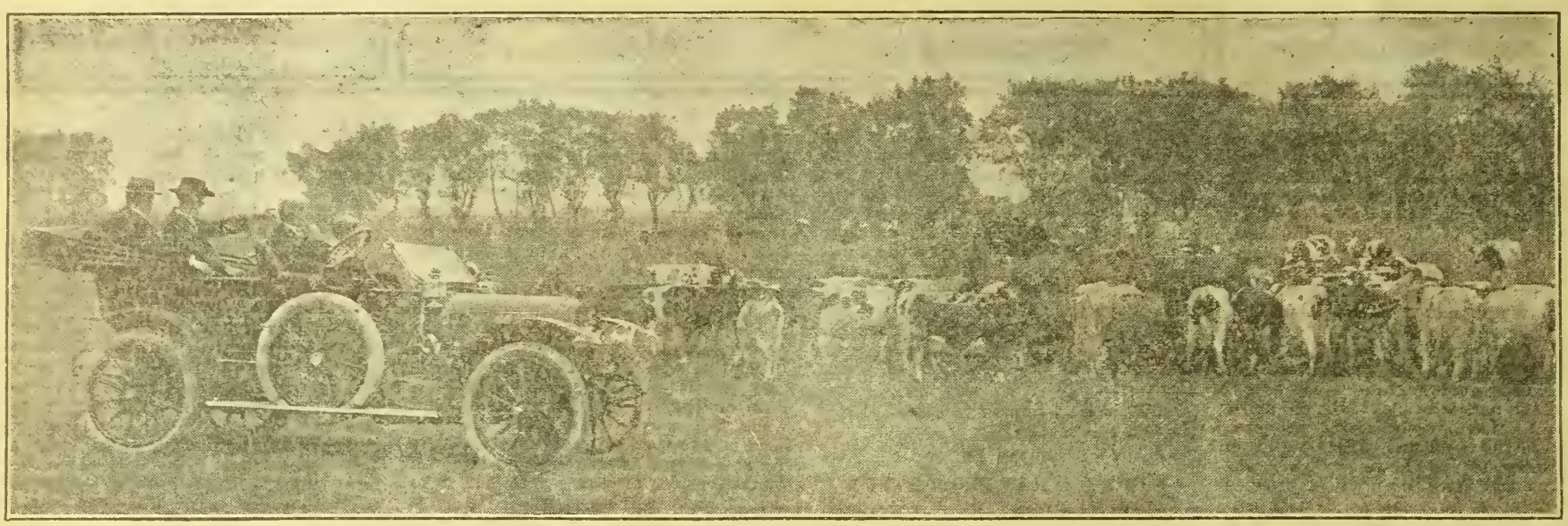
Indications are that the corn acreage will be considerably reduced from that of last year, this being due to the fact that so much abandoned wheat land was planted to corn a year ago. Weak seed and cool weather during the early planting season resulted in poor stands, and the dry weather prevailing for two weeks in May was detrimental to the germination and growth of the corn planted. The Government forecast does not attempt to place any percentage estimate on the condition of the corn at this time.

The first crop of alfalfa was injured by the snows and freezes during its early growth and later was retarded by the dry spell in May. It was quite generally lighter than the first cutting a year ago.

Conditions and forecasts for the United States for June 1 are as follows: Winter wheat, 587,000,000 bushels; spring wheat, 244,000,000; oats, 1,500,000,000; barley, 235,000,000; and rye, 81,000,000 bushels.

THE WORLD DAIRY SITUATION

Dairy Herds Vital to World's Regeneration After the War



OF ALL THE COUNTRIES ENGAGED IN THE WORLD WAR, THE UNITED STATES ALONE HAS ITS DAIRY HERDS INTACT.—UPON THIS COUNTRY DEPENDS THE MAINTENANCE AND REHABILITATION OF THE DAIRY INDUSTRY

THE dairy situation from a world viewpoint and the service that dairymen of this country are morally drafted to fulfill, was the theme of an address at the National Milk and Dairy Farm Exposition in New York City by Herbert Hoover of the National Food Administration. Farmers making dairying a feature of their business are vitally interested in the facts relative to the world aspect of the dairy industry as presented on this occasion.

"If you could stand in the middle of Germany today and survey the land to the borders of Europe, you would discover its whole population of 400,000,000 human beings short of food," said Mr. Hoover. "Where Germany has overrun its borders millions of people in Poland, Finland, Serbia, Armenia, and Russia, are actually dying of starvation and other millions are suffering from undernutrition. Still others of these millions outside the German lines—that is, our Allies and neutrals—are living on the barest margins that will support life and strength.

"This, the most appalling and dreadful thing that has come to humanity since the dawn of civilization, is to me the outstanding creation of German militarism. Yet the Germans themselves are not the worst sufferers. They are extorting at the cannon's mouth the harvests and cattle of the people they have overrun, leaving them in desolation. I am convinced that if the war were to cease tomorrow the toll of actual dead from starvation and its attendant diseases within the German lines would double or treble the 5,000,000 or 6,000,000 of men who have been actually killed by Germany and her allies in arms. The 10,000,000 people in occupied Belgium and Northern France would have died of starvation had it not been for the action of the nations at war with Germany in the maintenance of these people of a pitiable relief. But this is only one part of the whole story of misery, for the sinking of the world's shipping is reverberating privation in some direction into every corner of the globe.

"Of all the food industries of Europe, there is none which has been so stricken by the war as the dairy produce. The human race through scores of thousands of years has developed a total dependency upon cattle for the rearing of its young. No greater catastrophe can happen to a people than the loss of its dairy herds, for the total loss of dairy produce means the ultimate extinction of a people. The German people supported their herds by the import of feedstuffs from their neighbors. This being cut off by war, their produce in meat and milk would have fallen to a low ebb indeed had they not supported themselves to a considerable degree by stealing the cattle of the populations they have overrun. I have had Polish and Serbian cattle in German pastures pointed out to me with pride by German officers. I witnessed the stealing of Belgian and French cattle. In Belgium alone the cattle diminished from 1,800,000 to 200,000 in three months of German occupation. At that point the protests of the relief commission held it in check. But in Northern France absolutely all of the cattle were taken before the relief commission arrived. The French men had been drafted out of this region and there was therefore an undue proportion of women and children. There were, in fact, over 800,000 children under twelve years of age and, in addition, many old people who had to have the most careful sustenance. One of the first duties of the relief commission was to undertake the import of milk in order that these children might be saved. We found that in the terror under which these people lived the average period of breast-feeding was under four months. We have therefore, for nearly four years, been sending them American condensed milk, not in single cans, but by scores of thousands of tons. There has been scarcely a child born in the north of France, and many in Belgium, whose continued life has not been dependent during all this period upon American condensed milk. Every American would be thrilled could he but see the gratitude which French mothers daily express over the pitiable ration which enables their children to survive. This stealing of neighboring cattle by Germany will now, with Russia at her mercy, go on with an accelerated pace. Do not let us deceive ourselves that any shortage of her own cattle will bring the war to an end.

"All this is an exhibit of the character of forces from which we are struggling to purge the world! To do this therefore we must concern ourselves daily with the food situation in the Allied countries. Our obligations to them are not only as a matter of humanity but as a matter of their maintenance in our common struggle. It is worse than folly to put 5,000,000 of our boys into France if the civilian population of our Allies are not also to be maintained in strength and morale with our food. We are also interested in the neutral countries from the point of common humanity.

"The Allied countries before the war supplied their dairy products from imports as well as domestic production. Their imports came from Holland, Denmark, Siberia, Australia, the Argentine, New Zealand, to some extent from Canada, but comparatively nothing from the United States. The exports from Holland and Denmark have been largely cut off by our embargo against the import of feeding stuffs to those nations in order to prevent their also supplying Germany. Siberia is of course isolated. Australia, New Zealand and the Argentine represent journeys which require from two to three times as much tonnage of ships as do our own market to bring the same quantities. Dairy products still flow from these remote markets to the Allies although the transport of grain has been largely abandoned. But the growing shortage of shipping, the increased demands to transport the American army, might at any time necessitate such a final economy in shipping as would drive these demands upon us.

"The shipping problem has, however, had a wider influence than the jeopardy of direct imports of dairy products in its effect upon Allied supplies, for their own cattle are much dependent upon the import of feed from overseas. In the struggle of all European populations to maintain or increase their bread grains in the face of a shortage in labor, it has been necessary for them to diminish their production of feed for their animals. By the destruction of shipping it has been impossible for them to maintain the volume of their feed imports. In order to reduce this drain on shipping and to find immediate meat supplies there has been an enormous reduction in the number of cattle in all of the countries at war. Every nation in Europe has, however, endeavored to protect its dairy herds, but the reduction in feeding stuffs has necessitated the placing of cattle on a rationing system even more drastic than that of human beings. The result has been that while the actual number of dairy cattle shows less proportional diminution than that of the total cattle, the actual reduction in the milk production is of much larger proportions. I doubt whether today the dairy production of Europe as a whole is 30 per cent of the pre-war normal and that of the Allies is 50 per cent of normal.

"In consequence of all these forces the dairy supplies of the Allies are much diminished. They have met this situation by drastic reduction in consumption of dairy products by driving the fresh milk into the hands of the children and by the substitution of margarine for butter. Their position is not yet acute and while it represents privation of many individuals of their usual food, they are sacrificing it willingly to the common cause.

"During this fiscal year North America will have supplied approximately 50 per cent in nutritive values of the foodstuffs imported by the Allies and 50 per cent came from more remote markets. Before the war we contributed probably less than 10 per cent. The shipping situation or the war situation might develop to a point where these ships must be withdrawn from the long journeys to the nearest market — our own. If that became necessary and if we could supply the food, the Allied food-carrying fleet could be diminished by 1,500,000 tons and still feed our associates in the war. This contingency may not arise, but if it should arise and we are unprepared to meet this demand for a doubling of the whole of the food exports from this country, it might result in the losing of the war. If these ships should, by force of necessity, come to our shores, they must be loaded.

"No one knows how long the war will last. If we are to win we will win with four collateral weapons: men, munitions, ships, and food. It may require years to win it and we intend to fight it out on this line—not if it takes all summer, but if it takes all of your lifetime and mine. We cannot anticipate that the animal situation in Europe will improve during the war. The enormous destruction must go on until the end. Through the whole of the course of the war there will be continued destruction of cattle and diminishing dairy products. There will be steady creeping of jeopardy towards the children of the Allies. North America stands unique in one great particular in this situation. We are independent of sea transport for feeding stuffs for our animals, we grow them side by side. Here lies the great economic difference in these foods between ourselves and Europe, and here also the one reason why we can and must be the great final reservoir of supplies.

"There falls, therefore, upon us an increasing duty in the provision of food. To provide supplies we must build up reserves. The first reserve in meat and dairy products is the maintenance of our herd. The second is to build up stocks in our warehouses in seasons of surplus production. If we can maintain our herds and our production, we can, in any emergency, reduce the consumption of our own people without damaging our health by margins of such an amount as will provide for the Allies.

"We are today in the season of the largest dairy production and we have a minor surplus. I do not look upon this with alarm but with satisfaction. One result is the increase of our butter and condensed milk in storage. I wish it were larger. It is a factor of safety in the war situation that cannot be overestimated. We must not take risks in war. It may turn out that we get too much butter into storage, but a general at the front who should find himself with more shells than were needed to win a battle would be in a far different state from the general who found himself short of the necessary amount. Food must be considered from the new viewpoint of ammunition to win the war. Therefore it is up to us as a part of our national food strategy to accumulate stocks in as large a degree as possible for any emergency that might come. I believe that the call for condensed milk, cheese and butter supplies for the Allies and our army and navy will be on an increasing scale. With one-third of the world's population on short rations in food and most of this one-third with less than one-half of their normal dairy

(Continued on Page Seven)

FUMIGATING OLD GRAIN BINS

Rid Granaries of all Insects Before Storing New Crop



ALL EYES ARE TURNED TO KANSAS, NOW ABOUT TO GARNER IN THE LIFE-SUSTAINING GRAIN FROM HER SEVEN-MILLION-ACRE WHEAT FIELD

By George A. Dean, Entomologist, Kansas Experiment Station

GRAIN MOTHS, weevils, and other insects living in wheat or other stored grain cause serious losses unless systematic measures are taken to destroy them. There is no better time than now to get rid of these insects in the old bins and granaries. If left undisturbed, they will infest the new crop and in a short time can easily cause a loss equal to from 5 to 15 per cent of the total value of the grain.

Fortunately, it matters little what species may be causing the trouble, for all succumb to the same treatment. The control methods are both preventive and insecticidal, and at this time of the season the preventive methods can not be over-emphasized.

Preventive Methods of Control

In order that infestation in the stack may be avoided, the grain should be threshed as soon after harvesting as practicable. The writer has found on several occasions that where the grain was left in the stack until early fall it was seriously infested with the Angoumois grain moth and the grain weevil. Fresh grain should not be exposed to attack by storage in bins or granaries containing infested grain. Before storing, the old grain should be removed and the floors, walls, and ceilings of the bins thoroughly cleaned. Cleanliness is very important in the prevention of injury by these insects, and all dust, dirt, rubbish, refuse grain, flour, and meal, which serve only as breeding places, should be removed. A liberal use of air-slaked lime is recommended for dusting in corners and along the edge of bins. This lime should be dusted in the bins as soon as they are empty, but removed before storing the grain. Granaries, as far as possible, should be constructed so as to be easily kept clean, and in such a manner as not to allow materials to collect and afford lurking places for insects.

Destroying Insects by Fumigation.

If the granary has been badly infested, it should be fumigated before the new grain is stored. The simplest, most effective, and least expensive remedy for all insects infesting grain and grain products is careful fumigation with carbon bisulphide.

The amount of carbon bisulphide to be used depends on the temperature, on the size and shape of the building, on its tightness, and on the nature of the attack. Since temperature is a very important factor in the success of fumigation, it should always be given careful consideration. Our fumigation experiments, conducted in practically an air-tight chamber, show that at a temperature of below 60 degrees the results obtained are so unsatisfactory that it is impractical to attempt fumigation. If the building is reasonably tight and the temperature is above 70 degrees, five pounds of carbon bisulphide is sufficient for every 1,000 cubic feet of space, or one pound for every twenty-five bushels of grain. In case the building or bins are not sufficiently tight to allow thorough fumigation, the amount of the liquid should be doubled or even tripled.

Make Bin Air-tight.

The building and bins must be as nearly air-tight as possible in order that the vapor may remain in all parts of the space in full strength and for the required time. The vapor must enter all cracks and crevices by diffusion. Doors should be wedged tight. If they are loose, either paper should be pasted over them, or cotton batting should be inserted in the cracks with a case knife. A similar treatment should be given all holes and cracks in the wall and floor. The batting shoud be packed tightly. Care should be taken to have everything ready and in place, so that after the distribution of the liquid has begun it will be unnecessary to stop to adjust anything. Everything should be done to avoid unnecessary delays and to facilitate the rapid evaporation of the liquid.

Placing the Liquid

Since the vapor is heavier than air and settles to the lower parts, the liquid should be placed in shallow pans at the top of the bins or buildings. It should be well distributed, not more than a pound in a place, and even less than this amount where it is practical to have it distributed in small quantities. If larger amounts are used in one place, it should be placed in pans having considerable evaporating surface.

Length of Exposure

The bins or building should be allowed to fumigate thirty-six hours. If the grain is not to be used for seed, it is well to subject it to the fumigation for forty-eight hours. The best plan usually is to apply the liquid on a Saturday afternoon and leave the building closed until the following Monday.

Doors and windows should be opened wide and the building or bins aired thoroughly one or two hours before being entered. Slight traces of the odor will linger in corners and other places where the air does not circulate freely, but these will gradually disappear.

Vapor Highly Explosive

The vapor of this liquid is highly inflammable and explosive. No fire or light of any sort should be allowed about the building while the fumigation is in process. The application should always be made in daylight, for artificial light of any kind is dangerous. Electric lights must not be used, since when turning them on or off there is always danger of producing a spark. It is not safe to have heat of any kind in the building while the fumigation is in progress.

New grain placed in old bins infested with grain moths and weevils is often reduced 5 to 15 per cent in value in a short time.

A thorough cleaning of old bins, removing all dust, rubbish, and refuse grain, important in reducing loss from stored-grain insects.

Careful fumigation of old and badly infested bins with carbon bisulphide a final precaution against insect injury.

Renting Dairy Farm on Shares

The man farming on rented land should be enabled to follow a system of live-stock farming. It is to his best interest to do so and also that of the land owner. Only through the adoption of such a system of farming can land farmed by tenants be kept from steadily decreasing in fertility. The land owner and the tenant can co-operate most successfully by following the so-called "half and half" system of leasing. This plan is becoming common in the representative dairy regions near Chicago as well as in other dairy sections. Studies in farm management have been made in representative areas in the Chicago territory by the United States Department of Agriculture. The investigations covered 143 farms in Green County, Wisconsin, and Kane County, Illinois—the Elgin district—where dairying is a comparatively old and profitable industry. In the report of this study, published in Bulletin 603 of the Department of Agriculture, it is brought out that, while this system is particularly applicable to the regions studied, it can without doubt be adapted to dairy sections generally.

Under the "half and half" system the land owner furnishes the land, buildings, the greater part of the seed and fertilizer, and half the productive stock, while the tenant furnishes horses, machinery, half of the productive stock, part of the seed, and sometimes part of the fertilizer. All stock is fed usually from the grain and hay owned in common. When a feed of any kind is bought, its cost is shared equally between the land owner and the tenant. In general, each party pays the taxes on all property owned by him, including the farm-road tax, though in many cases in the North Central States all the farm-road tax is worked out by the tenant.

Under this system the poultry frequently is owned exclusively, in limited numbers, by the tenant, and he gets the proceeds therefrom, but with this exception, each party generally receives half of the proceeds of farm sales of all products of whatever nature.

Less frequently dairy farms are shared on the third system, the land owner supplying everything but the man power, which is furnished by the tenant, and getting two-thirds of the sales of all products, while the tenant receives one-third. When feed is purchased the tenant pays one-third of the cost.

The length of lease in the regions studied ranges from one to five years. In the Wisconsin district 76 per cent of the leases were for one year only, none being for a longer period than three years, while in the Illinois district 63 per cent of the leases were for one year. In the Wisconsin group 35 per cent and in the Illinois group 27 per cent of the leases were verbal. Seventy-five per cent of the farm income on the farms of the Wisconsin group and 85 per cent on those of the Illinois group was from dairy cattle and dairy products. In the Wisconsin group 21.5 per cent of the cows were home-raised heifers that became fresh during the year; 18.9 per cent of the herds were discarded or sold as dairy cows. The farmers prefer to raise their cows instead of buying them, and on over half of the farms studied there were pure-bred Holstein bulls. In the Illinois group 8 per cent of the cows were home-raised heifers with first calves, while 27.6 per cent of the herds were discarded, indicating that this is a dairy cow purchasing region.

The spirit that leads men to overcome almost insurmountable difficulties was illustrated in a report of a field agent of the Bureau of Crop Estimates, who tells of seeing a farmer in Indiana driving a six-horse team to a disk and leading a three-horse team hitched to a narrow. This man was actually working nine horses and two modern agricultural implements, doing the work of several men and teams under old systems of farming.

Shipments of rice from China to the United States increased greatly during 1917 and according to present indications will break all records this year.

"It's a lot better for the whole of us to be eating American oats, or rice, or corn, or barley, or Irish-American pertaties, than to have the kaiser feeding us German crow at the point of a sixteen-inch gun," says Mrs. O'Flaherty.

The U-boats are wasting some of our food; don't be a U-boat.

WHY WE MUST SEND WHEAT

Wheat Is Only Basis for Durable Raised Bread Loaf

Supplying wheat for the armies and the Allies is a military necessity and an act of national defense, the redemption of an obligation to which our national honor is pledged.

THE Allies ask America for wheat, rye, corn, barley, and oats, and we are sending them in large amounts. They ask us especially, however, for wheat. They ask it as the necessary hasis for their necessary loaf. They must have hread, and they must have bread which will keep sweet and palatahle for several days.

Wheat is the basis for the durable raised bread loaf.

Troops must have bread carried to the front from bakeries hehind the lines; it must be a durable raised loaf.

Workers in the war factories must have hread from commercial hakeries. The women in the factories can not he hakers also. Their bread must be the durable raised loaf.

All France depends on the hakeries for its bread. The people do not know how to bake in the home. They have no ovens for haking, nor could they afford fuel for them if they had.

All the hread of France and England and Italy today is war hread. It is made of gray wheat flour, milled at a high extraction rate; that is, a larger proportion of the wheat grain .is now put into the flour than formerly was the case. Their flour now contains more of the outer parts of the wheat grain, parts which formerly were separated from the flour and used as feed for animals. This flour is then mixed with as large a percentage—usually 25 per cent—of flour made from other cereals as can be used and still permit the making of the raised loaf.

In England this war bread can not be sold until it is twelve hours old, so that the people won't be tempted to eat too much fresh hread. In France and Italy the bread is rationed according to the age and occupation of each person. A child has less than an adult; a light worker less than one who does heavy lahor.

France has always lived on bread. Of the average Frenchman's normal diet 52 per cent is composed of bread and but 48 per cent of other foods. France has just put her whole people on a rigorous bread ration which limits them to only two-thirds of the amount they have been accustomed to. In all the allied countries they are using as little wheat as will give them bread at all and as little of this hread as is possible to keep them in health and strength.

The people of Belgium are living on a relief ration. Over one million of them get their daily hread and soup hy standing in line long hours before the relief kitchens. They have stood in these long soup lines every day for three and one-half years. But they do not complain. They only ask that the soup and bread be there every day. They depend upon America.

We are, as we have said, sending corn and other cereals to England, France, Italy, and Belgium. These cereals are shipped as fast as they can he used. But the people can not live on them alone. They do not know how. They are unahle to cook them properly. They must have wheat to mix with them and with potatoes to make their bread. We are now sending wheat to the limit of our cargo space, and yet we are only meeting the minimum requirements of these people. In order to continue doing this, our people must share their present wheat supply.

We are dividing our wheat evenly today hetween ourselves and the Allies. We must not use before the next harvest more than one-half of the wheat we have. Even with one-half of our wheat the loaf of the Allies is small. It can not he made smaller without undermining their strength and morale. Is there any doubt what we shall do in this emergency? We have just one thing to do, and that is to save wheat and send wheat.

The question naturally arises, however: To what extent can the wheat to which we are now accustomed in our diet he reduced without injury to the health of the individuals of the nation? This question was put by the Food Administration to a committee of experts recently assembled in Washington to consider the special physiological prohlems involved in the general problem of wheat conservation. This committee consists of the following men:

Dr. R. H. Chittenden, professor of physiological chemistry and dean of Sheffield Scientific School, Yale.

Dr. Graham Lusk, professor of physiology, Cornell University.

Dr. E. V. McCollum, professor of biochemistry, Johns Hopkins University.

Dr. L. B. Mendel, professor of physiological chemistry, U. S. Department of Agriculture.

Dr. F. C. Langworthy, chief, home economics division, state extension service, U. S. Department of Agriculture.

Dr. Alonzo E. Taylor, professor of physiological chemistry, University of Pennsylvania.

Prof. Vernon Kellogg, Stanford University.

Dr. Raymond Pearl, School of Hygiene, Johns Hopkins University.

Dr. Ray Lyman Wilbur, formerly dean of the Stanford University Medical School; now president of Stanford University.

The committee, as may be seen, was composed of the highest physiological authorities in the country. Their answer to the question was direct and unequivocal:

"It is the scientific opinion of this committee that in a mixed diet wheat may he entirely replaced, without harm, by other available cereals, namely, rice, barley, oats, and corn. However, we should not recommend this except as an emergency measure."

The committee's particular reason for not recommending this, apart from the fact that wheat is perhaps the most convenient cereal for use because of its special qualities connected with the making of bread in loaves that will stand up and remain sweet and palatahle for several days, is that going without wheat would be a psychological though not a physiological deprivation. We are accustomed as a nation, just as most of the nations of Europe are, to the use of wheat bread, and a sudden break in our custom would have for some people a psychological significance more or less disturhing.

However, if these people could well understand the emergency leading to the change, and then could recognize that they are aiding their country in the great emergency by making the change, this psychological disturhance would he much reduced.

Exactly this condition of a great national emergency, to meet which the loyal and patriotic efforts of all the people are needed, is the condition today. It is only because of this great national emergency that the Food Administration makes use of this deliherate judgment of the physiological experts called in for advice.

Even under these circumstances, it is recognized that hecause of economic and commercial reasons, not all of the people of America can go without bread based on wheat, hut it is certain that a great many people in this country can easily do so. It is the belief of the Food Administration that, for the sake of maintaining the wheat-hread supply of the armies and civilians of our fighting associates in the war, as well as our own soldiers in France, every patriotic American who can possibly do so will he glad to dispense entirely with wheat from now until the next harvest.

"FOOD IS NEEDED" IS THE CALL

FOOD is needed hy our American army in Europe, and hy our Allies! When we were told by those who are studying closely the food situation, that the only possible way of supplying the needed food is for the people of the United States to share their supply, do we realize that we ourselves must share every meal with the men who are fighting and with our hungry Allies? If we do not take the statement seriously we are unworthy of the fight that is being made by those who have given up all future plans and are facing death and hunger in their effort to resist a beastly enemy that has long since forgotten all the rules of war.

Our Government is constantly working out programs for us to follow in order that we may save the food that is needed by the allied fighting lines. In all these programs consideration has been given our own bodily requirements and when we are asked to give up a food one is named in its place that will satisfy our needs quite as well, though it may not he as appetizing until we have accustomed ourselves to eating it.

There is only one safe course for us to follow in regard to the food question, and that is to personally carry out the Government programs. If it is meat that is needed, let us hunt out the meat substitutes and use them; if it is wheat that should he saved, let us cultivate an appetite for the wheatless breads; or if sugar is needed, let us forget that we have ever known its use—and hy all means let us not help to keep the candy shops in business.

We are told by the United States Food Administration that the wheat need is the greatest need of the Allied World. All who can do so are asked to go without wheat, and physiologists agree that wheat is not essential to a wholesome diet. Statistics show that the Southern Army had no wheat during the Civil War, and had corn only for bread—not the variety of substitutes we have today. The Food Administration tells us also that the cutting down of the consumption of wheat by one-half is a military necessity and that all households and public eating places must keep within the weekly allowance for each person of one and one-half pounds of flour and all other wheat products.

At present we are asked to eat dairy products and potatoes so that accumulated stocks will he reduced and further production stimulated.

Our food problem is changing constantly and it is our duty to keep informed as to the needs and do all within our power to carry out the program as it changes. If we do not do this thoughtfully and willingly, can we justify ourselves in accepting the protection that is being given us by our Allies and by our own Americans who are sacrificing all on the war altar at this time?—JANETTE LONG.

International News Items

It has heen announced hy the directors that the prizes offered, both hy the International and by the various hreed associations, for this year's exposition, were increased in nearly every division. Many cups, medals and trophies are to he offered in addition to the numerous and liheral money prizes.

The Illinois Centennial Commission will offer a line of splendid trophies in connection with this year's International, and exhibitors of every breed and in every division will have an opportunity to compete for some of these.

It was furthermore decided to reward the superior skill of herdsmen (both in the cattle and swine departments), shepherds and grooms who will he fortunate enough to carry off some of the higher honors in the various departments.

The "short-fed" classes were given special attention and for the purpose of stimulating the short feeding of steers, the prizes in this division were greatly increased.

The barrow show will, as a result of greatly increased prizes offered hoth by the International and the breed associations, prove one of the outstanding features of this year's exposition.

In the swine department it was furthermore decided to permit exhibitors to show three animals instead of two, as was the rule in the past.

In connection with the horse department, it was decided to create a classification for light and heavy "artillery horses," and liberal prizes will also be offered in this division.

The board went on record as favoring a limited show of grains, seed corn and forage crops, feeling that an economic feature of this sort would prove hoth timely and interesting.

The directors, feeling that the International has a more important mission to perform this year than ever hefore, were agreed on putting forth every possihle effort to hring the lessons this exposition teaches to the attention of the greatest possihle number.

Farmers Write to Hoover

Our National Food Administration receives plenty of knocks, but thousands of letters come to Food Administration officials showing the spirit of co-operation existing in the rural communities all over the country. These letters are very valuahle to the Food Administration, hecause through them it is possihle to know the sentiment on the farms and in the small towns of the country. The following letter from H. E. Stone of Missouri is typical of this class of communications:

"Thought perhaps you would like to hear something from Missouri. Business with us is as good as we want it. Hens are still doing their hit. As long as the grass is green and tender, hens will lay; another thing, farmers are not going to sell them while they are turning out the eggs as they are now. Some of our dear farmers were complaining of the embargo on hens a few months ago, and were anxious to sell their hens. Now that they can dispose of them, they have not sold a hen, and are willing to acknowledge that somebody did them a good turn in preventing the sale of live hens.

"Farming conditions never were better. Oats and wheat are looking well at this time, and the corn is nearly all in the ground. All of this shows that we will raise food to feed the world.

"Our family are all well and growing nicely, even if they get nothing more than corn bread. We are all learning a lot of things that we never would have thought of unless they had been forced on us hy the war."

Voluntary letters of this kind show the support of rural America to the general food program. Such optimistic spirit means implicit faith of the American army and also of the Allied nations in the great agricultural army of the United States.

In April, 22,492 cattle were tested for tuberculosis in the tuberculosis-eradication work of the Bureau of Animal Industry. This number was 8,494 more than were tested in the preceding month. The tuberculosis control measures are to be applied, in co-operation with state authorities and live stock owners, along three lines—eradication of tuberculosis from pure-hred herds, eradication from circumscribed areas, and eradication from swine. In the beginning efforts are heing concentrated on eradication of the disease from pure-hred herds.

The maximum price at which farmers may sell cattle for slaughter in Switzerland has heen fixed at 23 cents per pound on the farm. Maximum prices for meats have also been established.

Tuberculosis-Free Accredited Herds

CO-OPERATIVE plan for combating the spread of tuberculosis in Kansas herds has just been agreed to by our State Live Stock Sanitary Commissioner, J. H. Mercer, and the federal Bureau of Animal Industry. The state office has already made good progress in preventing this disease from spreading among our Kansas herds, but the plan of establishing tuberculosis-free accredited herds through a co-operation between state and federal authorities will give new impetus to the movement for protecting our herds from this dread disease. With the rapid increase which is taking place in the development of dairy farming, tuberculosis is certain to become a more and more serious menace to the live stock of the state. Dairy cattle are probably not more susceptible to tuberculosis than beef cattle, but the conditions under which they are kept is conducive to the spread of the disease. In beef herds cattle are out in the open much more and there is less likelihood of an infected animal transmitting the disease to other animals in the same herd.

While primarily restricted to pure-breds, the agreement in this state permits any herd in which there is at least one pure-bred animal to come under the rules and secure the certificate placing it on the accredited list. The rules and methods for establishing accredited herds have been unanimously adopted by the United States Live Stock Sanitary Association and representatives of the pure-bred record associations and approved by the Bureau of Animal Industry.

The necessary inspection work will be without cost to the breeder other than the entertainment of the inspector while on the farm. The rules under which the co-operative work will be conducted are as follows:

1. A tuberculosis-free accredited pure-bred herd is one which has been tuberculin tested by the subcutaneous method, or any other test approved by the Bureau of Animal Industry, under the supervision of the Bureau of Animal Industry, or a regularly employed veterinary inspector of the state in which co-operative tuberculosis eradication work is being conducted jointly by the United States Department of Agriculture and the state. Further, it shall be a herd in which no animal affected with tuberculosis has been found upon two annual or three semi-annual tuberculin tests, as above described, and by physical examination.

2. The entire herd, or any cattle in the herd, shall be tuberculin tested or retested at such time as is considered necessary by the federal and state authorities.

3. No cattle shall be presented for the tuberculin test which have been injected with tuberculin within sixty days immediately preceding or which have at any time reacted to a tuberculin test.

4. No herd shall be classed as an accredited herd in which tuberculosis has been found by the application of the test, as referred to in paragraph 1, until such herd has been successfully subjected to two consecutive tests with tuberculin, applied at intervals of not less than six months, the first interval dating from the time of removal of the tuberculous animal from the herd.

5. Prior to each tubercuiln test satisfactory evidence of the identity of the registered animals shall be presented to the inspector. Any grade cattle maintained in the herd, or associated with animals of the herd, shall be identified by a tag or other marking satisfactory to the state and federal authorities.

6. All removals of registered cattle from the herd, either by sale, death, or slaughter, shall be reported promptly to the said state or federal officials, giving the identification of the animal and, if sold, the name and address of the person to whom transferred. If the transfer is made from the accredited herd to another accredited herd, the shipment shall be made only in properly cleaned and disinfected cars. No cattle shall be allowed to associate with the herd which have not passed a tuberculin test approved by the state and federal officials.

7. All milk and other dairy products fed to calves shall be that produced by an accredited herd, or, if from outside or unknown sources, it shall be pasteurized by heating to not less than 150 degrees F. for not less than twenty minutes.

8. All reasonable sanitary measures and other recommendations by the state and federal authorities for the control of tuberculosis shall be complied with.

9. Cattle from an accredited herd may be shipped interstate, by certificate obtained from the office of the state live stock sanitary officials of the state in which the herd is located or from the office of the Bureau of Animal Industry, without further tuberculin test for a period of one year, subject to the rules and regulations of the state of destination.

10. Strict compliance with these methods and rules shall entitle the owners of tuberculosis-free herds to a certificate, "Tuberculosis-Free Accredited Herd," to be issued by the Bureau of Animal Industry and the state live stock sanitary authority. Said certificate shall be good for one year from date of test unless revoked at an earlier date.

11. Failure on the part of owners to comply with the letter or spirit of these methods and rules shall be considered sufficient cause for immediate cancellation of co-operation with them by the state and federal officials.

Dr. T. J. Eagle has been placed in charge of the work in Kansas for the federal bureau, his present office headquarters being 800 Live Stock Exchange Building, Kansas City, Missouri. Doctor Eagle will spend some time visiting breeders in the state and will be glad at any time to consult with those interested in the movement or answer letters regarding the work. Mr. Mercer, who represents the state in this effort to eliminate tuberculosis from Kansas herds, can be addressed at the State House, Topeka.

This is a movement which should receive the hearty approval of breeders of pure-bred cattle as well as those who are developing grade herds. We have already had enough experience with tuberculosis in the state to realize that drastic measures must be taken to prevent its spread. We trust all those concerned will give their hearty support to the work the federal bureau and Mr. Mercer's department is trying to do.

The World Dairy Situation

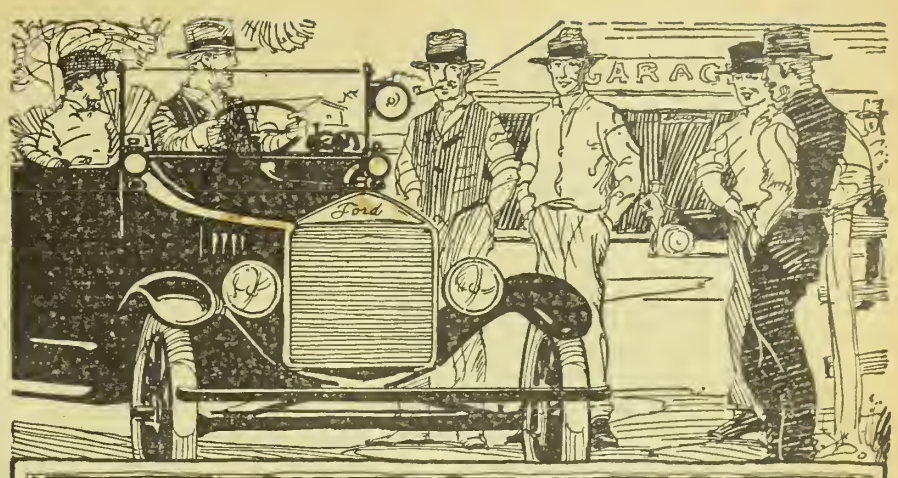
(Continued from Page Four)

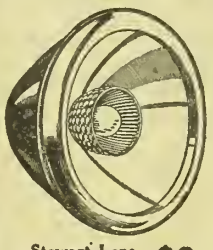
products, this is no time to begrudge the minor stocks that are accumulating in our warehouses, nor is this a time to stimulate unnecessary consumption or waste.

"Far beyond our domestic difficulties is our world duty. Parallel with this enormous and continuing destruction in Europe we must build our food resources so as to stand ready for any demands upon us by our Allies. It is of no purpose to us to send millions of our best to France if we fail to maintain the strength of their men, women and children on our lines of communication. After the war the time will come when we will need to replenish their herds from our own cattle. This United States is the last reservoir of men, the last reservoir of ships, the last reservoir of munitions and the last reservoir of food upon which the Allied world must depend if Germany is to be defeated and if we are to be free men.

"It therefore devolves upon us to maintain our present great potential strength in herds, for they cannot be re-established for many years if once lost. Not only must they be maintained as a guarantee to our Allies, but they will be vital in the world's regeneration. The day may yet come when the child life of the world will be in your hands. I place this before you on the high plane of service to the world. It is the duty of the Government just so far as we are able to maintain economic equilibrium in the industry so that it can go on without hardship to those who engage in it, but should the impact of war so dislocate the industry as to cause temporary periods when loss faces you, it is the duty of every dairyman to stand by with that courage that comes from the knowledge that he is a part of the world's reserve army that may, at any moment, be called into battle for our existence and the existence of the next generation."

The hen's greatest profit-producing period is the first and second years, and unless a hen is an exceptionally good breeder she should be disposed of at the end of her second laying season and before starting to molt.





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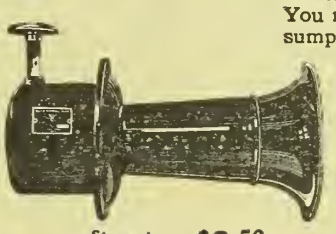

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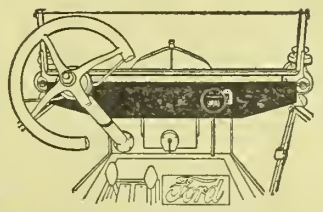

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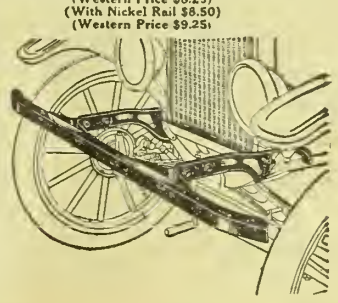
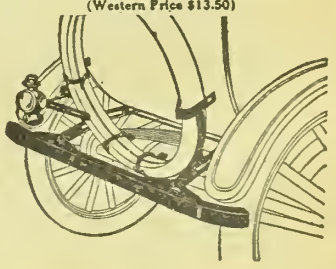


Stewart Autoguard Tire-carrier for Ford Cars . . $11.50
(Western Price $12.50)
(With Nickel Rail $12.50)
(Western Price $13.50)





72 page catalog
mailed upon request

Waste Nothing

This is no time for "cream slacker" separators or wasteful methods of skimming milk.

With butter-fat at present prices and the Food Administration begging every one to stop waste, "cream slacker" methods of skimming milk must go.

Whether you are trying to get along without any cream separator or using an inferior or partly worn-out machine, you are wasting butter-fat and losing money.

Get a De Laval and save ALL your cream

Viewed from every standpoint—clean skimming, ample capacity, ease of operation, freedom from repairs, durability—there is no other cream separator that can compare with the De Laval.

Order your De Laval now and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash or on such liberal terms as to save its own cost. See the local De Laval agent, or, if you don't know him, write to the nearest De Laval office as below.

THE DE LAVAL SEPARATOR COMPANY

165 Broadway, New York 29 E. Madison St., Chicago



—that's what thousands of farmers say, who have gone from the U. S. to settle on homesteads or buy land in **Western Canada.** Canada's invitation to every industrious worker to settle in **Manitoba, Saskatchewan or Alberta** is especially attractive. She wants farmers to make money and happy, prosperous homes for themselves by helping her raise immense wheat crops to feed the world.

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200—Choice Eastern Oklahoma Farms for Sale and Rent—200

At Low Prices and on Easy Terms.

It will pay parties who want to buy or rent farms, to answer this advertisement. Write

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KANSAS FARMER DAIRY CLUB

Variations in Cream Tests

IF YOU sell cream you will oftentimes be surprised at the variations in the test you get from the creamery or the cream buyer. It is sometimes difficult to understand just why the tests should vary. Some are disposed to assume that these variations in tests of the cream sold indicate carelessness or dishonesty on the part of the cream buyer. Do not be too hasty in making the charge of dishonesty or carelessness in handling the tests. There are a great many reasons for variations, some of which we might easily overlook.

In the early part of the summer there is nearly always a tendency for cream tests to go lower. This is usually because the richness of cream will vary with the richness of the milk. In the early spring and summer there are usually more fresh cows in the herd and as cows test lower in the early part of the lactation period the test for the herd will be lower, and as a result the cream will also test lower. It is not unusual for a herd of milk cows to test as high as 4 per cent in the fall, while in the early spring or summer the test for the herd may run as low as 3.6. Other things being equal, this difference in the richness of the milk can cause a variation of from 5 to 8 per cent in the cream test.

Another very common and important cause for variation is the speed of the separator. The faster it is turned, the larger the proportion of skim milk and the smaller the proportion of cream. The result is that the cream tests higher in butter fat. If a separator is designed to have the handle turned sixty resolutions a minute, and it is only turned forty, the cream will be considerably lower in test but larger in total quantity.

In completing the job of separation it is always the practice to run some water or skim milk through the machine to flush out the bowl. The amount of water or skim milk so used will cause a variation in the percentage of butter fat. The difference of a pint used will make quite a noticeable difference in the test of the cream. The temperature at which the milk is separated also has an influence on the test of the cream. Some separators are much more sensitive to variations in the temperature of milk than others. In some machines a difference of 20 degrees in temperature of the milk separated would make a difference of several points in the test without affecting the thoroughness of the removal of the butter fat. It must not be understood that in these variations there is any loss in butter fat. The total quantity remains the same, although the test, or percentage of butter fat, varies. It simply means that under some conditions a greater or less amount of skim milk goes into the cream. To get the best results, however, from separation, and be sure that the machine is doing its best work, it should be turned as near the proper speed as possible and the milk should be at as nearly the proper temperature for separation as possible.

Making Butter on the Farm

In the old days before the time of the centrifugal cream separator the cream had to be made into butter on the farm and the butter sold for what it would bring. It was a most unsatisfactory method of selling butter fat. Butter of all kinds, good, bad, and indifferent, was bought at the same price by the grocer and usually paid for in trade. As a rule the buyer dumped the butter all in together and this with the low price paid did not offer much encouragement to those who could make butter of good quality.

The introduction of the farm separator brought in the creamery and shifted the butter-making process from the farm to these creameries. This greatly stimulated the production of butter fat because it brought a better market for the product. There are some who still make butter on the farm, and by working up a special trade find it more profitable than selling the cream. There is considerable work attached to the process, and as the summer season comes on it gets more difficult to make good butter on the farm. This season of the year also brings many added duties to the farm housewife and it is great relief to get away from the task of making the cream into butter and finding a profitable market for it. The supply of butter is now increasing, and the prices are changing to a lower level. Under these conditions the making of butter on the farm is hardly justifiable.

Of course the profit from making butter is in the added labor put into the product and the fact that more than a pound of butter can be made from a pound of butter fat. This is commonly spoken of as the overrun. A pound of butter fat should make 1.16 pounds of butter. If butter fat is worth forty cents a pound, and a market can be found for the farm-made butter at forty cents a pound, the butter fat is being sold at approximately forty-six cents a pound. If the farm-made butter must be sold, as is frequently the case, at a less price than the butter fat would bring, it clearly is unprofitable to do the unnecessary work of making it up on the farm.

If you can sell your butter to regular customers who will pay creamery butter prices, you can realize a little money from the making of butter on the farm. The average housewife, however, has plenty of work to do and it is most assuredly unfair to add to her labors by expecting her to perform labor which is actually unprofitable, and in most cases the extra money coming from making butter will not pay for the time and trouble required. Unless fancy prices can be obtained for farm-made butter the cream had better be hauled to the creamery and sold and creamery butter purchased for use at home.

Cows in Western Kansas

Milking a few cows has been a source of profit to many a family in Western Kansas. It has always been noticeable that in years when the crops are poor, more cows are milked. This simply means that the cow is the surest means of bringing in some revenue under adverse conditions. And yet there are people who think dairy farming is adapted only to more humid sections. The regular monthly cream check is a most acceptable source of income under Western Kansas conditions, and a small herd of good cows would be a wonderful help on many a farm in adding to the family income. There is a good market for all the cream that can be produced, and the records of those who have practiced milking cows in Western Kansas have shown that enough forage can be grown every year to feed a herd of cows through the winter. By taking advantage of the silo as a means of storing up a reserve of feed in the good feed years, the number of cows that can be kept may be increased. The cows can be bred to freshen in the fall so that most of the milking and handling of the product comes at a time of the year when there is less farm work to do.

We have many times called attention to the fact that a history of the development of Western Kansas shows that the men who have stayed and become successful are those who depended on milking a few cows, keeping chickens, and raising a few hogs to pay the grocery bill, taxes, and interest on the mortgage during the years when wheat failed. Men who have done this have been able to keep out of debt and when a good crop of grain was raised the money could be used for adding to the equipment or put into added comforts for the home instead of having to go in payment of accumulated debts.

Pays for High-Priced Cow

A $450 cow has been paid for in less than two years' time by one of the Kansas Farmer Dairy Club members. The member who has made this record is Elise Regier, of Whitewater, Kansas. This is the highest-priced cow purchased by a Dairy Club member. She is a member of the Arkansas Valley Cow-Testing Association, and in looking over the May record of this association in which 400 cows were tested we note that her cow, Thilda, is one of two producing over eighty pounds of butter fat for the month. Elise writes the following letter in sending in her final report:

"I inclose my milk and feed records for May. This will end my second year's work in the Kansas Farmer Dairy Club. As I expect to go away to school next



DR. HESS DIP and DISINFECTANT

A Dip that is standardized, of uniform strength and **GUARANTEED.** One gallon makes 70 gallons of dipping solution.

For Scab, Ticks and Skin Troubles

Dr. Hess Dip and Disinfectant cleans and makes the skin healthy. It is more than a Dip—it is also a Disinfectant. Use it freely about stables, hog pens and poultry houses to destroy disease germs and maintain good health conditions. Also for home use, in garbage cans, sinks, cesspools. Sold by 28,000 dealers on a money-back guarantee.

Dr. HESS & CLARK
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DON'T DEPEND ON WIND

For the Summer's water supply! Our small pumping engine will pump water when and where you want it. Both portable and stationary type. Other tough jobs easily handled too. Order now the complete engine and pumpjack here shown and be safe.

Only $3.50 Yearly Cost on Investment

Which is interest charge. Cheaper, more reliable than wind mills. For simplicity Galloway Engines are unexcelled. Leave them running without attention for hours! 300,000 satisfied Gallaway customers—some near you—testify to the quality of Galloway Engines, Tractors, Spreaders, Separators. Until further notice this price of $65.40 for complete water-cooled pumping engine and double-geared belt-drive pump-jack. Order now!

EVERY SIZE—FREE ENGINE BOOK READY—All 4 engine sizes from 1¾ to 16 b.p. heavy duty portable or stationary operate on any fuel. My new free engine book ready. A postal gets it. Also gives lowest prices on highest quality farm implements of all kinds.

Price Only $65.40 Complete

Wm. Gallnway Co.
Box 215
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DON'T CUT OUT A Shoe Boil, Capped Hock or Bursitis FOR ABSORBINE

TRADE MARK REG. U.S. PAT. OFF.



will reduce them and leave no blemishes. Stops lameness promptly. **Does not blister** or remove the hair, and horse can be worked. $2.50 a bottle delivered. Book 6 R free.

ABSORBINE, JR., for mankind, the antiseptic liniment for Boils, Bruises, Sores, Swellings, Varicose Veins. Allays Pain and Inflammation. Price $1.25 a bottle at druggists or delivered. Will tell you more if you write.

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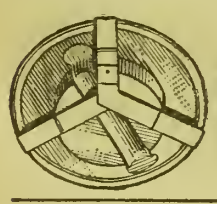

NO MORE SPILT MILK!

Government reports show $18,000,000 worth lost in one year. **Stop this loss with Henthorn's Milk Can Lock.** Locks and seals can securely. Impossible for cream or milk to be spilled or pilfered. **Price, 65 cents.** Ask dealer or write

Milk Can Lock Mfg. Co.
Osawatomie - - - Kansas

COAL CONSUMERS MUST BUY WINTER SUPPLY NOW

Consumers must buy their Winter supply of Coal during the Spring and Summer for storage if Production is to be maintained at a maximum and the country enabled to avoid a serious Coal shortage this Winter



H. A. Garfield
U. S. FUEL ADMINISTRATION

winter, I will not join again, although I would if I could. My cow, Thilda, was fresh March 29, 1918, presenting me with a fine heifer calf for which I was offered $200 last week, but I would not sell it. Thilda gave up to seventy-nine pounds of milk a day, but since it got so hot she is giving only about seventy pounds. Mr. Gentry, who was sent out by the Kansas Agricultural College, tested her for a seven-day official test, and she made a record of 524.7 pounds of milk and 21.95 pounds of butter.

"I am glad I joined the Dairy Club, for now I own a cow for which I paid $450, and she is surely worth as much now or even more than she was when I bought her. I also have a heifer calf and over $29 cash on hand. I hope the Dairy Club will continue and more boys and girls join it, for I know it will do them good as it did me."

One of the important things to know about a cow is the richness of the milk she gives. Since it can vary through the lactation period, we must in some way find out the average richness of the milk for the whole year. A single test might very easily be most misleading. Even seven-day records are not always a true test of a cow's productive capacity. This is especially true as applied to estimating the richness of the milk which a cow will produce throughout the year. For example, the Missouri Experiment Station owned a cow that made a seven-day record showing a test of 5.4 per cent butter fat, but the year's record showed but 3.3 per cent.

Cow Test Association Report

The Arkansas Valley Cow Testing Association added three new members during the month of May. One of them said he already knew which cows gave the richest milk, but the records showed that he was badly fooled. Fifty-one cows in the Association produced forty or more pounds of butter fat during the month. Twenty-two of them produced fifty pounds or over; six, over sixty pounds; three, over seventy pounds, and two, over eighty pounds. One of the eighty-pound cows belongs to Elise Regier, who is a member of the Kansas Farmer Dairy Club. Milk and butter fat records were kept on 400 cows for the month. C. G. Wehrman writes that the pastures were good for the month. Sweet clover is being used more and more and the cows do well on it. The table below gives the records of cows in the Association producing forty pounds or more of butter fat for the month ending May 31:

Owner—	Pounds Milk	Per Cent Fat	Pounds Butter Fat
A. C. Dewitt, S. H.	992	4.4	43.648
Lon Turner, S. H.	1,091	3.7	40.367
Chas. R. Gordon, H.	1,172	3.7	41.020
P. W. Enns, H.	1,380	3.7	51.060
Fred Harvey, H.	1,451	3.5	50.785
Fred Harvey, G.	1,221	3.9	47.619
Fred Harvey, H.	1,029	3.9	40.131
Fred Harvey, H.	1,166	3.8	44.308
Fred Harvey, H.	1,225	3.4	41.650
Fred Harvey, H.	1,358	3.7	50.246
Fred Harvey, H.	1,221	3.9	47.619
Fred Harvey, H.	1,742	3.8	66.196
Fred Harvey, H.	1,451	3.8	55.138
Fred Harvey, H.	1,767	4.1	72.447
Fred Harvey, H.	1,665	3.8	63.270
Fred Harvey, H.	1,606	2.8	44.968
Fred Harvey, H.	1,482	3.4	50.388
Fred Harvey, H.	1,677	3.5	58.695
F. H. Bock, H.	1,690	2.9	49.010
F. H. Bock, H.	1,274	4.0	50.960
F. H. Bock, H.	1,876	3.0	56.280
Jake Leendertse, H.	1,175	4.1	48.175
Jake Leendertse, H.	1,395	3.2	44.640
Jake Leendertse, H.	967	5.2	50.284
W. M. Spurlock, H.	1,826	3.1	56.606
W. M. Spurlock, H.	1,587	3.4	53.958
W. M. Spurlock, H.	1,361	3.4	46.274
W. M. Spurlock, H.	1,296	3.4	44.064
J. R. Pringle, H.	1,187	3.5	41.545
J. R. Pringle, H.	1,491	2.7	40.257
J. R. Pringle, J.	1,221	3.4	41.514
E. B. Greene, H.	958	4.6	44.068
E. B. Greene, H.	1,135	3.8	43.130
E. B. Greene, H.	1,386	3.4	47.184
Dr. J. T. Axtell, H.	1,832	3.2	58.624
Elise Regier, H.	2,288	3.6	82.368
J. C. Corfman, H.	1,311	3.9	51.129
J. C. Corfman, H.	1,364	4.8	65.472
J. C. Corfman, H.	902	4.5	40.590
J. C. Corfman, H.	1,259	4.0	50.360
Stubbs Farm, H.	1,457	2.8	40.796
Stubbs Farm, H.	939	4.8	45.072
Stubbs Farm, H.	1,386	3.4	47.124
Stubbs Farm, H.	1,488	3.9	58.032
Stubbs Farm, H.	1,686	2.7	45.522
Stubbs Farm, H.	1,271	3.2	40.672
Stubbs Farm, H.	1,851	4.9	90.699
Appleman Bros., H.	1,587	2.8	44.436
Appleman Bros., H.	1,401	3.3	46.233
Appleman Bros., H.	1,234	3.5	43.190

Note.—H. stands for Holstein J for Jersey; S. H. for Shorthorn and G. for Guernsey.

Salt is a necessity in the ration of a milk cow. Cows giving milk seem to require a good deal more salt than dry cows. The best method of supplying salt is to keep some in a box in the yard or under a shed so the cows can help themselves at any time to all they want. In this way they always have enough and are not likely to take too much at any one time, as might easily happen if they are given salt only every week or so. The practice of adding a certain amount of salt to the grain mixture is not to be advised, for some cows will perhaps get too much and others too little. A cow might get too much during the first part of the lactation period and not enough later.

Do you want a War Map? Read our special offer on another page of this paper.

WAR SAVINGS STAMPS DELIVERED TO YOUR HOME

Tear Out—Fill In—Hand Letter-Carrier—or Mail to Post Office

TO THE LOCAL POSTMASTER:—Kindly have letter-carrier deliver to me on _____ (Date) for which I will pay on delivery:

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W. S. S. COST DURING 1918

April	$4.15	July	$4.18	Oct.	$4.21
May	4.16	Aug.	4.19	Nov.	4.22
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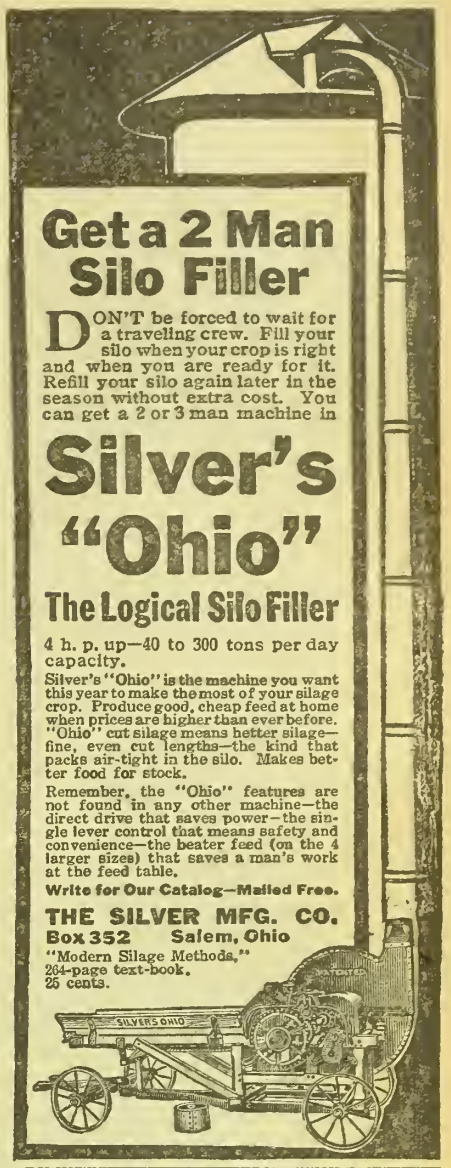
W. S. S. WORTH $5.00 JANUARY 1, 1923

THE War Savings Stamps issued by Uncle Sam make it possible for every person, young or old, rich or poor, to get back of the Government with his money, and it takes money—vast sums of it—to win wars. The stamps particularly afford those of moderate means to do their share toward financing the war, as they accumulate their savings. Every loyal American will buy his share of stamps as measured by his means, up to $1,000, the maximum any one person may hold. This maximum was prescribed for a purpose, and that purpose was to limit the rich and let those of lesser fortunes but of as great or greater patriotism, also share in the Government's undertaking to provide the sinews of war. Don't let the small amount of the stamp deter you from saving and buying because you may think it trivial. If every person in Kansas would buy a stamp each month the aggregate would amount to more than $7,000,000, and we have six months to pay for our quota of $37,000,000. The small savings of the many when put together not only aggregate a huge sum, but help to unify the people in support of the Government. People invest their money because they believe in the thing they buy or the purpose they aim to promote by placing their money back of it. It is an evidence of your faith in the Government when you loan the Government your money. Help the Government and help yourself by buying War Savings Stamps.



Get a 2 Man Silo Filler

DON'T be forced to wait for a traveling crew. Fill your silo when your crop is right and when you are ready for it. Refill your silo again later in the season without extra cost. You can get a 2 or 3 man machine in

Silver's "Ohio"

The Logical Silo Filler

4 h. p. up—40 to 300 tons per day capacity.

Silver's "Ohio" is the machine you want this year to make the most of your silage crop. Produce good, cheap feed at home when prices are higher than ever before. "Ohio" cut silage means better silage—fine, even cut lengths—the kind that packs air-tight in the silo. Makes better food for stock.

Remember, the "Ohio" features are not found in any other machine—the direct drive that saves power—the single lever control that means safety and convenience—the beater feed (on the 4 larger sizes) that saves a man's work at the feed table.

Write for Our Catalog—Mailed Free.

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Box 352 Salem, Ohio

"Modern Silage Methods," 264-page text-book, 25 cents.

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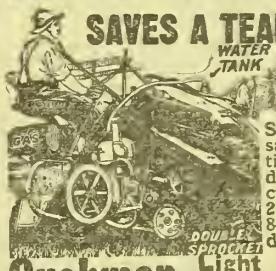
Don't Take the Risk of Waiting



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Saves two horses, saves grain, saves time, saves the binder, and saves the crop in wet season. 2 horses easily pull 8-ft. binder; engine drives machinery.

Cushman Light Weight Engines

4 H. P. is original and successful binder engine. Cooling tank on front balances engine on rear. Thousands in use every harvest, besides doing all other work after harvest. Weighs only 190 lbs.—easy to move around from job to job. Also 2-cyl. light weight engines, 8 to 20 H.P. Book free.



4 H. P. Outfit for All-Purpose Work. Same Engine Used on Binder

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American Tile Silos

BETTER THAN CEMENT CHEAPER THAN WOOD

Built of curved, hollow, vitrified tile. Double wall—no freezing. Heavy reinforcing imbedded in oil-mixed cement. Everlasting—no upkeep.

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Save big money. Buy now at special winter prices. Ship early—don't risk congested freight. Write today for New Catalog.

W. W. COATES COMPANY
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310 Traders Bldg.
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Also Building Tile Block at Below Wood Prices.



All the towns and villages, rivers, railroads, etc., "over there" where the boys are fighting, are shown on our War Map. See special offer on another page.

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Located in center of shopping district, convenient to car lines, stores, and all points of interest. Direct car line to stock yards.
The hotel of quality, comfort and refinement.
European Plan, $1.00 to $2.50 per Day.
Cafe in Connection.
KUPPER-BENSON HOTEL COMPANY
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WICHITA KANSAS
65 CENTS FOR 3 YEARS
KANSAS' GREATEST FARM WEEKLY

Kill All Flies! They Spread Disease
Placed anywhere, Daisy Fly Killer attracts and kills all flies. Neat, clean, ornamental, convenient, and cheap. Lasts all season. Made of metal, can't spill or tip over; will not soil or injure anything. Guaranteed effective. Ask for
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Sold by dealers, or 6 sent by express, prepaid, $1.00.
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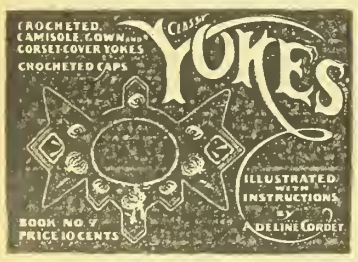
A New Crochet Book—Yokes



Crocheted camisole, gown, and corset cover yokes. A collection of pretty patterns with illustrations and complete instructions. In ordering be sure to ask for Book No. 7. Price, postpaid, 10 cents.
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White cotton materials may be shrunk by being put into cold water and gradually heated to the boiling point. Colored cotton fabrics may be put directly into a tub of warm water, removed immediately and hung to dry. In either case the material is ironed before it is entirely dry.

Food is sacred. To waste it is sinful.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

The Mother's Song

His limbs are long and straight and strong
And clean as a beechen pole.
His eyes are bright with a braw, brave light,
Like driven snow is his soul.
Yet, though so dear, I offer him here
To fight for his land and me—
I gave him birth in a country worth
So wondrous a price as he.

There's a precious grief that resents relief
As I watch my heart's blood go.
Yet there's more of pride, as I stand, wet-eyed,
With my mother-soul aglow
That I've stood the test and have lent my best
To a cause that's best of all.
For my voice was clear as I answered "Here,"
At our blessedest country's call.

Next door to mine is an empty shrine
For the boy that never came,
Though many a prayer was whispered there
By her child-love's altar flame.
And my heart leaps out in a grateful shout
That a son of mine should live,
Preventing the grief that were past relief—
If I had no son to give!
—Strickland Gillilan.

Walks with the Children

We have called attention before in these columns to the practical articles on Training Little Children which are being issued by the United States Bureau of Education. Mrs. Bertha Emelin, a mother who has had kindergarten training and experience, emphasizes in one of these the value of walks and talks with the little ones. Mrs. Emelin says that these bring mother and child close together and also afford opportunities for teaching facts at first hand and in interesting ways. The home-keeping mother usually finds little uninterrupted leisure for work or play with her children. But when we leave all the distractions behind us for a little while we find the way to follow Froebel's suggestion: "Come, let us live with our children."

The blue sky and the great outdoors will take you away from the pettiness of the thousand and one trifles that continually intrude themselves upon your attention while you remain within four walls, and after a few trials you will realize their value for yourself as well as for the children. If the children are very young or if it is impossible to take much time, places very near home will serve as well as more distant goals. The pond or the creek, a clump of trees, the stream under the bridge, a climb to the top of a hill commanding a good view, or even a stroll across the pasture or up the country road may be the purpose of the walk.

Mrs. Emelin recommends permitting the children sometimes to take skates or a bicycle or a velocipede, a wagon or a sled, a hoop or horse reins, to provide additional attractions. Teach them to recognize the different trees: those that bear fruit or nuts, the maple with its keys, the oak with its acorns that can be hollowed out and used as cups or pipes, the cottonwood with its dancing leaf. Pick wild flowers in their season and watch the bees at work. Get acquainted with the birds. Begin in the late fall and winter when there are so few species that they can be easily learned and their notes readily distinguished. When these have become familiar the early spring birds will soon be added to the list. The children will be interested in finding out which birds stay with us all winter and which return first in the spring. The nests that are commonly seen—the oriole's stocking hanging from the branch, the robin's well-shaped nest in the crotch of the tree, and the house sparrow's careless, untidy home—will soon be readily recognized.

Try to forget all your grown-up dignity on these walks and have as much fun and laughter as the children are ready for. Repeat Mother Goose jingles as you go marching on; make up jingles yourself and get the youngsters to help. Let the children act out some of the stories you have read or told them. At times encourage silent communion with Nature, which in mature years gives a "peace that passeth understanding." The children will readily accede to your request, "Let us just be quiet for a while," especially at the twilight hour when the sun's glory and radiance are still reflected in the west.

Moonlight walks, despite the disadvantage of exceeding the usual retiring hour, have no equal in imbuing children with a sense of the mystery and the power and the glory of the Universe, and this experience should not be denied them. They should be permitted this walk with the parents at least once each season, when the moon is full. Then if you can add a few sunrise walks in the summertime, you will be certain of having stored up in your children and in yourself memories and delights that will remain forever and contribute to spiritual growth in no small measure. These same walks, though perhaps less frequent in the adolescent years, may afford opportunity for the confidence, the ideals and ambitions, that are so often poured into some one else's ears because the mother seems so busy in the home. At any rate, you will not stop the walks and talks when the kindergarten age has passed. You will keep them up from year to year and each year will make them seem more worth while.

Alteration of Patterns

Commercial patterns are made to fit average figures, and each should be carefully tested before being used, to make sure that it fits the individual for whom it is to be used. This may be done by taking the measurements of the figure correctly and altering the pattern accordingly, or if a garment is to be made of expensive material the fit as well as the style of the pattern may be tested by first modeling a garment from cheap material.

For a waist the following measurements should be taken:

Neck measure, around neck at the base.

Length of back from bone at base of neck to waist line.

Length of front from hollow of neck to waist line.

Width of back, across broadest part of back between armholes.

Width of front, across chest three inches below hollow of neck.

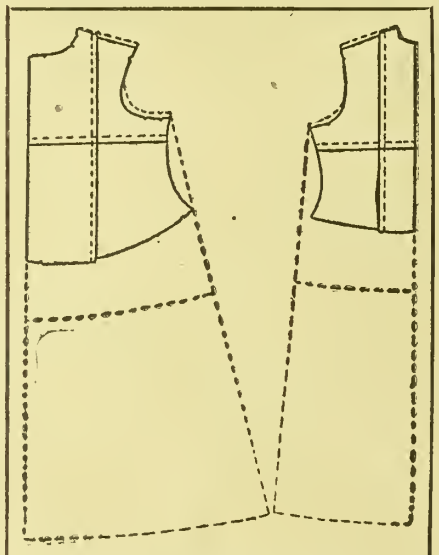


FIG. A—REDUCING SIZE OF WAIST PATTERN AND LENGTHENING IT FOR TWO- OR ONE-PIECE DRESS

Bust measure, around fullest part of bust and straight across the back.

Underarm, from hollow of arm to waist line.

Armhole, around the arm over the shoulder bone.

Waist measure, snug measure around smallest part of waist.

Length of arm, inside of armhole, or hollow, to wrist and outside from shoulder over bent elbow to wrist.

For a skirt the measurements are:

Waist, measure same as given above.

Hip measure, taken loosely around the hips six inches below the waist line in the front and parallel with the floor.

FASHION DEPARTMENT

All patterns, 10 cents.



No. 8840—Ladies' Shirtwaist: Cut in sizes 36, 38, 40 and 42 inches bust measure. The waist has a narrow shoulder yoke, which is fashioned by gathering the front edges to the back. The long sleeves are gathered into deep cuffs. Crepe de chine, satin, linen, voile or organdie may be used. **No. 8823—Boys Suit:** Cut in sizes 2, 4 and 6 years. The long blouse buttons at center front, and it is held in place by a narrow belt of the material. The separate knickerbockers are shirred on elastics at the knees. A wide collar of white pique finishes the neck. **No. 8836—Ladies' One-Piece Apron:** Cut in sizes 36, 40 and 44 inches bust measure. The apron is to be slipped on over the head, and it has a low U-shaped neck. Two large pockets are stitched at the sides and a wide belt is worn with the apron.



No. 8839—Girls' Dress: Cut in sizes 4, 6, 8, 10 and 12 years. The front panel sections are cut in one with the yoke, and the dress buttons from neck to hem. A tiny roll collar finishes the V-neck. The one-piece skirt section is straight at the lower edge and it is gathered at front and back to the yoke. **No. 8816—Ladies' Dress:** Cut in sizes 36, 38, 40 and 42 inches bust measure. The collar and reveres are cut in one and the unique feature is that the ends are carried down under the belt and tiny pockets are stitched on the ends. The dress has a two-piece skirt. **No. 8831—Ladies' and Misses' Four-Gored Skirt:** Cut in sizes 16 and 18 years and 26, 28, 30 and 32 inches waist measure. The skirt is gathered at the sides to the slightly raised waist line. A very wide belt of the material is finished with a large buckle at the front.

Length of front, side, and back from waist line to floor. Any change in length is made from this measurement.

To lengthen a waist or skirt: Cut straight across each of the pieces that are too short, as shown in Figures B and D, having the cut exactly perpendicular to the line of dots which marks the lengthwise line of the goods. Insert a piece of paper as wide as is needed to give the extra length desired; or, when cutting out the garment, lay the two cut parts of the pattern on the goods so that they are separated by a distance equal to the desired increase in length. When lengthening a skirt pattern, the pieces should be slashed about two-thirds of the distance from the top. In a waist make the cut about three inches above the waist line. In

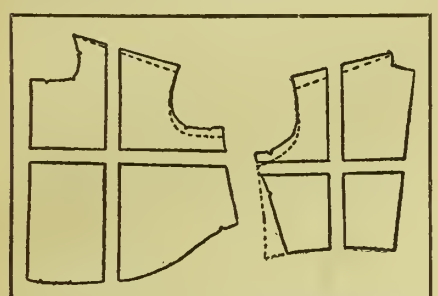


FIG. B—METHOD OF ENLARGING WAIST PATTERN

either case, make sure that the insert is the same width throughout.

To increase the width of a piece, slash it lengthwise and separate the pieces in the same way as in lengthening.

Another way of making a garment longer or broader than the pattern is to pin a plait evenly in the goods, lay the pattern over it, and cut.

To shorten a pattern or make it smaller, take a plait in it on the same lines, as shown in Figure A.

A two-piece sleeve may be shortened by plaiting the pattern as illustrated. If too short, it may be lengthened by slashing it on the same lines and inserting strips of paper of the necessary width, keeping the width uniform throughout. To remove fullness from the top of a sleeve, lay a graduated plait in the pattern as indicated by the dotted lines.

A shirtwaist sleeve, full at both shoulder and wrist, can be enlarged by making a cut through the center of the pat-

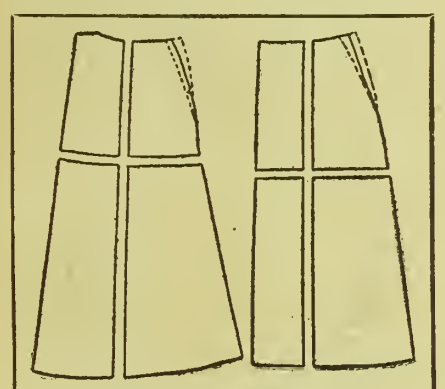


FIG. D—METHOD OF ENLARGING OR REDUCING SKIRT PATTERN

tern, parallel to the dots marking the lengthwise thread of the goods, and separating the pattern. In like manner it may be lengthened, cutting across the pattern half way between wrist and shoulder. If it is desired to reduce the length or fullness of this style of sleeve, plaits may be laid in the same position as suggested for the slashes.

In buying a skirt pattern, if it is not possible to get a pattern of the correct measurements for both waist and hip, it is better to buy a pattern of the correct hip size, as it is easier to make slight changes in it around the waist than to alter it on the hips. If the hip measure is correct and the waist too small or too large, the line from the hip to the waist may be changed as indicated by the dotted lines, care being taken to change the shape of the curve as little as possible.

Every woman should own a perfectly fitting foundation waist and skirt pattern. This will serve for a large number of garments, since it may be altered and may be used either for a one-piece or a two-piece dress. Figure A shows the method of reducing the size of a waist pattern and lengthening it for a dress.

Money may be saved by altering patterns already on hand to fit the various members of the family, if one has had sufficient experience in sewing to warrant undertaking this. For example, the mother's shirtwaist pattern may be altered and used in making a blouse for the daughter, even though the bust measure or the length of the waist is not the same.

Any alteration in the size of patterns should be made without disturbing the

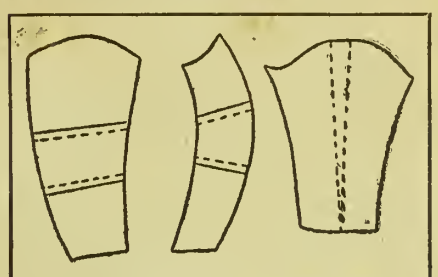


FIG. C—SHORTENING SLEEVE AND REMOVING FULLNESS

arm's eye, the neck, or the curves over the hip line.

NOTE.—The drawings from which the cuts used on this page were made are from a circular of the University of Missouri, entitled "Principles of Sewing." This pamphlet has also been drawn on in preparing the article, as well as a Government bulletin giving instructions to the members of the girls' sewing clubs.

Sugar for Home Canners

The submarine has forced fighting Europe to a very strict sugar ration and compelled America to look the situation squarely in the face. There is only so much sugar, there are certain definite needs, and the problem before us is finding a practical plan of distribution. The Food Administration has adopted a certificate system to meet the household needs during the coming fruit season, and to guard against temporary shortages that may occur if more vessels are diverted from the Cuban trade.

The consumer is asked to estimate his needs and fill out a certificate which will be furnished him by his grocer. The dealer is required to forward this certificate to the Federal Food Administrator within one week after it is turned in to him.

This plan puts the question up to the individual, and the Food Administration asks the assistance of every householder in bringing about a practical distribution. The success of the plan depends on the good sense and good will of the American citizen. Co-operation, prompt action, and a democratic sense of fair play will prevent a sugar shortage in America during the fruit season.

Potato Rolls (Three Dozen)

3 cupfuls mashed potatoes
4½ cupfuls flour
3 teaspoonfuls salt
2 tablespoonfuls corn syrup
1 cake compressed yeast softened in ¼ cupful water
¾ cupful milk scalded
2 tablespoonfuls fat

Add the hot milk to the potato and when the mixture has cooled until it is lukewarm, add the softened yeast and other ingredients. Allow the dough to rise to double its bulk. Work it down and let it rise until it has increased in size by about one-half. Then shape the rolls, let them rise until they are double in size and bake them in a hot oven.

Charlotte Russe

1 pint whipped cream
4 tablespoonfuls powdered sugar
1 teaspoonful vanilla
1 tablespoonful gelatin
½ cupful milk

Soak gelatin in the milk until stiff, then dissolve over hot water. Whip the cream. Add the flavoring and sugar, and when the gelatin is cool mix it thoroughly with the cream. Pour into mold and place on ice to stiffen.

Molded Salmon

1 cupful stale bread crumbs or cracker crumbs
1 cupful milk
1 tablespoonful fat
1 cupful canned salmon
½ teaspoonful salt
¼ teaspoonful pepper
2 egg whites.

Cook milk and bread crumbs together to a paste. Add fat and seasonings and stir in salmon. Fold in stiffly beaten egg whites and turn into an oiled dish. Put in a pan of hot water and bake in a moderate oven until firm.

Salmon balls for frying may be made in the same way, using a whole egg instead of the beaten whites.

Nearly 9,000 nurses enrolled by the American Red Cross are now in service. Twenty-five thousand nurses will be needed.

Roses in Your Home

ALL YEAR

Beautiful climbing roses of brilliant colors, fragrant roses of upright growth, and trailing roses with delicate tints; all yielding most delicious perfume. Our New Collection of Native American and Japanese Roses is

GROWN FROM SEED



The seed germinates quickly, and the plants make rapid growth, bearing hundreds of beautiful roses. If grown in the house they will bloom all the year around. They can be grown outdoors during the summer, and if taken inside for the winter will continue to bloom. Nothing is prettier than the fragrant flowers and "berries" of these Native Roses.

You Can Have This Beautiful Window-Box of Roses in Your Home

We will send you a big packet of the seed of our new Rose Collection, together with full instructions for planting and for making a window box, as shown in the picture. If you take advantage *now* of our liberal offer, and plant the big packet of Native American and Japanese Rose Seeds, you will have hundreds of beautiful roses blooming in your home the year around. They require very little attention, except for an occasional watering.

Plant NOW! Roses in 8 Weeks!



Just do us the favor of sending us one NEW TRIAL subscription to KANSAS FARMER for three months at 25 cents, and we will send you the big packet of Rose Seed FREE and postpaid, with full instructions for planting. Send today to

KANSAS FARMER,
Topeka, Kansas

Gentlemen: Send me FREE and postpaid, your big packet of Native American and Japanese Rose Seeds, with instructions for planting and for making the Window Box.

Name.....R. F. D.....

Town..... State.....

I enclose 25 cents, for which you will please send KANSAS FARMER three months to the following address:

Name.....R. F. D.....

Town..... State.....



Disinfect Poultry House

THE first thing to do in disinfecting a poultry house is to dispose of all ailing hens. This can be done only by handling every hen, preferably after dark and having a good lantern or light outside the building. Particular pains should be taken to find every hen with running nasal cavities; with canker showing where the mandibles meet or in the month; with watery or sore eyes. Such hens, carrying over colds or the germs of the disease broadly covering all the various phases of colds and termed "roup," are carriers that will start trouble with the first cold rains next fall.

The second thing to do is to thoroughly clean out the poultry house with broom, hoe, and shovel. A small trowel will also be a great help. This cleaning should be thorough and including removing all old nesting material, not forgetting to remove and clean all window sash.

The third thing to do is to spray or whitewash everything in sight, even the floor.

Unless disease, like roup, has actually been present this will be enough, according to the poultry experts of the Pennsylvania Department of Agriculture. If the house is disease-infected then the best disinfectant is formaldehyde gas. The poultryman will need no special generator to use this gas successfully. At least if he will take the precautions of first sealing the poultry house as tightly as possible by pasting cracks over with paper or stuffing with rags, and second, by using it on a warm, still day, or a warm rainy day.

The procedure is to find the number of cubic feet in the poultry house and use not less than twenty ounces of 40 per cent solution (the most common form for sale at all drug stores) formaldehyde.

For each twenty ounces of formaldehyde solution, in disinfecting, add sixteen ounces of potassium permanganate crystals or about in the proportion of six parts formaldehyde to five parts permanganate.

When about to disinfect, the poultryman should have the poultry house all cleaned, have all chickens and all eggs out, have a dish pan or bucket, raised from floor by bricks or stones and containing the requisite ounces of formaldehyde solution he has determined to be needed. The very last thing he must do is to add the permanganate crystals and quickly leave the building, shutting and sealing the door after him. The resultant gas is very penetrating and is excessively irritating to the eyes and nose and precautions should be taken to come in contact with it as little as possible.

Keeping the building tightly closed six or eight hours is sufficient and precaution should be taken to ventilate fully before any poultry is allowed to re-enter.

Another very effective way is to liberate the gas in the 40 per cent solution by using a small oil or alcohol stove in the dish pan or pail instead of the permanganate crystals, lighting same, carefully adjusting the flame and evaporating the formaldehyde solution in a pan, on top of the stove. The procedure in all other respects is exactly the same.

The formaldehyde gas is not inflammable, nor is the solution especially poisonous and is about the only effective disinfectant for the poultry house with its many cracks and crevices to drive a spray disinfectant. It is also the most effective gaseous disinfectant; being one of the most powerful germicides known.

Market Cockerels Young

Forcing early broilers for market is advocated by W. A. Lippincott, professor of poultry husbandry in the Kansas Agricultural College.

In ordinary practice the best and most profitable plan is to get the surplus cockerels on the market as soon as possible or else caponize them. Early broilers bring fancy prices. In the forcing of them it should be remembered that the quickest gains are also the cheapest.

The feeding of broilers may be divided into three periods—growing, forcing, and fattening. The growing period usually last four weeks. A regular growing ration should be fed until the chicks are well established and past the critical stage.

The length of the forcing period is variable. The ration differs from that of the first by carrying a larger proportion of protein. If possible the increase in protein should be brought about by adding cottage cheese rather than by increasing the meat scraps. Too much protein causes digestive disorders.

The fattening period is generally of eight or twelve days' duration. The time of feeding depends upon how long the chicks "stand up" to the fattening ration without losing their appetite. In case the broilers are not intended for private trade they should not be milk-fed, but penned up and corn-fed for a period of two or three weeks. They will then be in good shape for milk-feeding at the packing house.

Diseases and Treatment

All diseased birds should be isolated.

Colds and Roup—Disinfect the drinking water as follows: To each gallon of water add the amount of potassium permanganate that will remain on the surface of a dime.

Chicken Pox—Apply a touch of iodin and carbolated vaseline to each sore.

Gapes—New ground and vigorous cultivation will often remedy this trouble.

Scaly Legs—Apply vaseline to the affected parts, and after twenty-four hours soak in warm soapy water. Repeat the treatment until cured.

Diarrhea in Hens — Low-grade wheat flour or middlings is good for this trouble.

Bowel Trouble in Chicks—Well-boiled rice mixed with a little charcoal will often check this complaint.

Encouragement for Kansas Breeders

Kansas breeders have sometimes wondered why futurities were not offered at the Kansas fairs for the breeders of live stock other than hogs. This has been due to the fact that not enough breeders have taken an interest in this matter to make it a success.

However, the Kansas Free Fair which will be held at Topeka September 9-14, is putting on special classes for Kansas-owned live stock that will very largely take the place of a futurity and should be of great interest to Kansas breeders.

These specials are as follows: $200 each for junior Hereford bull calves, junior Hereford heifer calves, junior Shorthorn bull calves, junior Shorthorn heifer calves, Percheron stallion foals of 1918, Percheron filly foals of 1918, Percheron stallions foaled in 1917, and Percheron mares foaled in 1917.

Individuals shown in these classes are also eligible to show in the other classes for the same ages. This gives the Kansas breeder a splendid opportunity to show to the best advantage the stock he is developing and it is sincerely hoped that all Kansas breeders, and especially the boys, will plan to show something in these classes at the Topeka fair this fall.

All the towns and villages, rivers, railroads, etc., "over there" where the boys are fighting, are shown on our War Map. See special offer on another page.

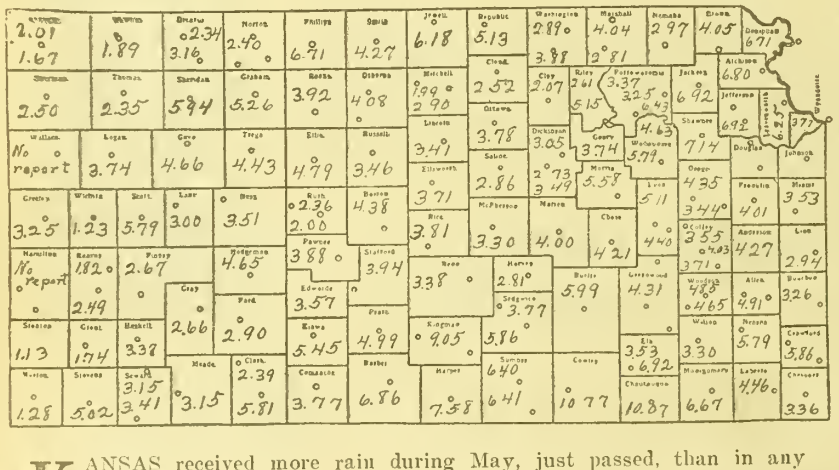
As soon as the chickens will eat the whole wheat, cracked corn, and other grains, the small-sized chick feed can be eliminated. In addition to the above feeds the chickens' growth can be hastened if they are given sour milk, skim milk, or buttermilk to drink. Growing chickens kept on a good range may be given all their feed in a hopper, mixing two parts by weight of cracked corn with one part of wheat, or equal parts of cracked corn, wheat, and oats in one hopper and the dry mash for chickens in another. The beef scrap may be left out of the dry mash and fed in a separate hopper, so that the chickens can eat all of this feed they desire. If the beef scrap is to be fed separately it is advisable to wait until the chicks are ten days old, although many poultrymen put the beef scrap before the young chickens at the start without bad results. Chickens confined to small yards should always be supplied with green feed, such as lettuce, sprouted oats, alfalfa, or clover, but the best place to raise chickens successfully is on a good range where no extra green feed is required. Fine charcoal, grit, and oyster shell should be kept before the chickens at all times, and cracked or ground bone may be fed where the chickens are kept in small bare yards, but the latter feed is not necessary for chickens that have a good range.

Poultrymen would make more money if they would find regular customers who would take their eggs two or three times a week, while they are perfectly fresh. Such customers would not be hard to find in almost any village and they would be willing to pay a little more than the regular store prices for them. But the eggs must be fresh and clean every time. The same thing is true of well-fattened and newly-dressed chickens.

See our extraordinary offer on page 16.

Rainfall of May, 1918

Reports Furnished by S. D. Flora, Meteorologist, Weather Bureau, Topeka



KANSAS received more rain during May, just passed, than in any other month since August of last year, and it was fairly well distributed over the state, considering the season. In the western half, however, the rains were delayed until the closing days of the month, by which time the ground had become very dry and crops were suffering severely.

Crops made a steady improvement all month, except the third week, when lack of moisture began to show a detrimental effect, which was overcome, except in the extreme west, by timely rains the last few days. Wheat was in excellent condition, except in the western counties, with harvest hardly more than a week distant. Corn came up to fair stands and truck patches, potatoes and gardens were probably never better at this time of the year.

PURE BRED POULTRY

PLYMOUTH ROCKS.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swalm, Geuda Springs, Kansas.

LEGHORNS.

SINGLE COMB WHITE LEGHORN EGGS —100, $5.50 prepaid. Quality guaranteed. Dave Baker, Conway Springs, Kansas.

S. C. BROWN LEGHORNS BRED 22 years; 222 to 266-egg lines. Eggs, fifteen, $2; fifty, $4; hundred, $6. Gorsuch, Stillwell, Kansas.

WYANDOTTES.

WHITE WYANDOTTE EGGS AT $1.50, fifteen; $3.25, fifty; $6 hundred. Winning, laying strain, fertility and satisfaction guaranteed. Andrew Kosar, Delphos, Kansas.

ANCONAS.

SHEPPARD S. C. ANCONA EGGS FROM extra stock, $6 hundred. Lottie DeForest, Peabody, Kansas.

RHODE ISLAND REDS.

BRED TO LAY SINGLE COMB REDS—Pure-bred, rich red, large, hardy, henhatched, free range, heaviest winter layers. Eggs, setting, $1.00; hundred, $5.00; guaranteed. Belmont Farm, Topeka, Kansas.

SEVEN GRAND PENS ROSE COMB REDS headed by roosters costing $15 to $50. Fifteen eggs, $3; thirty eggs, $5; fifty eggs, $8. Special utility eggs, $7.50 per hundred. Baby chicks. Catalog. W. R. Huston, Americus, Kansas.

LANGSHANS.

BLACK LANGSHAN EGGS, 7c EACH; over 100, 6c. Mrs. Geo. W. King, Solomon, Kansas.

POULTRY WANTED.

FOR QUICK RETURNS, FAIR TREATment and accurate weights, ship broilers, hens, roosters, other poultry to The Copes, Topeka. Coops loaned free.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

Address All Communications to Kansas Farmer, and Not to Individuals

Personal mail may have to be held for several days, or be delayed in forwarding, and Kansas Farmer cannot assume any responsibility for mistakes occurring thereby

CLAIM SALE DATES.

Shetland Ponies.
June 20—R. J. Foster, Topeka, Kansas.

Holsteins.
Sept. 4—E. S. Stoughton, Hutchinson, Kan.

Spotted Poland Chinas.
Oct. 5—W. J. Honeymoon, Madison, Kan.
Oct. 19—C. A. Gooch, Orrick, Missouri.

Poland Chinas.
Aug. 8—Fred B. Caldwell, Howard, Kan.
Oct. 15—H. B. Walter & Son, Effingham, Kansas.
Oct. 16—Dr. J. H. Lomax, Leona, Kansas.
Oct. 31—F. J. Dowe, Hiawatha, Kan.
Oct. 29—Hill & King, Topeka, Kansas.
Oct. 31—Adams & Mason, Gypsum, Kansas.
Nov. 1—E. B. Myers, Hutchinson, Kansas.
Nov. 7—Schmitz Bros., Seneca, Kan.
Nov. 8—Ketter Bros., Seneca, Kan.

Duroc Jerseys.
Oct. 19—W. W. Zink, Turon, Kansas.
Oct. 18—Wreath & Givens, Manhattan, Kan.

Chester Whites.
Oct. 23—J. H. McAnaw, Cameron, Missouri.
Nov. 7—Arthur Mosse, Leavenworth, Kan.

Callahan & Beck, Kingman, Kansas, owners of one of the choice herds of Galloway cattle in Kansas, report their herd doing fine. The blood lines of this herd are the best of the Galloway breed and a feature at this time is the outstanding lot of yearling and two-year-old bulls.

Ross & Vincent, of Sterling, Kansas, have raised sixty-five head of the best Poland China pigs that they have ever grown on their farm. They are sired by such boars as Model Wonder, The Giant, Big Ben, Giant Ben, Captain Gerstdale Jones, Big Bob Jumbo and A Big Wonder. In this lot there are several herd boar prospects.

Fred B. Caldwell, of Howard, Kansas, owner of the Elkmore Farms, home of the world's champion Poland China boar, has raised over 200 spring pigs. They are sired by King Bob, Giant Bob and the champion, Caldwell's Big Bob. Mr. Caldwell has claimed August 8 for his next bred sow sale. On that date forty-five head of large, stretchy tried sows, all safe for September litters to the champion, Caldwell's Big Bob, will be offered for sale. The sale will be held right on the farm under the shade of the big oak trees on the banks of the Elk River.

S. M. Beason, of Collyer, Kansas, owner of one of the high-class herds of big-type Poland China hogs, reports his herd doing well and the young stock growing out fine. This herd is made up of representatives of the popular sires of the breed. A feature of the herd is the fine lot of young stock sired by Big Joe 303331 by Big Bob Jumbo 275307.

GENERAL FARM ITEMS

Story of a Farm Success

STEERING a 2,100-acre farm business through the producing season in these strenuous times is a difficult task, but J. C. Groves, a negro farmer of Edwardsville, Kansas, has done that and even more.

In the early seventies Mr. Groves walked from Kentucky to Kansas, a poor man in search of work. He finally bought a ten-acre plot of Kansas land nine miles from Kansas City. By hard work and perseverance he managed to increase his farm land, adding ten-acre blocks at a time until he gradually accumulated his present holdings of fertile land. He is said to have grown more potatoes on a single acre than any potato grower in the state. Last year he produced 250 bushels on a single acre.

Mr. Groves' home, a spacious mansion, modern in every detail, is built on a 500-acre tract of fertile land near Edwardsville. It is a brick structure of twenty-one rooms, electric lighted, with running water throughout, and every modern convenience.

Mr. Groves has ably assisted his wife in her earnest conservation work for the community. Mrs. Groves, who is a member of the Edwardsville Canning Club, deserves great credit for the work accomplished. When the greatest food campaign that had ever been launched in Kansas was well under way last summer, Mrs. Groves quickly saw the need of some means of caring for the large quantities of vegetables being grown. This she explained to her husband, and within a few days from the time she mentioned the matter to him there was a hot water bath canning outfit on hand which would accommodate two dozen quart jars at a time, with an attachment for canning in either glass or tin containers. The neighbors were invited to use this equipment free of charge.

Mr. Groves became so much interested in the conservation of food products in his community last summer that he expressed himself as being willing to build a portable meeting place on his farm where the people might come to talk over the canning questions and can their products in a convenient and comfortable manner.

Mr. Groves possesses unusual ability in seeing the needs of his community. He is an intelligent and successful farmer and a firm believer in the fundamental principle that no state or nation, however great, can rise above its agricultural resources. As a result of his systematic efforts and firm resolution, he now is the owner of one of the most beautiful farmhouses in Kansas.—E. WOLLMAN.

European Live Stock Losses

Comparative losses in live stock by the warring and neutral nations of Europe and the general effect on their meat supply may be judged from information given out by the U. S. Food Administration.

As regards meat, the Central Powers were much better prepared for the war than the Allies. Although the Allies possessed a greater total number of meat animals, the Central Powers had 42 per cent more per capita. This advantage amounted to thirty-three animals of all classes per hundred population.

Due apparently to acquisition of animals by conquest, Germany has not slaughtered her home supply of live stock as rapidly as otherwise would have been necessary. There is now a practical exhaustion of animals in Belgium, Serbia and Roumania as a result of invasion, according to information from very reliable sources. In total animals the Allies have decreased their herds and flocks 45,787,000 head while Germany has reduced hers about 18,000,000 head—only slightly more than a third as many. The figures include cattle, sheep and hogs. Neutral nations show a total net reduction amounting to 1,412,000 of these animals. The European loss thus exceeds 65,000,000 head without taking into consideration Austria, Turkey and Russia, which would, undoubtedly, bring the total to over 100,000,000.

A somewhat clearer view of the European meat situation at present is secured by reducing the number of animals to the actual amount of dressed meat they will yield. Rating cattle as equivalent to 500 pounds of dressed meat apiece; sheep, 40 pounds; and hogs, 150 pounds, it appears that the various countries have suffered losses in their total meat assets to the following extent:

The Allies as a group, 28.7 per cent; England, 12.5 per cent; Belgium, 82 per cent; France, 21.4 per cent; Italy, 17.8 per cent; Germany, 36.3 per cent, and European neutrals, 0.9 per cent.

Considering the poor condition of the animals still alive and the reported reduction in live weight, the possible meat resources of Europe are obviously still further reduced.

The total number of cattle, sheep and hogs now in the United States is about 187,000,000, according to best estimates, which makes a striking comparison with the European depletion of 100,000,000 animals. Briefly, it appears that Europe has already lost considerably over half as many meat animals as there are in the United States today.

Kansas Fairs in 1918

The following is a list of the fairs to be held in Kansas in 1918, their dates (where they have been decided on), locations and secretaries, as reported to the State Board of Agriculture and compiled by Secretary J. C. Mohler:

Kansas State Fair, A. L. Sponsler, secretary, Hutchinson; September 14-21.

Kansas Free Fair Association, Phil Eastman, secretary, Topeka; September 9-14.

Allen County Agricultural Society, Dr. F. S. Beattie, secretary, Iola; September 3-6.

Allen County—Moran Agricultural Fair Association, E. N. McCormack, secretary, Moran; September 20-21.

Barton County Fair Association, Porter Young, secretary, Great Bend; first week in October.

Bourbon County Fair Association, W. A. Stroud, secretary, Unlontown; September 10-14.

Brown County—Hiawatha Fair Association, J. D. Weltmer, secretary, Hiawatha; August 27-30.

Clay County Fair Association, W. F. Miller, secretary, Clay Center; October 8-11.

Cloud County Fair Association, W. H. Danenberger, secretary, Concordia; August 27-30.

Coffey County Agricultural Fair Association, C. T. Sherwood, secretary, Burlington; October 4-9.

Comanche County Agrioultural Fair Association, A. L. Beelery, secretary, Coldwater; September 11-14.

Cowley County—Eastern Cowley County Fair Association, W. A. Bowden, secretary, Burden; September 4-6.

Dickinson County Fair Association, E. W. Elwick, secretary, Abilene; October 1-4.

Douglas County Fair and Agricultural Society, C. W. Murphy, secretary, Lawrence.

Elk County Agricultural Fair Association, Fred R. Lanter, secretary, Grenola; August 27-29.

Ellsworth County Agricultural and Fair Association, George Inman Seitz, secretary, Ellsworth; September 17-20.

Ellsworth County—Wilson Co-Operative Fair Association, J. W. Somer, president, Wilson; September 24-27.

Franklin County Agricultural Society, L. C. Jones, secretary, Ottawa; September 24-28.

Franklin County—Lane Agricultural Fair Association, Floyd B. Martin, secretary, Lane.

Gray County Fair Association, C. C. Isely, secretary, Cimarron.

Greenwood County Fair Association, William Bays, secretary, Eureka; August 27-31.

Harper County—The Anthony Fair Association: L. G. Jennings, secretary, Anthony; September 24-27.

Haskell County Fair Association, Frank McCoy, secretary, Sublette; probably no fair in 1918.

Jefferson County—Valley Falls Fair and Stock Show, V. P. Murray, secretary, Valley Falls; September 18-20.

Labette County Fair Association, Clarence Montgomery, secretary, Oswego; September 18-21.

Lincoln County—Sylvan Grove Fair and Agricultural Association, W. H. Becker, secretary, Sylvan Grove.

Lincoln County Agricultural and Fair Association, Ed M. Pepper, secretary, Lincoln; September 10-13.

Linn County Fair Association, E. D. Bennett, secretary, Mound City.

Logan County—Inter-County Fair Association, F. W. Irwin, secretary, Oakley.

Marshall County Stock Show and Fair Association, C. J. Brown, secretary, Blue Rapids; October 8-11.

Meade County Fair Association, Frank Fuhr, secretary, Meade; September 3-6.

Mitchell County Fair Association, W. S. Gabel, secretary, Beloit.

Montgomery County Fair Association, Elliott Irvin, secretary, Coffeyville; September 17-20.

Morris County Agricultural Fair Association, H. A. Clyborne, secretary, Council Grove; August 6-9 (race meet only).

Nemaha Fair Association, J. P. Koelzer, secretary, Seneca; September 3-6.

Neosho County Agricultural Society, Geo. K. Bideau, secretary, Chanute; August 13-16.

Norton County Agricultural Association, A. J. Johnson, secretary, Norton; August 27-30.

Ottawa County Fair Association, J. E. Johnston, secretary, Minneapolis; August 13-16.

Pawnee County Agricultural Association, H. M. Lawton, secretary, Larned; September 25-28.

Phillips County—Four-County Fair Association, Abram Troup, secretary, Logan; September 10-13.

Pottawatomie County—St. Marys Racing Association, S. R. Santee, secretary, St. Marys; August 6-8 (race meet only).

Pottawatomic County Fair Association, C. Haughawout, secretary, Onaga; September 4-6.

Pratt County Fair Association, E. L. Shaw, secretary, Pratt; September 10-13.

Republic County Agricultural Association, Dr. W. R. Barnard, secretary, Belleville; August 20-23.

Rooks County Fair Association, F. M. Smith, secretary, Stockton; September 3-6.

Rush County Agricultural & Fair Association, T. C. Rudicel, secretary, Rush Center; September 3-5.

Russell County Fair Association, H. A. Dawson, secretary, Russell; possibly October 1-4.

Saline County Agricultural, Horticultural and Mechanical Association, F. D. Blundon, secretary, Salina; September 3-7.

Sedgwick County—Wichita Fair and Exposition, Chas. Mosbacher, secretary, Wichita; September 30-October 12.

Smith County Fair Association, Miles Elson, Secretary, Smith Center; September 3-6.

Trego County Fair Association, S. J. Straw, secretary, Wakeeney; September 16-21.

Wilson County Fair Association, Max J. Kennedy, secretary, Fredonia; August 20-24.

All the towns and villages, rivers, railroads, etc., "over there" where the boys are fighting, are shown on our War Map. See special offer on another page.



HERE is one of thousands of fruit trees of Northern France destroyed by the retreating German armies last year to deprive the French people of needed food. It is now proved that the Germans had a clearly defined policy of destroying the productivity of the land as a military measure. The picture—a part of the records of the French Government—was brought to America recently by a commission representing the United States Government.

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

HELP WANTED.

WANTED, IMMEDIATELY: FARMERS, men-women. Thousands government war jobs open. $100 month. Write for list. Franklin Institute, Dept. R-82, Rochester, New York.

REAL ESTATE.

A FEW GOOD FARMS FOR SALE, WITH or without crops; in Northern Montana. If interested in Montana lands, write J. F. MacLaren, Pondera, Montana.

PATENTS.

PATENTS PROCURED, BOUGHT AND sold. International Patent Co., Brandeis, Omaha.

MISCELLANEOUS.

FOR SALE—BATES STEEL MULE AND three-bottom Grand Detour plow. I am in Class 1 in the selective draft and am not farming this season. Price, $700. W. H. Mulch, Munden, Kansas.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

TWENTY-FIVE TWO-YEAR-OLD HIGH-grade Holstein springers. A few Holstein heifer calves, four to six weeks old, $22.50 each. Oakwood Farm, Whitewater, Wis.

HIGH GRADE HOLSTEIN CALVES, either sex, well marked, from heavy producers; four to six weeks old; fifteen-sixteenths pure; $25 each, crated and shipped to your station. Express and all charges paid here. Highland View Place, Whitewater, Wis.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

FARMS WANTED.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 56th St., Chippewa Falls, Wisconsin.

THRESHING MACHINES.

FOR SALE—COMPLETE THRESHING outfit, $1,750. Consists of a 40-80 gas tractor and a 34-56 Buffalo-Pitts steel frame separator. All in good condition and ready to go to work. Outfit has run about fifty days and is a bargain. Come and see for yourself. Come to St. Marys or Paxico, Kansas, and see Carl Miller, Belvue, Kan.

FALSE TEETH

WE CAN PAY CASH FOR OLD FALSE teeth, worth as high as $21.50 per set (broken or not). Send at once—package held five to fifteen days subject to owner's approval. Highest prices paid for old gold jewelry, crowns, bridges, platinum, silver. United States Smelting Works, Inc., 347 Goldsmith Bldg., Opp. P. O., Milwaukee, Wisconsin.

USED CAR BARGAIN.

FOR SALE—MODEL 35 JACKSON FIVE-passenger touring car. Not latest model but has had good care and is in good condition. Good top, tires nearly new, Presto lights, jack, pump and other tools go with car. Is good for several years' service. Cost $1,300 when new. Price, $300 cash. Owner, 625 Jackson St., Topeka, Kan.

TREES, SEEDS AND PLANTS.

SEEDS—KAFIR, 5c PER POUND; FETerita, 8c per pound. L. K. H. Laws, Camargo, Okla.

ONE HUNDRED FIFTY BUSHELS GOOD recleaned alfalfa seed for sale, $9 per bushel if a quantity is taken. V. O. Johnson, Auine, Kansas.

MR. FARMER, DO YOU ALWAYS BUY the best field and garden seeds you can buy? If not, why not? We sell the best. Write for prices. Watson Bros., Wholesale Seed Merchants, Milan, Missouri.

SUDAN SEED RECLEANED, GUARANteed free of Johnson grass seen; 16c per pound; and red top and orange cane seed, 6c per pound. Robinson Bros., Lubbock, Texas.

PIMA OR YELLOW TEPARY BEANS for seed. Most prolific and drouth-resistant bean known. Vines fine, leafy, good as alfalfa for cows. Ten pounds $1 postpaid to points in West Kansas and West Oklahoma. Plant between June 15 and July 15. H. Willis Smith, Garden City, Kansas.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

ESKIMO DOGS FOR SALE. RUNNER ducks wanted. Emma Ahlstedt, Lindsborg, Kansas.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

THE STRAY LIST.

TAKEN UP—BY D. FISHER, OF WILmore, Powell Township, Comanche County, Kansas, on the 21st day of May, 1918, one yearling steer, black with white face, crop off left ear. Appraised at $40. Ray B. Bachman, County Clerk, Coldwater, Kansas.

TO WHOM IT MAY CONCERN: TAKE notice, that the undersigned, who is a resident of Cedar Township, in Jackson County, in the State of Kansas, has this day taken up, and now has in his possession, in said township, as an estray, to be dealt with according to law, a certain stray steer found on his premises, and described below: Description of estray: Color, red; age, short two year old; marks, white tail and belly; brands, none. Dated this 20th day of May, A. D. 1918. Sanders Kennedy.



HOLSTEIN CATTLE.

CLYDE GIROD, At the Farm — F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd.

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

GIROD & ROBISON - - - - TOWANDA, KANSAS

ONE HUNDRED AND FIFTY HOLSTEINS

High-Grade Springing Cows and Heifers. Fifty young cows three to five years old, will freshen in next fifteen to thirty days. Forty large growthy two-year-old heifers due in fifteen to forty days. Sixty exceptionally fine large heifers due to freshen in September and October. All cows and heifers are beautifully marked and are bred to high record registered bulls. All stock tuberculin tested and guaranteed to be as represented. Can spare a few two-year-old heifers and registered cows due in the fall, in calf to one of the highest record bulls in the country whose sire's dam made 1,271 pounds of butter in a year and at that time held the world's record. Also a few good light colored young registered bulls. Have a limited number of fine, thrifty, practically pure-bred Holstein calves, either sex, at $25.00, express prepaid to your station and guaranteed to meet with your approval.

MAGEE DAIRY - - - - CHANUTE, KANSAS

HOLSTEIN COWS FOR SALE

NINETY HEAD REGISTERED AND HIGH GRADE:

Forty two-year-old heifers bred to freshen May and June. Ten yearlings. Forty cows three to six years old. Priced to sell. Farm adjoins town. Come and see me.

C. A. BROCK - - - NORTONVILLE, KANSAS

HOLSTEIN CATTLE

I am offering for sale from my registered herd, four cows from four to six years old; two heifers, two years old, extra good; four yearling heifers and four high-grade cows; four registered bulls of serviceable age. Write or come and see my herd.

J. W. MEYER, NORTONVILLE, KANSAS.

MAURER'S HOLSTEIN FARM

Offers special attractions in pure-bred females of all ages with high class breeding, and a number of choicely bred yearling bulls; also grade cows and heifers with size and quality. Don't fail to see this herd before you buy, as they are all bred RIGHT and priced RIGHT.

T. R. MAURER & CO - - - - EMPORIA, KANSAS

Holsteins

HIGH GRADE COWS AND HEIFERS

Carload lots and less. Calves fifteen-sixteenths pure-bred for sale at all times. $20 crated for shipment.

MAPLE LAWN STOCK FARM

C. W. HODGE, MAPLE JUNCTION, WIS.

$25 Holsteins $25

The Best That You Can Buy

Five weeks old, 15-16ths pure. When you buy from Roberts you get value received. Cows also $150 crated. Write or call

Dr. J. A. Roberts Stock Farms

Oconomowoc, Wisconsin

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

HOLSTEIN COWS

35 Young Cows, some fresh, some springers. Also good fall cows from heavy producing dams. All bred to registered bull.

W. P. PERDUE - CARLTON, KANSAS

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

REGISTERED HOLSTEIN BULLS

For Sale—Several young bulls by Pontiac Beauty De Kol Segis, a grandson of King of the Pontiacs and King Segis. These bulls are out of high-testing yearly record cows. We breed for yearly production. Come and see my herd.—H. D. Burger, Seneca, Kansas.

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON, KANSAS

$23 HOLSTEIN AND GUERNSEY CALVES $23

When in need of good high-grade calves, calves from good milk producers, well marked, crated and satisfaction guaranteed, send order or write

R. C. FREEMAN, LONE OAK FARM

Route 2 Whitewater, Wisconsin

REGIER'S HOSTEIN-FRIESIANS

For Sale—Young bulls, bred heifers and cows. All sired by the great bull, Sir Rag Apple Korndyke De Kol. Two cows will be fresh this month. Fourteen-thousand-pound milkers.

G. REGIER & SONS, Whitewater, Kansas.

RED POLLED CATTLE.

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.

CHAS. L. JARBOE - QUINTER, KANSAS

RED POLLED BULLS FOR SALE.

Address

R. C. BROWNLEE, HOLDEN, MO.

CHESTER WHITE HOGS

CHESTER WHITE HOGS

Five December boars ready for service, out of my grand champion sow, Tip Top. Spring pigs from other good sows for sale.

COLEMAN & CRUM, DANVILLE, KANSAS

When Writing to Advertisers, Please Mention Kansas Farmer

HOLSTEIN CATTLE.

Holstein Calves

We offer for sale choice beautifully marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated, f. o. b. cars: One to two weeks old, $17 each; three to five weeks old, $20 each; six to eight weeks old, $25 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

CHOICE HOLSTEIN CALVES

Twelve Heifers and Two Bulls, 15-16ths pure, beautifully marked, five weeks old, from heavy milkers, at $20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARM, Wauwatosa, Wisconsin

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copla Champion, dam and sire's dam held world's records. Service bulls, bull calves.

H. B. COWLES, 608 Kan. Av., Topeka, Kan.

REGISTERED HOLSTEIN BULLS

I have a few choice young bulls from my best record cows. They are splendid prospects for herd bulls and priced to sell.

BEN SCHNEIDER, NORTONVILLE, KAN.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

CHOICE HOLSTEIN CALVES

High grade, beautifully marked, sired by registered bulls and from heavy milk producing dams, ten days old, $15; three weeks, $17; six months, $40. For thirty days only. First draft takes them.

Mt. Pleasant Stock Farm, Gilberts, Illinois.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

DUROC JERSEYS.

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. W. J. Harrison, Axtell, Kan.

TWO BIG SALES

Fifty Duroc Jersey Bred Sows and Gilts, September 4. Entire herd of Red Polled Cattle September 5. Catalog ready July 15. Write early.

W. T. McBRIDE - PARKER, KANSAS

CHOICE IMMUNED DUROC BOARS

Sired by Taylor's Model Chief 126455, winner at American Royal and Missouri State Fair. Also gilts bred to Great Wonder and Pathfinder boars.

W. R. HUSTON - AMERICUS, KANSAS

Wreath's Durocs

A Choice Lot of Spring Pigs

Ship at weaning time. Priced in pairs or trios. Write or come and see my herd.

L. G. WREATH, MANHATTAN, KANSAS

WOODDELL'S DUROCS

Herd boar, Chief's Wonder, 75 spring pigs, priced for shipment at weaning time. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on boars and bred gilts from Crimson Wonder, Golden Model, Illustrator, and Defender breeding. JOHN A. REED & SONS, Lyons, Kansas.



Saving Wheat at Harvest Time

LAST fall during the threshing season in Kansas $500 worth of wheat was saved by one man working with a fanning mill. It happened in Pawnee County. When threshing began on one of the big wheat farms he asked for permission to follow up the machine. He thought it might be possible, he said, to clean up and collect the grain where the thresher had stood in sufficient quantity to earn a little money.

The neighbor smiled, but as he was in easy circumstances himself and unaccustomed to a penny-saving policy, he good-naturedly and half-pityingly agreed to the proposition.

Threshing started and for three weeks the man followed the crew. He had only one team and a fanning mill—nobody to help him and many to laugh at him. He worked so persistently, however, that one evening the friend came around, curious to find out what the result had been.

"Well, in the three weeks' time," he said, "I averaged exactly $27.77 per day for myself and team. I sold that wheat which would have been wasted and got $500 for it."

It was actual savings like this which suggested the work of the Grain Threshing Division of the Food Administration Grain Corporation. Hundreds of cases were studied, showing losses which in fourteen southern states were estimated at more than seven and a half million bushels last year. But the financial loss, though large, is less important than the loss of food. Waste of wheat means that the war will be prolonged and may even endanger victory.

If you raise wheat, get in touch with your own County Grain Threshing Committee. They have worked to perfect methods for reducing waste of grain during threshing to a minimum. They want to discourage the threshing of grain that is tough—unripe or damp—to avoid irregular and careless feeding of the bundles into the machine and to encourage running the cylinders of the separator up to speed as well as keeping the entire outfit in proper adjustment.

At the suggestion of the U. S. Food Administration, they encourage tight-bottom bundle wagons so as to reduce shattering in handling the grain from the field, to reduce the loss because of failure to rake the shock rows and carelessness in making a thorough clean-up before the machine is moved. This means a saving to you as well as being a help toward victory in the war. The information costs nothing. Go today and see your local County Grain Threshing Committee.

So successful was the National Milk and Dairy Farm Exposition at Grand Central Palace, New York, the week of May 20, that immediate steps were taken to hold the show again next year. Dr. Charles E. North, managing director of the exposition, announced that the next show will be held during the week of March 10, 1919. So far as attendance was concerned, the exposition was one of the greatest ever held in Grand Central Palace. "This exposition was staged not with the idea of making money, but primarily to educate the people in the food value of milk, and to bring about a better understanding of various situations for the dairymen. That is has accomplished its purpose is best attested by the fact that there is a new feeling among the dairymen, farmers and the public, regarding the dairy situation," stated Dr. North, who was loud in his praises for the exhibitors who laid aside all commercial interest to bring forth the educational factors of the milk subject.

Watering Trough Suggestion

We received the following letter from W. F. Phelps, owner of the Phelps Stock Farm, Missouri:

"Your article in the June 1 issue, page 7, 'Concrete Watering Trough,' was all right as far as it went as regards the construction of the trough, yet there are two or three other points that are quite important to consider.

"A good-sized hole should be made in one end right at the bottom to be corked with a wooden plug, for use in cleaning out the trough, which cleaning should be done frequently. Without this hole it will be a very difficult matter to clean out the sediment. The trough should be thoroughly cleaned with a scrub broom.

"Another point depends upon the source of water supply. If it is furnished by a windmill then the trough should be long and wide in order to store a supply for several days—windmills do not always work. The trough should not be so deep that cattle cannot get their noses to the bottom; otherwise there is always a waste of water in the trough. If the water is supplied by gasoline engine—which is really the best method—then the trough should be shallow so that each day a supply can be pumped, thereby always having fresh water, and the trough can have smaller dimensions.

"Never place the trough close to a fence. Let there be room all around it so as to prevent crowding and possibly injuries from 'horning.' Remember, too, that a trough should not be so high that a calf cannot get its nose to the water."

International Farm Congress

Kansas City, Missouri, has been selected by the board of governors of the Dry Farming Congress as the place for holding the thirteenth session of the Congress and the Soils Products Exposition. The newly reorganized Chamber of Commerce of Kansas City has the matter in hand for the city, and can be counted on to do everything within its power to make the Congress a success.

W. I. Drummond, secretary of the Congress, has established headquarters in the New York Life Building and is pushing the plans for the coming exposition. This year the Farm Congress and Exposition will take on a strong war aspect. It was the first farmers' organization to go on record in active support of vigorous and uncompromising prosecution of the war. Its plans for this year contemplate further and greater constructive work along this line. Both the Congress program and the Exposition are to be modeled along lines calculated to exert the greatest possible influence for increased production, and the wise use and conservation of foodstuffs.

Assurances of active participation in the Congress and Exposition have been received from the United States Departments of Agriculture and the Interior, and from the National Food Administration.

The Congress and Exposition were held last year at Peoria, Illinois; in 1916 at El Paso, Texas, and in 1915 at Denver, Colorado.

Nonpartisan League Statement

In our issue of May 4 we pointed out some of the reasons why in our judgment the Nonpartisan League has laid itself open to the suspicion of loyal Americans. Whatever may have been the principles back of the League in the beginning, it is hard to reconcile its attitude and many of its later acts with the program to which we as a nation have committed ourselves in taking up the burden of crushing the spread of Prussian autocracy.

We do not wish to be unfair to the League, however, and herewith give space to the letter written in its defense. It is not our purpose to enter into a controversy in the columns of KANSAS FARMER on this subject. We leave it to our readers to decide for themselves their attitude on the matter after reading our previous statement and the letter in the League's defense. The letter follows:

Our attention has been called to an article in your paper of a recent issue in which you discuss the Nonpartisan League, from what seems to us an unfair standpoint.

As the League is the most successful farmers' organization ever built, having been started by a few unknown farmers in North Dakota about three years ago, and having grown from that humble beginning until it has spread over thirteen states of the agricultural part of the country, controlling one absolutely and threatening to capture half a dozen more this fall, we feel that you

should at least give it a hearing, should at least try to understand it.

For that reason we ask you to publish this brief statement of the aims and purposes of the Nonpartisan League.

The splendid record of the Nonpartisan legislature and governing of North Dakota cannot be gone into here. It is enough to say that in this farmer uprising against unjust marketing conditions in North Dakota was manifested in a vote of 87,000 for the League to 22,000 for opposing parties. The farmer legislature made a record of which all farmers may be proud and demonstrated that farmers are competent to act as legislators.

The League was born of the unjust marketing conditions and it has spread wide and is growing faster today than ever because of those conditions. It sounds well to say that the farmers are the most prosperous people on earth, but statistics tell a different story. In figuring the returns from any other business, allowance is made for reasonable interest on investment and for overhead. Taking out these legitimate items the average farmer, according to Government statistics, has from $300 to $800 a year left for the labor of himself and his family. We have no Kansas statistics at hand, but presume they run no higher than those of other states, and of those we have, the average is higher in the East than in the West. Doubtless you can supply the Kansas statistics on the subject.

Now why is it that the men engaged in the most useful of all work can get no more return for their sixteen-hour work day? Are the prices not high enough? The consumer says they are. The middleman says not a word. The reason why prices are so high at one end of the line and so low at the other is because the farm products are controlled by a few interlocking food trusts that have set aside the old-fashioned law of supply and demand and have set up in place of it what President Wilson has called "the law of unrestricted greed."

The meat trust is paying dividends in the hundreds of millions because it controls the packing plants, the stock yards, the terminal railroads, and in a large part of the country the retail meat business. They control the soap and leather business, the big hotels which use their various products to the exclusion of competition, and recently by unfair competition they have taken over the butter, eggs, and poultry business. Their connection with the grain trust may be judged by the fact that Armour has just completed at Chicago the largest grain elevator in the world.

Now these facts explain why, according to the New York commissioner of foods and markets, that out of every dollar paid by the consumer but 35 cents gets back to the producer, leaving 65 cents for the middleman and the profiteer.

The Nonpartisan League proposes that the organized state shall perform the function of the food trust at cost for the benefit of both producer and consumer, as is done in some of the Australian states. In the state of Victoria, Australia, meat in the government shops is about half the price that it is in Melbourne in the privately-owned shops, although the price to the producer is not lowered.

This program is an important one. Its adoption may be a matter for discussion, but it is not a reason for opposing the League with the sort of arguments employed by the enemies of the League that dare not face its platform squarely; arguments that are false on the face of them because the farmers of Kansas know that the farmers of North Dakota are not disloyal.

But what other charge have those who are living off the farmers to make? They dare not come out and tell their real reason for opposing the League—that they want the marketing conditions to remain as they are.

And so they charge disloyalty, and so they complain of the League form of organization, just as though they would accept the platform but for those objections.

You say the Farmers' Union is against the League. It is not. Its officials in Kansas may be, but many of its members are also League members. In North Dakota the Farmers' Union has indorsed the League in the strongest terms, as has the Grange and the Society of Equity. The National Grange Monthly in Springfield, Massachusetts, was fighting the League, oddly enough with the lies of the enemies of the North Dakota farmers, but the Granges of ten states have indorsed the League. The State Grange Master in Nebraska is chairman of the Nonpartisan League state executive committee.

The vast sums already spent in Kansas to fight the League have been furnished by enemies of the farmers who will give sums to oppose this movement that will make the farmer's sixteen dollars look silly, but they will not prevail. The farmers are in the majority, and they are now getting their political facts from the statistics of Government reports and not from the mouthings of political orators.

NATIONAL NONPARTISAN LEAGUE
By W. W. Liggett.

The fine siftings from the cracked oyster shells, and fine, light-colored grit should be placed where the chickens can help themselves at all times. In order to understand the importance of grit, listen to the little chickens when they are asleep under the hover. One can distinctly hear the rubbing of the grit as it grinds out the grain while the chicken sleeps. If the grain remains in the gizzard until it is softened and fermented before it can be digested, because grit has not been supplied, the result is an unhealthy or a dead chicken.

If you are selling dressed poultry, be careful not to break the skin, as this greatly mars the appearance. They can be made to look plump, after being picked, by first dipping them in water almost boiling and then in cold water. They should be hung in a cool place and allowed to remain for several hours.

H. M. Cottrell says: "A good hen properly treated will make $2 a year above cost of feed in the dry-farming sections of the Southwest. The dry climate and high altitude are particularly favorable for egg production, and dry-land feeds are good egg-producing feeds. The dry-land farmer can add a goodly sum to his yearly cash receipts if he will make a business of keeping hens."

Rabbit meat can be used to substitute for export meat, and because of that fact considerable interest is taken in the growing of domestic rabbits. They vary considerably in the quality of meat, depending largely on breed and age. Of those raised primarily for meat, such as the Belgian, New Zealand, Flemish and similar varieties, the young animals are most prized. The meat is of good flavor, practically all lean and is prepared in much the same manner as chicken. In Europe rabbits and hares are staple foods and are raised in well developed rabbitries. Under conditions in the United States, production of this class of meat for food is believed to be most practical on a small scale, chiefly for home or local consumption.

Fowls should be fasted from fourteen to sixteen hours before killing. If this is not done, and they are full of food when killed, the carcass soon decomposes, turns the bird green and renders it comparatively worthless. Even if the food has passed out of the crop into the bowels, the fowls will not keep very long, as the half-digested food in the interior causes them to spoil and give an exceedingly unpleasant odor.

All the towns and villages, rivers, railroads, etc., "over there" where the boys are fighting, are shown on our War Map. See special offer on another page.

Begin marketing the cockerels as soon as they weigh one and one-half pounds or attain a marketable weight.

In spite of scarcity of implements and shortage of farm labor, England, Scotland and Wales have all increased their acreage of wheat.

A little sheep manure applied occasionally to the lawn gives it a bright green and generally thrifty appearance.

Thorough cultivation in the garden is of much greater value than artificial watering.

W. P. Perdue, of Carlton, Kansas, owner of one of the heavy producing herds of Holsteins in Kansas, reports his herd making a good record again this year. Mr. Perdue's herd was started with foundation stock backed by records and only record-bred bulls have been raised in his herd. The result is that he has a herd that is noted for its fine milk and butter records. A feature of his herd at this time is the choice lot of record-bred young cows.

Breeders' Directory

ANGUS CATTLE.
D. J. White, Clements, Kan.
George McAdam, Holton, Kansas.

RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.

DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.

Hereford Cattle.
F. S. Jackson, Topeka, Kan.

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GUERNSEY BULLS
Stock of May Royal, May Rose and Masher Sequel breeding, one to twelve months old. See our Duroc ad next week. Adams Farm, Gashland, Mo. Twelve miles from K. C.

JERSEY CATTLE.

THREE GOOD JERSEY COWS
Soon fresh
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For Sale—Five young bulls sired by a son of Interested Prince. Dams are all by Imported Castor's Splendid and on yearly record.
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100 GOOD JERSEYS FOR SALE
We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.
J. W. BERRY & SON, Jewell City, Kansas.

PURE-BRED STOCKWELL GRAND FERN and Hood Farm Pogis Jersey bull calf, $25.
F. J. SCHERMAN
Route 7 Topeka, Kansas

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H. S. THOMPSON, Pres. A. L. SPONSLER, Secy.

Dispersion Sale of Shetland Ponies

At Farm Two Miles South of Country Club, Topeka, Kansas,
Thursday, June 20, 1918

On account of failing health, my entire herd of prize-winning Shetland Ponies will be dispersed on above date. The offering will consist of 45 head of ponies from yearlings to brood mares with colts. Our show herd will be included. Will also sell ten head of choice high-grade Holstein cows and heifers, thirty head of hogs, and a number of work horses, also some saddle horses. Sale commences promptly at 10 a. m. Take Country Club car. Out of town buyers will be met at the end of Country Club car line. Lunch served at noon by local Red Cross.

R. J. FOSTER - - - - - TOPEKA, KANSAS

POLAND CHINAS. POLAND CHINAS

GLENWOOD FARM'S SHORTHORNS AND POLAND CHINAS

SHORTHORNS
Sires in Service—Emma's Valentine 412453, Golden Searchlight, and Master Goods.
For Sale—Emma's Valentine 412453, Master Butterfly 10th 582866, and Secret's Valentine 648605. Real Herd Bulls.
PRICES REASONABLE.

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20 REGISTERED YEARLING BULLS
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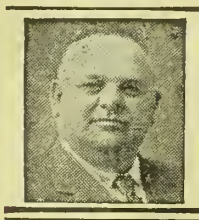

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For Sale—April boars and gilts, trios not akin, $125; sired by King Bob and Giant Bos. Bred sow sale August 8, 1918. Forty-five head bred to Caldwell's Big Bob. Everyone guaranteed and cholera immune. Catalogs ready July 15.
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H. O. Sheldon, Herd Manager

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Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.
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FASHIONABLE STOCK PLACE POLANDS
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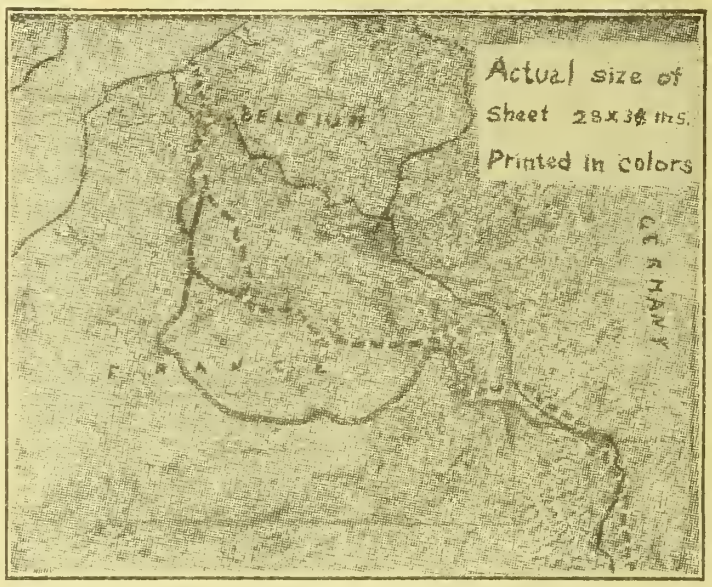

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For the improvement of the Farm and Home

Volume 56, Number 25. TOPEKA, KANSAS, JUNE 22, 1918. Established 1863. $1 a Year

The Three R's in the Army and Navy

Army and Navy Y. M. C. A. Conducting Largest University in the World

By WILLIAM H. CRAWFORD

THE American army and navy are composed of all classes, the rich and the poor, the high and the low, the highly educated and the illiterate. All are giving themselves to Americea, sacrificing valuable years at the most productive period of their lives, to serve in the cause of liberty. It is incumbent upon America to see that they suffer as little as possible as a result of this sacrifice. This can be accomplished by seeing that they are better prepared to take up their life work when they are again free, than they were before entering the service of the Government.

The well-educated, the well-to-do man, will be able to take care of himself, but there is a large percentage of illiterates in the National Army. They are men whose early environment or foreign birth has prevented them from mastering the intricacies of our tongue. Some of them came to Americea after having reached manhood and economic conditions demanded that they give their entire time to productive endeavor. There are also a large number of native illiterates who speak English but are unable to read and write. These men have been handicapped in the past by their limitations, and America can help them to overcome this deficiency.

The Y. M. C. A. has recognized this opportunity for constructive work and has established schools in every cantonment, camp and naval training station where United States soldiers and sailors are in service. The "Y" is conducting the largest university in the world. Big universities have from two to five thousand students, it has more than two hundred and fifty thousand students. Its courses are entirely elective and range from the most abstruse subjects to the A B C's. When the "Y" determined to undertake this educational work, they secured William Orr, one of the most noted and distinguished educators in America, to direct the school work. He has thoroughly organized his bureau along modern scholastic lines. The plan adopted is to have units in each cantonment in charge of a camp educational secretary, whose position is similar to that of superintendent of public schools. Most of the men selected were former school superintendents or college presidents. They in turn have placed an educational director in each "Y" hut who corresponds to the principal of a public school. These hut educational secretaries have a devoted corps of volunteer teachers chosen from the enlisted men. The entire organization is very enthusiastic about its work, which is meeting with remarkable success among the men.

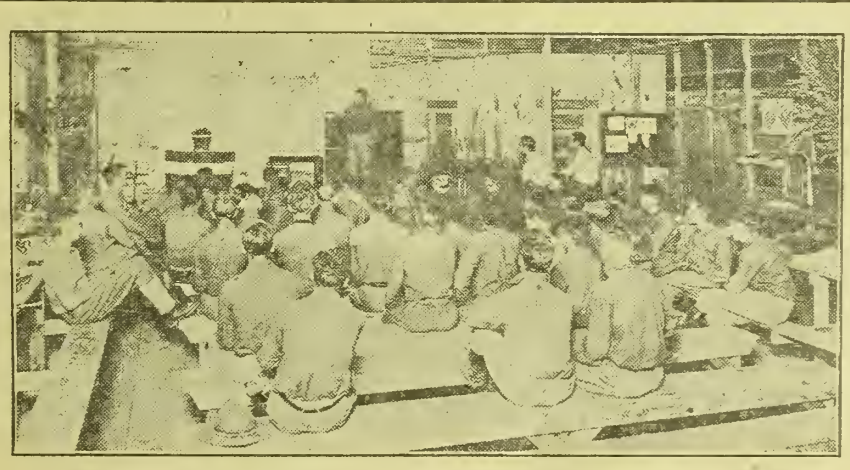
The regimental commanders appreciate the importance of the educational work being done. They note the increase efficiency of the men and their ability to understand orders, and are all working in entire co-operation with the "Y." Some of them are detailing certain of their own men to attend schools and are referring them to the educational director with specific instructions as to the line of study which they are to undertake. These men are taught during the afternoon or at such specified hours as the commanding officer may designate. The officers encourage all of the men to attend the "Y" schools and a large number of them take the advice. At 4:30 drill hours cease and the men are free to follow their own inclinations. From that hour until "taps" you will find the "Y" class rooms filled with boys who desire to improve themselves. The number is so large that it is absolutely impossible to teach all the classes in the "Y" rooms. Therefore, every bunk house and mess hall throughout the encampment has its group of men, hard at their studies, under the direction of the volunteer teachers.

I saw on the same evening at Camp Upton, a former superintendent of Public Education in one of the large western cities, surrounded by a class of foreigners. He was teaching them, by almost kindergarten methods, how to write their names. At the other end of the same mess hall, a former Harvard professor was giving a lecture on French classics, and was delivering his address in that tongue. This shows the remarkable scope of the "Y" university.

In the teaching of the illiterates, two methods are necessary, for the sturdy young mountaineer, who shamefacedly admits that he cannot sign the pay roll, requires a different handling from Angello Bomhinello, who cannot understand what you have said. The native illiterate is taught in the same manner that is used with the little tots in the public schools, but it is a more difficult task to teach Angello. A very amusing illustration of this happened to me at Camp Lee. The hut secretary was showing me around his various classes. He, with great pride, was demonstrating to me how rapidly they were mastering the English language. As a matter of courtesy, he asked me to address a beginners' class. I gave them a little talk about American patriotism to which they seemed to be listening with great interest and applauding very heartily. I had a hunch that most of them did not understand what I was talking about, so at the end of the address I asked them all who understood what I had said to hold up their hands. Only one man held up his hand. I asked him what I had said, to which he replied: "Man say, fight de Kaiser lika hell." Then we went to a class which had been attending school for three months and he put them through their paces. Everyone could write his name, could read the military commands written on the board and explain them, and understood the names of every article in the class room. They use the Roberts method, a method exceedingly valuable and remarkably successful in quickly enabling the student both to learn the meaning of American words and to write, but particularly hard to explain. It brings to the student's mind, through both his eyes and ears, the meaning of a word or sentence. For instance, take the sentence: "I take off my hat." The instructor will point to his hat, say "hat," have them repeat it after him, then write the word on the board, and have each student copy on his pad, repeating and writing it many times. Then he will take off his hat, say, "I take off my hat," and write the sentence on the board, point to himself, say "I", then point to the "I" on the board, remove his hat, say "take off" and refer to the blackboard, give a pantomime exhibition of the act of removing his hat, repeat the whole sentence and have Antonio write it on his tablet. In a remarkably short time the foreigner can follow the action, repeat the sentence and write it. A few sentences are given each day and they soon master a sufficient amount of English to carry on an elementary conversation. The first things that are taught are those that will enable them to understand the military commands.

A majority of the boys from the west are not illiterate. The principle use they make of the "Y" is learning French, for they appreciate the importance it will be to them "over there." A utilitarian method has been adopted for beginners. They are being taught those things which will be most necessary for them to know, in France. No effort is being made to make them classical scholars, but they learn how to ask for something to eat and drink, what time it will be ready, the road to the encampment, the military commands, and other things that will come up in their daily lives. Some French messes have been established under the direction of the Y. M. C. A. French teachers in which the officer is obliged to ask for his food in French or do without. The instructor accepts excuses for a few days and afterwards the ruling is enforced. Needless to say, they soon master a sufficient flueney in French to insure that they will not go hungry. However, if you observe closely, you will see some young lieutenant nudge his brother officer and say under his breath, "How do you ask for the spuds?" They won't know very much French grammar after the course, and their pronunciation may excite the risibilities of their French fellow soldiers, but they will be able to make themselves understood. The whole educational course is planned to furnish the most service to the soldier in the shortest time possible. It is intended to occupy a position midway between a college and a correspondence school. An attempt is made to start the boy along the right educational lines, and to direct his future study in such a manner that he can utilize the information given, long after he has left the "Y" schools. When a man applies for enrollment, the director inquires as to his previous educational advantages, his plans for future work, attempts to judge as to his capabilities, carefully weighs his ease and selects the course best suit-

(Continued on Page Fifteen)



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Shows Just Where Our Boys Are Fighting See Page 13 For Particulars

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Ask for the Records Made

It Saves the Farmers' Thresh Bill

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FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

DURING the year 1917 more passenger automobiles were exported from the United States than in any previous year, in spite of the scarcity of ocean cargo space and of the import restrictions in force in many of the countries that were formerly large buyers of American cars. The report of the Department of Commerce shows that there were exported during the twelve months ended December 31 last 65,792 passenger cars, valued at $51,982,966, wholesale. This is almost double the value of the combined exports of passenger and commercial cars in 1913 or 1914 and an increase of 48 per cent in exports of passenger automobiles over 1915, and nearly 19 per cent over 1916. These figures are significant of the appreciation of the utility of the American motor car in all the countries of the world when it is remembered that imports of automobiles have been prohibited during the past year in England, France, Italy and India; that Germany, Austria, Bulgaria and Turkey have been dropped from our trading list; that shipments have been almost impossible to European Russia; that tires could not be exported to the Scandinavian countries, and that Australia prohibited the importation of automobile bodies. Tremendous changes have occurred in the motor car market of the world in the last two years. Whereas exports of passenger automobiles to the United Kingdom decreased from 14,787, valued at $11,483,675, in 1915, to only 1,349, valued at $1,987,948, in 1917, the exports to Chile increased from 497, worth $318,913, to 3,937, worth $3,481,061, or elevenfold, in the same period. During the same two years exports to Russia dropped from a total value of $5,762,019 to $1,761,380, while passenger car exports to Canada increased from $4,304,718 to $12,401,705. The high tide of sales of army trucks to our Allies was reached in 1915, when 22,094, worth $59,839,303, were shipped. Last year the number fell to 14,347, worth $36,364,773. Some at least of the decrease was made up by shipments of trucks to France for the American Expeditionary force, but these do not appear in the official report of exports.

The Life of a Tractor

The average life of a farm tractor is from seven and a half to eight years, according to estimates furnished by over 600 experienced tractor owners on representative corn-belt farm in Illinois. This is brought out in a study conducted in 1917 and the spring of 1918 by the United States Department of Agriculture, a report of which is published in Farmers' Bulletin 963. The reports of the tractor owners show that the outfits are used on an average of forty-five days per year.

While at first glance this may appear low, when it is remembered that on farms where horses do all the work they are used on an average of only about 100 days annually, it will be seen that where both horses and tractors are used, even though the number of horses is somewhat reduced, the machine need not be expected to have employment for as many days annually as did the horses. The horses kept will still do some of the work, which will, of course, decrease the amount to be done by the tractor. A considerable percentage of the 100 days' work done by horses represents odd jobs for which the tractor can not be used to advantage. Even if the machine were to do all the work formerly done by the horses, it would not normally be employed 100 days per year, inasmuch as it does the work more rapidly.

It should be borne in mind, says the bulletin, that practically all farm operations must be carried on within limited periods, and that between these seasons there will often be no field work which the tractor can do, either on the home farm or for neighbors. The fact that weather and soil conditions are such as to permit field work with a tractor does not necessarily mean that there is such work to be done. Farm management plays an important part in organizing the farm so as to provide profitable employment for the tractor during as many days as possible. Such organization involves the planning of a crop rotation which will furnish a large amount of work which it can do, the elimination of as many horses as desirable, and the distribution of the work over a long period. However, the rotation should include only such crops as can be grown profitably in that particular section.

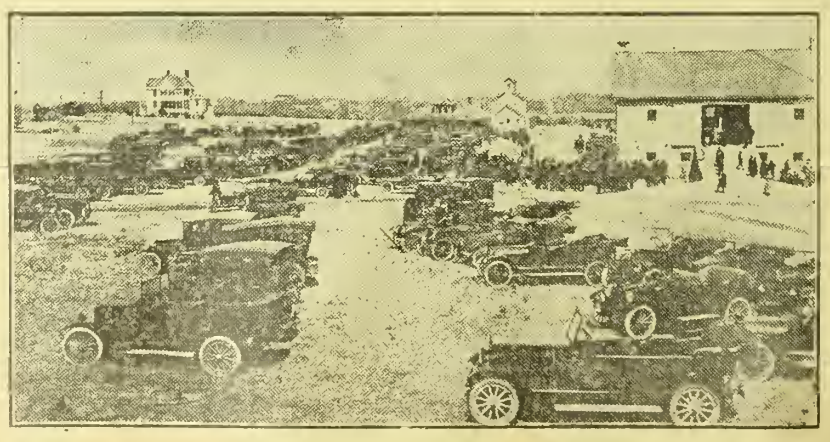
The significance of the fact that a large percentage of the Illinois farmers who reported enlarged their farms after buying tractors is readily apparent when the tractor's place in farm management is thus considered. Obviously these men have learned through experience that much more land per man can be handled when a tractor is used than with horses only, and that to get the most out of their investment they must farm land enough to keep their tractors busy at profitable work throughout as much as possible of the available working season.

If the valve springs of a gas engine become weakened through use, they should be stretched or have a washer placed under them.

Sometimes the springs on one side of a car become weak so that it sags on that side. Placing an extra leaf in the spring will remedy the trouble.

In filling the radiator of an engine in which a pump is used to circulate the water, it is advisable to run the motor during the process of filling. This will insure the water reaching and filling all parts of the system. When the motor is standing the pump becomes an obstruction to the passage of the water, and one may think the circulating system is full when really it is not.

Racing the engine when the clutch begins to slip only makes a bad matter worse, for the clutch will not hold at the high speed and there is a chance of burning it up altogether. When a clutch starts to slipping the thing to do is to operate the engine slowly, gradually increasing its speed so as to give the fly wheel a chance to carry the clutch around with it.



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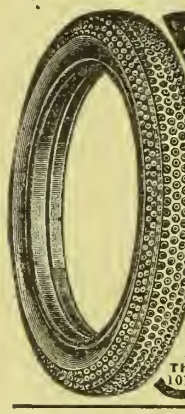

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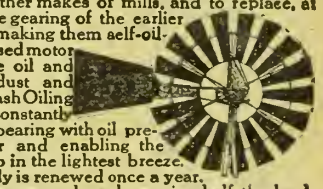

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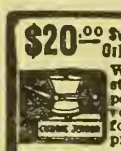



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No farm shop should be without a forge and anvil, says W. E. Grimes, assistant professor of farm management in the Kansas Agricultural College. Much time is lost during the busy season in running to town to have machinery fixed that could easily be repaired on the farm. Frequent breaks occur in farm implements at a time when the time is worth much money. It is a simple matter to fix many of these breaks if a forge and anvil are at hand. Because of the unusual shortage of labor, every minute should be made to count. Every minute that broken machinery stands idle will mean a loss not only to the farmer but a loss to the nation in foodstuffs.

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ORDER COAL NOW

The Fuel Administration warns us that we must give attention to the fuel situation during the summer season if we are to avoid hardship and suffering from coal shortage next winter. The coal business as it has been handled, is too much of a seasonal job. All along the line we have been attempting to crowd the business of handling coal into a short period of the year. The condition of our transportation facilities and the labor situation combined make it impossible to continue handling coal this way.

Without orders the mines cannot continue to produce. We are told that a greater part of the orders for bituminous coal are as yet unplaced. Figures show that during the week ending May 18, Central Western and Western mines lost quite a material percentage of their production simply because they lacked orders. Every order placed and filled now will help relieve the pressure which is sure to come next winter. We know we will need fuel and it certainly is the part of wisdom and foresight to plan for the next winter's needs at once.

The Fuel Administration put into effect May 25 a summer price for all bituminous coal at the mine 10 cents lower than the price which had been in effect. This will prevail until September 1. Coal is rated on the extra preferred list by the War Industries Board, which will accelerate the movement of coal on the railroads.

We may feel disposed to find fault with the way the coal situation has been handled, but nothing is gained by waiting, and we can help out a bad situation by ordering our winter supply now. The Fuel Administration bas recently made public a statement that we have a shortage of 84 million tons to overcome. In other words, to meet the estimated demand for coal of all kinds, 84 million tons more must be produced than last year. War needs cannot be hampered or cut short. The ships that carry our boys to France and the ships that keep them equipped and fed can not be held up for lack of fuel. If anyone suffers or has to be economical in the use of fuel next winter it will be the folks at home. If you have not already made your fuel arrangements for the winter do not delay longer. We feel that the vital importance of this matter has not been exaggerated.

FEDERAL AID FOR WHEAT GROWERS

In some of the wheat producing counties of western Kansas tbe wheat acreage sown this fall will not be more than 50 per cent of normal unless some provision can be made for supplying additional capital. It is not a matter of dissatisfaction with prices or lack of interest in growing wheat as a war need. Because of a succession of failures due to poor weather conditions wheat growers simply cannot afford to finance another year of heavy sowing. They can take care of themselves but will be compelled to cut down their wheat acreage. This information was gathered by the Kansas Board of Agriculture through the holding of two mass meetings of farmers, merchants and bankers, one at Dodge City June 4, and the other at Colby June 8.

Realizing the world need for wheat at this time and during the war, and the adaptability of this part of our state for producing it, the Board of Agriculture at its regular quarterly meeting held at Topeka, June 13, took up the matter of working out plans for making it possible to put out a maximum or at least normal acreages of wheat in these western counties. It was finally decided to send a committee to Washington to urge Congress to pass a law as a war measure extending such assistance as may be necessary to enable these farmers to go the limit for the 1919 crop. Similar conditions prevail in other leading wheat producing states and the cooperation of Oklahoma, Minnesota and North and South Dakota can be expected through their boards of agriculture and councils of defense.

The movement is not at all for the purpose of aiding the farmers, but as a necessary step to producing as large a crop of wheat as possible for next year. With Federal assistance there is a possibility of increasing the acreage in the Kansas counties involved 1,325,300 acres. With an average yield of 14 bushels of wheat this would produce more than 18 million bushels, enough to feed our army of two million soldiers for nine months.

The committee which left for Washington last Sunday night consists of Dr. O. O. Wolf, president of the State Board of Agriculture; J. C. Mohler, secretary, and E. E. Frizell. H. J. Waters, president of the State Council of Defense, will accompany them.

WARTIME PROHIBITION

Mr. Hoover and the President have apparently accepted the responsibility of blocking, temporarily at least, national prohibition as a war period measure. It is not a popular decision, for there is a strong growing demand all over the country for the absolute elimination of traffic in drink of all kinds. Many protests are being made by people who are not only impatient over the delay in putting the nation on a dry basis, but who also can not understand why an absolutely non-essential industry like the brewing of beer should be permitted to destroy three or four million bushels of grain annually when we are straining every nerve to increase and conserve our food supply. Germany has been compelled to cut out its beer to save food; and Canada, our neighbor on the north, is nearer national prohibition than we are, and has been a much shorter time in arriving at her present status.

In England one of the reasons given for not cutting out the beer is that it is inadvisable to interfere with the habits of the laboring man during the war. This certainly can not be considered as a reason in this country. The action of our workmen and people generally in voluntarily meeting the many exacting dietary changes called for by Mr. Hoover is evidence of the willingness of our people to co-operate to the fullest extent possible. It would certainly be placing a low estimate on the patriotism of working men to assign this as a reason. The wonderful records now being made in our great shipyards is proof of the unselfish patriotism of the men who work in one of our most essential war industries behind the lines.

The principal reason given by the Food Administration for not using its authority in stopping the waste of grain in making beer, is fear that in our wet territory it would place all the saloons on a whisky and gin basis and result in an orgie of drunkenness. This is the reason which must be given consideration. We feel, however, that the Kansas way would be to take the bull by the horns, and stop this waste of grain in the brewing of beer and also in the manufacture of the many temperance drinks on the market, which are to be classed as non-essentials and luxuries as much as beer, trusting to the powers of Congress to take such steps as might be necessary to prevent the feared reign of drunkenness in our wet territory. It does not seem wise to hamper the emergency agricultural appropriation bill with prohibition measure riders. Congress is acceding to the request of the President and the Senate will undoubtedly strike out the amendment designed to force shutting down the breweries which was in the bill as it passed the House. In making this request of the Senate, the President made it clear that he was not in any way opposed to the introduction of bills confined solely to wartime prohibition measures. If Congress is sincere in this desire to give us national prohibition as a wartime measure and save all the food, fuel, transportation, etc., now being wasted, it should at once prepare and pass such a wartime prohibition bill. On another page of this issue we print the statement of Mr. Hoover in explanation of the attitude of the Food Administration on the beer question.

HOME GUARDS FOR WHEAT FIELDS

The I. W. W. gentry and others of their kind who attempt to stir up trouble among harvest hands of the state or destroy wheat or machinery are likely to be given a warm reception in the wheat belt counties this season. In times past a floating help of this type bas been a serious menace.

In Union Center Township of Elk County two companies of farmers bave been organized as harvest field guards. These men will watch as they work. It is a sort of safety committee and the membership in each company, which has twenty men, is limited to those who can shoot straight. There are no incorporated towns in the township.

The members of this guard wear no uniform and will work in the fields with the barvest hands. They will watch all suspicious characters and arrest those who give the slightest indication of starting any trouble. If any of these I. W. W.'s attempt to destroy wheat by setting fires they will have to travel rapidly to get out of this township, as every road will be patrolled by these every road will be patrolled by guards either in automobiles or on horseback.

While these guards have something of tbe form of the old-time vigilance committees, they are organized wholly within the law. The leaders are deputized as peace officers by the sheriff. They can tbus make arrests and hold prisoners for tbe sheriff, and in case federal charges can be placed against a prisoner they will telegraph for a United States Marsbal.

In other counties of the state protection against disorders likely to occur during harvesting will be handled by the home guards, in case the regular peace officers are not able to handle the situation. It is evident that people through the wheat counties do not intend to put up witb any nonsense from pro-German agents who may attempt to help out their cause by such methods as they have been able to practice in the past.

FRANK SNOW TO OREGON

Frank L. Snow, who for the past three years has been assistant professor of industrial journalism at our Agricultural College, has gone to the agricultural college of Oregon, Corvallis, to head a similar department. Mr. Snow is well known among Kansas newspaper men. Before going to Manhattan he had been for six years on the staff of the Topeka State Journal. At Manhattan he taught large classes of students in the writing of articles concerning farm topics. It is a distinct promotion to Mr. Snow to be selected as the head of tbe industrial journalism department of the Oregon institution. He will be followed in his new work by the good wisbes of bis many friends in Kansas.

FEDERAL CONTROL OF STOCK YARDS

Live stock men have long contended that the stock yards should not be dominated by the same interests that buy tbeir stock. They have felt that the great central market places should be absolutely neutral ground. From present indications the Government will assume control of the stock yards of the country. A recommendation to that effect was recently made by tbe National Live Stock Exchange at its recent meeting in New York City. It appears now that the Federal Trade Commission hearings on stock yards control in connection with the investigation of the packing house business had as one of its aims the solving of some of the problems which would be involved in government control. It is now known that careful details for handling stock yards under government control have been worked out by Charles J. Brand, chief of the Bureau of Markets, United States Department of Agriculture.

Some sort of reform in the handling of the stock yards has been needed for a long time, and live stock men will welcome this divorcing of the great central markets from their present private control. In connection with the action of the Department of Agriculture the railway administration under Director General McAdoo is taking steps to eliminate the influence of railway control over the stock yards at the principal markets of the country.

While no time is set for putting these plans into operation, the change from all indications can be expected soon.

HARVEST-TIME CO-OPERATION

Farmers near Wichita will not have to go to town for repairs, oil, twine, or other necessary harvesting equipment during the rush of harvest. A phone call to the Wichita Board of Commerce will bring the needed repairs by auto free of charge and without delay. Otber city commercial organizations will be found just as willing to render such service, in fact probably many have already made similar plans. In Topeka through cooperation with County Agent Folker, "floater crews" of five men each are being organized. These are composed of town men who cannot go out for a whole day but can go after five o'clock and shock grain. One man of tbe crew furnishes the auto, and when the call comes for help to finish a job of shocking one of these crews is immediately called together and sent. Mr. Folker says the idea appeals to the farmers of this county because they know the average town man is not good for a full day's work and they would rather have him drop in in the evening and work a few hours than to have to board bim all day and only get three or four hours' work.

While the motive back of the town man's offer to help is a "win the war" spirit, he also knows that the city man will suffer first in case of food shortage. Tbe soldier must of course be fed first and that is right. Producers will come next, and the people living in town will get a chance at what is left. Farmers who have large fields of grain to barvest can count on the fullest co-operation of tbe town men.

We would call especial attention to the extracts from the commencement address of Edward N. Hurley, on the progress we are making in sbipbuilding, which appears on page six of this issue. This is an industry in which we are all most vitally interested. Without plenty of shipping we can not win the war. It has been officially given out that a quarter of a million of our soldiers were taken across the Atlantic during the month of May. We are told that by tbe first of July we will have a million men in service abroad. The more men we have in Europe, the more shipping will be needed for supplies. We must have a veritable bridge of ships across the Atlantic, and the information given out by Mr. Hurley in tbis address is most encouraging.

Concentrated animal feeds of all kinds are so scarce in England that even the animals are now on a definite system of rations. The following rules are in operation: Horses for farm work and transportation may have ten pounds per bead daily; milk cows not on grass may have a daily ration of four pounds of feed per head, which is to be reduced to two pounds after August 1. No concentrated feed may be used for feeding sheep, pigs or cattle, other than milk cows. This class of stock is expected to live on roots, grass and similar products. It is easy to see from these rules that England must look to otber countries for a greater part of its meat.

Measure your wheat savings by the Golden Rule.

BREED MORE DRAFT HORSES

Army Demands for Horses Over 1400 Pounds Steadily Increasing

By WAYNE DINSMORE

HORSE production has been greatly reduced in the past two years. Buyers who are much in the country report that there are very few foals in sight this spring, and not many yearlings. This is borne out by field investigations made the last week of May, 1918, hy the Percheron Society of America. Whilc some communities have kept up fairly well on horse production, there has heen a tremendous decrease as a whole. Thousands of farms in the corn helt states have not enough young horses coming on to supply their own requirements for replacement. Instead of having surplus to sell, they must buy.

There is a shortage in the world's supply of draft horses. War interfered with horse hreeding operations in France and Great Britain, and drew heavily on their existing supply. The real lack of heavy teams has been felt most acutely in the past ten months.

Prices have heen advancing steadily. Americans recently returned from Great Britain report that heavy draft geldings, such as are selling in the United States at $300 to $325, are hringing from $800 to $1,000 each over there. The opportunity to profit by the exportation of draft horses is great, hut impossihle of realization, for ship space is not availahle, and the exportation of such horses has been forhidden by our Government on military grounds. There will undouhtedly be large exports of horses after the war. This trade will take our heaviest and best.

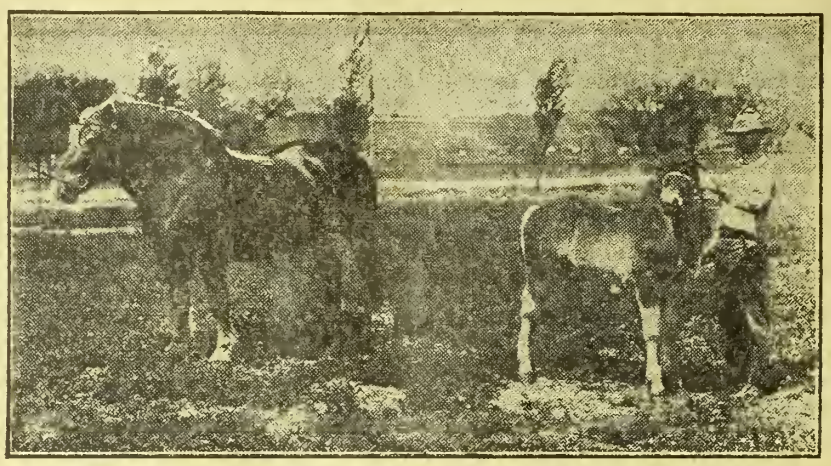
Our own city trade has been steady and has taken all good geldings over 1,600 pounds at prices from $240 up. The hetter ones, over 1,800 pounds, and of the right type, have brought from $275 to $325 in the country. This market for heavy horses, which takes heavy geldings and dry mares at good prices, will continue, for the big drayage companies, in the business from the standpoint of dollars and cents, are sticking to heavy horses for 95 per cent of their work; and as these men are in the business from a purely commercial basis, their lead is a safe one to follow. They have found that they can make more money in the long run by using teams, and this means a stable outlet for heavy drafters in our large cities.

It must not be forgotten that the area in which draft horses are produced in such numbers as to provide a surplus over local needs is very limited. The United States is the only nation in the world producing any surplus of this kind, and only a few states in the Union have the foundation from which to rear a surplus of heavy horses. The states east of Ohio and south of the Ohio River do not produce enough draft horses and mules to supply their own farm needs; and the same is true, so far as grade draft horses are concerned, of all the states south of Kansas or west of Nehraska. Ohio, Indiana, Illinois, Iowa, Missouri, Kansas, Nehraska and the Dakotas are the only states producing a surplus of heavy draft work animals, and only four of these produce any considerable surplus of real drafters. These few states of the Middle West must produce draft horses to supply the world.

Army demands for horses over 1,400 pounds are steadily increasing, and we must prepare to furnish hundreds of thousands of horses that will weigh from 1,400 pounds up to handle the guns needed to finish the war. The shortage of farm labor, which will become acute as more men go into service, makes necessary the use of heavier horses on our farms, in order that more work may be done per day with fewer men.

On any well-managed farm enough colts should annually he reared to make it possible to keep farm work going at maximum efficiency, and to render feasible the sale of horses seven or eight years old. This eliminates depreciation, and reduces losses hy death to less than one-half of 1 per cent. If horses are produced as they should be on our farms, appreciation rather than depreciation in value will result.

Increased demand and higher prices on pure-bred stallions always follow a year hehind increase in prices on market horses, and under present conditions will he manifest next winter and spring. Its extent will depend on how much educational work is donc among farmers who raise only grade horses. If they are aware of the true situation and realize that they are certain to profit greatly by producing all the good draft horses they can rear, the values of Percheron stallions will be materially increased. It is therefore the duty of every breeder of pure-bred Percherons to do all that he can to put the real facts hefore all the farmers of his community. Every mare that is sound, of good type, and with weight over 1,200 pounds, should be bred to the best availahle draft stallion, and there is still ample time for you to influence your neighboring horsemen to breed their good mares this season.



BELGIAN STALLION OWNED BY THE KANSAS AGRICULTURAL COLLEGE.—THIS HORSE IS AN OUTSTANDING INDIVIDUAL OF THE BREED.—THE COLT IS HIS FIRST GET ON THE COLLEGE FARM

We are being urged to increase the production of foodstuffs by better crop methods and increased acreage; but it must not he forgotten that the existing need for such increased production will last for several years, and without abundant horsepower on our farms, our desires will he set at naught. It is folly to permit our supplies of horses to be redueed, and then seek to fill the gap with tractors, for every man capable of working on tractor manufacture is far more urgently needed in the shipyards, gunshops and munition works, where trained mechanics must be had in ever-increasing numhers. It is up to the farmers of the Central West to see that draft horses are produced in sufficient numbers to make it possihle to divert these trained steel workers into the shipyards and munition works without limiting our farm power in any degree.

It must also he remembered that the Government has power to draft horses into service, as they have already drafted men, and there is no question hut that, if the need arises, all horses of suitahle ages and types will be commandeered as they were in Great Britain and France, leaving for farm work only the young, the old and the unfit. When that time comes, and it may be nearer than many imagine, the man with mares and young stock coming on will suffer but little, while the man who says, "I can buy them cheaper than I can raise them," and who has only geldings and mules of full working age on hand, will find himself stripped of work animals and forced to buy such makeshifts as he can.

Breed every good mare you have this season and educate your neighbors into doing likewise. Take good care of your Percherons and give the young stallions good pasture, well fenced, so that they can run at will, and see to it that they have enough oats to keep them growing well. Don't fret if you have one or two that you think should have heen sold ere this—they will he worth more next season.

Horses—big horses and plenty of them—have made it possible for the American farmer to produce more per capita employed on farms, than the men of any other nation. The yield per acre has not heen as high as in countries where laborers cost hut a few cents a day, but the total yield and the high yield per man stands to our credit. The hest informed farmers and horsemen in America are united in declaring that increased draft horse production is more urgently needed, and needed now.

From the standpoint of your pocketbook, your need for farm power, and your desire to do all you can to aid in winning the war, you should breed draft horses and encourage others to do likewise.—WAYNE DINSMORE.

Thrift is Patriotism

THIS war must be financed from the savings of the people. If we are wasteful and careless in our expenditure of money we will have no savings to loan to our Government. Americans have just begun to learn the lesson of saving. "No individual in this country," said President Wilson not long ago, "can expect ever to be excused or forgiven for ignoring the national obligation to be careful of expenditure. This has now become a public duty and a proof of patriotism and honor."

The heads of this Government had this thought in mind when they first proposed Liherty Bonds in low denominations, and later when they put out War Savings Stamps. But the thought went far beyond the mere selling of national securities. These men understood the importance of having every American citizen own bonds and War Savings Stamps because in that way as in no other, perhaps, might every man, woman and child feel a direct, personal, pocket interest in the great task confronting us as a nation. The people have bought all the bonds and have offered to huy many more than were issued. Now the Government asks them to take two billion dollars' worth of War Savings Stamps. The Kansas allotment is thirty-seven million dollars, of which about seven million dollars must be taken up hy June 28.

Less than two bushels of wheat will buy a War Savings Stamp. The price in June is $4.17. For that stamp the Government will repay $5 January 1, 1923, five years from now. That is 4 per cent compound interest. Every citizen of Kansas is asked to agree to take all the War Savings Stamps he believes himself able to buy, every month between now and December 31. Committees in charge of the campaign will call on every man and woman, every family, every taxpayer in the state hetween now and June 28, on which day the big drive will take place. Meetings will be held in the school houses everywhere; not only in Kansas but in the entire Union, and citizens will there agree to huy these War Savings Stamps, thereby helping their country while helping themselves. Kansas has about 177,000 farms. How many dollars' worth of War Savings Stamps will be owned by the men, women and children living on these farms hefore the close of the year? The Government believes no business man in the Union will exceed the farmers in this proof of thrift and patriotism. Every Kansas farmer should help the Government to realize this hope and be ready to sign the pledge card when it is presented by the local committee. Our Government needs the money and we must lend it.

WAR SAVINGS STAMPS
DELIVERED TO YOUR HOME

Tear Out—Fill In—Hand Letter-Carrier—or Mail to Post Office

TO THE LOCAL POSTMASTER:—Kindly have letter-carrier deliver to me on _____ (Date) for which I will pay on delivery:

_____ (State number wanted) $5. U. S. WAR-SAVINGS STAMPS at $_____ (See prices below) each

_____ (State number wanted) 25c. U. S. THRIFT STAMPS at 25c. each.

Name _____

Address _____

W.S.S.
WAR SAVINGS STAMPS
ISSUED BY THE
UNITED STATES
GOVERNMENT

W. S. S. COST DURING 1918

April	$4.15	July	$4.18	Oct.	$4.21
May	4.16	Aug.	4.19	Nov.	4.22
June	4.17	Sept.	4.20	Dec.	4.23

W. S. S. WORTH $5.00 JANUARY 1, 1923

President Wilson, while reviewing the Red Cross parade in New York, was greeted hy a Canadian soldier, invalided home from the front, who had been taken into the Canadian army despite the fact that he was 54 years old when the authorities learned that his son was one of those that German soldiers crucified on a barn door. What would you do to stop such fiendish things? Do you think it much of a sacrifice to pledge yourself to save and to buy War Savings Stamps?

No one should dare to say he has the right to spend his money as he chooses when the liherties of the world are threatened. No one should dare when only the very highest efficiency in money, man power, and materials can in this great emergency make the world safe against Prussian autocracy.

Rememher that National War Savings Day is June 28. Pledge yourself on or before that day to save to the utmost of yonr ability and to buy War Savings Stamps that there may be more money, labor and materials to back up those who fight and die for you.

Become a stockholder in the United States—buy War Savings Stamps.

CANNING BY COLD PACK METHOD

Every Jar Put Up at Home Releases a Can for Our Soldiers

The five steps in canning by the cold pack method are: Scalding or blanching in hot water or live steam, cold-dipping, packing in jars, sterilizing or "processing," and sealing.

A lard can or wash boiler with a false bottom makes a good hot water bath canning outfit. Very satisfactory commercial canners which save time and fuel are on the market.

Temper glass jars by placing them over the fire in a vessel of cold water and bringing it gradually to the boiling point.

Can only fresh, sound fruits and vegetables. Never can fruit that has started to spoil. Handle products carefully to avoid bruising.

Discard old rubbers and poor lids. Good used rubbers may be kept for preserves or jam, but they should not be used in ordinary canning.

Write to the Agricultural College at Manhattan for bulletin containing time tables giving blanching and sterilizing periods for Kansas fruits and vegetables.

CANNING time has come again and more housewives than ever before are putting the surplus fruits and vegetables from the home orchard and garden into jars. Nothing should be allowed to go to waste this summer. The time is coming when we shall be ashamed to have an empty jar in our homes. We should get fewer jars and keep them filled, replacing the contents as used with other fruits, vegetables, and meats then in season. Many of the jars that are now being filled with the cockerels we do not wish to keep during the summer, such vegetables as greens, peas, and asparagus, and the early cherries, strawberries and gooseberries will be emptied in the next few months and ready for use again this fall.

No vegetables or fruit which are withered or unsound should ever be canned. It never pays to risk losing the whole jar for the sake of saving a small amount of doubtful quality. For successful canning, two things are necessary: to destroy any bacteria which may be present on the product to be canned, jars, lids, or rubbers, and to seal it up securely so that it is impossible for the bacteria which would cause fermentation to enter.

The first step in canning is to thoroughly wash the jars and lids and rubbers, place them in a vessel of cold water over the fire and allow the water to come to a boil. This serves the double purpose of sterilizing and tempering the jar so that it can be placed in the boiling water later. A kettleful of hot water should be ready for use when the jars are filled. Those engaged in the work of canning should start with clean hands, clean utensils, clean, sound, fresh products, and pure, clean, water. If possible all fruits and vegetables should be canned the same day they are picked. Peas and corn, which lose their flavor rapidly, should be canned within five hours to get the best results.

The cold-pack method, which is now generally used, consists of five steps: scalding or blanching, cold-dipping, packing, sterilizing or "processing." and sealing.

Vegetables are blanched or scalded by being plunged into rapidly boiling water and kept boiling there for from one to fifteen minutes, depending on the kind. This is dispensed with in canning berries and soft fruits. We blanch vegetables to bring the color to the surface, to soften them in a small degree so that they can be easily packed in the jar, and to give a shock to the bacteria that may be on the surface. The product is lowered into the boiling water either in a wire basket or in a piece of cheese cloth. A thin sugar sack does very well. If a cloth is used, tying the opposite corners together will give you a handle to lift it by. This handle should be kept out of the water so that it can be used in lifting the product out when it is sufficiently scalded. In the case of greens or green vegetables, the scalding is accomplished most satisfactorily by putting them into a colander and steaming over a vessel of boiling water covered as tightly as possible. If you have a steam pressure cooker, this is still better. By steaming, none of the food value or the delicate flavor is lost.

When the vegetable is taken from the hot water it is dipped immediately into a pan of cold water and then packed into jars. It is a good plan to change the water for each dip, as it soon becomes warm. The vegetable or fruit is packed tightly into the jar to within one-eighth of an inch of the top. Peas and corn swell in cooking, so that it is best to leave about a half an inch at the top when canning them. Most other things shrink a little, so should be packed as tightly as possible. When canning vegetables, add salt to season, usually a level teaspoonful to a quart, and fill the jar with hot water. If fruit is being canned, the jar may be filled with either hot water or syrup. A thin syrup is made by using four or five cupfuls of water to a cupful of sugar; a medium syrup, used for most fruits, by using three cupfuls of water to one of sugar, and a thick syrup for preserves, by using one cupful of water to one of sugar.

As soon as the jar is packed, the rubber is put in place, the lid screwed on tightly, and the jar inverted to make sure that it does not leak. If the lid cannot be tightened so that it will not leak, discard that lid and use another. If it does not leak, turn the lid back a fourth of the distance around, or until the edge of a knife blade can be inserted beneath it, and sterilize the jars in a pressure cooker or hot water bath outfit, lowering slowly into the hot water.

The hot water bath outfit may be a lard can or a wash boiler with a wire rack to keep the jars from touching the bottom. Just as good results are obtained with these as with the pressure cooker, but it takes more time and fuel. If you do not have the wire rack, a wooden rack can be made by nailing laths across each other close enough together to hold the cans up off the bottom. Sterilize, or "process" for a period determined by the kind of product and the kind of apparatus used. The water should be deep enough to come up three or four inches above the tops of the cans, because some of it will boil away during the process of sterilization. The jars should be placed far enough apart so that they will not touch each other or they may break. Inexpensive racks can be purchased or made with handles for lifting the cans out, or a heavy wire can be bent in such a way as to make a lifter. A pair of tongs for lifting the jars costs a quarter, and a wire holder for each individual jar, with a wire frame to keep it off the bottom, and a handle for lifting it out, has been placed on the market at ten cents each.

After sterilization, remove the jars from the hot water and tighten the covers. The jars should be inverted while cooling and closely examined for leaks. If leakage occurs, the covers should be tightened until the jars are completely sealed.

It is necessary to be careful about a draft striking the hot jars, as they will break if cooled suddenly. If it is impossible to avoid a draft, it is a wise precaution to wrap a dish towel around the jar while it is being filled.

A booklet containing specific instructions for canning the various fruits and vegetables and a time table for their sterilization can be obtained free of charge by writing Otis E. Hall, state club leader, Extension Division, Kansas State Agricultural College, Manhattan,

Canning Corn, Peas and Asparagus

THESE three vegetables are perhaps the hardest of all to can, and yet they may be successfully canned if carefully handled. It is a general rule in canning that fruits and vegetables should if possible be canned the day they are gathered. As the three garden products we are considering lose their flavor rapidly, it is especially important to get them into jars as quickly as possible after they come from the garden.

The principal difficulty in canning asparagus seems to arise from overcooking, which makes it soft. Cut the stalks into small pieces or into pieces the length of your jar. It should be blanched in boiling water or over live steam from two to four minutes, depending on the size and tenderness. If young and tender, two minutes is long enough. The older and larger stalks may be blanched four minutes. If blanched too long it becomes too soft to pack into the jars nicely. Be sure the water is boiling up rapidly when you put the asparagus in. Otherwise it will lose some of its flavor while you are waiting for the water to boil and it may also become too soft. Remember to blanch enough to allow for shrinkage. It takes considerable asparagus to fill a jar.

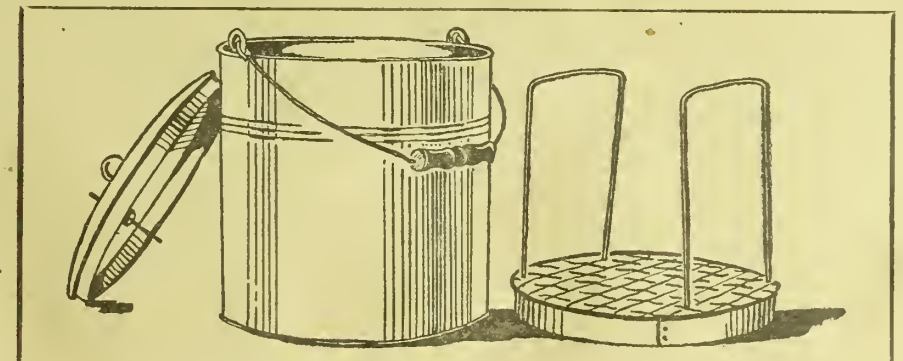
After blanching, take from the hot water and dip immediately into and out of a vessel of cold water. Then pack the asparagus in a hot, tempered jar as closely as you can, add a level teaspoonful of salt for a quart jar or half a teaspoonful for a pint, put on a rubber, fill the jar with boiling water, put on and tighten the lid, invert the jar to see if it leaks, then turn backward one-fourth of the distance around the jar, or until the edge of a knife blade can be inserted, and sterilize pint jars two and one-half hours or quart jars three hours in a hot water bath outfit, seventy-five minutes under three to five pounds of steam in the pressure cooker, or one hour under eight to fifteen pounds of steam. Remove from hot water and tighten lids.

Any vegetable or fruit to be canned should be handled carefully to avoid bruising. If peas are washed carefully in the pods and the hands of the sheller are clean it will not be necessary to wash them after shelling and they are not so likely to get bruised. Blanch peas five minutes, dip in cold water, and pack in jar. Instead of shrinking like asparagus and most other vegetables, both peas and corn swell in cooking, so a pint jar should be filled only to within a half inch of the top, and a quart jar to within one or one and a half inches of the top. Season with a level teaspoonful of salt to a quart of peas, and fill up to the top with boiling water. Put the lid on tightly, test, loosen as in canning asparagus, and sterilize pints three hours or quarts three and one-half hours in the hot water bath, ninety minutes under three to five pounds of steam, or seventy-five minutes under eight to fifteen pounds of steam.

Corn is blanched and sterilized for exactly the same length of time as peas. Blanch it on the cob, then cold-dip, cut from cob, and pack immediately into the hot jars, packing it tightly to within one-fourth of an inch from the top. If you are working alone, it is best to cut off enough for one jar at a time, add a teaspoonful of salt to a quart jar, place the rubber and cap in position, and put the jar into the canner or hot water at once. The best results are obtained when one person cuts the corn from the cob and one fills the containers. If you fill the jar to the top with boiling water, you will have a watery product. It is better to have the boiling water only one or two inches deep in the bottom of the jar and let the steam from that go through the corn. If the corn is not very sweet, a thin, hot syrup may be used instead of boiling water. Corn canned in this way is not too watery to use for croquettes or in any other way fresh corn is used.

In canning these particular vegetables, if you have a little left over after you have filled your cans, it is better not to let this stand until you blanch another lot and then add it to the second lot, because these vegetables sour more quickly than almost anything else, and as they are still warm from the blanching even after being dipped in cold water, the little that is left over may start to sour before you get it into the jars and spoil the entire lot. It is better to set this aside and use it for the next meal, or if you do not care to do that you can put it into a jar, fill the jar up with hot water, and sterilize it. This can be opened later and used for soup or the water can be poured off and the vegetable cooked in other ways if you need only a small amount; then the jar can be refilled, because you probably will not want to give jar space through the winter to so much water.

Unless your family is large, you will probably find pint jars more satisfactory than quarts for vegetables if they are closely packed.



SIMPLE HOT WATER BATH OUTFIT.—USE OF PRESSURE COOKER SAVES TIME AND FUEL.—INDIVIDUAL JAR HOLDERS VALUABLE ADDITION TO EQUIPMENT

If there are points you do not understand about the comparatively new cold-pack method of canning fruits, vegetables, and meats, we should be glad to have you send in your questions to KANSAS FARMER. If we are unable to answer them we will be glad to submit them to specialists sent out by the government and state for the express purpose of helping to conserve food products, and get the desired information from them. These specialists not only have had special training in food conservation, but their entire time is given to this kind of work, so that they get as much experience along this particular line in one year as many of us have in a lifetime. Let us help you if we can do so.

In pitting cherries take hold of the pit where the stem is attached and pull it out instead of squeezing the cherry. If this is carefully done the cherry retains its round, full shape and very little of the juice is lost.

AMERICA A MARITIME NATION

Will Rule the Seas and Safeguard the Markets of the World

From Commencement Address, Notre Dame University, South Bend, Ind., by Edward N. Hurley, Chairman U. S. Shipping Board

NO longer can there be any question that we have all the means, as well as the desire to safeguard the nations of the world from selfish intrigue and sordid manipulation of the world's markets in the future. The great fleet we are building guarantees the achievement of this unselfish purpose. Inspired by the enthusiasm and energy of the greatest organizer America has produced—Charles M. Schwab—whose unmatched abilities and splendid services the government recently commandeered, and Chas. Piez, Vice President, who has spent six months developing an organization, our ship yards are getting their gait and setting a pace that would have seemed incredible in those very recent times when steam ships required all the way from six months to two years to build.

In the launching of the 5,500-ton collier Tuckahoe from the Camden yards of the New York Shipbuiding Company in the record time of 27 days from the date of keel laying, we have an illustration of what our American ship workers are capable of when they get their stride.

It was before the formation of the present shipping board that Secretary McAdoo of the Treasury insisted that our pioneering upon the seas must in the future be done by an interest having boundless resources; an interest that is not compelled to concern itself with dividends to stockholders, or returns to its bondholders; an interest that can afford to suffer losses and sustain them for an indefinite period; an interest that has a single purpose—the general welfare of the United States as a whole. Obviously, there is but one such interest, that is the Government of the United States. Before the war ocean commerce traveled in bottoms owned and operated by private capital. Now this gigantic merchant fleet which we are turning out is to be controlled by one central body by the greatest corporation in the Western World—the United States of America.

On July 1, 1916, we had no merchant marine worthy of the name engaged in overseas trade. It is true that we had under the American flag a total deadweight tonnage on that date of 2,412,-381 tons, but approximately eighty per cent of this tonnage was engaged in coastwise and Great Lakes trade. Therefore the vast supplies which we were sending abroad were shipped under the terms and conditions laid down by other nations, because the great bulk of our exports was carried in ships flying foreign flags.

We were a great tourist nation, but Americans traveled in foreign ships. We had very few ships going to South or to Central America; very few going to England, France or Germany. We had still fewer going to Russia, Japan and China. There was just one line of old and comparatively slow ships crossing the Atlantic; one line crossing the Pacific and a few lines to Central America and to the Carribbean countries; none to our cousins in Australia; none to India; and none to Africa. There were American tourists everywhere. There were also American products ready to go anywhere, but American ships nowhere. We could not serve the world as we should have served it, because we did not have the vehicles of trade.

In round numbers, and from all sources, we have added to the American flag since our war against Germany began, nearly 4,500,000 tons of shipping. We are adding to this tonnage rapidly and will continue to do so. It has taken us some time to apply to the shipbuilding industry of this country the principles of organization and progressive manufacturing which have made our other big institutions the marvel of the world.

Since January of the present year, when our new quantity production of ships may well be said to have just begun, we have steadily risen in our monthly output until in the month of May we turned out a total of 260,000 tons for that one month alone, making a total for the first five months of this year of 118 steel ships, aggregating 805,-000 deadweight tons.

We have established a shipbuilding industry that will make us a great maritime nation. We have today under contract and construction 819 shipbuilding ways including wood, steel and concrete, which is twice as many shipbuilding ways as there are in all the rest of the shipyards of the world combined. Our program for the future should appeal to the pride of all loyal and patriotic Americans. In the early part of May the members of the shipping board appeared before the appropriation committee of Congress with a request for additional funds for our extended program.

Our program calls for the building of 1856 passenger, cargo, refrigerator ships and tankers, ranging from 5,000 to 12,000 tons each, with an aggregate deadweight tonnage of 13,000,000. We are also contracting for 200 wooden barges, 50 concrete barges, 100 concrete oil carrying barges, and 150 steel, wood and concrete tugs of 1,000 horsepower for ocean and harbor service, which aggregate a total deadweight tonnage of 850,000.

Exclusive of the above, we have 245 commandeered vessels, taken over from foreign and domestic owners, which are being completed by the Emergency Fleet Corporation in the course of carrying out the present program, with an aggregate deadweight tonnage of 1,715,000.

This makes a total of 2,101 vessels exclusive of tugs and barges which are being built and will be put on the seas by the Emergency Fleet Corporation in the course of carrying out the present program, with an aggregate deadweight tonnage of 14,715,000.

It will require $5,000,000,000 to finish our program for 1918, 1919 and 1920, but the expenditure of this enormous sum will give the American people the greatest merchant fleet ever assembled in the history of the world—a fleet which I predict will serve all humanity loyally and unselfishly upon the same principles of liberty and justice which brought about the establishment of this free republic. The expenditure of the enormous sum will give America a merchant fleet aggregating 25,000,000 tons of shipping.

American workmen have made the expansion of recent months possible and they will make possible the successful conclusion of the whole program. On July 1, 1917, there were in the United States not quite 45,000 men engaged in the shipbuilding yards. Today we have a force of 300,000 men in the yards, and 250,000 men engaged in allied trades. This force will be continuously increased. From all present expectations it is likely that by 1920 we shall have close to a million men working on American merchant ships and their equipment.

The most liberal estimate of this year's output of shipping from all countries, except America, does not exceed 4,000,000 tons. One of the ablest shipbuilders in the United States, Homer Ferguson, of Newport News, predicted before the Senate Committee in January that our tonnage for this year would be 3,000,000 tons in the United States alone. Mr. Powell, vice-president of the Bethlehem Steel Shipbuilding Company, agreed with Mr. Ferguson. Mr. Schwab, the director general of the Emergency Fleet Corporation, has told me that he is going to prove that both of these good friends of his are somewhat conservative. He believes that the expert prediction of 3,000,000 tons can be exceeded, and I agree with him.

We have gradually reached the point where we have the facilities for constantly increasing our output.

As I have said, we have a total of 819 shipways in the United States. Of these 819, a total of 751, all of which except 90 are completed, are being utilized by the Emergency Fleet Corporation for the building of American merchant ships.

In 1919 the average tonnage of steel, wood and concrete ships continuously building on each way should be about 6,000 tons. If we are using 751 ways on cargo ships, and can average three ships a year per way we should turn out in one year 13,518,000 tons, which is more than has been turned out by Great Britain in any five years of her history.

NOW we are beginning to fulfill our destiny. On the first of June, of this year, we had increased the American-built tonnage to over 3,500,000 deadweight tons of shipping. In the eleven months from July 1, 1917, to June 1, 1918, we constructed in American shipyards a tonnage equal to the total output of American yards during the entire previous four years. In short, the Shipping Board has added approximately 1,000,000 tons of new construction to American shipping in the last ten months, for it was not until August 3 of last year that our commandeering order went into effect.

We have also added 118 German and Austrian vessels, with a total deadweight tonnage of 730,176. We have requisitioned from the Dutch under the order of the President, eighty-six vessels with a total deadweight tonnage of 526,-532. In addition we have chartered from neutral countries 215 vessels with an aggregate deadweight tonnage of 953,-661. This tonnage, together with the vessels which we have been obliged to leave in the coastwise and Great Lakes trade, gives us a total of more than 1,400 ships with an approximate total deadweight tonnage of 7,000,000 tons now under the control of the United States Shipping Board.

In the year ending July 1, 1915, the shipyards in this country built 186,700 deadweight tons of steel vessels of over 1,500 deadweight tons. In the month of May we produced 53,000 tons more than were produced in the entire year 1915. During the year ending July 1, 1916, 281,400 deadweight tons of steel vessels were delivered. Adding the 1915 tonnage with the 1916 tonnage gives a total of 468,100 tons. With a tonnage for the first five months of this year of 805,000 tons, we delivered in five months 336,-900 tons of shipping more than was built in American shipyards in the year 1915 and 1916. I do not believe I am over-optimistic in saying that our tonnage output will continue to increase until before this year closes we will be turning out a half million tons each month.—EDWARD N. HURLEY.

When all our wood, steel and concrete shipyards are thoroughly organized, with a keel laid on each of the 819 ways, our fabricating plants driving ahead at full speed, and employees more thoroughly trained in the art of ship construction, it is estimated that we can turn out from each way more than three ships a year.

The United States Shipping Board is not only the greatest shipbuilder in the world but is the greatest ship operator. In perfecting our organization we not only perfected that part of it which is building the ships, but we have also another part which operates the ships. The operating side is called the "Division of Operations;" its function is to see that all the ships in the service are well managed and that rates are properly adjusted. The great shortage in the world's tonnage and other courses brought about extremely high ocean rates. These high ocean rates have been felt in the rising price of all seaborne commodities. One of the most important phases of the work of the Division of Operation has been to lower ocean rates as much as possible. One result of this reduction has been to make it possible for our Allies to receive their necessary munitions and supplies at much less cost.

The total gross revenue of our fleet is very impressive. From the ships under the control of the shipping board a total gross revenue is derived of about $360,-000,000, an amount more than the gross revenue of the New York Central Railroad, and almost equal to that of the Atchison, Topeka & Santa Fe Railroad and the N. Y. C. R. R. combined.

The Shipping Control Committee, composed of P. A. S. Franklin, chairman, H. H. Raymond, and Sir Connop Guthrie, K. B. E., was appointed in the early part of February, 1918, jointly by the Secretary of War and the United States Shipping Board. The appointment was the outgrowth of several months' experiment, and which had clearly demonstrated the necessity of having the entire merchant fleet operated under a single head with the one object of winning the war.

Since its appointment the committee has directed the movement of all supplies destined for the troops overseas, which, considering the vastly increased army now in France, is a very great accomplishment.

The committee has also operated vessels under requisition of the Board and has chartered neutral shipping to carry essential raw materials to manufacturers in the United States and the various commodities needed here and abroad.

Nitrates have been brought from Chile, manganese from Brazil, chrome from New Caledonia, hides and wool from the Argentine, sugar from the West Indies and Porto Rico, and various other essentials from all parts of the world.

The committee has also supplied vessels to take care of the desperate food situation in Belgium.

If in 1919-20 we have the passenger and cargo tonnage we have planned, we will be in a position to establish a weekly passenger service between New York and Rio de Janeiro, Montevideo, Buenos Aires and Caracas on the east coast, and weekly service between Colombia, Ecuador, Peru and Valparaiso, Chile, on the western coast. On the west coast we now have two fast passenger steamers plying between New York and Valparaiso. These are the first to carry the American flag on that route. They have cut the time between these two important cities from twenty-seven to eighteen days—a saving of nine days.

Our Central American neighbors, Mexico, Guatemala, Nicaragua, Honduras and Costa Rica, must all have the very best passenger and cargo service, as must all of our South American neighbors. We have planned the class of steamers required for this service. The type will serve our Latin American friends in a manner that they have never been served before, but which they are entitled to. With the wonderful resources which these countries have, their products should be distributed in the world's markets and they should have sufficient ships at their disposition and at such rates that will enable them when it is necessary, to sell their products in competition with other nations. This will

give them an opportunity to receive their share of profits which will permit them to further develop their countries.

On the Pacific we must provide sufficient tonnage to meet Russia's requirements. That country has many products which we need. These articles can be moved in bottoms controlled by us at fair freight rates and this will be most helpful to the expansion of Russia's trade.

China also has many commodities which we require, and should receive the transportation necessary to move them, not only to our country, but to other countries that she may desire to sell to.

What better use can we make of our merchant marine than to assure to these countries the best possible steamship service?

That progressive nation, Japan, is rapidly upbuilding her own merchant marine, but the demand for tonnage will be so great on the Pacific that Russia, China, Australia, and other foreign possessions will receive service which they have never been able to receive before.

The building and operating of vast fleets for the United States is not the only work the Shipping Board is doing to create and develop a great merchant marine. Linked to this work is the work done by the Board in helping to develop our harbor and port terminal facilities. A port and harbor commission has been appointed with Edward F. Carry as chairman, and in co-operation with the army, navy, railroad administration and shipping interests we expect to develop and organize our harbors so that the great merchant marine we are creating will have full facilities for speedy loading and unloading, and for the dispatching of cargoes into the interior and the receiving of cargoes from the interior. With that development of dry docks and bunkering and repair facilities, we shall have the most modern improvements, which will enable us, in co-operation with the railroads, to load and unload ships quickly, thereby saving time and preventing delays of our ships in port.

All the warring nations now recognize that the chief issue which Germany will raise when compelled to sue for peace will be the issue of raw materials. There is indisputable evidence that this is now the principal fear of the German industrial and financial leaders.

No nation can participate in the commerce of the world without an adequate supply of raw materials. Manufacturing nations must have oil, cotton, copper, steel and iron, if they are to survive industrially.

A neutral diplomat who has spent some time in Berlin recently brought back to Washington a report of the physical breakdown of Albert Ballin, managing director of the Hamburg-American line, once the shipping master of Germany. Mr. Ballin, prior to the European war, was one of those who recognized that the Prussian military leaders were set upon trying out their military organization. He had expressed the opinion that it was inconceivable that the kaiser would agree to such a cold-blooded project, especially as Germany had such a great merchant marine, and all the place in the sun that any reasonable nation could desire. Mr. Ballin did not reckon with the character of a nation which had been taught for generations that whatever it wished to do could be achieved by military power alone.

Mr. Ballin is one of the victims of the German system of militarism. The merchant marine which he built up is swept from the seas. The instruments which might have been of service to the German people, had they used their strength for peace instead of war, are now stripped from them. Mr. Ballin, I have been told, is a physical wreck. Germany herself must become a wreck, by her own acts, if the war continues. She has been forced recently to commandeer the copper from household plumbing; the doorknobs, kettles, bathroom fixtures, and even the extra suits of clothing possessed by her citizens. This is her internal struggle for raw materials. In peace, as well as war, she must have the raw materials which other nations should work out their destiny in their own way. We have not attempted to impose our own free institutions upon any of them. It is only when they interfere with our free institutions, or seek to oppress people who want to be free, that we have ever unsheathed our sword.

America in the future must play the role of protector to honorable nations whose fault is weakness.

America's character has taken on world proportions as the result of the present war. Always recognized by foreign nations as a lover of fair play on this side of the continent, America has simply carried her love for fair play into a larger sphere. Other nations are agreed that there can be no temporary peace; that all that has been sacrificed would be in vain if there should ever be a recurrence of the world conflict. The heroic role which America must, therefore, play is that of a clear-headed nation which, knowing the essential elements of justice, sees to it that justice is maintained internationally as well as domestically.

In the great laws which were enacted prior to the war under the leadership of President Wilson fair play was assured in American business. The same fair play must be assured among the nations of the world and it is only through a development of its own strength and character that America can stand firm in her position of moral business leadership.

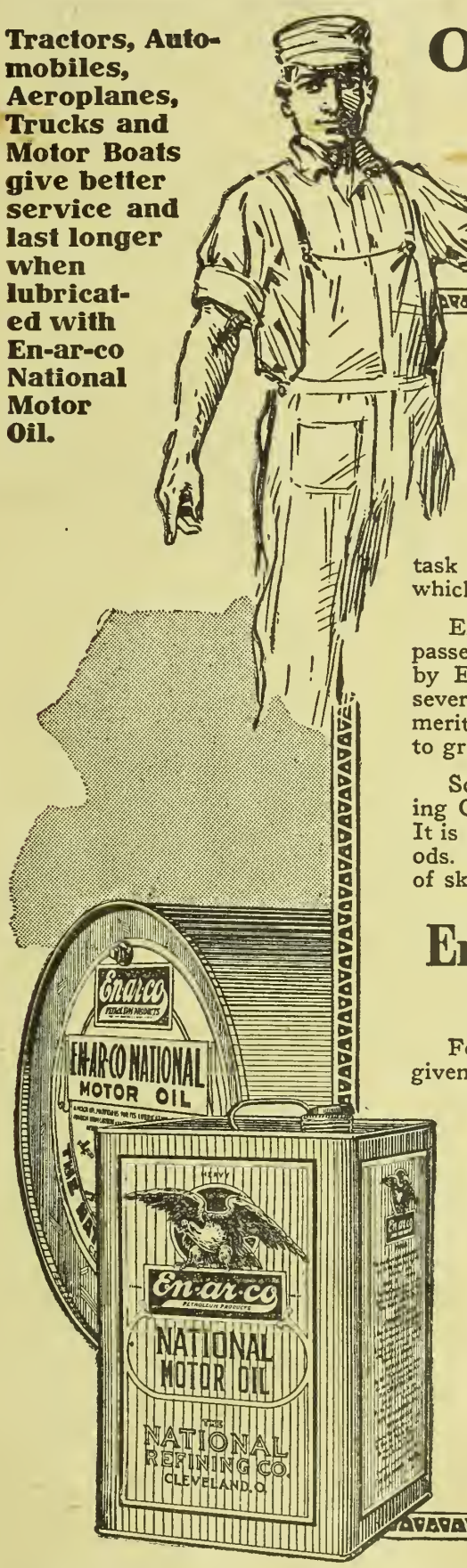
Overfat Show Cattle Wasteful

No one will question the statement that a great deal of waste in food value results from the practice of highly fitting cattle for the show ring. In the judging of cattle, even in breeding classes, too much credit has been given to the finish the animals carry. Layers of four or five inches of fat are frequently found upon the carcasses of prize-winning cattle. From the butcher's standpoint this is largely waste, and it is the most expensive part of the carcass to produce. In the case of breeding animals, this tendency to over-fatten for the show ring not only results in waste of foods required to make this fat but frequently lessens the value of the cattle for breeding purposes.

We are glad to note that the National Western Stock Show held at Denver has made the announcement that in its 1919 show the rules ordering the judges to discriminate against overfat animals will be rigidly enforced. A plea is made to all fairs and expositions to follow the same practice as an act of patriotism in saving the large quantities of feed required to produce this useless fat. Our shows and expositions have for years attempted to enforce rules of this character, but in most cases very little progress has been made.

There has been some discussion as to whether live stock shows should not be discontinued during the war. The principal objection raised is that a large amount of feed is wasted in fitting the animals for the shows. Most live stock men, however, feel that the educational value of these great shows is too great to warrant cutting them out during the war period. It will be fortunate, however, if under the stress of war conditions a general enforcement of the rule discriminating against overfat animals can be brought about. Live stock men generally will welcome this change providing they can be sure the judges may be depended on to obey the rules absolutely in placing the animals in the show ring.

Tractors, Automobiles, Aeroplanes, Trucks and Motor Boats give better service and last longer when lubricated with En-ar-co National Motor Oil.



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Let this satisfaction be yours. Decide ***now*** to get better results by always using this scientific lubricant, made by graduate workmen.

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Get this long spouted can that enables you to oil the hard to reach parts.



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I own ..... (Give name above) automobile or tractor and enclose one 3-cent stamp. Send me Handy Oil Can Free. Please give nearest shipping point in state and quote prices on items I have marked. I will be in the market about ..... (Give date above)

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NOTE: This can will not be sent unless you give make of your auto or tractor.

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DE LAVAL

CREAM SEPARATOR

is greater right now than ever before

These are the days of the full milk pail.

But if you are trying to get along without any cream separator, or with an inferior or half-worn-out machine, the more milk you get the more cream you lose.

And no farmer can afford to lose even a little cream when butter-fat is selling at from 40 to 50 cents a pound.

With butter-fat at present prices, and our country begging us to stop waste, "cream slacker" methods of skimming milk must go.

Get a De Laval right away and put all the cream in the cream can.

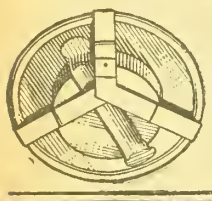
There is no other cream separator that can compare with the De Laval in clean skimming, capacity, ease of operation, freedom from repairs and durability.

Order your De Laval now and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash or on such liberal terms as to save its own cost. See the local De Laval agent, or, if you don't know him, write to the nearest De Laval office as below.

THE DE LAVAL SEPARATOR CO.

165 Broadway, New York 29 E. Madison St., Chicago

50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER



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Government reports show $18,000,000 worth lost in one year. Stop this loss with Henthorn's Milk Can Lock. Locks and seals can securely. Impossible for cream or milk to be spilled or pilfered. Price, 65 cents. Ask dealer or write

Milk Can Lock Mfg. Co.
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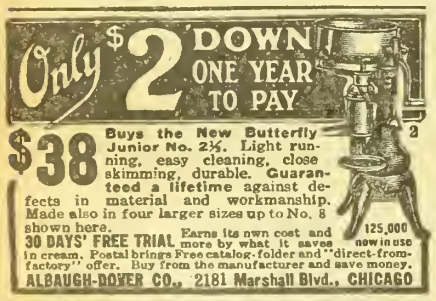


There are a few things cow-testing associations cannot do, valuable as they are in bringing about dairy progress. A cow-testing association cannot compel a dairyman to dispose of his poor cows if he is determined to keep them. It cannot make him feed according to production nor practice economy in the management of his dairy herd. It cannot require him to dispose of his scrub bull and buy a better one. It has never yet demanded the planting of legumes and the building of silos. It never will compel, but it always will encourage, economical improvement of the herd, of the farm, and of the business.

Honor Roll for May

The Dairy Club members whose names are given below have sent in promptly the feed and milk records for the month of May:

Harold Bentz
Gary Cook
Alfred Davis
Melvern Lee
Theresa O'Mara
Elise Regier
Glen Romig
Roland E. Roney
Harvey Russell
Hazel Shriver
Paul Studdard
Glenn Will
Ernest A. Worthington

The Holstein-Friesian Association of America again offers 25 per cent of the cash premiums to be paid on the general classifications for Holstein cattle at the Topeka Free Fair and the Kansas State Fair at Hutchinson.

Every time you buy anything, people work for you. Save labor and materials for the use of the Government.

KANSAS FARMER DAIRY CLUB

Milk Varies in Composition

WE DO not want the boys and girls in the Dairy Club to get the idea that the test or butter fat percentage of a cow's milk, as given by testing a single day's milk, is an absolutely accurate indication of the amount of butter fat she will give for the month in which the test is made. To figure exactly how much butter fat is produced in a week or a month, the milk from every milking for the whole period must be tested and the fat figured for each milking separately. We have stated many times that the test of a cow is an individual characteristic like the color of her hair and that considering a whole lactation period the test will be about the same year after year. While this is true when a considerable period is under consideration, the test of a cow, or the percentage of butter fat contained in her milk, sometimes varies quite widely from day to day without any apparent cause. Professor Fraser of Illinois University reports an extreme example of this kind in a two-day record of a cow being milked three times daily. A test of each milking was made. The lowest of these tests was 2.7 per cent and the highest 6.7. The remainder of the tests were between these two, three of them being about 3 per cent. This is of course unusual, but it illustrates the possibilities.

It is clearly impractical to test every milking, and it is not necessary to do this in order to get a fairly accurate estimate of the butter fat a cow produces. It is not out of the question to weigh the milk at each milking, although on some dairy farms even this is not done, the milk being weighed and tested for a three-day period each month. This gives a fairly accurate estimate of the production, although not as nearly so as the weighing of the milk at each milking and testing a composite sample of two or three days' milking taken near the middle of the period. This latter method of figuring a cow's production comes very close to giving the amount actually produced. It is near enough to make it possible to judge very closely the capacity of cows for butter fat production. We would advise the testing of the three-day composite sample on dairy farms where it is desirable to figure the butter fat as accurately as possible.

We asked Dairy Club members to prepare their samples for testing by using a sample from the morning's and night's milk of a single day. We made this rule because we did not wish to make the record work too complicated, although as can be readily seen, the test for a single day may give results either too high or too low when figured on the total pounds of milk for the month.

Many persons who milk cows are not clear in their minds on this matter of test. How often do we hear the remark that a certain cow never tested lower than 4 per cent, or perhaps the positive statement that a certain cow's test is 5 or 5½ per cent, when as a matter of fact the high test happened to be the only one that had ever been made and was from a sample taken when the cow was almost dry. The other statement perhaps was based on only two or three tests during the whole lactation period. Dairy Club members and others who have systematically tested cows for any considerable period know that the milk a cow gives gradually increases in richness the longer she is milked, sometimes testing very high just before she goes dry.

The taking of the sample is the most important point in getting a correct test. Every Dairy Club member has been furnished with careful instructions on the points to observe in getting a fair sample of the milk. According to the rules, this sample is to be taken on the fifteenth day of each month. In case some unusual condition prevails on this day which might cause the cow to give milk differing in composition from that ordinarily given, it is better to delay taking the sample a day or two. Club members have permission to vary from this rule, since the matter of a day or so is not as important as it is to get a sample which is as nearly as possible the average of what the cow is giving from day to day.

In watching the tests of the different club members from month to month we note many variations which it is impossible to explain. If we could have been present and seen all the operations in connection with handling the cow, taking the sample, and preparing it for mailing, we might be able to figure out why some of these variations occur. Quite a common report from club members is that tests are made locally which do not agree with the official tests made by the dairy department of our Agricultural College at Manhattan. Small variations are to be expected when tests are made by different testers, even though the samples are exactly the same. If the variations are more than .2 or .3 or 1 per cent, it would suggest that there is something wrong somewhere. One member wrote last week that tests made by the local cream buyer from samples taken the same day varied as much as .7 of 1 per cent from the test made at Manhattan. In order to check such variations and possibly find out what is wrong, we would suggest that members having duplicate tests made start with the sample. Be sure to take it as accurately as possible, following closely the instructions given, and take a large enough sample in one bottle so the local tester can take his sample for testing and have enough left to send to Manhattan. This sample can be kept in a pint milk bottle or a fruit jar and it should be kept tightly covered so as to prevent evaporation, and of course using the preservative tablet to keep it sweet. Take this bottle of milk to the local tester as soon as possible and explain to him that you want him to make a test and send a sample of it to Manhattan for testing. Have your mailing bottle and container ready and ask the tested to put the sample for Manhattan in it for you. By taking this method of preparing duplicate samples, perhaps with the help of the local tester the cause for wide variations can be located.

A War Milker's Experience

A young lady in England who is helping to win the war by working on a dairy farm, writes most interestingly of her experiences in The Queen, an English publication. In the course of this article she says:

"People have sometimes an idea that milking is no trouble, but it is quite true that attention and desire to learn, as with most other things, are necessary, as well as steady, persevering practice. After placing my hands rightly and showing me the rudiments, a farmer said to me: 'Now you know as much as I do; the rest you must discover for yourself.'

"That is so; you must go determinedly on, till you feel at last you know just when and how to press. Milking is warm work, and I generally had pink cheeks very quickly. At first my arms ached and swelled greatly, so that, to my annoyance, I often had to stop and rest them, but in time this disappeared, as muscles hitherto unused to such work became accustomed to it.

"Do not allow yourself to be disheartened if you really draw milk, and feel the work is to you liking. One cow that fell to my share, through being quiet and having a deformed foot (which made it almost impossible for her to lift and upset the pail, or, incidentally, kick me), being very hard to milk, really taught me, I think, the most. A great thing to encourage women milkers is that cows themselves prefer them, with their softer hands and usually gentler manners.

"Some farmers do not insist on your placing your head against the cow, as in Landseer's well known picture of 'The Maid and the Magpie,' but this is really best, as you can then feel at once if from flies worrying or any other cause the cow becomes uneasy, and are able quickly to save the pail, with the possible loss of much milk. For dress, a close cap, an overall and golosh boots are suitable, but always be sure that whatever you have is roomy enough, especially at the arms and wrists. Summer milking is not nearly as pleasant as winter, owing to the aforesaid flies and other heat troubles, but in winter the exercise is quite invigorating."

After all, saving is not sacrificing.

Back up those who are offering their all—buy War Savings Stamps.



Hoover and Cotton War-Beef Specials

A CLASSIFICATION known as "war-beef specials" has been announced by the International Live Stock Exposition which will be held in Chicago November 30 to December 7, 1918. This classification has been created at the suggestion of the Food Administration. Its purpose is to stimulate the most economical methods of feeding cattle and making beef. For the champion carload in these classes, the grand prize will be the "Hoover and Cotton" sterling silver bowl.

Cattle to be eligible for entry in this classification must not have been fed grain or other concentrated feeds between May 1 and the time application is made for entry, which cannot be later than the fifteenth of August. After that time the owner may feed his cattle such feeds, including grain and concentrates, as in his judgment will accomplish the greatest and most economical results in the feeding period; that is, from the date the application is made for entry to the opening day of the exposition.

The cash prizes offered are as follows: For a carload of fifteen head, one year and under two years of age, first, $250; second, $100; and third, $50. The same prizes are offered for a carload of fifteen head, two years and under three.

In judging these classes, quality and finish will count 50 per cent, gain 25 per cent, and economy of gain 25 per cent. In figuring the economy of gain, the cost of the feed at the point of feeding will be considered, using as a basis the neighborhood cost of corn plus the freight to Chicago. Other rules governing this contest are as follows: (a) Application for entry must be made between the first and fifteenth of August. (b) Cattle must be owned by exhibitor at the time application is made. (c) Cattle must not have been fed grain or other concentrated feeds between May 1 and the time application is made; they may, however, have been run in stalk fields. (d) Eighteen cattle may be fitted, but only fifteen of this number can be shown as one carload. (e) Cattle must be weighed, twelve hours in dry lot off feed and water, on day application is made, and a record must be kept of the weight of these animals. The cattle to be judged will again be weighed under similar conditions, at 10 A. M., Saturday, November 30. (f) Sworn statement by the owner and two other reputable persons that cattle had not been fed grain or other concentrated feeds between May 1 and the time application for entry is made, also covering the weight of animals on date of application, must be sent to the General Superintendent of the Exposition with said application. (g) A record of the kind, weight and cost of feeds consumed during the feeding period must be kept by the owner, who will deliver this information, together with the weight of the animals at time of entry, to the Superintendent of the Carload Cattle Division, on the opening day of the exposition. (Blanks for all of these purposes will be furnished on request to the general superintendent.)

It has been evident for some time that we cannot continue our extravagant methods of producing beef. During the days of cheap grain, roughage was considered by most breeders simply as a filler. We must learn to utilize the rough feeds to the fullest extent possible in the production of our market beef. This classification will lend encouragement to feeders who are attempting to work out economical methods of putting beef on the market.

Pork for $11 a Hundred

Luther Dawson, a Johnson County, Missouri farmer and stock raiser, conducted a feeding test on his farm last winter to determine the cost of pork production under farm conditions. He has a sow which farrowed a litter of ten pigs August 26, 1917. Six were males. Three of the females were selected for breeding. Mr. Dawson weighed the seven pigs January 15, 1918, and placed them in a closed pen. The seven pigs were fed for market.

The county agricultural agent and a man from the state experiment station visited Mr. Dawson's farm April 2 and weighed the pigs. According to Mr. Dawson's figures, the pigs had consumed 5,260 ears of No. 2 corn during the seventy-seven days in which they were on feed. The pigs received sixty ears of corn a day during the first thirty days, seventy a day during the next thirty, and eighty a day during the next seventeen days. The total amount of corn was estimated at 62.2 bushels. Tankage was supplied from a self-feeder, and the pigs consumed 160 pounds. In addition to the corn and tankage, they received four and a half pounds of shorts mixed with two gallons skim milk and water, each day.

The total amount of feed consumed, at market prices, was worth, according to Mr. Dawson's figures, $125.45. This amount was distributed among the different feeds as follows: 62.2 bushels No. 2 corn at $1.50 per bushel, $93.30; 160 pounds tankage at $100 per ton, $8; 350 pounds shorts at $2.50 a hundred, $8.75; 154 gallons skim milk at 10 cents a gallon, $15.40. The initial weight of the seven pigs was 510 pounds, and the final weight was 1,650. The total gain of the seven head was 1,140 pounds. The barrows made an average daily gain of 2.23 pounds, and the sow 1.43 pounds.

These figures indicate that Mr. Dawson, even at these high prices of feed, produced pork at a cost of $11 a hundred, under dry lot conditions. He sold the hogs April 3 for $16.75 a hundred and they weighed 1,640 pounds at Warrensburg that day.

To Control Scours in Calves

The practice of allowing calves to remain with their dams until large enough for weaning has been proved unprofitable where there is a market for milk or butter fat. Consequently most farmers who sell the product of their cows have adopted hand feeding for raising calves. The economy of this practice goes unchallenged, but there is constant danger of causing digestive troubles in the calf.

The digestive organs of the young calf are adjusted to receive warm milk direct from the udder in small quantities at short intervals. Of course, it is impractical to imitate such conditions when feeding by hand, but they should be duplicated as nearly as possible to avoid scours. Prevention, says M. H. Fohrman, of the Missouri College of Agriculture, is the best means of control. Overfeeding, irregular feeding, dirty pails, cold milk, sour milk, or old milk will cause trouble. These, however, can be avoided.

Constant vigilance is the price of healthy calves, and the feeder must always be on the lookout for indications of scouring. At the first indication of disease he should effect a quick cure, before the first condition becomes chronic. Where calves are fed from the pail, it is easy for the feeder to watch tails and hocks for indications of scouring. As soon as trouble is detected, the feed of the calf should be reduced at least half. Administer a dose of castor oil in warm milk by means of a small drenching bottle. This will tend to remove all irritating substances from the bowels. Feed should then be gradually restored to the normal amount, and formaldehyde solution should be added to the milk at the rate of one teaspoonful per pound of milk fed. This formaldehyde solution should be made up as follows: One part of formalin (40 per cent solution of formaldehyde) to thirty-one parts of water. If prompt improvement does not follow this treatment, repeat the dose of oil, and accompany it with another reduction in the quantity of feed.

The most critical periods in the life of the young calf are at the age of four to six weeks, when the feed is changed from whole to skim milk, and six to ten weeks, when the calf is beginning to eat grain and hay.

Calves are always greedy, and for this reason over-feeding should be avoided. This is true particularly when alfalfa hay is being fed, as it is extremely palatable, and the animal is apt to gorge itself beyond the capacity of its digestive ability.

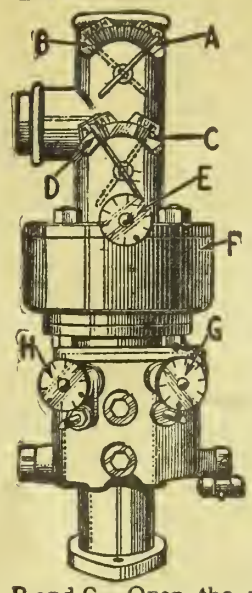
War Savings Day Proclamation

BECAUSE of the pressing need of men, materials, fuel and transportation facilities for the successful prosecution of the war, the Government has appealed to the people of the United States voluntarily to curtail their customary expenditures by denying themselves luxuries and unnecessary comforts, to the end that labor and materials may be released for war work. The civilian population who remain at home and follow the ordinary pursuits of life, must be willing to make sacrifices to support the brave men who have so willingly left their homes and offered their lives in the cause of Right and Freedom.

The President of the United States has designated June 28 as the day upon which we are to give a new token of our loyalty to the nation by pledging ourselves to the purchase of War Savings Stamps throughout this year.

Kansas is expected to pledge on that day purchases of stamps to the maturity value of $37,000,000. Knowing the earnest zeal with which the people of this state have entered upon the task before them, I have every confidence that we will not fall behind our sister states, but will subscribe more than our quota. To bring the matter more forcibly to public attention, I, Arthur Capper, do hereby proclaim Friday, June 28, as War Savings Day for the State of Kansas, upon which day all persons shall give their pledges for War Savings Stamps at such times and places and in such manner as may be appointed by P. W. Goehel, War Savings Director for this state, acting under the authority of the Secretary of the Treasury, and pursuant to the proclamation of the President of the United States.

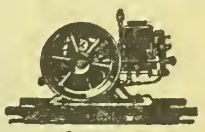
Turn Kerosene into Power



MOGUL kerosene engines will be bought for many thousands of farms this year because so many farm power users finally realize that lasting engine satisfaction comes only with perfect kerosene engine design, best materials, long manufacturing experience, and prompt, dependable repair service.

Take a few profitable minutes to glance over this diagram of the patented mixer which enables Mogul engines to operate successfully on kerosene, and *which can be found on no other engine.* To start engine, place the dampers as indicated by A and D. Open the gasoline valve, E, which will supply gasoline from the small bowl, F, used only for starting. After the engine is started, place the dampers in the positions indicated by B and C. Open the valve, G, and the engine will run on kerosene. When the engine is warmed up, supply a little water by opening valve, H, which is needed for the successful using of kerosene by large engines. (No water is used on the smaller size engines.)

The simplicity and effectiveness of this Mogul mixer are of tremendous importance because kerosene is the great economy engine fuel nowadays, cutting power cost in half. Kerosene economy, coupled with the known value of International Harvester machine construction, makes the Mogul the right power for all-around use on any farm. Send for our catalogue and study Mogul details, then see the Mogul engine dealer. Mogul engines are of all styles, ranging in size from 1 to 50-h. p. Write the address below for catalogue.



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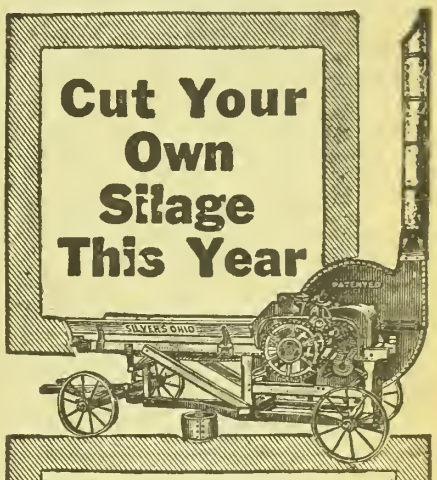

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THE SILVER MFG. CO., Box 352, SALEM, OHIO
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For Agricultural Purposes
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WICHITA KANSAS
65 CENTS FOR 3 YEARS
KANSAS' GREATEST FARM WEEKLY

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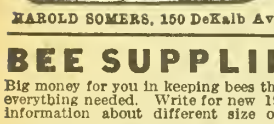

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FANCY WORK DEPT., KANSAS FARMER,
Topeka, Kansas.

"What is the matter with the world? Every person you meet has some solution. Will you let me have my guess? I believe the thing that is wrong is that the world became a neighborhood without also becoming a brotherhood. Our means of rapid transportation brought the whole world close together, and we immediately began building spiked fences." This is the opinion of Frank E. Brown of Chicago, prominent in the Men and Religion Movement and also in the work of the International Sunday School Association.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

If I knew you and you knew me—
If both of us could clearly see,
And with an inner sight divine
The meaning of your heart and mine,
I'm sure that we would differ less
And clasp our hands in friendliness;
Our thoughts would pleasantly agree
If I knew you and you knew me.

If I knew you and you knew me,
As each one knows his own self, we
Could look each other in the face
And see therein a truer grace.
Life has so many hidden woes,
So many thorns for every rose;
The "why" of things our hearts would see,
If I knew you and you knew me.
—Nixon Waterman in "In Merry Mood."

Daily Care for Clothing

Money, time and labor may all be saved if the clothing is carefully cared for each day.

The hole should be mended when it first appears. If left it grows larger, disfiguring the garment to a much greater extent and requiring more time for repair.

When hooks, eyes, snaps or buttons are not promptly replaced the garment is soon pinned out.

If all spots are removed and the garment carefully brushed and pressed before if is put away, it is always ready for wear.

This constant care not only lengthens the life of a garment, but keeps it looking well as long as it lasts.—CHARLOTTE E. CARPENTER, Colorado Agricultural College.

The Sewing Room

In planning the home the last room to be thought of, most often forgotten entirely, is the room in which sewing may be done. Seldom is a room which has the proper light and ventilation planned for this purpose.

If the sewing is to be done in the home, then the comfort of the seamstress should be considered. A great deal of time and energy may be saved if one room in the house is set aside where all the sewing equipment is kept, and may always be found when it is needed. If the house is not large enough to include this room, then a pleasant corner of a bedroom or hall should be used exclusively for this purpose. It is a great comfort to a woman to be able to drop her sewing at any time to entertain a caller, or to attend to other work in the house without feeling that all of her sewing must be put up each time she is called away. In selecting a room for sewing one must consider if there are plenty of windows for light and ventilation, if the room is pleasant in winter as well as in summer, if it is large enough to hold conveniently all the sewing equipment, and yet not too large, and if it is situated in a part of the house where the housewife may attend to other duties without taking extra steps, such as answering the telephone, door bell, or caring for children.

A well-made garment requires well-selected and substantial sewing equipment. The equipment necessary in constructing the family wardrobe includes: Sewing machine with attachments, cutting table, skirt gauge, ironing board, iron, one yard of pressing canvas, small bowl for water, yard stick, sewing box or basket for small equipment such as shears, small scissors, emery, tracing wheel, stiletto, thimble, tapeline, needles, sewing thread, basting thread, pin cushion and pins.

Very desirable articles which may be added to the foregoing list are: Dress form, wardrobe for unfinished garments, roll of wrapping paper for patterns, leveling table, ripping knife—a safety razor blade is one of the best—and a mirror. —University of Missouri Bulletin.

Are Your Children Well Fed?

The weighing and measuring test of children under school age, now going forward in connection with Children's Year, will afford American mothers a splendid opportunity to take part in the campaign to save 100,000 lives. When a child is found to be notably below the average in his development it may mean in many cases that he is not sufficiently nourished, either from actual lack of food, or because his food is badly chosen, or because he has been allowed to fall into bad eating habits.

A recent report by Dr. Josephine Baker, chief of the Division of Hygiene, City of New York, says that 90,000 school children in that city are distinctly undernourished, 30,000 more are in need of medical attention, while still thousands more are in such a state of health that they will easily slip over into undernourishment if present conditions continue. It is impossible to do much to correct in adults the results of malnutrition in childhood, but there are about ten million children under five years of age in American homes today who can be prevented from making such a showing as they shall come on to maturity. These undernourished school children began, in many cases, by being undernourished in the years while they were yet at home, when the results might perhaps have been prevented if the mother had understood what was taking place.

Children must have plenty to eat. Adults can get along for some time, if necessary, on noticeably restricted diets without serious impairment of health, but children can not draw on their reserves in this way without detriment to their growth and vigor. Children from two to six years should have three good meals a day, the heaviest one being in the middle of the day. Their day's food should include plenty of milk, not less than one and one-half pints—skim milk may be used if butter is given also—plenty of cereals and green vegetables, particularly leaf vegetables, such as spinach. It is desirable also to have a more varied diet and to include sugar, fruits, eggs, and meats, with fish and fowl, in the daily meals. Information regarding these matters will be furnished to mothers if they will write to the Children's Bureau, U. S. Department of Labor, Washington, D. C.

Where the conditions are such that children are suffering from actual lack of food, the community must deal with the problem and apply to it such solution as may best fit local conditions.—MRS. MAX WEST.

Points in Cooking Vegetables

You can't afford to miss using all kinds of vegetables. They mean vigor and health for you. Use what you can while they are fresh and at their best, and if you have more than you can use now, can, dry, or preserve them in other ways for winter use.

Remember the many good things vegetables can do for your body. They help keep your blood as it ought to be, and your whole body in good condition. Vegetables are better than medicine to prevent the common evil of constipation.

And, besides all these, think how appetizing they are—crisp lettuce, sweet, juicy beets, tender peas, celery, beans, and corn—all sorts of flavors and textures to lend variety to your meals.

Vegetables just out of the garden taste best when simply cooked—steamed, boiled or baked—and served with a little salt, butter, milk or cream. Often a heavily-seasoned sauce covers up the more desirable vegetable flavor.

Overcooking of vegetables impairs their flavor. Very delicate flavors are destroyed, while vegetables with strong flavors, such as cabbage or onions, become disagreeably strong if cooked too long. Overcooking also destroys the attractive color of some vegetables.

Cook summer vegetables as soon after they are gathered as you can, in order to preserve the flavor. If they must be kept over, keep in the ice box or some other cool place.

Let wilted vegetables soak in cold water to freshen them. If vegetables must stand after paring, covering with cold water will prevent wilting and discoloration.

Before cooking, put head vegetables and greens in cold water for an hour,

FASHION DEPARTMENT

All patterns, 10 cents.



No. 8801—Ladies' Waist: Cut in sizes 36, 38, 40 and 42 inches bust measure. The fronts are gathered at the shoulders to the back, which extend over in yoke effect. The long sleeves are so cleverly cut that the tight sections at the wrists may be rolled back to form cuffs. **No. 8798—Girls' Long-Waisted Dress:** Cut in sizes 6, 8, 10, 12 and 14 years. The dress is slightly long-waisted, and it has a long, graceful surplice closing which extends over to the left side. The skirt is all in one piece and is gathered all around to the wide belt. **No. 8803—Ladies' Dress:** Cut in sizes 36, 38, 40 and 42 inches bust measure. The dress is to be slipped on over the head and is open under the arms to the waist line. A narrow belt holds the dress in panel effect at each side of the front.



No. 8702—Ladies' Waist: Cut in sizes 36, 38, 40 and 42 inches bust measure. This conservative model is of the sort which seems to fit in anywhere. The simple waist has a graceful shawl collar and square vest of contrasting color and material. The skirt has two gores, and it is gathered slightly all around. **No. 8722—Girls' Dress:** Cut in sizes 6, 8, 10 12 and 14 years. This little dress has all the earmarks of a sailor dress. The blouse slips over the head in middy style, and it has a band around the lower edge with buttons at intervals. The skirt is in one piece, and it is so plaited that the front forms a wide box plait or panel. **No. 8693—Ladies' Dress:** Cut in sizes 36, 38, 40 and 42 inches bust measure. The overblouse style of dress is to be worn a great deal for the coming season. The overblouse is separate and it adds a very smart touch to the dress. The foundation of the dress is very simple, for it consists of a plain waist buttoning at center front, with a two-gored skirt gathered to it.

with one tablespoonful of vinegar, to remove insects, then wash very carefully.

Drain all boiled vegetables as soon as tender—they become soggy if they are allowed to stand undrained after cooking. The water drained off may be saved for soup stock.

Most vegetables should be cooked in a small amount of water, because a part of the mineral salts dissolves out into the water, and is lost if the water is thrown away. Cook whole when possible.

Tender spinach or lettuce leaves require no added water for cooking. If thoroughly washed, enough water will cling to the leaves to prevent their burning.

Delicately-flavored vegetables should be steamed or cooked slowly in a small amount of boiling water until tender and the water boils away.

Strong-flavored vegetables may be cooked uncovered in a large amount of rapidly-boiling water, and the water changed several times during cooking.

Starchy vegetables should be put on to cook in sufficiently large amount of boiling water to cover them. Boil gently and keep kettle covered.

The time required for cooking vegetables depends on the kind, size, and age of the vegetable. You must use your judgment in deciding when they are done, but this time-table for cooking green vegetables in water may help you:

Asparagus	15-20 minutes
Beans, Lima (green)	¾- 1 hour
Beans, string	1- 3 hours
Beets, old	3- 4 hours
Beets, young	¾- 1 hour
Cabbage	20-30 minutes
Carrots	30-60 minutes
Cauliflower	20-30 minutes
Corn, green	10-15 minutes
Onions	20-30 minutes
Parsnips	30-45 minutes
Peas, green	20-30 minutes
Potatoes	30-40 minutes
Spinach	15-30 minutes
Squash	20-30 minutes
Turnips	30-45 minutes

—U. S. Food Leaflet.

Wheat Not Essential to Health

"Wheat has no superiority over other cereals excepting for yeast bread." This is the answer of the dietitians of the home economics department of the University of Wisconsin to the persons who would excuse their use of wheat flour on the plea of its being necessary in feeding children.

"There is no reason why other cereals cannot be used in place of wheat for children," says Miss Amy L. Daniels, who is a leader in child welfare. "Corn flour made into porridge for young children is quite as good as cream of wheat. Strained rolled oats is equally good. There is probably not more than one person in a thousand who cannot use the substitute flours because of danger to health.

"Wheat is necessary in yeast breads, not because of any superior nutritive value but because the gluten in wheat enables the bread to rise properly and the loaf is therefore better in texture and quality."

A Guide in Baking

A few weeks ago we published a list giving the equivalents of a cupful of wheat flour in some other cereals. The Office of Home Economics of the United States Department of Agriculture and the experimental kitchen of the United States Food Administration report the following more complete list of weights and measures which have been tested in their laboratories.

In substituting for one cupful of flour use the following measurements, each of which is equal in weight to a cupful of flour:

Barley, 1⅜ cupfuls.
Buckwheat, ⅞ cupful.
Corn flour, 1 cupful (scant).
Corn meal (coarse), ⅞ cupful.
Corn meal (fine), 1 cupful (scant).
Cornstarch, ¾ cupful.
Peanut flour, 1 cupful (scant).
Potato flour, ¾ cupful.
Rice flour, ⅞ cupful.
Rolled oats, 1½ cupfuls.
Rolled oats (ground in meat chopper), 1⅛ cupfuls.
Soy-bean flour, ⅞ cupful.
Sweet potato flour, 1⅛ cupfuls.

This table will help you to make good griddle cakes, muffins, cakes, cookies, drop biscuits, and nut or raisin bread, without using any wheat flour. You will not need new recipes. Just use the ones your family has always liked, but for each cupful of flour use the amount of substitute given in the table. You can change your muffin recipe like this:

Old Recipe

2 cupfuls wheat flour
4 teaspoonfuls baking powder
¼ teaspoonful salt
1 tablespoonful sugar
1 cupful milk
1 egg
1 tablespoonful fat

New Recipe

1⅜ cupfuls barley flour
1 cupful (scant) corn flour
4 teaspoonfuls baking powder
¼ teaspoonful salt
1 tablespoonful sugar
1 cupful milk
1 egg
1 tablespoonful fat.

The only difference is the substitution for the wheat flour. Everything else remains the same. You can change all of your recipes in a similar way.

Good Combinations

You will get better results if you mix two substitutes than if you use just one alone. Some good combinations are:

Rolled oats, ground or Barley flour or Buckwheat flour or Peanut flour or Soy-bean flour	and	Corn flour or Rice flour or Potato flour or Sweet potato flour or Corn meal

Cautions

All measurements should be accurate. A standard measuring cup is equal to a half pint.

The batter often looks too thick, and sometimes too thin, but you will find that if you have measured according to the table the result will be good after baking.

Bake all substitute mixtures more slowly and longer.

Drop biscuits are better than the rolled biscuits when substitutes are used.

Pie crusts often do not roll well and have to be patted onto the pan. They do not need chilling before baking.

Bavarian Creams

Bavarian creams are prepared from sweetened fruit, gelatin, and whipped cream. If desired, part of the cream may be omitted and the whites of eggs used instead. Any kind of fruit may be used. If the fruit is fresh, it should be crushed, strained, and sweetened. The gelatin is soaked in cold water before using. It is then dissolved in the hot fruit juice. When this is cold and slightly thickened, fold in the whipped cream, pour into a mold, and chill. A Bavarian cream is a wholesome and delicious dessert, as well as an inexpensive one. One pint of cream will make a quart and a half of Bavarian.

Rice and Pea Timbales

Place one tablespoonful of seasoned, cooked peas in the bottom of individual greased molds. Fill the molds with cooked hominy or rice. Set them in a pan of hot water, and bake them for twenty minutes. Turn the timbales from the molds, and serve them with the following

Yellow Sauce

1 tablespoonful butter
1 tablespoonful cornstarch
1 cupful milk
1 egg yolk
Minced parsley or green pepper
Paprika

Melt the butter, remove the pan from the heat, and add the cornstarch. Stir the mixture until it is well blended. Add the milk and cook the sauce until it is thickened, stirring it constantly. Then add the beaten egg yolk gradually and the seasonings, and cook for about two minutes, or until the egg is thickened. Serve at once.

W. S. S. means War Savings Stamps. It also means We Should Save. Buy W. S. S. for $4.17 in June and you will have $5 in January, 1923—4 per cent compound interest. Not only good investment but a proof of loyalty.

BOUDOIR NEGLIGEES



A book of thirty-four dainty crocheted and tatted boudoir patterns, by Adeline Cordet. When ordering be sure to ask for Book No. 3. Price, postpaid, 10 cents. Address Fancy Work Dept., Kansas Farmer, Topeka, Kansas.

Roses in Your Home

ALL YEAR

Beautiful climbing roses of brilliant colors, fragrant roses of upright growth, and trailing roses with delicate tints; all yielding most delicious perfume. Our New Collection of Native American and Japanese Roses is

GROWN FROM SEED



The seed germinates quickly, and the plants make rapid growth, bearing hundreds of beautiful roses. If grown in the house they will bloom all the year around. They can be grown outdoors during the summer, and if taken inside for the winter will continue to bloom. Nothing is prettier than the fragrant flowers and "berries" of these Native Roses.

You Can Have This Beautiful Window-Box of Roses in Your Home

We will send you a big packet of the seed of our new Rose Collection, together with full instructions for planting and for making a window box, as shown in the picture. If you take advantage *now* of our liberal offer, and plant the big packet of Native American and Japanese Rose Seeds, you will have hundreds of beautiful roses blooming in your home the year around. They require very little attention, except for an occasional watering.

Plant NOW! Roses in 8 Weeks!



Just do us the favor of sending us one NEW TRIAL subscription to KANSAS FARMER for three months at 25 cents, and we will send you the big packet of Rose Seed FREE and postpaid, with full instructions for planting. Send today to

KANSAS FARMER,
Topeka, Kansas

Gentlemen: Send me FREE and postpaid, your big packet of Native American and Japanese Rose Seeds, with instructions for planting and for making the Window Box.

Name.....R. F. D.....

Town..... State.....

I enclose 25 cents, for which you will please send KANSAS FARMER three months to the following address:

Name.....R. F. D.....

Town..... State.....

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks, for bona fide seekers of employment on farms.**

HELP WANTED.

WANTED, IMMEDIATELY: FARMERS, men-women. Thousands government war jobs open. $100 month. Write for list. Franklin Institute, Dept. R-82, Rochester, New York.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

TWENTY-FIVE TWO-YEAR-OLD HIGH-grade Holstein springers. A few Holstein heifer calves, four to six weeks old, $22.50 each. Oakwood Farm, Whitewater, Wis.

FOR SALE—VERY CHOICE HOLSTEIN and Guernsey calves, either sex, six weeks old, 95 per cent pure-bred, at $25 each, delivered. Lewis Dutcher, Peary View Farm, Janesville, Wis.

HIGH GRADE HOLSTEIN CALVES, either sex, well marked, from heavy producers; four to six weeks old; fifteen-sixteenths pure; $25 each, crated and shipped to your station. Express and all charges paid here. Highland View Place, Whitewater, Wis.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

REAL ESTATE.

SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price $10 to $15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address E. T. Cartlidge, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kan.

FARMS WANTED.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 56th St., Chippewa Falls, Wisconsin.

THRESHING MACHINES.

FOR SALE — COMPLETE THRESHING outfit, $1,750. Consists of a 40-80 gas tractor and a 34-56 Buffalo-Pitts steel frame separator. All in good condition and ready to go to work. Outfit has run about fifty days and is a bargain. Come and see for yourself. Come to St. Marys or Paxico, Kansas, and see Carl Miller, Belvue, Kan.

USED CAR BARGAIN.

FOR SALE—MODEL 35 JACKSON FIVE-passenger touring car. Not latest model but has had good care and is in good condition. Good top, tires nearly new, Presto lights, jack, pump and other tools go with car. Is good for several years' service. Cost $1,300 when new. Price, $300 cash. Owner, 625 Jackson St., Topeka, Kan.

TREES, SEEDS AND PLANTS.

FOR SALE—BLACK AMBER CANE SEED 4c pound. Handwerk Bros., Oberlin, Kan.

ONE HUNDRED FIFTY BUSHELS GOOD recleaned alfalfa seed for sale, $9 per bushel if a quantity is taken. V. O. Johnson, Aulne, Kansas.

DOGS.

COLLIE PUPS—U. A. GORE, SEWARD, Kansas.

ESKIMO DOGS FOR SALE. RUNNER ducks wanted. Emma Ahlstedt, Lindsborg, Kansas.

AIREDALES, COLLIES AND OLD ENGLISH Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

THE STRAY LIST.

TAKEN UP—BY D. FISHER, OF WILmore, Powell Township, Comanche County, Kansas, on the 21st day of May, 1918, one yearling steer, black with white face, crop off left ear. Appraised at $40. Ray B. Bachman, County Clerk, Coldwater, Kansas.

PATENTS.

PATENTS PROCURED, BOUGHT AND sold. International Patent Co., Brandeis, Omaha.

A. J. Erhart & Son, of Ness City, Kansas, will be among the leading Poland China exhibitors at the leading fairs this fall. They have been among the leading show men at the state fairs for several years and have always gone home with a good share of the first premiums.

PLYMOUTH ROCKS.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swalm, Geuda Springs, Kansas.

WYANDOTTES.

WHITE WYANDOTTE EGGS AT $1.50, fifteen; $3.25, fifty; $6 hundred. Winning, laying strain, fertility and satisfaction guaranteed. Andrew Kosar, Delphos, Kansas.

RHODE ISLAND REDS.

SEVEN GRAND PENS ROSE COMB REDS headed by roosters costing $15 to $50. Fifteen eggs, $3; thirty eggs, $5; fifty eggs, $8. Special utility eggs, $7.50 per hundred. Baby chicks. Catalog. W. R. Huston, Americus, Kansas.

LANGSHANS.

BLACK LANGSHAN EGGS, 7c EACH; over 100, 6c. Mrs. Geo. W. King, Solomon, Kansas.

POULTRY WANTED.

SHIP BROILERS, HENS, ROOSTERS, when ready. Coops loaned free. Paying prices published in Daily Capital. The Copes, Topeka.

FARM AND HERD.

F. C. Kingsley, of Auburn, Kansas, reports the sale of two very fine roan Shorthorn heifers to C. M. Hutchison, Wakeeney, Kansas. Mr. Kingsley owns one of the choico herds of pure-bred Shorthorn cattle in this state. His herd was founded twenty-six years ago with the best individuals and blood lines to be had at that time. Only high class sires of popular blood lines have been used since its foundation. This year he has twenty-two head of choice spring calves. He has sixty-five head in his herd at this time and he has found pure-bred Shorthorns and alfalfa a very profitable combination on his farm.

W. C. Kenyon & Sons, of Elgin, Illinois, owners of one of the largest and heaviest producing herds of pure-bred and high-grade Holsteins in that state, report their herd making a splendid record again this year. Their herd has been bred and built up for production. All sires used in this herd have been backed by the breed's best records and many of the heavy producing herds in this country were started with foundation stock from this famous herd.

We have just received Volume 55 of the National Duroc Jersey Record. Volume 55 is now ready for distribution and contains the pedigrees of males from No. 227501 to 235999 and the pedigrees of females from No. 672000 to 591998, and other information of value to Duroc breeders.

D. Ballantyne & Son, of Herington, Kansas, are the owners of the famous Abbottsford herd of Shorthorn cattle. This firm has produced some valuable cattle that have gone out for foundation stock. They have sold cattle to found herds in most all the eastern states and along the Pacific Coast. The herd now numbers sixty-five head of breeding cows and heifers. Each year it has been their plan to sell twenty-five to thirty head of select cows and heifers for breeding stock. Their cattle are developed along lines that insure good breeding stock. The herd is not pampered.

E. S. Engle & Son, of Abilene, Kansas, owners of Sand Springs Farm and one of the famous herds of Holstein cattle in Kansas, report their herd making a great record again this year. Their herd is bred for production and their records demonstrate that it pays to build a herd with strictly record breeding. They have cows in the full aged class with year records of 19,810 pounds milk and 670 pounds butter. In the four-year-old class they have cows with thirty-day records of 2,040 pounds milk and 101½ pounds butter. In the two-year-old class they have heifers with one year records of 11,000 pounds milk and 450 pounds butter. This firm also owns one of the good herds of pure-bred Poland China hogs in Kansas. They have the best blood lines of the breed and this year they have raised a very fine lot of spring pigs that are growing out fine.

F. C. Kingsley, of Augusta, Kansas, reports the sale of two very fine roan Shorthorn heifers to C. M. Hutchison, Wakeeney, Kansas. Mr. Kingsley owns one of the choice herds of pure-bred Shorthorn cattle in this state. His herd was founded twenty-six years ago with the best individuals and blood lines to be had at that time. Only high class sires of popular blood lines have been used since its foundation. This year he has twenty-two head of choice spring calves. He has sixty-five head in his herd at this time and he has found pure-bred Shorthorns and alfalfa a very profitable combination on his farm.

George Morton, Oxford, Kansas, has one of the good herds of big Poland China hogs in Southeast Kansas. At the head of this herd is Gerstdale Jumbo by Gerstdale Jones. His dam was one of the good sows, Mouw's Giant Lady, a sow that sold for $500. Gerstdale Jumbo is assisted by Morton's Giant by Disher's Giant out of the big sow, Lady Lunker. Mr. Morton has raised seventy spring pigs and they are a well grown out lot of March pigs. He is a splendid feeder and knows how to handle hogs. A feature of the herd at this time is the splendid lot of young boars that are prospects for herd headers.



Summer Care of Poultry

THE farm poultry grower who gets his or her flock through the last of the summer months in good condition for the winter's work is fortunate because of being in position to share largely in the good prices and consequent profits which the fall and winter season bring. July and August may be said to be the most exacting of all the summer months for the poultry raiser. These months usually bring excessive heat, and unless proper precautions are taken the chickens suffer severe drains upon their vitality, resulting either in death or in stunted growth.

Many poultrymen make the mistake of believing that because the chickens have gone through the spring and early summer seasons in good shape they need little attention now, when the fact is they require more constant care than before. Excessive hot weather is just as bad in its way on chicks as excessive cold weather. They require comfort in both seasons, and in order to be comfortable during hot weather they must have plenty of shade, fresh water, and dusting material. If your yards or runs are lacking in these essentials, they should be supplied immediately, especially for the young chickens. The latter are in particular need of abundance of shade, for the hot sun seems to melt the vitality right out of them and they become listless and droopy.

On most farms at this season the early-hatched chicks are running at large and they can generally be found during the hot part of the day seeking shade among the weeds and bushes and along the fence rows. They are well-feathered, well-fed, contented and growing nicely, but their younger brothers and sisters, the late-hatched chicks, are kept in coops in the yard, perhaps in the hot sun, with nothing but a few boards to shield them from its fierce rays. They become sunburned as a result, and there are no feathers to take the place of the down as it wears off, leaving the chicks naked and scrawny, half formed and robbed of their vitality. Put the chicks in the shade and provide plenty of fresh water if you want them to grow and feather nicely and be ornaments to the flock.

The old stock requires the same sort of care if they are to be gotten out of the molting period in good condition, prepared to do their full share toward keeping the fall and winter egg basket well filled.

Give Chickens Plenty of Room

It is now time the chickens that were hatched in April should be taken from the brooder houses and given free range, if one is situated so he can do this. If not, place them in larger runs. A corn field or an open hay field where the crop has been harvested is fine for them.

After taking the chicks from the brooders one should aim to keep them growing well throughout the summer.

Because one thinks that they are nearly raised is no reason why the interest should weaken. They still need faithful attention. By avoiding any setbacks, due to improper feeding or care, they will mature more readily and uniformly. After giving them their freedom, be careful to see that they all find their proper places at night, and are protected from rats and other enemies. There still should be regular hours for feeding, and if you have been giving them a dry mash, be sure to see that it is still there. A feed of wheat or cracked corn should be given morning and evening. Do not forget the good clean water in a clean dish. Give them the skimmed milk if it can be spared. With free range they are getting plenty of green stuff. If the pullets have been well taken care of, they should begin laying in October or the first of November.

Remember these pullets are the machines for making next year's eggs. If the machine represents something near perfection one can expect it to be of more service.

Cull the flock closely and all that are not to be kept for breeding purposes should be fattened for the market, as the price is better now than later on. Now is the time the sexes should be separated. Both pullets and cockerels will grow better as a result of the separation. The cockerels are not so apt to fight if removed from the pullets at an early age.

Sodium Fluoride for Lice

Sodium fluoride is a new remedy for chicken lice, first recommended by the U. S. Department of Agriculture. Lice live on the bodies of the chickens. The remedy should be placed under the wings and about the vent, and must be well worked into the feathers. It is effective in getting rid of the lice, but if a dust bath accessible at all times is furnished the chickens, the lice may be almost entirely prevented.

Mites cannot be treated in this way. The mite does not live on the body of the fowl. It is a bloodsucker that goes on the body only to feed but lives in the cracks and crevices of the perches at other times. To kill mites, spray the nests and roosts with kerosene to which has been added enough crude carbolic acid to give a strong odor. If the house is so large as to make this method too expensive, a 3 per cent solution of some coal tar stock dip may be used.

One spraying is not sufficient because it does not affect the eggs of the mite which have been deposited in the crevices. A second spray, eight or ten days later if the weather is cool or five or six days later if hot, is needed to kill the mites that have hatched since the first application.

How To Treat Gapes

Gapes in chickens is caused by worms in the windpipe. The chickens pick up the larvæ of the parasites in the damp earth, and the parasites attach themselves in the windpipe of the chicken, where they first cause irritation and, upon growing, obstruct the passage of air. L. S. Backus, of the Missouri College of Agriculture, recommends that affected chickens be placed in a pen or room which has been freely sprinkled with slaked lime. A few drops of turpentine added to the ration may be beneficial in controlling the disease. A feather may be dipped in turpentine and passed down the chicken's windpipe in an effort to dislodge the worms. The worms are sometimes removed with a twisted horsehair or a specially prepared instrument.

Prevention is the best means of control. Lime the soil where gapes-infected chickens have run. Confine the chickens so that they cannot run under outbuildings, and in shady or damp places. A chicken in which the symptoms are very severe should be killed and burned. Confine unaffected chickens in a yard which is freely sprinkled with a liberal amount of freshly-slaked lime.

Sell Unprofitable Stock

Every chicken should be looked upon as a living machine for transforming food into meat or eggs. Unless we have a good machine we cannot get good results from the food. In the case of many flocks of chickens, a division may be made into three groups: chickens that are growing or laying, chickens that are not growing or laying, and chickens that are losing weight and not laying.

All three of these groups are eating valuable food, and if we keep all of them together they will probably eat more than they earn. If we dispose of the third group the others may pay expenses. If we remove the second and third groups, the first group alone should pay a good profit. We shall have one-third as much work to do in caring for those that remain, and the chickens will have two-thirds more room. Moreover, the flock of good chickens by themselves will look far more attractive, will grow better, lay better, and will be less likely to suffer from disease than they would be if kept with the others.—JAMES E. RICE, New York Agricultural College.

Don't wait to be urged to join the W. S. S. army. What if our men in the trenches waited to be urged?

Complete
Battle Front Map

ALSO MAPS OF KANSAS, THE UNITED STATES, AND THE WORLD

We have just received several hundred three-sheet maps, printed in colors. The first sheet shows France, Belgium and Germany and the western battle front as it is today. It shows just what territory has been taken by the Germans during the present drive. The rivers, railroads, and even the smallest towns are shown. All indexed. Without a doubt it is the best War Map published.

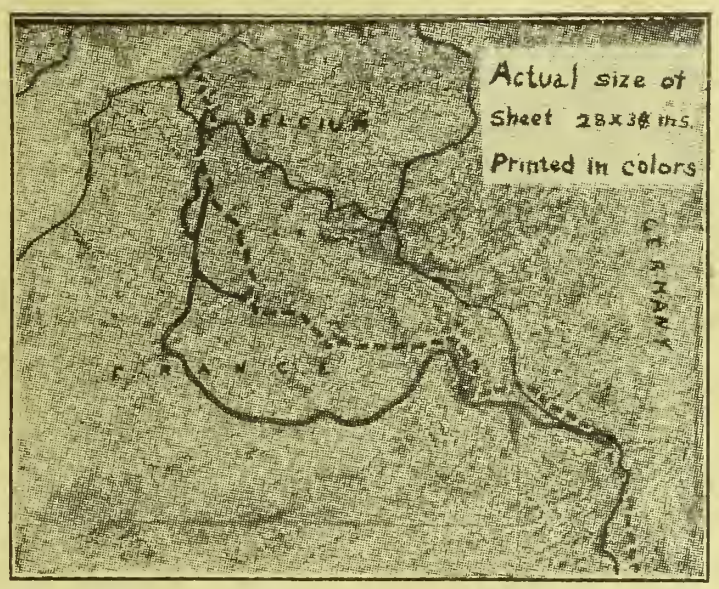
THE KANSAS MAP

The second sheet contains a large map of Kansas, showing all roads, railroads and towns, with complete census figures.

THE UNITED STATES AND THE WORLD

The third page shows the United States and the World. War pictures and an immense amount of valuable statistics are also contained in this three-page chart.

Three Large Pages of Maps and General Information



These Maps Are Provided with Metal Tops and Hangers

This miniature of the War Map is too small to show the names of towns. The map you will receive shows plainly the names of all towns and even the smallest villages.

GREATEST OFFER EVER MADE

We want every one of our subscribers to have one of the maps. They are of the greatest present-day interest as well as of immense historic value. KANSAS FARMER subscribers may have the maps FREE. Just pay your subscription to KANSAS FARMER for one year and we will send you yours, postage prepaid and without one cent extra charge. Use the coupon below.

IF YOUR SUBSCRIPTION IS PAID, READ THIS

Most of our subscribers have already paid their subscriptions in advance, but we want you to have a map too. We also want new subscribers to KANSAS FARMER. Perhaps you have a neighbor who is not a subscriber. You will do him a favor by getting him to subscribe. And for doing him that favor we will send you one of the maps absolutely FREE and postpaid. Read the offer as follows:

SPECIAL OFFER

Send us one new trial subscription to KANSAS FARMER for six months at 50 cents and we will send you the three-page map FREE and postpaid. Use the following Coupon:

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If your neighbor wants a map, get his subscription for one year and we will send each of you one of the fine three-page maps

YOU CAN TELL JUST WHERE THE BOYS ARE FIGHTING ON THIS ELEGANT MAP

HOLSTEIN CATTLE.

CLYDE GIROD, At the Farm — F. W. ROBISON, Cashier Towanda State Bank

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd

IT WILL PAY YOU TO SEE OUR OFFERING

of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.

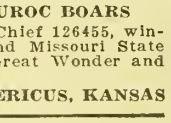
GIROD & ROBISON - - - - TOWANDA, KANSAS

HOLSTEIN CATTLE.

Sand Springs Farm

HIGH PRODUCING REGISTERED HOLSTEINS

Note Official Records Made on Our Farm



Full aged class, 19,810 pounds milk, 670 pounds butter in twelve months; four-year-old class, 2,040 pounds milk, 101½ pounds butter in thirty days; two-year-old class, 11,000 pounds milk, 450 pounds butter in twelve months. Visitors welcome and correspondence solicited.

E. S. ENGLE & SON - - - - ABILENE, KANSAS

HOLSTEIN COWS FOR SALE

NINETY HEAD REGISTERED AND HIGH GRADE:

Forty two-year-old heifers bred to freshen May and June. Ten yearlings. Forty cows three to six years old. Priced to sell. Farm adjoins town. Come and see me.

C. A. BROCK - - - NORTONVILLE, KANSAS

HOLSTEIN CATTLE

I am offering for sale from my registered herd, four cows from four to six years old; two heifers, two years old, extra good; four yearling heifers and four high-grade cows; four registered bulls of serviceable age. Write or come and see my herd.

J. W. MEYER, NORTONVILLE, KANSAS.

MAURER'S HOLSTEIN FARM

Offers special attractions in pure-bred females of all ages with high class breeding, and a number of choicely bred yearling bulls; also grade cows and heifers with size and quality. Don't fail to see this herd before you buy, as they are all bred RIGHT and priced RIGHT.

T. R. MAURER & CO - - - - EMPORIA, KANSAS

$25 Holsteins $25

The Best That You Can Buy

Five weeks old, 15-16ths pure. When you buy from Roberts you get value received. Cows also $150 crated. Write or call

Dr. J. A. Roberts Stock Farms

Oconomowoc, Wisconsin

CHOICE HOLSTEIN CALVES

Twelve heifers and three bulls, 15-16ths pure; five to seven weeks old, beautifully marked and from heavy milkers, at $20 each, crated.

FERNWOOD FARM, WAUWATOSA, WIS.

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

HOLSTEIN COWS

35 Young Cows, some fresh, some springers. Also good fall cows from heavy producing dams. All bred to registered bull.

W. P. PERDUE - CARLTON, KANSAS

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

REGISTERED HOLSTEIN BULLS

For Sale—Several young bulls by Pontiac Beauty De Kol Segis, a grandson of King of the Pontiacs and King Segis. These bulls are out of high-testing yearly record cows. We breed for yearly production. Come and see my herd. H. D. Burger, Seneca, Kansas.

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON, KANSAS

REGIER'S HOSTEIN-FRIESIANS

For Sale—Young bulls, bred heifers and cows. All sired by the great bull, Sir Rag Apple Korndyke De Kol. Two cows will be fresh this month. Fourteen-thousand-pound milkers.

G. REGIER & SONS, Whitewater, Kansas.

Holstein Calves

We offer for sale choice beautifully marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated, f. o. b. cars: One to two weeks old, $17 each; three to five weeks old, $20 each; six to eight weeks old, $25 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.

H. B. COWLES, 608 Kan. Av., Topeka, Kan.

REGISTERED HOLSTEIN BULLS

I have a few choice young bulls from my best record cows. They are splendid prospects for herd bulls and priced to sell.

BEN SCHNEIDER, NORTONVILLE, KAN.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

MULEFOOT HOGS.

KNOX KNOLL MULEFOOTS

Still have a few choice pigs from big litters. For prices and catalog address

S. M. KNOX - HUMBOLDT, KANSAS

SHORTHORN CATTLE.

Abbotsford Shorthorns

For Sale—Twenty-five cows and heifers, several with spring calves at foot; others bred to ROAN MODEL; also seven young bulls eight to eleven months old. All priced to sell. Come and see our herd.

D. BALLANTYNE & SON, Herington, Kan.

DUROC JERSEYS.

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. W. J. Harrison, Axtell, Kan.

TWO BIG SALES

Fifty Duroc Jersey Bred Sows and Gilts, September 4. Entire herd of Red Polled Cattle September 5. Catalog ready July 15. Write early.

W. T. McBRIDE - PARKER, KANSAS

Wreath's Durocs

SPRING PIGS

Priced in pairs or trios. Come and see my herd.

L. G. WREATH, MANHATTAN, KANSAS

CHOICE IMMUNED DUROC BOARS

Sired by Taylor's Model Chief 126455, winner at American Royal and Missouri State Fair. Also gilts bred to Great Wonder and Pathfinder boars.

W. R. HUSTON - AMERICUS, KANSAS

WOODDELL'S DUROCS

Herd boar, Chief's Wonder, 75 spring pigs, priced for shipment at weaning time. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

ADAMS FARM DUROCS

March pigs of Crimson King, Tatarrax and Ohio Col. breeding. Immune. See our Guernsey ad next week. ADAMS FARM, Gashland, Mo. Twelve miles from K. C.

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on boars and bred gilts from Crimson Wonder, Golden Model, Illustrator, and Defender breeding. JOHN A. REED & SONS, Lyons, Kansas.

Breeders' Directory

ANGUS CATTLE.
D. J. White, Clements, Kan.
George McAdam, Holton, Kansas.

RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.

DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.

Hereford Cattle.
F. S. Jackson, Topeka, Kan.



Neighborhood Beef Clubs

WE WOULD again remind our readers of the advantages of the neighborhood beef club. It is difficult to have fresh meat on the farm during the summer season other than poultry, and where sheep are kept possibly a lamb. A neighborhood beef club will make it possible to have fresh beef and relieve the monotony of eating only cured meats and poultry. The number of members in a beef club is usually sixteen. With a membership of sixteen, the beef carcass can be divided into sixteen cuts, eight to the side. Each member of the club furnishes a beef animal during the season. They are usually slaughtered at the farm of some member who has had some experience in butchering beef animals. When the carcass has been properly divided into the several club cuts each member is allotted his share.

When the first animal has been consumed the second member furnishes an animal and the process of distribution is repeated, the cuts being rotated so that by the end of the season, or sixteen weeks, each member in a club of this size has received every cut of beef. When a member furnishes his animal to the club he is credited with its dressed weight of beef. When he is allotted his cut from a carcass he is charged with the amount. A nominal price for beef must be agreed upon when the club is organized. If a member receives during the season more pounds of beef than the weight of the carcass he furnished, he owes the club for the extra amount at the price previously agreed upon. The money coming to the club in this way is used to reimburse members who did not receive as much meat as they furnished. As a rule the animals furnished will be very nearly of the same size and very little money will change hands.

There should be some agreement as to the method of determining whether an animal is suitable for use. This might be left to the member of the club who has had the butchering experience and is thus able to judge of the value of an animal. It might be placed in the hands of a committee with authority to reject any animal of inferior quality or which might turn out to be diseased in some way. If the club has been carefully organized, only two meetings are necessary outside those incident to getting the cuts of beef at butchering time. These are a meeting at the beginning and one at the end of the season.

What Farm Accounts Show

What does one hour of man labor or one hour of horse labor cost the farmer? What is the increase on his total investment for the year? What does it cost to produce one ton of hay, or a bushel of oats, a bushel of corn, a pound of pork? Which is more profitable, producing feeders or buying them? How many farmers can answer there questions directly, and give figures which approximate exactness?

Farm accounts will give accurate answers to these questions. The following summary made by W. P. Hockenberry, former short course student in the Missouri College of Agriculture, of records kept on his father's farm, near Bunceton, shows the value of farm accounts:

"Cost of one hour man labor, including board, etc., 12.74 cents.

"Cost of one hour of horse labor, not including interest, about 12 cents.

"Increase on total investment for one year, about 13 per cent.

"Hogs paid much better than cattle.

"Cost of producing one ton of hay, including labor and interest at 5 per cent, about $8 per ton.

"Cost of producing one bushel of oats, counting twine, labor, cost of cutting, seed, interest or rent on land at 5 per cent per acre (adjoining land valued at and selling for $100 to $125 per acre), etc., about 51 cents.

"Cost of producing one pound of pork, counting feed, labor, interest, equipment, depreciation, etc., about 9.8 cents. Each bushel of corn fed to hogs produced 12.5 pounds gain, or eight bushels of corn were required to make 100 pounds gain this year. For each bushel of corn fed into hogs we received about $1.85 after labor, cost of other feeds, interest, depreciation and other just and reasonable expenses as they appeared at the time were deducted.

"Cattle gave a ready sale for rough feeds at home at about their market value, and besides helped maintain the fertility of land. Records on rate of gain and feed consumed show that after deducting cost of other feeds, etc., the calves fed for a while after weaning paid about $1 per bushel for their corn. Hogs followed and gained some.

"We need pure-bred Shorthorns and Duroc Jerseys, because it now seems that we can make just a little more money for the same feed and care. We should get Shorthorns because this is a Shorthorn community and Duroc Jerseys because we have always raised more pigs from the red sows than the others. These high grades should be kept until we can get good pure-bred high-producing individuals.

"Producing live stock is better for us than buying, shipping in, feeding and selling later. It helps remove speculation and gives us a direct cash income. We find this from experience.

"Bookkeeping pays and must be continued as it helps us to know what we have done and are doing. However, farm bookkeeping is more complex than other kinds, for there is so much estimating or guess work about it, but that makes one study his business and use his judgment. Some accounts are inaccurate, being only rough estibates in reality."

Asparagus Strain Rust-Proof

It has just been announced that J. B. Norton, a plant breeder connected with the United States Department of Agriculture, has after ten years of work developed a new strain of asparagus that is not only larger, more uniform, and more productive than the old varieties, but is highly disease-resistant as well. The development of this new strain is expected eventually to stamp out the "rust," a destructive disease of asparagus which swept over the country a few years ago leaving many commercial fields brown and dead. It will be of interest to Kansas readers to recall that Mr. Norton is a Kansas man, having grown up in Manhattan, where his parents still live. He graduated from the Agricultural College in 1897 and since 1902 has been connected with the Federal Department of Agriculture.

Buy Good Pure-Bred Ram

The beginner in sheep cannot afford to use a scrub ram under any circumstances. Probably in no other class of live stock will the results of using a good sire be more quickly apparent. We have visited farms in Kansas during the present season where the flocks had all the appearance of being pure-bred Shropshire. As a matter of fact they were simply the result of using good pure-bred rams for seven or eight years, starting with ordinary range sheep as foundation stock.

The use of a good sire at any time is one of the recognized principles of live stock improvement. At the present time when feed and labor are abnormally high the advantages of following this principle are greater than ever. This is especially true in the case of sheep. Wool is now bringing in the neighborhood of 60 cents a pound and lambs are selling on the market as high as $18 or $20 a hundred. Under such price conditions it would be a poor policy to use an inferior ram even though the ewes are ordinary grades fresh from the range. The beginner who is starting with a small flock of these grade ewes can well afford to purchase a good pure-bred mutton ram. As the value of the ewe flock increases, he can afford to be even more discriminating in his choice of a ram to head the flock. In this way a high-class mutton flock can be developed in a very short time.

To demonstrate the advantages of using pure-bred rams, the Missouri Experiment Station some years ago conducted a most striking experiment. Two lots of western ewes were used, being di-

vided in such a way as to be as nearly alike as possible in every respect. A scrub ram was used in one lot and a pure-bred ram in the other. Since the ewes were the same, any difference in the lambs could be reasonably credited to the sires. The lambs sired by the pure-bred ram sold for $7.35 a hundred, while those sired by the scrub ram sold for only $4.50 a hundred. In addition the lambs sired by the better ram averaged three and a half pounds apiece more in weight at the age of three months than the lambs sired by the inferior ram averaged at four months of age. This demonstrates in a most striking manner the desirability of using only pure-bred rams even in grade flocks.

Repellants for Flies

During the summer season flies cause serious losses in live-stock production and in addition they are a great annoyance in handling stock of all kinds. In the pastures we see cattle bunching up in the middle of the day, fighting flies instead of grazing. At no season of the year is the job of milking so disagreeable as during the summer season when the cows are constantly fighting flies while being milked. Nets and blankets can be used on horses to keep off some of the flies, but since most of the flies attack them about the legs, fly nets furnish little protection.

Fly repellants can be used with fairly good results. The following mixture is recommended for horses by the entomological department of our experiment station: Two quarts of crude fish oil; 1 pint crude carbolic acid; 1 ounce pennyroyal; 8 ounces oil of tar; 1½ quarts kerosene. If the pennyroyal is too expensive, it may be left out. This mixture is not sticky. It should be used as a spray. A gallon properly used is enough for two teams through the ordinary fly season. It is suggested that when the flies are very troublesome a little of this repellant be applied by the use of a hand sprayer in the morning, again at noon, and when the horses are brought in at night.

The most satisfactory repellant worked out by our experiment station for cattle is the following: Two parts pulverized resin, one part of soap shavings, one-half part of water, one part of kerosene, one part oil of tar, one part fish oil, and three parts water. In making this mixture, the resin, soap, and one-half part water should be boiled until the resin is dissolved, then add the three parts water and the remainder of the ingredients, boiling well for fifteen minutes, being careful to keep the mixture well stirred. This repellant is best applied with a brush. It tends to make the hair gummy and sticky. After it has been used a few times it is not usually necessary to make fresh applications oftener than every three or four days.

The Long Arm of Germany

Conquest and Kultur is the title of one of the publications of the Committee on Public Information. In it are disclosed the deep-laid schemes of the Pan-Germanists for the conquest and exploitation of—the world!

First France and Russia were to be conquered. Then the British Empire. Then the United States, and all America. Asia and Africa would follow, and the whole earth be German.

Russia has already fallen to German arms. France and Britain are fighting with their backs to the sea. The United States fights with them, for their cause is ours.

Long since, with cynical impudence, the Germans have marked off in their school geographies certain parts of the United States of America as "Deutsche Gebiete"—German provinces. German publicists have expressed opinions that quite explain this. Some of these opinions are cited in Conquest and Kultur, among them this, from the letter of Robert Thiem, a New York German, to the Alledeutesche Blaetter, September 20, 1902:

"The Germanization of America has gone ahead too far to be interrupted. Whoever talks of the danger of the Americanization of the Germans now here is not well informed or cherishes a false conception of our relations. * * * In a hundred years the American people will be conquered by the victorious German spirit, so that it will present an enormous German Empire. Whoever does not believe this lacks confidence in the strength of the German spirit."

He also serves who stays and saves.

The Three R's in the Army and Navy

(Continued from Page One)

ed for his future needs. The most that can be accomplished is to start him on his way.

Not all of the educational work is done in the class rooms, not all his lessons learned from the text book. The "Y" is utilizing educational films entertaining the boy while instructing him. This form of teaching appeals not only to the student but to the boys not taking the school courses. The motion picture hall at the "Y" is usually overflowing to see these instructive films. They teach physical geography, zoology, bird life and historical subjects.

Another very popular method of instruction is by lectures. Dr. Orr has scoured the country to find wise men who are also good speakers, men thoroughly informed on their special subjects who are able to impart that information interestingly. Men prominent in literature, history, art and exploration are sent to the various cantonments to tell the boys the secret of their success. The soldiers have an opportunity to come in personal touch with the leaders of American thought and action by attending the "Y" lectures. They are inspired by their words to nobler endeavors. One youngster, after having listened to Mr. McClure, the distinguished editor of McClure's Magazine, deliver an interesting and instructive lecture and having talked to him informally afterwards, said to me: "Say, I am going to try to do like he does and make a man out of myself. I always thought there was a whole lot of difference between these big men and us ordinary fellows. I see that he is just plain human. He don't put on no airs at all. He's just a regular fellow like us. And you can bet that I am going to be like him."

The teachers are devoting themselves unsparingly to the task, and the pupils are meeting them halfway. There is whole-hearted co-operation and enthusiasm in the educational work. It reaches from the director of education on down the line to the foreign beginner just learning the ABC's. The results have been remarkable. Men who a few months before did not know a letter or could not speak a word, are writing fairly well and are priding themselves on being able to hold their daily conversation in English. Of course, it is necessary sometimes for them to use their eyes, and hands in wild gesticulation, but they are getting there just the same. The mountaineer can read, the high school boy has started preparing for his chosen profession and the French scholar is studying his classics.

W. S. S. are stamps issued by the United States Government to defray the costs of war, to induce saving, discourage waste, and inculcate habits of thrift throughout the country.

You may not be able to fight, but you can save and buy War Savings Stamps.

Howard Wenrich, of Oxford, Kansas, is starting a herd of Poland China hogs. Mr. Wenrich is well prepared to handle hogs, having a splendid farm well planned as a hog farm. At the head of this herd is Giant Lunker by Discher's Giant and out of the big sow, Lady Lunker. Fifty-seven spring pigs have been raised. At this time they are all doing well. Among them are a number of herd boar and herd sow prospects.

S. E. Stoughton, of Hutchinson, Kansas, has been sixteen years building one of the good herds of Holstein cattle in Central Kansas. The herd now numbers 120 head of registered cows and heifers. This herd is known as Pondview herd of Holsteins and has the blood lines of some of the best families known to the breed. On September 4 Mr. Stoughton will disperse this entire herd, consisting of fifty cows in milk, fifteen two-year-old heifers and fifteen yearling heifers and several spring calves of both sexes.

W. I. Bowman & Company, Ness City, Kansas, own one of the largest herds of registered Hereford cattle in the state. Over 1,700 head of breeding cows and 140 bulls, 100 range bull long yearlings, and forty head of real show bulls are being fed for sale October 22. At this sale they will offer seventy-five head of the best cows they have ever run through a sale ring, and forty head of real herd bulls.

G. B. Woddell, of Winfield, Kansas, has made a great success with his herd of Duroc Jersey swine. At the head of this herd is Chief's Wonder No. 231517 by Cherry Chief's Pride by Cherry Chief by High Chief. His dam was Wonderful Gim by Wonderful Chief by Lincoln Chief, a line-bred Ohio Chief, and Defender. Mr. Woddell will exhibit this hog this year at our state fair. He has about seventy-five spring pigs on the farm and a feature of the herd at this time is the exceptionally fine lot of spring boar prospects.

JERSEY CATTLE.

TESSORO PLACE
OWL INTEREST FINANCE JERSEYS (REGISTER OF MERIT)
Buy a bull from a R. of M. cow and be more certain in your herd building. Every cow in milk in our herd has a year's test or one now on. Our two-year-olds will average 400 pounds of butter. Write for prices and other information.
R. A. Gilliland, Mayetta, Kansas

B. C. SETTLES
MAKES A SPECIALTY OF MANAGING JERSEY SALES.
Write for catalogs.
Palmyra - - Missouri

FINE YOUNG JERSEY BULLS
From Register of Merit and tested cows; Register of Merit sire.
Dornwood Farm, Topeka, Kan.

Allen Center Stock Farm
Registered bull calves — some ready for service. Sale or exchange for bull or heifers.
TREDWAY & SON, LA HARPE, KANSAS

REGISTERED JERSEY BULLS
Butter-Bred, from High-Producing Cows. Photo furnished.
MAXWELL'S JERSEY DAIRY
Route 2 Topeka, Kansas

J. B. PORTER & SON
MAYETTA, KANSAS
Breeders of High-class Jerseys. Stock for sale at all times.
Write Us Your Wants.

KANSAS SUNFLOWER HERD JERSEYS
For Sale—Five young bulls sired by a son of Interested Prince. Dams are all by Imported Castor's Splendid and on yearly record.
H. F. ERDLEY - HOLTON, KANSAS

POLAND CHINAS.

GLENWOOD FARM'S SHORTHORNS AND POLAND CHINAS
SHORTHORNS
Sires in Service—Emma's Valentine 412453, Golden Searchlight, and Master Goods.
For Sale—Emma's Valentine 412453, Master-Butterfly 10th 582866, and Secret's Valentine 648605. Real Herd Bulls.
PRICES REASONABLE.
POLAND CHINAS
Sires in Service — Expansion King, King Wonder II by Big Bob Wonder, and Wonder's Joe by Giant Joe.
For Sale—Twenty gilts bred for summer and fall litters, sired by Expansion King or King Wonder II, bred to Wonder's Joe or King Wonder II. A few fall boars.
C. S. NEVIUS & SONS, CHILES, KANSAS

Sand Springs Farms Polands
We have a nice lot of registered Poland China boar pigs that we can price right. Do not wait until you must have one and then pay a long price. Buy one now and save money. Breeding good and individually right.
E. S. Engle & Son, Abilene, Ks.

Elkmore Farm Poland Chinas
For Sale—April boars and gilts, trios not akin, $125; sired by King Bob and Giant Bos. Bred sow sale August 8, 1918. Forty-five head bred to Caldwell's Big Bob. Everyone guaranteed and cholera immune. Catalogs ready July 15.
Fred B. Caldwell, Howard, Ks.

Big-Type Poland China Hogs
September and October boars. One real herd boar prospect. Fifty bred sows and bred gilts. 250 spring pigs.
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Founded 1842

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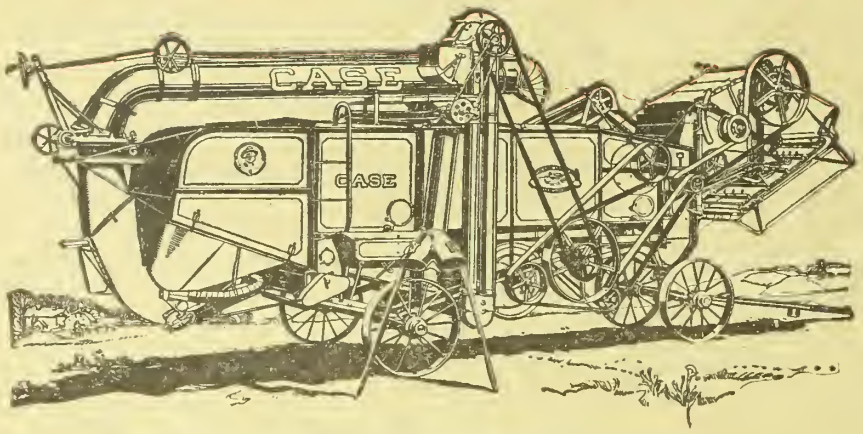
Farmers Save The Nation Millions of Dollars by Using Case Threshers



The above is a Case 20x36 Thresher fully equipped

CASE Threshers are real grain savers. They prevent wastefulness. This means that each field delivers its full product to the owner. This is real economy, now that every kernel of grain is needed by the people.

Case Threshers are not only grain savers, but are economical in operation and upkeep. They cost less in the long run.

For years Case Threshers have maintained leadership. The farmer who has his threshing done by a Case Rig is not only a good business man, but a thrifty patriot.

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Case Threshers are made in 7 sizes. So there is one for any size run.

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This thresher is for the man who has his own farm power and prefers to do his own threshing. We have made it light in weight, yet strong.

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The complete line of Case Threshers and attachments is described in an ilustrated catalog. which will be sent free upon request. Write for your copy now.

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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 26. TOPEKA, KANSAS, JUNE 29, 1918. Established 1863. $1 a Year

EARLY SOIL PREPARATION PAYS

Plowing in July for Wheat Increases Yield 60 Per Cent

EARLY preparation is the secret of increasing wheat yields. Increases in acre yields ranging from five and one-half to eight and one-half bushels have resulted from early preparation in a series of tests by the Kansas Experiment Station at Manhattan. These tests were started in 1911 and have now continued, including the present year, for a period of eight years. The results have been most striking, as shown in the table on this page and the cut showing the plot yields of eight of the plots for 1913.

The same kind of wheat was sown on all the plots at the same rate per acre and on the same date, which has ranged from September 28 to October 5, depending on the weather and the season. Each plot is one-tenth of an acre and the soil is ordinary upland soil which was somewhat low in fertility, as the land had been cropped for many years to grain, corn, and sorghums, without the addition of manure or green manuring crops. The test included studies in the results of rotation as well as seed bed preparation methods. The cut shows most strikingly the comparisons between wheat grown in a carefully planned rotation and wheat grown continuously following the same methods in preparing the seed bed.

The plot disked and not plowed has been double disked twice just before seeding each year. This plot is getting in bad condition. The wheat is especially thin this year and there are many perennial weeds in the plot.

An effort has been made to prepare the best seed bed possible with each method employed. In all the plots the ground has been harrowed immediately after plowing unless otherwise indicated and has been worked as much as necessary to destroy weeds and get the surface into good seed bed condition. Eleven different methods were followed in the beginning. Only eight are given in the table, these having continued for the whole period.

The cost of preparation and the net returns are the vital points to consider from an economic standpoint. An increased yield obtained at a cost for preparation greater than the value of the extra wheat would not be considered as a profitable result. The results of these tests, however, show that the profits or net returns after deducting the preparation costs have been greatly increased by doing more and earlier work. In several comparisons the actual work was exactly the same, the only difference being in the time it was performed.

In reporting on the preparation costs a year ago, the Experiment Station men used the following scale of prices for the various operations: Plowing seven inches deep, $2.50 an acre; plowing three inches deep, $2.25 an acre; double disking, 80 cents an acre; seeding, 80 cents an acre; harrowing, 25 cents an acre. In the table we have added 50 per cent to the cost figures worked out last year on the above basis. This will allow for increased cost of doing farm work under present conditions. Wheat is figured at $1.50 a bushel, which of course is less than the guaranteed price for the 1918 crop.

Yields, Cost and Value of Wheat, Various Methods of Seed Bed Preparation

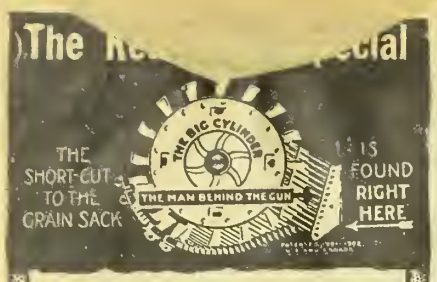
Method of Preparation	Aver. Yield per Acre 1911-1917 Bushels	Cost per Acre for Preparation	Value of Crop at $1.50 per Bushel	Value of Crop Less Cost of Preparation
Disked, not plowed	7.8	$3.21	$11.70	$ 8.49
September plowing, three inches deep	13.6	4.25	20.40	16.15
September plowing, seven inches deep	14.8	4.73	22.20	17.47
September plowing, seven inches deep, double-disked previous July	19.2	5.93	28.80	22.87
August plowing, seven in. deep	20.7	5.91	31.05	25.14
August plowing, seven in. deep—not worked until September	19.2	4.58	28.80	24.22
July plowing, seven inches deep	22.1	7.10	33.15	26.05
July plowing, three inches deep	17.1	6.45	25.65	19.20

The ideal seed bed for wheat is a firm, well compacted soil supplied with ample moisture and available plant food. It is evident from the results obtained in this series of tests that the preparation of the seed bed is a most important factor in growing a paying crop of wheat. The right kind of a seed bed cannot be prepared in a day or even a week or month. It takes time to store moisture and liberate plant food. There must be many days of settling, some good packing rains, and frequent cultivation of the soil. In this connection it might be noted that this year the wheat on the plot plowed seven inches deep last September is noticeably poorer than the wheat on land plowed but three inches deep on the same date. The fall was unusually dry and the effect of the looseness of the seed bed plowed at that late date was magnified by the depth of plowing.

The wheat grower in Eastern and Central Kansas will find it well worth while to study most carefully the results of this experimental work in seed bed preparation which has been going on at Manhattan for the past eight years. It is pointing most conclusively to the growing of wheat in a carefully worked out rotation and the necessity for beginning the seed bed preparation at the earliest possible date as the secret of increasing yields and profits.

EACH SACK CONTAINS WHEAT PRODUCED IN 1913 UPON ONE-TENTH ACRE PLOTS.—SHOWS RESULTS OF ROTATION AND EARLY SEED BED PREPARATION





Intensive Production

THE thresherman to make money these days must crowd every working hour with production of the most intensive kind; if his machine lags or breaks down he is a loser. When the drive is on, his machine must work easily and work profitably. Adverse conditions must not slow his output to the losing point.

Moving machinery that is overworked is liable to trouble. A mechanical part that can do the same work without power or motion is not. That is why the "Man Behind the Gun," exclusively used in the Red River Special Separator, gets results. It requires no adjustment and yet accomplishes more clean separation than other machines can get from end to end.

Save the Farmers' Thresh Bill

Investigate the Junior Red River Special, the thresher for small power and home work. Write for circulars.

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In Continuous Business Since 1848
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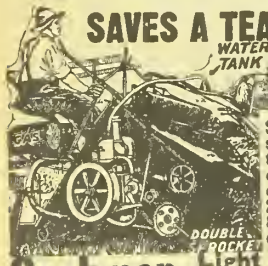
Get Your Cushman Now and Save $10!

On June 1st the Retail Price of the Cushman 4 H. P. Engine and Binder Attachment Will be Increased $10

Don't Take the Risk of Waiting



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Saves two horses, saves grain, saves time, saves the binder, and saves the crop in wet season. 2 horses easily pull 8-ft. binder; engine drives machinery.

Cushman Light Weight Engines

4 H. P. is original and successful binder engine. Cooling tank on front balances engine on rear. Thousands in use every harvest, besides doing all other work after harvest. Weighs only 190 lbs.—easy to move around from job to job. Also 2-cyl. light weight engines, 8 to 20 H.P. Book free.



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Harvesting hay the Jayhawk way means time, men and money saved. Jayhawk Stackers and Sweep Rakes make it easy to harvest and save every hay crop. Pays for itself the first year. Fully guaranteed. Sold direct at manufacturers price. Write today for free catalog and price list.

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WAR SAVINGS STAMPS
ISSUED BY THE UNITED STATES GOVERNMENT
SERVE

FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

WE CANNOT afford to lose twenty million bushels of grain through carelessness in harvesting and threshing. The movement to cut out the usual waste was started last summer when August Hauser, of Kiowa, Kansas, reported that he had rethreshed a straw stack on his place and got 131 bushels of wheat worth $2.50 a bushel. The straw was from 140 acres and the extra grain was run into the stack by a careless crew.

Dean E. C. Johnson, of our Agricultural College, heard of the incident and compiled all similar incidents through the county farm agents and other sources. He found a case in Pawnee County where one man followed a careless crew with a hand fanning mill and that man made $500 in eighteen days saving wheat careless men wasted. In Smith County a farmer fanned fifty bushels in less than two days from the place where the machine had stood.

Dean Johnson's estimates show the annual loss in Kansas is at least 2,520,000 bushels. He recommends that all back swaths be cut, that tight header boxes and racks be used in handling grain, that threshing machines be in good order before they enter the field and that care be taken in threshing.

Investigations of Dean Johnson in Kansas and similar investigations in other states resulted in the formation of the Threshing Division by the Food Administration, which is organizing every county in Kansas in food conservation through wheat saving.

Tractors in Corn Belt

Evidence of the growing popularity of tractors on corn-belt farms is shown by reports made by more than 600 tractor owners, nine out of every ten reporting that their investment in a tractor has proved profitable. These data were obtained in the summer and fall of 1917, and in the spring of 1918 on representative Illinois farms by specialists of the United States Department of Agriculture, in order to determine just what conditions justified the purchase of a tractor in that section. Experienced tractor owners who made reports stated that tractors will prove profitable on most corn-belt farms of 180 acres or more, while in their opinion they should not be expected to do so on farms of much less than 130 acres. The report of the investigators, published as Farmers' Bulletin 963, states that while the figures were obtained in only one state, they are applicable throughout the corn belt and that the prospective tractor purchaser may reasonably count upon equaling the average performances reported in the study.

Nearly three-fourths (71 per cent) of those who reported owned tractors capable of pulling three plows. Eleven per cent recommended two-plow machines, while 13 per cent advocated the use of four plows. In answer to the question, "What do you find to be the principal advantages of a tractor for farm work?" the answers indicated that its ability to do heavy work and do it quickly, thus covering the desired acreage within the proper season, was considered the principal advantage. The saving of man power and the doing away with hired help, enabling a man to farm a larger acreage and thus increase the crops he can raise, was next in importance. The ability to plow to a good depth, especially in hot weather, was also emphasized.

Under disadvantages the difficulty of efficient operation was the principal point, and this fact should be kept in mind by everyone who considers the purchase of a tractor, says the bulletin. In this connection it suggests that tractor owners take a course of training under competent instructors in this line, as the results of such a course usually amply justify the time and expense involved. Packing of the ground when damp was mentioned by several owners as a disadvantage, but not as frequently as was the case when more of the older and heavier machines were in use. The expense delays, and inability to use the tractor for many kinds of work for which horses could be used, were disadvantages mentioned by several owners.

Approximately one-third of all the Illinois farmers reporting increased the acreage they were farming after purchasing a machine. It is obviously impossible to determine definitely the probable life of the latest model tractors, since none of them is worn out, but the average time as stated in the report was from seven and one-half to eight years. The life of a tractor will depend upon the amount of work done each year—that is, the number of days or hours it is used. Reports show that tractors were used on the average of forty-five days per year. The area covered per day (ten net working hours) in plowing with the tractors was 6¼, 8¾ and ten acres for the two, three and four-plow outfits, respectively. The average depth of plowing was slightly less than seven inches, while the average depth on the same farms with horses was about five and a half inches. About 50 per cent of the tractor owners reported that the quality of work done by tractors is better than that done by horses, while less than 3 per cent said it is poorer. Thirty-six per cent of the owners reported that no time was lost in the field on account of trouble with their outfits, while those who reported trouble stated that the average time lost was a little over three-quarters of an hour per day. On about three-fourths of the farms the tractor displaced about three horses, which represented one-half of the cost of the tractor outfit.

Gasoline Substitute Sought

Although this country produces about two-thirds of the petroleum of the world and produced more gasoline this year than ever before, investigations are being carried on by the National Automobile Chamber of Commerce with a view to exploiting the use of mixtures of alcohol and gasoline in motor vehicles, including tractors, of course. The production of industrial alcohol on a large scale would help materially to increase the supply of motor fuel.

Nearly all the automobiles in Norway and Sweden are operating on alcohol made from waste sulphite liquor from paper pulp mills. Alcohol is also used in automobiles in Spain, where the sale of gasoline for use in passenger cars has been prohibited.

Alcohol can be produced at the paper pulp mills in this country at a cost of 15 to 20 cents a gallon at the present time and if all the paper mills suitable for the purpose were equipped with the necessary plants they would have a combined capacity of 15,000,000 gallons a year.

Waste from sugar mills and waste vegetable products provide other sources for the production of alcohol. Distilleries and breweries whose business is being curtailed by passage of dry laws in different states and by regulations of the Food Administration against use of grain for manufacture of intoxicants, have the apparatus and skilled labor requisite for the production of industrial alcohol from these wastes. They should welcome an opportunity to continue operation, utilizing such products.

Alcohol can be blended with gasoline to produce a suitable fuel that will avoid the difficulties of starting a cold motor on alcohol alone, and without any change in the carburetor or the compression of the engine.—Implement and Tractor Trade Journal.



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It is not a wise plan to remove leaves from the rear springs of a car to improve its riding qualities. Experience has shown that the better plan is to add shock absorbers to the springs. This is more effective than removing the leaves of the spring and also safer. Removing the leaves makes the spring weaker, whereas the addition of the shock absorber allows additional play and guards against accident.

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Hassler Shock Absorbers are made of chrome vanadium steel. They cushion the car by *compression*,—the spring is compressed to give flexibility and *not stretched*. The combination—Ford Car and Hassler Shock Absorbers—is irresistible. The Ford is transformed—it rides as easily as a $2,000 car; sideway is prevented and up-throw eliminated; tires last longer and repair bills are cut one-third. 300,000 Ford Owners recognize their economic necessity.

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KANSAS FARMER

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WHAT CAN WE DO TO HELP?

One of our readers who called at the KANSAS FARMER offices a few days ago, said wistfully, in speaking of the war: "I wish there was something I could do to help. Of course I bought a Liberty bond. but I don't consider that anything patriotic, because that is making money for me. It has already earned me a dollar."

Further conversation revealed the fact that she has a flock of poultry and a fine garden, though sbe has lived in her present home only tbree monhs. "If I had been there a little longer, I could have some berries," she remarked, and we imagine that by next summer she will have small fruit. Some of the vegetables will need to be canned so that nothing is wasted. She can also be a food administrator in her own home, seeing to it that her family has nourishing food without eating the particular things that should be sent to our men across the water. In her neighborhood there is a live Red Cross society, and when she gets into this we would like to ask if she will not be doing about all that could be expected of one woman in addition to the work of her own bousehold.

We are all wondering these days what there is for us to do. To many of us who cannot take part in the actual fighting a subtle temptation comes to long for the larger and perhaps more spectacular forms of service rather than to be content to simply "carry on" in the work we know and for which we are best fitted by previous experience and training. Perbaps the most helpful things we can do are the tasks nearest at hand, which because of their very familiarity may seem of little consequence.

One way in which we can all help is to keep ourselves informed on the requests of the Food Administration as they are made from time to time, to heed these ourselves, and to pass the information along to our neighbors. Are there not people in your neighborhood who do not know that we have been asked to use not more than one-half pound of butter, one and one-fourth pounds of beef, and one and one-half pounds of flour a week for each member of the family, and three pounds of sugar in a month for each person, while in view of the great need for wheat many have voluntarily pledged themselves to do without it entirely until September 1, when flour from the new wheat will be on the market? Do the people of your locality generally know that Thrift and War Savings Stamps can be bougbt from a rural carrier or at the post office? Do they know that a War Savings Stamp which will be worth five dollars on January 1, 1923, will cost tbem during the month of July only $4.18, in August $4.19, and one cent additional for eacb succeeding month during the remainder of the year? Do the children know that a Thrift Stamp may be purchased for twenty-five cents, and that when they have the price of a War Savings Stamp, or baby bond, in Thrift Stamps, these may be exchanged for the War Savings Stamp? Do we not occasionally hear repeated by some one who does not know better than to believe it, one of the many German lies which have been so carefully circulated through the country? It is more difficult for the Government to reach all the people of the open country with accurate information along these lines than to reacb tbe people of the towns, because it is so much easier for the people of the towns to get together often and discuss tbem. Would it not be serving our country in a fine and very real way to put our influence definitely on the right side in all these matters?

ENCOURAGING CROP REPORT

Although for two weeks Kansas experienced unusual heat, maximum temperatures ranging from 100 to 110 degrees, the monthly crop report of the State Board of Agriculture issued last Saturday forecasts a production of 97,554,376 bushels of wheat for the state. This forecast is based on conditions existing June 15, and is from the reports of 2,000 crop correspondents. For many of the counties the official assessors' returns have been received, showing the actual acreages. The prospective yield has undoubtedly suffered an average decrease of from one to two bushels to the acre, due to the abnormally high temperatures and lack of moisture. The decrease in total yield, however, is more than offset by the increases in acreage which have been sbown by the official reports. In seventy-eight counties of the state these returns have exceeded the estimates of the correspondents by 318,570 acres. Practically all of this increase is in the eastern third of the state, where the highest acre yields will be found. The June estimate is thus almost equal to the May estimate in spite of the effect of the dry, hot weather. The 1918 crop will remain the third largest in the history of the state and be more than double the crop of last year.

Mr. Mohler's report shows that practically half of the winter wheat crop is found in a block of counties located in the south central part of the state, this block having as its four corners Hays, Ellis County, and Abilene, Dickinson County, on the north, and Coldwater, Comanche County, and Winfield, Cowley County, on the south. The five banner counties in point of yield are Sumner, Reno, Stafford, Barton, and Pratt, the first named having an estimated production of over four million bushels. There are a number of counties in Eastern Kansas that will produce over a million bushels of wheat, among them being Cherokee, Jefferson, Johnson, Labette, Leavenworth, Marshall, and Montgomery.

According to the predictions of the Board's report, the harvest was progressing very rapidly across the state and would be in full blast in the main wheat-growing sections by the first of this week. No serious shortages of harvest hands have been reported.

It is estimated that 368,089 bushels of spring wheat will be produced, the average acre yield being 11.2 bushels. This is four times the amount of spring wheat grown last year in Kansas. It is nearly all found in seven northwestern counties.

The report shows exceptionally well for barley, the estimated production being almost seventeen and a half million bushels, or an average of 23.4 bushels to the acre. This is four times the amount of barley grown last year, although the acreage is less by a hundred thousand. Over thirteen million bushels of the barley is found in the western third. Sheridan County alone has an estimated production of 1,657,524 bushels, followed in order by Gove, Thomas, and Sherman.

The oats crop suffered much more severely from the hot, dry weather than wheat. The indications, based on the June 15 report, were that almost seventy-one and a half million bushels would be harvested, the average acre yield being 28.9 bushels. Kansas has a record acreage of oats this year, and if the estimates made on this date are borne out, the aggregate yield will exceed the highest previous yield, that of 1917, by nearly eleven million bushels. The bulk of tbe Kansas oat crop is found in tbe strip of counties constituting the eastern half of the central third of the state.

Kansas planted over seven million acres to corn this year, and the average condition of the crop is given in the report as 82 per cent, 100 representing a good stand and satisfactory growth and development. This is two million acres less than was planted last year, but the crop is in better condition than it was a year ago. Corn cultivation has progressed in good shape and the fields are free from weeds. Very little damage from the recent hot weather was noted. Mr. Mohler points out in his report than nearly 40 per cent of the state's corn acreage is found in the twenty-two counties constituting the first two tiers south of the Nebraska line, including Decatur and Sheridan on the west and extending east to the Missouri state line. The counties having the largest acreage are Jewell, Smith, Marshall, Graham, and Republic, in the order named. It will be interesting to note that the hundredth meridian passes through Graham County.

LOYALTY THE ONLY ISSUE

While we are engaged in this great war there can be no issue worth considering that can for a moment be allowed to obscure or overshadow the issue of loyalty. All other questions sink into insignificance if loyalty to our Government is in question. Non-Partisan League leaders complain bitterly because the League is attacked from a loyalty standpoint. If the League has something worth while around which its organization can center, it certainly can wait until we have whipped Germany into accepting a peace satisfactory to democratic peoples and not interfere with our war program by continuing to stir up class animosities. The attitude of the League leaders indicates that they fear the organization cannot stand such a test. One prominent League leader admitted that the war presented a hard problem and they finally decided to support the Government, but "give the war profiteers hell," thus keeping up enough agitation to tide the organization over this period and prevent it from falling to pieces.

It is hard to get by the loyalty issue. The Nebraska Council of Defense recently ordered League leaders to desist from tbeir efforts and Governor Neville backed up the council with a stinging statement in which he requests the League to leave the state, saying: "Your organization has been used to promote the circulation of seditious literature calculated to arouse anti-American sentiment, class hatred, and in general to interfere with the successful prosecution of tbe war. In Minnesota, Governor Burnquist, who conducted his campaign absolutely on a loyalty platform, has just defeated Lindburg, the League candidate for nomination for governor, by a good majority. Governor Norbeck of South Dakota denounces the League, and now Governor Capper of Kansas places himself squarely on record against this organization in the following statement: "I would not accept the Non-Partisan League endorsement for United States Senator if it was offered me. I have no interest in that organization, directly or indirectly, nor in its officers, organizers, or members, and I do not endorse their program."

SAVE THE POWDER

"The use of fireworks in the United States this year is an inexcusable waste, both of money and of the powder the money buys. Put your fireworks money into Thrift Stamps and let Uncle Sam use it to buy ammunition for the American forces in France." These are the words of L. T. Hussey, state fire marshal. This is largely a war of munitions. Powder and all the chemicals that go into the manufacture of fireworks are essential to the loading of the guns. Plenty of munitions means victory. Shortage of munitions means defeat.

At such a time the burning up of munition materials in fireworks is certainly a poor way of expressing our patriotism and love of country. Mr. Hussey considers destroying powder simply for our own amusement as bad as burning warehouses of grain just to see the flames. He suggests the giving of Thrift Stamps instead of fireworks to the cbildren to celebrate this Fourth of July. He believes that the boys and girls are just as patriotic as the older people and will be glad to have Thrift Stamps wben the future value of the stamps is explained to tbem and they see that giving up fireworks is a sacrifice for the winning of the war.

Many of the children have brotbers or fathers in France. All of tbem know neighbor boys who have gone. Tell tbem that they are loaning their fireworks money to Uncle Sam to buy ammunition for the boys they know so those boys can protect themselves and whip the Germans. This is an opportunity to teach true patriotism and to encourage saving for the future at the same time. We are sure the children will be willing to do their part.

TRACTOR SHOW TO KANSAS

The one big tractor demonstration of the country will be held at Salina July 29 to August 3. Tbe committee of the National Tractor Association has just made this announcement. This show is the only one having the sanction of the Government. Three hundred makes of tractors will be shown and tbeir operation demonstrated on the three-thousand-acre tract of ground secured for the purpose.

Congress is now considering a war-time prohibition measure which does not stop merely with shutting down the breweries, but prohibits the sale and transportation of all kinds of alcoholic drink. The President had checked up tbe matter of closing the breweries to the Food Administration and Mr. Hoover bad refused to do this as long as the reserve supply of whisky, gin, and other distilled liquors could be sold in the saloons of our wet territory. His statement explaining his action appears on another page of tbis issue. We referred editorially to this statement in last week's issue. The article, however, was crowded out through lack of space. Congress should pass such a law without delay. We can be proud of our wonderful achievements in creating our army, but we have been lagging bebind in so handling our non-essential industries as to bring every force to bear on winning the war. The manufacture and sale of intoxicating liquors is an absolutely useless industry. It ties up fuel, transportation, and men. We see indications tbat many drastic measures are to be taken in the near future to curtail non-essential industries. The liquor business should head the list of tbose which can and should be lopped off without delay. It is not the great voice of the common people which we hear arguing and pleading for this business. If Congress listens and gets the real sentiment of the country it will give us absolute prohibition for the war period. It is not good common sense to try to carry such a handicap while we are making the great fight against oppression and wrong.

In the death of Charles M. Winslow, secretary of the National Ayrshire Breeders' Association, which occurred June 8 at Brandon, Vermont, America loses one of its pioneer dairymen. He was a charter member of the Ayrshire Breeders' Association, which was organized in 1875. In 1882 he was elected secretary-treasurer, and he has been annually re-elected to this office since. For thirty-five years he has steered this association through stormy times until today it is out in the clear and headed forward. Mr. Winslow was a skillful breeder and his exhibits at St. Louis and other national exhibits were always to be reckoned with. The National Ayrshire Association will miss his guiding hand. His was a life of service.

War is scraping our sugar bins and our granaries. The less we waste, the longer it will take to empty them.

The collapse of Russia was partly due to tbe lack of food supply for tbe army and the people.

CO-OPERATION IN TRACTOR USE

Plowing in July or August Greatly Increases the Yield of Wheat

By W. M. Jardine, President Kansas Agricultural College, Before Society of Automotive Engineers.

NOT as a representative of a manufacturing establishment, but as a consumer of their goods do I speak. My interest in tractors dates back to 1902, when I operated a steam tractor in Utah. In 1909 I operated a gasoline tractor in Montana. I enjoy the honor, I believe, of having unloaded the first steam engine used in Utah for plowing. That was in the early days of dry farming, now one of the big fields of agriculture. I helped to start tractor farming in those western states. I had to, for I was born in the West and we had to make farming go or get out. Eventually I got out, but thanks to the perfecting of the scienee of dry-farming, with the additional aid of irrigation, that western country has been made a good place to live.

My experience with tractors about 1902 was not altogether pleasant. The manufacturers of the engine we bought would undoubtedly be as frank as I am now in admitting that none of us knew very much in those days about tbe pulling of plows with an engine, not even the proper way to hitch the plows to the engine. The manufacturers were generous, however, and sent a man who worked with us about six weeks, but we finally had to give it up. We did very well with the next, a gasoline tractor. as we plowed a thousand acres and tben sold it for within $500 of the purcbase price. Then we bought a 110-hp. engine and used it a while. I have, therefore, a first-hand knowledge of the development of the tractor and its use in tbe West and have learned the subject from the practical point of view. In recent years I have also been learning the use of tractors from tbe standpoint of an advisor of farmers. We have some 6,000 tractors in Kansas now, probably 2,000 or more of which have been placed in the state during the past year, indicating that Kansas farmers are rapidly coming to recognize tbe value of the tractor as an aid in overcoming the shortage of farm labor. We sball probably find it of still greater value this year.

Kansas Acreage to Be Plowed.

It is as a representative of tbe Kansas State Council of Defense that I am bere in company with Dean Potter, the head of the Engineering Division of the Kansas State Agricultural College and Secretary of the Committee on Labor, Horse and Machine Power of the Council of Defense. Tbe government is asking all of the states to do more tban ever in food production this year. There are 24,000,000 acres to be planted to crops in Kansas this spring. We have about 9,500,000 acres in winter wheat. Probably 1,500,000 acres of this area will be killed out, leaving 8,000,000 acres which must be harvested. Ordinarily, from 60,000 to 70,000 transient laborers come into the state to help with tbe wbeat harvest, but there will not be many of these this year.

Kansas has already sent to the training camps or the front some 25,000 young men, half of wbom came from the farms. Twenty thousand more will probably go with the next draft. They may be taken before tbe spring planting is done; if not, undoubtedly before tbe wheat harvest. Then large numbers of men bave gone into industrial work. If 24,000,000 aeres of spring crops are to be planted and more than 30,000,000 acres of crops barvested during the season, there is a big job on hand, the limiting factor of which will undoubtedly be labor.

Being interested in tractors, I called tbe attention of the Council of Defense at its last meeting to the tractor as a possible source of aid in making the most efficient use of the available manpower in the state. I pointed out tbat a tractor of sufficient horsepower to pull a four-bottom plow, in the hands of a skilled operator, will plow from ten to fifteen acres of land a day; that a man with a four-horse team can plow four or five acres a day, and that, therefore, such a tractor outfit is equal to three such man-horse-labor units in plowing land for wheat. I am particularly interested in having tractors plow land for wheat, because with tractors it can be done early—in July and August—wben it is too hot and often too dry to use horses.

Everyone who knows anything about growing wbeat—and we ought to know about it in Kansas where nine or ten million acres are planted every year—knows that we can increase the yield from five to ten bushels an acre and even more by plowing the land in July and August. Every farmer knows tbis, but he also knows that plowing can be postponed whereas he cannot put off taking care of his alfalfa, cutting his corn, stacking bis wheat or threshing it if it is left in tbe shock.

It will not be possible to secure enough tractors to do all the plowing for wbeat, but we ought to be able to increase the number materially. I am interested in getting groups of, say, a half dozen farmers to buy tractors co-operatively and put them in the hands of men who know how to run them. One of the chief drawbacks to the practical use of the tractor is tbe lack of skill on the part of the average man who tries to run them. Ninety per cent of the trouble is due to tbis cause.

Extend Use of Tractors

If we could ascertain those communities tbat have one or two thousand acres of land to be plowed for wheat whose owners would be willing to contract to have tbe land plowed by tractors, we might be able to place tractors in charge of skilled operators in tbose communities to do the work. Various means would be employed in bringing tbe land, tractor and operator together, and here is the opportunity for tractor manufacturers! Tbe best way to convince farmers of the usefulness of tractors is to take tbe machines on their farms and demonstrate that they will do the work better and work more bours per day and more days per month than horses—not just show them that tbe tractor will plow thirty acres, then leave; the weakest tractor on the market will do that, but it takes a good tractor to plow steadily for thirty days and a good man to keep it going for that length of time. A skilled operator can do this, but tbe average farmer cannot. I believe it would be profitable, as well as patriotic, for manufacturers to place machines on farms in charge of skilled operators who would give them proper care, and allow the operator to demonstrate to the farmer what the machine will do, the farmer paying so mucb, usually from $2 to $2.50 an acre, for tbe work done.

Men engaged in general farming cannot afford to waste their time trying to run machines they do not understand, especially if we can "round up" the men who do know sometbing about engines, even if they are not experts, and put them to work. There are a number of such men. The Kansas Agricultural College turns out several hundred sbort-course boys each year wbo have acquired a good working knowledge of tractors. These are scattered over tbe state. Last year we were in touch with a thousand that we could recommend as skilled operators. The number will be less tbis year because many have entered military service.

Council Locating Tractor Men

The Council of Defense is getting in touch witb the men in the state who can run tractors. We are also endeavoring to ascertain tbe farmers and communities wbo bave land to be plowed with tractors, especially communities with a thousand acres and more. We will try to locate men who are willing to buy tractors co-operatively, as we used to buy threshing outfits, and employ men with knowledge of engines to run tbem. We shall probably find men who know how to run tractors and would be glad to do job work if they could manage to finance tbe purchase of macbines. Some may bave a little collateral, or perhaps some banker or business man will back them.

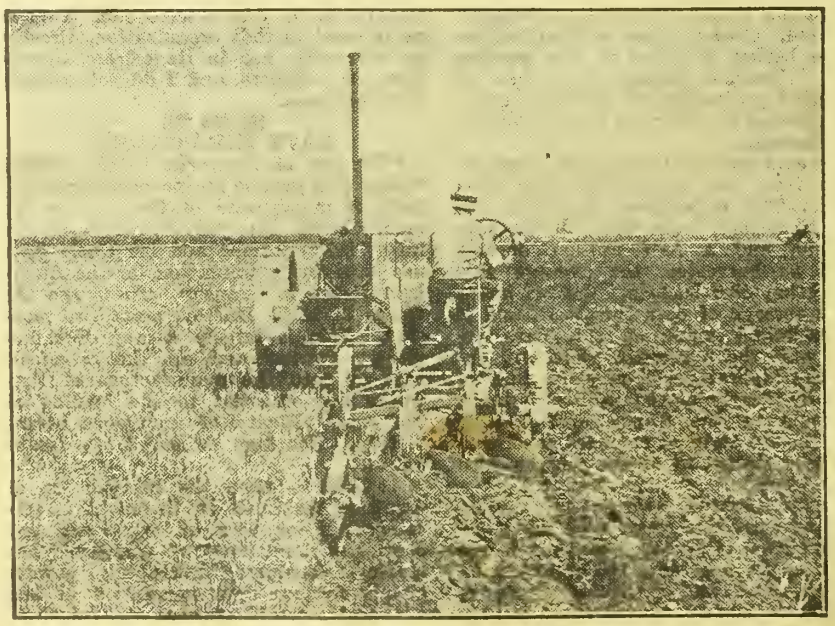
If tractor manufacturers are interested in the proposition of putting tractors on farms as I suggested, tbe Council of Defense will be glad to render every belp, sucb as assembling jobs close enough together to avoid wasting time in traveling from one farm to another; also to have fair-sized tracts, although one of the sections of the state tbat needs this help is Eastern Kansas, where the acreage planted to wheat and otber crops is thought to be too small in many cases to justify the purchase of a tractor unless on a co-operative basis.

Tractor Will Help Win War

We believe in Kansas that the tractor is going to be an increasingly important factor in the development of our agriculture, especially after the war. The difficulty now is that the supply of tractors is limited. They are being shipped abroad. That is very desirable indeed, but we must not forget our home needs. Since we have banded ourselves with the Allies to win this great fight, we must distribute our resources wbere they will be most effective. This means looking after agricultural as well as military needs.

Besides being good advertising for the manufacturer, the co-operative plan of using tractors will render great assistance in the production of foodstuffs. Kansas crops are among the first to mature and become available for use. It behooves us, therefore, to facilitate their harvest and movement to market in every way possible. Tractors will do this. We need more in the state, and I hope we can get tbem "by hook or by crook." That is tbe thougbt I want to leave.

I was astonisbed at the number of makes of tractors I saw assembled at the National Tractor Sbow, with the industry scarcely a decade and a half old! Farmers are tbinking in terms of the heavy tractor. The tractor we need in this state, however, is tbe one that will do all kinds of work on the farm, fill the silo, thresh the grain, plow the land and pump water for irrigating. The little farmer can use the "baby" tractors. The "12-24" is the tractor that will meet our general needs in Kansas.



THE FIRST STEP IN GROWING A BIG CROP OF WHEAT—DEEP PLOWING IN JULY. THE TRACTOR DOES NOT MIND THE HEAT

Motorizing Field Artillery

The motor tractor has been put to still another use. It is now expected to take the place of tbe horse in the task of moving the field artillery of tbe American Army at the front.

Experts have been working for some time on the problem of motorizing field artillery transportation, an achievement which it is believed would be a great factor in shortening the war. The Army ordnance bureau now believes it has solved the problem. An armored five-ton tractor has been made and put through a successful demonstration before Secretary of War Baker and army officials.

The advantages of motor transportation of artillery are both greater speed in offensives and the saving on horses and leather. In an offensive the army can advance only to the limit of its gun range and must then wait while the artillery is brought up, giving the opposing force a temporary advantage. The use of the motor tractor will greatly reduce the time needed. On the side of economy, horses will be saved that are lost by the thousand in every action, great quantities of forage, and the leather that is used in harness. It is estimated that enough leather is used by one regiment to make 11,720 pairs of shoes.

The new tractor was tried out at Rock Creek Park, Washington, and after it had dragged a 4.7-inch field howitzer over rough and muddy ground and tree trunks, climbed 45-degree hills with mud a foot deep and performed several feats that would balk a tank, officers declared that it would be invaluable in facilitating advances at the front. The machine is shrapnel-proof, and could be disabled only by a direct shell hit; is on caterpillar creepers; can climb in and out of shell holes and has a soft-ground grip; and the engine will work at a slant of 70 degrees.

The intention is thus to equip at once all American batteries above three-inch light guns to six-inch, and the smaller type is being worked out for the three-inch gun. The British, French and German armies have been able only to motorize the guns over six inches.—Implement and Tractor Trade Journal.

Bulletin on Threshing

Waste of grain tbrough inefficient operation of tbreshing machines, though not serious to the individual farmer, may take millions of bushels from the nation as a whole and from the nations that are looking to us for food to ward off famine.

To point out ways in which such losses may be reduced tbe United States Department of Agriculture has issued Farmers' Bulletin 991, "The Effieient Operation of Threshing Machines." Copies of the bulletin will be sent free on request to the Department.

If the threshing machines used in this country wasted only tbree or four bushels of grain out of every thousand they threshed, the loss of wheat alone in the United States every year would equal a quantity sufficient to furnish a normal supply of bread to a million people for nearly six months.

If you eat contrary to the Food Administration's request, the kaiser's representative and not your boy may fill the vacant chair at your table.

Send our boys the fuel, and they will supply the steam.

FORT RILEY HOSPITAL A MODEL

Uncle Sam Prepares to Give Our Boys the Best of Care

IT IS hard enough to send a boy into the army, but if he should get sick, what in the world will happen?" wrote a mother on the western coast to a chaplain at Camp Funston where her boy had been sent. This question has undoubtedly been in the minds of others. The hospital chaplain, Lieutenant G. Charles Gray, in an address at Topeka explained how the sick soldier is cared for at the Fort Riley base hospital, one of the largest military hospitals in the United States and in the world. He assured his hearers that Uncle Sam takes just as good care of his sick soldiers as they could be given at home. Two convincing reasons were given for this by Lieutenant Gray; first, that it is impossible to have a successful army without the highest degree of physical efficiency, as the test of an army in the last analysis is the marching and enduring ability of its troops; second, the same brave attributes of human personality which are active in this war are operating in our army in taking care of the men. "After all," said Lieutenant Gray, "we are the government. This body of men is not so much an army as it is a great resistless movement of citizenship toward a goal—an enlarged church parish, if you will—and these forces are all operative to the care of the man in the army if he gets sick.

"Of course last fall when hundreds of men were being rushed into the hospital all at once, it was impossible to have the highest type of efficiency, but the hospital at Fort Riley is now extremely well organized, and the staff is above criticism, as far as it is humanly possible to be.

"The first thing that happens to an enlisted boy when he gets sick is that he reports to his company commander at sick call at 11 o'clock in the morning that he is not fit for duty. If necessary he is sent to the infirmary where he is examined by a physician. If his ailment is found to be a minor one he is kept there until he recovers. If sick enough he is taken to the base hospital three miles from Camp Funston. When a man comes to the hospital he is taken first to the receiving station. His case is diagnosed, or if the diagnosis is not certain he is kept for a while before being certified to any particular division of the hospital, to avoid the danger of cross-infection.

"A great many of the cases are not necessitous cases; for instance, tonsil or eye conditions which in civilian life would pass without any attention whatever, but, because a high type of physical condition is necessary in the army, the patient must be reconstructed. Hundreds of men are sent to the hospital who in civilian life would receive no attention. Many of these are merely deferred cases, minor operations in the surgical section principally, looking to the highest type of manhood before these men are transported out of the country. A complete hospital record is made, on which everything that can be done for that boy is indicated. This record is sent to France when he goes, and may mean quite a saving of time for him there.

"The detention camp one and one-fourth or one and one-half miles from Camp Funston is an interesting place. Some three or four hundred men are detained there, not because they are sick but because they have been found to be peddling around some disease. They are kept there until cultures are found to be negative and then they are sent back to camp.

"Two or three convalescent or reconstruction hospitals are already occupied. Patients who have lost an eye or a limb are cared for here. This will be a most important part of the service shortly.

"The soldiers in the hospital are a very appreciative crowd of men. There is in a base hospital a certain spirit of depression on the part of the patients. Most of them have been sent to the hospital soon after coming to camp, because changed conditions often induce sickness, and they are homesick. In addition to this they feel that they are in that horrible place, a military hospital, and they are suffering. Some, because of contributory reasons, have dropped down mentally, among them some officers. Most of them have been gotten back to the road again. Some have had to be sent away to other institutions to be given specialized treatment.

"We need all the help we can get in the hospital, but we need regular help, people who are interested enough to come and get acquainted with the men. Hospital service on the part of civilians is an abomination unless you are willing to go often enough to become familiar with the work.

"We are holding in the hospital each Sunday from twelve to fifteen religious services. We expect to have more later. These are held in the mess halls. A small organ is brought in, song books, girls from the surrounding towns to sing, and a carefully selected corps of men to do the speaking. Some of these services are attended by every convalescent man in the section. Not because we command them to come, but because they like to come. They like the music and the serious consideration. I have never seen a class of men so responsive religiously as the men in the hospital wards. I do not mean that they are placing crepe on their ideals of life. Thank God, they are not. But they are thinking deeply and seriously about the deep things of life. Their religion is not always in the form of the church. It is not going to be always in the form of the church after the war. May be the church will be better off for that. I pray God that the church may be able to take care of them when they come back. They will not come back the same. It is impossible. They will come back with changed minds and changed hearts.

"We now have a circulating library of six or seven thousand volumes of modern books, and we are shortly to have an experienced librarian from St. Louis. We have established a chaplain's information bureau. The day after his arrival a man is called on by one of my twenty or twenty-five workers, who tactfully endeavors to find out in what way he can be of service to him, whether he has insurance or not, whether he has made his allotment for his parents, etc. We propose to carry on arbitrary correspondence with parents of boys with contageous cases. We find that sometimes a boy does not want to worry his folks and he may get pretty sick before he sends them any word. Telegrams have been sent so infrequently that people are alarmed when they receive them. We are allowed only two official telegrams by the Government, one when a boy is so sick that his people ought to come, and the other a death notice. But from now on we intend to keep in touch with the parents of sick boys. If your boy has pneumonia, we will probably write you a letter something like this: 'Your boy is in the hospital with pneumonia. Mrs. Brown has called on him and finds him under the care of Dr. A, one of our best doctors. His nurse is Miss B, one of the best nurses we have. We assure you he is getting the best of care. We will write you again in a few days if there are any further developments.'

"We feel that we are helping the morale of the army when we do these things for the boys. This is your hospital, your camp, your boys, and your army. I invite you most cordially to see me personally and to see the institution also."

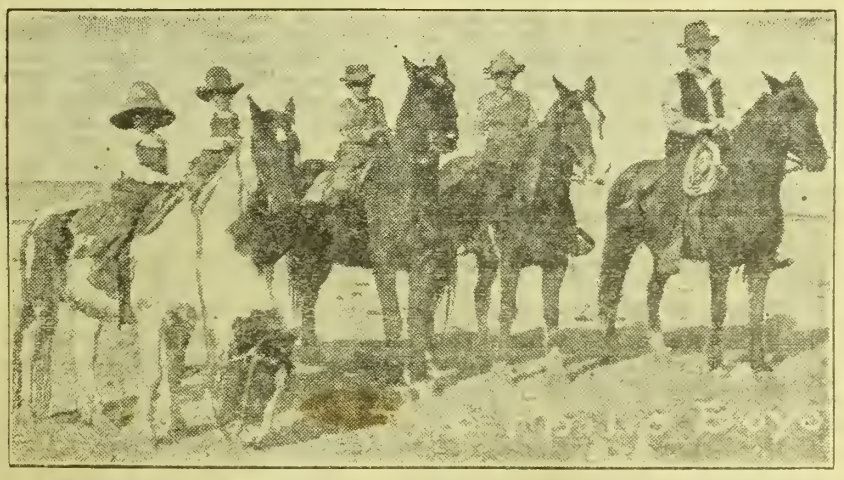
Training Camp Activities

A book giving an official account of what our Government is doing along semi-military lines has just been published by the Century Company. The title is "Keeping Our Fighters Fit—for War and After." In a special statement about the work of the Commission on Training Camp Activities, President Wilson says:

"The twin Commissions on Training Camp Activities—one for the War Department and one for the Navy Department—were appointed by Secretary Baker and Secretary Daniels early in the war to link together in a comprehensive organization, under official sanction, all the agencies, private and public, which could be utilized to surround our troops with a healthy, wholesome environment. The Federal Government has pledged its word that as far as care and vigilance can accomplish the result, the man committed to its charge will be returned to the homes and communities that so generously gave them with no scars except those won in honorable conflict. The career to which we are calling our young men in the defense of democracy must be made an asset to them, not only in strengthened and more virile bodies as a result of physical training, not only in minds deepened and enriched by participation in a great heroic enterprise, but in the enhanced spiritual values which come from a full life lived well and wholesomely.

"I do not believe it is an exaggeration to say that no army, ever before assembled in history, has had more conscientious and painstaking thought given to the protection and stimulation of its mental, moral and physical manhood. Every endeavor has been made to surround the men, both here and abroad, with the kind of environment which a democracy owes to those who fight in its behalf. In this work the Commissions on Training Camp Activities have represented the Government and the Government's solicitude that the moral and spiritual resources of the nation should be mobilized behind the troops. The country is to be congratulated upon the fine spirit with which organizations and groups, some of them of national standing, have harnessed themselves together under the leadership of the Government's agency in a common ministry to the men of the army and navy."

This book gives a most interesting story of Uncle Sam's immense recreational program in our eighty or more army and navy training camps. It is written by Edward Frank Allen in cooperation with Raymond B. Fosdick, chairman of the Commission on Training Camp Activities of the War and Navy Departments.



BIG CREEK STOCK FARM, Ellis County, founded in 1875 by Alex Philip, is widely known for the quality of the Hereford feeding cattle grown and marketed each year, but the boys here shown are after all the best crop of the ranch. William D., familiarly known as "Bill," heads the line. The four boys are his sons, and grandsons of the founder of the ranch. They are having every opportunity for growing into husky manhood, spending much time on horseback, living amid pastures and under the clear skies of Kansas.

July 4—1776 and 1918

This anniversary on which we look backward to the time when our nation assumed a "separate and equal station among the powers of the earth" also points forward to the freedom of all the nations of the earth. That which has been won and enjoyed for so long is only a stepping stone to a larger liberty.

It is a significant fact that the day we celebrate as the birth of our nation is not that marking the ending of the struggle which won our independence, but the date on which the idea of a free people was first given definite expression and announced to the world. Freedom was not won yet. It remained for the new nation to prove its right to a place among the powers of the earth, and it was only after years of struggle and sacrifice and bloodshed that independence was really ours. But who regrets the price that was paid, now that it is all over? Out of that dark hour of history has come a light which shall yet illuminate the whole world.

We are now for the second time in our history engaged in a war for freedom. "Certain inalienable rights" which in our Declaration of Independence we insisted upon for ourselves we are now asking for all nations. We demand in this war "that the world be made fit and safe to live in; and particularly that it be made safe for every peace-loving nation which, like our own, wishes to live its own life, determine its own institutions, be assured of justice and fair dealing by the other peoples of the world as against force and selfish aggression." Our stand is taken. We have committed ourselves to this purpose, and it only remains for us to back up that purpose with every possible effort that out of this greatest struggle may result a greater freedom than the world has yet known. For the support of this purpose, we now, in the words of our forefathers, "appealing to the Supreme Judge of the world for the rectitude of our intentions," and "with a firm reliance on the protection of Divine Providence, mutually pledge to each other" and to the other nations who are fighting for the same noble ends, "our lives, our fortunes, and our sacred honor."

An Aid to Teachers

We wish to call the attention of those who are just entering the teaching profession, or who expect to enter it, to "Teaching," a free monthly journal published by the State Normal School at Emporia. Older teachers are doubtless familiar with this publication. It contains much helpful material for the teachers of the state. In the April issue are found editorials as follows: School and the War, War and Educational Efficiency, The Teacher's Responsibility, and Intensive Methods.

The following special articles also appear: Education During the War, by P. P. Claxton, commissioner of education, Washington, D. C.; Education in Wartime and After, by State Superintendent W. D. Ross; The School and the War, by Charles F. Scott; Schools the Foundation for Democracy, by Governor Arthur Capper; The Effect of War on Schools, by Emerson Carey; Practical Suggestions for War Service Work in Schools, by faculty members of the Kansas State Normal School; Teachers' Directory for Patriotic Service; What Folks Say—War Activities in Kansas Schools, by Kansas superintendents.

"Teaching" will be sent free of charge, on request, to any teacher, editor, public official, alumnus of the State Normal School, or to any other citizen of the state desiring it. Address communications to Teaching, State Normal School, Emporia, Kansas.

VICTORY ALONE CAN WIN PEACE

Stamp on All Proposals of Peace as Ill Advised or Seditious

From Address of William H. Taft Before a Great Church Gathering Last Fall

HE who proposes peace now either does not see the stake for which the Allies are fighting, or wishes the German military autocracy still to control the destinies of all of us as to peace or war. Those who favor permanent world peace must oppose with might and main the proposals for peace at this juncture in the war, whether made in socialistic councils, in pro-German councils, or hy Pope Benedict. That the Pontiff of the greatest Christian church should wish to bring to an end a war in which millions of its communion are on both sides is to be expected. That he should preserve a difficult neutrality is also natural. That his high purpose is to save the world from further suffering goes without saying. But the present is not the opportunity for an intervening peacemaker, who must assume that compromise is impossible. The Allies are fighting for a principle the maintenance of which affects the future of civilization. If they do not achieve it they have sacrificed the flower of their youth and mortgaged their future for a century and all for nothing. This is not a war in which the stake is territory or the sphere of influence of one nation over another. The Allies cannot concede peace until they conquer it. When they do so, it will be permanent. Otherwise they fail. There are wars like that between Russia and Japan, in which President Roosevelt properly and successfully intervened to bring about a peace, and helped the parties to a settlement. The principle at stake and the power and territory were of such a character that a settlement might be made substantially permanent. But the present issue is like that in our Civil War, which was whether the Union was to be preserved and the cancer of slavery cut out. Peace proposals to President Lincoln were quite as numerous as those of today, and were moved by quite as high motives. But there was no compromise possihle. Either slavery and disunion won or lost. So today the great moral object of the war must be achieved or defeated.

Prussianism a World Menace.

President Wilson says the Allies are figbting to make the world safe for democracy. Some misconceptionn has been created on this head. The Allies are not struggling to force a particular form of government on Germany. If the German people continue to wish an emperor, it is not the purpose of the Allies to require them to have a republic. Their purpose is to end the military policy of Germany that looks to the maintenance of a military and naval machine witb its hair-trigger preparation for use against her neighhors. If this continues, it will entail on every democratic government the duty of maintaining a similar armament in self defense or, what is more likely, the duty will be wholly or partly neglected. Thus the policy of Germany, with her purpose and destiny, will threaten every democracy. This is the condition which it is the determined purpose of the Allies, as interpreted by President Wilson, to change.

How is the change to be affected? By defeating Germany in this war. The German people have been very loyal to their emperor because his leadership accords with the false philosophy of the State and German destiny with which they have been indoctrinated and poisoned. A defeat of the military machine, a defeat of the Frankenstein of the military dynasty, to which they have been sacrificed, must open their eyes to the hideous futility of their political course. The German government will then be changed as its people will have changed, to avoid a recurrence of such a tragedy as they have deliherately prepared for themselves.

No Peace by Compromise.

Men who see clearly the kind of peace we must have, in order to he a real and lasting peace, can have no sympathy therefore with a patched-up peace, one made at a council table, the result of diplomatic chaffering and bargaining. Men who look forward to a League of the World to Enforce Peace in the future ture can have no patience with a compromise that leaves the promoting cause of the present awful war unaffected and unremoved. This war is now being fought by the Allies as a League to Enforce Peace. Unless they compel it by victory, they do not enforce it. They do not make tbe military autocracies of the world into nations fit for a World League, unless they convince them by a lesson of defeat.

And now what of the United States? When the war came on, there were a few in the United States who felt that the invasion of Belgium required a protest on the part of this government, and some indeed who felt that we should join in the war at once, but the great body of the American people, influenced by our traditional policy of avoiding European quarrels, stood hy the Administration in desiring to maintain a strict neutrality. I think it is not unfair to say that a very large proportion of the intelligent and thinking people of the United States—and that means a majority—sympathized with the Allies in the struggle which they were making.

International Law Flagrantly Violated.

But many with us of German descent, prompted by a pride in tbe notable advance in the world of German enterprise, German ingenuity, German discipline, German efficiency, and regarding the struggle as an issue between Teuton and Slav, extended their sympathy to their Fatherland. As conscientiously as possible the Administration and the country pursued the course laid down by international law as that which a neutral should take. International law is the rule of conduct of nations toward one another, accepted and acquiesced in by all nations. It is not always as definite as one would like, and the acquiescence of all nations is not always as clearly established as it ought to be. But in the law of war as to capture at sea of commercial vessels, the principles have been established clearly by the decision of prize courts of all nations, English, American, Prussian, and French. The right of non-combatants on commercial vessels, officers, crew, and passengers, either enemy or neutral, to be secure from danger of life has always been recognized and never contested. Nevertheless, Germany sank without warning 150 American citizens, men, women, and cbildren, and sent them to their death by a suhmarine torpedo, simply because they bappened to be on English or American commercial vessels. We protested and Germany halted for a time. We thought that if we condoned the death of 150 we might still maintain peace with that power. But it was not to be, and after more than a year Germany announced her purpose to resume this murderous and illigal course toward innocent Americans. Had we hesitated, we would have lost our independence as a people. We would have subscribed abjectly to the doctrine that might makes right. Germany left no door open to us as a self-respecting nation except that which led to war. She deliberately forced us into the ranks of her enemies, and she did it because she was obsessed with the belief that the submarine was the instrument of destruction by which she might win the war. She recked not that, as she used it, it was a weapon of murder of innocents. Making military efficiency her god, and exalting the appliance of science in the killing of men, she ignored all other consequences.

Germany's use of the submarine brought us into the war. But heing in, we recognize as fully as any of the Allies do its far greater issue to be whether German militarism sball continue after this war to be a threat to the peace of the world, or whether we shall end that threat by this struggle in which we are to spend our life's blood. We must not therefore be turned from the stern necessity of winning this war.

The Cancer of Militarism.

When the war began and its horrible character was soon disclosed, tbere were many religious persons who found their faith in God shaken by the fact that millions of innocent persons could be headed into this vortex of blood and destruction without the saving intervention of their Creator. But the progress of the war has revealed much, and it has stimulated our just historic sense. It shows what the world has become, through the initiative of Germany and the following on of other nations, afflicted with the cancer of militarism. God has revealed the greatness of His power and His omnipotence not by fortuitous and sporadic intervention, but by the working out of His inexorable law. A cancer if it is not to consume the body must be cut out, and the cutting of it necessarily involves the suffering and pain in the body. The sacrifices of lives and treasure are inevitable in the working out of the cure of the World Malady. But we must win the war to vindicate this view.

We are now able to see the Providential punishment and weakness that follows the violation of moral law. The crass materialism of the German philosophy that exalts force above morality, power ahove honor and decency, success above humanity, has blinded the German ruling class to the strength of moral motives that control other peoples, and involved them in the fundamental mistakes that will cause their downfall. They assumed tbat England, burdened with Ireland, would violate her own obligation and ahandon Belgium and would leave her Ally, France, to be deprived of all her colonial possessions. They assumed that France was decadent, permeated with socialism, and unable to make a contest in her state of unpreparedness. They assumed that England's colonies, attached only by the slightest tie, and entirely independent if they chose to be, would not sacrifice themselves to help the mother land in her struggle. How false the German conclusion as to England's national conscience and fighting power, as to France's decadence and patriotic fervor and strength, and as to the filial loyalty of England's daughters. And now, at the crisis of the war, when victory must abide the weight of wealth, resources, food, equipment, and fighting men, the German military dynasty, contemptuous of a peace-loving people, brings into the contest a nation fresh in its strength, which can furnish more money, more food, and more fighting men, if need be, than any other nation in the world.

But we are at a danger point. England and France and Russia since 1914 have been fighting the battle of the world, and fighting for us of America. The tbree years or more of war have drained their vitality, strained their credit, exhausted their man-power, subjected many of their non-combatants to suffering and destruction, and tbey have the war-weariness which dulls the earlier eager enthusiasm for the principles at stake. Now specious proposals for peace are likely to be most alluring to the faint-hearted, and most powerful in the hands of traitors. Russia rid of the Czar is torn with dissensions, and the extreme socialists and impractical theorists, blind to the ultimate destruction of their hopes that a loss of this war will entail, are many of them turning to a separate peace.

United States Must Finish War.

The intervention of the United States by her financial aid has helped much, but her armies are needed, and she, a republic unprepared, must have time to prepare. The war is now to be determined by the active tenacity of purpose of the contestants. England showed that tenacity in the wars of Napoleon. Napoleon succumbed. General Grant in his memoirs says that the hattle is won not on the first day, but hy the commander and the army that is ready, even after apparent defeat, to begin the next day. It is the side tbat bas tbe nerve that will win. The intervention of the United States has strengtbened that nerve in England, France, and Italy. But delay and disappointment give full opportunity to the lethargic, the cowardly, the factionalist, to make the task of the patriot and the loyal men doubly heavy. Tbis is the temper of the situation among the European Allies.

Begun This War Right.

With us at home the great body of our people are loyal and strong for the war. Of course a people, however intelligent, when very prosperous and comfortahle, and not well advised as to the vital concern tbat they have in the issue of a war across a wide ocean and thousands of miles away, it takes time to convince. But we have, for the first time in the history of our Republic, begun a war right. We have begun with a conscription law, which requires service from men of a certain age from every walk of life. It is democratic in principle, and yet it offers to the Government the means of selection so that those who shall be sent to the front may be best fitted to represent the nation there, and those best able to do the work in the fields and factories essential to our winning at the front may be retained. We have adopted a merit system of selectng from the intelligent and educated youth of the country the company officers of an army of a million and a half or two millions that we are now preparing. The machinery of the draft naturally bas creaked some because it bad to be so hastily constructed, but on the whole it has worked well. Those who devised it and have carried it through are entitled to great credit. The lessons of the three years of the war are heing learned and applied in our war equipment and in neutralizing, by new construction, the submarine destruction of commercial transports. Adequate measures for the raising of the money needed to finance our Allies have been carried through Congress or are so near enactment as to be practically on the statute book. Food conservation is provided for. But of course it takes time for a hundred million of peace lovers and non-militarists to get ready, however apt, however patriotic, however determined. It is in the period of the year before the United States can begin to figbt that the strain is to come in Europe. But Germany is stopped on the Western and Italian fronts. The winter coming will be harder on her than the Allies. "It is dogged that does it." Stamp on all proposals of peace as ill advised or seditious, and then time will make for our certain victory.

While there has been pro-German sentiment in the United States, and while the paid emissaries of Germany have been trying to create as much opposition to the war as possible, and have found a number of weak dupes and un-

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intelligent persons who don't understand the importance of the war, to aid them, our Allies should know that the whole body of the American people will earnestly support the President and Congress in carrying out the measures which have been adopted by the United States to win the war.

United States at Peace Table.

When the war is won, the United States will wish to be heard and will have a right to be heard as to the terms of peace—not one of material conquest. It is a moral victory the world should win. I think I do not mistake the current of public sentiment throughout our entire country, in saying that our people will favor an international agreement by which the peace brought about through such blood and suffering and destruction and enormous sacrifices shall be preserved by the joint power of the world. Whether the terms of the League to Enforce Peace as they are will be taken as a basis for agreement, or a modified form, something of the kind must be attempted. Meantime, let us hope and pray that all the Allies will reject all proposals for settlement and compromise and adhere rigidly and religiously to the principle that, until a victorious result gives security that the world shall not again be drenched in blood through the insanely selfish policy of a military caste of a nation ruling a deluded people intoxicated with material success and power, there will be no peace.

Tornado Defined

The United States Weather Bureau has issued a series of warnings and definitions of tornado conditions which are briefly summarized below.

It says that tornadoes are usually preceded by high temperature and humidity — weather condition generally said to be "sultry," "sticky," or "oppressive." Rain may come before, with, or after a tornado, or, very rarely, there may be no rain at all. The barometer does not foretell a tornado, though it indicates low pressures; and tornadoes always occur in a "low" area.

The season in which tornadoes may be expected varies according to the region. They may visit the Gulf States in winter, and as the season advances the region of greatest frequency is in the Plains States and the Mississippi Valley, from April to September, inclusive. In this region May is the worst month, with April next. East of the Appalachian Mountains, however, tornadoes rarely occur until after July. Generally they come between 3:30 and 5 p. m., but they may even come at night.

Persons may somewhat avoid tornado danger by watching the local signs and reading the weather maps, which at least show the conditions which favor tornado formation. The local signs are heavy, dark clouds, first in the southwest, almost immediately followed by clouds in the northwest and north. A funnel-shaped cloud is a sure sign, though there may be a tornado when such a cloud is not readily seen. If a funnel cloud can not be seen, the whirling motion of the air may be known by a peculiar roaring noise, somewhat like the rumble of distant thunder or the approach of a heavy train of cars.

If one can see the cloud and get an idea of the direction in which it is moving, the zone of safety is at right angles to the direction of motion. The southern margin is usually more dangerous than the northern, and this should be remembered in seeking a place of safety. The width of the path of greatest destruction is ordinarily not more than a few hundred yards, though this destructive diameter may be from some rods wide to a half mile, or sometimes wider. However, the worst part is comparatively narrow, and relative safety may be had only a short distance at right angles to the line of the advance of the tornado.

In some of the Plains States there are so-called "cyclone" cellars, and where these are not available the southwest corner of the cellar of a frame building is the next best place. Brick buildings are not so safe, but the cellar is probably the safest place in them. In the Omaha tornado of 1913 very few brick houses were seriously damaged. These are ordinarily unroofed, though sometimes the walls crumble or fall outward.

Weather men define a tornado as a violent windstorm, with rain or hail, thunder and lightning, in which the air masses whirl with great velocity around a central core, while the whole storm travels across the country in a narrow path at high speed. The thunder and the whirling motion have given rise to two theories of the derivation of the word, as to whether it is derived from the Spanish "tronada," a thunderstorm, or from the Latin "tornare," to turn.

A cyclone, in the definition of the Weather Bureau, is not necessarily a windstorm of great velocity, but rather a widespread storm that moves with no great speed. Its width may cover several states. This cyclone, or area of low pressure—indicated as "low" on the weather map—gives conditions essential to tornadoes. Many cyclones never develop a tornado, but a tornado never develops without the cyclone, and almost invariably the tornadoes occur in the southeast quarter of the low area. About 120 cyclones pass across the United States each year, moving in a general way from west to east. They are of great benefit because they induce a movement of surface air from the south and southeast, and the rainfall that makes the great interior valleys a rich agricultural region is dependent upon these southerly moisture-bearing winds.

Practically all of the cyclones of the warm season give rise at some time or place to thunderstorms or hail or violent winds. These winds may be violent enough to cause destruction, but unless they have the whirling column of air they are not tornadoes. In the East it is not always easy to distinguish the funnel-shaped cloud, but the lay of the debris after a storm will tell whether there has been a twisting motion.

Tornadoes almost invariably move in an easterly direction and generally from southwest to northeast. The average length of the path of destruction is about twenty-five miles, and this path may not be continuous, if the funnel cloud is not in contact with the earth during its whole course. Sometimes it rises and goes for a considerable distance before descending again.

Young Trees Need Cultivation

If you set any fruit trees last spring, do not fail to give them good clean cultivation during the summer season. It does not pay to put money into trees and then neglect them. The cultivation that is given vegetables is just the kind of tillage needed by young fruit trees. That is why Dr. J. C. Whitten, of the Missouri Agricultural College, recommended a family orchard in the war garden last spring.

The ground should be kept thoroughly cultivated around the young trees throughout the summer until they are well established or reach bearing age. Crusts should be broken to maintain a loose dust mulch two inches deep on the top of the soil. Competing weeds should be kept down. Those which are too close to the trees to be caught by the cultivator should be pulled up by hand or cut with the hoe.

Borers frequently enter the tree just below the ground, work in the growing layer beneath the bark, and either injure the trees badly or kill them outright. A loost dust mulch will aid in preventing injury from borers, because the mulch will not permit the ground to harden and shrink away from the tree. If the ground is dry and hard, it will shrink away from the tree and leave a crack which will shelter the borer while it is feeding and laying eggs. Fine dust will smother soft-bodied insects like borers, and if a fine dust mulch is maintained against the very base of the tree, a borer is pretty certain to die before it can crawl down to where the bark is tender enough for it to eat.

Young trees should be shaped during the first few summers. The ideal fruit tree has a short trunk about two feet high. It should have about two to five main outward spreading limbs. A little attention to the young tree in summer may readily establish a good, symmetrical, branching system. Surplus sprouts which start on the trunk may be rubbed off. Branches which grow one-sided may be induced to put out branches on the opposite side by pinching back the tops of the limbs. Abnormally long limbs may be clipped back to give shorter ones on the opposite side a chance to grow.

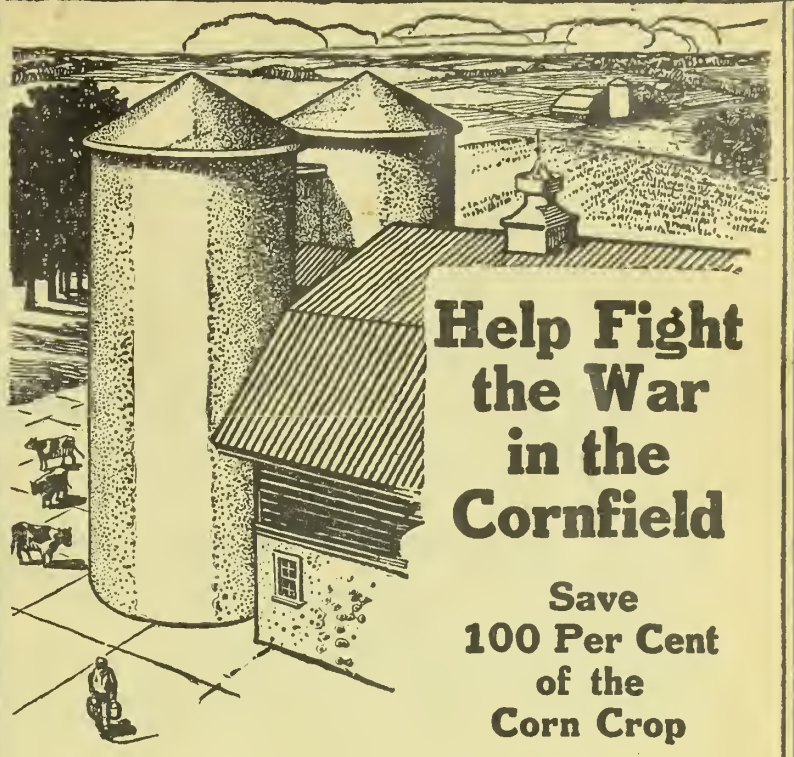
The grower should watch for tent caterpillars, and destroy any colonies which appear. Other dangers may be detected also by going over the trees occasionally.

Waste reclaimed is ground regained.

I am a man of peace. God knows how I love peace, but I hope I shall never be such a coward as to mistake oppression for peace.—KOSSUTH.

W. S. S. means War Savings Stamps. It also means Waste Should Stop. Feed the stock on a feeding floor or in troughs. Enough corn is wasted in a month on some farms to pay for a War Savings Stamp, costing $4.17. Stop the waste and buy the stamps. They will be worth $5 in January, 1923.

Fight to conserve; conserve to fight.



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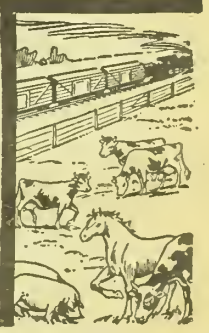

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KANSAS FARMER DAIRY CLUB

Dairying in the Short-Grass Country

OUT in the short grass country where wheat and other grain crops are somewhat uncertain, dairying is a line of live-stock farming that has served to permanently establish many a farm family. The following letter from a Dairy Club member who lives in Stanton County, only a short distance this side of the Colorado state line, shows what a cow can do in this section of the country:

"Dear Dairy Club: I just received my test yesterday, so will mail my record to you today. I hope you receive it in time for me to be on the honor list for May. My cow is doing fine. She gets lots of grass and is real fat. She was thin when I bought her. I have her paid for now and I am helping pay for a cream separator. I thank you for helping me to get her. When can I get another cow and pay for her in the same way? I am anxious to try it again, as I want to earn cows for my very own.

"I want to get a better cow next time, although Star does real well. I am feeding her but little. The grass is thick about here and feed is scarce.—ERNEST A. WORTHINGTON, Johnson, Kansas."

Milk cows do well on good buffalo grass pasture. It is a very rich, nutritious grass. Now that Ernest has demonstrated his reliability and has shown that he is able to successfully handle a milk cow and her product, he will probably be able to get money for another cow from the same man who loaned him money for his first cow. A number of Dairy Club members have had similar ambitions and have bought additional cows after completing the first year's work. In nearly every instance they have borrowed the necessary money from the same man who made them their first loan. It is worth a great deal in a business way to have the confidence of men who handle money. Business is conducted largely on credit, or borrowed capital. The man who has shown that he can be depended on and that he has the ability to use money profitably can usually get what he needs. As a rule men do not acquire a credit standing until they are considerably older than our Dairy Club members. Boys and girls who have acquired a credit rating with a banker may well feel proud of the progress they have made in establishing themselves in the business world.

The idea of getting a better cow is a good one, and we hope every Dairy Club member and other beginners in dairying will have the ambition to handle better animals as they progress in their knowledge of the business. As a rule it is far safer to start with ordinary cows and not try to handle the more expensive high-producing cows until experience has been gained in dairy feeding and dairy methods. The writer of the above letter and many others have demonstrated that even very ordinary cows will bring in good money if given proper care. The more the young dairyman learns about handling dairy cattle, the more certain he is of succeeding with the better cows and his ambition to get better cows should be encouraged.

There is always a general complaint at this time of the year that cows fall off in milk. The main cause for this marked falling off in milk which always occurs during such a period of extreme heat as we have just passed through is failure of cows to eat enough. A cow giving forty or fifty pounds of milk a day must spend considerable time in eating grass in order to get enough material to make that quantity of milk. Even though there may be plenty of grass in the pasture, which is seldom the case during such a hot spell, the cows will not get enough to eat because they will not spend enough time grazing during the day. They will hunt the coolest and breeziest spot in the pasture and stand and fight flies and at night come to the barn hungry. It is not an easy matter to overcome such conditions. If it is possible for the cows to be in a good pasture near the barn at night they will graze more, but usually when it is so extremely hot the grass dries up so there is little for them to get, even though they have a chance to graze in the cool part of the day. The only thing to do is to feed them at the barn, either additional grain or some good palatable rough feed. This is a time when some silage helps out wonderfully. In fact it is almost impossible for a dairyman to successfully handle a milk herd through the summer period without having a summer silo so the cows can get enough succulent, palatable feed to enable them to keep up the flow of milk under summer conditions. A little later in the season green forage crops, such as corn, kafir, cane, or Sudan grass, can be fed. Some mow and feed green alfalfa to the cows during the hot, dry weather of the summer when it too hot for the cows to graze or when there is nothing for them to eat in the pastures. The difficulty of handling green forage crops in this way is that it takes considerable labor to cut the feed and get it to the cows each day and there is so much farm work to do that few will find time to feed very many cows on green forage crops. It is the most trying time of the year for the dairyman, and on many farms the cows are bred so as to have their dry period come during the middle of the summer. By planning in this way there is very little dairy work to do at this period of the year, and this releases labor for carrying on the many rush jobs of the farm that cannot be neglected.

If you happen to have a kicking cow you can usually charge it to someone's faulty management, perhaps your own. In the beginning cows always kick either from fear or pain. If you strike a cow with the milk stool when she kicks, it only makes a bad matter worse. In break a cow to milk, gentle means should always be followed. Confirmed kickers, however, cannot always be cured by kind treatment. If you have such a cow and she is too good a producer to sell, about the only thing you can do is to tie a strap to her legs when you milk. Take a strong strap with a loop in one end and pass the loop around one leg just above the hock. Run the end of the strap through the loop, draw it tight, and buckle the end around the other leg, drawing the legs fairly close together. A rope can be used in the same way, although the rope is more apt to hurt the cow's legs. There is a very convenient device on the market which can be quickly adjusted to the legs of a cow and is very effectual in preventing kicking. A kicking cow after some struggling at first will learn to stand quietly as long as the strap or rope is in place.

It is the persistent milking cow, or the cow that will give milk through a long lactation period that pays best in the dairy. When milking a heifer for the first time it is a good plan to make the first lactation period as long as possible or at least as long as it is desirable to milk the cow after she is fully mature. For this reason it is usually considered best to continue milking the young heifer even after she has fallen off in milk so it would not pay simply for the milk she gives. It will tend to fix the habit of milking for a long period, and that will justify milking the young heifer even though she may get down to only a quart or two of milk daily. The persistent milkers are the most profitable, and while it is largely a matter of inheritance something can be done to fix the habit during the first lactation. It is quite common among dairymen to delay breeding young heifers for their second calves so as to make the first lactation period longer. For example, if a heifer freshens for the first time in the spring, delay breeding so her second calf will come in the fall and in the meanwhile milk her just as long as she will give milk or up to within six or eight weeks of her second freshening.

In sending in his milk record for May, John R. Moellman, of Olpe, writes that his cow is coming back on her milk flow since he got her out on grass. At the latter end of the seeding season she fell off considerably. John's cow will be fresh about the first of January next. He says: "She has paid for herself all but $21.50. I think if she had not had the injury which caused the sore on her leg, the cream checks would have been larger."

Serve abroad or serve at home. Buy War Savings Stamps.

Join the army behind the army—be a war saver.



Stock Yards to be Licensed

THE order has been issued putting our big stock yards under government control through a licensing system. We referred in our last week's issue to the probability of such action being taken in the near future. The authority for this action is given in the food control act which gives the President power to control distribution of food products in the interest of national security and defense.

Our great stock yards are such an important link in our system of marketing and distributing animal products that it would almost naturally follow that they would have to be controlled by the Government, since the packing houses are under Government control. The Secretary of Agriculture is given virtual control of the yards. Charles J. Brand, chief of the Bureau of Markets, will have immediate charge, assisted by L. D. Hall, head of the Live Stock Marketing Division. No one knows as yet exactly how the details of handling the yards will be worked out. The probabilities are, however, that there will be little change from the present management.

The order becomes operative July 25. Owners of all stock yards will be compelled to take out Government licenses as will all live stock commission men who do business in the stock yards, acting as agents between the producer and the packing house. A part of the official proclamation follows:

I, Woodrow Wilson, president of the United States of America, by virtue of the powers conferred on me by said act of congress, hereby find and determine and by this proclamation do announce that it is essential, in order to carry into effect the purposes of said act, to license the importation, storage and distribution of certain necessaries, to the extent hereinafter specified.

All individuals, partnerships, associations and corporations engaged in the business of conducting or operating, for compensation or profit, places, establishments, or facilities, commonly known as stock yards, consisting of pens or other enclosures and their appurtenances in which live cattle, sheep, swine or goats are received, held or kept for sale, feeding, watering or shipment and all individuals, partnerships, associations and corporations commonly known as commission men, order buyers, traders, speculators and scalpers engaged in the business of handling or dealing in live cattle, sheep, swine or goats in or in connection with such stock yards (except as exempted by said act of congress) are hereby required to secure licenses on or before July 25, 1918, which will be issued under such rules and regulations governing the conduct of the business as may be prescribed under said act.

The secretary of agriculture shall carry into effect the provisions of said act and shall supervise and direct the exercise of the powers and authority thereby given to the president as far as the same apply to the said business and to any and all practices, procedure and regulations applicable thereto, authorized or required under the provisions of said act and in this behalf he shall do and perform such acts and things as may be authorized or required of him from time to time by direction of the president and under such rules and regulations as may be prescribed by the president from time to time. All departments and agencies of the government are hereby directed to co-operate with the secretary of agriculture in performance of duties hereinbefore set forth.

Application for licenses must be made to the law department, license division, United States Food Administration, Washington, D. C., upon forms prepared for that purpose.

Any individual, partnership, association or corporation other than as hereinbefore excepted, who shall engage in or carry on any business described herein without first securing the license required therefor, will be liable to the penalties prescribed by said act of congress.

Army to Buy Lighter Beef

Following a protest from the Kansas Live Stock Association and other organizations representing beef cattle men, Mr. Cotton of the Food Administration has decided to make the minimum weight of dressed carcasses for the army and navy 450 pounds and for the foreign armies 425 pounds. The minimum weight has been fixed at 500 pounds, and this eliminated a very large proportion of the kind of cattle now coming to market.

During the winter period when heavy, well-finished cattle were being marketed, the army and navy demands and those of our Allies were for the poorer grades of beef. This resulted in many cattle feeders losing money, because the heavy buying capacity of the Food Administration did not affect the better grades of cattle. After numerous conferences with the Food Administration and the registering of protests against its action in not taking the better beef, Mr. Cotton finally prevailed on the Allies to buy these better carcasses and the situation was relieved, although not until many good cattle had been sold at a loss. Conditions change quickly, however, and in a very short time the cattle going to market were producing lighter carcasses. There are nearly three million cattle of this kind on grass in Kansas alone. The demand for a market for a light carcass was made by the cattlemen and the executive committee of the Kansas Live Stock Association received a telegram while in session at Hutchinson last week stating that the minimum weight had been lowered as stated above. This is good news to cattlemen all over the country, as it insures their cattle finding a ready market. It begins to appear as though the Food Administration can be reached on some of these matters so vital to the live stock interests. Mr. Yancey, who is an old, experienced cattle feeder, is now associated with Mr. Cotton, and his advice and counsel is without doubt helpful in keeping the Food Administration posted as to actual live stock conditions.

Hog Specialist Appointed

A general field man has recently been appointed who will visit the different states as a direct representative of the Bureau of Animal Industry in its efforts to help in pork production.

W. J. Carmichael, who has for several years been in charge of swine extension work at the Illinois Agricultural College, is the man selected for this work. To many of the swine men of the corn belt Mr. Carmichael needs no introduction. His work at the college in carrying on practical experimental work has given him an acquaintance among swine men that extends beyond the limits of the State of Illinois.

Mr. Carmichael will keep in touch with the work of the hog men themselves, the work being done by the various men from the pork production division in the different states, and the work as carried on by the extension service of the different states. The Bureau of Animal Industry hopes in this manner to be in position to give swine growers even better assistance in the future than it has in the past. This division of the bureau work is at the service of hog men all over the country.

All private stocks of olive oil in Italy in excess of actual family needs have been requisitioned by the government.

(POLITICAL ADVERTISEMENT)

WHY WE ARE FOR STUBBS

A Letter from Farmers to Farmers:



Farmers will all admit that with only eight farmers in the National House and three in the United States Senate, they are not fairly represented in Congress or upon the various War Boards and Commissions, and that for that reason their interests have not received proper consideration.

We, the undersigned farmers and stockmen, are for W. R. STUBBS for the Republican nomination for United States Senator, BECAUSE

He is one of the most extensive farmers and live-stock producers in the Middle West;

He is cultivating over 2,000 acres of crops of various kinds and is producing several thousand cattle and more than a thousand hogs for the market annually;

He knows what it costs to produce crops, cattle and hogs for the market, and has a live personal interest in common with our own;

He is a member of the Executive Committee of the National Live Stock Association, a member of the National Shippers' League, and was last year the President of the Kansas State Live Stock Association;

He has done more than any other man in Kansas to secure equitable freight rates by reason of his years of experience in actually building railroads, and he has long been regarded by the Interstate Commerce Commission as a rate expert because of his knowledge of their cost of construction and operation;

He is right on the War. He is the one candidate who dared to advocate "Preparedness" from the day the European War started, and his utterances before and since the United States became involved are consistent with the red-blooded American speeches he is delivering now;

He has not only "talked" woman's suffrage since it became a reality, but he voted for it while a member of the House and while Governor signed the resolution which gave to Kansas women the right of the ballot;

He played a leading part during the six years he was a member of the House and the four years he was Governor, in securing the following and much other progressive and constructive legislation:

THE ANTI-PASS LAW,	THE CHILD LABOR LAW,	THE PRIMARY ELECTION LAW,
THE TWO-CENT FARE,	THE STATE PRINTER LAW,	THE BOARD OF CONTROL LAW,
WOMAN'S SUFFRAGE,	THE BANK GUARANTY LAW,	THE MAXIMUM FREIGHT-RATE LAW,
THE "BLUE-SKY" LAW,	THE STATE DEPOSITORY LAW,	MAKING PIPE LINES COMMON CARRIERS.

He has the back-bone, courage, experience and ability to render a superior service to the State and Nation during this crisis. The farmers of Kansas cannot afford to overlook this opportunity of sending W. R. Stubbs to the Senate.

T. M. POTTER, Peabody	GEORGE W. DONALDSON, Greensburg
GEORGE PLUMB, Emporia	M. C. CAMPBELL, Wichita
D. S. ENGLE, Abilene	ED CROCKER, Cottonwood Falls
O. F. Whitney, Topeka	C. A. STANNARD, Emporia
FRANK POMEROY, Holton	GEORGE LENHERT, Abilene
JOHN EDWARDS, Eureka	GEORGE E. WARD, Sharon Springs
E. J. GUILBERT, Wallace	AUGUST H. SCHULTZ, Brookville
JACOB BROWN, Abilene	W. J. MADDEN, Hays
L. P. PRESSGROVE, Topeka	ARNOLD BERNS, Peabody
S. M. ROSEBERY, Arkansas City	H. C. BRENIZER, Abilene
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A. D. EINSEL, Greensburg	A. P. BURDICK, Nortonville
JOSEPH WHITE, Abilene	JAMES PLUMB, Emporia
R. D. McKINLEY, Ashland	E. S. ENGLE, Abilene
FRED M. BROWN, Onaga	J. W. BERRY, Jewell
WALTER S. JONES, Lebo	W. C. MILLAR, Belvidere
A. W. DENNON, Topeka	E. F. MADDEN, Hays
C. W. TAYLOR, Abilene	BERT JOHNSON, Emporia
J. J. MORRIS, Emporia	E. M. FUNK, Abilene
M. M. SHERMAN, Crawford	A. H. ABRAMS, Arkansas City
J. W. GREENLEAF, Greensburg	U. G. WOODARD, Glen Elder
GEORGE A. RAMSEY, El Dorado	JAMES BEHAN, Victoria
P. A. REECE, Bartlett	RODNEY A. ELWARD, Castleton
E. S. ROOT, Brookville	SAMUEL B. NEWLAND, Abilene
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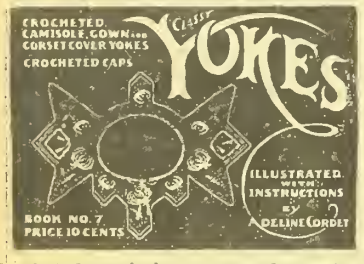


Crocheted camisole, gown, and corset cover yokes. A collection of pretty patterns with illustrations and complete instructions. In ordering be sure to ask for Book No. 7. Price, postpaid, 10 cents.

FANCY WORK DEPT., KANSAS FARMER, Topeka, Kansas.

Why not give War Savings Stamps to prize winners at agricultural fairs, asks the Department of Agriculture. The Bureau of Agriculture of the Lake Charles, Louisiana, Chamber of Commerce, has suggested that all premiums given by state, county and other fairs this year be paid in War Savings Stamps. A resolution expressing that proposal was recently adopted by this Bureau of Agriculture and is being sent to all federal and state officials interested and to the proper representatives of fair associations in every part of the country.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

My Native Land

My own, my native land,
Of thee I boast.
Great Empire of the West,
The dearest and the best,
Made up of all the rest,
I love thee most.
—Abraham Coles.

Let us cultivate a true spirit of union and harmony. In pursuing the great objects our condition points out to us, let us act under a settled conviction and an habitual feeling that these twenty-four states are one country. Let our object be Our Country, Our Whole Country, and Nothing But Our Country, and by the blessing of God may that country itself become a vast and splendid monument, not of oppression and terror, but of wisdom, of peace, and of liberty, upon which the world may gaze with admiration forever.—DANIEL WEBSTER, speech at Bunker Hill Monument, July 17, 1825.

Other Ways to Save Wheat

Cut your loaf at the table slice by slice as needed. Waste not a crumb.

Waste no flour on the bread board when you make bread.

For thickening, use cornstarch or the substitute flours. Fine corn meal is good for dredging meats. Every little bit of flour saved counts.

Have breadless meals. Eat potatoes or cooked cereals to take the place of bread. When you have potatoes, rice, or hominy served with the meat, or for breakfast a large bowl of cereal, you do not need bread.

Kill Flies and Save Lives

Kill at once every fly you can find and burn his body.

The killing of just one fly now means there will be billions and trillions less next summer.

The conditions produced by the long and severe winter have made difficult the removal and proper disposal of refuse and filth accumulations that will facilitate the breeding of disease-germ-carrying flies.

Clean up your own premises; see and insist that your neighbors do likewise.

Especially clean "out-of-the-way" places, and every nook and cranny.

Flies will not go where there is nothing to eat, and their principal diet is too filthy to mention.

The fly has no equal as a germ carrier; as many as five hundred million germs have been found in and on the body of a single fly.

It is definitely known that the fly is the carrier of the germs of typhoid fever; it is widely believed that it is also the carrier of other diseases, including possibly infantile paralysis.

The very presence of a fly is a signal and notification that a housekeeper is uncleanly and inefficient.

Do not wait until the insects begin to pester; anticipate the annoyance.

April, May and June are the best months to conduct an anti-fly campaign.

Your friends and members of the family now in the service should be reminded of the danger of the house fly in camps and co-operate with their superiors for the elimination of this deadly pest.

Canning Suggestions

The most common trouble in canning is overcooking.

Don't put a vegetable to be blanched or jars of canned products to be sterilized into the water until it is boiling rapidly.

Don't put each jar into the hot water bath as it is packed. Wait until you have filled all that you are going to sterilize at one time and put them in at the same time, so that all will complete the process at one time.

It is a good plan to sterilize a few extra covers so as to have an extra one ready in case one is found to be faulty.

All rubbers should be tested before using by stretching and twisting. If they are going to give way, let them do it before being put on the jars.

Pack fruit or vegetables tightly in the jar to conserve space. When the jar is opened you can add more syrup to fruit or more water to vegetables if desired.

One cause of shrinking is the fluctuations in heat during sterilization. If you can keep the jars at an even temperature during sterilization you will not have so much shrinkage.

It is a good plan to keep a pencil and paper handy in the kitchen and use it to mark down the time when sterilization begins. If you wish, you can set an alarm clock to go off when it is time to remove the jars.

If the rubber has slipped to one side during sterilization, push it back in with a knife blade as quickly as possible after removing from the hot water, then invert the jar to see if it leaks. If it does, the lid must be removed and a new rubber put on. The jar should then be replaced in the hot water bath and sterilized about seven minutes if it contains vegetables, not quite so long for fruit, and fully ten minutes for meat.

Canning Beets

Beets have been used for pickles so long that their value as a vegetable has been largely overlooked. The small, tender beets are best for canning, as they are more palatable and have a better color than those that are larger and older. Wash the beets thoroughly, leaving on about one inch of the tops and all the main root stem until after blanching. Blanch or steam over hot water for ten minutes. Plunge into cold water, remove at once, and scrape off the peeling, being careful not to cut the beet so that none of the red juice will be lost. Cut off the root stem and the top, rounding these off rather than cutting straight across. This gives the beet a better shape and not so much of the juice is lost. Pack in jars whole if possible. Add one level teaspoonful of salt to each quart to season, and fill up the jar with boiling water. Sterilize two to two and one-half hours in hot water bath, or sixty minutes under five pounds of steam in the pressure cooker. The tops should be canned for greens.

Probably nothing that the housewife does gives her more satisfaction than the canning of fruits and vegetables and meats. It is hard, hot work, to be sure, but when it is finished there are the shining rows of filled jars to show for her work, and this is one thing which will not have to be done over again to morrow or next week. If you can arrange to gather your fruits and garden products in the cool hours of the early morning and do the indoor work after it gets warmer outside, it will be much easier. If you have a small garden near the house, perhaps you will have time to gather and prepare vegetables for canning while the jars are being sterilized and the water is heating for the hot water bath.

A housewife tells us that she gets much better results in jelly making by heating the sugar in a pan in the oven or on top of the stove and then adding it to the boiling fruit juice. When this is done it is not necessary to cook the jelly so long, and the result is a soft, quivery jelly of just the right consistency. "It makes the biggest difference!" she says.

If you want berries to look particularly well, the fruit can be sorted, the large, well-shaped berries being canned and the smaller ones used in jam. It may pay to take time for this if you are preparing fruit for exhibition. It is really very little extra trouble when hulling them to place the small ones in a separate dish.

The squirrel does not know how to can, but he stores his food for the lean season. Learn a lesson from the squirrel.

FASHION DEPARTMENT

All patterns, 10 cents.



No. 8711—Ladies' Waist: Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. The severe style of this waist is sure to be becoming to a rather plump figure. The waist buttons directly at the center front and extends below the waistline in two points. The basque effect is produced by drawing the fronts toward the underarm seams. **No. 8727—Children's Set:** Cut in sizes 2, 4, 6, 8 and 10 years. A very complete set of children's clothes consisting of a one-piece dress, Gertrude petticoat which may also be used for an underwaist, and a pair of one-piece drawers. **No. 8701—Ladies' One-Piece Apron:** Cut in sizes 36, 40 and 44 inches bust measure. This type of apron has won the approval of the Red Cross. The apron is all in one piece, so it will take very little time to make. The bib section may be either pointed or square.



No. 8775—Ladies' and Misses' Blouse: Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. The blouse closes from V-neck to hem at center front. The wide collar has deep points at the front. The sleeves may be either long or short. **No. 8791—Ladies' and Misses' Coat:** Cut in sizes 16 and 18 years and 36, 38, 40 and 42 inches bust measure. This coat may be made with or without sleeves and vest. The narrow belt has an applied piece buttoned onto the front. **No. 8778—Ladies' Yoke Skirt:** Cut in sizes 24, 26, 28, 30 and 32 inches waist measure. The lower section of the skirt is all in one piece with straight lower edge, and it is gathered to a fitted yoke which is stitched to the slightly raised waistline.

Gooseberries and rhubarb may be successfully canned by the cold water method. The water should be boiled twenty minutes to kill any bacteria that may be present and then cooled. The jar is filled with the fruit, filled to overflowing with water, and the lid is put on. When the jar is opened, sugar is added and the gooseberries or rhubarb cooked in the same ways as when fresh.

Sewing Hints

A one-piece pattern means economy in time and labor, but not in material.

War-time patterns, requiring a minimum of material, are published by different pattern companies. Select such as have good lines and follow carefully the directions for placing the parts on cloth. The simple pattern is an aid to clothing conservation.

A wide fabric cuts to better advantage than a narrow one. If choice lies between a wide and a narrow fabric of the same quality, it is economy to buy the wide one.

All cotton fabrics should be shrunk before making up. Let the material lie in hot water, then partly dry, and press on the wrong side while still damp.—University of Minnesota Bulletin.

Shortcakes for Patriots

The call for wheat grows more and more urgent and Americans now realize that wheat is as much a part of the real fighting program of the country as ships and guns. It has been said that brains will win the war. Thinking ahead on the wheat question has led many citizens to demand that wheat be taken over by the Government and held in hand to meet any shortage that may arise from submarine sinkings. That would be Germany's method, the brains of the rulers in that case would win; but America is depending on a democracy to win—the brains of all her people. Your brains must win.

Thousands of men and women have given up the weekly allowance of a pound and a half of flour, and are traveling a wheatless road to victory. Those housekeepers who make good use of this allowance in loaf bread and biscuit hesitate to turn even a dust of wheat flour into pie or shortcake and such extras. To these the recipes for shortcake worked out in the experiment kitchen of the Food Administration will be most acceptable.

Barley Shortcake

1 cupful liquid
4 to 6 tablespoonfuls fat
1 tablespoonful sugar
1 teaspoonful salt
6 teaspoonfuls baking powder
4 cupfuls barley

Corn Flour Shortcake

1 cupful liquid
6 to 8 tablespoonfuls fat
1 tablespoonful sugar
1 teaspoonful salt
6 teaspoonfuls baking powder
2⅔ cupfuls corn flour

Rice Flour Shortcake

Follow directions for corn flour, using 2¼ cupfuls of rice instead of corn flour.

Barley-Corn Shortcake

1 cupful liquid
6 tablespoonfuls fat
1 tablespoonful sugar
1 teaspoonful salt
6 teaspoonfuls baking powder
2 cupfuls barley flour
1⅓ cupfuls corn flour

Barley-Oats Shortcake

Follow directions for barley-corn flour, using 1½ cupfuls rolled oats ground in food chopper instead of the corn flour.

Corn-Oats Shortcake

1 cupful liquid
4 tablespoonfuls fat
1 tablespoonful sugar
1 teaspoonful salt
6 teaspoonfuls baking powder
1⅓ cupfuls corn flour
1½ cupfuls ground rolled oats

The same weight of flour is used in each recipe—the measures differ according to the kind of flour used. All measurements are level. Mix dry ingredients, cut in the fat and add the liquid. For individual servings place the dough on a slightly-floured board, pat to three-fourths inch thickness and cut as for biscuit. If a large shortcake is wanted, place dough in well greased biscuit tin and pat to desired thickness.

These shortcakes are light and tender. An egg added to rice or corn flour makes a softer dough. The slightly acid taste of barley may be overcome by using one-fourth teaspoonful of soda dissolved in one cupful of liquid. The flavor of oat and corn is especially good. The shortcakes made from corn or rice flour are very white and flaky and similar in appearance to wheat flour.

Do not split these cakes, as they crumble easily. Pile strawberries or other fruit on shortcake. Add whipped cream, if desired, and serve. These shortcakes can be used instead of pie crust in a great variety of desserts.

Italian Potatoes

2 cupfuls mashed potato
1 tablespoonful finely chopped parsley
1 egg yolk, well beaten
½ cupful grated cheese
1 teaspoonful onion juice
Salt and pepper
1 egg white, beaten stiff

Combine all ingredients in the order named, except the egg and white. If the potatoes are cold, add enough milk to mix easily. Beat thoroughly. Fold in the stiffly beaten egg white, pile lightly on an oiled baking dish, and put in the oven to brown.

Ice Cream Recipes

Ice Cream No. 1

1 quart milk
1 pint thick cream
1 cupful sugar
1 tablespoonful vanilla

Scald the milk and dissolve the sugar in it. When cool add the vanilla and cream, and freeze.

Ice Cream No. 2

1 quart milk
2 eggs
1 cupful sugar
1 tablespoonful flour
1 pint thin cream
2 tablespoonfuls vanilla

Mix the sugar and flour. Add well beaten eggs and the scalded milk. Cook over hot water twenty minutes. Remove from fire and cool. Add cream and flavoring, and freeze.

Chocolate Ice Cream

Melt the chocolate with the water. When smooth add to the plain cream recipe and freeze.

Colors that Harmonize

In planning color combinations either for home furnishings or for wearing apparel, the following list of harmonizing colors, taken from a bulletin of the United States Department of Agriculture, will be helpful:

Gray harmonizes with purple, red, blue, brown, or yellow.

Yellow with black, purple, blue, or green.

Lavender with green or white.

Old rose with all blues.

Brown with blue, mauve, or gray.

Heliotrope with cream.

Green with brown.

Crimes Against the Innocent

There is such a thing as being criminally careless or criminally indifferent. Where shall we place parents who carelessly and with seeming indifference allow their children to transmit infectious diseases to other children? How about the mother who carried her child, affected with whooping cough, to a public gathering? Children with whooping cough, mumps and chicken pox are frequently not restrained from going to public places or "running wild" in the neighborhood. Here is a little boy three years old that wants to play with other children, but some of the other children in the neighborhood have whooping cough, and this little fellow has a little sister two weeks old. The mother realizes that if the baby gets whooping cough it will be serious and perhaps fatal. But the neighbors don't seem to care. Strange, is it not?—H. E. KINGMAN, Colorado Agricultural College.

Milk Important Food

Milk is one of the most important food sources the human race possesses. For the proper nourishment of the child it is absolutely indispensable and its use should be kept up in the diet as long as possible. Not only does it contain all the essential food elements in the most available form for ready digestion, but the recent scientific discoveries show it to be especially rich in certain peculiar properties that alone render growth possible. This essential quality makes it also of special value in the sick room. In hospitals it has also been shown that the wounded recover more rapidly when they have milk.

For the purpose of stimulating growth, especially in children, butter fat and other constituents of milk have no substitutes. Therefore, every parent owes to himself and to his family the duty of providing requisite amounts of milk, butter, cheese and other dairy products. During this last winter, when much agitation was had in some of the larger cities over the price of milk, which was advanced from two to three cents a quart by reason of the rapid rise in the cost of feed and labor, many families among the poor were found giving their children tea and coffee instead of milk. Such methods of feeding fail to nourish the child properly.

In spite of the shortage of milk in Germany, that country has at all hazards maintained the milk ration of the children and in the hospitals, even though to do so has meant that the adult population has had to forego largely its use. In a "safety first" health campaign it must be remembered that it should be written "children first."—U. S. Food Administration.

Roses in Your Home

ALL YEAR

Beautiful climbing roses of brilliant colors, fragrant roses of upright growth, and trailing roses with delicate tints; all yielding most delicious perfume. Our New Collection of Native American and Japanese Roses is

GROWN FROM SEED



The seed germinates quickly, and the plants make rapid growth, bearing hundreds of beautiful roses. If grown in the house they will bloom all the year around. They can be grown outdoors during the summer, and if taken inside for the winter will continue to bloom. Nothing is prettier than the fragrant flowers and "berries" of these Native Roses.

You Can Have This Beautiful Window-Box of Roses in Your Home

We will send you a big packet of the seed of our new Rose Collection, together with full instructions for planting and for making a window box, as shown in the picture. If you take advantage *now* of our liberal offer, and plant the big packet of Native American and Japanese Rose Seeds, you will have hundreds of beautiful roses blooming in your home the year around. They require very little attention, except for an occasional watering.

Plant NOW! Roses in 8 Weeks!



Just do us the favor of sending us one NEW TRIAL subscription to KANSAS FARMER for three months at 25 cents, and we will send you the big packet of Rose Seed FREE and postpaid, with full instructions for planting. Send today to

KANSAS FARMER,
Topeka, Kansas

Gentlemen: Send me FREE and postpaid, your big packet of Native American and Japanese Rose Seeds, with instructions for planting and for making the Window Box.

Name.....R. F. D.....

Town..... State.....

I enclose 25 cents, for which you will please send KANSAS FARMER three months to the following address:

Name.....R. F. D.....

Town..... State.....

Classified Advertising

Advertising **"bargain counter."** **Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks, for bona fide seekers of employment on farms.**

AGENTS WANTED

FORD AUTO FREE. FOURTEEN OTHER grand prizes. Hundreds cash rewards. Something for everybody answering this. Twenty-five "Over There" post-cards free. Address Auto Stevens, 543 N. La Salle St., Chicago.

HELP WANTED.

WANTED, IMMEDIATELY: FARMERS, men-women. Thousands government war jobs open. $100 month. Write for list. Franklin Institute, Dept. R-82, Rochester, New York.

CATTLE.

REGISTERED JERSEYS — BULLS TWO to ten months old from tested dams. A. G. Stevens, Coffeyville, Kansas.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

HIGH-GRADE HOLSTEIN CALVES, VIRtually pure-bred, $25 delivered. R. B. Hellen, Sec'y Milk Producers' Association, Jefferson, Wisconsin.

TWENTY-FIVE TWO-YEAR-OLD HIGHgrade Holstein springers. A few Holstein heifer calves, four to six weeks old, $22.50 each. Oakwood Farm, Whitewater, Wis.

FOR SALE—VERY CHOICE HOLSTEIN and Guernsey calves, either sex, six weeks old, 95 per cent pure-bred, at $25 each, delivered. Lewis Dutcher, Peary View Farm, Janesville, Wis.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

FOR SALE — FIFTEEN VERY HIGHbred Holstein heifers in calf by registered herd bull, out of high producing dams (all grand daughters of Missouri Chief Josephine). Will freshen late in August or early September. Tuberculin and abortion tested. Reason for selling, my boys all in the war. D. D. Moss, Columbia, Missouri.

PRACTICALLY PURE-BRED HOLSTEIN calves, either sex, from good milking strain, five to eight weeks old, nicely marked, at $22, express prepaid to your station. Send order. I can also furnish you with cows or heifers, any age, grade or registered, at reasonable prices. Satisfaction guaranteed. Whitewater Stock Farm, Albert M. Hanson, Whitewater, Wis.

AUTO TIRES.

TIRES — FORD, $6.50. LARGER SIZES equally low. "Wear like iron." Booklet free. Economy Tire Co., Kansas City, Mo.

FALSE TEETH

CASH FOR OLD FALSE TEETH. WE can pay as high as $21.50 per set (broken or not). Send at once—package held five to fifteen days subject to owner's approval. Highest prices paid for old gold jewelry, crowns, bridges, platinum, silver. United States Smelting Works, Inc., 347 Goldsmith Bldg., Opp. P. O., Milwaukee, Wisconsin.

FARMS WANTED.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 56th St., Chippewa Falls, Wisconsin.

USED CAR BARGAIN.

FOR SALE—MODEL 35 JACKSON FIVEpassenger touring car. Not latest model but has had good care and is in good condition. Good top, tires nearly new, Presto lights, jack, pump and other tools go with car. Is good for several years' service. Cost $1,300 when new. Price, $300 cash. Owner, 625 Jackson St., Topeka, Kan.

DOGS.

NINE RUSSIAN AND STAG-CROSSED pups, six weeks old; nine coyote pups, two months. Paul Fife, Nickerson, Kansas.

ESKIMO DOGS FOR SALE. RUNNER ducks wanted. Emma Ahlstedt, Lindsborg, Kansas.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

THE STRAY LIST.

TAKEN UP — BY A. H. GRIFFIN, OF Route 5, Olathe, Kansas, on May 22, 1918, one Shorthorn and Jersey male calf about six weeks old, color red, weight about one hundred pounds, appraised at $10. F. K. Smead, County Clerk, Olathe, Kansas.

TAKEN UP—BY D. FISHER, OF WILmore, Powell Township, Comanche County, Kansas, on the 21st day of May, 1918, one yearling steer, black with white face, crop off left ear. Appraised at $40. Ray B. Bachman, County Clerk, Coldwater, Kansas.

PATENTS.

PATENTS PROCURED, BOUGHT AND sold. International Patent Co., Brandeis, Omaha.

MISCELLANEOUS.

CORN HARVESTER — ONE MAN — ONE horse—one row. Self gathering. Equal to a corn binder. Sold direct to farmers for twenty-three years. Only $25 with fodder blnder. Free catalog showing picture of harvester. Process Corn Harvester Manufacturing Co., Salina, Kansas.

REAL ESTATE.

FOR SALE — 1,280-ACRE RANCH IN Blaine County, complete, with 48 head of cattle. Possession at once. Priced to sell. A. Adams, Halsey, Nebraska.

FOR SALE—18-HORSE COMPOUND ADvance engine and separator 32 in. Also 21-horse Advance engine with 36-in. Rumely separator, all complete, ready to thresh. Threshed only two short seasons. Bargain, $1,750, choice. Terms. Masopust Bros., Ellsworth, Kansas.

PLYMOUTH ROCKS.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swaim, Geuda Springs, Kansas.

WYANDOTTES.

WHITE WYANDOTTE EGGS AT $1.50, fifteen; $3.25, fifty; $6 hundred. Winning, laying strain, fertility and satisfaction guaranteed. Andrew Kosar, Delphos, Kansas.

POULTRY WANTED.

SHIP BROILERS, HENS, ROOSTERS, when ready. Coops loaned free. Paying prices published in Daily Capital. The Copes, Topeka.

FARM AND HERD.

C. B. Palmer, of Marion, Kansas, owner of one of the prize winning herds of Poland Chinas in Kansas, reports his herd doing well. Mr. Palmer's herd is made up of representatives of the best blood lines of the breed. He has a very fine herd of brood sows. Many of them are Caldwell's Big Bob and Big Wonder breeding. His herd is headed by Sir Dudley, junior champion at the Kansas State Fair, 1915. A feature of his herd is a number of choice fall boars by Big Bob Wonder, Sir Dudley and Exile.

J. R. Turner & Son, of Harveyville, Kansas, owners of one of the best flocks of pure-bred Shropshire sheep in Kansas, report their flock doing fine. This flock was started with the best blood lines of the breed and only the best rams have been used. They now have a flock of 100 head of pure-bred breeding ewes headed by one of the best imported rams in the state. This year they have 100 head of pure-bred lambs that are growing out fine. A feature of the flock is about fifty head of big high-class registered rams.

James W. Magee, of Chanute, Kansas, reports his Holsteins doing well. The Magee Dairy Farm is noted as the home of good Holsteins and a feature of the herd at this time is the choice lot of young registered cows and heifers, also 100 head of very fine high-grade cows and heifers. They also have a goot lot of both registered and high grade calves.

W. J. O'Brien, of Tonganoxie, Kansas, one of the live auctioneers of this state, is doing his bit in the interest of good live stock on Kansas farms. He is the owner of good herds of Holstein cattle and Poland China hogs. He has the best blood lines of both Holsteins and Polands in his herds and is one of the consistent boosters for improved live stock on every Kansas farm.

Schmitz Bros., of Seneca, Kansas, owners of one of the good herds of Poland Chinas in Kansas, report their herd doing well. This year they raised a very fine lot of spring pigs that have grown out fine and the lot contains some good herd material. They have litters by Schmitz Bros.' Goliath that prove his value as a sire. Their show herd will be at the Topeka Free Fair this year.

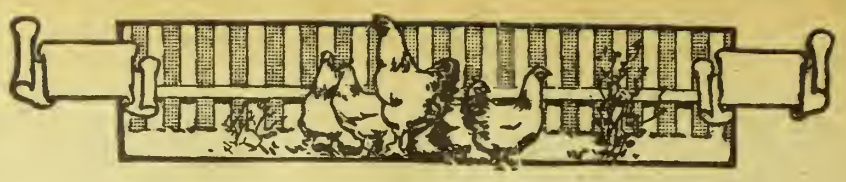
Bert Harriman, of Pilot Grove, Mo., has announced August 24 for his annual bred sow sale. Forty-five head of large brood sows will be offered bred for September farrow to the great breeding boar, King Joe. This hog has made a reputation in the West that has made a keen demand for sows bred to him.

Will G. Lockridge, the well known breeder of Poland China hogs at Fayette, Howard County, Missouri, has announced August 7 for a bred sow sale. Owing to the extra duties imposed on Mr. Lockridge as county treasurer, he finds it necessary to reduce his herd of Poland Chinas. Mr. Lockridge regrets very much to do this, but the extra work connected with his office compels him to do so. He bred, developed and showed the grand champion Poland China boar at the Missouri State Fair, 1915.

Moderate shipments of wheat and flour are being made from Australia to the Pacific Coast of the United States.

Horse flesh is included among the meats now rationed in England under the card system.

Take what you eat; eat what you take.



Causes of Egg Losses

MILLIONS of eggs produced in this country feed no one. The natural question is, Why? And the answer is that they are carelessly handled, poorly packed in improperly constructed cases, badly stored in freight cars, or allowed to become warm on their journey from the hen's nest to the home. Prevent this enormous loss of valuable food, and loss of profits. Take every possible precaution to keep eggs fresh and wholesome, as they are when freshly laid. It is easy to get eggs to market in prime condition, says a recent publication of the United States Department of Agriculture — a circular which tells how.

The proper handling of eggs is not a one-man job, according to the circular. Many people are concerned in it. Their interests are common and mutual understanding and co-operation between them benefits all alike.

The producer's part in the general scheme of good marketing is to bring good eggs to market. To accomplish this he should market his eggs frequently—not let them accumulate.

The dealer's job is to keep the eggs good. His slogan should be "Ship promptly and properly." The sooner an egg is put under refrigeration and started for the market, the better its quality when it reaches its final destination and the higher its value.

A stale egg pleases no one. Heat is the egg's enemy; cold is its friend. Precooling eggs before shipping them, therefore, saves food material. It checks the development of "blood rings," which occur in fertile eggs subject to incubating temperature (60 degrees F. or higher). It prevents "addled" eggs the term applied to eggs when the membrane between the yolk and the white breaks allowing the two to become mixed. When the eggs are warm, this delicate membrane between the yolk and the white breaks, allowing the two to become mixed. When the eggs are warm, this delicate membrane becomes soft, in which condition it is more liable to break by jars which are unavoidable in transportation. Chilling makes the eggs stiff and jellylike, and cold eggs ride best. Precooling retards evaporation, the cause of shrunken eggs. Eggs just laid are full, but 65 per cent of their contents is water. As this water evaporates the quality of the eggs is reduced. Warm temperatures aid evaporation. Precooling helps to make a uniform product, and this is a day of standardization. A weak spot in the egg trade is the lack of uniformity or standardization for its product. If each case of eggs received at the market is exactly like the last one, the shipper could establish a reputation for uniformity.

Eggs to be shipped should be well packed in clean, standard cases. They should be kept under refrigeration and sent to market in properly iced refrigerator cars, which retain their good quality. Refrigeration during transit maintains quality, weight, fresh appearance, and food value. It retards loss of quality, shrinkage, "blood rings," and loss of food value.

The United States Department of Agriculture sets the standard of 100 hens for every farm. We have approximately six million farms in the United States. If each hen produced 100 eggs in a year we would have sixty billion eggs as our annual production. Such an enormous number of eggs would constitute a military resource not to be ignored.

Hens of the general purpose class can usually be kept with profit until the end of the second year. In culling out the unprofitable hens, keep this in mind. Hens of the Mediterranean class can be kept a year longer. It should be an invariable rule to sell for meat every hen that has not shown herself to be a profitable producer.

Four district men and 36 state leaders, all trained poultry specialists, are carrying out the Department of Agriculture's program to secure large increases in poultry and egg production this year. In addition to these workers there are eleven extension poultry club men who are encouraging more efficient poultry production among the boys and girls in their various states. Recent reports from these poultry extension specialists indicate that normal production will be maintained in practically every section of the country this year, in which they are working, and in many localities an increase over previous years is expected. The appeal made by department specialists to city people to increase food production by utilizing their table scraps in feeding small back-yard flocks of hens is meeting with marked success.

Limberneck, as its name indicates, is characterized by the limp condition of the neck, the fowl practically losing all control of the neck muscles, so that the head rests on the ground. This condition occurs in warm weather, and is caused by the fowls eating decomposed flesh in which a ptomaine has developed. This poison causes partial paralysis of the neck muscles and often results in the death of the bird. Maggots eaten by fowls do not cause the disease, except as they may contain the poison which they have obtained from the decaying flesh. The best and most effective treatment is, of course, never to leave any dead fowls or dead animals around, but to bury or burn all carcasses. Treatment of sick birds is not usually very successful, but a teaspoonful of castor oil is sometimes effective.—Department of Agriculture Bulletin.

A hospital should be a part of every poultry plant. As soon as a fowl gets sick, remove it to the hospital and commence doctoring at once. The trouble with far too many is that they wait until the disease is in its advanced stages before they commence giving medicine. A very sick fowl is difficult to cure, and when cured it is seldom of value afterward. The treatment of sick fowls applies to those that are valuable. To doctor ordinary fowls is but a waste of time and money.

A person hates to admit that there are lice on his chickens or in his chicken house, and there may not be any on your premises or on your hens, but it will do no harm to use an insecticide on your hens and clean up your poultry house. The hens will be thankful for a nice, fresh bath, for dusting is their mode of bathing, and there might peradventure be one louse on them. Look and examine, anyhow.

The grain the hens steal from the edge of the wheat or oats field should not be counted as loss. Too often the man of the house takes that view. It is not an uncommon practice to let hogs harvest their own corn. The crop is not considered as lost when this is done. In like manner the grain the hens appropriate from the edge of the field or around the stacks is turned to productive use.

Increasing poultry production has been pointed out as a way to help out our war program. Since poultry products are perishable and cannot be stored and transported for army use, increased consumption on the farm will be necessary if we would help in conserving the more compact cured meats for our soldiers.

If you try to preserve eggs with water glass study the directions carefully and follow them implicitly. Failure to do so results in waste, not only of the water glass but of the eggs.

The producers part in reducing egg losses is to bring good, fresh eggs to market. Producing only infertile eggs during the hot weather is a big help.

It is not advisable to caponize the cockerels unless there is plenty of free range for them and an assured market for the finished capons.

Give up your luxuries that the kaiser may be made to give up his ambitions.

Complete
Battle Front Map

ALSO MAPS OF KANSAS, THE UNITED STATES, AND THE WORLD

We have just received several hundred three-sheet maps, printed in colors. The first sheet shows France, Belgium and Germany and the western battle front as it is today. It shows just what territory has been taken by the Germans during the present drive. The rivers, railroads, and even the smallest towns are shown. All indexed. Without a doubt it is the best War Map published.

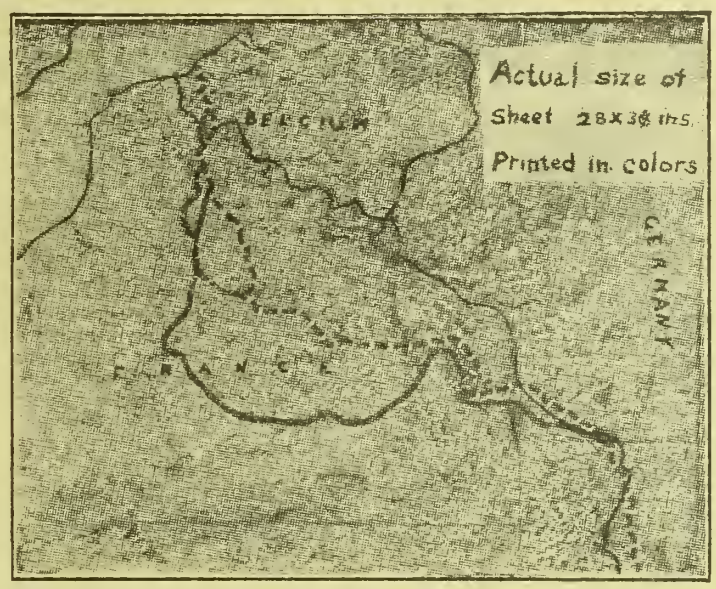
THE KANSAS MAP

The second sheet contains a large map of Kansas, showing all roads, railroads and towns, with complete census figures.

THE UNITED STATES AND THE WORLD

The third page shows the United States and the World. War pictures and an immense amount of valuable statistics are also contained in this three-page chart.

Three Large Pages of Maps and General Information



These Maps Are Provided with Metal Tops and Hangers

This miniature of the War Map is too small to show the names of towns. The map you will receive shows plainly the names of all towns and even the smallest villages.

GREATEST OFFER EVER MADE

We want every one of our subscribers to have one of the maps. They are of the greatest present-day interest as well as of immense historic value. KANSAS FARMER subscribers may have the maps FREE. Just pay your subscription to KANSAS FARMER for one year and we will send you yours, postage prepaid and without one cent extra charge. Use the coupon below.

IF YOUR SUBSCRIPTION IS PAID, READ THIS

Most of our subscribers have already paid their subscriptions in advance, but we want you to have a map too. We also want new subscribers to KANSAS FARMER. Perhaps you have a neighbor who is not a subscriber. You will do him a favor by getting him to subscribe. And for doing him that favor we will send you one of the maps absolutely FREE and postpaid. Read the offer as follows:

SPECIAL OFFER

Send us one new trial subscription to KANSAS FARMER for six months at 50 cents and we will send you the three-page map FREE and postpaid. Use the following Coupon:

COUPON

Kansas Farmer, Topeka, Kansas.

GENTLEMEN: Enclosed please find $..... .....for which send KANSAS FARMER for..... months to the following:

Name .....R. F. D.....

Town..... State.....

Send map to..... Address .....

If your neighbor wants a map, get his subscription for one year and we will send each of you one of the fine three-page maps

YOU CAN TELL JUST WHERE THE BOYS ARE FIGHTING ON THIS ELEGANT MAP

HOLSTEIN CATTLE.

Sand Springs Farm

HIGH PRODUCING REGISTERED HOLSTEINS

Note Official Records Made on Our Farm



Full aged class, 19,810 pounds milk, 670 pounds butter in twelve months; four-year-old class, 2,040 pounds milk, 101½ pounds butter in thirty days; two-year-old class, 11,000 pounds milk, 450 pounds butter in twelve months. Visitors welcome and correspondence solicited.

E. S. ENGLE & SON - - - - ABILENE, KANSAS

HOLSTEIN COWS FOR SALE

NINETY HEAD REGISTERED AND HIGH GRADE:

Forty two-year-old heifers bred to freshen May and June. Ten yearlings. Forty cows three to six years old. Priced to sell. Farm adjoins town. Come and see me.

C. A. BROCK - - - NORTONVILLE, KANSAS

HOLSTEIN CATTLE

I am offering for sale from my registered herd, four cows from four to six years old; two heifers, two years old, extra good; four yearling heifers and four high-grade cows; four registered bulls of serviceable age. Write or come and see my herd.

J. W. MEYER, NORTONVILLE, KANSAS.

MAURER'S HOLSTEIN FARM

Offers special attractions in pure-bred females of all ages with high class breeding, and a number of choicely bred yearling bulls; also grade cows and heifers with size and quality. Don't fail to see this herd before you buy, as they are all bred RIGHT and priced RIGHT.

T. R. MAURER & CO - - - - EMPORIA, KANSAS

$25 Holsteins $25

The Best That You Can Buy

Five weeks old, 15-16ths pure. When you buy from Roberts you get value received. Cows also $150 crated. Write or call

Dr. J. A. Roberts Stock Farms

Oconomowoc, Wisconsin

CHOICE HOLSTEIN CALVES

Twelve heifers and three bulls, 15-16ths pure; five to seven weeks old, beautifully marked and from heavy milkers, at $20 each, crated.

FERNWOOD FARM, WAUWATOSA, WIS.

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. **Clover Valley Holstein Farm, Whitewater, Wisconsin.**

HOLSTEIN COWS

35 Young Cows, some fresh, some springers. Also good fall cows from heavy producing dams. All bred to registered bull.

W. P. PERDUE - CARLTON, KANSAS

Either Sex, Practically Pure-Breds

From high-producing dams and registered bulls, five to seven weeks old, $27.50, express prepaid in Kansas; outside, $30. Safe delivery and satisfaction guaranteed. Also fifty registered cows and heifers and 100 high-grade young cows and two-year heifers.

MAGEE DAIRY FARM

CHANUTE - - - - - KANSAS

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

Thrifty Holstein Calves

100 High-Grade Holsteins

Fifty large two-year-old springers, 50 large one-year-old calves, just what you want for the Boys' and Girls' Calf Club.

W. J. O'BRIEN, TONGANOXIE, KANSAS

REGISTERED HOLSTEIN BULLS

For Sale—Several young bulls by Pontiac Beauty De Kol Segis, a grandson of King of the Pontiacs and King Segis. These bulls are out of high-testing yearly record cows. We breed for yearly production. Come and see my herd. H. D. Burger, Seneca, Kansas.

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON, KANSAS

REGIER'S HOSTEIN-FRIESIANS

For Sale—Young bulls, bred heifers and cows. All sired by the great bull, Sir Rag Apple Korndyke De Kol. Two cows will be fresh this month. Fourteen-thousand-pound milkers.

G. REGIER & SONS, Whitewater, Kansas.

Holstein Calves

We offer for sale choice beautifully marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated, f. o. b. cars: One to two weeks old, $17 each; three to five weeks old, $20 each; six to eight weeks old, $25 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.

H. B. COWLES, 608 Kan. Av., Topeka, Kan.

REGISTERED HOLSTEIN BULLS

I have a few choice young bulls from my best record cows. They are splendid prospects for herd bulls and priced to sell.

BEN SCHNEIDER, NORTONVILLE, KAN.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Heilo No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

SHORTHORN CATTLE.

Abbotsford Shorthorns



For Sale—Twenty-five cows and heifers, several with spring calves at foot; others bred to ROAN MODEL; also seven young bulls eight to eleven months old. All priced to sell. Come and see our herd.

D. BALLANTYNE & SON, Herington, Kan.

DUROC JERSEYS.

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. W. J. Harrison, Axtell, Kan.

TWO BIG SALES

Fifty Duroc Jersey Bred Sows and Gilts, September 4. Entire herd of Red Polled Cattle September 5. Catalog ready July 15. Write early.

W. T. McBRIDE - PARKER, KANSAS

Wreath's Durocs

SPRING PIGS

Priced in pairs or trios. Come and see my herd.

L. G. WREATH, MANHATTAN, KANSAS

WOODDELL'S DUROCS

Herd boar, Chief's Wonder, 75 spring pigs, priced for shipment at weaning time. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on boars and bred gilts from Crimson Wonder, Golden Model, Illustrator, and Defender breeding. JOHN A. REED & SONS, Lyons, Kansas.

MULEFOOT HOGS.

KNOX KNOLL MULEFOOTS

Still have a few choice pigs from big litters. For prices and catalog address

S. M. KNOX - HUMBOLDT, KANSAS

HEREFORD CATTLE.

SPRING CREEK HEREFORDS

Good big two-year-old Hereford Bull.

S. D. Seever - - Smith Center, Kansas

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS

One hundred spring pigs priced in pairs and trios. Geo. W. Ela, Valley Falls, Kansas

Breeders' Directory

ANGUS CATTLE.

D. J. White, Clements, Kan.

George McAdam, Holton, Kansas.

RED POLLED CATTLE.

Mahlon Groenmiller, Pomona, Kansas.

DORSET HORN SHEEP

H. C. LaTourette, Route 2, Oberlin, Kan.

Hereford Cattle.

F. S. Jackson, Topeka, Kan.



Food Situation in Central Europe

A DETAILED survey of the food situation in Germany, Austria-Hungary, Bulgaria, and Turkey, during 1917, has just been published as Bulletin 242 by the Bureau of Labor Statistics of the U. S. Department of Labor. This survey is based exclusively on laws, decrees, orders, utterances of public officials and civic bodies of the countries covered, and on comments of the daily press and leading economic and trade journals of these countries.

In general, the survey shows that Turkey is actually starving because of the corruption of her own officials and the greed of Germany; that Germany and Austria are not starving, but are having a very hard struggle to feed themselves; that Hungary is in better shape than either Germany or Austria, and that Bulgaria, so far as food is concerned, is suffering the least of all the countries covered. The survey also shows that Germany has failed by a wide margin to live up to her reputation for efficiency in her attempts at food administration, having been obliged to reverse her policies in an effort to remedy in part the fatal results of official blunders. It shows conclusively that the civil populations of Germany and Austria are suffering permanent physical deterioration from lack of proper food, that the death rate from tuberculosis is rapidly increasing, that growing boys and girls are not getting half the nourishment they should have, and that manual laborers are being underfed to about the same extent.

Politically, the most interesting thing revealed by the survey is the fact that the traditional hatred between the two parts of the dual monarchy Austria-Hungary has been manifesting itself in the refusal of Hungary to share her comparative abundance with Austria and in the official and public resentment of that fact in the latter country.

Profiteering, greed, breakdown of transportation, and faulty organization are big faetors in the food situation of Germany and her allies.

Many original artieles on the food situation in leading German and Austrian newspapers were at the disposal of the Bureau of Labor Statistics. Comments on food orders, their enforcement, and the practieal result of their application were available from organs of all political parties, thus representing every point of view. Material relating to the food situation in Hungary, Bulgaria, and Turkey, was much scareer. Those parts of the bulletin which eover the food situation in these three countries are therefore less eomprehensive than the parts covering Germany and Austria. As far as it was possible the material for each country covered was arranged in the following order: First, an official or unofficial summary of the food situation in 1917, or both; this is followed by an outline of the food policy for the 1918 harvest reports, food orders relating to individual foodstuffs, comments on and eriticism of these orders and their practical application, data on the supply and prices of individual foodstuffs and their rationing, illegal procuring of food, food-card systems, measures for eheapening the food for the poorer classes, and the effect of the food shortage on the health of the civilian population.

Profits Increased by Silage

The Missouri Experiment Station has shown by tests conducted during 1915-16 and 1916-17 that silage may constitute the major portion of the feed required for fattening cattle. It may replace much of the more expensive hays and a large part of the corn usually required to prepare cattle for market.

Steers fed corn, silage, alfalfa and nitrogenous concentrates in these tests, yielded an average profit of $6.54 a head. Other steers fed a greatly increased silage ration, but which received no additional eorn, made an average net profit of $12.94 a head. In the 1916-17 experiments one acre of eorn, estimated to yield forty bushels of grain or eight tons of silage, and fed only in the form of silage with an increased amount of purchased eoncentrates, was suffieient to fatten 2.58 head of steers while the crop from one acre fed in the form of ear eorn and silage was not quite sufficient to fatten one steer. It should be understood that while steers fattened without additional corn were most profitable and required a much smalier investment for feed, they were not as fat and did not bring a price as high as the steers which were well finished.

Stacking Bound Grain

In the early days when threshing outfits were searee, everyone stacked bound grain and waited for the thresher to get around. In these later days, however, stacking grain has become more or less of a lost art, although in nearly every neighborhood there will be found among the older men someone who knows how to stack grain so it will keep. It is an art well worth reviving, as the stacking of grain ean be looked upon as storage as truly as threshing it and placing it in a bin, provided the stacking is properly done.

During the past few years there has been a tendency toward a revival in stacking due in all probability to the increasing scarcity of help, which made it difficult to thresh large acreages from the shock. Too often those who depended on this method of threshing had grain damaged in the shock because the work could not be done properly.

The wheat this year in the section where it is bound has gone into the shock in excellent shape for stacking and there will probably be a great deal of stacking done this season. The amateur or inexperieneed stacker had better take a few lessons in the art if it is possible to locate someone in the neighborhood who knows how. The principle in stacking is to keep the middle full enough so the bundles will slope down toward



EXPERIENCED WHEAT SHOCKERS AT WORK IN KANSAS WHEAT FIELD.—AN ARMY OF MEN ARE BUSILY ENGAGED IN SAVING THE CROP

the outer edge of the stack as the stack settles. This can be accomplished by laying the bundles closer as the stacker approaches the center of the stack and tramping more carefully. When stacked in this way the outer ring or two of bundles settles in such a way that the butts of the bundles hang down and water cannot enter the stack. It is only when the bundles from the stack settle perfectly flat or with the outer two rings sloping toward the center that the stack will take water. When this occurs the grain will be badly damaged, for water will run into the stack and go to the bottom.

Anyone who can handle a pitchfork can learn to stack by having a little instruction in the beginning from a man of experience. If grain must be stacked by a beginner who cannot have such instruction, the only thing to do is to keep firmly in mind the principle involved in stacking grain so it will not spoil. Grain is too valuable this year to be wasted by faulty stacking and every effort possible should be made to put up stacks that will keep.

Grain Used in Brewing

Producers of grain are almost unanimously in favor of cutting out absolutely all waste of grain in making beer or other alcoholic drinks. The President, through authority granted in the Food Control Bill of last year, has stopped the manufacture of all distilled liquors. He has authority in the same bill to stop the use of grain in the brewing of beer, but so far breweries have been permitted to continue operations, although some restrictions have been made in the amount of grain they can use and in limitation of the alcohol percentage. An attempt has recently been made in Congress to force the President to close breweries at once. This took the form of a provision in the Agricultural Production Appropriation Bill holding up $6,000,000 until the President has issued a proclamation stopping the use of all grain and fruit in the manufacture of light wines and beer.

People of Kansas have so long lived under prohibition and as a result of enjoying its advantages have become so thoroughly committed to this policy that we are in danger of hastily condemning the attitude of the President and the Food Administration without having thought the problem through from a naticnal standpoint, taking the conditions as they now exist. It is our belief that only through national prohibition, either by statute in the various states or the final adoption of the amendment to the federal constitution now being voted on can the problem be satisfactorily solved.

Mr. Hoover for the Food Administration has issued the following statement in explanation of his position on the brewing question:

"As to the discussion over the suppression of brewing, I wish to say emphatically that from a strictly food conservation point of view I should like to see the use of foodstuffs suppressed in all drinks hard and soft. This is not, however, the whole story. We stopped distilling a year ago. There is a long supply of whisky, gin and other 20 to 40 per cent distilled drinks in the country. We have reduced the consumption of foodstuffs in brewing by 30 per cent and reduced the alcohol content of beer to 2¾ per cent. If we stop brewing, the saloons of the country will still be open but confined practically to a whisky and gin basis. Any true advocate of temperance and of national efficiency in these times will shrink from this situation, for the national danger in it is greater than the use of some 4,000,000 bushels of grain monthly in the breweries. If the American people want prohibition, they should prohibit by legislation to that end and not force the Food Administration to the responsibility for an orgy of drunkenness. It is mighty difficult to get drunk on 2¾ per cent beer; it will be easy enough if we force a substitution of distilled drinks for it.

"The Food Administration has gone as far as it can towards temperance without precipitating a worse situation. If the American people or Congress will stop the sale of distilled liquors, the Food Administration will find no difficulty in stopping brewing."

We are rapidly heading for national prohibition of the liquor traffic, but it is evident that the powers given the Food Administration cannot be used in reaching the desired end by any short cut. The President has protested against the form of the bill passed by the House and it is our understanding that at his suggestion a bill has been prepared which will handle the situation that would develop as a result of stopping the use of grain by the breweries. Such a bill should receive the support of all producers of food who regard beer as a non-essential and who cannot reconcile themselves to the idea of using their best efforts to bring about maximum production and see the large wastage of grain in the making of beer continue.



Cream Buyers' Examinations

We give below a list of the examinations yet to be given this summer to cream buyers. All temporary permits will be void after the date of the last examination in the holder's locality. Buyers whose permits are soon to expire should present themselves for examination.

All applicants will gather at 9:30 A. M. at the place of meeting indicated below, where a representative of the Dairy Commissioner will be found.

The examination will consist of a lecture and general discussion from 10 A. M. until noon. Important matters will be discussed, among which will be the bettering of the commercial grades of cream. The official written examination will be held at 1:30 P. M. All persons failing in the examination will be notified and may take the examination at some other scheduled point. For this reason it is advisable for all applicants to take the examination when it is first held in the locality in which they reside.

Oakley, school building, July 1.
Hays, court house, July 2.
Marysville, court house, July 2.
Ellsworth, court house, July 3.
Lincoln Center, city hall, July 5.
Hutchinson, court house, July 9.
Belleville, school building, July 9.
Norton, court house, July 10.
Scott City, court house, July 11.
Ness City, court house, July 12.
Pratt, court house, July 16.
Meade, court house, July 17.
Dodge City, court house, July 18.
Great Bend, city hall, July 19.
Pittsburg, normal school, July 23.
Salina, court house, July 23.
McPherson, court house, July 24.
Iola, high school, July 25.
Garnett, court house, July 26.
Garden City, court house, July 26.
Manhattan, first Tuesday each month at office of State Dairy Commissioner, 8:30 A. M.

Big Profit from One Sow

The story of what one good brood sow did for E. I. Burton, of Montgomery County, is told in the June news letter of the county agricultural agent, E. J. Macy. In January, 1917, this sow farrowed twelve pigs, nine of which were raised and marketed the following September. These pigs averaged 275 pounds in weight and sold for $16.25 per hundredweight, or a sum total of about $401.94. The second litter was farrowed in July, and notwithstanding the adverse hot weather did about as well as the first litter. Eight pigs were farrowed and all were saved and marketed the following January, or in 1918. These pigs averaged 240 pounds each and were sold for $16.25 per hundredweight, about $312 being realized for the litter. Not all of this was clear profit, as considerable corn was used in fattening. The main feeds used, however, were mill run, shorts, linseed meal, milk and swill, and mangels, with alfalfa pasture.

The sow was fed mangels before farrowing time and this healthy and laxative ration acted as a preventive of pig-eating and was helpful in producing vigorous pigs. Unfortunately Jewell's pedigree has been lost and she cannot be recorded as pure-bred. Her record of achievement should be duplicated on hundreds of farms in Montgomery County, says Mr. Macy.

Preventing Bots

You can destroy the bot fly eggs on horses by rubbing the hair where they are attached with a cloth moistened with kerosene. These yellow eggs produce the bots in the horse's stomach. They are laid on the legs and throats of the horses by the well-known fly, which the animals seem to instinctively dread. The eggs or the young maggots get to the mouth and thence to the stomach, where they attach themselves and live on the feed consumed by the horse. By wiping the patches of eggs with the kerosened rag before the horse licks them off, bot infestation can be greatly reduced.

Which Camp?

America today is divided into two camps—Americans and Alien Enemy.

Those who are not for America are against her—enemies all.

Those who are idle, selfish or even indifferent are aliens—alien to American interest.

Only the workers, "comrades in this great enterprise," bear the honored name—Americans.

When you buy War Savings Stamps you do not give—you receive.

Thrift and patriotism are synonymous.

POLAND CHINAS.

GLENWOOD FARM'S SHORTHORNS AND POLAND CHINAS

SHORTHORNS

Sires in Service—Emma's Valentine 412453, Golden Searchlight, and Master Goods.
For Sale—Emma's Valentine 412453, Master Butterfly 10th 582866, and Secret's Valentine 648605. Real Herd Bulls.
PRICES REASONABLE.

POLAND CHINAS

Sires in Service — Expansion King, King Wonder II by Big Bob Wonder, and Wonder's Joe by Giant Joe.
For Sale—Twenty gilts bred for summer and fall litters, sired by Expansion King or King Wonder II, bred to Wonder's Joe or King Wonder II. A few fall boars.

C. S. NEVIUS & SONS, CHILES, KANSAS

Sand Springs Farms Polands

We have a nice lot of registered Poland China boar pigs that we can price right. Do not wait until you must have one and then pay a long price. Buy one now and save money. Breeding good and individually right.

E. S. Engle & Son, Abilene, Ks.

Elkmore Farm Poland Chinas

For Sale—April boars and gilts, trios not akin, $125; sired by King Bob and Giant Bos. Bred sow sale August 8, 1918. Forty-five head bred to Caldwell's Big Bob. Everyone guaranteed and cholera immune. Catalogs ready July 15.

Fred B. Caldwell, Howard, Ks.

PALMER'S BIG POLANDS

Fall boars by Big Bob Wonder, Sir Dudley, and Exile, and out of choice big-type dams. They are good ones.
C. B. PALMER, ROUTE 5, MARION, KAN.

Big-Type Poland China Hogs

September and October boars. One real herd boar prospect. Fifty bred sows and bred gilts. 250 spring pigs.
DEMING RANCH - - OSWEGO, KANSAS
H. O. Sheldon, Herd Manager

GRAND VIEW POLANDS

Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.
ANDREW KOSAR - DELPHOS, KANSAS

POLAND CHINA BOARS

Four months old, sired by Big Joe 303331, by Big Jumbo 275307. Also rich in Young Hadley and Big Hadley blood. Price, $25.00.
S. M. BEASON - COLLYER, KANSAS

LANGFORD'S SPOTTED POLANDS

Last call for fall gilts.
T. T. Langford & Sons, Jamesport, Missouri

Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
J. EDW. PLILEY - GILMAN CITY, MO.

HENRY'S BIG-TYPE POLANDS

October boars and gilts. September gilts bred to order. Booking orders for spring pigs at weaning time, sired by Smooth Prospect, Mammoth Orange, Big Bob 2d.
JOHN D. HENRY, LECOMPTON, KANSAS

POLAND CHINAS

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. Chas. E. Greene, Peabody, Kan.

ANGUS CATTLE

Edgewood Farm Angus

I have for sale

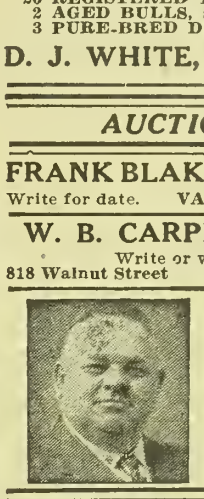
40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.

D. J. WHITE, Clements, Kan.

AUCTIONEERS.

FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. VALLEY FALLS, KANSAS

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri



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Live Stock Auctioneer
Twelve years on the block.
Pure-bred sales a specialty. Sales made anywhere.
4230 Paseo
Kansas City, Mo.

HORSES AND MULES.



Percherons—Belgians—Shires
After harvest take the most enjoyable little trip of your life. Come see all my show and breeding horses and have a fine visit with me. Drop me a card now. FRED CHANDLES, R. 7, Charlton, Iowa. Above Kansas City.

GALLOWAY CATTLE.

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.
E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

Registered Galloway Bulls

Ten Two-Year-Olds. Ten Long Yearlings.
These are in extra good condition.
Ready for immediate service.
Come and see them.
CALLAHAN & BECK, KINGMAN, KAN.

CHESTER WHITE HOGS

CHESTER WHITE HOGS

Five December boars ready for service, out of my grand champion sow, Tip Top. Spring pigs from other good sows for sale.
COLEMAN & CRUM, DANVILLE, KANSAS

RED POLLED CATTLE.

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.
CHAS. L. JARBOE - QUINTER, KANSAS

JERSEY CATTLE.

KANSAS SUNFLOWER HERD JERSEYS

For Sale—Five young bulls sired by a son of Interested Prince. Dams are all by Imported Castor's Splendid and on yearly record.
H. F. ERDLEY - HOLTON, KANSAS

100 GOOD JERSEYS FOR SALE

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.
J. W. BERRY & SON, Jewell City, Kansas.

When Writing to Advertisers, Please Mention Kansas Farmer

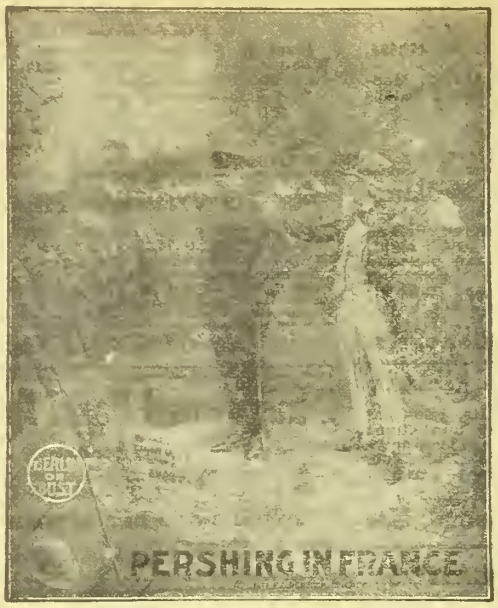
GUERNSEY CATTLE.

GUERNSEY BULLS

Stock of May Royal, May Rose and Masher Sequel breeding, one to twelve months old. See our Duroc ad next week. Adams Farm, Gashland, Mo. Twelve miles from K. C.

TURNER & SON SHROPSHIRES

Fifty good big registered rams, $50 each, crated and express paid here. Also about 100 head of Lincoln and grade Shropshire ewes, ranging in age from one to six years, $22.50 per head. Sheep three miles north of town. Send check or draft with order. Pedigrees furnished for pure-breds. Always return crate. Reference, Harveyville State Bank.
J. R. TURNER & SON - - - - - - HARVEYVILLE, KANSAS



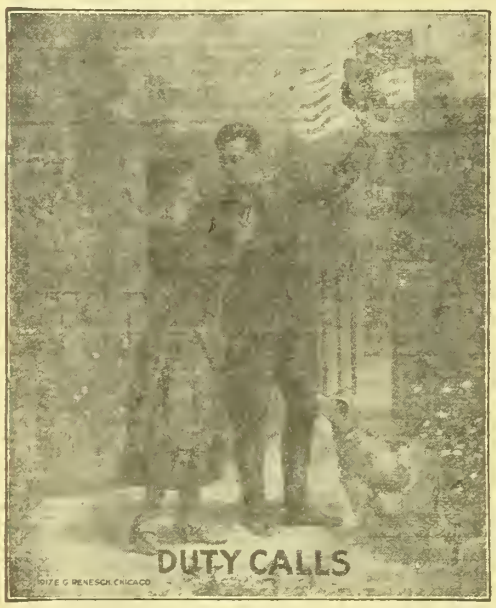
PATRIOTIC PICTURE NO. 1



PATRIOTIC PICTURE NO. 2



PATRIOTIC PICTURE NO. 3



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Each Picture Tells Its Own Story. Get One or more of them

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KANSAS FARMER has just completed arrangements to supply its subscribers with any or all of the beautiful patriotic pictures illustrated in miniature on this page. The illustrations herewith cannot do justice to the real pictures on account of the greatly reduced size. The pictures we will send you are full 16 x 22 inches in size and all except No. 5 and No. 6 are printed in appropriate colors. No. 5 and No. 6 are printed in black and white. They are really fine pictures. We are sure our subscribers will like them.

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OFFER NO. 1. If you will send us ONE NEW TRIAL SUBSCRIPTION to KANSAS FARMER for three months at 25 cents, we will send you your choice of any one of the pictures illustrated on this page absolutely FREE and prepaid.

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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 27. TOPEKA, KANSAS, JULY 6, 1918. Established 1863. $1 a Year

AMERICA MUST FIGHT AS A NATION

THERE is no middle ground in this war. As a nation we have undertaken the biggest job we have ever tackled. Since the beginning of our national history there has been an irreconcilable conflict between our ideals of government and those of Germany. The revolt of a liberty-loving people against a Hun on the throne of England gave this nation birth. In all the years we have stood as the great exponent of human liberty in government.

We must not assume that in this mighty conflict we are arrayed against the German government only. We are fighting the whole German people. Their educational system from bottom to top is based on a philosophy of government which considers the individual only as he contributes to advancing the power of the state. State-paid and controlled teachers and clergy have so thoroughly carried out this order in molding the minds of the people from childhood up that the whole nation is mad. Four years ago "the day" which had been for years a dream of the future, came. The hour had struck when Germany was to begin her conquest of the world. It was inevitable that we should be drawn into the great conflict. We are not fighting Germany merely because she insulted our flag and murdered our citizens in violation of international law. We are fighting to save to ourselves and to the world the liberty for which our forefathers fought in 1776. Who knows but that we were raised up as a nation for such a time as this?

To win we must fight as a nation as truly as Germany is fighting with her whole nation. Before the end of this year three millions of our finest young men will be mobilized in training camps or in the trenches of Europe. Already nearly a million are in Europe or on the way. Other millions will follow, and by sheer force of numbers we can look forward to ultimate victory, but at a terrible cost. The billions in money and the few trifling sacrifices of comforts which we at home are making cannot for a single moment be weighed against the sacrifice made by these boys who gladly go to fight in this righteous war for humanity and human liberty. Are we all in the fight as whole-heartedly as the boys who are wearing uniforms, or are we holding back and raising what must now be considered petty questions which can only increase the necessary sacrifice of blood? We are throwing in our man power as the man power of Germany is waning, and we are certain to win, but we can win more quickly and with less bloodshed if we fight as a nation, with every man, woman and child as truly enlisted to turn every energy against the common foe as are our boys who wear the uniform and offer their lives in support of our ideals of government and the rights of all free people.

We must maintain our army on a battle front three thousand miles away. Money, munitions, and food in enormous quantities must be flowing in an endless stream from all parts of our country to the support of our army and navy. We have been called the spendthrift among the nations. Can we reform our habits of life and meet the challenge, measuring every expenditure of money and effort by the supreme test of the hour? Lack of food or munitions or money with which to meet the enormous expenses will increase the bloodshed and prolong the suffering. We can hasten the end and save the lives of many of our boys by fighting with them, whether we follow the plow or perform the duties of the kitchen and the home.

MACHINERY INCREASES FOOD SUPPLY

THE American farmer is the best farmer in the world. You will probably say I must be mistaken or why should Germany produce an average yield of thirty-one bushels of wheat to the acre, and France thirty bushels to the acre, while in America our average yield is only a little more than fourteen bushels. The real test of agricultural efficiency is the man-yield and not the acre-yield. By this test America leads the world by more than two to one. Considering the production of the American farm worker as 100, that of Great Britain would be 43, and that of Germany, 41.

Intensive agriculture, about which so many people glibly talk, is essentially hand-farming and is adapted to conditions where land is exceedingly high in price and labor cheap and plentiful. Intensive farming, which is the kind practiced in the countries having the highest acre yields, makes little use of modern farm machinery and other labor-saving devices.

War has used up the agricultural labor in France and England, and we find the tractor from America being introduced and extensive methods of farming practiced. Tractors are being used to plow great estates, and large tracts of land in the devastated area of France are being farmed extensively by the use of a minimum of labor and a maximum of labor-saving equipment just as we are doing it here in the United States. This kind of agriculture develops the highest known type of rural civilization because it insures an income above the mere animal or physical needs of the family. It is estimated that the average farm family income in the United States is about a thousand dollars. Compare with this the $580 farm family income of Germany, the $570 of France, or the $235 of Japan. Who would want to change places with the Japanese farmer, who produces more in proportion to the amount of land he cultivates than any other farmer in the world? We do not find tractors, gang plows, manure spreaders, or two-row cultivators on the farms of these best farmers in the world from the standpoint of acre yields. Neither do we find their families owning and enjoying pianos, books, magazines, automobiles, or the thousand and one other things the American farm family can enjoy.

In the present war crisis, however, we are more concerned with increasing production because food will win the war. We must do this and at the same time give up to the cause of liberty our thousands of strong young men who have helped to carry on our farming operations. We cannot ask or claim exemption for all farm labor. We must bear our share of the burden of furnishing the fighting men. A review of our history as a nation shows that in all our wars for liberty and justice no class has ever more clearly sensed the issues or more bravely done its part in furnishing fighting men than the people of the open country. Not only have we given of our boys to the army and navy, but the many war industries have drawn on our supply of floating labor until we wonder how we can possibly continue to produce the needed food.

The resourcefulness of the American farmer will not fail in this emergency. By using labor-saving machinery to a greater extent than any other farmers in the world, the American farmer stands at the top in efficiency. The men who till the soil of Kansas have been able to produce a hundred million bushels of wheat this present year in spite of labor shortage. We have not begun to reach the limit in the direction of ingenuity and efficiency in multiplying our man power. On another page of this issue the editor points out one way to increase wheat production. He suggests the possibility of making the slogan of the Kansas Council of Defense of last season, "Ten million acres, two hundred million bushels, and two dollars a bushel," a reality. It calls for tractors and plenty of horsepower combined with the most up-to-date machinery for covering large acreages with the minimum of man labor.

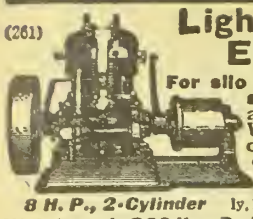
During the past year people on the farms have overcome almost insurmountable obstacles and with less available labor than ever have produced maximum crops, and we have still more severe tests before us. The only way out is for each man through the aid of improved machinery to do the work of two or possibly have a girl or boy step in and handle the big-type machinery and labor-saving equipment of the present day.

The same methods that have made the American farmer the most efficient in the world will make him even more efficient. With all her boasted efficiency, Germany cannot win against our increasing man power in the fighting lines, backed by the patriotic, resourceful farmers of the food army, who alone are able to supply the fighting man with his rations. Autocratic Germany is doomed to defeat and the brain and intelligence of the farmers of America, who take advantage of every possible piece of equipment that will multiply their productive power, will have no small part in forcing such a peace upon this insane, outlaw nation, as will forever protect us from a similar outbreak.

H. A. Bottmer

Cushman

(261)



Light Weight Engines

For silo filling, grinding, sawing, shelling and all farm work. Weigh only about one-fifth as much as ordinary farm engines, but run much more steadily and quietly, like automobile engines.

8 H. P., 2-Cylinder

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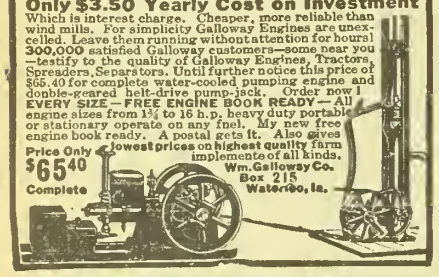

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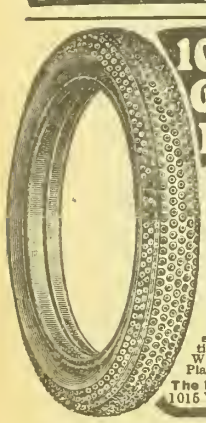

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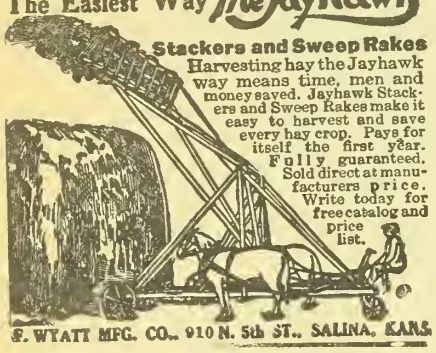

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FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

THE Liberty airplane engine is a success in spite of all the criticism of the aircraft program and especially that directed toward the designing and constructing of this engine. This is the verdict of Charles F. Kettering, president of the Society of Automotive Engineers. It is supported by an abundance of facts. In a recent address before the metropolitan section of this society in New York, Mr. Kettering said: "Our country has produced several articles that I believe have become classic. I believe that none of us now doubts the success of the recent Government standard designs of automotive apparatus. Any of you who have been around the plants where the articles are being built must be impressed, regardless of bias, with the fact that the product is fundamentally correct.

"We have produced the so-called Liberty motor. I found to my surprise the other day that many people did not know that one of these had ever been completed.

"They say we are having all kinds of difficulty with the engine; that we are having trouble with the oiling. I have seen a good many engines of all sorts and I believe that we have not had more trouble with the Liberty engine than is usual in engine manufacture. As a matter of fact in every new model of engine produced there is always a certain amount of difficulty in the design of the lubricating system.

"There are a few very important facts and here is a very simple one that perhaps you have not thought of. The Liberty engine cannot read; it has no ears; therefore it does not know anything about the criticism that is going on about it. Otherwise I do not know whether some of them would get off the ground. I think they would be too discouraged to try. But knowing nothing of the situation, they are doing admirably, and the engine today, as near as I have been able to analyze it, knowing something of aviation engines, is as good as if not better than has ever been created.

"It is being produced in quantities. They shipped the thousandth engine several days ago, only two companies having been in production. One of these has been in production for about sixty days. The Ford Motor Company has tested its first engine and put it through the official fifty-hour test. The same thing is true of the Cadillac Motor Car Company and of the Buick Motor Company. The Marmon Company is, I believe, putting its engine through the test now.

"It has not been a year since the first one of these engines was put together experimentally. It is a new product, a new order of things, which people are not familiar with. It is perhaps because we do not analyze these conditions that so much criticism and gloom have spread over the country. There is only one thing that will answer the criticisms and that is the engine itself.

"There is one thing we ought to get into our heads, that I think we have not appreciated entirely, and that is the fact that if not a single mistake had been made in any one of the Government proceedings, we would have been delayed from three to four months in obtaining the amount of tools needed because of the congestion in transportation, in addition to the extraordinary demand.

"Some months ago I asked a leading automotive manufacturer connected with the aircraft production whether he expected to be able to get the tools he had to have. He said, 'In the last ten years I have put over twenty-five million dollars into machine tools and there is not a manufacturer who is not going to give me what I want.' He ordered his gear cutters and lathes and milling machines and what-not. When I saw him a few weeks later he said, 'Look at this sheet. Those are my delivery dates. Now don't you think I can get the stuff? I am an old hand at this game.' That was all right until the Priority Board said, 'These tools are needed more elsewhere.' He got only a small percentage of the tools he expected within the specified dates. He endeavored to get thread gauges and other articles, and the same thing happened. I saw him a few weeks ago and he had not received all his tools yet. There is universal delay in such things and it is always interpreted against the particular thing that the particular critic wishes to criticise.

"The airplane products are coming along fast. There has been some delay on account of our inability to decide finally on machine gun equipment and types of bombing devices. While waiting until final decisions were received from the other side (the difficulty has not been all on this side; there has been a change of mind on the other side not infrequently), many a thing which was started has been stopped and then started again. We have had confusion on account of changes in specifications made here.

"There have been put into the great Governmental and industrial organizations thousands of people who have been unfamiliar with manufacturing methods. That has been hard to contend with, but that sort of thing is wearing away. It is becoming more appreciated that people who have spent all their lives in the shop really know something about it and that those who have been able to make things before are able to produce for the Government.

"Last week we shipped from the factory with which I am connected, forty-two of the fighting machines with 75 per cent spares. When you ship four machines you really ship seven; so that if you ship forty machines, that is really equal to seventy machines. That production is coming right along. We have done in our method of manufacture what all of our American aircraft people have done; it is possible to build aircraft today by the interchangeable method just as it is possible to make anything else, and that is being done."

Machinery Saves Labor

Farm machinery makes it possible in some places and at some times for one man to do the work that two did before.

"On a recent trip through the corn-belt states I saw on one farm two big strong men, each with a team of horses and a single moldboard plow, following each other around the field," said G. I. Christie, assistant to the Secretary of Agriculture, who is supervising the department's farm labor activities under the direction of Assistant Secretary Ousley. "On an adjoining farm a boy not more than seventeen years old was driving four big horses hitched to a two-furrow plow and doing a work equal to if not greater than that accomplished by the two men.

"On another farm there were two men on one wagon spreading manure with forks, while close by another farmer with three horses and a manure spreader was accomplishing a larger amount of work in a more efficient way.

"In a similar way the double cutaway harrow, the wide cutter bar of the mower and the binder, the sheaf carrier on the grain harvester, the milking machine, the farm tractor, haying tools, and other machinery are making it possible for farmers to handle their work with a materially reduced number of men."

Future for Tractors

The following questions were recently asked in the Farm Tractor, Kansas City, by a Harvey County farmer: "Would it pay for an average farmer to buy a tractor? What size would be best for the average farm? Will the war cause tractor farming to become more general? What type of tractor would you advise buying? Which would be the best for Central Kansas? The soil in my neighborhood is not very sandy. It becomes hard and chunky during dry weather."

In answering these questions W. H. Sanders, instructor in farm motors at the Agricultural College, states that he would have no hesitancy in advising the average farmer to use tractors provided he or his operator make a careful study of the machine, its operation and field of use, before trying it out.

Mr. Sanders points out that the war will complete the use of mechanical power in place of horses for the reason that the longer the war lasts the less farm labor will be available and every farmer must accomplish more than is possible with animal motive power to keep the people of this country, the army and our Allies fed. He recommends a kerosene-burning tractor adapted to do the plowing of the farm in about twenty days and the other work in proportion.

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The Prairie Dog Tractor is a wonder. It is a small, light tractor with great strength and speed. It will do your plowing, harrowing, listing, planting, drilling. It pulls your binder, mower, corn harvester, manure spreader, and is equipped with belt pulley with 18 horsepower under the belt that will grind your feed, pump your water, saw your wood, and do every kind of farm work. The Prairie Dog is a time-saver and a money-maker. The price is surprisingly low. There is some satisfaction in this machine, as you can run it on high or low speed, handle it like an automobile, and it is full spring mounted and rides as easy as a buggy.

The Prairie Dog Tractor will do the work in one day that a team will do in four, and you can plow your ground and work it while it is in good shape to work—ahead of the droughs and ahead of the floods. Remember the price is right. Send for free circular and full information today. It will pay you big.

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KANSAS FARMER

THE FARM PAPER OF KANSAS

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STORING FOOD RESERVES

In ancient Egypt in the time of Pharaoh the foresight of the nation's rulers in storing a reserve of food saved the people from a disastrous famine. The various food administrators of the United States who held a conference in Washington recently urged our Government to adopt a similar policy and store up large food supplies for a possible time of need. This is wise counsel, and we should give it our hearty support.

No food lends itself more readily to storage and transportation than wheat and wheat products. It is for this reason that wheat occupies so important a place in feeding the world under war conditions. This year our crop is estimated at about 930 million bushels, which is approximately a third more wheat than we produced in 1917. The United States Grain Corporation, through which the Food Administration operates its handling of wheat, flour, and cereals, must stand ready to handle this enormous crop as it comes to market. It is in this way that the Government-guaranteed price is made good. In anticipation of the marketing of the wheat of this year, arrangements are now being made to use the full amount of the appropriation of the Food Control Bill to finance this corporation. It has been operating on a capital of fifty million, all furnished by the United States Government. Its maximum capitalization is 150 million, and it is further authorized to borrow money as needed on the security of stored wheat or flour in conducting its business.

It will be interesting news for the producers of wheat to learn that the United States Grain Corporation has been authorized to pay higher prices. This is because of the increase in freight rates. The new schedule will be adjusted to the new freight rates so producers will not receive less than they would have received under the old rates. The Government should be commended for this policy of protecting the wheat farmer against the increase in freight rates.

As consumers we also have a part in helping our Government to carry out its policy of storing reserve supplies. After we have learned how easily we can cut down our consumption of wheat through the necessity of supplying large quantities to our Allies and our fighting men, it would be foolish to throw aside all the conservation methods and start in to eat up our new crop as quickly as possible. By continuing our wheat-saving policy as consumers we can absolutely guard against a repetition of the serious shortage in the world supply of this great cereal which has been so difficult to overcome in the past few months. We must have the wheat loaf on the fighting line and to a large extent in the homes of our Allies, but we can so reduce our consumption here at home as to keep a good, safe reserve in storage.

We trust similar plans can be made to store reserves of meat and other livestock products. Some kinds of meat can be stored for long periods. There is no good reason why the surplus that comes in during heavy market runs should not be stored and it should be done without breaking the market, as is the usual practice when such runs occur.

M'CAMPBELL SUCCEEDS COCHEL

Dr. C. W. McCampbell, associate professor of animal husbandry at the Agricultural College, has been appointed by the Board of Administration to succeed Prof. W. A. Cochel, whose resignation as head of the department took effect July 1. This appointment insures continuance without a break of the constructive work in animal husbandry which has characterized Professor Cochel's administration.

Doctor McCampbell has for eight years been a member of the animal husbandry department. He is a Kansas man, is widely known over the state, and has a comprehensive knowledge of live-stock conditions. He holds the degrees of bachelor of science, bachelor of science in agriculture, and doctor of veterinary medicine, from the Kansas Agricultural College. As a student at the institution Doctor McCampbell distinguished himself in live-stock judging and other live-stock work. He has coached many successful teams in stock judging.

Since 1911 Doctor McCampbell has held the position of secretary of the State Live Stock Registry Board. This board by law consists of the president of the Agricultural College, the head of the animal husbandry department, and the head of the veterinary department. To the secretary has been delegated the job of administering the provisions of the law, and Doctor McCampbell has been most tactful in solving the many problems with which he has been confronted and has received much praise for his efficiency in carrying out the purposes of the law. During the period he has held the office there has been an increase of 769 pure-bred and a decrease of 1,689 grade and scrub public service stallions in the state. Eight years ago two thousand grade or scrub stallions were being advertised as pure-breds. During the past season not a single grade or scrub has been so advertised. In recognition of his services in improving the horse breeding conditions of our state, Doctor McCampbell has been elected president of the National Association of Live Stock Registry Boards.

We feel sure our readers will commend the wise choice of a successor to Professor Cochel. The editor of KANSAS FARMER takes peculiar pleasure in commending this appointment because of our personal acquaintance with Doctor McCampbell, which began in the classroom when he was a student. We have seen him grow and develop in training and experience and feel that the board could not have made a better choice of a man to take up the duties and obligations of heading this important department of the college work.

INCREASING WHEAT PRODUCTION

More wheat is one of our vital war needs. In response to the appeal last year Kansas farmers planted almost ten million acres to this life-sustaining cereal. This was one-fourth of all the winter wheat acreage of the United States.

As a result of the dry weather last fall and subsequent winter killing, the acreage actually harvested was reduced to less than seven million. Even with this loss, the wheat crop of Kansas is of such proportions as to cause the eyes of the nation to be turned to us in this hour of need for bread grain.

In this war crisis we are in danger of being carried away with the idea that only by increasing acreage can we increase production. Our Federal Government is now being urged to loan money to farmers in Western Kansas and in other sections having similar conditions because these farmers cannot buy the seed wheat to plant big acreages without additional capital.

This is an admission that exclusive wheat farming in that section is a risky business and may get the farmer so involved in debt that he cannot continue farming without modifying his cropping plans. The safest and most permanent kind of farming to follow in that section is a combination of live stock and wheat, never getting so completely tied up with wheat that a failure will mean ruin.

We do not wish to be understood as knocking on the plan to furnish money to farmers of the west end of our state for buying seed wheat, for it is one way of increasing our wheat production and thus meeting the ever-increasing war demands. We would like to point out, however, the possibilities for increasing production through better preparation methods, and especially as applied in Eastern and Central Kansas. On the front page of KANSAS FARMER last week appeared a most striking story showing how plowing for wheat at the right time increased production an average of 62½ per cent, covering a period of seven years. In one case the ground was plowed September 15, in the other July 15, and in both cases given such harrowing and cultivation as was necessary to get it in suitable seed-bed condition by planting time.

This year on the basis of the June 15 report of the State Board of Agriculture, thirty-seven counties of Eastern Kansas will produce on 1,349,195 acres, 26,167,000 bushels of wheat. The next thirty-seven counties, which includes the tier with Phillips on the north and Comanche on the south, will produce on 4,286,284 acres 61,991,000 bushels of wheat, or a total of over eighty-six million bushels. The remainder is in the western third of the state.

On the Fort Hays Experiment Station farm field tests covering eleven years show that land plowed early and properly prepared for seeding yielded 60 per cent more wheat—or an average of 14.4 bushels to the acre—than land late fall plowed. This coincides with the Manhattan tests. Here is a sure way to increase wheat production, requiring not increased acreage, but more labor and machinery and work done at the right time. How much of the wheat land is plowed early we do not know, but a 60 per cent increase on half the acreage harvested in the two eastern sections referred to would mean over twenty-six million bushels more wheat than was grown this year. A careful study of the tests show that not only is production increased but profits as well, in spite of the increased cost of preparation.

In our efforts to increase our wheat production let us not forget to apply to the fullest extent possible the information that has been obtained for us on our experimental farms. If every farmer in Kansas could plow the land he expects to put in wheat immediately following the harvest, we could hope to produce, even with a normal acreage, the two-hundred-million-bushel crop.

PLAN FOR SALINA SHOW

The big National Tractor Demonstration to be held at Salina the week beginning July 29 will be under the management of the Tractor and Thresher department of the National Implement and Vehicle Association. There has been considerable delay in announcing the date and the place for holding this demonstration. It has not been an easy matter to secure a location for the show where a large enough tract of land could be had near a town able to accommodate the crowd of visitors. From the attendance at previous shows it is estimated that there may be from fifty to seventy-five thousand people at Salina during this great power farming demonstration.

A. E. Hildebrand, who has managed the national tractor demonstrations for several years, will be in charge. The plans and rules will be formulated and published in the near future. In addition to the usual plowing demonstrations which will take place on the 3,000-acre tract of land adjoining the city, arrangements will be made for conducting special tests which exhibitors may wish to enter voluntarily. In these it is proposed that not more than two power-driven machines can be entered by the same concern. Manufacturers will be allowed to make tests of their own showing brake horsepower, draw-bar horsepower, and other efficiency tests which might be of interest to the farmers studying tractors. These will not be contests in any sense between tractors of different types or using different kinds of fuel, and the results will be published only as the exhibitors see fit. They will be conducted under the direct supervision of competent engineers selected from the different agricultural colleges, and will be under the direction of the general manager of the demonstration. This will insure the accuracy and dependability of the results as published, making them authorized tests which the manufacturers can publish or advertise as authentic.

NEW INTERPRETATION OF LIFE.

We used to think of our little world as the center of the universe, with the sun and all the stars revolving around it, existing only for the purpose of giving us light and heat. We should laugh now at anyone who held so petty a conception of the creation. But for a long time the world clung to this belief. Giving it up seemed a sacrifice to the dignity which we thought was ours, and those who first caught the larger vision were ridiculed and persecuted. We have come to see that our entire solar system forms a very small part of a universe so wonderful and vast to belong to it at all is a far greater thing than to be the center of the whole which we once imagined, and we smile in a superior way at this delusion of our forefathers.

But we wonder if there are not persons living now whose outlook on life is as narrow as that of past generations on the material universe. It seems to us that a person who regards his own personal interests as of first importance in a time like this, looking out upon this great conflict of world forces and the tremendous changes taking place unmoved except in so far as he can see that he himself is directly affected, is making just as serious a mistake. We do not believe such individuals exist in sufficient numbers to be any serious menace, but if there is one he is robbing his own life of the grandeur which belongs to him as a citizen of the world. He who interprets life in terms of self is missing the dignity and beauty and bigness of his relationship to all humanity. "Whosoever would save his life" at the expense of honor, patriotism, and love of humanity shall surely "lose it" in the larger sense.

KANSAS FARMER has always urged the importance of providing grain storage on the farm in sections of our state where large acreages of wheat are grown. This is made necessary because almost invariably the marketing of a large crop puts a heavy strain on storage elevators and the transportation systems. This year the Department of Agriculture is pointing out the importance of providing enough bins on the farm to store wheat wherever it is possible to do so. A circular containing plans and drawings for a portable bin that can be quickly built is being sent out. The portable grain bins made of metal have served a most useful purpose on many wheat farms of our state, since they can be set up convenient to where the threshing is being done, thus greatly reducing the work of that rush period.

The burlap bag situation is steadily getting worse. This is beause of the increased use of burlap bags in trench warfare and in food shipments. The shortage of ships to bring the jute from India is also an important factor. It has been estimated that 21 million yards of burlap, valued at four million dollars, could be saved annually if all fertilizers were shipped in 200-pound bags instead of smaller sizes. Dealers are offering from 6 to 15 cents for second-hand bags such as can be picked up and saved around farms where feed and other materials are purchased. Why not sell spare burlap bags which you may be able to pick up about your barns and buildings while the need is so great?

Give our boys in the army and navy every fighting chance. Save to the utmost of your ability and buy War Savings Stamps.

BREEDING BETTER POULTRY

By Their Offspring Ye Shall Know Them---No Better Test Known

THERE are three tests of a breeding bird—its appearance, its ancestors, and its offspring—and the best of these is its offspring. This statement was made by Prof. William A. Lippincott in a lecture to a group of breeders and poultry growers Farm and Home Week at Manhattan.

Poultry breeders realize that individuals selected for the breeding pen should not only be the best by test, but the best by the best test.

"Not so very many years ago," said Professor Lippincott, "one of the best Single Comb Rhode Island Red breeders the State of Kansas has ever seen, mated up what he considers the finest breeding pens of exhibition Reds that he had ever owned. So choice was he of these pens that he refused to sell eggs from them for hatching purposes at any price. From these pens and from them only he expected to perpetuate his flock for the coming years. And because of the great care used in selecting these few choicest birds he expected to make a long step in advance over previous seasons. Among the pens which he had mated from which to supply customers was one which he called his utility mating. This meant that it was made up of birds that were not good enough to use in the pens from which he expected to rear his own stock, or the pens from which he sold his higher-priced eggs. It was sort of a catch-all pen. It caught all the birds that were not supposed to be very good and it caught the trade of those people who were unwilling to pay a good price for quality, yet did want to buy eggs of some sort for hatching.

"Much to the chagrin of this breeder whose name is well known among the poultrymen of Kansas, the offspring of his choicest pens were unsatisfactory. Fortunately for him there was one time during the hatching season when he did not have enough of his choice eggs to fill his incubators. In order to keep from running some of them partly full he filled the trays with eggs from his despised utility matings, thinking that he would raise the chicks that hatched for eating purposes. Much to his surprise, it was from among the chicks hatched from these eggs that he picked his show birds the following fall and he told me personally that he spent between one hundred and fifty and two hundred dollars railroad fare traveling about buying up birds from customers who had purchased eggs from his utility mating.

"The meaning of this experience for the poultry breeders of the West, which is not an isolated one by any means, is very clear. You can no more tell with certainty by the looks of a bird how he will breed than you can tell by the looks of the time-honored toad how far he will jump. It was said in the beginning that there were three tests of a bird's breeding value—its looks, its ancestry, and its progeny. The birds that went into this breeder's choicest pen looked all right. I doubt if there were any that looked better within the borders of the state. These birds also had ancestors that had won in the best of the western shows and no one could say that their ancestry wasn't all right. But as the first and last object in breeding is to produce high-class offspring and these birds failed in this particular, they could not be called good breeders. This brings me to the point of this whole story, which is that the only way to judge the breediug powers of any bird is by the character of its offspring. Both the appearance of the bird and its ancestry may help us somewhat in deciding what its progeny may be like, but the acid test is the progeny test. No bird can be said to be a first-class breeder until he has proved it by producing first-class offspring.

Egg Production Through Male

"Science has recently told us that high egg production cannot be transmitted from mother to daughter, but that it is transmitted from sire to daughter. While the following facts taken from the experimental records at the Kansas Experiment Station do not prove that this is the case, they certainly do show that egg production may be transmitted through the male. A mongrel farm hen was trapnested and found to lay one hundred and twenty-two eggs, which is unusually good for a mongrel. She was mated with a White Leghorn male from a high-producing family and her daughter laid one hundred and sixty-one eggs. This daughter was mated to another White Leghorn male from a high-producing family and one of her daughters which happened to be trapnested laid one hundred and ninety-four eggs. She in turn was mated with a White Leghorn male from a high-producing family and one of her daughters which was trapnested laid two hundred and sixty eggs, which would be considered a good record anywhere. In a similar manner a mongrel farm hen which laid ninety eggs was mated with a Barred Plymouth Rock male from a high-producing family and one of the daughters which was trapnested laid one hundred and twenty eggs. This daughter was in turn mated to another Barred Plymouth Rock male from a high-producing family and one of her daughters that was trapnested laid one hundred and seventy-five eggs. She in turn was mated to a Barred Rock male from high-producing blood lines and from this mating secured a daughter that laid two hundred and fifty eggs. Using high-producing males for three generations improved the egg production in these individual cases by a little over 100 per cent and 150 per cent, respectively.



FINAL TEST OF BREEDING STOCK IS THE YOUNG THEY PRODUCE.—BREEDER HAS NO ACCURATE KNOWLEDGE OF PARENTAGE OF INDIVIDUALS HERE SHOWN

"The Kansas Experiment Station has a considerable number of records of this sort from which these two have been selected by way of illustration, and which will be published in bulletin form at some later time. These are used here to illustrate, first, that egg production may be very markedly increased through the use of males from high laying families, and second to call attention to the fact that the only way one has of knowing a rooster's production value is through the egg records of his daughters.

"Of course, the dairy cattle breeder has recognized this for a long time. He judges the value of a bull that he is considering for the head of his herd by the milk production of the daughters which this bull has already sired. And when the dairy breeder finds a bull that can beget high-producing daughters he hangs onto him like grim death for as long as it is possible to use him in his herd. The poultryman on the other hand usually behaves a good deal like the poor peasant who killed the goose that laid the golden egg. When he does get hold of a good breeder or a pair of breeders, or even a pen, he feels that the next year he must put young stock in his breeding pens, and discards the older birds as having served their time, staking his future on young and untried fowls.

"It is no wonder that poultry breeding is looked upon more or less as a hit or miss sporting proposition rather than a substantial business comparable with that of breeding other lines of live stock. That was the trouble with the Rhode Island Red breeder spoken of at the beginning of this article. If he had hung onto the particular birds that produced his choice individuals and had used them for three, four, five or even six years, he could have gone on getting more individuals like them. In the meantime he could have been cautiously testing out some of their sons and daughters to see which ones would prove to be as good breeders as their parents. Now it was very unfortunate for this breeder that he had not made use of the trapnest during the breeding season and did not know from what particular birds from his so-called utility mating his good birds of the following generation came. This pen had been made up of a considerable group of females with which there were several males running. It is probable that most breeders know what pen a given bird comes from and what particular male headed that pen, but the very fact that some of the offspring of this pen are good and others not so good ought to suggest that some of the hens in the pen were proper mates for the males and some were not.

"To know with certainty not only what male, but also what female mated with him was responsible for a given result, one must make use of the trapnest and the pedigree tray. If the breeders of other lines of live stock had followed the hit or miss method of breeding that most breeders of poultry have in the past, our larger pure-bred animals would in all probability have not reached their present high state of perfection. And not until poultry breeding is put on a pedigreed basis so that the breeder who is seeking an increased egg production can tell from his records not only what the mother of a given bird produced, but what the mother of this bird's sire, and in fact all of the female ancestors, produced on both sides for several generations back, will we be able to secure from the breeders of this and surrounding states what we have a right to expect, namely cockerels that will improve the egg production of our flocks. There are a few here and there, but the few there are cannot begin to supply the present demand for cockerels from high-producing families. To produce such cockerels in all the more common breeds is not only good business, but it is patriotic as well, as there is no surer method of permanently increasing the food supply so far as eggs are concerned than to breed up flocks with regard to egg production."

Silo Saves Waste

Almost two-fifths of the total digestible material in a crop of corn is in the fodder part of the plant. This is on the basis of a forty- or fifty-bushel yield of grain. Of course this material is in a bulky form and cannot be used directly as human food. Only through the agency of cattle or sheep can the nutrient value contained in the bulky part of the plant be changed into such form that it can enter into the human dietary. The nutrient value is there, however, and it represents labor and soil fertility. Unless used, the labor tied up in this part of the plant and the soil fertility become largely waist, or simply go back to the soil without adding anything to our food supply.

When grain was low in price we did not give much thought to this waste in the fodder part of the plant, but as the price or value of the grain increases higher value must be given the nutrient material contained in the fodder part of the plant. The importance of this saving might be emphasized by giving a money value to the material produced. A fifty-bushel yield of corn figured at the rate of $1.50 a bushel makes the grain part of the crop worth $65. Since more than a third of the nutrients are in the fodder, it is worth at least half as much as the grain, or $32.50. We can hardly afford to ignore nutrient material having such a high value, and yet when we leave fodder in the field to dry up and blow away we are practically losing this value on each acre with the present prices of grain and other concentrated feeds.

Even where the fodder part of the plant is cured and fed in the dry form there is a great deal of waste which is eliminated by the use of the silo. Under ordinary farm conditions there is an actual loss of at least 25 per cent of the feeding value of the fodder cured and handled in the dry for mand frequently this loss runs as high as 45 per cent. The most valuable parts of the fodder are frequently shattered from the stalks and blown away in the process of handling. We find ourselves frequently spending a great deal of labor in the mere hauling and scattering out of corn stalks which are largely rejected by the stock.

The loss of all this material in the silo is reduced to a minimum, if the silo is tight and the fodder is run in at the proper time and well packed. In the form of silage the whole stalk is consumed, whereas in the feeding of dry stover only the leaves are eaten and a good share of these are lost before the fodder reaches the cattle. Even when fodder is shredded, experiments have shown that the rejected portion runs as high as 31 per cent. This of course is in addition to the losses of nutrient material which have taken place during the curing process and the handling of the fodder from the field to the yards or barns where it is fed.

The biggest advantage of the silo, however, is from the possibility of saving an immature or damaged crop which would be of little value if left in the field. Frequently we have seasons unfavorable to the production of high yields of grain, and in these years we lose practically all the labor and expense we have put into the crop unless it is harvested and used in the most economical manner possible. There is no better or surer method of getting full value from an immature or frosted crop of corn or grain sorghum than to put it into the silo. The silo thus becomes one of our best conservation agencies. On very few stock farms is it good policy to even try to get along without a good silo.

Destroy the Rats

In England a man who lets rats destroy food is fined. This is based on the theory that no one has the right to waste food, whether he bought it or grew it on his own farm. We recognize this as a moral obligation in this country, but our ally goes farther and applies a punishment for its violation. An instance is reported of a farmer, John Andrews, of Charleton Cross Farm, being fined fifty pounds—about $250—because he allowed five or six bushels of wheat to be destroyed by rats. About a hundred rats were estimated to have been in the stack and the English idea seemed to be that a farmer should keep ahead of the rat game better than that.

Some of the statisticians have been figuring on the number of rats in Kansas, and they report that we have about three million of these destructive rodents and set their total destruction at $6,000,000 a year. They further figure that it requires the continuous work of about 150,000 men with farms, agricultural implements, and other equipment to produce the foodstuff destroyed annually by rats in the United States, and further that rats destroy additional property mainly of agricultural origin the production of which requires the work of about 50,000 men. This gives a total of 200,000 men whose economic output is devoted solely to feeding and providing for the rat population of the United States.

The doctors who fail to report their births, deaths, and reportable diseases, will have an opportunity to explain to the military authorities.

THE COMMUNITY CHURCH

Must Economize Spiritual as Well as Material Resources

By REV. ROY B. GUILD

Doctor Guild is the assistant secretary of the Federal Council of Churches. This is a well organized movement for bringing about co-operation in church and religious life. It has already made considerable progress, although not as much in Kansas as in a number of other states. This state, usually to the forefront in all progressive reforms, seems to be lagging behind in this movement to cut out the wasteful scattering of our efforts in church work. Doctor Guild was reared in Kansas, and is thoroughly familiar with our problems. This address was given during the Farm and Home Week program at Manhattan. It furnishes food for some sane, sober thinking, which we trust will crystallize into action in the near future.—EDITOR.

AS THIS war is the war of the whole nation and of all which the nation possesses, the principle of economy must be applied to every department of life, farm, mine, railroad, factory, and ship. Brain power, courage, loyalty, endurance, faith, all must be rightly mingled and royally contributed. Of all these resources faith is the most important; faith in the cause for which we fight, faith in our allies, faith in our soldiers, faith in ourselves and faith in God. When the supreme test comes in this terrible conflict the weathering of the storm will depend upon whether there is found in our hearts the assurance that caused Washington to kneel in prayer at Valley Forge and Lincoln to spend the hours in prayer before the battle of Gettyshurg.

Whence will we have this faith? It will be like the great store houses of wheat gathered from thousands of farms. Every village and crossroads must make the contrihution of true religion. Two Christians must grow where one grew before that one may abide to make religion more vital at home while the other goes forth to do and if need be to die.

Are we conserving thus the great spiritual resources of our communities? Let me state the problem by reading a letter from a man in Oklahoma. Rather let him state the problem. The letter bears the date of January 7, 1918. It is signed by the chairman of one of the departments of the Oklahoma Free Fair Association. He is the superintendent of schools:

"Our town has about 600 people, and is trying to support four church organizations. Two of these churches have no pastor at this time, hence it seems an opportune time to unite the Christian people of Tyrone into one great church. A few of us are working along that line, but we have nothing to work on or from, not being at all familiar with the plan or methods of such an organization.

"If you will be so kind as to give us full information as to how this idea can be worked out successfully you will confer a great favor, and at the same time, I believe, help the great cause of Christianity."

Other letters from different parts of the country state about the same problem with different figures. It is the prohlem of thousands of communities north, south, east and west; rural, suburban and urhan.

The old crime of ecclesiasticism was the imprisonment and burning of heretics and the wholesale slaughter of those of an opposite doctrine and policy. The present day crime is the slow mental and spiritual suffocation and physical torture of home missionary pastors and especially pastoresses to maintain churches where in reality only one church is needed.

Religious papers are well supplied with articles trying to answer the question, "Why do not our young men go into the Christion ministry?" One of the answers is easily given. It is because the lads in the rural communities do not see in the churches they have attended a whole man's job.

No Co-Operation in Religion

The unifying spirit of the day has brought all together in the community program except the churches. Religion should be the most unifying factor of the community. Its expression, however, has produced just the opposite effect.

The "teen" years of my life were spent in a Kansas town. My father went there with his family thirty-five years ago to be the pastor of a prosperous church. He regained his broken health and all was going well. Missionary secretaries and evangelists came and went, but hefore they went a new church would be started. So it continued until the town of 1,300 inhabitants had a dozen churches. Each new church took a few memhers from the older church. The financial burden became heavier. Anxiety and increased expense brought loss of strength, illness, and, at the end of six years, death at the age of fifty-seven. What happened in that home has happened in thousands of homes. Sometimes it was the minister, sometimes the minister's wife. That is why, in part, the Christian ministry in America cannot claim the devotion of the young man as does the ministry in China and India and Turkey and mauy fields of altruistic service in our country such as the Y. M. C. A. and Social Service.

Here then is our problem. It is not a new discovery. We have known it a long time, so long in fact that we have almost lost hope of solving it or interest in our attempts to find a solution. Many are saying, "We must await the wasteful survival of the fittest."

Every denomination publishes a year book. It is for the annual reckoning of the church memhers. Woe to the minister or missionary superintendent against whose name a loss is recorded. Better that the moral and spiritual welfare of the community suffer than that one less church appear in the year book.

In New York state two ministers talked ahout the union of their churches for the good of the village and of the preachers. The matter was to he put up to the vote of the people. On Sunday one minister made the aunouncement of the meeting and favored the proposition. The other had a change of heart and opposed it in his pulpit. He told his hrother pastor later that he decided that if the union were to be brought ahout the vote might eliminate his church in which case he could whistle for another chance. Privately he favored the union, officially he was afraid of it.

Difficulties of Church Union

The greater difficulty is found, however, within the church itself. Having been a home missionary myself I know how hard it is to bring the laity together. In the cases of failure that I have investigated the majority, as a rule, favor some form of co-operation or consolidation but there is a "wee church" group that is very firm and usually noisy in their opposition. A minister and five per cent of the congregation can generally prevent any advance step. I will let another state this fact as I quote from a letter from New York explaining why an earnest effort failed:

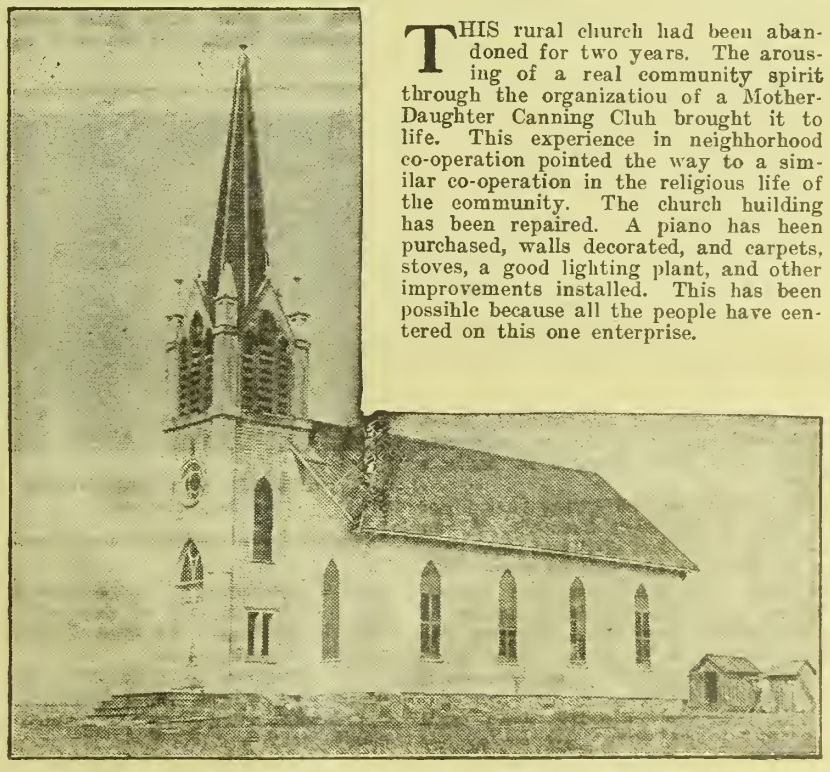
"The whole situation here is made exceedingly delicate and all hut hopeless by the attitude of the pastor of one church, backed by two members of the church, in his opposition to all plans that seem to furnish a means of developing the church union program.

"The sentiment of the towu is overwhelmingly in favor of federation or union. Any help you can render will be greatly appreciated. I am thoroughly convinced that in this village of less than three hundred people the community church is the only solution of a strong church life. Both huildings are sadly out of repair, and for each organization to huild a new church and try to maintain it in the future means constant overlapping and friction."

The result of all this is inexcusable waste. Still worse though is the loss of influence upon the unchurched who sit and scoff when rival sects sing: "Like a mighty army moves the church of God." The impression made upon them is that of guerilla bands, especially in the season of church fairs and bazaars and even in revival campaigns, so-called.

Results of Scattering Forces.

In the presence of great social evils, civic, political, economic in character, the churches are almost powerless. In one state a very careful survey has been made recently. It was found that in the county having the largest number of church buildings to the number of people, it had also the highest percentage of illegitimate hirths. One church building for about every one hundred and twenty-five persons and 123 illegitimate hirths to 100,000 population. There were so many churches they could not afford to have many resident ministers, only one for every 1023 persons. If three out of four of the churches could have heen merged into the fourth, the conditiou would have heen different. A sermon and collection once a month in each of three or four churches hy a man who lives in a distant town is not worth one fourth as much as having one good Christian minister live in that town. The church which is the body of Christ is not made of wood and stones used semi-occasionally. The real church is emhodied in the human lives of whom it can truly be said and sung, "All One Body We." The more I see of the breakdown of religion in rural communities the more I am coming to feel that having "preaching points" is an invention of Satan. Where there is an exception it is because the people get something more out of the minister than a sermon.



THIS rural church had been abandoned for two years. The arousing of a real community spirit through the organizatiou of a Mother-Daughter Canning Cluh brought it to life. This experience in neighhorhood co-operation pointed the way to a similar co-operation in the religious life of the community. The church huilding has been repaired. A piano has heen purchased, walls decorated, and carpets, stoves, a good lighting plant, and other improvements installed. This has been possihle because all the people have centered on this one enterprise.

How to Cure Evil.

As the eure of the ills of democracy is more democracy, so the cure of the ills of religion is more religion of the pure and undefiled type which is service.

There is one expression of religion which the world welcomes and pays for. In the last few months we have seen the people of America give the largest sum of money ever given at one time to a religious enterprise. The explanation is simple. Over $50,000,000 was given to the Y. M. C. A. hecause those letters mean to the world, Service. In that one word is the solution of the problem of the churches of the small and the large communities. Service not services must determine all efforts.

We are demanding of church members that they become Christians. "He came not to be ministered unto hut to minister and to give his life a ransom for many." Our churches must he Christian in their attitude to one another and to the community. What a revolution we would have in every town in Kansas if we could have every church obey the scriptural injunction applied to them as well as to the members, "Let no church seek its own but its neighbor's good." This is the slogan all church men must adopt if they will redeem the churches and the community. "Let us be good neighbors for the good of the neighhorhood."

The one thing which caused me to accept the invitation to come to Manhattan was to tell you that this revolution is going on and will spread from one end of this country to another. This war will speed this turning and overturning.

War Hastens Church Union

In Waterbury, Vermont, there were two churehes, Congregational and Methodist. The story of their union, as told in a recent letter, follows: "The Congregational pastor went to France for the Y. M. C. A. War federation suggested by Methodists and proposal unanimously accepted by both churches, making the church more of a community servant. Results: Larger congregation than the joint congregations hefore; larger Sunday Schools; enthusiasm of numhers; good community spirit, and the church actually serves. Thus far our experiment is working out to the advantage of both churches and the community." This letter is signed by the Methodist minister.

In the State of Massachusetts the denominational home missionary secretaries have formed a home mission council through which plans of co-operation are formulated and executed. On Decemher 10, 1917, the council unanimously adopted a resolution which was mailed broadcast throughout the state urging the churches to do what was done in Waterhury, Vermont, wherever practicable. In Kansas this cannot be done, as the home missionary superintendents of the state have not heen willing to form such a council; that is, not all have heen willing. Such an organization could in these days render a wonderful service. Until one is formed, as will he the case sooner or later hecause of the example and inspiration of the council of National Home Missionary secretaries, the people will have to handle the matter themselves.

For the small town that can only support one church, the community church is becoming more and more common. Sometimes it is just a union church; again it is a federation of two or more churches retaining separate denominational relations hut worshiping as one

(Continued on Page Seven)

MORE SHEEP NEEDED IN KANSAS

Demand for Both Wool and Mutton Is Greatly Increased

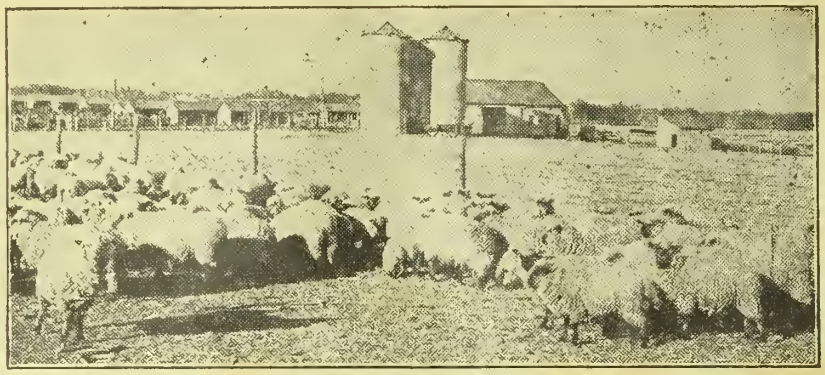
THE number of sheep in the world has diminished steadily since the war began. In Europe about 56 million sheep have been slaughtered for the use of its armies. In Germany, Turkey and the Balkans, the supply of sheep has been almost entirely wiped out. According to Herbert Hoover, our National Food Administrator, the supply of sheep in this country has steadily diminished since the beginning of the war, and right now our nation is facing the greatest wool and mutton shortage ever known. In 1917 we did not produce more than 35 per cent of the wool used in our mills. Our armies use from 2,200,000 to 2,700,000 pounds of wool a year. If all of our available wool were made into cloth and divided equally among the women and men of the United States, there would not be more than forty-five square inches of this cloth that could be alloted each person, and if the present decline in wool production should continue there will soon not be enough woolen material to make a respectable breech cloth for each person.

Every means of increasing sheep production should be encouraged. The Oklahoma Agricultural and Mechanical College has acted very wisely in establishing sheep clubs for boys and girls in order to develop the sheep industry. In 1917 about 1,500 boys and girls enrolled for this work and the results have been satisfactory. Texas, Louisiana and other states of the Southwest have similar organizations. Farm bureaus, bankers, and business men should advance the boys and girls the money they need for this proposition, and should gladly take the notes of these youngsters for the amounts advanced to purchase sheep they need to carry on this work. These same business men should show their patriotism by offering suitable prizes and rewards to stimulate the interest of the boys and girls in these projects.

Strenuous efforts should also be put forth to increase the interest in sheep raising in general. By increasing the number of sheep we will increase both our food and clothing supply and in this way aid the nation along both lines. Kansas and the states of the Southwest offer unusual advantages in certain phases of the sheep industry. One of the drawbacks is the lack of proper legal protection against sheep-killing dogs. If the owners of these miserable curs were compelled to keep them chained and to pay a heavy dog tax on them, this nuisance would be abated in a large measure. Prof. D. A. Spencer of the Oklahoma Agricultural and Mechanical College says the climate of Oklahoma is especially well adapted to the production of winter lambs and that farmers in this section find it a profitable undertaking. Lambs will grow during the winter months and when finished at three or four months of age will sell at unusual prices. Good to choice lambs were recently quoted at $18 to $20, which certainly made it worth while for those who had them to market. This season's crop of lambs will bring good prices. The mild winters of the states of the Southwest afford the sheepmen opportunities to succeed without expensive barns and sheds which northern farmers must have. The annual wool clip will largely meet the cost of maintenance so that the sale of market lambs will be practically all clear profit. The first cost of a small flock is so moderate that almost every farmer can afford the investment. Sheep farmers in the North and East would do well to consider the Southwest as a profitable field for their future operations, because of the smaller investment required for shelter and feed.

Weed and underbrush destruction represents another source of profit and benefit that farmers can count on when they have sheep on their farms. Sheep will eat and relish a large percentage of the many kinds of weeds and underbrush on the farm and will thrive on them if a reasonable amount of the pasture is covered with good grass. Sheep will do better if frequent changes of pasture can be provided and of course such an arrangement will require some cross fences and that will run up the initial cost.

"The improvement of soil fertility by pasturing sheep is a phase of the sheep industry that is also of importance," says Professor Spencer, "and the natural habits of the sheep enable them to be particularly useful in this respect. The flocks will always be found on the knolls during the hours of rest, thus leaving a large portion of their droppings in the field in places where manure is most needed. Except during the shearing and lambing seasons, sheep usually require less attention than any other class of live stock."



SHEEP ON FORT HAYS EXPERIMENT STATION FARM.—RECORDS SHOW FLOCK HAS BEEN SOURCE OF LARGE PROFIT

Farmers who try sheep raising and begin in a small way will find it profitable. There should be some sheep on every farm large enough to provide the pasture and grazing range required, but it will always be best to begin with just a few and then gradually increase the number from year to year. Good prices will undoubtedly be paid for mutton and wool for many years to come. The sheep industry is bound to vastly increase in Kansas and the states south and west within the next few years. Farmers in many parts of Oklahoma have already shown their faith in the sheep industry by greatly increasing their holdings. Among these in Eastern Oklahoma might be mentioned John Middleton, who lives a short distance north of Tulsa. Last year he purchased 1,075 head of sheep in Texas to put on his ranch. He began first in a small way and his success was such that he believes his present purchase will prove to be a splendid investment owing to the high prices offered for wool. The excellent quality of sheep that he has put on his ranch assures a ready market for all the wool and stock he has at top prices. His future success will be watched with much interest by many farmers.

Business men in this section of the country should not only use every means possible to increase sheep production in their territory, but they should also seek to encourage the establishment of woolen mills at proper places to utilize the raw product that is now shipped to the North and East. There is not a single knitting mill in Kansas, Oklahoma or Texas, yet we have billions of tons of coal besides gas and oil that would provide cheap fuel for all such enterprises. There is no doubt that knitting mills in Missouri, Kansas, Oklahoma, and Texas, if established in proper places, could be made paying investments. Their early establishment would also create a home market for wool that would cause more farmers to engage in sheep raising and thereby build up one of our most important industries.

Boy Starts in Sheep

A Kansas Farmer Dairy Club member in Osage County is not confining his livestock venture to paying for a dairy cow from the profit of selling cream and feeding skim milk. He is getting a start in sheep and has already demonstrated the profitableness of this much-neglected farm animal.

Ronald Roney, of Scranton—for that is the boy to whom we refer—mentioned incidentally in a letter about his dairy cow that he had used some money from the sale of sheep in making a payment on his note. An inquiry as to his sheep experiences brought the following letter:

"Five years ago this spring papa bought our start in the sheep business. He bought forty-one ewes and a buck, all native grade sheep. The bunch cost $190, and it looked to many like a foolish investment.

"Our first year was not so profitable as the following years have been. Our wool brought only 18 cents a pound, and our lamb crop was small.

"The next year we culled out some of the older and poorer ones, keeping in their place some of the yearling ewes. These ewes sheared better and had more lambs. The wool brought 24 cents a pound.

"It was the second spring that I got my start in the sheep business. A ewe had twin lambs and died and papa gave me the buck of the pair to raise. The lamb did well considering the circumstances, and the following spring I traded him to papa for a yearling ewe which had a little lamb. This lamb when sold brought $3[illegible], and the ewes' wool paid for their feed.

"The following year the ewe's lamb brought over $5. The next spring my ewe had a ewe lamb which I kept and bred to lamb this last spring—1917. This young ewe lost her lamb, but my old ewe had twin lambs. From the sale of these lambs I secured the money which I applied on my cow note.

"This spring I have had very good luck so far, as my young ewe had a fine pair of ewe lambs which I intend to keep and turn the old ewe and her lamb in the fall. Since first getting our sheep we have kept good pure-bred Shropshire bucks and we now have a herd of good ewes all of our own breeding. Last year six of our cull ewes brought $100 and our buck lambs sold readily at good prices.



EWE AND LAMB BRED UP FROM RANGE STOCK

"We keep our sheep in an open shed during the winter until lambing time approaches, when they are divided into small bunches until their lambs are a couple of weeks old, when they are put into the open shed again. We give our sheep plenty of roughage in the winter with a small ration of grain. In the summer they run on pasture in the daytime and are kept in a close corral at night. We have never had any serious losses, either from disease, coyotes, or dogs.

"In the month of May I finished paying for my cow and I will have the rest of the year as profit above the cost of the cow. My feed and milk records will be a little late, as I got my test report late, and I wanted to get this letter written and my cow's picture taken, which I am enclosing."

Requeening in July

In order to have good colonies of bees you must have a good queen. A queen to be good must not be over eighteen months old. If you can afford it, it will pay better to buy some good queens from southern breeders in July or August and after removing the old queen introduce as directed on the cage the queen comes in. If not able to buy, you can requeen at the end of the white honey flow in July as follows: Between the first and fifteenth of July go to each colony and remove the old queen. If any of the colonies have bees that are cross or poor honey gatherers, mark those colonies; also mark the ones that are especially good. The colonies that are dequeened will immediately begin to build queen cells and in nine or ten days the cells will be nearly ready to hatch. On the tenth day go to each colony and in the ones that were cross or poor honey gatherers, remove all the queen cells on the combs. Then go to the colonies that had the best queens and get a frame of brood with a good queen cell on it. After brushing all the bees off the comb, place it in one of the poor colonies, and put a frame of brood from the poor colony into the good one. Leave only one good cell in each hive. If you have big, strong colonies, you can divide part of them, if you want increase, giving each part a queen cell. If you are running for extracted honey, you can take off what honey the bees can spare at this time. In about two weeks look through them again and if any of the colonies have failed to secure a laying queen one can be given them or they can be united with another colony.

You will not have over 2 per cent of your colonies fail to raise a fine young queen. If you will do this for a few years you can secure a much better strain of bees, and they will build up much faster in the spring with a young queen than with an old one.

In brushing the bees off the combs, be careful not to jar the queen cell, as it is very easy to injure the queen while she is in the cell.—HARRY A. HUFF.

Arrangements are being made to take care of the necessary requirements for box cars for moving wheat with reasonable promptness, according to advices received by the Department of Agriculture from the Railroad Administration. The box-car situation is reported to be better at the present time than it has been at any period within the past three years. On May 1 box cars began to move into wheat territory, and wheat-carrying roads are expected to have on their lines more than the normal number of box cars owned by them. Cars are being parked in wheat-loading territory which, it is pointed out, was impossible last year. The Railroad Administration says that it will continue to move cars to wheat-loading territory as long as there is any indication that additional cars will be needed. Through co-operation with the Food Administration grain corporation officials are confident that congestion of wheat at the seaboard will be prevented.

It is usually customary to maintain a strawberry bed for several years. A bed which is to be carried over for another year should be moved after the fruiting season and the leaves burned as soon as they are dry enough. This treatment is advised because various insects, such as the strawberry leaf roller, and fungous diseases which attack the plant, can be kept in check by burning the leaves in this way. Sometimes when large quantities of mulching have been used the plants may be injured by the burning.

The Community Church

(Continued from Page Five)

church, as is the case in Marion, Kansas, where the Presbyterian and Baptist churches are united.

In many instances this one church is of the character that is coming to be called "the community church," which ministers to the spiritual needs of people who have been trained in different forms of polity, yet it is affiliated with some one denomination for the sake of fellowship that will give the opportunity for world-wide service and secure help in obtaining a pastor and needed counsel. It is truly an American church, because it is "of the people, by the people and for the people of the community."

A liberal definition of such a church has been approved by the National Home Mission Council and is as follows:

"A community church is a fellowship of all those in a community who are professed followers of Jesus Christ and as such, while they may retain their denominational faith, are united to furnish a medium through which they may foster His spirit and advance His purpose.

"It seeks to further the Kingdom of God everywhere, and selects and commends worthy enterprises for support without primary regard to the denominational or other auspices under which they may be conducted, and engages to transmit contributions to such denominational agencies as the givers, by groups or individuals, may designate.

"It usually has ecclesiastical connection with one of the established religious bodies, and when so related there are mutual engagements of fidelity to the community spirit and program."

Of the three kinds of community churches the one that is composed of the people of many churches but is affiliated with some one denomination is now regarded as the one that gives most promise of a life of continued and increasing service.

Tornadoes Unite Churches

At Dublin, Ohio, in 1912 there were three churches. A tornado struck the town. When it had passed only one church was left intact. On Sunday all the village went to that church to thank God that no one had been killed. The service was so inspiring that they have been worshipping together ever since, though some property problems were not yet straightened out when last I heard. Before the tornado came there was a total of 123 members in all the churches. All were discouraged as well as divided. The members decided to form one church. Which one should it be? They selected a denomination which was not represented so that no one would be accused of taking an unfair advantage of the situation. As a result of that happy union the one church within a year had over twice as many members as all three of the churches had before and instead of begging for home missionary money they gave over fifty dollars to foreign missions and more to many other good things. And the one church is loved and respected. It serves.

Are you going to pray for more Kansas tornadoes? Someone must have prayed thus for Ohio, for I recall the record of the Pleasant Plain Presbyterian Church in that state. Three years ago in that town there were three churches: Baptist, Methodist, and Lutheran. I quote from a questionnaire which I sent recently to over one hundred communities working on this problem. One question reads as follows:

"What led to the formation of the church on the present plan?"

Answer: "A tornado in the summer of 1915 which unroofed one of the three churches, twisted another off its foundation, and left the third intact. Consequent union services and the influence of a retired Methodist minister did the rest.

"The Presbyterian connection was established because it was different from any of the antecedent organizations."

Do you catch the significance of this? Could a union seem more improbable, even impossible, than Baptist, Methodist, and Lutheran, welded into a Presbyterian church? Verily, cyclones are powerful. God moves in a mysterious way His wonders to perform.

But what of the results? To the question, "What is the outlook?" is given the answer, "Altogether we are a happy family and the ugly head of schism seems to be off forever. To God be the glory," and under the word "Remarks" we read, "Membership of the church 68, Sunday School 120, Young People's Society 72. Church raises over $600 for local expenses. Sunday School pays its way and more. The young people of the town are actively engaged in constructive Christian work along several lines.

I might continue to cite cases of success in the efforts of local churches to be Christian in spirit and practice, but have given enough to show that it can be done. Will Kansas fall in line and solve this church problem?

Early Plowing Reports

"The proof of the pudding is in the eating." Early plowing in Montgomery County resulted in large yields of wheat in 1917, according to the figures given out by County Agricultural Agent Macy. In a few cases where the early plowed land became foul and had to be worked several times the yields were less than on later plowing.

Here are the figures: J. F. Erdman harvested 24 bushels of wheat to the acre on land plowed July 4 and only 17.3 bushels on land plowed September 15. On J. A. Hinkley's farm wheat on June plowing yielded at the rate of 20.3 bushels to the acre in 1916; and on land plowed September 10, 12.8 bushels. Mr. Mack says that results this year will also show high yields from early plowing. In Eastern Kansas every effort should be made to plow land for wheat as early as possible and then keep it free from weeds until seeding time.

Order Your Fertilizer Now

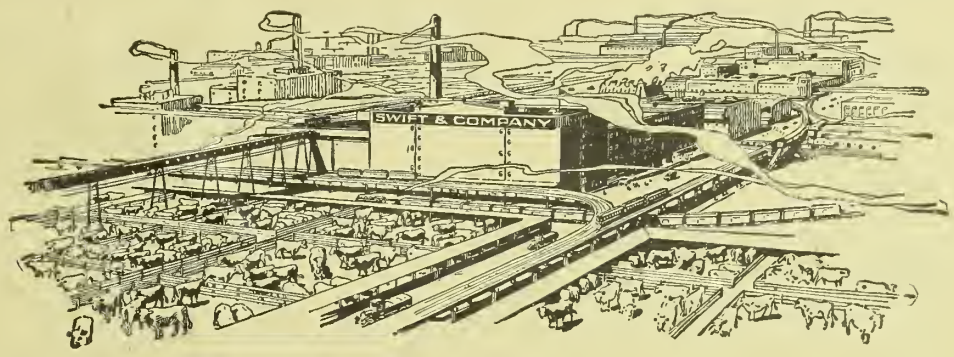
The U. S. Department of Agriculture is urging farmers to make known their fertilizer needs for the fall planting at the earliest possible date. It points out that this will enable dealers to combine their orders into full capacity carload lots.

This step is made necessary by the difficulties in handling freight at this time. The railway systems of the country are taxed to the utmost to move the tremendous volume of supplies for our troops. Many who ordered their spring fertilizers late did not receive them until after planting time. Some failed to get them at all. Prompt action will tend to avoid disappointment this fall and enable every farmer to start his crop right.

The intelligent use of fertilizers is one way by which the farmer can increase crop production and at the same time make the labor expended produce more than formerly. There was never a time when the use of fertilizers was so profitable as now with crop prices high and labor scarce.

The railroads of this country are now being operated by the United States Government. Co-operate with your government by ordering your fertilizer early. It will relieve the car shortage.

Lambs should be weaned when nearly four months old, depending on the size of the lambs and the condition of the ewes. If the ewes are thin and the lambs large, they may be weaned earlier, giving a longer time for the ewes to build up their bodies before breeding. If the opposite condition prevails the lambs should be weaned later. The lambs should be fed a good ration of grain and pasture so they will continue to thrive.



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KEEPING a nation of over 100 million people regularly supplied with meat and meat products is a big and complex job.

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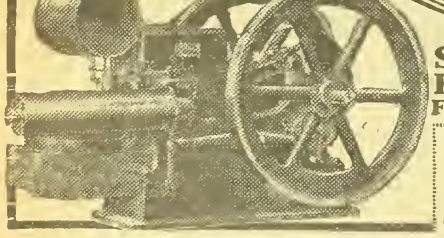

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One-third of the graduates and ex-students of civil engineering from the Kansas Agricultural College are in the service of their country. They are engaged in road building, sanitary and construction work, and other lines of service. About one-half the number are in France, and some have taken part in the fierce fighting of the past few weeks.

An important requirement in weed control is to keep on the alert for new weeds which may be introduced and for native weeds which are developing pestiferous tendencies.

KANSAS FARMER DAIRY CLUB

Keep Heifers Growing

IT IS easy to raise a dairy-bred heifer after she is six or eight months old. Perhaps it is because it is so easy that so many heifers are stunted and poorly developed for lack of suitable feed. The value and capacity of a mature cow depends to a considerable extent upon the proper development of the heifer, so it is a matter of considerable importance to understand thoroughly the essential points in feeding and caring for dairy-bred heifers. Plenty of feed of the right kind is the first point in raising a good heifer. As a rule heifers after being weaned from skim milk are turned out on pasture. During the pasture season they will usually require no extra feed if the pasture is good. The young heifers, however, cannot get enough to keep them growing properly when a hot, dry spell cuts down the pasture, as so often happens. The only way to keep them growing properly is to feed them some alfalfa or clover hay to help out during the short pasture period.

In feeding young dairy heifers we must always keep in mind that they need plenty of the kind of feed that supplies materials for bone or muscle; in other words, growing material. There is nothing better than alfalfa for making bone and muscle. The aim should be to feed the young heifers at all times so they will keep growing and remain thrifty without becoming fat.

Many breeders of dairy cattle have a theory that if a young heifer is allowed to get fat she will develop a tendency toward using her feed for the production of body fat and this will become a fixed habit and will affect her milk production when she is in milk. This theory has been held for a long time, but there is no positive evidence to prove it. At the Missouri Experiment Station Professor Eckles fed heifers in various ways before calving and found that the heavy feeding of dairy-bred heifers while young had no injurious effect on their productive capacity when they became mature cows. The heifers that had been kept fat all their lives until calving time soon lost their surplus fat and showed no more tendency to fatten later in the lactation period than heifers that had been raised with less grain and not kept fat while they were growing and developing. The principal effect of the heavy grain feeding was to hasten the growth and maturity of the heifers. It is largely a matter of economy. Body fat is an expensive product. Feeding dairy-bred heifers in such a way as to keep them fat simply wastes feed. The more economical way to feed is to give plenty of palatable roughage of the kind that supplies an abundance of growing material. This sort of feeding will keep heifers growing without laying on fat and will not cost so much as it would to feed them on grain during the growing and developing period.

The important point and the one to keep in mind is to be sure that they have enough feed to keep them growing. It is almost always necessary to help out the pasture at some time during the season. The tendency is to overlook the young dairy stock because they are not producing. We very quickly notice a falling off in milk in the milking herd due to short, dry pasture. With the young heifers the same condition simply causes a check in their growth and might pass unnoticed. If these periods of short feed become too numerous the heifers will begin to show the effects of the stunting and will fail to grow out into as good cows as they would if they had had plenty of feed.

Cow-Test Associations Helpful

No one agency will do more to make dairying successful than the keeping of records. Many a man has had his eyes opened by becoming a member of a cow-testing association. The money paid to the cow tester will come back many times multiplied where the information he puts into systematic form is used. All remarkable dairy development, both in this country and in Europe, has come where the cow-testing associations have become a prominent feature. In Denmark, largely due to the influence of these associations, the average annual yield of butter per cow increased from 112 pounds in 1884 to 224 pounds in 1908. In ten years a Sweden association increased the average annual butter fat production 109 pounds per cow.

In this country, where the cow-testing association idea is as yet in its infancy, a great deal has already been accomplished. The first association in this country was organized in Newaygo County, Michigan, in 1905. The herds in this association were already much above the average for the county, the average butter fat production per cow being 231 pounds. In eight years seven herds showed an average production of 284 pounds butter fat per cow, and the returns over cost of feed had increased from $22.23 to $51.08. It will be noted that the cash returns increased more proportionately than the butter fat production. This is characteristic of dairy herd improvement.

In cow-testing associations the tester weighs and tests the milk only one day in each month. He also estimates the feed consumed. On the basis of this one day's test each month calculations can be made which very nearly approximate the actual production. Dairy Club members who keep their own records are doing a great deal more than is done in a herd belonging in a cow-testing association, for they weigh their milk at every milking. They are getting first-hand information on the value of record work in dairying, lessons which they will never forget. We can count on club members talking and boosting for cow-testing associations in their home communities. Some of our Dairy Club members are already members of associations. As yet there are only three of these associations in operation in Kansas.

Handling Cream in Summer

The Dairy Department of the University of Nebraska makes the following suggestions on the handling of cream in hot weather:

To wash milk utensils, use, first, cold water for rinsing; second, warm water containing a small quantity of good washing powder for cleansing; third, boiled water for sterilizing. Wash the separator thoroughly after each separating.

Use a metallic strainer; it is practically impossible to keep cloth strainers sweet and clean and free from bacteria.

Skim the milk as soon after milking as possible, and cool the cream at once. Skim a cream testing from 35 to 45 per cent butter fat. Cream of this richness keeps best, and at the same time is not so sticky that it cannot be properly stirred and accurately tested. By skimming a rich cream, more skim milk is left at home for feed, and there is also smaller bulk on which to pay express charges.

Do not mix new, warm cream with cold cream until it has been cooled in the shotgun can provided for this purpose. Keep the cans of cream in a cooling tank until time of delivery.

Deliver the cream to the creamery or cream station early in the morning, and not less than three times a week during the summer, and twice a week during the winter. Protect the cans of cream from the sun by covering with canvas or with a wet sack while en route.

An American-bred Jersey, a granddaughter of Sophie 19th, sold for $10,099 in the Hood sale last month. This cow, Sophie's Agnes, is now on test aud promises to exceed the record of her granddam, Sophie 19th, the present record holder of the Jersey breed. Fifty-six American-bred animals were sold in this sale, the average price being $1,030. Most of them were direct descendants of some of the highest producing cows that were in the herds at the Columbian and St. Louis expositious. The prices paid indicate the continued popularity of the Jersey breed.



Farm Accounts Valuable

WE ARE rapidly coming to realize the value of records in helping to make the farm business more profitable. The Government's call for income tax statements shows us how little we know about many of the details of a farm business. This has greatly stimulated interest in farm accounts and we fear advantage is being taken of this by concerns offering farm account books for sale. The subject of farm accounts is one about which there are many misconceptions," says J. S. Ball in an article appearing in the United States Department of Agriculture Yearbook for 1917. Mr. Ball is associated with the Office of Farm Management of the Department of Agriculture, and there is no better source of practical information on the subject than this office.

"We have been too prone to lay stress upon the mere formality; to make it appear that farmers were expected to believe that if they only had certain special kinds of books and forms the accounting would be easy and fruitful in results. Practically all farmers keep records of one kind or another, and the average farmer is not easily impressed with the notion that there is any special virtue in merely setting down columns of figures, yet there remains a class of writers on this subject who seem to think that if all farmers could only be persuaded to practice double-entry bookkeeping all the problems of agriculture would be solved as if by magic.

"No one knows better than the practical farmer that there is nothing of the cure-all in the keeping of accounts on the farm. The practice will not of itself turn a poor farm into a rich one, a poor farmer into a good one, or losses into profits. Farm records, if accurately kept and intelligently utilized, are an aid to a better understanding and insight into one's affairs, and are worth while in exact proportion to the accuracy and completeness of their recording and the pertinence of the use that is made of them.

Fundamental Principles of Farm Records.

"In beginning record keeping it is of vital importance to have a clear understanding as to just what facts about the farm business should be shown by the records day by day and at the end of the year. It is as useless to start record keeping without having thought over and decided on what you intend to have the records show, as to begin digging a foundation and hauling lumber for a building without first deciding on the kind and size of structure to be erected. No farmer would be so foolish as to start his teams to a field to work without first making up his mind what crop he intended to grow thereon. It would be just as foolish to begin record keeping without a definite idea of what facts about the farm business the accounts are designed to bring out.

"When this thought is over and decided upon, the next step is to secure this information with the least amount of work and in the simplest way. The kind of books and forms used does not matter in the least, providing the records are complete and accurately kept —but a method is desirable that will promote facility in summarizing the records at the end of the year. The continued keeping of the accounts will often develop the most convenient form.

Usefulness in Accounts.

"Usefulness is the test of value. The use that is made of farm accounts is the measure of their value to the farmer, and the simpler the accounts kept by the beginner, the greater the chance for them to prove of use.

"Among the oldest examples of farm records may be mentioned the practice of shepherds in ancient times, who counted their flocks by dropping pebbles in a bag. A primitive method, but an example in many instances well worth the time it took, for by its means definite facts were gained and losses avoided.

"In sections of the country where corn is husked from the shock in the field, it is a common practice when hauling it in to keep tally of the number of bushels or barrels by marks on the side of the wagon box. This is another instance of a primitive record from which full benefit is realized, since the tally is used in divisions between landlord and tenant and is also the record by which the huskers are paid.

"Farm records may be roughly divided into two heads: records of happenings, and records of money transactions. Simple accounts of everyday happenings are often of great value. Every farmer makes a note when a calf is born or a sow farrows. Many do so mentally only, but it is none the less a note. If such notes are written down in a way that makes reference to them easy, they become of much use in supplying needed information when memory fails. Notes recording other everyday happenings often prove useful. Among these may be mentioned the dates when animals are bred, men hired or discharged, accidents occur, pasture season begins and ends, first and last frost occur, incubators are set, spring work begins and fall work ends, seed time and harvest occur, etc. Such notes as these when systematically recorded and constantly referred to are of much value. They enable one to take proper precautions as to feed and care of animals prior to the birth of young, thereby often saving both mother and offspring. Disputes with hired men as to wages are avoided by recording when they are hired, a wage agreement, and all amounts subsequently paid them. Accident records are of value when seeking redress for damages, pasture data when figuring on feed supply, and frost and other weather data in planning the year's work.

Records of Money Transactions

"A record of the cash received and paid out is made by many farmers, but all the benefits to be derived from such records are seldom realized. The most important use made of them in many cases is as a means of checking up bills when sent in, to see whether all payments have been duly credited. The realization of even this small part of their full value sometimes makes such records well worth while. There is no reason why every farmer should not have such a check on his business dealings, and losses can often be avoided by proving credits that have been overlooked by the storekeeper.

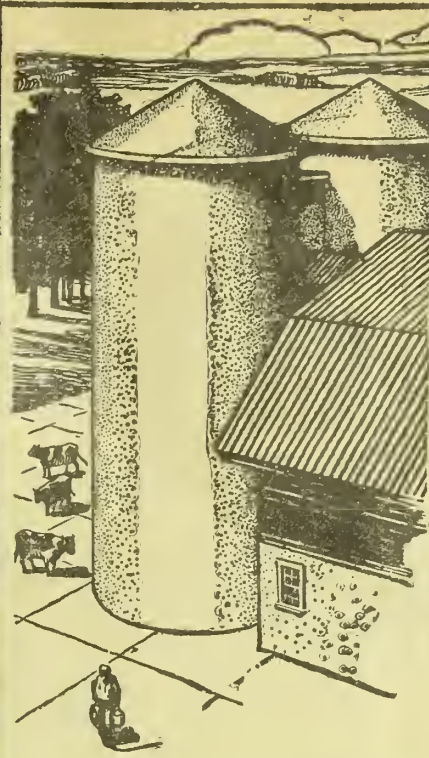
"When the year's record is made the cash accounts can be assembled under headings that will show exactly what branch of the farm activities produced the dollars and what each required in the way of cash expenditure to keep it going. Some farmers are apt to judge of the importance of the various farm projects by the time it takes to put them through. To such, a complete cash record for a year, properly assembled, will be an eye-opener. Often seemingly unimportant things on the farm, such as the flock of poultry, produce nearly as much net cash as the obviously important. The year's cash summary helps the farmer to get a better perspective of these things.

"In using such records as an aid to future plans, hasty conclusions should not be drawn, nor should snap judgments be taken. The fact that the hogs or the corn crop brought in the most net money last year is no reason for assuming that all the activities of the farm henceforth should be devoted to the sole purpose of hog or corn raising. It may be that the keeping of cows was partly responsible for making the hogs so productive of net cash, or that the growing of wheat, clover, or other crops in rotation with corn made the latter crop much more profitable than it would have been if grown alone. Similar conditions will be met with on all farms, and therefore no sudden changes should be made on the basis of what a few accounts may show.

"On the other hand, a single year's figures will occasionally indicate that something is radically wrong; will show where the net expense of one farm enterprise is a great drain on the net cash returns made by the others. All phases of such an enterprise should be carefully studied and unless the losses can be assigned to some reason, such as a bad season, temporarily adverse market conditions, epidemics, or similar unusual conditions, it may often be dropped with profit.

"Comparison of the annual figures year by year is another source of profit from the use of accounts, since by such comparison a true perspective and insight into the makeup of the business is gained."

The war will be the test of us,
And kill some of the best of us,
And make men of the rest of us,
And leave no east or west of us.
—C. F. J., in The New Farm Journal.



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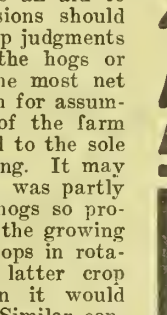

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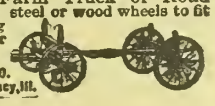

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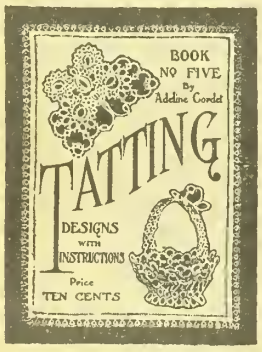

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Nothing counts today but the ending of this war on conditions which shall mark the ending of all war for all time. —The New World.

The men in our army and navy do not expect luxuries. Should we at home expect them? Buy necessities and War Savings Stamps.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

The Golden Side

There is many a gem in the path of life
Which we pass in our idle pleasure,
That is richer far than the jewelled crown
Or the miser's hoarded treasure;
It may be the love of a little child,
Or a mother's prayer to heaven;
Or only a beggar's grateful thanks
For a cup of water given.

Better to weave in the web of life
A bright and golden filling,
And to do God's will with a ready heart
And hands that are swift and willing,
Than to snap the delicate, slender threads
Of our curious lives asunder,
And then blame Heaven for the tangled ends
And sit and grieve and wonder.
—Mrs. Bertha W. Davidson.

Love What You Have to Do

If I were a fairy god-mother, I would wave my wand and say to all mothers, "Love what you have to do." Children's wants are so numerous and a mother has such constant demands made upon her that she needs to retire within herself often and, no matter how tired she may feel, repeat again and again, "I love what I have to do." Then suddenly she will feel better, and it becomes easier to go on with the task of caring for and training the children. It pays in dollars and cents, as well as in peace of mind and satisfaction of spirit, to devote much thought toward starting the children right.

What are some of the simple ways in which we can help our little ones? Let us begin the day happily, no matter how we feel, and never be discouraged, nor allow the children to become so. Together, mothers and children can learn to be honest, obedient and faithful.

It should not be forgotten that all virtues thrive best in a healthy body. Therefore, give the child plenty of fresh air, have him sleep in a well-ventilated room, wear clean, whole clothes, and eat simple food.

Let the children take hold and help about the house a little. At four and a half years old they can wash dishes, and they love to do so. An oilcloth apron will keep them dry. They can also help make beds, brush up crumbs, and do many other things. But we must not nag the children at their tasks, remembering that interest in useful work may be most successfully developed by keeping it in the realm of the play spirit.

Let us teach our children to be gentle of voice and manner, because such a bearing attracts good friends, whereas roughness drives people away.

We have churches and schools to help us, but it comes back every time to the parents and the home to develop in the children the simple practices which lead to right and happy living.

We must be patient in answering questions, and if we do not always know the answer, let us try to find out with the children.

Fun is as natural as breathing to most children. Try to laugh with them at their simple jokes.

Let us take a little time at the end of the day if we can to tell a short story. The quiet will do us good. Perhaps we may have seen a bird, squirrel or a child do some amusing thing as we glanced out of the window while at work. The wind may have been chasing the pretty leaves or the sun playing hide and seek among the clouds. Stories are not all to be found in books. It is a big accomplishment to learn to do things in the child's way—things they like to do but which we have often denied them because we felt we didn't have time to be bothered.

If we have a fretful child to deal with, find out first if he is being properly nourished; then try telling him stories which will take his mind off himself.

Many children are often disagreeable because they haven't enough of the right things to do, such as games and songs that provide activity and stimulate the mind, and occupations that answer the child's need to be doing and making something.

A most important point for the mother to realize is the necessity of sticking to the lessons she needs to teach —every single day—until the right habits are permanently formed in her child.

No one can tell us exactly the things it is best to do with children. But if we begin to watch and think, read when we can and exchange experiences with other mothers, many suggestions will be found to meet our needs. Take a glimpse backward into your own childhood and many ideas will occur to you in that way. And through it all we will find that the children are helping to bring us up, too. Courage and joy prolong life, and we can well afford to stand and wait, feeling sure that if our motives have been right and we can find something to love even in the hard things of life, our little ones will see and know, and will "rise up and call us blessed."

NOTE. — This article by Mrs. Mana Clark is one of the series containing suggestions by mothers who have been kindergartners, issued by the United States Bureau of Education and the National Kindergarten Association.

Save Beef for Army

In order to meet the requirements of the armies of the Allies and our own armies overseas, strict, voluntary rationing on beef will be necessary until September 15, we are told by the Food Administration. The maximum amount to be used in the home is one and one-fourth pounds of clear beef, or one and one-half pounds including the bone, for each person in the household. Public eating houses are asked not to serve beef oftener than four times a week. The increased supply of pork this summer warrants our using somewhat more of this, and at present it will be a direct service to our armies and the Allies if we to some extent substitute fresh pork, bacon, hams, and sausage, for beef.

Aside from the question of conserving the beef for our soldiers, it is undoubtedly true that most of us eat more meat of all kinds than is good for us, especially in hot weather. When a person is exposed to great cold, meat may be recommended, for it warms the body more than any other food. In hot weather for the same reason it causes increased sweating and discomfort.

Solutions for Killing Flies

The United States Government recommends formaldehyde and sodium salicylate as the two best poisons for the destruction of house flies. They have their advantages for household use. They are not poisonous to children, their dilutions are simple, and they attract the flies.

A formaldehyde solution of approximately the correct strength may be made by adding three teaspoonfuls of the concentrated formaldehyde solution, chemically known as formalin, to a pint of water. Three teaspoonfuls of pure sodium salicylate—a powder—to a pint of water is also the proper concentration of this fly poison.

A convenient container which automatically keeps the solution always available for flies to drink may be made by filling an ordinary thin-walled drinking glass with the solution, placing bottom up over the glass a saucer or small plate in which is placed a piece of white blotting paper cut the size of the dish, quickly inverting the whole, and placing a match under the edge of the glass. As the solution dries out of the saucer the liquid seal at the edge of the glass is broken and more liquid flows into the lower receptacle. Thus the paper is always kept moist.

Almost any odor pleasing to man is offensive to flies and will keep them away.

Take fifteen cents' worth of oil of lavender, mix it with the same quantity of water, put it in a common glass atomizer, and spray it around the room where flies are. In the dining room spray it lavishly even on the table linen. The odor is very disagreeable to flies but refreshing to most human beings.

FASHION DEPARTMENT

All patterns, 10 cents.



No. 8681—Ladies' Shirtwaist: Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. The waist fastens with three buttons. The collar is square at the back and cut in points at the front. The waist is gathered at the shoulders. The sleeves are set in without fullness and the long ones are gathered into deep cuffs which are trimmed with turnovers of contrasting material. **No. 8673—Ladies' Dress:** Cut in sizes 36, 38, 40 and 42 inches bust measure. The waist is made in overblouse effect which laps at the front to show an inset vest which is trimmed with buttons. The long sleeves are finished with narrow cuffs to match the collar. The two-gored skirt is fitted in with shallow side-plaits. **No. 8664—Children's Raglan Coat:** Cut in sizes 1, 2, 4, 6 and 8 years. The coat buttons a little to one side of the center front. The lower part of the coat is cut quite circular, and therefore it hangs in pretty ripples. A small shoulder cape which buttons on the left side is included in the pattern. A round turnover collar and deep cuffs of velvet add the finishing touch.



No. 8571—Girls' One-Piece Dress: Cut in sizes 6, 8, 10, 12 and 14 years. The dress is to be slipped on over the head, and it hangs straight from shoulder to hem. The dress is finished with one of the new narrow shawl collars. **No. 8601—Ladies' Four-Gored Skirt:** Cut in sizes 24, 26, 28, 30 and 32 inches waist measure. The front gore fits smoothly, and the back one is gathered at the slightly raised waistline. The side gores are finely plaited and each plait is stitched down to hip depth. **No. 8568—Ladies' One-Piece House Dress:** Cut in sizes 36, 40 and 44 inches bust measure. The dress hangs straight from shoulder to hem, but a narrow belt gives it a more graceful appearance. The dress is to be slipped on over the head.

Geranium, mignonette, heliotrope, and white clover odors are offensive to flies. They especially dislike the odor of honeysuckle and hop blossoms.

According to a French scientist, flies have intense hatred for the color blue, and decorating rooms in blue will help to keep them out.

Another simple preventive is made by mixing together one tablespoonful of cream, one of ground black pepper, and one of brown sugar. This mixture is poisonous to flies Put it in a saucer, darken the room except one window, and in that set the saucer.

To clear the house of flies, burn pyrethrum powder. This stupefies but does not kill the flies. They must be swept up and burned.

For stables, barns, and out of doors, borax is especially valuable. One pound of borax to twelve bushels of manure will be found desirable as a poison without injuring its manurial qualities. Scatter the box over the manure pile and sprinkle with water.

Lye, chloride of lime, or copperas—sulphate of iron—dissolved in water, crude carbolic acid, or any kind of disinfectant, may be used in vaults.

Split Pea Puree

Wash peas carefully and soak over night. Cook slowly in enough water to cover from four to six hours, or until soft, when there should be but little moisture left in the peas. Rub through sieve, season with salt and pepper, place in casserole, put a few slices of fat—chicken, goose or beef fat—on top and bake in oven until material is heated through and fat is delicately browned. A few slices of onion may be cooked with peas if desired. This is a meat substitute.

Green-Corn Pudding

This is a delicious way to serve either sweet corn or the tender field corn. A little sugar may be added to the field corn, if desired.

Husk and slice twelve good-sized ears of corn. Slice off half the kernel with a sharp knife, and with the blunt edge of the knife scrape out the milky part that remains on the cob. Add a tablespoonful of butter, salt, and pepper, and three-fourths cup of milk. Bake for forty-five minutes, allowing it to brown on top. This makes a creamy dish, which is best served in the pan or baking dish in which it bakes.

Ways to Use Cottage Cheese

COTTAGE cheese is a food that we have not appreciated. We have used it as a side dish or an extra largely, in its plain form, and have not considered its food value nor dreamed of its possibilities." These are the words of Miss Rena A. Faubian, one of the cottage cheese agents sent by the United States Department of Agriculture, in co-operation with state extension services, into forty-seven states to teach the best methods of making cottage cheese and new ways of using it which have been originated in Uncle Sam's food laboratories at Washington. Miss Faubian, in her work in Kansas, is urging the wider use of this food both as a means of conserving meat and as a means of utilizing skim milk to excellent advantage. She says it is a palatable, nourishing product that can be made on the farm or in the home with little labor and expense. It is an excellent substitute for meat, more muscle-building material being available in a pound of cottage cheese than in the same amount of either meat or eggs.

Farmers' Bulletin 850, "How to Make Cottage Cheese on the Farm," gives in detail the ordinary method of making the cheese and also directions for using rennet, a junket tablet, or pepsin, in making it. This gives a finer and more uniform texture and requires less time and attention. The following paragraphs illustrate some of the ways which Miss Faubian recommends for serving cottage cheese. Additional recipes are given in Circular 109, Office of the Secretary, "Cottage Cheese Dishes." Both this circular and Farmers' Bulletin 850 may be obtained free on application to the Division of Publications, U. S. Department of Agriculture, Washington, D. C.

Cottage cheese may be served plain as a meat dish of a luncheon or supper in place of cold meat. It may be varied by mixing broken nut meats, chopped pimentos, finely-cut green peppers, diced cucumbers, or other crisp vegetables with the cheese. Horse radish, onion juice, and parsley make a good combination.

Season dry cheese rather highly, pack into a butter earthen or enamel dish, chill it, turn it out on a platter, and serve it in slices like cold veal loaf.

Mix with the cheese a small quantity of left-over ham or corned beef, finely ground, and season the whole with prepared mustard. Serve this in slices, or turn the mold out on a border of lettuce leaves.

Cottage cheese may be served with cream and sugar for breakfast or supper to take the place of meat or eggs. Berries, peaches, or other fresh fruits, canned fruits, raisins, cut dates, or other dried fruits, brown sugar, honey, jam or marmalade, or chopped nuts may be added if desired.

Pour over cottage cheese any fruit preserves, such as strawberries, figs, or cherries. Serve with bread or crackers. If preferred, cottage cheese balls may be served separately and eaten with the preserves. A very attractive dish may be made by dropping a bit of jelly into a nest of the cottage cheese.

Cottage Cheese Salad

Mix thoroughly one pound of cheese, one and one-half tablespoonfuls of cream, one tablespoonful of chopped parsley, and salt to taste. First fill a rectangular tin mold with cold water to chill and wet the surface; line the bottom with waxed paper, then pack in three layers of the cheese, putting two or three parallel strips of pimento, fresh or canned, between the layers. Cover with waxed paper and set in a cool place until ready to serve; then run a knife around the sides and invert the mold. Cut in slices and serve on lettuce leaves with French mayonnaise, or boiled dressing and wafers or thin bread-and-butter sandwiches. Minced olives may be used instead of the parsley, and chopped nuts also may be used.

Cheese Sauce

One cupful of milk, one tablespoonful of cottage cheese, two tablespoonfuls of flour, salt and pepper to taste. Thicken the milk with the flour and just before serving add the cheese, stirring until it is melted.

This sauce may be used in preparing creamed boiled eggs or for ordinary milk toast. The quantity of cheese in the recipe may be increased, making a sauce suitable for using with macaroni or rice.

Creamy Eggs with Cottage Cheese

1 cupful milk
1 tablespoonful flour
4 eggs
1 cupful cottage cheese
¼ teaspoonful soda
1 tablespoonful butter
⅛ teaspoonful pepper
½ teaspoonful salt
Paprika
Parsley or pimentos

Make a thick sauce with the milk, flour, butter, and seasonings. Cook five minutes and pour gradually on the cheese, which has been neutralized with the soda dissolved in a little of the milk. When the cheese and sauce are well blended, return them to the top of the double boiler and reheat over hot water. Beat the eggs slightly, pour them into the warm sauce, and mix well. As the mixture sets in a soft custard on the bottom and sides of the boiler, scrape it up carefully, forming large soft curds. The mixture is cooked when it is of a creamy consistency throughout. This quantity will serve eight or more people.

Cottage Cheese Loaf

2 cupfuls cottage cheese
1 cupful left-over cereal or cooked rice
1 cupful bread crumbs (dried in oven)
4 tablespoonfuls peanut butter
½ cupful chopped peanuts
1 teaspoonful onion juice
A pinch of sage
Salt, cayenne, and paprika
Liquid, if necessary to mix

Form into a loaf and bake in a hot oven twenty or twenty-five minutes or until brown. Or bake in a greased bread tin and turn out on a platter. The cracklings left from tried-out fat or partially tried-out ground suet may be used in place of peanut butter.

Cheese and Potato Croquettes

1 cupful cottage cheese
2 tablespoonfuls chopped parsley
1 rounding teaspoonful chopped green pepper
¼ teaspoonful soda
½ teaspoonful salt
Dash of cayenne
Dash of paprika

Mix these ingredients very thoroughly and form into small rolls. Then imbed the rolls in mashed potatoes which have been seasoned with salt and pepper, forming a larger roll of each. Roll the finished croquettes in egg and bread crumbs and fry in a pan containing about one tablespoonful of hot fat or brush with melted fat and brown in a hot oven.

Roses in Your Home

ALL YEAR

Beautiful climbing roses of brilliant colors, fragrant roses of upright growth, and trailing roses with delicate tints; all yielding most delicious perfume. Our New Collection of Native American and Japanese Roses is

GROWN FROM SEED



The seed germinates quickly, and the plants make rapid growth, bearing hundreds of beautiful roses. If grown in the house they will bloom all the year around. They can be grown outdoors during the summer, and if taken inside for the winter will continue to bloom. Nothing is prettier than the fragrant flowers and "berries" of these Native Roses.

You Can Have This Beautiful Window-Box of Roses in Your Home

We will send you a big packet of the seed of our new Rose Collection, together with full instructions for planting and for making a window box, as shown in the picture. If you take advantage *now* of our liberal offer, and plant the big packet of Native American and Japanese Rose Seeds, you will have hundreds of beautiful roses blooming in your home the year around. They require very little attention, except for an occasional watering.

Plant NOW! Roses in 8 Weeks!



Just do us the favor of sending us one NEW TRIAL subscription to KANSAS FARMER for three months at 25 cents, and we will send you the big packet of Rose Seed FREE and postpaid, with full instructions for planting. Send today to

KANSAS FARMER,
Topeka, Kansas

Gentlemen: Send me FREE and postpaid, your big packet of Native American and Japanese Rose Seeds, with instructions for planting and for making the Window Box.

Name.....R. F. D.....

Town..... State.....

I enclose 25 cents, for which you will please send KANSAS FARMER three months to the following address:

Name.....R. F. D.....

Town..... State.....

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

CATTLE.

FOR SALE—THREE REGISTERED JERsey cows, all young and bred. Also one bred heifer. Write R. O. McKee, Marysville, Kan.

REGISTERED JERSEYS — BULLS TWO to ten months old from tested dams. A. G. Stevens, Coffeyville, Kansas.

120 HEAD OF HIGH GRADE HOLSTEIN cows and helfers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

HIGH-GRADE HOLSTEIN CALVES, VIRtually pure-bred, $25 delivered. R. B. Hellen, Sec'y Milk Producers' Association, Jefferson, Wisconsin.

FOR SALE—VERY CHOICE HOLSTEIN and Guernsey calves, either sex, six weeks old, 95 per cent pnre-bred, at $25 each, delivered. Lewis Dutcher, Peary View Farm, Janesville, Wis.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

USED CAR BARGAIN.

FOR SALE—MODEL 35 JACKSON FIVEpassenger touring car. Not latest model but has had good care and is in good condition. Good top, tires nearly new, Presto lights, jack, pump and other tools go with car. Is good for several years' service. Cost $1,300 when new. Price, $300 cash. Owner, 625 Jackson St., Topeka, Kan.

DOGS.

COLLIE PUPPIES, WEANED, $5. FRANK Barrington, Sedan, Kansas.

NINE RUSSIAN AND STAG-CROSSED pups, six weeks old; nine coyote pups, two months. Paul Fife, Nickerson, Kansas.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

THE STRAY LIST.

TAKEN UP — BY A. H. GRIFFIN, OF Route 5, Olathe, Kansas, on May 22, 1918, one Shorthorn and Jersey male calf about six weeks old, color red, weight about one hundred pounds, appraised at $10. F. K. Smead, County Clerk, Olathe, Kansas.

PATENTS.

PATENTS PROCURED, BOUGHT AND sold. International Patent Co., Brandeis, Omaha.

REAL ESTATE.

WANTED—TO HEAR FROM OWNER OF good farm for sale. State cash price, full particulars. D. F. Bush, Minneapolis, Minn.

SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price $10 to $15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address E. T. Cartlidge, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kan.

MISCELLANEOUS.

FOR SALE—18-HORSE COMPOUND ADvance engine and separator 32 in. Also 21-horse Advance engine with 36-in. Rumely separator, all complete, ready to thresh. Threshed only two short seasons. Bargain, $1,750, choice Terms. Masopust Bros., Ellsworth, Kansas.

TRACTORS.

SMALL AVERY TRACTOR, BRAND NEW. Uses your horse-drawn implements. P. M. Cory, Lane, Kansas.

POULTRY.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swaim, Geuda Springs, Kansas.

WHITE WYANDOTTE EGGS AT $1.50, fifteen; $3.25, fifty; $6 hundred. Winning, laying strain, fertility and satisfaction guaranteed. Andrew Kosar, Delphos, Kansas.

POULTRY WANTED.

NON-FERTILE EGGS, BROILERS AND hens wanted. Coops cases loaned free. The Copes, Topeka.

Real Estate For Sale

WHEAT LAND TO RENT. Write Niquette & Bosworth, Garden City, Kansas

CHEAP PASTURE LAND Good grass, well watered. Write for prices. Niquette & Bosworth, Garden City, Kansas

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

Address All Communications to Kansas Farmer, and Not to Individuals

Personal mail may have to be held for several days, or be delayed in forwarding, and Kansas Farmer cannot assume any responsibility for mistakes occurring thereby

CLAIM SALE DATES.

Holsteins.
Sept. 4—E. S. Stoughton, Hutchinson, Kan.

Spotted Poland Chinas.
Oct. 5—W. J. Honeymoon, Madison, Kan.
Oct. 19—C. A. Gooch, Orrick, Missouri.

Poland Chinas.
Aug. 8—Fred B. Caldwell, Howard, Kan.
Aug. 24—Bert Harriman, Pilot Grove, Mo.
Oct. 15—H. B. Walter & Son, Effingham, Kansas.
Oct. 16—Dr. J. H. Lomax, Leona, Kansas.
Oct. 31—F. J. Dowe, Hiawatha, Kan.
Oct. 29—Hill & King, Topeka, Kansas.
Oct. 31—Adams & Mason, Gypsum, Kansas.
Nov. 1—E. B. Myers, Hutchinson, Kansas.
Nov. 7—Schmitz Bros., Seneca, Kan.
Nov. 8—Ketter Bros., Seneca, Kan.

Duroc Jerseys.
Oct. 19—W. W. Zink, Turon, Kansas.
Oct. 18—Wreath & Givens, Manhattan, Kan.

Chester Whites.
Oct. 23—J. H. McAnaw, Cameron, Missouri.
Nov. 7—Arthur Mosse, Leavenworth, Kan.

A. J. Erhart & Son, Ness City, Kansas, have built up one of the best herds of Poland Chinas in the West. A strong trio of boars is at the head of the herd. A Big Wonder by King of Wonders, his dam Big Giantess, will weigh about one thousand pounds in breeding condition; Big Hadley Jr., a line-bred Hadley with a Tecumseh cross, is aking good as a breeder; and Long Bob by Big Bob 2d by Big Wonder is also in the herd. This pig was the junior champion at the Kansas State Fair last year and is proving a valuable breeder. King Price Wonder by King of Wonders, dam Big Giantess by Big Ben, is siring a very classy lot of pigs and is one of the good boars of the breed. Messrs. Erhart & Son will exhibit at the leading fairs this year and will hold a fall sale at Hutchinson, Kansas, on October 23, and will sell a draft of twenty-five spring boars and twenty-five spring gilts.

C. H. Black, of Marion, Kansas, as made a success with his herd of Duroc Jersey swine. Mr. Black is a booster for better live stock on the farms. He has a small herd of Percheron horses, including an imported stallion and two imported mares that have produced several colts. The herd of Durocs is headed by Giant Crimson by G. M.'s Crimson Wonder by Crimson Wonder 4th, his dam Cherry Girl by Good Enuff Chief. Giant Crimson is assisted by a very promising young boar, Red Cross Pathfinder. This pig was bought in the W. T. McBride sale at Parker, Kansas, last spring for $245, and the entire amount was donated to the Red Cross. Red Cross Pathfinder is by old Pathfinder and out of Miss Parker by Parker's Wonder by Ladore Wonder.

Marlow & McCarger, of Mankato, Minn., owners of one of the famous Holstein herds in Minnesota, report their herd making a good record. Sir Pietertje Ormsby Mercedes 14th, one of the bulls that has been used in this herd, is a brother to Queen Plebe Mercedes with a butter record of 1,389.45 pounds, milk 30,230.2 pounds at four years. His first three daughters made seven-day butter records ranging from 18.13 pounds to 20.09 pounds at two years. A feature of their herd at this time is the fine lot of young stock.

Walter Dodd, owner of Dodd's Breeding Farm, Jasper, Missouri, and one of Missouri's high class herds of old original big-boned Spotted Polands, reports his herd doing well and his choice lot of spring pigs growing out fine. Mr. Dodd started his herd several years ago with the best blood lines of the breed. His herd is made up of representatives of such boars as the famous old Budweiser, Brandywine, Good Enough, Big Jim, Lucky Judge, and Honest Abe, all of them classes among the breed's most famous sires.

Dr. M. F. Marks of Valley Falls, Kansas, has made a success with his milking strain of Shorthorn cattle. Doctor Marks has used a number of very high class bulls in his herd, but for years he has bred for milk production. He has on the farm today a number of exceptionally heavy milkers. Doctor Marks is a stickler for color, and nothing but solid reds are kept in the herd. The past two years a pure Scotch bull, Double Diamond by Diamond Goods, has been used in the herd, and a number of cows in the herd are by Choice Lancaster. The herd cows now number about sixty head and a feature of the herd at this time is a choice lot of young bulls sired by Double Diamond.

Unusual business now means resumption of business as usual later.



Marketing Poultry Products

THE greatest loss in all kinds of farming in the United States is in marketing, the getting of the product to the consumer. Eggs traveling the usual route from the farmer to the local store then to the commission merchant and from him to the retail grocer lose half their value by the time they reach the home kitchen and sell for half of their first worth. The farmer, besides losing half, has taken out of the receipts a profit for each man who handles the eggs.

Few good poultry raisers know how to market their products to get the top prices. In November, a Central Missouri poultryman came to me to learn about the advantages for poultry raising of a locality a thousand miles away. I gave him the information wanted and then asked him why he did not push the business where he was, as I thought his location unusually good. He said that he had the best of success in raising poultry and in producing eggs but that the market was so low that there was no profit in the business and he was going to move.

Within a short distance east of where this man lived was located a poultry establishment with 3,000 laying hens that that week were receiving at their home station 56 cents a dozen for eggs. A short distance west was another poultryman who has been offered 50 cents a dozen for all the eggs he could produce through the fall and winter. The man who was looking for a new location was a successful producer but did not know how to find a market.

To secure a good market, the first step is to produce a choice product. Eggs should be graded and only those large and uniform in size and color should be offered to the good buyer.

In cool weather the eggs should be gathered daily or twice a day; in warm weather, four or five times a day. Every doubtful, every cracked and every dirty egg should be rejected. The selected fresh eggs should be placed, as soon as gathered, in a cool, clean, dry place, free from all bad odors. The choice eggs, as fast as gathered, should be put in clean cases, using clean, fresh fillers. They should be marketed often.

A beginner following this plan can get at the start five cents a dozen premium for his eggs at any good grocery store. In a few months large consumers will find him out and offer him a considerably higher premium, and if he keeps on, never offering any but the choicest fresh eggs, he can in a year or two put his eggs in cartons and sell them at any high price within reason.

A location should be selected within easy delivering distance to the railroad. Any railroad station is a good market, or is within reach of a good market, for choice eggs and poultry. Ouray, Colorado, 388 miles southwest of Denver, has been getting eggs for years from Southeast Kansas. Glenwood Springs, Colorado, 289 miles west of Denver, has been getting both eggs and broilers from Omaha, 580 miles east of Denver.

The poultryman can always get a good price for his products if they are strictly choice and he has the "selling sense" well developed. At one town in Oklahoma fresh eggs were selling at 10 cents and lower a dozen, and the farmers claimed the rates were so high that they could not get a market outside. Six hours ride by rail was another town where, at the same dates, eggs had a quick sale at 25 cents a dozen. The express rate between the two places was 1½ cents a dozen. In June, 1911, the dry land farmers around a leading town in the Texas Panhandle were advised to go largely into egg production. They said their local market was oversupplied and rates prohibited shipping. The express rates to mountain towns of Colorado were 3.7 cents a dozen and 4.5 cents a dozen to towns of New Mexico, where in both states eggs were having a quick sale at 25 cents to 35 cents a dozen.—H. M. Cottrell.

A Poultry Success

In these days of food conservation when it behooves everyone to produce more food and better quality, we feel it a duty to call attention to specific instances of special success.

The writer spent a very pleasant hour with Charles I. Grant, Elk Falls, Kansas, finding him to be one of our progressive poultrymen, 27 years old, married after having received a fair school education and taking a thorough business course. He purchased ten acres of rough land in the "Flint Hills" district of Kansas, where he has established a poultry ranch worthy of consideration.

Mr. Grant told the writer that he started five years ago with $1,000 capital and by following good business principles has built for himself an enviable reputation and an increasing business that promises large returns in the near future. He had approximately 2,000 beautiful White Leghorns on his ranch that are well housed, properly fed and cared for, and they are bringing him an income far in excess of the pay of the average office man. Mr. Grant has built up his flock by constantly improving until his hens are averaging better than 200 eggs per season. In the spring of 1917 he sold fifty dozen cockerels for broilers, and reserved a fine lot of pullets for winter layers.—Frank Cope.

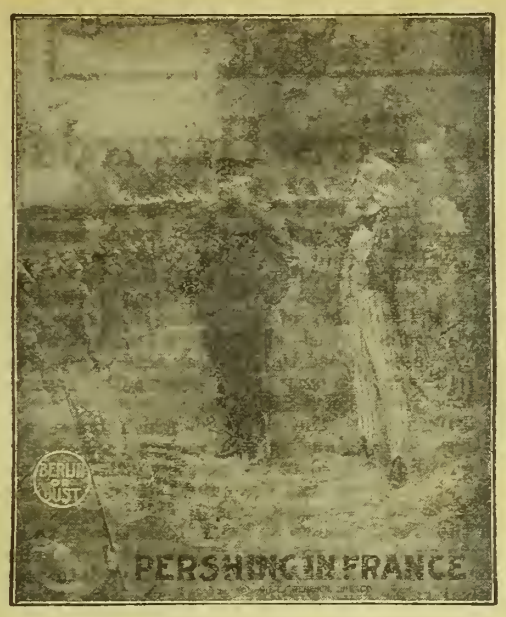
Preparing Broilers for Market

In getting our early chicks onto the market we should have them in prime condition. To do this it is best to have a small yard, say eight to ten feet square, with a roosting coop or box within. Look over your flock, pick out those you want to sell, put from twelve to twenty in the yard, and feed all they will clean up about four times a day. Keep plenty of grit and water before them; also keep everything clean and free from vermin. A mixture of ground grain is best for fattening chicks. The fattening period should be from eight to ten days and in this length of time if they are of proper size—two to two and one-half pounds—they will make a gain of from three-fourths pound to one pound each and be in such fine fat condition as to bring the very highest price. One of the best feeds for small chicks or chicks of fattening size is made by mixing equal parts of ground corn, ground oats, and wheat bran, with a little blood meal and cottonseed meal and enough milk or water to make a crumbly mash. A little table salt may be added. Young ducks can also be fattened by the same process and will respond to the fattening process much more readily than if let run at large.—Mrs. Lizzie B. Griffith, Emporia.

To Get Rid of Rats

Here is a new way to get rid of rats, and by the wholesale. A reader sent it, and vouches for its success after years of use. If a dirt floor, dig a hole and sink a metal wash tub even with the floor. If a wood or concrete floor, put boards up to the rim of the tub, so the rats may walk upon them. Then grease the inside of the tub from the top down about six inches, and fill the tub with water up to where the grease starts. Sprinkle hay-seed on top of the water, and corn meal on top of that. Place two slats or narrow boards across the top of the tub, with hay-seed and a little corn meal on them. Place these slats a little distance apart, say several inches. In the morning pick out the drowned rats, and repeat every day until they are gone. You will be surprised at the results.—Poultry Item.

Many poultrymen grind part of their chicken feed into a meal so that it can be fed either as a wet or dry mash. If all the food eaten must be ground by the fowl, it will use up some energy, which requires food to furnish it. It has been found that in forcing chickens for quick growth or egg production, feeding a portion of ground feed is a great help. Part of the work of digestion has been accomplished by the artificial grinding, and the hen so fed can use the energy that is saved for something else. This is the real advantage of feeding ground grain.



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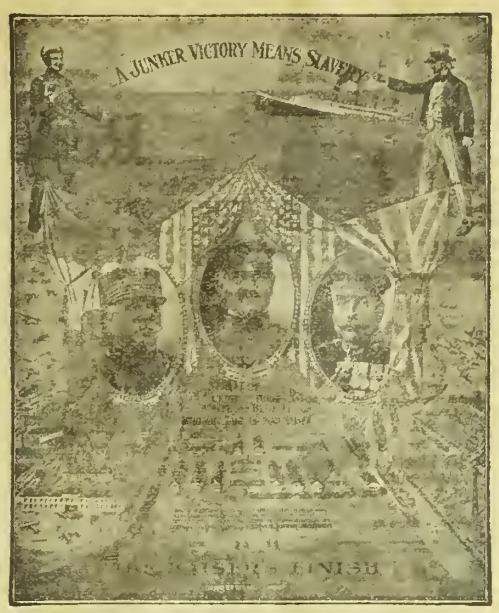

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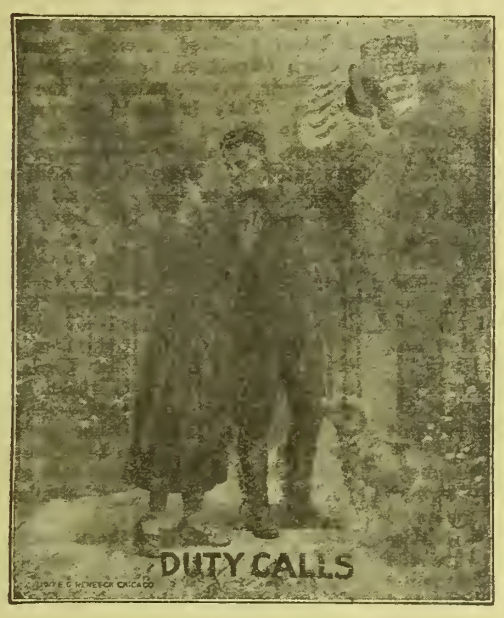

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Each Picture Tells Its Own Story. Get One or more of them

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KANSAS FARMER has just completed arrangements to supply its subscribers with any or all of the beautiful patriotic pictures illustrated in miniature on this page. The illustrations herewith cannot do justice to the real pictures on account of the greatly reduced size. The pictures we will send you are full 16 x 22 inches in size and all except No. 5 and No. 6 are printed in appropriate colors. No. 5 and No. 6 are printed in black and white. They are really fine pictures. We are sure our subscribers will like them.

SPECIAL TEN-DAY OFFERS

OFFER NO. 1. If you will send us ONE NEW TRIAL SUBSCRIPTION to KANSAS FARMER for three months at 25 cents, we will send you your choice of any one of the pictures illustrated on this page absolutely FREE and prepaid.

OFFER NO. 2. If you will send us ONE NEW SUBSCRIPTION to KANSAS FARMER for one year, at $1.00, we will send you your choice of any five of the pictures illustrated on this page, absolutely FREE and prepaid. Or if you desire, send your own renewal subscription for one year at $1.00 and we will send you your choice of any five of these beautiful pictures.

THIS OFFER IS GOOD FOR TEN DAYS ONLY In sending your remittance, order pictures by number.

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KANSAS FARMER, TOPEKA, KANSAS.

GENTLEMEN: Enclosed please find 25 cents, for which send KANSAS FARMER for three months to

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Sttae.....R. F. D.....

Send Picture No.....to

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PATRIOTIC PICTURE NO. 6

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GENTLEMEN: Enclosed please find $1.00, for which send KANSAS FARMER for one year to the following:

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HOLSTEIN CATTLE.

Sand Springs Farm

HIGH PRODUCING REGISTERED HOLSTEINS
Note Official Records Made on Our Farm



Full aged class, 19,810 pounds milk, 670 pounds butter in twelve months; four-year-old class, 2,040 pounds milk, 101½ pounds butter in thirty days; two-year-old class, 11,000 pounds milk, 450 pounds butter in twelve months. Visitors welcome and correspondence solicited.

E. S. ENGLE & SON - - - - ABILENE, KANSAS

HOLSTEIN CATTLE

I am offering for sale from my registered herd, four cows from four to six years old; two heifers, two years old, extra good; four yearling heifers and four high-grade cows; four registered bulls of serviceable age. Write or come and see my herd.

J. W. MEYER, NORTONVILLE, KANSAS.

MAURER'S HOLSTEIN FARM

Offers special attractions in pure-bred females of all ages with high class breeding, and a number of choicely bred yearling bulls; also grade cows and heifers with size and quality. Don't fail to see this herd before you buy, as they are all bred RIGHT and priced RIGHT.

T. R. MAURER & CO - - - - EMPORIA, KANSAS

$25 Holsteins $25

The Best That You Can Buy

Five weeks old, 15-16ths pure. When you buy from Roberts you get value received. Cows also $150 crated. Write or call

Dr. J. A. Roberts Stock Farms
Oconomowoc, Wisconsin

CHOICE HOLSTEIN CALVES

Twelve heifers and three bulls, 15-16ths pure; five to seven weeks old, beautifully marked and from heavy milkers, at $20 each, crated.

FERNWOOD FARM, WAUWATOSA, WIS.

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

HOLSTEIN COWS

35 Young Cows, some fresh, some springers. Also good fall cows from heavy producing dams. All bred to registered bull.

W. P. PERDUE - CARLTON, KANSAS

Either Sex, Practically Pure-Breds

From high-producing dams and registered bulls, five to seven weeks old, $27.50, express prepaid in Kansas; outside, $30. Safe delivery and satisfaction guaranteed. Also fifty registered cows and heifers and 100 high-grade young cows and two-year heifers.

MAGEE DAIRY FARM
CHANUTE - - - - - KANSAS

SEGRIST & STEPHENSON, HOLTON, KANSAS
Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

Thrifty Holstein Calves

100 High-Grade Holsteins

Fifty large two-year-old springers, 50 large one-year-old calves, just what you want for the Boys' and Girls' Calf Club.

W. J. O'BRIEN, TONGANOXIE, KANSAS

REGISTERED HOLSTEIN BULLS

For Sale—Several young bulls by Pontiac Beauty De Kol Segis, a grandson of King of the Pontiacs and King Segis. These bulls are out of high-testing yearly record cows. We breed for yearly production. Come and see my herd. H. D. Burger, Seneca, Kansas.

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

J. P. MAST - - SCRANTON, KANSAS

REGIER'S HOSTEIN-FRIESIANS

For Sale—Young bulls, bred heifers and cows. All sired by the great bull, Sir Rag Apple Korndyke De Kol. Two cows will be fresh this month. Fourteen-thousand-pound milkers.

G. REGIER & SONS, Whitewater, Kansas.

Holstein Calves

We offer for sale choice beautifully marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated, f. o. b. cars: One to two weeks old, $17 each; three to five weeks old, $20 each; six to eight weeks old, $25 each. First check takes them. Write

W. C. KENYON & SONS, ELGIN, ILLINOIS

REGISTERED HOLSTEIN BULLS FOR SALE

Two to nine months. Also females. Bred right, priced right.

MARLOW & McCARGER, Mankato, Kansas

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.

H. B. COWLES, 608 Kan. Av., Topeka, Kan.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS
One hundred spring pigs priced in pairs and trios. Geo. W. Ela, Valley Falls, Kansas

SHORTHORN CATTLE.

Abbotsford Shorthorns



For Sale—Twenty-five cows and heifers, several with spring calves at foot; others bred to ROAN MODEL; also seven young bulls eight to eleven months old. All priced to sell. Come and see our herd.

D. BALLANTYNE & SON, Herington, Kan.

MARKS LODGE RED SHORTHORNS

For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

DUROC JERSEYS.

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. W. J. Harrison, Axtell, Kan.

WOODDELL'S DUROCS

Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

TWO BIG SALES

Fifty Duroc Jersey Bred Sows and Gilts, September 4. Entire herd of Red Polled Cattle September 5. Catalog ready July 15. Write early.

W. T. McBRIDE - PARKER, KANSAS

Wreath's Durocs

SPRING PIGS

Priced in pairs or trios. Come and see my herd.

L. G. WREATH, MANHATTAN, KANSAS

Durocs of Size and Quality

Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on boars and bred gilts from Crimson Wonder, Golden Model, Illustrator, and Defender breeding. JOHN A. REED & SONS, Lyons, Kansas.

MULEFOOT HOGS.

KNOX KNOLL MULEFOOTS

Still have a few choice pigs from big litters. For prices and catalog address

S. M. KNOX - HUMBOLDT, KANSAS

Breeders' Directory

ANGUS CATTLE.
D. J. White, Clements, Kan.
RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
Hereford Cattle.
F. S. Jackson, Topeka, Kan.

CHESTER WHITE HOGS

CHESTER WHITE HOGS

Five December boars ready for service, out of my grand champion sow, Tip Top. Spring pigs from other good sows for sale.

COLEMAN & CRUM, DANVILLE, KANSAS

While labor is short, farmers must fight shoulder to shoulder, neighbor by neighbor, where the battle is thickest.



Reducing Fire Hazards

NO ONE is so helpless when fire gets started among his buildings or in his fields as the farmer. Every year large losses of grain, hay and other food supplies occur. Last week a food administrator in one of the counties reported that five fires were started in harvest fields by one locomotive between two stations. Steps were taken at once to reduce this fire hazard to the minimum, and different railroad companies are appointing men to take special charge of guarding against such losses.

Self interest should prompt us to do everything possible to reduce the fire hazards on the farms, but at the present time it becomes a matter of national interest because of the vital relation of our food supplies to the prosecution of the war. The season is now at hand when barns are being filled with grain and hay and it is at this time when granaries, barns and storehouses contain the greatest amount of food supplies that they are most liable to be destroyed by fire.

The Food Administration just recently called attention to the fact that farmers are the only large handlers of food supplies who are not subjected to the supervision of inspectors to guard their holdings against loss by fire. In pointing this out it is urged that in view of the supreme importance of guarding this season's stored crops all farmers look upon the destruction or loss of food through fire as a misfortune to the nation and the Allies as well as a personal loss.

Prominent among the many sources of fire in the country are: Lightning, defective flues and stoves, spontaneous combustion, carelessness with matches, incendiarism, and sparks from chimneys and locomotives. Most property owners understand the most effective means of fire protection and control, but particular attention should be called to the importance of removing all inflammable trash from the vicinity of buildings and to provide proper equipment in ladders and buckets where more modern means for extinguishing fires is lacking. Properly installed lightning rods and conductors will reduce the lightning danger. The paramount thought at the present time should be to do everything possible to avoid not only the loss of the farm buildings but the human food and animal feed they contain.

As long as the war lasts with its increasing drafts of soldiers and ammunition workers, the world will steadily produce less and less food. If this year's harvest provides any reserve it should be the first duty of the American people to place every grain that can be saved into storage for future use.

Threshermen Must Report

It has been announced that all threshermen must make periodical reports to the Bureau of Markets, giving the number of bushels of wheat threshed and the acreage from which it was produced. A list of threshermen is being compiled and blanks for making the reports will be furnished together with a pocket memorandum book for daily records. The reports will be called for beginning with the threshing of this year's crop of winter wheat. County agricultural agents will aid in distributing the blanks.

The information obtained in this way will be furnished to the Food Administration, the Federal Trade Commission, and other branches of the Government. These reports should provide a complete and accurate check on the advance wheat figures of the Bureau of Crop Estimates.

Who Are the Buyers?

To get a clear conception of the character of the present activity in improved live stock trade one needs only to observe the class and purposes of those who are making the investments and to note whether the investments adhere close enough to a cash basis.

At the outset let it be understood that the purchases of pure-bred live stock today are made almost wholly on a cash basis. I am more familiar with the condition of the Shorthorn trade than with that of other breeds, but information which I have from dependable sources within the other breeds would indicate that the transactions are very largely based on cash settlements. This has the effect of encouraging permanency and also of preventing any boom exploits, which are always harmful whether applied to live stock trade, to real estate or to any other commodity susceptible to boom influence.

The comment which breeders of long standing are making repeatedly in regard to the present activity of the trade is that the names of the buyers in public sales, with a few exceptions, are unknown to them. This is true to a greater extent than it has ever been before. The breeding stock is going into new hands in greater numbers than ever before. The inquiry for seed stock for founding herds is much more general than it has ever been.

I was impressed with the contents of a letter received recently from a well-known Shorthorn breeding firm reviewing their private sales for the past few weeks. They had sold groups of from four to fifteen head each to nine purchasers. In nearly every case the buyers selected a bull and several females. These are new men and all located in close proximity to this herd. Part of them were making their first investment in registered Shorthorns; the others had barely gotten under way as breeders and were making purchases with a view to improving the standards of their herds. This firm had sold a number of high-class bulls to head other herds already established. But it is these new purchasers — these beginners — that I have especially in mind. Other letters that come to my hand from breeders in various states bear out about this same proportion and indicate a similar trade activity.

An important Shorthorn auction was held in Iowa recently in which $68,000 worth of Shorthorns were sold. Nearly 25 per cent, something over $16,000, represented the purchases of men who had never before owned a registered Shorthorn female. From a broad observation I am inclined to think that this percentage is rather under the usual ratio. The reason for this steadily growing patronage is the desire to substitute a class of cattle that will make larger profits than those which the investors have been carrying. Farmers whose cattle are of rather indifferent merit are disposing of them and putting in those of a higher standard. The whole purpose is to encourage the largest possible returns from the fewest number of animals at the least amount of expense in feed and labor.

It is a case of practical economy and appearances indicate that the tendency will continue to a greater extent than it has reached up to the present time. Why shouldn't it continue when the need for beef production is becoming more acute each day, and when every market demonstrates over and over again the value of pure-bred cattle in the making of beef of a superior quality and in effecting an approach to the top of the market?

The time will come when the majority of our cattle stock will be pure-bred, or practically so, but we have a long stride to make before we finally reach that enviable situation. In the meantime the quest for pure-bred stock continues to spread.—FRANK D. TOMSON.

The continued prevalence of high wool and meat values has placed the sheep business in a new light. The result will be that this phase of animal husbandry will contribute materially to the nation's food and clothing supply. It will also add stability to our systems of farming and play an important part in the more complete utilization of our agricultural resources.

The needs and habits of sheep differ widely from those of horses, cattle, and swine, but present no problems that will not be met by interested study and observation supported by satisfactory returns. The way boys in sheep clubs have mastered the principles of sheep raising is ample proof of this statement.



Forage in Pig Feeding

IT REQUIRES grain to make pork and we always note a falling off in the number of hogs on our farms following a poor corn year. Because hogs reproduce so rapidly, this is not as serious as it would be in the case of the larger domestic animals. Even though grain is so essential to pork production, we cannot afford to overlook the value of forage. Under present conditions there is absolutely no profit in producing pork unless green forage is used to the fullest extent possible. Of course all experienced hogmen know that mature brood sows can be run on alfalfa pasture without any grain and actually gain in weight after weaning a litter of pigs.

Some hogmen make the mistake of attempting to replace grain with green feed entirely in the case of young pigs. Pigs can be maintained on good pasture, but there is no profit in merely maintaining a pig. He must gain and gain rapidly during his whole growing period if he is to make any money. We sometimes hear enthusiastic stories repeated of how pigs have been grown on alfalfa alone, but if the facts were all known the pig that has run on alfalfa pasture all summer without grain does not amount to much. The ideal condition is to use the green feed to the limit but combine with it a judicious supply of concentrates. The extent to which green feed may be economically used to replace grain in the growing and fattening of pigs depends on a number of factors. The size and condition of the pigs, the time of marketing, the kind of forage and its condition, and the comparative value of the grain and forage, as well as the relative value of the feed and hogs, all must be considered. Under some circumstances it might be more profitable to feed the pigs all the concentrates they will eat, thus getting them on the market quickly, and at other times it might be more profitable to limit their grain feed, finally finishing them for market several months later than if they are pushed on grain from the start.

Our experiment stations have accumulated some valuable information on the subject of combining pasture with grain in growing and fattening pigs. In a seventy-seven day test made at the Ohio Experiment Station in which full and limited rations of corn with and without tankage were fed to different lots of pigs on rape pasture, as compared with the same rations in dry lot, some interesting results were obtained. In a general way the results show that the pigs on the rape pasture gained more rapidly than those in the dry lot, and those given the tankage gained more rapidly than those given the same amount of feed consisting of corn only. The pigs in the dry lot gained at the rate of only nine-tenths of a pound daily, while those on pasture with a full feed of corn nine parts and tankage one part gained at the rate of 1.2 pounds daily. A lot on pasture getting the full feed of corn without the tankage gained at the same rate, but required more grain to produce each pound of gain. The largest return from the pasture was in the lot fed three-fourths of a full corn ration without tankage.

The pigs used were about sixteen weeks of age and averaged fifty-five pounds in weight at the time the tests began. The principal point of the test is that the use of the forage greatly increased the gains and likewise the profits. In another test made at the Ohio Station pigs given a full feed of corn on mixed pasture gained 24.9 per cent more rapidly, but required 17.3 per cent more feed to each pound of gain than pigs fed only two-thirds as much corn. In both these tests the pigs given all the corn they would eat on pasture did not consume enough green feed to properly balance the ration. Where the grain was limited more forage was eaten, and this being higher in protein than the corn, supplied a sufficient amount to balance the ration. This would suggest that it is sometimes an advantage to limit the corn fed on pasture if no tankage or other concentrate containing a large amount of protein is fed.

A series of experiments have been conducted at the Kansas Station, having for their purpose the determining of the best and most profitable combination of grain and pasture in the growing of hogs for market. While the exact amount of grain used will probably depend to some extent upon changing conditions, it is evident that there must be a liberal use of forage in pork production in order to make it profitable.

Probably no one crop possesses more of the qualities desirable for a good hog pasture than alfalfa. The best of results will follow having a pasture large enough so it can be mowed. If enough hogs are put on an alfalfa pasture to keep it grazed down, the stand will be injured, as the hogs will graze certain parts much more closely than other parts. Other crops can be used to good advantage where alfalfa cannot be grown; cane, Sudan grass, oats, rye, or rape, all can be grown according to the conditions and used as green forage for hogs.

National Dairy Show

The National Dairy Show will be held in Columbus, Ohio, October 10 to 19. There have been rumors that on account of the Ohio State Fair grounds being taken over by the Government, this show could not be held. The Government will use a large part of the grounds, but the buildings occupied last year by the Dairy Show are available for use this year. The military work being done will add interest and zest to the show.

Dairying occupies a unique position in the world's food commerce in that it furnishes a food without which man would perish from the earth. If the information we are getting upon the destruction of domestic animals and the appalling mortality of infants in the Old World because of a scarcity of milk and its products, is correct, we cannot fail of having a tremendous responsibility to meet, not only to furnish dairy products, but to restock Europe with cattle. With all of these things before us as a part of the show this year, the machinery interests and other branches of dairy trade and commerce that make up the splendid exhibits of all things modern for the dairy to be found in the show each year, are reserving their space in the remaining four buildings, and in the spaces around the inner walls of the coliseum, and everyone is preparing to give evidence of their belief in the eternity of things, and their desire to serve the Government and the people of the whole world. W. E. Skinner, general manager, reports that the demand for space starts off even in excess of last year, and it is hoped all of the interests will be lined up together for a big show. This year's show should go down in history as a real demonstration of a united loyal industry anxiously striving to fill its place in the sun for all humanity.

Cornell University has one of the greatest cows the Holstein breed boasts. She is named Glista Ernestine and was bred and developed by the University. In seven days this remarkable cow made 35.96 pounds of butter from 823 pounds of milk and for thirty days made 149.86 pounds of butter from 3,285.9 pounds of milk. This record is most remarkable when it is considered she made this record immediately after the completion of the yearly test of 1,042.5 pounds of butter from over 23,000 pounds of milk. Freshening as a four-year-old, Glista Ernestine made 30.51 pounds of butter, and for each of her four lactation periods since that date she has crossed the thirty-pound mark, and each time has increased her record considerably.

When selling the eggs to the country merchant or cash buyer, insist that the transaction be on a quality basis.

Do You Want Electric Light in Your Home? Ask for circular describing the only complete quality plant on the market. **ESSANDEE CORPORATION, 120 W. Monroe St., Chicago**

JERSEY CATTLE.

TESSORO PLACE
OWL INTEREST FINANCE JERSEYS (REGISTER OF MERIT)
Buy a bull from a R. of M. cow and be more certain in your herd building. Every cow in milk in our herd has a year's test or one now on. Our two-year-olds will average 400 pounds of butter. Write for prices and other information.
R. A. Gilliland, Mayetta, Kansas

Longview Jerseys
(Register of Merit Herd)
Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.
Longview Farm
LEE'S SUMMIT - - MISSOURI

B. C. SETTLES
MAKES A SPECIALTY OF MANAGING JERSEY SALES.
Write for catalogs.
Palmyra - - Missouri

FINE YOUNG JERSEY BULLS
From Register of Merit and tested cows; Register of Merit sire.
Dornwood Farm, Topeka, Kan.

IDYLWILD STOCK FARM
Place your order for a Sophie Tormentor, Jacoba Irene, spring bull calf to increase your production.
C. F. Blake - Glasco, Kansas

JERSEY CATTLE.

100 GOOD JERSEYS FOR SALE
We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.
J. W. BERRY & SON, Jewell City, Kansas.

REGISTERED JERSEY BULLS
Butter-Bred, from High-Producing Cows.
Photo furnished.
MAXWELL'S JERSEY DAIRY
Route 2 Topeka, Kansas

J. B. PORTER & SON
MAYETTA, KANSAS
Breeders of High-class Jerseys. Stock for sale at all times.
Write Us Your Wants.

BROOKSIDE JERSEYS
Registered Jersey Bulls, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.
THOS. D. MARSHALL, SYLVIA, KANSAS

Allen Center Stock Farm
Registered bull calves — some ready for service. Sale or exchange for bull or heifers.
TREDWAY & SON, LA HARPE, KANSAS

POLAND CHINAS.

GLENWOOD FARM'S SHORTHORNS AND POLAND CHINAS
SHORTHORNS
Sires in Service—Emma's Valentine 412453, Golden Searchlight, and Master Goods.
For Sale—Emma's Valentine 412453, Master Butterfly 10th 582866, and Secret's Valentine 648605. Real Herd Bulls.
PRICES REASONABLE.
POLAND CHINAS
Sires in Service — Expansion King, King Wonder II by Big Bob Wonder, and Wonder's Joe by Giant Joe.
For Sale—Twenty gilts bred for summer and fall litters, sired by Expansion King or King Wonder II, bred to Wonder's Joe or King Wonder II. A few fall boars.
C. S. NEVIUS & SONS, CHILES, KANSAS

Sand Springs Farms Polands
We have a nice lot of registered Poland China boar pigs that we can price right. Do not wait until you must have one and then pay a long price. Buy one now and save money. Breeding good and individually right.
E. S. Engle & Son, Abilene, Ks.

Elkmore Farm Poland Chinas
For Sale—April boars and gilts, trios not akin, $125; sired by King Bob and Giant Bos. Bred sow sale August 8, 1918. Forty-five head bred to Caldwell's Big Bob. Everyone guaranteed and cholera immune. Catalogs ready July 15.
Fred B. Caldwell, Howard, Ks.

PALMER'S BIG POLANDS
Fall boars by Big Bob Wonder, Sir Dudley, and Exile, and out of choice big-type dams. They are good ones.
C. B. PALMER, ROUTE 5, MARION, KAN.

Big-Type Poland China Hogs
September and October boars. One real herd boar prospect. Fifty bred sows and bred gilts. 250 spring pigs.
DEMING RANCH - - OSWEGO, KANSAS
H. O. Sheldon, Herd Manager

GRAND VIEW POLANDS
Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.
ANDREW KOSAR - DELPHOS, KANSAS

POLAND CHINA BOARS
Four months old, sired by Big Joe 303331, by Big Jumbo 275307. Also rich in Young Hadley and Big Hadley blood. Price, $25.00.
S. M. BEASON - COLLYER, KANSAS

LANGFORD'S SPOTTED POLANDS
Last call for fall gilts.
T. T. Langford & Sons, Jamesport, Missouri

Pliley's Spotted Polands
All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
J. EDW. PLILEY - GILMAN CITY, MO.

Registered Big-Boned Spotted Poland China Hogs—Young stock for sale at all times, either sex. Address Walter Dodd, Jasper, Mo.

HENRY'S BIG-TYPE POLANDS
October boars and gilts. September gilts bred to order. Booking orders for spring pigs at weaning time, sired by Smooth Prospect, Mammoth Orange, Big Bob 2d.
JOHN D. HENRY, LECOMPTON, KANSAS

TOWNVIEW HERD
Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. Chas. E. Greene, Peabody, Kan.

ANGUS CATTLE

Edgewood Farm Angus
I have for sale
40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.
D. J. WHITE, Clements, Kan.

AUCTIONEERS.

FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. VALLEY FALLS, KANSAS

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri

HORSES AND MULES.



Percherons—Belgians—Shires
After harvest take the most enjoyable little trip of your life. Come see all my show and breeding horses and have a fine visit with me. Drop me a card now. FRED CHANDLER, R. 7, Charitan, Iowa. Above Kansas City.

GALLOWAY CATTLE.

GALLOWAY CATTLE
30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.
E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

Registered Galloway Bulls
Ten Two-Year-Olds. Ten Long Yearlings.
These are in extra good condition.
Ready for immediate service.
Come and see them.
CALLAHAN & BECK, KINGMAN, KAN.

RED POLLED CATTLE.

ADVANCED REGISTRY RED POLLS
Choice young bulls from heavy milking dams. Inspection of herd invited.
CHAS. L. JARBOE - QUINTER, KANSAS

RED POLLED CATTLE
For Sale—One 4-year-old herd bull, No. 25387, a splendid breeder. Can show a number of his get. I can not use him longer and he should head some good herd. Priced to sell. I. W. POULTON, Medora, Kansas.

To waste is to give "aid and comfort" to the enemy—and that is treason.

If possible, mark the pullets that lay in the fall, and use them in the breeding pen for the following spring.

TURNER & SON SHROPSHIRES
Fifty good big registered rams, $50 each, crated and express paid here. Also about 100 head of Lincoln and grade Shropshire ewes, ranging in age from one to six years, $22.50 per head. Sheep three miles north of town. Send check or draft with order. Pedigrees furnished for pure-breds. Always return crate. Reference, Harveyville State Bank.
J. R. TURNER & SON - - - - - - HARVEYVILLE, KANSAS

The Government's Call for Income Tax Statements Makes it Certain that

YOU NEED THIS BOOK

GET STARTED RIGHT

There is no better time than right now to begin keeping Farm Records so that you will have the required information ready to make your income tax statement next year. No doubt you are already keeping your records. You want the most simplified and easiest way. Get this book. It's FREE.

PRACTICAL ACCOUNT BOOK

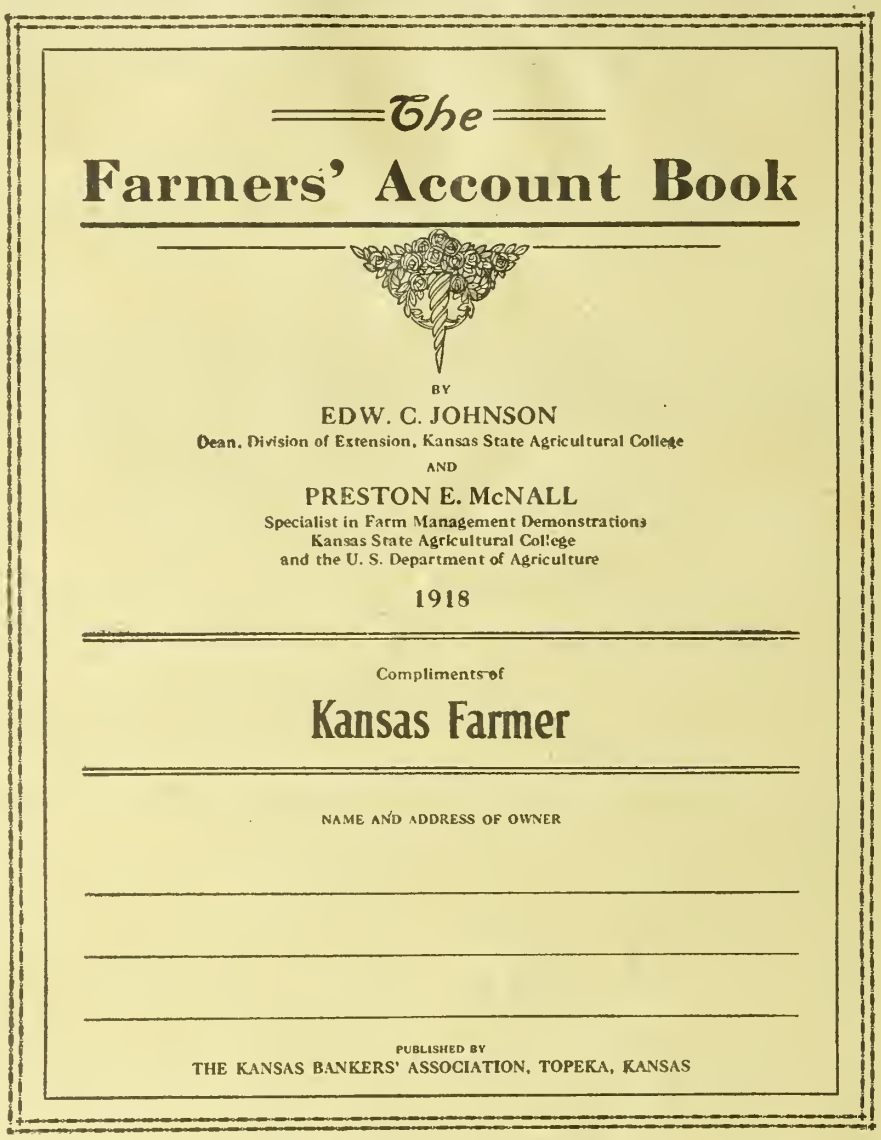
This book is a PRACTICAL Farm Account Book which has been developed under the direction of the United States Government men, working in co-operation with hundreds of farmers in Kansas. It is not merely theoretically correct, but has been prepared to fill the needs as shown by practical use on farms in this state.

THIS BOOK WILL MAKE YOUR WORK EASIER

Keeping accurate records of farm business is becoming more and more popular, not only because it is practically necessary for the income tax statement, but also for the value of the records to the farmer. The most important thing, however, is to secure and keep the information desired with the least amount of work and time; that is, in the simplest way.

The book which KANSAS FARMER is offering on this page, FREE to subscribers, is gotten up with the idea of keeping all the information necessary and valuable with the smallest amount of work. The book is a one-year record. It is small and convenient to keep. It contains full but simple instructions on how to keep the records required, with sufficient blanks for all entries.

ONE-HALF ACTUAL SIZE



ACTUAL SIZE OF BOOK, 8 x 11 INCHES

A PRACTICAL BOOK NOW IN USE BY FARMERS

The book is published by the KANSAS BANKERS' ASSOCIATION. It has been prepared by Dean Edwin C. Johnson and Preston E. McNall, both of the Extension Division of the Kansas Agricultural College, who have done their work on the book in co-operation with the United States Government.

This book has been used in Farm Management studies on hundreds of farms in Kansas where owners have heartily co-operated and offered many valuable suggestions for making it thoroughly practical and suited to actual farm conditions. These suggestions have been incorporated in this latest edition.

CONFORMS WITH REQUIREMENTS OF THE GOVERNMENT

It is the ultimate object of the Internal Revenue Office to adopt a uniform method of computing farmers' incomes. This includes farm inventories, farm receipts, and farm expenses, and follows very closely the book which is given by KANSAS FARMER to its subscribers. From year to year there may be a few slight changes made. For this reason it is best to buy a one-year book in order that each year your book will conform to the Internal Revenue rulings for that year.

FARMERS' ACCOUNT BOOK GIVEN FREE

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KANSAS FARMER desires to assist its readers in getting a book which will meet all their requirements at the least possible expense. The book described on this page is adapted to your needs and can be obtained FREE from many banks in Kansas, or KANSAS FARMER will give the book FREE with a subscription. Read our offer below and send today.

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We will mail you ABSOLUTELY FREE and postpaid one of these Account Books for your renewal subscription to KANSAS FARMER at $1.00. Send us your order today and get your accounts started in such a way as will be easy to keep and which you know will be correct.

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To subscribers whose subscriptions are already paid in advance we make the following offer: Send us one new subscription to KANSAS FARMER for six months at 50 cents and we will send you one of the books FREE AND POSTPAID. This offer is open only to subscribers whose subscriptions are paid in advance, and the subscription MUST be a NEW ONE; that is, for someone not taking KANSAS FARMER at the present time.

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KANSAS FARMER, TOPEKA, KANSAS.

GENTLEMEN: Inclosed please find $1.00, for which renew my subscription for one year and send me the Farmers' Account Book as per your offer.

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JUL 13 1918

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 28. TOPEKA, KANSAS, JULY 13, 1918. Established 1863. $1 a Year

COMMUNITY THRESHING OUTFIT

Neighborhood Threshing Machine Can Pay for Itself in Three Years

THERE are many advantages in having threshing done by a neighborhood machine. "Never before has there been the demand for the small threshing outfit that there has been this year," writes Martin Platt in the Implement and Tractor Trade Journal. "Demands for all kinds of implements and power farming equipment have been increased, but the greatest perceutage of increase in business is reported by distributors of lines of small separators and threshing outfits.

"The demand is for separators rauging in sizes from 20-32 to 23-36. One manufacturing firm which specializes in threshing machines made three extra runs of separators in these sizes and two other firms made one extra run. Practically all of the distributors are now turning down orders for small sized separators, their allotments of machines having been exhausted.

"A number of things contributed to the demand for the small separators. Last year in July when much of the wheat in Missouri, Kansas and Oklahoma was still in the shock, rains caused the wheat to sprout and resulted in tremendous loss. There were hundreds of instances where farmers lost enough money to have purchased a small separator.

"Threshing prices which have been set by the varions county threshing committees have been opposed by many of the farmers. In one Missouri county it was decided to allow 10 cents a bushel for threshing wheat and 19½ cents a bushel where the crew was furnished. There are a number of instances where 8 cents a bushel was allowed for oats and 10 cents a bushel for wheat.

"In Kansas and western Missouri the prices agreed upon have usually been 5 cents a bushel for oats and 7 and 8 cents for wheat. In these counties the crew is not furnished. Prices on outfits, labor and materials perhaps permit of the increase but it is rather a noticeable advance over the prevailing prices last year when 2 cents a bushel was charged for threshing oats and 4 cents for wheat.

"The old threshermen are not taking out the machines this year. This has resulted in the belief that there will be a shortage of outfits. Prices and terms and the county threshing committees are compelling the threshermen to find some other occupation they say. They are not purchasing second-hand machines and in many cases do not intend taking out their old machines, which they now own, for fear that before the season is over their separators may be condemned by the representatives of the Government.

"The threshing machine companies will no longer sell a machine unless it can be paid for with other than its own earnings. The companies have adopted a policy calling for large cash payments and more than the machines' assurance that they will receive their money. A thresherman must have accumulated something other than experience to take a machine out at the present time.

"All of these things together with the large number of tractors that are now owned have contributed to the rise of the community-owned separators and threshing outfits. The majority of small separators have been sold to farmer companies who are already provided with a tractor, owned by some member of the company, that will furnish the power for its operation.



TRACTOR AND COMMUNITY THRESHER GO WELL TOGETHER

"The small separtor costs from $1,000 to $1,100 and there are from four to twenty-five farmers nsually in the purchasing company. In a number of cases the company has purchased a tractor, making the complete outfit. For a 20-32 or a 23-36 separator, a 10-20 hp. or 12-24 hp. tractor, it is said, will furnish a sufficiency of power with a reserve. These sized tractors range in price from $1,000 to $1,800.

"The labor saving is no small item in the operation of the small outfits. Six or seven men will be all that are required if the grain is stacked, and if it is in the field four or five wagons should keep the machine going.

The small separators have a capacity of from 700 to 900 bushels of wheat a day and 900 to 1,100 bushels of oats a day. This of course depends on the condition of the grain. Most companies now make their small separators exact duplicates of the large separators which they manufacture. The small separators are exact in every working part and should thresh just as clean as the large machines.

"Most of the machines that are sold include self feeder, weigher and wind stacker attachments. The feeders are equipped with governors so arranged that they automatically stop feeding when the racks become overloaded and start feeding when the machine is ready to receive the burden of the load.

"There may be isolated instances of where the community thresher outfits will pay for themselves the first year. If there should be a shortage of the threshing outfits or the ownership of them result in the crops being threshed before they have to pass through a rainy season there is no question but what they will pay their owners the first year. But under any circumstance where much attention is given to raising wheat a community threshing outfit should pay for itself in at least three years.'

Causes of Threshing Wastes

If a threshing machine fails to separate all the grain from the straw, it usually is because the machine is not being run at its proper speed, is being crowded beyond its capacity, the cylinder fails to thresh all the kernels out of the heads, the separating mechanism is not level, or the blast is not adjusted properly.

Methods of preventing these and other causes of waste are given in Farmers' Bulletin 991, "The Efficient Operation of Threshing Machines," just issued by the United States Department of Agriculture.

Cracked grain is another source of waste which may become serious. Cracked grain may be due to excessive speed of the cylinder, to the cylinder being too close to the concave teeth, or to grain being returned in the tailings elevator and run through the cylinder repeatedly. Loss both from poor separation and cracked grain can be largely prevented by proper adjustment of the machine and attention to it while in operation.

Exports of Corn and Oats

The extent to which the United States is now supplying the Allies with wheat substitutes is shown by a summary of oat and corn exports announced by the U. S. Food Administration. More than 101 million bushels of oats and oatmeal were exported by this country from July 1, 1917, to April 30, 1918, and of this amount more than 93 million bushels were sent the European Allies.

Exports of corn and corn meal for the same period were more thau 39 million bushels, of which more than 27 million bushels were for the Allies.

Production and self-denial are the guns that will get the Huns.

World Declaration of Independence

THIS war will not be won by those who spread the doctrine of class consciousness, promote the theory of class struggle, and who really mean to secure the dominance of their class. Their plans will not prevail. The nation has not been working in vain for centuries to destroy class rule, to develop a common consciousness and a government by all the people. Government by classes and class interest is passing from the earth. It is the German plan and it is the antithesis of democracy, as President Butler observed. The American people will have none of it. * * *

We shall not fail. We are aligned with the free forces of the world and have back of us the conscience of civilization. I agree with the Archbishop of York that, in the ultimate analysis, there must be some power that can change the hearts of the German people which alone can make them fit associates for free and self-governing peoples. This German plan of world empire will collapse as have other similar plans. It is not the first time that it has been tried. The Persians tried it and were halted at Marathon and Salamis. Alexander attempted it and did not even get back home. Rome sought it and was finally overwhelmed by barbarians. Napoleon played for the same stake and ended his days at St. Helena. The kaiser in his time will learn his lesson. This old world is not going backward. It is not going the way of the kaiser. It is going the way of Clemenceau, Lloyd George, and Woodrow Wilson.—SECRETARY D. F. HOUSTON, in address to Iowa Bankers' Association.

Science vs. Guesswork

How "hit-or-miss" lubrication gave way to the scientific use of oils

FRICTION in any power plant—whether steel mill or automobile engine—is the worst enemy of economy and full power.

The practical need for something to reduce friction brought about the first use of lubricants. Fish oils and animal fats were first used.

It was later found that petroleum would yield different types of lubricating oils of marked superiority.

Development in the manufacture of different grades and classes of lubricating oils came at a fortunate time. For mechanical arts developed rapidly.

Unless the lubricating problems were properly met, mechanical development would fail in its aim. Only the properly lubricated engine could yield the efficiency aimed at.

The Vacuum Oil Company were the first manufacturers of petroleum residual lubricants; and were the pioneers in the field of scientific lubrication and demonstration of power saving by the use of proper lubricants.

In taking up automobile lubrication, the Vacuum Oil Company simply pursued its professional methods which were already well established in other fields of power-production and transmission.

The Chart of Automobile Recommendations below represents our professional advice.

In using the oil specified for your car, you will use oil whose correctness was determined by very thorough and careful engineering analysis of your engine. The oil specified combines *high quality* with *correct body.*

It will give you:

(1) *Increased power—noticeable particularly on the hills.*
(2) *Reduced carbon deposit.*
(3) *Reduced gasoline consumption.*
(4) *Reduced oil consumption.*
(5) *Freedom from unnecessary repairs.*

Write for 64-page booklet containing complete discussion of your lubrication problems, list of troubles with remedies and complete Charts of Recommendations for Automobiles, Motorcycles, Tractors and Motor-boat Engines.

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If the dealer has not the grade specified for your car, he can easily secure it for you.

GARGOYLE Mobiloils
A grade for each type of motor

CORRECT AUTOMOBILE LUBRICATION

Explanation: The four grades of Gargoyle Mobiloils, for engine lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A" **Gargoyle Mobiloil "E"**
Gargoyle Mobiloil "B" **Gargoyle Mobiloil "Arctic"**

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A," "Arc" means Gargoyle Mobiloil "Arctic," etc. The recommendations cover all models of both pleasure and commercial vehicles unless otherwise noted.

AUTOMOBILES	1918		1917		1916		1915		1914	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Abbott	Arc	Arc								
Abbott-Detroit			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)					A	A	A			
Allen	A	Arc	A	Arc	A	Arc	A	A	A	A
Apperson	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	Arc				
Auburn (4 cyl)					A	Arc	A	Arc	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (6-38 & 6-39)			A	Arc	A	Arc				
" (6-39B)(Tester H)	A	Arc								
" (6-39B)(Cont'l)	Arc	Arc								
Autocar (9 cyl)	A	Arc								
Briscoe	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (8 cyl)			A	Arc	A	Arc	A	Arc	A	Arc
Buick	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
Cadillac	A	A	A	A	A	Arc	Arc	Arc	Arc	Arc
Case	Arc	Arc	A	Arc	A	A	Arc	A	A	Arc
Chalmers	A	A			Arc	Arc	A	A	A	A
" (6-40)					A	Arc				
" (6-30)			A	A	A	A				
Chandler Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	A	Arc
" (4 cyl)	A	A	A	A						
" (F A)	A	Arc								
Cole					Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A	A			
Cunningham							Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Dart	A	Arc	A	Arc	A	Arc	Arc	Arc	A	A
" (Mod. C)			A	Arc	A	Arc	A	A	A	A
" (3 & 3½ ton)	A	A								
Detroiter	Arc	Arc	Arc	Arc	Arc	Arc	A	A	A	A
Dodge Brothers	A	Arc	A	Arc	A	Arc	E	E		
Dort	A	Arc	A	Arc	A	Arc	A	Arc		
Empire (4 cyl)	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc			Arc	Arc
Federal	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod. S-X)	A	A	A	A						
" (Special)	Arc	Arc								
Flat	B	A	B	A	B	A	B	A	B	A
Ford	E	E	E	E	E	A	E	E	A	E
Franklin	A	A	A	A	A	A	A	A	A	A
Grant	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Hal-Twelve			A	A	A	A				
Haynes	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (12 cyl)	A	A	A	A	A	A				
Hudson					Arc	Arc	Arc	Arc	Arc	Arc
" (Super Six)	A	Arc	A	Arc	A	A				
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Kelly Springfield	A	A	A	A	A	A	A	A	A	A
King							A	Arc	A	A
" (8 cyl)	A	A	A	A	A	A	Arc	Arc		
" (Com'l)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Kissel Kar	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (Mod. 48)					A	A	A	A	A	A
" (12 cyl)	A	A	A	A						
Lexington	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Lippard Stewart	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod. M)			A	Arc	A	Arc				

AUTOMOBILES	1918		1917		1916		1915		1914	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Lippard Stewart			A	Arc						
" (Mod. MW)			E	E	E	E	E	E	E	B
Locomobile	A	E	A	Arc	A	A	A	Arc	A	A
McFarlan	A	Arc	A	Arc	A	Arc	A	Arc		
Madison	A	Arc	A	Arc	A	Arc	A	Arc		
" (8 cyl)			A	A	A	A				
Marmon	A	A	A	A	A	A		Arc	A	Arc
Maxwell	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Mercer	A	A	A	A	A	A	A	Arc	A	Arc
" (22-70)							Arc	Arc		
Mitchell	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (8 cyl)					A	A				
Moline-Knight	B	A	A	A	A	A	A	A	A	A
National	Arc	Arc	Arc	Arc	A	Arc	A	Arc	A	A
" (12 cyl)	A	A	A	A	A	A				
Oakland	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8-cyl)					A	A				
Oldsmobile	A	A			Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Overland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Packard							A	Arc	A	Arc
" (12 cyl)	A	A	A	A	A	A				
" (Com'l)	A	A	A	A	A	A	A	A	Arc	Arc
Paige (4 cyl)							A	Arc	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
" (6-36)					A	A	Arc	A		
" (6-38-39)			A	Arc						
" (6-40)	A	Arc								
Paterson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Pathfinder			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (12 cyl)			A	A	A	A				
Peerless	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Pierce Arrow	A	A	A	A	A	A	Arc	Arc	Arc	Arc
" (Com'l)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Premier	A	A	A	A	Arc	A	Arc	Arc	A	Arc
Regal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (4 cyl)					A	A	A	Arc		
Renault (French)					A	Arc	A	Arc	A	Arc
Reo	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Riker	A	E	E	E						
Saxon	E	E	E	E	E	E	E	E	E	E
Selden	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (3½ ton)			A	Arc						
Simplex					A	A	Arc	Arc	Arc	Arc
Stearns-Knight	B	A	A	A	B	A	B	A	B	A
" (8 cyl)	B	A	A	A	B	A				
Studebaker	A	Arc	A	Arc	A	Arc	Arc	Arc	A	Arc
Stutz	A	A	A	A	A	A	A	A	A	A
Velie (4 cyl)							A	Arc	A	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (2 & 3½ ton)	Arc	Arc								
" (½ ton)	A	Arc								
Westcott	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
White	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (16 valve)	A	A								
Willys-Knight	B	A	A	A	B	A	B	A	A	A
Willys Six	Arc	Arc	Arc	Arc						
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc

YOUR TRACTOR

also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

VACUUM OIL COMPANY, Rochester, N.Y., U.S.A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world

Domestic Branches: Boston, Detroit, Kansas City, Kan., New York, Philadelphia, Chicago, Minneapolis, Indianapolis, Pittsburgh, Des Moines

FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

WITH a tractor it is often possible to perform several operations at one time. A letter from an Ohio tractor user printed in the Blacksmith and Wheelwright illustrates this point. The farmer says: "Concerning our experience and the variety of work done with our tractor, will state we find that it will handle a three-bottom fourteen-inch plow very nicely wherever the ground is in proper condition to be worked. However, we like to use two bottoms and attach a sixteen-inch disk harrow behind, which is the same as disking before and after plowing. It handles this load easily, plowing eight inches deep. In this manner we have worked five acres in nine hours at a cost of $1.10 per acre, counting gasoline, oil, and time for one man at three dollars per day. This field was a clover sod. In preparing ground for wheat, after being plowed we used a double-disk harrow, followed by a ten-foot three-plank drag, set at an angle and carrying a 200-pound weight; with an 800-pound roller attached behind these, the ground was put in fine condition at one operation for the drill.

"Have also used my tractor for grading private road, using three plows set respectively two, four, and six inches deep. Where ground was very hard and dry we found it did the work without hesitation. For pulling the grader we found it excellent.

"We have also used it for filling the silo, pulling a sixteen-inch cutter to its full capacity. Have run hay press, baling at the rate of twenty tons per day. At the present time we are running an eight-inch feed grinder and preparing to attach buzz-saw for cutting tops into furnace wood."

Tractor Demonstration Rules

The rules of the National Tractor Demonstration which will be conducted at Salina July 29 to August 2, provide for the entry of every kind of power farming machinery, including tractors, tractor attachments, and all drawn implements and belt machines. The belt work is an important factor in using mechanical power, and this feature should add to the interest of the big demonstration. The rules in detail are as follows:

1. Public demonstrations shall begin at 1 o'clock and end at 3, unless other hours are announced by local committee at least twenty-four hours before starting time. Private demonstrations may be held in the forenoon from 8 o'clock to 11:30.

2. No exhibitor shall be allowed more than one tractor of each size and type on the field during the public demonstrations doing the same kind of work. He may have one or more machines performing different operations, namely, one plowing, one disking, one seeding, etc.

3. Size of land for each tractor exhibitor for plowing demonstrations will be determined by the average number of plow bottoms pulled, the width of plows and speed of machine as given in company's catalog. Each tractor exhibitor must plow out dead furrow to its left.

4. All plows on any given gang must be set at the same depth and kept there during the day's demonstration. This depth will be announced daily by the general manager. (Plows found operating otherwise will be ordered from the field for the balance of the day's work.)

5. All exhibitors will be alloted land in the same field or adjoining fields during each day's demonstration. Land for private demonstrations will be provided daily, in one field or adjoining fields.

6. In all public demonstrations the motor or tractor must not be run at more than 10 per cent above its catalog plowing speed. Tractors may be run on high gear with normal engine speed when disking, harrowing, seeding, etc.

7. Positions on field first day will be arranged by lot, in the following manner:

Drawing to take place at 10 a. m. Monday, the opening day of demonstration, by serial numbers representing total number of exhibitors.

Position on field, for the first public demonstration will be according to numbers, starting 1, 2, 3, 4, etc.

The total number of exhibitors will be divided into same number of divisions, A, B, etc. "A" will occupy prferred position on first day of public demonstration, and "B" preferred position on second day, etc.

Exhibitors who do not have representatives at drawing, the drawing will be done for him under direction of the general manager.

Each exhibitor will be required to finish his land daily in a workmanlike manner, and assist in plowing the end lands as directed by the general manager.

8. Each field plowed will be surveyed and staked ready for afternoon demonstrations. These fields will be tested for the drawbar pull of a 14-inch plow, plowing at the specified depth previous to the demonstration. All manufacturers will be furnished information relative to drawbar pull so they can better determine the number of plows to use on each gang.

9. Each tractor shall bear a placard, to be furnished by the chief observer, showing the brake horsepower of the engine, the revolutions per minute, the plowing speed in miles per hour, and the kind of fuel used and its Baume test. Tractors using more than 5 per cent of gasoline shall be classed as burning gasoline and so placarded.

10. All tractors on the demonstration field belonging to one exhibitor must be kept on or along the land alloted him for that day's demonstration, until the hour designated by management for returning to headquarters.

11. No machine will be allowed to operate with special equipment other than that designed for practical use with same. No spectacular methods will be permitted on the part of salesmen, or others, to attract crowds. The demonstration must speak for itself.

12. Each tractor exhibitor will have the privilege of burning any kind of fuel he desires, but no one will be permitted to burn fuel of higher gravity test than that used by his competitor burning the same kind of fuel. All exhibitors will be required to obtain fuel from one source, such to be designated by the general manager.

13. No time will be required of exhibitors to make moving pictures or group photographs for commercial purposes. Manufacturers can arrange to get photographs during the demonstration if they desire. Any manufacturer or representative of farm or trade papers, or news agency, will be allowed to have their official photographer on the grounds to get pictures for their own use.

14. Manufacturers will be privileged to make brake horsepower, drawbar pull, and such other efficiency tests as they desire. All such tests desired should be reported to the general manager not later than July 15 so that a sufficient number of Prony brakes, dynometers, and other apparatus can be provided. These early announcements will also be necessary in order that a suitable number of competent judges and sufficient acreage can be provided for all who desire to make tests.

15. The results of all tests made at the demonstration shall be furnished to the exhibitors only and such exhibitors may publish the results as official from the management of the demonstration. No official report of any tests made will be kept by the general manager, judges, or the association, except by permission of the exhibitor making the tests.

16. Manufacturers will be privileged to exhibit not more than two belt-driven machines in connection with their exhibition.

17. Arrangements will be made for daily demonstrations showing use of tractors harrowing, disking, seeding, and other farm operations, demonstrating general utility of the tractor. The rules governing these demonstrations will be the same as those applied to plowing.

18. The interpretation and enforcing of these rules shall be left to the local manager of each demonstration and the general manager of the demonstrations.

19. Each company exhibiting at these demonstrations shall appoint one manager who will be expected to report to the general manager not later than 8 o'clock each morning for instructions and information regarding the day's work. This manager of exhibits will be held accountable for the work of his company and no instructions will be issued to anyone else, nor will requests, instructions, or complaints be recognized from anyone but this exhibit manager. He shall wear a badge furnished him, specifying his being official exhibit manager.

20. Each exhibitor will be expected to keep plows, tractors, etc., around his tent arranged in first class order, and the land alloted him for exhibiting purposes free from circulars, etc., such as will be distributed around headquarters daily. They will also be expected to use care at all times in operating machinery with respect to its safety for all visitors. The management will appreciate co-operation of these exhibit managers in all matters.

21. Each entrant will sign the rules and thereby agrees to live up to the rules and co-operate with the committee in every way to make the tractor demonstration a success.

22. The field manager shall have authority to order from the field any machine whose operator does not comply with the rules, and, further, any exhibitor who is manifestly disregarding the rules will not have land laid out or furnished for him on the succeeding days, or until such time as he has met the conditions.

23. No exhibitor joining the National Demonstration will be permitted to exhibit until he has given correctly the price that he is in position to furnish tractors at regular production, the correct weight of tractors, and all data pertaining to their construction and rating, minimum and maximum speed at which the motors are to run, and the committee have the right to have any such machines placed under test to prove the correctness of the data that is furnished.

Every car owner should know that it is bad for the tires to overload them. There is a good deal of discussion on the subject of proper tire pressure for different loads. It is impossible to avoid overloading occasionally, and it is not always convenient to increase the pressure in the tires to suit the load. When overloaded, drive carefully, avoiding unusual bumps, and by so doing save the tires from injury.

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KANSAS FARMER

THE FARM PAPER OF KANSAS

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SILO-BUILDING CAMPAIGN

The silo is one of the most important conservation agencies of the farm. Every kind of rough feed is worth fully twice as much now as before the war. The ensiling of corn, kafir, cane, and other silage crops is the most effective method known for making these feeds return maximum values when fed to live stock. The silo was a good investment before the war, but it is a better investment now. It becomes almost a patriotic duty to plan for a silo in order to make the most of the rough feeds grown on the average farm. On the average Kansas farm where beef or dairy cattle are fed a silo will pay for itself in a single year. An acre of almost any good silage crop is worth as much in the silo as an acre and a half or two acres left in the field and handled in the usual way. If you do not build a silo, you can figure that you will pay for one in the feed wasted in a single year. Better build the silo and realize on this waste.

A campaign designed to show the value of silos in saving feed and money is to be conducted in Eastern Kansas beginning July 15 and continuing two weeks. This campaign will cover the four eastern tiers of counties in the state. In announcing this campaign Dean Edw. C. Johnson of the extension division of our Agricultural College states that we probably have twelve or thirteen thousand silos in Kansas at the present time, but should add at least five thousand during the present year.

This campaign will be conducted mainly by the county agents and the county councils of defense. The general plan is to devote two days of the week to visiting silos in each county. It is planned to have at least six stopping places each day on farms where there are silos. There will be very few "experts," or "specialists," as they are sometimes called, on this trip. The men who have had actual experience in the silo game will give their testimony at each farm visited, telling the results they have obtained and pointing out the good and bad points of the particular kind of silo they happen to have. It is planned to have on each tour a man who has been especially successful in feeding silage to beef cattle and one who has been equally successful in feeding dairy cattle, accompany the party, giving their experiences at each farm visited.

The man who is questioning the advisability of building a silo cannot afford to miss getting in on a silo tour of this kind. He will be able to get "grass roots" information as to the results coming from preserving farm feeds in the silo. We would urge that our readers in the various counties watch closely for local announcements giving the details of the trip in their respective counties.

FARMERS IN CONGRESS

The biggest single industry in this country has almost no representatives in Congress from its own ranks. Out of a total membership of 435 only five men in the House of Representatives are farmers. Labor is represented by eight men. The farm and labor interests combined have an overwhelming majority of the votes, but we find these great interests represented by only eighteen in a membership of 435. There are 295 lawyers in the House of Representatives, and nineteen members of the present Congress have not indicated from what vocation they come. Is it not time for the people of the farms to send a few more men to Congress from their own ranks?

Of the ten congressmen from Kansas, eight are lawyers and two are newspaper men; not a farmer or stockman in the bunch. Some representatives of the live-stock interests who had occasion to go to Washington to present important facts concerning live-stock conditions reported that not a man of our Kansas delegation had a close personal knowledge of the live-stock and farm interests of his own state and the country as a whole.

Of the four Republican candidates for the United States Senate from Kansas to be voted on at the primaries in August, three are newspaper men and one is engaged in live-stock production. Of the Democratic candidates one is a lawyer and the other a newspaper man.

We complain of the difficulty in getting Congress to comprehend agricultural conditions. Committees go to Congress and labor with our representatives trying to get them to understand the relationship of pending legislation to the great agricultural industry of the country. Why not strike at the root of the thing and send a man to Congress once in a while who has some personal connection with agricultural and live-stock interests? All it takes is votes for the right man. If there was ever a time when the farmer needed a friend at court, it is in the period now before us.

WHEAT PRICE CHANGES

The Food Administration has made public the new Government prices on wheat, the changes being in the form of an advance to take care of the increase in freight rates. The Chicago price on No. 1 Northern Spring, No. 1 Hard Winter, No. 1 Red Winter, No. 1 Durum and No. 1 Hard White is $2.26, the St. Louis price is $2.24, and the Omaha and Kansas City price $2.18. No. 2 wheat will be three cents below No. 1, and No. 3 seven cents below No. 1. All grades below will be dealt in on sample.

It is expected that the changes in the federal grading standards will throw more wheat into the higher grades than last year. It should be understood that the prices quoted for the various terminals form the basis upon which the United States Grain Corporation stands ready to buy wheat. Wheat growers are not compelled to sell to the United States Grain Corporation, but it is not likely that any of the mills will pay more than the Government buying agency. We note that the Kansas Grange Business Association has announced that it plans to sell direct to the Government.

Farmers can ship their own wheat direct if they wish. The Public Utilities Commission and the Federal Railroad Directors have given assurance that farmers wanting cars will be given equal consideration with dealers.

BUILD UP WHEAT RESERVE

The big wheat crop of this year will be an important factor in keeping up the morale of our Allies in Europe, who are passing through a most critical period in the matter of their bread supply. To do this most effectively we should regard the coming crop as a means of building up a good safe reserve of wheat. A lot of people may not like the kind of bread we are now using, and may be looking forward to straight wheat bread in the near future, but this is a mere incident as compared with the great issues for which we are contending. By continuing our wheat-saving policy we can build up a reserve that will have the effect of strengthening the morale of the people depending upon us for bread in the year to come. This is one way of waging war effectively.

HIGH-YIELDING WHEAT

Increasing the wheat yield by planting seed of an improved variety is the theme of an article on page five of this issue. With less labor available, higher wages prevailing, with higher prices on machinery, and other items tending to increase the cost of production, we still feel it a patriotic duty to respond to the call for more wheat.

There can be no questioning the higher yielding qualities of this new strain of hard wheat. Kanred is a Turkey type of wheat which has been developed by the Kansas Experiment Station during the period 1907 to 1911. Since that time it has simply been a matter of giving it a complete try-out over the state. In summing up the results, President W. M. Jardine says: "Kanred has given an average gain, compared with Turkey, of 4.6 bushels to the acre at Manhattan, 3.4 bushels in all tests at the substations, and 3.6 bushels in co-operative tests with farmers, or an average difference for all tests of 3.7 bushels. It has exceeded Kharkof by 5.2 bushels at Manhattan and 5.1 in co-operative tests with farmers, and an average of 4.7 bushels for all tests. In the fifty-four co-operative tests with farmers it has shown an average increase of 4.4 bushels over the local strain with which it has been compared in each instance. In all tests conducted it has exceeded common Turkey wheat in yield fifty-nine times out of sixty-six; Kharkof, fifty-one times out of fifty-eight, and the local variety grown in co-operative tests, forty-nine times out of fifty-four."

Several farmers in the state now have large acreages of this wheat. A large number have small acreages, it having been the policy of the Experiment Station to distribute the wheat as widely as possible. County agricultural agents in a number of counties are now making arrangements to ship carload lots of this new wheat into their counties for seed purposes. The Experiment Station has very carefully kept a record of every bushel of this wheat sent out. This makes it certain that practically all of this year's production can be made available for seed purposes if wheat growers will take the trouble to inform themselves as to where it may be obtained. Planting seed of this variety is almost certain to increase yields, other things being equal. It is one of the sure ways of increasing our production of wheat.

AWAITING GOVERNOR'S ANSWER

Last week it was publicly charged in the news of the day that the handling of disloyalty cases in Kansas has for some time been arbitrarily taken over by the chief executive of the state and an appointee of the State Council of Defense. Hundreds of letters relative to disloyalty cases have, it is claimed, been handled without turning the matter over to the district attorney, who, by virtue of the laws on sedition and disloyalty, has sole authority in all cases of this kind. A special agent of the Federal Department of Justice has been in Topeka and, according to statements in the press, this agent came here for the express purpose of investigating in detail the manner in which the federal authorities were being ignored in the handling of these cases involving violation of federal statutes relative to sedition and disloyalty.

Although the charges were published more than a week ago, no real denial has as yet been made, or at least not in the columns of the press. If the State Council of Defense has been given authority to handle such cases, there is no reason why a frank, open statement should not be made, furnishing absolute evidence of the authority from the Federal Government. If the charges are untrue, there are laws that will punish the author, and the editor of the State Journal, who made the statements referred to, has reiterated them in a later issue and suggested that a civil action against his paper would bring into court the records of the federal authorities if there is no other way to get the evidence in the hands of the public. The people most assuredly have a right to know the truth. If the editor of the Journal has made false statements reflecting on the Governor or Council of Defense, he should be confronted with the evidence. Silence will be taken as indicating the truth of the charges that have been made. If, on the other hand, the Governor and the Council of Defense have assumed authority which they do not legally possess and which is hampering and delaying the administration of justice through the federal machinery which is now exceedingly well organized all over the country, the people have a right to know the real facts. These charges are of such a nature that they cannot be passed over in silence or replied to by evasive statements. Future developments should be closely watched by the people of the state.

COUNTY AGRICULTURAL AGENTS

There are now forty-eight men in Kansas serving as county agricultural agents for farm bureaus. There are thirteen vacancies and more farm bureaus are being organized. The possibilities of the farm bureau for promoting better agricultural conditions is now being recognized. The strong prejudices which existed in the early stages of this work are rapidly disappearing.

The expansion of farm bureau work has been so rapid that it has become very difficult to get enough of the right kind of men to take the agricultural agent jobs. The war situation has complicated the task. It has favored the rapid organization of more farm bureaus because of the need for this kind of work. Many of the agents are over thirty-one years of age, but a considerable number are included in the draft age. They were placed in deferred classification because they were considered of great importance to the promotion of our agricultural interests. It is not in the nature of the red-blooded young American to accept a job, no matter how necessary, if it has the appearance of protecting him from taking his place in the thick of the fight. The younger men are getting restless, and a number have already resigned for army or navy service. This means that the farm bureau work is to be seriously handicapped unless older men can be found having sufficient training and experience to take the places being vacated. Here is an opportunity for performing some valuable service in the back-line trenches. A number of these older men have already enlisted for the period of the war, making other arrangements for the handling of their own business. Graduates of agricultural colleges who have established themselves as successful farmers are especially in demand for this work. We are mentioning these things in the hope that some of our readers will feel called upon to help locate men having the training and experience required for taking up these agricultural agent jobs. If you know of such a man, report to Dean Edw. C. Johnson, Division of Extension, Agricultural College, Manhattan.

FERTILIZERS AND CAR SPACE

Kansas is not a very heavy user of commercial fertilizers, but it may not be amiss to call attention to what has been accomplished in economizing car space in handling the shipment of commercial fertilizers. In 1917 the average carload of fertilizer shipped from factories in the United States weighed about 21.31 tons. During the first four months of 1918 the average carload weighed slightly over thirty tons. This gain of nearly nine tons, or over 40 per cent to the car, was made chiefly as a result of the campaign to have shippers load their cars to maximum capacity. As a result of this heavier loading it is believed that space equivalent to more than 75,000 cars can be saved in a year.

The most difficulty is experienced in handling small orders from scattered consumers, especially those who order late and request immediate delivery. Early orders for future delivery will allow the grouping of shipments to make up maximum carloads and users of fertilizers can help out wonderfully in this car-saving program by estimating their fertilizer requirements now and placing the orders at once.

Never think that intellect is nobler than the heart, that knowledge is greater than love. Not so! a thousand times no.—FRANCES POWER COBBE.

AGRICULTURE IN OUR SCHOOLS

Bring Farming Principles Within Reach of Every Boy and Girl

EVEN in the midst of this terrific struggle it is highly important that we look after the training of our boys and girls in agriculture," said Duncan Marshall, minister of agriculture, Alberta, Canada, in addressing the agricultural convention held by our State Board of Agriculture in Topeka last winter. Many were the expressions of approval of the ideas advanced by Mr. Marshall on this subject so near to the hearts of our Kansas people. The address was too long to reproduce in full. We have made liberal extracts from it in what follows.

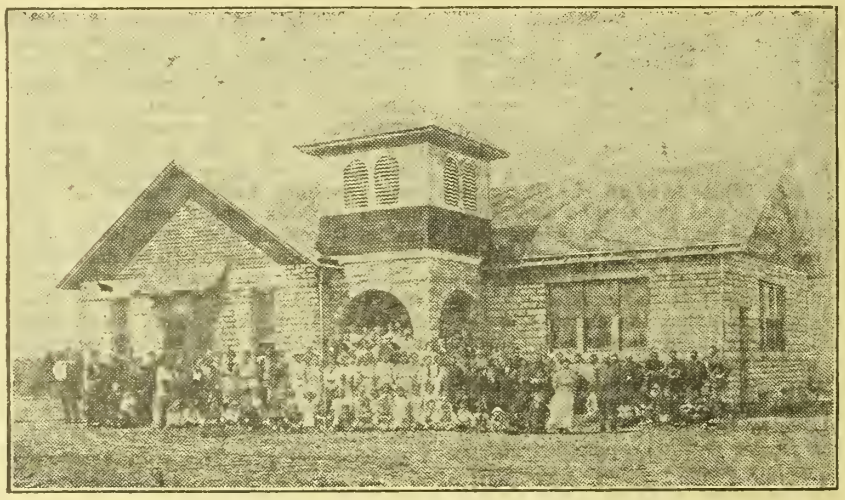
There was never a time in the history of agriculture when it was so vital and important to the farmer and as possible to make preparation for the future as now. You can make your war preparation and do the things you will be called upon to do during the next one, two, or three years, and at the same time you can lay a foundation for a successful agriculture after the war. It is my notion that most of the people will live after this war according to the foundation which they have builded during the war. I do not believe there will ever be a time in the world's history when agriculture will be so important an industry as then. Nor do I believe there has ever been a time when efficiency will count for so much in agriculture as after the war.

Do everything you have to do each day on the land by some better method, some method more effective than before. It will count for so much. There never was a time when it was so vitally important that the farmer should see that his boys and girls who are going to engage in agriculture are brought up in such a way as to be fit for their business. That is one of the serious problems that farmers have on their hands today. This war has done some things. It has made it easier to make changes. Your country took over the railway systems of the country. When the war broke out the British government took over the railways, and there was nothing said about it. It probably would have taken years of agitation and years of work to have brought the people of the country up to the point where they would have sanctioned that action. But all countries are doing things today that are different from the times of peace, and I believe there was never a more opportune time in the history of agriculture for a man to see that something practical is done in the way of establishing agricultural education for the boys and girls who are going to farm the land.

I never heard a public-school teacher, while I went to school, say that he had an ambition to settle down and be a farmer, or to be the best farmer in the neighborhood, or that he could be one of the best citizens of the country in that way. Oh, no! They said, if we worked hard and stayed home nights, after a while we would be able to pass the entrance examination and get into the high school; and afterwards, when we got through the high school, we could get a certificate and become a public-school teacher, and after we taught a while we could go to college for a while and turn ourselves out as a professional man and live in some town or city. That was the ambition that was handed out to every boy and girl that attended a public school when I did.

How often have you heard a farmer's wife say that she hoped her boys and girls would never have to live on the farm; that she wanted them to have an education and go into town and have some comfort and enjoyment out of life? You have all heard that. You hear them talking that way every little while, and every once in a while you hear the expression, "Poor girl; she married a farmer." Now it is that opinion in the minds of the men and women that ails this whole business, and if you make agriculture what it should be in this country you have to get beyond that. Get the boys and girls to understand that the things they have to do on the farm every day are as interesting and require as much intelligence and knowledge and education as any other business or calling in life. When you have done that, you are making a success.

I was much instructed by a remark made to me by a young friend who was in Flanders, and who was wounded and returned to Canada. He said that one day, in walking through Belgium, he came to a little school house that had been demolished by a shell, and in poking around among the plaster and debris they found some of the school books of the children, and he picked one up, and in looking through it he could not make it out. He could read only English. But there was a man with them who could translate it. This man translated one of the lessons in this book, and the lesson he translated read something like this: "My father owns a horse. The horse is a good, strong horse because his back is short. The horse is a good horse because his feet are sound." And when I compare that with the stuff I studied about "the cat caught the rat, the cat has a mouse," I do not wonder that some of the Belgian children knew something about agriculture, because one of the fundamental things in their educational training was to teach them about things on the farm. That is where we will have to get before the close of this war, if we are not going to handicap our boys and girls for the next generation in the agricultural struggle that is going to take place all over the world.



CLOSING DAY AT DISTRICT NO. 7, RILEY COUNTY.—ONE OF THE MOST PROGRESSIVE COMMUNITIES OF KANSAS

You have in many of your states splendidly kept agricultural colleges that are doing good work, and we have a number in Canada of the same kind. They are doing good work for every boy and girl that they can get hold of, but the difficulty is that they are able to reach only a small percentage of them—the future farmers and farmers' wives of our country.

We have put off too long the matter of the educational system which brings agriculture within the reach of the boy and the girl on the farm. We must give them a training in the primary school and through the entire school course: give them a scientific training, the kind that is necessary if they make successful farmers. If we do that we are getting over the difficulties of the agricultural education.

Nothing has blocked the progress of agricultural education so much as the prejudice of the farmers themselves. I can remember the time when it was considered a sort of disgrace for a man to send his son to an agricultural college. He was a good boy lost to the community, a boy that might have been a useful farmer if he had not been sent away. If he came back they never expected him to amount to anything afterwards in the way of a good, practical farmer. Perhaps our system had something to do with it, because farming is something that you cannot learn out of a book. But if you know something of the practical end of it, you can learn a lot from the experience of others who tried the same thing and made a failure or a success of the work. But we are now breaking down the prejudice that existed in the minds of the farmer in respect to scientific training in agriculture.

Anybody can learn out of a book, but you must learn something from practical experience. I believe a man can become a good farmer through the mistakes or successes that he makes on his own farm, but it takes sixty or seventy years for him to do it. I believe that it is important not only that they have the experience, but that they should be sent to the schools and colleges of the country, where they are taught the scientific end of the business, and where they will get the experience of others and the knowledge and the understanding of the things they are doing on the farm.

There is nothing that is stranger, after all, than the truth. I was much struck by a statement made to me by a man who has a boy that attended our school. He stopped me one day and said to me, "I want to tell you something. My boy went to your school of agriculture. I didn't send him to learn anything, as he was going to leave home anyway. He was sick and tired of working from five o'clock in the morning until ten o'clock at night and never getting through, and he was going to the city and get one dollar and fifty cents a day for working. He was going away from home. He went and attended the college, and when he came back he was a different kind of a boy." The man said that before the boy went to college he had had trouble in getting him to get the ground into condition for planting the crop, but that after he came back the trouble was to get him to sow the crop that he wanted put in. The boy wanted to put the ground in the best condition of any land in the neighborhood. He said that he would tell him to sow the crop and the boy would reply that he had to harrow it and run the packer over it before planting. He said the boy didn't know anything about this business last spring but that he had been learning something about what harrowing meant, and the conservation of moisture, and the condition the land should be in, and that he could not afford to do anything else. He said he was in school last winter, and if he didn't have the best crops in the neighborhood he would be disgusted.

Now that is the condition of a great many boys. In one case they do the work because they have to do it, and in the other case he was doing it in a scientific manner and because he liked to do the work, and because he believed that anything that was worth doing was worth doing right. I saw that crop last summer, and it was the best yield in that neighborhood. If we can get into the hearts and minds of the boys and girls on the farm how to do the work in such a manner that their everyday occupation and work will give them some pleasure, they will make good. After all, what do we get the most of our fun out of? Out of our work. We get some pleasure out of what we call nonsense, but after a man gets past middle life the only fun that he has is work. And if his work is drudgery he does not get much fun out of it. But if he is engaged in a business he understands and working at something he likes, and finds that he knows why he is doing it, he will make a success out of it.

That is why the live-stock farmer is the greatest in the world. There is no finished product of any factory that can compare for a moment with the finished product of the farm in the way of splendid hogs, sheep, cattle, or horses. I would be willing to work after six o'clock to look at a nice calf in a box stall. And if you can get the boys and girls of this country to understand and appreciate what live stock is, what it means to be a good breeder, what a man can do in this world and accomplish in a lifetime if he is the best breeder in the country, then you can interest him in staying on the farm.

After all, what is the greatest thing a man or a woman can do in this world? It is to build a home. There are a lot of things we spend time about, but after all the greatest thing a man or woman can do is to build a home. There is only one place to build it, and that is on the farm. What we want to get into the minds of the young generation is something to inspire them in this matter of the best and greatest thing in life. I find that you are making great progress along that line. We must get better and more comfortable homes upon the farm than anywhere else. Who is there that deserves more comfort in the home, or as much comfort, as a farmer's wife and daughter? Teach them to appreciate it.

It doesn't make much difference about you. You go to town, and sometimes they go with you; but give them all the pleasure there is in a good home, and the pleasure and enjoyment there is in living in the country. Because we have not done this we have given the farm a bad name. It is up to the farmers to rescue it from that bad name. Teach these people in town that they don't know how to live; that they do not have the opportunities and privileges that the men have that live on the land. We must make conditions such that the woman will be glad to live on the farm and be more contented than if they were in town. I do not know why anybody wants to walk on the hard boards and sidewalks when they can have the green grass to tramp through, and I think the day is not far distant when men will spend more money on the homes on the farm than ever before.

I do not know whether the farmers throughout this country are land hungry or not, or whether when they get a few thousand dollars they want another quarter section of land. If you have made money, don't buy more land, but improve your home conditions. This buying of more land all the time is what has driven the boys from the farm. When a man has plenty of land and wants more, in nine cases out of ten he buys it for himself. The boys have to get up at four o'clock to feed, and the hay is ready to be cut, and they must go into the harvest. They must keep going all of the time, and they do not quit until ten o'clock at night, and then they get up again at four o'clock in the morning and nearly meet themselves coming downstairs. That is not a farm. It doesn't help to make men and women stay upon the land. If you will not conduct the kind of a farm that makes you glad to live upon the farm, then quit farming and dig ditches. That is what we have got to do with the agriculture of this country.

We have got to get the best out of it there is in it and get the boys and girls to understand and appreciate the things they can do on the farm, and that scientific training and education will make the home life on the farm the best place to live. This country has to depend upon the farm. There is a great deal of talk about going back to the land, and I have no objection to their coming back. They have all kinds of schemes to get them back, and they are getting recruits from the fellows in the city. All you have to do is to turn them loose. I am interested in saving the boys on the farm for the farm and keeping them from the city, and in keeping them in the only way there is to keep them—making it possible for them to enjoy the farm more than to live in town. Of course some of the boys must go and save the cities. They

(Continued on Page Seven)

MORE AND BETTER WHEAT

Increasing Yields by Planting Seed of Improved Variety.

EVERY additional bushel of wheat which can be secured by growing a better variety is clear gain. It requires no additional land, labor, or expense. Kansas is fortunate in having an improved variety ready for extensive distribution at a time when maximum production from the fewest acres possible, with a minimum of labor, is the goal towards which we must work. An increased yield of 3.6 bushels to the acre means an extra $7.20 for every acre planted, in the pocket of the farmer who plants Kanred wheat.

These statements were made by President W. M. Jardine of the Agricultural College in an address in which he told of the work of the experiment station in developing the improved variety of hard winter wheat now officially known as Kanred.

Economic Value of Kanred

"As a result of the crop improvement work at the Kansas Agricultural Experiment Station," said President Jardine, "a new strain of hard red winter wheat has been developed which is superior to the varieties commonly grown in Kansas in yield, milling value, and hardiness. This wheat is Kanred, a member of the Crimean family. The history of Kanred extends back to 1906 when the original head selections were planted. Outstanding characteristics were indicated from the first. Enough seed had multiplied by 1911 to sow field plots. Since 1914 Kanred has been grown not only on the experimental farms, but in co-operative tests with farmers throughout the hard winter wheat belt. Kanred has been grown in seven tests on the experimental farm at Manhattan, in six tests at the substations, and in sixty-seven tests with farmers. It has given an average increased acre yield compared with Turkey of 4.5 bushels at Manhattan, 3.4 bushels at the substations, and 3.0 bushels in co-operative tests with farmers, or an average difference for all tests of 3.6 bushels.

"The normal acreage of hard red winter wheat harvested in Kansas each year is 7,000,000 acres. If Kanred were substituted for the varieties now grown, the average yield would be increased over 25,000,000 bushels, worth at the present price $50,000,000.

Seed Available for Fall Planting

"More than 8,000 bushels of Kanred seed were distributed for planting the fall of 1917. It is known where every bushel of this is planted and all the seed produced will be recorded at the experiment station. Between 80,000 and 120,000 bushels of seed of Kanred should be available for planting this fall.

"It is not enough that a strain of wheat outyield other strains. It must also excel in milling quality; that is, a bushel of Kanred wheat must produce as much flour as any other strain, if not more. Kanred does this. Milling and baking tests of Kanred have been made since 1912. Both the wheat and flour of Kanred have a higher protein content than Turkey and Kharkof. Kanred yields a higher percentage of flour than Kharkof, and has a loaf expansion equal to Kharkof and better than Turkey. The color and texture of the loaf is equal to or superior to both of the other standard hard winter wheats.

"Other promising strains of wheat are being developed at the experiment station. Kanred may be supplanted in a few years by a still superior strain. The limit to wheat improvement has not been reached. A strain may be developed which is resistant to Hessian fly, to chinch bugs, or to winter-killing.

President Jardine also pointed out that plants are similar to animals in that they respond generously to kindly treatment. Kanred wheat for seed will be expensive and cannot be expected to pay as it should unless given the right kind of conditions under which to grow, any more than a high-priced, well-bred animal will pay unless it is given reasonably good care.

Prepare a Good Seedbed

"Our experimental studies and the experience of the best farmers indicate that best results are secured from early plowing. If possible, plowing should be done in July, fairly deep, six to seven inches, so that plenty of plant food may be developed for the coming plants. If for any reason plowing cannot be done in July, then it should be done at the earliest possible moment. In tests at the experiment station, ground plowed on July 15 has yielded 1.3 bushels more wheat than land plowed August 15. Ground plowed August 15 has yielded 5.9 bushels more than land plowed September 15. But early plowing will not do any good if it is forgotten until planting time and weeds are allowed to grow and sap the plant food from the soil. After the ground is plowed, keep it free from weeds.

Plant at the Best Time

"You should study the best time to plant wheat with respect to moisture conditions of the soil, location in the state, and danger from Hessian fly. Other factors being equal, early planting will produce more wheat than late planting, but if injury from Hessian fly threatens, later planting is necessary. Field investigations show that it is unsafe to sow winter wheat anywhere east of the western third of Kansas earlier than September 25 in Northern Kansas and October 5 in the southern part of the state, if there is danger from Hessian fly. If there are no indications of Hessian fly, sow a week earlier than these dates.

Rate of Seeding

"The earlier wheat is planted, the more lightly it may be sown. In tests conducted at the experiment station wheat sown on well-prepared ground during the first part of September at the rate of two pecks to the acre, has yielded as well as other plots seeded at higher rates. The longer seeding is delayed, the more seed is required for the best yields. If seeding is delayed until the latter part of October or the first of November, experiments show that seeding eight pecks to the acre is much more profitable than sowing a smaller quantity.

Improving Crops Station Job

We cannot overlook the importance of crop improvement as carried on at our Experiment Station. It is fairly easy to improve herds of livestock, for the individuals are comparatively few in number and the results are easily noted. This is not so with grain crops. A field of wheat or other cereal is composed of countless individuals, each of which differs in its breeding capability. The process of improving farm crops requires trained observers, constant attention, continual selection. Great care must be exercised to keep the seed unmixed. Careful records must be kept and correctly interpreted. Many different factors of climate, soil, insects, and plant diseases may affect results and must be taken into consideration. Special apparatus and machinery must be devised. A promising strain must be tried out on the farms of farmers as well as on the experimental farms, and continue over a number of years, before results can be considered conclusive. Improving farm crops is a job which, for the most part, must be delegated to the experiment station.

Do not forget that it is known exactly where over eight thousand bushels of Kanred wheat were sown last fall. The 80,000 to 120,000 bushels of this new variety harvested this year can be thus located as a source of seed supply for this year's planting. Any farmer desiring to secure Kanred seed for fall planting should write to the agronomy department of the Agricultural College at Manhattan at once.



EIGHT-ACRE FIELD OF PURE-BRED KANRED WHEAT ON EXPERIMENT STATION FARM. — DEVELOPED FROM SINGLE HEAD. — SINCE 1911 OUTYIELDED ALL OTHER VARIETIES ON COLLEGE FARM.—ON FARMS OVER STATE HAS YIELDED 3.6 BUSHELS MORE AN ACRE THAN ANY OTHER VARIETY FOR PAST THREE YEARS

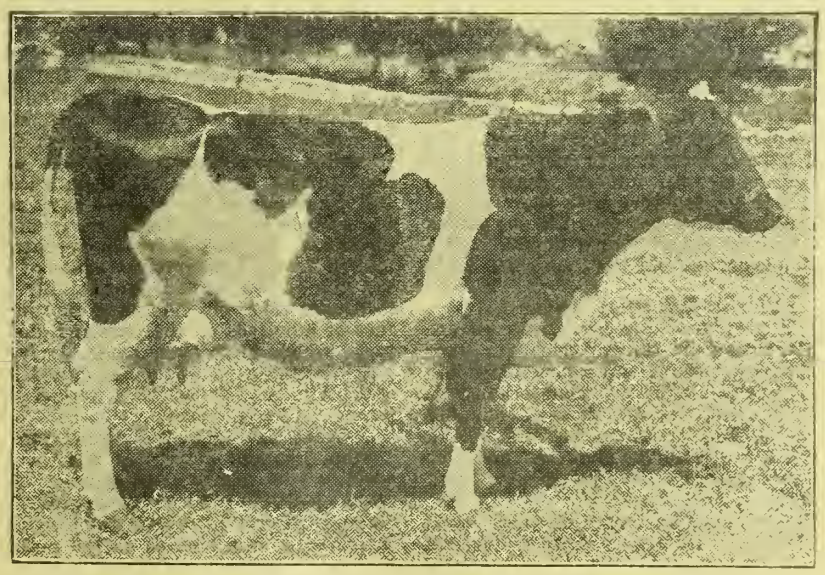
New Kansas Record

A YEAR'S record of 18,377.2 pounds of milk and 693.8 pounds of butter fat, equivalent to 867 pounds of 80 per cent butter, has just been made by Maid Henry Pontiac, a pure-bred Holstein cow owned by the Kansas Agricultural College. Her mother was the famous Maid Henry having a record of 19,600.4 pounds of milk and 716.3 pounds of butter fat in one year at thirteen years of age. This is the only official year's record in the state exceeding that of Maid Henry Pontiac.

Professor Reed points out that this record of the daughter of old Maid Henry is the highest of any living cow in Kansas. It was made in her third lactation. Her three years' record is as follows: First year, 11,686.8 pounds of milk, 415.77 pounds of butter fat; second year, 15,334.9 pounds of milk and 523.65 pounds of butter fat; third year, 18,377.2 pounds of milk and 693.81 of butter fat; a total for the three years of 45,388.9 pounds of milk and 544.41 pounds of butter fat.

Maid Henry Pontiac is one of the large cows of the breed; she has weighed as much as 1950 pounds. The fact that Maid Henry Pontiac and her mother have both made large records of production and state records, shows this to be a remarkably prepotent family.

Maid Henry was bred and raised on the college farm. With this record she supercedes the pure-bred Ayrshire Canary Bell, also a college cow, as the highest record cow living in the state. Canary Bell has held the honor for over a year.



MAID HENRY PONTIAC, PURE-BRED HOLSTEIN COW OWNED BY KANSAS AGRICULTURAL COLLEGE

Thousands die every year from overeating—don't dig your grave with your teeth.

SOME NEW FASHIONS IN FOOD

Use of Drying Method of Preservation of Great Economic Importance

THE young husband who insists that every dish prepared by his bride be exactly like those that "mother used to make" is a perennial source of amusement. However, the threadbare joke contains a germ of truth. We are all inclined to prefer the food we have been accustomed to eating and to look askance at something unfamiliar.

"When you brand a food as not fit to eat, how do you arrive at that conclusion? If it is a food that you have never eaten before, how do you know that you are right? If it is one with which you are familiar, how do you know that the difficulty does not lie in the manner of its preparation," pertinently questions David Fairchild, agricultural explorer in charge of foreign seed and plant introduction of the United States Department of Agriculture, in a thought-provoking article in the April number of the National Geographic Magazine. "It is a complicated question, this seemingly simple one of taste," he goes on to say, "and it involves the whole history of the race; and, strangely enough, it is one with which our big educational institutions have concerned themselves very little. It has required great wars to shake people's confidence in their own fixed opinions on this matter of taste in foods.

"It appears to be instinctive to ridicule a new flavor of any kind, especially if it is widely different from those to which one is accustomed. During the Civil War we learned to can fruits and vegetables. Does anyone imagine that there were not many thousands who scorned to touch the canned stuff? It has a different taste from the fresh, and to condemn it as not fit to eat was the fashionable and the easy thing to do.

"The importance of possessing a wide taste in foods has never appealed to us as strongly as it should have, although Americans have made greater progress in this field of dietetics than most other peoples. We have not seen any particular advantage in it, and we have spent more money in the education of our children in art and music than in their instruction in the nutritive value of different foods.

"But food has come to have a new meaning," says Mr. Fairchild, "and one of the lines which this war has made plain is the dried vegetable, an old product which now has a new interest.

Vegetables Furnish Vital Principles

"Why do we eat vegetables at all? They are expensive to transport on our railways, they are bulky things to handle in our kitchens, they rot easily and fill our garbage cans, and many of them require a great deal of labor to grow. The Italian peasants, according to Graham Lusk, a noted authority on foods, have built up their strong working bodies on the simple diet of corn meal, beans, olive oil, and the leaves of the cabbage and the beet, with garlic and Spanish peppers for flavoring. It is these Italian peasants who for years have done the heavy construction work of our railroads, getting rich because they are willing to live on their cheap foods, while side by side with them work the Southern darkies, who have demanded meat twice a day and paid any price for it."

Some experiments with rats conducted by Dr. E. V. McCollum at the school of hygiene and public health of Johns Hopkins University, where the dietary values of our common foods are being studied, show that the secret lay in the use of green vegetables. Rats will starve, and men, too, on Indian corn alone. They will do better, although not really well, on corn and olive oil; but on corn and oil, with the addition of greens of some kind, they thrive and reproduce.

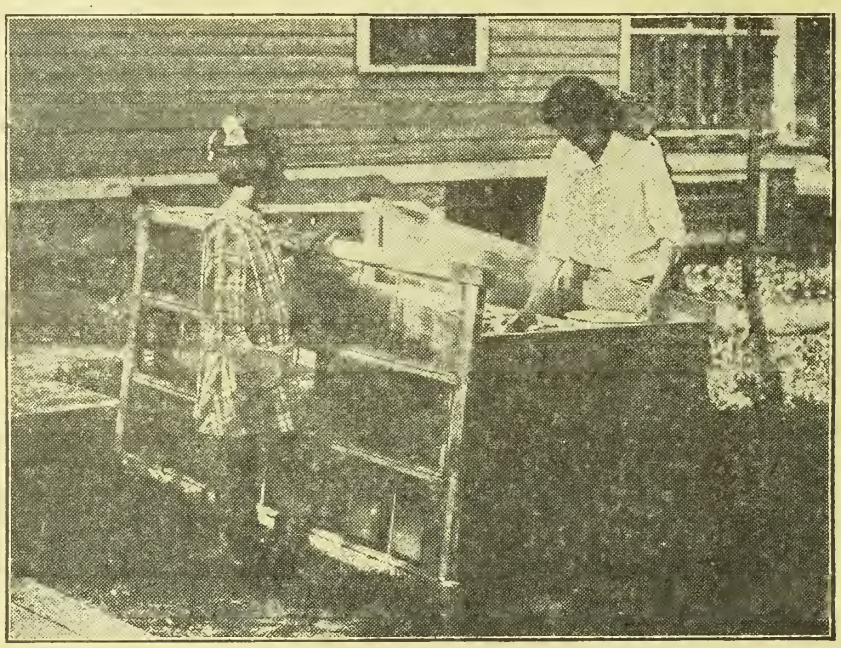
Mr. Fairchild points out that the human machine is, after all, a simple one in many ways and can take its fuel as well from cheap as from expensive foods, but it must have all the different kinds needed or it will run down quickly. Starches, fats, proteins, minerals, and water, are the five great food groups for which we are accustomed to planning in our diets; but until recently we have not known about two others which are essential to health. To distinguish them, research men have called them the "fat soluble A" and the "water soluble B." In ordinary language we have adopted the term "vitamines" for these unknown substances. The first named of these is present in the fat of milk (butter fat) but is not present in vegetable oils nor commonly in the cereals or foods coming from the seeds of plants. It is, however, a characteristic of green vegetables and is particularly abundant in the green leaves of plants.

The "water soluble B," on the other hand, does occur in cereals, particularly in their outer layers, and in green vegetables, as well as in a very large number of other foods.

What Are Strength-Giving Foods?

"The South Italian peasants build up their strong, powerful bodies, then, from the proteins and starches of their corn polenta and from their green vegetables," says Mr. Fairchild. "They get their fats from the olive oil, and their 'fat soluble A" is taken from the green vegetables. Their 'water soluble B' is obtained from both the corn and vegetables, for it is present in both.

"The old doctrines of 'strength-giving foods' must be analyzed from the new standpoint of the presence of these two newly-discovered substances—substances apparently as essential to us as salt, but whose absence unfortunately we cannot detect by taste as we can the absence of salt."



HOME-MADE DRYER PATENTED BY THE KANSAS AGRICULTURAL COLLEGE AND THE IDEA GIVEN TO THE PEOPLE.—COMPLETE PLANS FURNISHED FREE FOR THE ASKING

From these facts it is evident that we must have vegetables; the trouble is that we like our vegetables fresh, and it is very difficult to get them really fresh at a reasonable price. It is just because we like fresh string beans that we bring them, at $8 a crate, from the very tip of Florida in February. Our bodies get no more food from string beans at $8 a crate than they do from dried ones at a fraction of the cost, according to all the experiences of Arctic explorers. The food values, according to McCollum, are not changed; the mineral constituents are all there, together with the "fat soluble A," which is not found in the grains and without which young human bodies cannot grow nor old ones maintain their vigor.

Learn to Eat Dried Vegetables

"Old prejudices die hard, but we are now eating some things which our forefathers scorned or of which they had never heard. With everyone saying 'It can't be done,' the American is changing his habitudes, his tastes in foods. And now the supreme moment has come to put this characteristic of the American civilization to account.

"To get into the habit of using dried vegetables would result in a tremendous change in the agriculture of the world. It would create demands for the products of plants which are now grown in comparatively restricted areas, and these areas would extend.

"The sweet potato is one of the plants which would be affected at once, for its limiting factor of cultivation is its poor keeping quality and the fact that it rots if exposed to a temperature below 45 degrees. It already ranks second among the vegetables grown in this country, notwithstanding its perishability. Dried sweet potato slices form one of the most successful of all dried vegetables, for they 'come back' when soaked, retain their sweetness and flavor, and can be dried or candied in a most appetizing way.

"While the sweet potato has not as much protein as the white potato, it has much more sugar—towards the close of the storage season it has as much as 27 per cent, reckoned on the dry substance. It is richer in carbohydrates, and produces flour of great excellence.

Drying Factories Being Established

"But the white potato situation has proved in this present emergency an even greater problem than that of the sweet potato, for the car shortage has been so great in Colorado, Michigan, and Idaho, that immense quantities could not be moved to the markets. Orders for dehydrated potatoes for the United States Army amounting to many thousands of tons and the hotel demands for potato flour have brought into existence large factories which are saving millions of bushels. Had these been started earlier, any considerable wastage would have been prevented.

"Some of the best hotels in the country have tried the dried sliced potatoes, some of the best restaurants, some of the most fastidious people, some of the best cooks, and the general verdict is that when properly processed and properly cooked they are almost indistinguishable from the fresh product, either as mashed potato or when French fried.

"After most careful trials the army has learned how to use them successfully, and one of the largest navy cooking schools has reported most favorably on them. In food value, in appearance, and in flavor, they are the equal of any but the potato fresh from the hill.

"Under these circumstances and in the face of hundreds of analyses and dietetic tests which have been made, is it the patriotic thing to wonder and hold back and hesitate as to whether we can learn to use dried potatoes?

Great Saving in Transportation

"One hundred pounds of fresh tubers yield about sixteen pounds of dried slices, containing 10 per cent water, and these, if ground into flour, take up about one-fifth as much space as the potatoes in their original state."

The dehydrated potato has played a gigantic role for many years in Germany. Even before the war, it is reported that more than 800 million bushels—more than twice the average potato crop of this country—were being dried each year for human and stock food. Now there are 1,350 factories devoted to potato drying alone, and practically all of the war bread used in Germany has a high proportion of potato flour in it.

The Germans must laugh in glee at our inefficient wasteful methods of growing and handling potatoes. "That the stabilizing of the potato crop is of the utmost importance has been recognized in Germany for many years," says Mr. Fairchild. "But in the United States the price the farmer receives varies greatly, according as there is a surplus or a scarcity. When the potato harvest is a large one, he is apt to lose money on his crop, and, being discouraged, next year he puts in something else. If there is a shortage that year, potatoes bring exorbitant prices and he sees big money in them, and the following year he puts in a big acreage, as do thousands of others. Perhaps the year is a good one for potatoes and the yields are 25 per cent higher, and again he is deceived and loses out financially. A permanent market for potato flour in the United States would stabilize potato growing and make it less of a gamble than it is now.

Economics of Dried Tomatoes

"The tomato offers an even stronger argument for dried vegetables than the sweet potato or the white potato, when viewed from the newer standpoint of food value and car space. Fifty years ago we refused to eat the tomato because we believed it was poisonous; then we became so fond of it that we demanded it both in and out of season, even though it has to be grown thousands of miles from our markets, in the South or under glass.

"Later we learned to can this vegetable in great factories, and because we want our tomatoes stewed instead of as a sauce for macaroni or rice, we insist that the vast majority of our put-up product shall be in form for immediate use—emergency ration shape; in other words, canned without being concentrated into paste, which is the way the Italians use their tomato flavor. In this dilute form 360 million cans of tomatoes are shipped over the country.

"There are two pounds and one ounce of tomatoes in a can, or a trifle over 1.8 cents' worth, and in a case of twenty-four cans, which sells for $4, approximately 43 cents' worth of tomatoes as picked in the field. This not only means that we ship the tin cans in which the canned tomatoes are contained, but that we first ship the same number of tin cans from the factory where they are made to the cannery where they are filled.

"We have never learned, and have never had to learn, until this war's necessities forced the matter to our attention, that the tomato can be successfully sliced and dried; that it retains its characteristic flavor and aroma when so dried; that when soaked in water for four or six hours it comes back and makes a delicious sauce or soup, slightly sweeter than the canned tomato. For many of the ordinary uses of the household the dried tomato is as satisfactory as the canned product. One ton of good tomatoes, after peeling, trimming, and packing in cans, will weigh approximately 2,300 pounds when crated for shipment, whereas the same quantity, when dried and boxed, is reduced to only 200 pounds, or about one-twelfth as much."

Even cabbage can be dried successfully and brought back without losing its flavor. Dried carrots, beets, peas, and string beans are practically indistinguishable from the fresh; spinach, which is so often tasteless when canned, turnips, onions, cauliflower, Brussels sprouts, mushrooms, squash, pumpkins, and parsnips, all are successfully dried, particularly so by the newer and better regulated power-fan drying processes which have been adapted and invented by various American drying firms.

Mr. Fairchild calls attention to the fact that these commercial products are more uniform and of much more attractive appearance than the home-dried products, taken as a class, for the reason mainly that they are dried more rapidly, under more carefully controlled

conditions of moisture and heat. When put into water they come back to almost if not quite their original dimensions and appearance.

In urging the consumption of dried vegetables because they are economical he does not wish to be understood as discouraging the home canning of such vegetables as are successfully canned. Canned vegetables, while they will cost more, will always have the advantage of the emergency ration; they require only to be warmed and for certain recipes they will be required.

The local drying of vegetables by means of community drying plants of suitable size, with adequate safeguarding appliances, is suggested as a means of stabilizing prices of those perishables which are so often grown at a loss because of over-production or a faulty system of distribution.

There should be no discouraging, however, of home drying. Their reduced bulk and their excellent keeping quality should make it possible for thousands of women experts to carry on a paying business in their own special brands of a superior quality of dried vegetables, standardizing their product and making their own reputation by doing so. Once the demand for dried vegetables is general, the commercial field is open just as it is now to home-canned products.

Campaign for Dried Products

What is needed now, points out Mr. Fairchild, is concerted effort to induce the American public to use dried vegetables, really to want them, and, having once tried them, to continue to use them. The demand will bring the product, and this product may be expected to improve in quality and attractiveness as the art develops, just as has been the case with every other food which American ingenuity has developed.

We now produce nearly $35,000,000 worth of dried fruits every year, and consume them in the form of apple sauce, apple pies, stewed prunes, stewed apricots, and stewed peaches.

Cooking Methods Important

It is important that the housewives learn the handling of dried products. They are not to be handled as though they were fresh vegetables, and they require a different treatment from the vegetables which have stood for months in the water of a tin can. The moisture has been almost entirely taken out of them, and it requires time for this moisture to be re-absorbed. This process takes from six to twenty-four hours, and cannot well be hurried. The cooking should approximate the process of the fireless cooker. The vessels in which the dried vegetables are cooked should be kept closed and as little steam as possible allowed to escape. The tendency to be guarded against is that of having the vegetable too concentrated—adding too little water or allowing too much water to escape in the form of steam.

It is not possible or desirable to shift immediately and wholly from the fresh and canned vegetable diet which we now have to one composed entirely of dried vegetables. This is impractical. What is wanted is the co-operation of the households of the country in a country-wide experiment in the utilization of these foods. What the future holds for all of us no one can tell. The production of thousands of tons of this form of food cannot be other than a safeguard of the utmost importance.

"How is the production to be stimulated?" asks Mr. Fairchild. "Only by a demand for it. Let the women experiment at once with the different brands of dried vegetables on the market and demand those that they like from the retail dealers. The supply will be forthcoming as quickly as the vegetables can be grown.

"Should a hundred thousand intelligent women order, to be delivered C. O. D., a few dollars' worth of these vegetables from the different reputable dealers, an immense stimulus to the art would be given, and a wide test would be made which would open the way to the permanent introduction of the modern dehydrated vegetable, which is essentially a new and most economical form of food."

The following firms are given as willing to furnish samples of considerable size at cost, and will send them C. O. D. to anyone who writes for them. They cannot afford to send them free, as the samples must be of considerable size to furnish material for several tests:

American Dehydrating Company, Waukesha, Wisconsin.
Anhydrous Food Products Company, 326 West Madison Street, Chicago, Illinois.
Harry Bentz Engineering Company, 90 West Street, New York City.
California Scientific Food Corporation, Los Angeles, California.
Casnovia Dehydrating Company, Casnovia, Michigan.
Dayton Evaporating and Packing Company, Dayton, Oregon.
The Everfresh Company, Ogden, Utah.
Farm Products Company, The Dalles, Oregon.
The Flanders Company, Detroit, Michigan.
J. H. Fowler Company, Westfield, Massachusetts.
Fullard Drying Products Corporation, 119 South Fourth Street, Philadelphia, Pennsylvania.
E. Clemens Horst Company, 235 Pine Street, San Francisco, California.
Dr. J. F. Kelly, Pittsfield, Massachusetts.
Luther Manufacturing Company, Walla Walla, Washington.
Mark Process Drying Company, Chicago, Illinois.
Northwest Evaporating Company, Cashmere, Washington.
Penn Yan Cider Company, Penn Yan, New York.
R. L. Pitcher Company, Caribou, Maine.
Staps Fisheries and Packing Company, Neillsville, Wisconsin.
Webster Products Corporation, 90 West Street, New York City.
The Weiser Products Company, Weiser, Idaho.
Wittenberg King Company, Portland, Oregon.
The Williams Company, Greenville, South Carolina—sweet potatoes only.

In closing, Mr. Fairchild states that it should always be kept in mind that this dried-vegetable industry is a new one, and that the quality of the product prepared by the different firms varies greatly. Some are, no doubt, doomed to failure, whereas others are so excellent that they are bound to succeed. To praise or condemn all makes of dried vegetables from the sampling of a few brands is to generalize too quickly.



HUNGER

For three years America has fought starvation *in* Belgium

Will you *Eat less*—wheat meat—fats *and* sugar that *we* may still send food *in* ship loads?

UNITED STATES FOOD ADMINISTRATION

We should not overlook at this time the importance of the grain sorghums. To 700 million people of this world grain of the sorghums is the staff of life. Continued development of the use of grain sorghums in Western Kansas should not be retarded because of our great need for wheat at the present time. Much can be accomplished by developing strains and varieties especially adapted to the condition. A judicious combination of live-stock farming, with wheat perhaps as the main cash crop, but grown only as the labor available makes it possible to prepare the seed bed in season and in a proper manner, will bring permanence to our Western Kansas agriculture.

Luxuries as usual means a victorious Germany. Save and buy War Savings Stamps.

National War Savings Day is only one day; our men in the army and navy have their day every day.

Extravagance costs blood, the blood of heroes.—LLOYD GEORGE.

Agriculture in Our Schools

(Continued from Page Four)

need some good lawyers and good surgeons and a few merchant princes, and all of these men have come off the farm. We have to give them a few of these. In the great cities like London and New York they would not have amounted to much if it had not been for the boys from the agricultural districts. We have to give them a few of our boys. But our main business is to induce our boys and girls by education and training, and teaching them the opportunities of the land, to make their homes there and to build up this country into the great country of which we are so proud today.



Corn Harvest Help

WHEN you are wondering where on earth you will get help to cut or husk your corn this fall, remember this:

An International Harvester corn binder, with one or two men to handle the job, will cut six to eight acres a day, bind the corn into neat, easily handled bundles, and load them on a wagon to be hauled to ensilage cutter or husker and shredder.

Or, if you must leave the stalks in the field, a corn picker will take off all the ears, husk them, and load them direct into a wagon, also at the rate of five to seven acres a day.

If you use a binder, you get all the crop. If you use a picker, you get all the ears. The same help that planted and cultivated your corn can harvest it, at the right time, and at the lowest possible expense.

Deering, McCormick, Milwaukee, or Osborne Corn Binders
Deering or McCormick Corn Pickers

furnish the best kind of corn harvest help. There may be enough of them to go around this fall, but if you want to be sure of having your machine in time, place your order with the local dealer, or write to us for full information, just as soon as you can.

International Harvester Company of America
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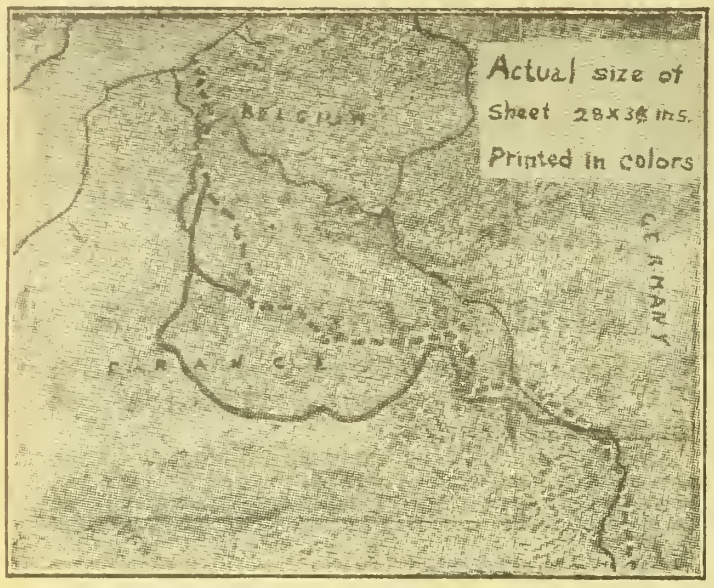

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The Kansas Farmer War Front Map is now ready for distribution. It contains the utmost information possible, showing the whole field of operations, the Western front, the Italian front and the Russian front.

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KANSAS FARMER DAIRY CLUB

Remedy for Garget

GARGET is a disease of the udder that is often quite troublesome in dairy herds. Last week Harold Bentz, of Peabody, one of our Dairy Club boys, wrote that one night one quarter of his cow's udder was swelled up hard and the next morning she gave lumpy milk. Perhaps other members of the Dairy Club have had similar trouble. We wrote to Dr. R. R. Dykstra of the Agricultural College, giving the symptoms and asking him to tell how to treat the trouble. His reply is as follows: "The cow is affected with garget due to infection. I believe that it may be readily overcome if you will give her one-eighth ounce of formalin mixed with a quart of water and administered as a drench once a day until ten doses have been given.

"This cow should be milked last of all because otherwise there is danger of spreading the disease to the other cattle. The milk should not be used in any way as long as the quarter is diseased. It is better to destroy it by adding a lot of hog dip to it."

We would like to call the special attention of our Dairy Club members to the infectious character of this disease known as garget. It is not understood generally that garget is the result of germs getting into the udder and that these germs can infect other cows unless the methods suggested by Doctor Dykstra for destroying them are observed. Formalin can be bought at any drug store. It is a commercial product consisting of formaldehyde gas dissolved in water.

Separator Pays for Itself

The centrifugal hand cream separator is almost universally used now, but there may still be a few who do not realize the serious disadvantages of raising cream by the old shallow pan method. In the first place, it requires a long time to get anything like a complete separation; too much surface is exposed to contamination during this period; the pans used require a great deal of space and handling; the skim milk is sour and not satisfactory as feed for calf raising.

There is also another very decided disadvantage. It is the incompleteness of the skimming or separation. Only 60 to 85 per cent of the fat is removed by this method. Each one hundred pounds of skim milk contains at least one-half pound of fat under the best conditions, and often as high as one and a half pounds. An average of at least one pound of fat is lost to the hundred pounds of milk. On the other hand, a hand separator should skim so closely that one hundred pounds of skim milk will not contain over one ounce of fat. This means that the farmer who is milking only five cows with an average daily production of two gallons for ten months in a year, will lose 215 pounds of butter fat during the year if he uses the shallow pan method. At 45 cents a pound, this is worth $96.75. A good hand separator can be purchased for $75 to $80. A new separator will save more than enough to pay for itself the first year.

Line Breeding or Out-Crossing

A study in prepotency of dairy animals which will occupy perhaps at least twenty-five years has been begun by the United States Department of Agriculture. The purpose is to determine whether prepotency in production is the result of line breeding or out-crossing. Cattle of each of the common dairy breeds will be used and the first animal to be selected is the Guernsey bull, Barrington May King, purchased from Sunnybrook Farm, New Jersey.

R. R. Graves, expert in dairy cattle breeding, traveled over the United States for six months in the attempt to select a bull of correct individuality and with proven daughters. A sire of the May Rose breeding was especially desired because the records show that this is a family with ear marks of persistent production.

Barrington May King has been a consistent winner on the show circuit, has a large list of proven daughters, and it was very fortunate for the Government to be able to get such a bull for this experiment.

The records show that Barrington May King is entitled to a very high place among the male descendants of Imp. May Rose King 8336, and that he is one of the breed's most prominent sires.

The United States Government has undoubtedly made a wise selection in picking this bull for the exceedingly important and interesting experiment which they are conducting. Guernsey breeders will watch the results of their work with keen interest. Equally well bred bulls of other breeds will without doubt be purchased soon.

Reference to the above experiment calls for a defining of the terms "line breeding" and "out-crossing." Those who would improve their live stock by breeding methods should become familiar with breeding terms and the practices followed. We must first define "in-breeding." By this is understood the mating of animals very closely related, as brother and sister, sire and daughter, or full first cousins. Line breeding involves mating animals less closely related. As practiced in live-stock improvement, however, it is more than this, for it means using one sire after another, each tracing back to the same individual. In this way it is possible to emphasize the influence of some particular animal that has proven itself especially useful as a producer or a sire of high producers. For example, a cow, the result of mating a sire and dam each having as a grandmother the same cow, might be mated to a sire having this same cow as one of his grandmothers. The resulting offspring, if a female, might again be mated to still another sire having this same cow as a grandmother. An animal having this sort of a pedigree is spoken of as "line bred." This kind of breeding is much practiced by careful breeders in building up high-producing strains.

By "out-crossing" is meant using sires that are absolutely unrelated. Such sires having the best of prodnction back of them might be used by a breeder instead of selecting sires tracing to the same individual. In this way each sire brings in a line of breeding entirely new. The experiment in question is planned to demonstrate which method is most effective in developing a high-producing herd. Breeders generally at the present time favor line breeding as a means of developing uniformity and the power to reproduce animals of high production.

All Milk Outlets Open

Milk is plentiful this year in nearly all parts of the country and every possible outlet has been opened to secure its full utilization without waste. Ice cream makers and condensers are getting their full and regular supplies of sugar and the public is asked to use milk freely.

The fact that some dairy products have accumulated in storage should be no cause for alarm, but rather a source of satisfaction. It must be remembered that no one can tell what turns the war may take. Seasons are fickle and the Allies depend on North America to protect them against famine. The Food Administration is consequently asking the American people to eat those things which are plentiful and will not keep well in preference to foods that can be shipped or saved for an emergency.

Flies are a great annoyance in milking cows. They are always at their worst during the hottest time of the year. Experiments have shown that flies do not have such a serious effect on the milk flow as was formerly supposed, but milking a cow while she is fighting flies is a most unpleasant job. For that reason alone it is worth while to use some of the fly repellants at milking time. These will give some relief and will make the cow stand much more quietly. On page 15 of the June 22 issue of KANSAS FARMER we gave formulas for some home-made repellants which give very satisfactory results. Just for protection at milking time it helps to have a gunny sack blanket to throw over the cow.

Nero fiddled while Rome burned. Many Americans are not substituting foods while their Allies starve.

Uniformity of products means increased profits, if products are properly marketed.



Heavy Feeding of Beef Cattle

MAKING beef from the rough feed of the farm should be the aim of the man handling beef cattle. In view of the unfortunate experience last winter of some feeders of heavy cattle, the continued high price of grain and the uncertainty of a continuation of the good prices well-finished heavy carcasses recently command, the United States Department of Agriculture is suggesting that feeders should concentrate their efforts on the production of economically short-fed cattle. Of course, this statement does not refer to baby-beef production which is a specialty within itself.

There is no question that for the last several years cattle feeders have been making beef too fat, that is, they have put more finish upon the animals than economy would justify. The idea was evidently in the minds of the Advisory Committee of Agricultural and Live Stock Producers appointed by the Department of Agriculture and the Food Administration when that committee recently made the following recommendation:

"We feel that cattle marketed at the present time in class 4 (long-fed or export and highly finished cattle,) and known as 'exports,' owing to the high costs of labor and feed, are not an economical product, and their production should not be encouraged."

Not only has the Advisory Committee thus warned against the heavy feeding of cattle, but it is also understood that the Government officials directing the buying policies of the Government will not consider themselves responsible for the prices of very fat cattle.

Recent experiments by various state experiment stations and the United States Department of Agriculture have borne out the fact that good beef can be produced by using a relatively small amount of grain, or with nitrogenous concentrates in connection with silage and some other cheap roughage in the form of hay.

The principle that should be followed in feeding operations is to reduce to a minimum the amount of high-priced feed and to make judicious use of cheap roughages. In other words, instead of feeding from 50 to 60 bushels of dry corn per steer in a long feeding period, as was the custom in the past, the quantity should be, and may be profitably, reduced to 15 to 20 bushels in a shorter feeding period, or the dry corn grain can be eliminated altogether, as the liberal use of good quality silage will furnish an excellent ration. The use of cottonseed meal, or other protein-rich feed, even though high in price, is to be highly recommended, because the higher other feeds are, the more profitable becomes the use of a protein supplement. Expensive hay may be completely eliminated in the ration by the use of a cheaper dry roughage such as corn stover, coarse hay, or straw.

The department believes that by avoiding too heavy feeding and too high finish and by following the suggestions given above, feeders should be able to feed cattle at a profit in spite of the high prices of feed and labor. The recent statement of the United States Food Administrator, and the available reports from foreign countries, indicate that there may be a great increase in the demand for beef, which is encouraging to the cattle feeders of this country and especially those who suffered losses during the past feeding season.

Chicago Market Reports

Since June 1 all telegraphic reports on live-stock receipts and prices which are distributed daily from the Chicago Union Stock Yards, have been sent out by the Bureau of Markets of the U. S. Department of Agriculture. The bureau's leased wires are used for the transmission of this information from Chicago to other live-stock markets and meat-distributing centers, at most of which branch offices are maintained. Local representatives post the bulletins and distribute the information as it is received at intervals during the day.

The telegraph companies, press associations and other news-distributing agencies have adopted the Bureau of Markets' service exclusively instead of that of the unofficial sources which heretofore have provided the information for the live-stock market reports at Chicago. The dispatches now being sent from Chicago both to branch offices of the bureau and to subscribers of commercial news agencies consist of a 7 o'clock message on estimated receipts of cattle, hogs and sheep, an 8:30 message on the opening hog market and revised estimated receipts, a later wire giving prices, and a closing-market message.

Alfalfa for Work Horses

Alfalfa should be allowed to mature fully before it is cut if it is to be used as feed for work horses, advises Dr. C. W. McCampbell, professor of animal husbandry in the Kansas Agricultural College.

"Alfalfa as ordinarily cut in the early bloom stage does not make the best hay for feeding purposes," said Doctor McCampbell. "Undesirable effects, such as excessive sweating and stimulation of the kidneys, are often caused by hay cut at this period of development. Lack of endurance also is sometimes produced by its use."

Certain chemical changes take place between the early blooming and the final maturing of the plant, pointed out Doctor McCampbell. These changes overcome the injurious qualities found in the plant when it begins to bloom and make the later-cut hay better for feeding.

Later cutting results also in certain advantages to the plant. Stronger root systems are developed and practically no grass is allowed to get a foothold in the alfalfa field. The yield for the season is found to be just as heavy as if the hay were cut when one-tenth in bloom.

Alfalfa hay should be fed in limited amounts to work horses. Ten pounds a day is considered a maximum for best results.

Government Wool Buyers

There is some confusion as to the exact method of marketing wool. Following is a list of agencies authorized by the War Industries Board to buy wool for the Government, only points accessible to Kansas being given. This list comes direct from Lewis Penwell, chief of the Wool Division:

Chicago—Boynton Wool Scouring Company, Bolles & Rogers, Chicago Wool Company, National Wool Warehouse & Scouring Company.

Kansas City—C. J. Mustion Wool Commission Company, Picker & Beardsley Commission Company, McKenna Brothers.

The wool must go to one of these agencies eventually, the grower having the choice of consigning through local dealers or shipping direct.

Hogs Need Shade and Water

Shade and clean water during the summer months are essentials to successful pork production. All kinds of hogs must have shade. Too much direct sunlight and heat is a frequent cause of hogs failing to thrive and is often the cause of hogs dying. During July and August small pigs often blister on the backs and about the ears, which causes in some cases severe infections and bad sores.

Expensive shelter is not necessary. Shade trees provide ample protection. Where no trees exist, temporary shade may be provided by the covering of a frame with canvas, under which the hogs may go for protection. Some producers build individual hog houses with sides that may be lifted to provide an increased amount of shade during the summer months. This plan furnishes shade for hogs where only a few are kept.

Clean fresh water for drinking and wallow is equally as important as, or more important than, shade. The old-time wallow hole covered with scum, which was once also the drinking fountain, is no longer in favor with the successful hog feeder. Hogs must have water to drink, and if they cannot get fresh clean water in the trough or fountain, they will drink where they can find it, regardless of its condition. This fact has caused some to believe that hogs prefer nothing better, but they do, and will demonstrate the fact when they are able to get fresh water from the well.

The clean wallow hole is also important. Hogs may use the muddy wallow if no other is available; but again if clear water is provided in a concrete wallow they will prefer it to the mudhole. Concrete wallows are not expensive if constructed at odd times when regular farm labor can be utilized. An excavation six by eight feet or larger, and about fourteen inches deep, walled and floored with concrete and filled with water, will prove a profitable attraction to the hogs on hot summer days.—S. T. SIMPSON, Missouri Agricultural College.

To Prevent Colic in Horses

Colic in horses usually means indigestion. It may consist simply of a few spasmodic pains from which the animal quickly recovers, or the indigestion may terminate in inflammation of the bowels which often proves fatal within twenty-four hours. Some forms of indigestion are complicated by bloating, and the internal pressure may rupture the animal's stomach or cause it to die of suffocation.

The following suggestions for preventing and treating colic in horses are offered by L. S. Backus, of the Missouri Experiment Station:

Most cases of colic can be prevented by careful feeding. Sudden changes of feed should be avoided. Also, feed in a stage of curing, such as new oats, newly cut grass, and new corn, is always dangerous for horses. Heavy grain, such as corn, should have bran or oats added to give it greater bulk and render it lighter.

It is a good practice in feeding work horses during hot summer months to precede the evening grain ration with an allowance of hay. This gives the animal time to become somewhat rested and cooled, and the more concentrated feed will be much less likely to cause indigestion. The drinking of a liberal amount of cold water is likely to chill the intestines and cause colic.

The symptoms of colic are too well known to need description. The trouble, however, is complex and unless recovery is rapid a veterinarian should be called. One quart of raw linseed oil mixed with two tablespoonfuls of turpentine, if given at an early stage of the colic, will help remove the undigested material from the horse's bowels and thereby give relief.

A common method of drenching a horse is to pass a loop in the end of a rope around the upper jaw just back of the incisors. The other end of the rope may then be fastened so that the horse's head will be raised and the medicine, when poured into its mouth, will run down into the animal's throat. Oil should be given slowly, a swallow at a time; and upon any indication of choking, the head must be instantly released, as the inhaling of oily preparations into the lungs is likely to cause pneumonia.

Colics which are apparently mild at the beginning may quickly develop into dangerous complications, and a colic that exists for twelve hours will often kill the animal. Colics which are caused by a twist or tie in the intestines or a rupture of some portion of the bowels are incurable.

During the hot July days when the mother's milk flow decreases and the heat becomes more oppressive, the lambs lose flesh rapidly. They will grow in frame but their market value will depreciate. The risk and trouble with internal parasites are also avoided by marketing the lambs as soon as practicable. March and April lambs weighing sixty to seventy pounds will soon be ready to market, if they have not already gone. Lambs should be marketed when plump and fat. The greatest handicap in marketing the lambs from a small flock is the necessity for having a carload in order to get reasonable freight rates. For a 36-foot car the number of lambs for the minimum load is from 120 to 165, depending on the weight of the lambs. Co-operative shipping on the part of several men having lambs to market is about the only way to get around this difficulty.

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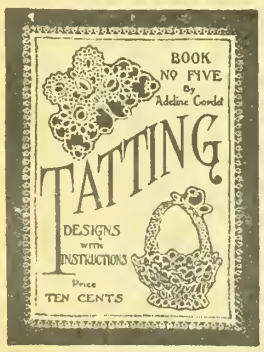

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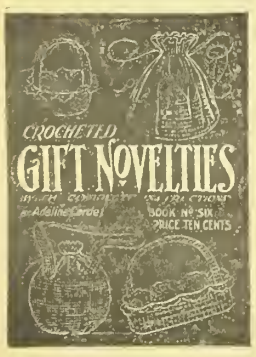

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We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

"Come, clear the way, then, clear the way—
Blind creeds and kings have had their day;
Break the dead branches from the path:
Our hope is in the aftermath—
Our hope is in heroic men,
Star-led to build the world again.
To this event, the ages ran:
Make way for Brotherhood—make way for Man."

Eat No Wheat

If you eat these, you eat wheat:

White wbeat bread, made from flour refined from the starchy white center of the wbeat kernel.

Whole wheat bread, made from flour made from the starchy center and some of the outer brown layers—bran—of the wheat kernel.

Graham bread and graham crackers, made from flour containing all the wheat kernel, including the bran.

Macaroni, spagbetti, noodles, made from wheat flour.

Wheat breakfast foods, sold under various names, not advertised as wheat products, made from the whole or part of the wheat kernel.

Victory breads, containing 75 per cent wheat.

If you eat these, you eat no wheat:

Oatmeal, potatoes, rice, hominy, and barley.

100 per cent substitute breads—corn pone, muffins, biscuits, all kinds of bread made only from corn, oats, barley, and all the other wheat substitutes. These are usually made with baking powder or soda and sour milk instead of yeast and are sometimes known as "quick breads."—U. S. Food Administration.

Children and War Foods

The necessity of guarding tbe food supply of young children, and assuring to them an abundant diet of properly selected foods, is assuming every day a more critical pbase as the war stringency increases and demands for the conservation of foodstuffs become more urgent. A most wholesome educational movement is going forward among the American people in tbe use of different foods. Nature is exceedingly adaptable, and the healthy buman being can be fed with a fair degree of success on widely varying diets.

But while the adult may thrive very well on substitute foods of various kinds and even be better off with some of these dietary cbanges, it is not always true that young children will profit by the same course. The child's dietary requirements are less flexible than are those of grown persons, and insufficient or unsuitable food is likely to have serious consequences for the growing child.

Authorities on the subject state that there is practically no substitute either for milk or green vegetables in the food of the growing child. Milk should be given in many forms. Directions for the use of milk in a variety of ways are contained in a bulletin of the Children's Bureau, which will soon be ready for distribution.

Spinach is one of the best green vegetables. It can be prepared in a number of ways and should be used freely in the family diet. Fish and chicken are better for children in many cases than beef or other meats, and where these foods can be obtained one or the other may be given to children.

In the face of the great need for conserving wheat the use of new cereals has become a matter of necessity. There seems to be no reason why such food may not be as wholesome as wheat, if properly cooked. All cereals, and particularly the coarser ones, like oatmeal and corn, need very long cooking to be suitable for children. Therefore it stands to reason that the "quick" breads and griddle cakes, which have been exposed to cooking heat perhaps only a few minutes, will not be well digested and that all preparations of cereals should be subjected to long slow cooking if they are to enter into the diet of young children.

At this moment, also, people are being urged to eat all the potatoes possible as another substitute for wheat. The request is made tbat families shall eat potatoes three times a day, but this is not intended to apply literally to the youngest children, who would not get a sufficient variety of food in the day's meals if given potatoes at each one. The manner of cooking potatoes must be constantly varied or the family will tire of them. The methods will include frying and scalloping, delicious to tbe adult palate, if well done, but not suitable to young children. It is wise, therefore, for mothers to remember that children under five will hardly be able to eat potatoes more than once a day, and that for them this vegetable is better when baked, mashed, or freshly boiled and served simply with the addition of a little salt and milk or cream. Thus prepared they are so completely cooked and so finely divided that children do not swallow them in chunks. Frying, on the other hand, makes foods generally less suitable to tbe digestion of children.

Note.—This article by Mrs. Max West is the sixth of a series issued by the Children's Bureau of the U. S. Department of Labor on How Mothers Can Help in Children's Year.

Drinks from Fruit Juices

Fruit juices afford an easy and inexpensive metbod of varying meals and are economical because they can be made, after the extraction of juice for jelly, by adding more water, heating, and draining, says Miss Mary M. Baird of the home study department of the division of college extension in the Kansas Agricultural college. Discarded parts of fruit, such as clean parings, cores, and pits from apples, peacbes, plums, and other pulpy fruits can be used in tbis way. The juice can be extracted from cores, skins, and eyes of pineapples by letting them stand in sugar for several hours and then draining off the syrup thus formed.

Every bousewife should not only serve fruit juices through the summer, but should see to it that they are put up for winter and spring use. Aside from a pleasing flavor these drinks have real food value. They contain fruit sugar and body-building substances which should be given more attention than is usually paid tbem. Almost any fruit juice can be used as a drink if properly prepared. A refreshing drink may be obtained by mixing an acid juice and a sweet juice. This should be sweetened to suit the taste and diluted with cold water or shaved ice.

In making a quantity of punch, Miss Baird recommends using cold tea as the foundation. For each cupful of mixed fruit juice use one cupful of strong hot tea, made by pouring three-fourths of a cupful of boiling water over one teaspoonful of tea. Add fruit juice for color and flavor and sweeten the drink to suit the taste. Rhubarb juice is cheap and bealthful and can be used as the foundation for a cool drink, as it will blend with almost any flavor. An appetizing drink can be made from two and one-half cupfuls of lemon, rbubarb, or other acid juice, four cupfuls of sugar or six cupfuls of syrup, and four quarts of water. Other juices may be added for flavor. These quantities will make one and one-half gallons.

Cane, corn, or maple syrup or honey can be used instead of sugar. For each cupful of sugar called for in the recipe, use instead one and one-half cupfuls of syrup. If sugar is used, it should first be made into a syrup, because sugar will not dissolve well in cool liquids.

Army School of Nursing

Women between the ages of twenty-one and thirty-five who are in good physical condition and who have had a high-school education or its equivalent are eligible for admission to the Army School of Nursing, arrangements for which have recently been made by the War Department. The school is located

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All patterns, 10 cents.



No. 8804—Girls' Dress: Cut in sizes 6, 8, 10, 12 and 14 years. The waist has the side closing which is so popular this season. A narrow roll collar finishes the neck. The one-piece skirt is straight at the lower edge and it is gathered all around the waistline. **No. 8774—Ladies' One-Piece Kimono House Dress:** Cut in sizes 36, 40 and 44 inches bust measure. The style of house dress shown is very practical, for it goes on like a coat and buttons at center front. The sleeves are in kimono effect. Large patch pockets are stitched on at the sides. **No. 8788—Ladies' Two-Gored Gathered Skirt:** Cut in sizes 24, 26, 28, 30 and 32 inches waist measure. The skirt shown is very distinctive, but it is not at all difficult to make. The interesting side sections are simply the edges of the gores faced with contrasting material.



No. 8695—Girls' Dress: Cut in sizes 6, 8, 10, 12 and 14 years. The removable chemisette is a very practical idea in this dress which will be sure to appeal to the mothers of schoolgirls. The front of the dress is cut in square outline to show the chemisette. The sleeves may be long or short. The skirt is in one piece. **No. 8716—Ladies' Two-Gored Gathered Skirt:** Cut in sizes 24, 26, 28, 30 and 32 inches waist measure. The side seams are marked by self-covered buttons which extend a short distance below the hip line. The skirt has a slightly raised waistline. **No. 8724—Misses' and Small Women's Dress:** Cut in sizes 16, 18 and 20 years. A dainty silk frock for the warm days of spring may be made from Pattern No. 8724. The gathered tucker with rounded neck line gives a soft effect which is especially becoming to a young girl. The two-gored skirt is straight at the lower edge and it is gathered all around the top.

in the office of the Surgeon General, Washington, D. C., and the training will be given in the various military hospitals.

Candidates will be admitted in accordance with the needs of the service, the first class entering on or about July 1, 1918. It is expected that several classes will be started during the next two or three months. Special consideration will be given to those who have taken the course in elementary hygiene and home care of the sick under the auspices of the American Red Cross, and such candidates are advised to obtain application blanks from the instructors in the course taken. Upon the completion of the course students will become members of the Regular Army Nurse Corps as vacancies occur.

No tuition fee is required in the Army School of Nursing. Students will be provided with board, lodging, and laundry work, and with the required text books. A monthly allowance of fifteen dollars to meet the cost of uniforms and other school expenses will be allowed, except for the period of affiliation.

All communications should be addressed to The Army School of Nursing, Surgeon General's Office, Washington, D. C.

War-Time Labor-Savers

"War time has brought about a shortage of labor in all lines," says Miss Abby L. Marlatt of the home economics department of the University of Wisconsin, "and women have to help more and more outside the home. There is an ever-increasing call for production on the farm, which means that there must be added duties in the home. Conveniences in the farm home greatly reduce the waste of time and energy.

The hardware man can supply aids to production in the kitchen from a Dover egg beater to a bread mixer; from a sharp knife to a food grinder; from a blue flame kerosene stove to a fireless cooker.

If the housewife buys cooking dishes of brown crockery and heat-proof glass, the food can be served in the dish in which it is cooked, thus greatly reducing the number of dishes to be washed. The magic mat woven of metal and yarn will clean the kettles without scratching them, and will save many minutes a day.

A wheeled tray will save much energy in carrying the dishes from the kitchen to the dining room and clearing away the dishes after the meal. A dummy waiter is a great convenience in carrying supplies from the cellar to the kitchen. A portable vacuum sweeper aids in keeping the house clean, and a patent mop wringer helps to solve the dust problem and relieves the worker of the drudgery of wringing the mop.

We were fed with biscuits the other night that were so pure white and flaky that we started to accuse the other half of the house of using wheat flour. She haughtily informed us that there was not a grain of wheat in the biscuits. Our women are not only doing their share in helping win the war, but they are making it a whole lot easier for us men than we realize.—News Notes, Colorado Agricultural College.

Housewives who prefer compressed yeast to the dry yeast can get it by making arrangements with a yeast manufacturer to mail the amount required on a certain day of each week. As it does not keep long, it should be used the same day it is received. Compressed yeast is more active than the dry yeast, if fresh, and so a shorter time is required for the bread to rise when it is used. It is a little higher in price than the dry yeast cakes. Home-made yeast of course costs still less than these.

For mopping, wiping, dusting, and polishing rags, nothing is better than discarded underwear. The garments should be cut in large flat pieces and the sleeves slit. Thin summer underwear makes soft absorbent dust cloths, while the heavy undergarments worn by men in winter are excellent for mopping or polishing floors and woodwork. Another use for these worn garments is as washcloths, the light weight summer underwear making soft face cloths, while the heavier rougher material is preferable for the bath. Much of the old underclothing bought by the "ragman" is cut in large pieces of irregular shape, properly washed and sterilized, and sold for these purposes.

Don't do without desserts. Make simple ones.

Appetizing Potato Recipes

Appetizing ways to serve potatoes are suggested by Miss Lucy Cordiner of the agricultural extension division of the University of Minnesota as follows:

Escalloped potatoes may be varied by alternating layers of

a. Oysters.
b. Minced ham.
c. Well seasoned cooked meat chopped.
d. Thinly sprinkled chopped dried or smoked fish.
e. One tablespoon grated cheese.

Left-over baked potatoes when diced make delicious brown hash either alone or mixed with onion or with chopped cooked meat or both.

Left-over mashed potatoes may be used for the crust in a meat pie or formed into cakes and browned in a little fat in a skillet. They may also take the place of one-half the flour in baking powder biscuits or in suet dumplings.

Scalloped Corn

2 cupfuls corn
1 cupful milk
1 or 2 eggs
3 tablespoonfuls fat
½ teaspoonful salt
Pepper
1 cupful bread crumbs—dry, but not dried.

Mix eggs, corn, milk, salt and pepper, and pour into a baking dish. Melt fat and add crumbs. Sprinkle over top of corn mixture. Bake in moderate oven until firm, and crumbs are well browned. Serve hot.

Raspberry Sauce

1 cupful cooked raspberries
½ cupful water
¼ cupful sugar
1 teaspoonful lemon juice
½ tablespoonful corn starch
½ tablespoonful butter or other fat.

Add water to the raspberries and cook until the poiling point is reached; remove from fire and strain. Mix sugar and cornstarch; pour the hot raspberry mixture over this, stirring constantly. Cook until mixture thickens; remove from fire; add fat and lemon juice. Cool, and serve on molded rice.

Belgian Baked Potatoes

Wash, pare and cut into slices as for French fried potatoes. Lay potatoes on an oiled pan, season with salt and pepper and bake in a fairly hot oven until puffed, golden brown and mealy.

Get the Vision

"If only you at home can catch the vision of the trench democracy, the spirit of the front line trench religion—and catching it, act—then the future will be glorious," is the message of a Canadian officer from overseas. — Reconstruction (Canada), March, 1918.

Precautions with Fireless

Don't let the food or disks cool before you put them into the fireless cooker. The food will not cook unless there is enough heat shut up with it. Reheat the food that requires long cooking, if it cools before it is finished. Reheat the food before serving, if necessary. A small quantity of food cools quickly, so either use the disks or put a small vessel containing the food in the regular vessel and surround it with hot water.

Before laundering colored cotton garments, the color should always be set. The substance used to set the color varies with the color of the garment. In general the following rules may be observed: For brown, black, and pink, soak the garment in water containing two cupfuls of salt to the gallon; for blues, use one-half cupful of vinegar to one gallon of water; for lavenders, use one-half tablespoonful sugar of lead—poison—to one gallon of water.

It is well to remember when selecting wearing apparel that the extremes of fashion usually result in great waste of money. The styles change quickly, the garment is soon out of date, and it is difficult to remodel. Clothing of good material, in simple pleasing styles, suited to the person, is always in good taste and needs little remodeling.

Man, not God, fixes the death rate.—Bulletin, Kansas Board of Health.

I'm Going Across for You

"I'm going across for you, Mother,
I'm going across for you—
To you the Hun shall never come
To do what he can do.
I think of Belgium, I think of France,
Of submarine, Zeppelin, too,
Of the women and children who went to death
With the Lusitania's crew.
So I'm going across for you, Mother,
I'm going across for you."

—Paul Houston.

Roses in Your Home

ALL YEAR

Beautiful climbing roses of brilliant colors, fragrant roses of upright growth, and trailing roses with delicate tints; all yielding most delicious perfume. Our New Collection of Native American and Japanese Roses is

GROWN FROM SEED



The seed germinates quickly, and the plants make rapid growth, bearing hundreds of beautiful roses. If grown in the house they will bloom all the year around. They can be grown outdoors during the summer, and if taken inside for the winter will continue to bloom. Nothing is prettier than the fragrant flowers and "berries" of these Native Roses.

You Can Have This Beautiful Window-Box of Roses in Your Home

We will send you a big packet of the seed of our new Rose Collection, together with full instructions for planting and for making a window box, as shown in the picture. If you take advantage *now* of our liberal offer, and plant the big packet of Native American and Japanese Rose Seeds, you will have hundreds of beautiful roses blooming in your home the year around. They require very little attention, except for an occasional watering.

Plant NOW! Roses in 8 Weeks!



Just do us the favor of sending us one NEW TRIAL subscription to KANSAS FARMER for three months at 25 cents, and we will send you the big packet of Rose Seed FREE and postpaid, with full instructions for planting. Send today to

KANSAS FARMER,
Topeka, Kansas

Gentlemen: Send me FREE and postpaid, your big packet of Native American and Japanese Rose Seeds, with instructions for planting and for making the Window Box.

Name.....R. F. D.....

Town..... State.....

I enclose 25 cents, for which you will please send KANSAS FARMER three months to the following address:

Name.....R. F. D.....

Town..... State.....

Classified Advertising

Advertising **"bargain counter."** **Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising.** Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—**looking for bargains. Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

CATTLE.

REGISTERED JERSEYS — BULLS TWO to ten months old from tested dams. A. G. Stevens, Coffeyville, Kansas.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

HIGH-GRADE HOLSTEIN CALVES, VIRtually pure-bred, $25 delivered. R. B. Hellen, Sec'y Milk Producers' Association, Jefferson, Wisconsin.

FOR SALE—VERY CHOICE HOLSTEIN and Guernsey calves, either sex, six weeks old, 95 per cent pure-bred, at $25 each, delivered. Lewis Dutcher, Peary View Farm, Janesville, Wis.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and dellvered to any station, express charges pald here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

USED CAR BARGAIN.

FOR SALE—MODEL 35 JACKSON FIVE-passenger touring car. Not latest model but has had good care and is in good condition. Good top, tires nearly new, Presto lights, jack, pump and other tools go with car. Is good for several years' service. Cost $1,300 when new. Price, $300 cash. Owner, 625 Jackson St., Topeka, Kan.

DOGS.

COLLIE PUPPIES, WEANED, $5. FRANK Barrington, Sedan, Kansas.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

THE STRAY LIST.

TAKEN UP — BY A. H. GRIFFIN, OF Route 5, Olathe, Kansas, on May 22, 1918, one Shorthorn and Jersey male calf about six weeks old, color red, weight about one hundred pounds, appraised at $10. F. K. Smead, County Clerk, Olathe, Kansas.

FALSE TEETH

CASH FOR OLD FALSE TEETH. WE can pay as high as $21.50 per set (broken or not). Send at once—package held five to fifteen days subject to owner's approval of our offer. Highest prices paid for old gold jewelry, crowns, bridges, platinum, silver. United States Smelting Works, Inc., 347 Goldsmith Bldg., Milwaukee, Wisconsin.

REAL ESTATE.

DAIRY FARM FOR SALE—207 ACRES three miles from city of Grand Rapids, three miles from creamery and cheese factory. Good roads. Address the owner, Peter Brown, R. D. 4, Box 7, Grand Rapids, Wis.

PATENTS.

PATENTS PROCURED, BOUGHT AND sold. International Patent Co., Brandeis, Omaha.

POULTRY.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swaim, Geuda Springs, Kansas.

WHITE WYANDOTTE EGGS AT $1.50, fifteen; $3.25, fifty; $6 hundred. Winning, laying strain, fertility and satisfaction guaranteed. Andrew Kosar, Delphos, Kansas.

POULTRY WANTED.

NON-FERTILE EGGS, BROILERS AND hens wanted. Coops cases loaned free. The Copes, Topeka.

Real Estate For Sale

WHEAT LAND TO RENT. Write **Niquette & Bosworth, Garden City, Kansas**

CALIFORNIA

Farm in Sunny California. Learn all about land, water, soil, crops, fruit, markets, schools, churches. Send 25c for six months' subscription to Farm and Irrigation Illustrated. **DEPT. 33, SAN FRANCISCO.**

C. S. Nevius & Sons, of Chiles, Kansas, owners of good herds of Shorthorn cattle and Poland China hogs, write as follows: "We wish to report the following sales through our ad in Kansas Farmer: Five head of females—two Cherry Blossom, two Marr Emmos and one Secret—to Park E. Salter, of Wichita, Kansas, for breeding cows to be retained in his herd; also five head of Scotch females and one Butterfly bull to W. K. Cullaway, of Duncan, Okla. These cattle were bought to start a herd. We also sold a two-year-old Butterfly bull and a Roan Secret yearling to Moffet Bros. & Andrews to head their herd. We have also sold several fall Poland China boars through our ad."

Uniform products command the best prices. Pure-bred fowls produce uniform products.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

Address All Communications to Kansas Farmer, and Not to Individuals

Personal mail may have to be held for several days, or be delayed in forwarding, and Kansas Farmer cannot assume any responsibility for mistakes occurring thereby

CLAIM SALE DATES.

Holsteins.
Sept. 4—E. S. Stoughton, Hutchinson, Kan.

Jersey Cattle.
Oct. 9—B. R. Thompson, Garrison, Kan.

Spotted Poland Chinas.
Oct. 5—W. J. Honeymoon, Madison, Kan.
Oct. 19—C. A. Gooch, Orrick, Missouri.

Poland Chinas.
Aug. 8—Fred B. Caldwell, Howard, Kan.
Aug. 24—Bert Harriman, Pilot Grove, Mo.
Oct. 15—H. B. Walter & Son, Effingham, Kansas.
Oct. 16—Dr. J. H. Lomax, Leona, Kansas.
Oct. 31—F. J. Dowe, Hlawatha, Kan.
Oct. 29—Hill & King, Topeka, Kansas.
Oct. 31—Adams & Mason, Gypsum, Kansas.
Nov. 1—E. B. Myers, Hutchinson, Kansas.
Nov. 6—Earl Bowers, McLouth, Kan.
Nov. 6—M. C. Pollard, Carbondale, Kan.
Nov. 7—Schmitz Bros., Seneca, Kan.
Nov. 8—Ketter Bros., Seneca, Kan.

Duroc Jerseys.
Oct. 19—W. W. Zink, Turon, Kansas.
Oct. 18—Wreath & Givens, Manhattan, Kan.

Spotted Poland Chinas.
Oct. 3—Alfred Carlson, Cleburne, Kan.

Chester Whites.
Oct. 23—J. H. McAnaw, Cameron, Missouri.
Nov. 7—Arthur Mosse, Leavenworth, Kan.

When Writing to Advertisers, Please Mention Kansas Farmer

Smith & Hughes, of Lilac Dairy Farm, Topeka, report their Holstein herd making a good record again this year. This is one of the Holstein herds in Kansas that is bred for high production. Record breeding has been the motto of this firm since the foundation of the herd. The head of their herd is Sir Rag Aapple Superba 207682, a son of Rag Apple Korndyke 8th 73416, and out of Sarah Baker Korndyke De Kol 226596, who is a very remarkable cow of quality, sired by Walker Korndyke Emporia De Kol 99384 and out of Sarah Baker Summit 168023, and having an official butter record of over 20 pounds as three-year-old. She will again be tested as a four and five-year-old, and will be expected to make a 30-pound or better aged cow, for she has the breeding back of her. Rag Apple Korndyke 8th is generally referred to as "the greatest bull in the world." He is the first and only bull in the world to have sired a 30-pound junior two-year-old daughter. He is the only bull in the world to have a seven-months-old son sell for $20,000 and one for $53,200 at public auction. He is a son of Rag Apple Korndyke 48020, who has twenty-eight A. R. O. daughters with records from 25.03 to 37.09 pounds to their credit, and out of Pontiac Lady Korndyke 92700, with a butter world record of 38.03 pounds of butter and milk 601.40 in seven days.

M. C. Pollard, of Carbondale, Kansas, has announced November 6 for his annual fall sale of Poland Chinas. Mr. Pollard is the owner of good herds of Poland China hogs and Shorthorn cattle. He also has several registered Percheron horses on the farm. The Poland Chinas are from the leading big-type strains. Young Big Mald farrowed a litter of twelve pigs by Frazier's Jumbo Bob and has raised ten fine pigs. Big Lady 5th farrowed a litter of ten pigs and has raised all of them. This litter is by Frazier's Giant Jones by Big Jones by Gerstdale Jones. Mr. Pollard has raised Poland China hogs for several ycars. He now has over 100 head on the farm that are coming along nicely.

George Wreath, of Manhattan, Kansas, is the owner of one of the good herds of Duroc Jersey hogs in this part of Kansas. The farm is one of the best arranged hog farms of sixty acres, just outside of the city. A never-failing spring furnishes a stream of water across the pasture and alfalfa field. The farm is well planned, thirty acres being in alfalfa, ten acres corn, three acres orchard, and the balance in bluegrass and clover pasture. All the farm is fenced hog-tight. A well built and comfortable and modern stone house, with a complete water system, is one of the conveniences. Mr. Wreath has announced October 18 for his annual fall sale of registered Duroc boars and gilts. The sale will be held at the college sale pavillion, where everyone attending can be made comfortable. Mr. Wreath knows how to feed and develop hogs, having had charge of the college herd for several years.

E. J. Castillo & Son, of Independence, Kansas, report their Holsteins doing well. They breed Holsteins for production, and nothing but record-bred stock is kept in their herd. The features of their herd at this time are the heavy producing cows and the choice lot of record-bred young stock.



Plan for Pedigreeing Poultry

WE HAVE very few poultry breeders in the sense that we have breeders of improved stock of the larger farm animals. There can be little improvement from what we have now in poultry without some system of keeping pedigree records. The ordinary poultry breeder is not a breeder in the true sense of the term. The work of improving poultry by pedigree methods such as have been used for many years with the larger farm animals cannot be undertaken by poultry growers generally, but we should have more breeders who are doing genuine pedigree work. From flocks where improvements are being brought about in this way the farm poultry grower could get males and other stock that would rapidly raise the standard of production.

The possibilities of such work are being demonstrated by the poultry department of our Kansas Experiment Station at Manhattan. For several years accurate pedigree work has been done and already the value of this type of work has been demonstrated. In a circular recently published, Prof. W. A. Lippincott refers in the introduction to the manner in which breeding records of the larger pure-bred animals are permanently kept and given official standing by the officers of an association or society of breeders. He points out that by means of the herd book or flock book the exact ancestry of any animal of any breed may be traced to the foundation animals of its breed.

"There are several reasons why this has not been feasible for poultry," says Professor Lippincott, "but these are not important for our present purpose. The fact is, it has not been done. Yet the poultryman who strives for improvement through breeding is in even greater need of pedigree records than is the breeder of the larger animals. The generations of poultry follow each other in more rapid succession than is the case with most farm animals, and the poultry breeder frequently deals with vastly greater numbers. A man's memory may serve him fairly efficiently in the case of a relatively small herd of cattle, but it is an almost useless pedigree record for a large flock of chickens. This is doubly true with chicks hatched by foster mothers or in incubators, which never associate with their dams. The problem of their parentage cannot be solved unless complete and accurate records are kept. In addition there is the very practical consideration that producers and breeders are more and more demanding stock that is pedigreed with regard to production.

"A single great performance at the nest, or a show bird of unusual excellence, means little in the line of breeding progress unless it is known by which mating it was produced. To know the pen from which it came is not enough. To know which particular pair of birds produced it is what is needed. And later it must be known which chicks are produced by the exceptional birds. For, unfortunately, the unusual bird from the standpoint of production or breed type, does not always make the unusual breeder, and it is the unusual breeder that is sought. The breeding capacity of a given bird can be accurately judged only by the character of its progeny.

"The information necessary for the proper pedigreeing of chicks is as follows: (1) A record of matings. Which females are mated with a certain male in a given season should be a matter of record. (2) A record of parentage. It must be known, not only which chicks are produced by a given pen, but which ones are the offspring of each individual hen in the pen. (3) A ready means of tracing ancestries. (4) The egg record of every female breeder used in each successive season, where high production is sought. (5) A description of every breeder used in each successive season as long as pedigreeing is carried on, where the objective is high-class show stock."

These points have all been worked out in the system being handled on the college poultry farm. Poultry breeders and in fact anyone interested in growing poultry will find this circular both instructive and interesting. The methods are all described and illustrated, and in addition some of the practical results reported. It is Circular No. 67 of the Kansas Experiment Station, and will be sent free for the asking.

Points of the Good Layer

The essential characteristics of a good layer are described as follows by A. G. Phillips, a recognized authority on poultry subjects:

"A good layer is longer in body, neck and legs than a meat-producing hen. She stands up well and has a well spread tail. Observation has shown that a pinch-tailed Leghorn is not generally as good a layer as is a fan-tailed one.

"The character of the head furnishings is an indication of the hen's laying condition. When a hen is in full laying her comb is full and bright red. Some Plymouth Rocks when laying heavily will have lopped combs, and therefore become disqualified as show birds. When hens are molting they lose all their color in face and comb and the size of their combs becomes very small, but as soon as laying commences, the combs enlarge and the color returns. Many instances have been noted with Leghorns and Minorcas which indicate that the birds with the largest and reddest combs are in heavy-laying condition. Exceptions to this rule sometimes occur, but they are rare.

"A laying hen is nearly always a singing hen. She works and hunts for food all day, is the first off of the roost and the lost to go to roost. She is nervous and very active, keeping herself up to the greatest possible pitch.

"The pelvic bone test is a test which some have claimed as final and conclusive. Immediately below the tail at the end of side pieces of the back are two somewhat bony protuberances. These are called the pelvic or 'lay' bones, and are just above the vent through which the eggs must pass. When an egg is laid, these bones must be forced apart to allow its free passage. When these bones are soft and pliable, and spread sufficient to allow three fingers to be placed between them, it is an indication that the hen is laying. If they are hard and bony, and close together, the hen would not be considered as laying at that time. Experience has shown that this method will usually tell whether or not a hen is laying at the time the examination was made.

"To sum up, an ideal laying hen should conform as nearly as possible to the following: (1) She must be healthy; (2) comb, wattles and face, red in color; (3) eye bright and lustrous; (4) neck not short, but rather medium to long; (5) breast broad and long, sloping upward; (6) back, long and broad; (7) abdomen, wide and deeper than breast; (8) shanks, well spread and rather long; (9) V-shaped in three ways, viz: (a) on sides, front to rear, (b) top and bottom, front to rear, (c) base of tail, downwards; (10) well spread tail.

A rooster that is worth using as a breeder is worth taking care of. Do not kill a good breeder unless you are certain you will have no further use for him. When removed from the breeding pen, confine him to separate quarters where he can be kept comfortable and be well cared for. He will be a better breeder the following season if this is done. Males which are not to be kept for future use as breeders should be sent to market as soon as the breeding season is over.

An example of German methods of securing food is seen in the new regulations of the Bavarian Egg Supply Office. Poultry keepers are required to deliver to the government forty eggs for each hen kept. The 1918 quota is due in September at a fixed price of four cents per egg. Measures of this character help to explain the ability of the German federal states to feed the population when food products fail to reach the markets in sufficient quantities as a result of voluntary sales by producers.



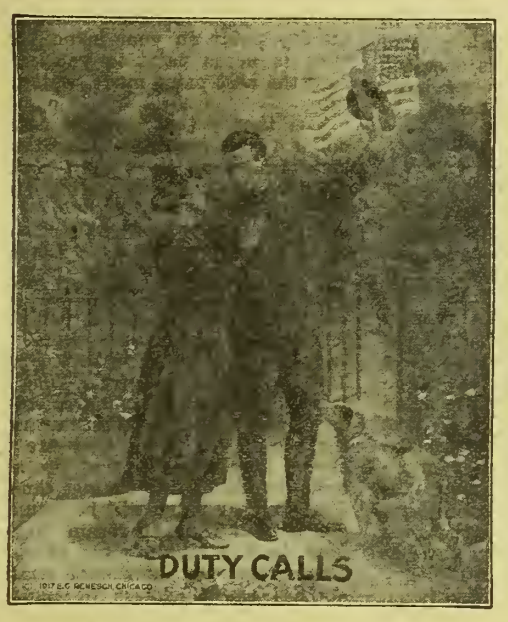
PATRIOTIC PICTURE NO. 1



PATRIOTIC PICTURE NO. 2



PATRIOTIC PICTURE NO. 3



PATRIOTIC PICTURE NO. 4

BEATUIFUL PATRIOTIC PICTURES

SIZE 16x22 INCHES

PRINTED IN COLORS

Each Picture Tells Its Own Story. Get One or more of them

FREE



PATRIOTIC PICTURE NO. 5

KANSAS FARMER has just completed arrangements to supply its subscribers with any or all of the beautiful patriotic pictures illustrated in miniature on this page. The illustrations herewith cannot do justice to the real pictures on account of the greatly reduced size. The pictures we will send you are full 16 x 22 inches in size and all except No. 5 and No. 6 are printed in appropriate colors. No. 5 and No. 6 are printed in black and white. They are really fine pictures. We are sure our subscribers will like them.

SPECIAL TEN-DAY OFFERS

OFFER NO. 1. If you will send us ONE NEW TRIAL SUBSCRIPTION to KANSAS FARMER for three months at 25 cents, we will send you your choice of any one of the pictures illustrated on this page absolutely FREE and prepaid.

OFFER NO. 2. If you will send us ONE NEW SUBSCRIPTION to KANSAS FARMER for one year, at $1.00, we will send you your choice of any five of the pictures illustrated on this page, absolutely FREE and prepaid. Or if you desire, send your own renewal subscription for one year at $1.00 and we will send you your choice of any five of these beautiful pictures.

THIS OFFER IS GOOD FOR TEN DAYS ONLY In sending your remittance, order pictures by number.

USE ONE OF THESE COUPONS TODAY

COUPON

KANSAS FARMER, TOPEKA, KANSAS.

GENTLEMEN: Enclosed please find 25 cents, for which send KANSAS FARMER for three months to

Name .....

Town .....

Sttae.....R. F. D.....

Send Picture No.....to

Name .....

Town .....

State.....R. F. D.....



PATRIOTIC PICTURE NO. 6

COUPON

KANSAS FARMER, TOPEKA, KANSAS.

GENTLEMEN: Enclosed please find $1.00, for which send KANSAS FARMER for one year to the following:

Name .....

Town .....

Sttae.....R. F. D.....

Send Pictures Nos.....to

Name .....

Town .....

State.....R. F. D.....

HOLSTEIN CATTLE.

Sand Springs Farm

HIGH PRODUCING REGISTERED HOLSTEINS
Note Official Records Made on Our Farm



Full aged class, 19,810 pounds milk, 670 pounds butter in twelve months; four-year-old class, 2,040 pounds milk, 101½ pounds butter in thirty days; two-year-old class, 11,000 pounds milk, 450 pounds butter in twelve months Visitors welcome and correspondence solicited.

E. S. ENGLE & SON - - - - ABILENE, KANSAS

MAURER'S HOLSTEIN FARM
Offers special attractions in pure-bred females of all ages with high class breeding, and a number of choicely bred yearling bulls; also grade cows and heifers with size and quality. Don't fail to see this herd before you buy, as they are all bred RIGHT and priced RIGHT.
T. R. MAURER & CO - - - - EMPORIA, KANSAS

$25 Holsteins $25

The Best That You Can Buy
Five weeks old, 15-16ths pure. When you buy from Roberts you get value received. Cows also $150 crated. Write or call
Dr. J. A. Roberts Stock Farms
Oconomowoc, Wisconsin

HOLSTEIN CALVES
Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

HOLSTEIN COWS
35 Young Cows, some fresh, some springers. Also good fall cows from heavy producing dams. All bred to registered bull.
W. P. PERDUE - CARLTON, KANSAS

Either Sex, Practically Pure-Breds
From high-producing dams and registered bulls, five to seven weeks old, $27.50, express prepaid in Kansas; outside, $30. Safe delivery and satisfaction guaranteed. Also fifty registered cows and heifers and 100 high-grade young cows and two-year heifers.
MAGEE DAIRY FARM
CHANUTE - - - - - KANSAS

SEGRIST & STEPHENSON, HOLTON, KANSAS
Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

Thrifty Holstein Calves

100 High-Grade Holsteins
Fifty large two-year-old springers, 50 large one-year-old calves, just what you want for the Boys' and Girls' Calf Club.
W. J. O'BRIEN, TONGANOXIE, KANSAS

CHOICE HEIFER CALVES
Twelve heifers and three bulls, 15-16ths pure, five to seven weeks old, beautifully marked and from heavy milkers, at $25 each, crated for shipment anywhere.
FERNWOOD FARMS, Wauwatosa, Wisconsin

REGISTERED HOLSTEIN BULLS
For Sale—Several young bulls by Pontiac Beauty De Kol Segis, a grandson of King of the Pontiacs and King Segis. These bulls are out of high-testing yearly record cows. We breed for yearly production. Come and see my herd. H. D. Burger, Seneca, Kansas.

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.
J. P. MAST - - SCRANTON, KANSAS

REGIER'S HOSTEIN-FRIESIANS
For Sale—Young bulls, bred heifers and cows. All sired by the great bull, Sir Rag Apple Korndyke De Kol. Two cows will be fresh this month. Fourteen-thousand-pound milkers.
G. REGIER & SONS, Whitewater, Kansas.

Holstein Calves

We offer for sale choice beautifully marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated, f. o. b. cars: One to two weeks old, $17 each; three to five weeks old, $20 each; six to eight weeks old, $25 each. First check takes them. Write
W. C. KENYON & SONS, ELGIN, ILLINOIS

REGISTERED HOLSTEIN BULLS FOR SALE
Two to nine months. Also females. Bred right, priced right.
MARLOW & McCARGER, Mankato, Minn.

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.
H. B. COWLES, 608 Kan. Av., Topeka, Kan.

GOLDEN BELT HOLSTEIN HERD
Herd headed by Sir Korndyke Bess Heilo No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.
W. E. BENTLEY, MANHATTAN, KANSAS

HOLSTEIN COWS
For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.
GEO. F. DERBY, CAMERON, MISSOURI

REGISTERED HOLSTEINS
If you want big producers, males and females, write us. All our own breeding.
Lilac Dairy Farm
Route 2 Topeka, Kansas

Pedigreed Holsteins for Sale
Two nice bull calves, good milking strains; three months old, mostly white, $60; nine months old, mostly black, $75, f.o.b. here.
CASTILLO & SON, INDEPENDENCE, KAS.

SHORTHORN CATTLE.

Abbotsford Shorthorns



For Sale—Twenty-five cows and heifers, several with spring calves at foot; others bred to ROAN MODEL; also seven young bulls eight to eleven months old. All priced to sell. Come and see our herd.
D. BALLANTYNE & SON, Herington, Kan.

MARKS LODGE RED SHORTHORNS
For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.
M. F. MARKS, VALLEY FALLS, KANSAS

DUROC JERSEYS.

DUROC JERSEY SWINE
For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. W. J. Harrison, Axtell, Kan.

WOODDELL'S DUROCS
Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.
G. B. WOODDELL, WINFIELD, KANSAS

TWO BIG SALES
Fifty Duroc Jersey Bred Sows and Gilts, September 4. Entire herd of Red Polled Cattle September 5. Catalog ready July 15. Write early.
W. T. McBRIDE - PARKER, KANSAS

Wreath's Durocs

SPRING PIGS
Priced in pairs or trios. Come and see my herd.
L. G. WREATH, MANHATTAN, KANSAS

Durocs of Size and Quality
Herd headed by Reed's Gano, first prize boar at three state fairs. Special prices on boars and bred gilts from Crimson Wonder, Golden Model, Illustrator, and Defender breeding. JOHN A. REED & SONS, Lyons, Kansas.

MULEFOOT HOGS.

KNOX KNOLL MULEFOOTS
Still have a few choice pigs from big litters. For prices and catalog address
S. M. KNOX - HUMBOLDT, KANSAS

Breeders' Directory

ANGUS CATTLE.
D. J. White, Clements, Kan.
RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
Hereford Cattle.
F. S. Jackson, Topeka, Kan.

CHESTER WHITE HOGS

CHESTER WHITE HOGS
Five December boars ready for service, out of my grand champion sow, Tip Top. Spring pigs from other good sows for sale.
COLEMAN & CRUM, DANVILLE, KANSAS

One factor in favor of sheep production in these days of high-priced feed is the fact that sheep require comparatively small amounts of grain. While pastures and roughage are important in the production of cattle and hogs, these animals require more concentrated feeds than sheep.



Thresh the Odds and Ends

PROBABLY more grain is wasted at threshing time from failure to clean up at the end of a setting than from any other single cause. Just as much care should be taken in cleaning up all the unthreshed straw and loose grain that has accumulated around the machine as is taken with the rest of the job. Even with the best of care a considerable amount of unthreshed straw will accumulate around the feeder in the course of a day's work. If the straw is very dry considerable grain will shatter from the heads as it is being pitched from the wagons or stacks onto the feeder. Small piles of chaff and straw which contain a certain amount of grain will accumulate at various other places around the machine, and the machine should not be stopped at the end of the job until all this is pitched into the cylinder and carefully rethreshed.

Of course, the careless thresherman or farmer may say that the chickens or pigs will clean up whatever is left in this manner, but practically it is a total loss, and any machine which is operated carelessly in that respect wastes a large amount of grain in a single season.

Carry Pocket Note Book

A pocket memorandum book is a great aid in making note of things that must not be forgotten. Memory is exceedingly treacherous, and cannot be depended on in the many little things that come up constantly on the farm. "No one with the ordinary human faculty for forgetting can keep in mind all the things that need to be done about a farm," says W. E. Grimes of the Agricultural College. "Extra trips are often made to town to get something that might have been procured previously. There will never be any time lost on account of the weather by the man who carries a little pocket memorandum book and jots down the little jobs that can be done on a rainy day as they come to his attention. There is always plenty of work to do on a well diversified farm, and where a list of things to be done on rainy days is kept, the most efficient use can be made of men, horses, and machinery.

Business Methods on Farm

Farming is one of the biggest businesses in the world. The investment of the average farming business is greater than that of the average business establishment in town. Such a business calls for good business methods, and yet too often we find the clockshelf, the cupboard, a paper rack, or a calendar being used as the business desk.

A farm represents a distinct type of business enterprise and demands that the affairs connected with it be conducted in a businesslike way. To accomplish this there are a few articles that should be found in every farmhouse.

A small office desk should form the nucleus. This need not cost much and in return it provides a convenient place where paper, envelopes and other material used in writing letters can be stored; a place where business letters and other papers can be filed away without being misplaced, a place where valuable bulletins, pamphlets, and other information may be placed for easy reference.

The farmer makes the greatest success of his business when he uses business methods. Some system of farm accounts is absolutely necessary. The small office desk and a few other conveniences, including a typewriter if possible, will help wonderfully in conducting the business of the farm.

Sunday Work on Farm

The Sabbath was instituted as a day of rest, but in these strenuous times it often seems necessary to work on Sunday in order to save a crop. That it is quite right and proper to do farm work on Sunday if that Sunday work is necessary to produce food crops, to help whip Germany, is the attitude of the rural churches of Indiana, as expressed recently in a conference held at Purdue University. The reason given for this position was the conviction of Indiana rural ministers that Germany is the worst enemy of civilization, and of every church of civilization—of all religion everywhere, that is worthy the name of religion; that the victory of the barbarous Huns would be literally the victory of the devil and the triumph of that pagan monstrosity created by the kaiser's savage and sacrilegious mind and called by him "the good old German gott"; in short, that every church in America is fighting for its existence, just as every other component of civilization is fighting for its existence, and that if Sunday work in saving crops will help overthrow this bestial menace it becomes—veritably a churchly work to do.

Pays to Use Good Paint

A thing worth having is worth waiting for. If your house is worth painting, it is worth painting right. Never under any circumstances use a second quality paint on your home. If at the time it needs painting you cannot afford the best paint made, wait until you can.

The theory that a paint costing one dollar a gallon which will last three years is just as good as a paint costing two dollars a gallon and lasting six years, is all wrong.

In the first place, the cost of application must be added to the paint in each instance, and in case of the cheaper paint it will have to be added twice. In the second place a paint that has to be renewed in three years cannot possibly have the material in it that a paint will have that lasts six years. The six-year paint contains the best ingredients known as pigments and the pigments are really the life of the paint, they are the part of the finished paint that protects your building and battles against time.

A six-year paint will be found, at the end of that time, to retain its adhesiveness to the building on which it was placed, and an additional coating but doubles the thickness of pigment. A paint that needs renewing after three years cannot help but contain chalky pigments as substitutes for the better grades. As such lose much of their protecting properties and gradually wear off so by the time the building needs repainting there is not much of the original coating of pigment left.

Paint of the highest quality, combined with the most extreme care and standardized beyond all chance of guesswork results, should be used in preference to those that are cheaper. Inferior material being used in the composition of cheap liquid paints will not show up until long after the painter has gone, but in a year or two the cheaper paint will be an endless source of dissatisfaction.

Submarines Destroy Sugar

The submarine depredations off the Atlantic coast early in June resulted in the loss of 13,854 tons of sugar from Cuba and Porto Rico. This represents nearly one-fifth of the total weekly consumption of sugar in the United States and is more than the recent total sugar allowance of Great Britain for jam making this year.

Although the cargoes were fully covered by insurance, the loss of the sugar emphasizes the need for additional conservation of this important commodity.

Peace for Which We Fight

The United States did not enter this war unadvisedly, hastily, under stress of heat or passion. We took the step calmly, soberly, reluctantly, with a full sense of the awful responsibilities involved, the sacrifices demanded, the magnitude of the task.

President Wilson did not advise in his war message, neither did Congress act in declaring a state of war between the United States and Germany without giving the most solemn consideration to what the action meant. They knew it meant the death of thousands of brave Americans; they knew it meant suffering and wounds and the disabling for life of hundreds of thousands of our young men. They counted to the full

the human cost and the material cost.

Every development since has justified and proved the wisdom and the imperative necessity of America's participation. Every German success and every German failure have shown how necessary to our own welfare and peace, how necessary to the safety and peace of the world the defeat of Germany is. Every foot of ground Germany has been forced to give up, every foot of land she has seized, has demonstrated the imperative necessity of defeating that sinister, intolerable thing called Germanism.

Germanism is 3,000 miles away. It must never come any nearer. Let this war result in anything but the defeat of Germany, let her emerge with her power unbroken and her kultur still dominant, and it is but a question of time until we alone will be fighting Germany instead of warring against her with our Allies on our side.

Lincoln said that this country could not exist half slave and half free. All Americans now recognize that truth. The events of the last few years have shown equally clearly that this world can not exist half free and half autocratic—half free people loving liberty and justice and peace and half an autocracy seeking to dominate the world, caring nothing for liberty or justice and nothing for humanity and civilization where they interfere with its ambition.

There is no peace for America except a just peace, a peace that means a world fit for free people to live in. German ideals, German purposes, and German practices are the antitheses of American. The beliefs we love and honor and uphold are contemptible to them; the objects for which they will put to death millions of their own men and millions of their enemy are abhorrent to our ideas of right and justice; their methods and practices in warfare are an abomination and horror to us.

The American who now advocates or wishes for peace, except a just peace, is either woefully misguided or a traitor to America's future and America's past, to all things American—the things which have made our country great and free, which hundreds of thousands of Americans have died to maintain, and for which Americans now are dying in France.

There can be no peace with honor or safety to ourselves or to posterity, except a just peace, and there can and will be no other peace. Work for peace accomplishes nothing but the hampering of our effort, the delay of the real peace, and a greater toll of death of America's fighting men. Our duty is to war for a just and righteous peace; to work or speak for any other peace is treason.

Pride in Front Yard

The improvement of rural highways and the building of good roads lays a new responsibility upon every farmer. It means that there will be a greatly increased amount of traffic passing by his homestead; it will bring him more closely in touch with the outside world, including citizens from the immediate neighborhood, from the surrounding counties and indeed from many parts of other states.

The farmer and his home life are now brought more directly to the attention of the general public. Under these circumstances H. F. Major, of the Missouri College of Agriculture, suggests that he take more pride in the development of his home grounds. "A man is known by the company he keeps," so the character of a man is judged by his home life and the atmosphere with which he surrounds himself.

The improvement of the home grounds does not necessarily imply spending great sums or building an extensive "show place" decorated with architectural furnishings and formal gardens. It means treating the yard as an out-of-door living room; as a part of the house. It should be decorated with fine trees, beautiful flowering shrubs, and with annual and perennial flowers that fill the soul with gladness and make home a lovable spot surrounded by endearing associations, that tug at the heartstrings and give the full meaning to "Home, sweet home."

Boys' and Girls' Pig Club

Seven hundred boys and girls are producing meat in Kansas under the direction of the state club leader. Paul R. Imel, who has handled the details of the pig club work, recently said: "Many of these children are getting a start in a profitable business. One boy purchased a pure-bred registered Poland China gilt for $50 last January. Five sows were farrowed in March. Four of these were sold at the age of eleven weeks for $80. This amount covered the original cost of the sow and the total cost of feed given her and the pigs. The boy has the sow and one pig as profit."

Mr. Imel has just resigned to go into military service, but the clubs are well organized and local leaders can be depended on to see that there is no slipping.

Topeka Fair Premium List

The premium list for the Kansas Free Fair, which is to be held in Topeka the week beginning September 9, is now ready for distribution. Following the splendid success of this fair last year, we can expect even better things this year. Liberal premiums are offered in all departments. The futurity hog shows of Kansas for Poland Chinas and Duroc Jerseys will be held at Topeka in connection with the regular hog show. Write to Phil Eastman, Secretary, Topeka, Kansas, for a copy of the premium list.

War and Meat Production

To summarize the effect of the war on the meat situation, the Food Administration makes this statement: Production has increased, and exports have increased both in actual amount and in relation to production. Beef has assumed a more important position in export. During the calendar year 1917, the total production of beef, veal, pork and mutton exceeded 18 billion pounds, of which slightly over 9 per cent, chiefly beef and pork, was exported. The average farm in the United States produced close to 3,000 pounds of meat last year.

Wants Practical Horse Judge

One of the practical horse breeders of Illinois puts in a plea for the selection of judges at our fairs who understand what must be done to improve our American draft horses. He says: "It is time for breeders of draft horses to prepare a new slate not only for the period of the war but for the after-war period. It will be up to the American breeders to meet the world's demands for draft horses and we must have more actual improvement in the horses we breed.

"To bring this about we should have as judges at our state and county fairs and wherever mares and colts and their sires are shown, breeders of sound judgment who have made improvements in their own herds, bred and raised their own sires as well as sold sires to head other herds; in short, we need practical breeders for judges. The time is past for permitting dealers or importers to pick judges who will select their best sellers for the ribbons and divide the honors as nearly equally as possible among the different exhibitors. For this sort of judging any dealer, no matter what breed he handled, would do—even a so-called horse buyer, who handled only merchantable horses for market purposes, would answer for the job. Under our present conditions, to bring about improvement on the farms where horses are bred and raised, we need a practical breeder to judge the draft horses and colts shown at all our shows.

Kansas Fair Premium List

The Kansas State Fair at Hutchinson will follow the Topeka Free Fair. This is the big annual fair event of the Southwest. A most complete classification has been made for live stock and all farm and home products. The premium list is now ready for distribution. The new agricultural building, which was used last year for the first time, is splendidly adapted to exhibiting the various kinds of agricultural products. It should be filled to its fullest capacity. Send to A. L. Sponsler, Secretary, Hutchinson, Kansas, for a copy of the premium list, and make your entries early.

Proper drainage is proving helpful in many localities of our state. From one drainage district recently the following letter came to the drainage engineer of the Agricultural College: "The run-off from the recent rains was considerable. Our ditch had a fair try-out and did the work. The velocity of the water was remarkable as it was shot into the river in two hours. Under old conditions it would have taken two days and the water would have been in our fields all of that time."

The World's Champion Bred Sow Sale

AUGUST 8, 1918

FORTY-FIVE HEAD BIG POLAND CHINA SOWS
All Bred to the Champion Caldwell's Big Bob

We have selected forty-five head of our best sows, all bred to Caldwell's Big Bob for September litters. We want every breeder of big Poland Chinas to be our guest August 8 and view the splendid offering of brood sows. Please send today for nicely illustrated catalog. I want you to read it. Address

FRED B. CALDWELL, Howard, Kansas

POLAND CHINAS

Sand Springs Farms Polands

We have a nice lot of registered Poland China boar pigs that we can price right. Do not wait until you must have one and then pay a long price. Buy one now and save money. Breeding good and individually right.

E. S. Engle & Son, Abilene, Ks.

PALMER'S BIG POLANDS

Fall boars by Big Bob Wonder, Sir Dudley, and Exile, and out of choice big-type dams. They are good ones.
C. B. PALMER, ROUTE 5, MARION, KAN.

Big-Type Poland China Hogs

September and October boars. One real herd boar prospect. Fifty bred sows and bred gilts. 250 spring pigs.
DEMING RANCH - - OSWEGO, KANSAS
H. O. Sheldon, Herd Manager

GRAND VIEW POLANDS

Big stretchy March and April boars, bred gilts and fall pigs. Herd boar Hercules 2d for sale or trade for bred gilts or sows, fully guaranteed.
ANDREW KOSAR - DELPHOS, KANSAS

LANGFORD'S SPOTTED POLANDS

Last call for fall gilts.
T. T. Langford & Sons, Jamesport, Missouri

Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
J. EDW. PLILEY - GILMAN CITY, MO.

Registered Big-Boned Spotted Poland China Hogs—Young stock for sale at all times, either sex. Address Walter Dodd, Jasper, Mo.

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. Chas. E. Greene, Peabody, Kan.

WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

FARM AND HERD.

Catalogs are out announcing the Poland China bred sow sale of Fred B. Caldwell, at Howard, Kansas, on August 8. Forty-five head of big Poland sows sired by King Defender, Big Bone, A Wonder, A Wonder Again, Halvor Boy, Model Big Bob, Biggest Yet, The Big Orphan, Black Orange, and Big Bone Orphan, are in the sale. All the noted boars are represented and all will be bred and safe to the world's grand champion Poland China boar.

B. R. Thompson, Garrison, Kansas, has built up one of the well bred and profitable herds of Jersey cattle in Kansas. The herd was started with two daughters of old Silverine Lad, a bull that won first honors at the St. Louis world's fair. Later ten cows and heifers were retained in the herd by Campus Bridge, a bull used at Missouri University. This bull's dam, granddam and great granddam averaged over 700 pounds of butter per year, official record. They are richly bred from the St. Lambert families and are mated to Mermaid's Owl, Tormentor and Interest breeding. This cross has been producing some of our highest official records in herds where official records have been kept. This bull is a grandson of the Owl of Hebron, the sire of the best Jersey cow at the Kansas Agricultural College, Owl's Design. He is also a half brother of Hebron's Bright Ethel, one of the foundation cows now in the Kentucky Experiment Station. Mr. Thompson has announced October 9 for a complete dispersion sale of his herd.

So long as the boys are at the front, difficulties are to be subdued, impossibilities to be trampled down.

ANGUS CATTLE

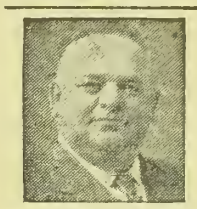
Edgewood Farm Angus

I have for sale
40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.
D. J. WHITE, Clements, Kan.

AUCTIONEERS.

FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. VALLEY FALLS, KANSAS

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri



P. M. GROSS
Live Stock Auctioneer
Twelve years on the block.
Pure-bred sales a specialty. Sales made anywhere.
4230 Paseo
Kansas City, Mo.

HORSES AND MULES.



Percherons—Belgians—Shires
After harvest take the most enjoyable little trip of your life. Come see all my show and breeding horses and have a fine visit with me. Drop me a card now. FRED CHANDLER, R. 7, Charitan, Iowa. Above Kansas City.

GALLOWAY CATTLE.

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.
E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

Registered Galloway Bulls

Ten Two-Year-Olds. Ten Long Yearlings.
These are in extra good condition.
Ready for immediate service.
Come and see them.
CALLAHAN & BECK, KINGMAN, KAN.

RED POLLED CATTLE.

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.
CHAS. L. JARBOE - QUINTER, KANSAS

RED POLLED CATTLE
For Sale—One 4-year-old herd bull, No. 25387, a splendid breeder. Can show a number of his get. I can not use him longer and he should head some good herd. Priced to sell. I. W. POULTON, Medora, Kansas.

JERSEY CATTLE.

100 GOOD JERSEYS FOR SALE

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.
J. W. BERRY & SON, Jewell City, Kansas.

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS
One hundred spring pigs priced in pairs and trios. Geo. W. Ela, Valley Falls, Kansas

TURNER & SON SHROPSHIRES

Fifty good big registered rams, $50 each, crated and express paid here. Also about 100 head of Lincoln and grade Shropshire ewes, ranging in age from one to six years, $22.50 per head. Sheep three miles north of town. Send check or draft with order. Pedigrees furnished for pure-breds. Always return crate. Reference, Harveyville State Bank.
J. R. TURNER & SON - - - - - - HARVEYVILLE, KANSAS

The Government's Call for Income Tax Statements Makes it Certain that

YOU NEED THIS BOOK

GET STARTED RIGHT

There is no better time than right now to begin keeping Farm Records so that you will have the required information ready to make your income tax statement next year. No doubt you are already keeping your records. You want the most simplified and easiest way. Get this book. It's FREE.

PRACTICAL ACCOUNT BOOK

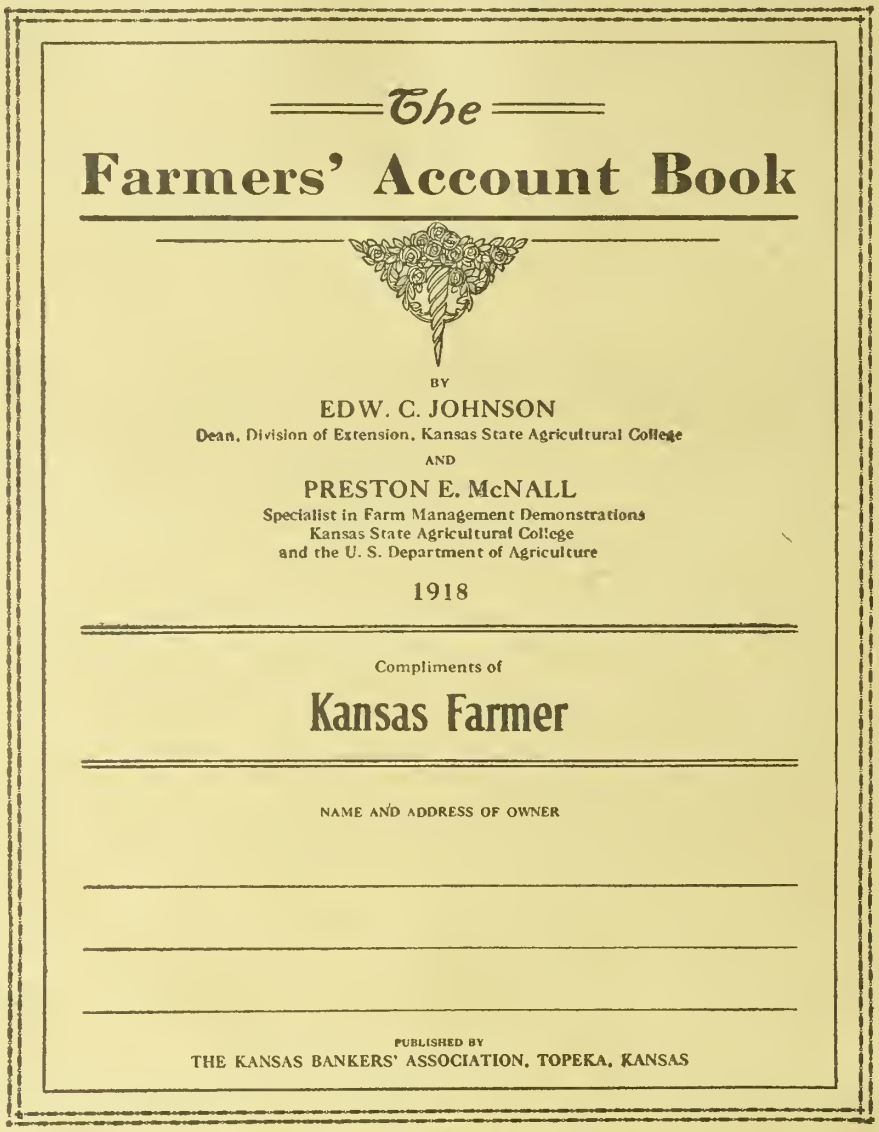
This book is a PRACTICAL Farm Account Book which has been developed under the direction of the United States Government men, working in co-operation with hundreds of farmers in Kansas. It is not merely theoretically correct, but has been prepared to fill the needs as shown by practical use on farms in this state.

THIS BOOK WILL MAKE YOUR WORK EASIER

Keeping accurate records of farm business is becoming more and more popular, not only because it is practically necessary for the income tax statement, but also for the value of the records to the farmer. The most important thing, however, is to secure and keep the information desired with the least amount of work and time; that is, in the simplest way.

The book which KANSAS FARMER is offering on this page, FREE to subscribers, is gotten up with the idea of keeping all the information necessary and valuable with the smallest amount of work. The book is a one-year record. It is small and convenient to keep. It contains full but simple instructions on how to keep the records required, with sufficient blanks for all entries.

ONE-HALF ACTUAL SIZE



ACTUAL SIZE OF BOOK, 8 x 11 INCHES

A PRACTICAL BOOK NOW IN USE BY FARMERS

The book is published by the KANSAS BANKERS' ASSOCIATION. It has been prepared by Dean Edwin C. Johnson and Preston E. McNall, both of the Extension Division of the Kansas Agricultural College, who have done their work on the book in co-operation with the United States Government.

This book has been used in Farm Management studies on hundreds of farms in Kansas where owners have heartily co-operated and offered many valuable suggestions for making it thoroughly practical and suited to actual farm conditions. These suggestions have been incorporated in this latest edition.

CONFORMS WITH REQUIREMENTS OF THE GOVERNMENT

It is the ultimate object of the Internal Revenue Office to adopt a uniform method of computing farmers' incomes. This includes farm inventories, farm receipts, and farm expenses, and follows very closely the book which is given by KANSAS FARMER to its subscribers. From year to year there may be a few slight changes made. For this reason it is best to buy a one-year book in order that each year your book will conform to the Internal Revenue rulings for that year.

FARMERS' ACCOUNT BOOK GIVEN FREE

HOW AND WHERE TO GET THIS BOOK

KANSAS FARMER desires to assist its readers in getting a book which will meet all their requirements at the least possible expense. The book described on this page is adapted to your needs and can be obtained FREE from many banks in Kansas, or KANSAS FARMER will give the book FREE with a subscription. Read our offer below and send today.

OUR OFFER

We will mail you ABSOLUTELY FREE and postpaid one of these Account Books for your renewal subscription to KANSAS FARMER at $1.00. Send us your order today and get your accounts started in such a way as will be easy to keep and which you know will be correct.

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To subscribers whose subscriptions are already paid in advance we make the following offer: Send us one new subscription to KANSAS FARMER for six months at 50 cents and we will send you one of the books FREE AND POSTPAID. This offer is open only to subscribers whose subscriptions are paid in advance, and the subscription MUST be a NEW ONE; that is, for someone not taking KANSAS FARMER at the present time.

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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 29. TOPEKA, KANSAS, JULY 20, 1918. Established 1863. $1 a Year

STILL MORE WHEAT FOR KANSAS

Adding Thirty-Three Million Bushels to Our Yield by Better Tillage

KANSAS has harvested this year 6,600,000 acres of wheat. On June 21 the estimated production from this acreage was 97,500,000 bushels, an average acre yield of 14.6 bushels. Better methods of tillage would probably have increased this yield five bushels per acre, thus adding 33,000,000 bushels to the Kansas crop. This amount of wheat would mill 1,470,150,000 pounds of flour. The maximum wheat allowance per person authorized by the United States Food Administration is now 1½ pounds per person per week. On this basis an increase in wheat production, as estimated to be possible, would furnish the annual wheat flour allowance for 18,800,000 persons, or more men than are serving in the combined armies of the Allies.

The above paragraph is from a little circular being sent out by the Kansas Experiment Station. From our study of the experimental work in seed-bed preparation, which has been going on for several years, we believe the author of the circular is justified in the conclusion drawn. We presented in a recent issue of KANSAS FARMER some of the data pointing to the value of early work in preparing the wheat seed bed. While the facts here given are to a certain extent a repetition, the information is most timely at the present time. The circular referred to above gives in a nutshell the results of several different preparation methods which have proven themselves profitable in growing wheat.

Attention is called to the fact that success in farming depends on proper management. What system do you follow in raising wheat? How do your results compare with what the experiment station reports?

The methods practiced for the past seven years on the station farm have demonstrated the value of several different methods which are described as follows:

Early Plowing Best

Ground plowed early in the summer produces the most wheat. The following figures show it:

The average yield per acre for seven-year period of ground plowed six to seven inches deep July 15 was 22.1 bushels; of ground plowed six to seven inches deep August 15, 20.7 bushels; and of ground plowed six to seven inches deep September 15, 14.8 bushels; of ground disked at seeding time, October 1, 7.8 bushels.

Early Disking

When plowing cannot be done soon after harvest, double disking is next best. The ground can be more quickly covered by this method, and the disking will destroy weeds and prevent the soil from drying out.

The average yield of wheat per acre for seven years of ground disked July 15 and plowed seven inches deep September 15 was 19.2 bushels; of that plowed seven inches deep September 15, 14.8 bushels.

Early Listing Good Method

Where a large acreage is to be planted, labor facilities may not permit of plowing all of the land early or of double-disking and subsequent plowing. Under such conditions listing is advantageous. Listing must be done early. Note this comparison:

The average yield of wheat per acre for seven years of land plowed six to seven inches deep July 15 was 22.1 bushels; of land listed July 15, ridges worked down, 18.6 bushels; of land listed July 15, ridges split August 15, 18.3 bushels; and of land plowed September 15 to a depth of three inches, 13.6 bushels.

Rotation Best of All

The best ground for wheat is early plowed oat or barley stubble. In a rotation of wheat, corn, and oats, these yields were obtained where wheat followed oats:

The average yield per acre for five years on land plowed July 15, seven inches deep, was 22.1 bushels; land cropped in rotation, 25.5 bushels.

The average yield per acre for five years on land plowed August 15, seven inches deep, was 20.7 bushels; land cropped in rotation, 25.8 bushels.

The average yield per acre for five years on land plowed September 15, three inches deep, was 13.6 bushels; land cropped in rotation, 20.9 bushels.

This year the assessors' reports are showing large increases of wheat acreages in the eastern counties of Kansas. Counties that did not harvest over eight or nine thousand acres last year harvested over thirty thousand this year. In most of these counties yields are running high. Wheat is showing itself to be a profitable crop to raise where but little attention has been given to it for a number of years. In Southeast Kansas, for example, the wheat acreage is increasing and with profit to the growers. They are finding that it is one of the profitable crops for that section of the state. Each year new experience is coming to light as to the use of fertilizer in making wheat more profitable.

By following careful methods of preparation, growing the crop in a good rotation, making provision for supplying needed fertility, and guarding against Hessian fly and other insect enemies, wheat can be made a profitable crop in many sections of Eastern Kansas where it is now not very extensively grown. Wheat growers should by all means familiarize themselves with the best methods of seed-bed preparation as well as the proper rotations to follow.

The biggest handicap of the wheat farmer is his inability to do work when it should be done. The results of the experiments given above and the common experience of farmers prove that an increase in yield of four or five bushels of wheat to the acre can be made by plowing in July instead of September. There is no more important job for the wheat grower at the present time than the beginning of the preparation for the next year's crop. Our need for wheat is not over. The present bountiful crop will barely carry us through the present year. The wheat grower cannot help feeling his obligation to do his utmost to produce another big wheat crop.

Abundance of power would make it possible to save the loss in wheat yield due to belated plowing work, effecting a saving perhaps of from two to ten dollars an acre on the basis of present prices. There are farms in Kansas where this year's crop is harvested, threshed, and the ground already plowed. It has taken tractors and gang plows to do this. Peter Johnson, of Ellis County, for example, who handles thousands of acres of wheat, always plows early, using both engines and teams. Even his girls operate tractors or plows during this rushing period when it is so important to get the ground turned over quickly in preparation for the next year's crop. On the Hays experimental farm, engines and teams are now at work turning over the land.

Here, as in England and France, the American tractor is coming to the relief of the power-hungry farm. In no other way is it possible to do the heavy work so necessary in getting the seed bed ready for maximum yields. Every week's delay in plowing after harvest knocks another bushel from the prospective yield of wheat. Land that cannot be plowed this week because of lack of power is getting dryer and harder with each passing day.

Program for Increasing Wheat Yield

BY W. M. JARDINE, PRESIDENT KANSAS AGRICULTURAL COLLEGE

THIS is the program I would outline for Kansas farmers in the wheat-planting campaign of 1918-19:

Plow or list in July or early August every acre on which wheat is to be planted this fall. Give it just enough cultivation thereafter to keep it free from weeds.

Plant to wheat as much as possible of the land on which oats were grown this year. Wheat will do better after oats than after wheat.

Plant as much wheat as practicable in cornstalk ground, providing it has been kept well tilled and free from weeds.

I would urge the farmers of Eastern Kansas to increase the acreage planted, because Eastern Kansas has a greater supply of labor than any other section of the state, and wheat-growing fits in well with the cropping system. It is fall-planted while all other crops are spring-planted. This provides for an economical use of labor. Wheat is a sure crop for Eastern Kansas if well planted, and practically every farmer has on hand an abundant supply of seed of known quality.

I would advise the farmers of Western Kansas to plant a normal acreage to wheat and to reduce to the minimum the chance of failure by preparing the seed bed early and well. In this section drouths and hot winds are to be expected. It is wonderful what a little reserve of moisture will do in enabling wheat to withstand cold and drouth. A reserve of moisture can be secured by stirring the ground early so that every drop of rain that falls may penetrate the soil and be retained until the growing crop can use it.

For extreme Western Kansas I would advise farmers to seed wheat only on land that can be put in first class shape for planting. In the event that some of the acreage in row crops such as kafir, milo, feterita, and even corn, fails to mature a crop, such land would be in fit condition to plant to wheat, providing it has not been allowed to grow up in weeds. We must remember that labor is going to be scarce in Western Kansas, both for planting this fall and harvesting next summer; also, many farmers will have to buy seed wheat at from $2.50 to $3 a bushel laid down on the farms. Moreover, wheat is not as sure a crop as the sorghums, such as kafir, milo, feterita, and cane, nor will it make farmers more money than the sorghums. The sorghum grains are now used in large quantities for making substitute flours. They furnish splendid feed for live stock, fed either dry or as silage. We should have a large acreage planted to sorghums in Kansas next spring. A large acreage of Western Kansas land should therefore be reserved for the sorghums.

THIS WEEKS' EDITORIAL

THESE are the times to farm with a vengeance. The farmers opportunity is now, right now.

Prices of everything we have to sell are high and probably will be higher before they are lower. And let us not forget that we are sellers—not buyers.

The era of high prices for everything produced on the farm will continue for a considerable time—certainly until the close of the war and even then until the farms and herds of Europe resume somewhere near their normal production.

Normally we supply the allies with ten per cent of their food. Now we are supplying fifty per cent.

We have never seen the time when there was so much demand---indeed a dire necessity--for the crops marketed either as grain crops or fed to live stock. We have never seen the time when so much money can be made from them.

To produce crops---grain and forage---requires man and horse power to plow, plant, cultive, harvest and market. And, this work must be done in season. If not --particularly in plowing and seeding--fully fifty percent of the possibilities of yield and profit are lost.

But man power and horse power are in these times both short. This shortage must be overcome---not for financial reasons alone but for patriotic reasons as well.

If this country cannot produce save and supply as never before the heel of the Hun surely reduce us to oppression and poverty.

But this is our opportunity to make money---indeed if we would be patriotic we cannot help but make money. This especially applies to the farmer. He is not susceptible to the stigma of profiteering in the eyes of the law as is for example, the maker of wagons if he during the war period should obtain more than a normal profit.

We must plow and seed every available acre, even though help is short. We must do it in season.

The farm tractor will take up the slack in man power and horse power as nothing else can.

The tractor works as long as there is work to do and so long as there is someone to drive it---24 hours a day if necessary whether hot or dry it plods along performing its mighty work. It places in its driver's hands the power and the opportunity of a half dozen men and a half dozen average good teams.

THE TRACTOR IS OPPORTUNITY FOR THE KANSAS FARM.

Last week we observed an 80-acre field in the Kaw Valley near Topeka. The wheat had been harvested and threshed. The tractor was plowing the last ten acres. The middle of July and the fields plowed! Think of it! That's early plowing. That's wheat crop insurance and assurance—the nearest to a sure thing for a crop of wheat we know. A like accomplishment is impossible under existing conditions without the tractor.

But, it takes the place of men and horses in other farm work in dozens of ways. The tractor has become a general-purpose implement. It will perform almost any work a horse will, and some that he cannot.

Go to Salina next week where the National Tractor Show is being held. This will probably be the greatest tractor demonstration the world has ever seen. At least that is the claim being made by the National Tractor Farming Demonstrations. Every kind and size of farm tractor will be shown in operation and subject to your inspection.

GO TO SALINA AND PICK OUT YOUR TRACTOR.

On March 1, 1917, Kansas had 5,000 farm-owned tractors. There are 177,000 farms in Kansas.

At least 60 per cent of Kansas farms grow a sufficient acreage of wheat to profitably operate a tractor and the increased yield of wheat per acre in one year through early plowing will make the purchase of a tractor the best investment it is probably possible for the farmer to make.

Again go to Salina and select a tractor and buy it. Get the earliest possible delivery and get it into the field.

J. A. Borman

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KANSAS FARMER

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QUALIFICATIONS OF CANDIDATES

Politics as ordinarily understood is not appealing very strongly to the rank and file of the people of Kansas and the country as a whole. We have a big job on our hands and the petty political methods of those who are anxiously contending for our votes seem trifling and out of place under the circumstances. Members of Congress in the last week or two have worked overtime sawing planks for fence-building at home out of the resolutions for $2.40 or $2.50 wheat, knowing full well that the President had his mind made up to veto the clause for higher-priced wheat in the agricultural bill.

Still we cannot, like England, postpone an election, but must go through the ordeal, and along with our many duties as citizens discharge honestly and faithfully the duty of voting for the men who represent us in Congress and in other places. First comes the primary, where we nominate our candidates. This is the preliminary skirmish and is a time when every voter should have the fullest knowledge possible of the men up for office. We wonder if Kansas people know how their representatives in Congress who are up for renomination voted on the McLemore resolution, for example, which involved the most abject surrender of our rights to Germany; or on the Cooper resolution, known as the Embargo act, which would have made this country violate its neutrality and favor Germany; or on the Selective Draft act, the most sensible and democratic method of raising a great army ever devised and our first act in getting into the war. There are Kansas members of Congress who were on the wrong side of all these votes. Since we must take the time to nominate men for these high offices, let us do it as faithfully and earnestly as we are doing the other things on our war program.

In a recent issue of the Outlook, a series of tests was given which should be applied to every man up for Congress in this critical period. They are as follows:

"Vote for the congressman in your district whose supreme purpose in all he does and says will be to win the war. Whether he be Democrat or Republican, Prohibitionist or Anti-Prohibitionist, for woman suffrage or against woman suffrage, is of small consequence. There is but one issue this summer: win the war.

"Measure candidates by their deeds, not their words. Of two candidates, if one was for universal service before we entered the war and the other is a late convert, the presumption is for the first. He who went for preparedness against the tide is to be preferred to him who goes with the tide for performance.

"Beware of the chronic faultfinder, the constitutional critic, the man who proves his efficiency not by doing something but by finding fault with everything, who glorifies himself by belittling his fellows.

"Beware of the chronic eulogist, the man who thinks criticism is disloyal, the man whose only motive is, Get behind the President. Faithful are the wounds of a friend. The President's best friends are the men who give a wholehearted support to the war policy, but do not hesitate to point out errors and shortcomings in particular policies or methods.

"The American Government is not a comet with the President for its head and Congress for its tail. Send to Congress a man who has the vision to see his duty and the courage to do it. This is no time to convert the American Congress into a German Reichstag, a mere debating society, a 'Hall of Records.' There are too many men of the 'Ditto to Mr. Burke' order in Congress. Do not add to their number. Elect a man independent enough to have an opinion of his own, enough of a mixer to work for a common end with men of a different opinion.

"Do not elect a pessimist who is sure that the Germans can never be defeated, that the most to be hoped for is a stalemate. Despair never yet won a victory.

"Do not elect an optimist who thinks a German victory is impossible, that we need not worry. Serenity never won a victory.

"We can win if we have the will to win; we cannot win without the will to win. Elect courage, not cowardice; hope, not despair; resolution, not vacillation; a discriminating doer of deeds, not a blind follower of a leader."

The man whose record can stand a critical scrutiny on the basis of these statements is a safe man to send to Congress. Test your candidate before you cast your vote.

FREE COPIES DISCONTINUED

AFTER this week we will discontinue sending KANSAS FARMER free to correspondents, exchanges, and others who may in the past have received these complimentary copies. The War Industries Board, in accordance with its policy of reducing the labor and materials used in many industries, is cutting down on print paper. Some classes of publications have been ordered to cut out all free copies. We feel it our patriotic duty to fall in line with this war conservation policy, and for the time at least will discontinue all free copies of KANSAS FARMER except that all advertisers will be sent free copies for checking purposes while their advertisements are running.

Thirty-seven big tractor and plow manufacturing companies and twenty accessory manufacturers have already entered for the demonstration to be held in Salina the week of July 29. The management is making plans for taking care of one of the biggest meetings of this sort ever held. Sidetracks are being put in to accommodate over 400 cars so there will be no delay in getting the exhibits in place.

WHEAT PRICE BILL VETOED

President Wilson, as was a foregone conclusion while the measure was being debated in Congress, has vetoed the Agricultural Bill which contained the provision for a $2.40 minimum price on 1918 wheat. The price as it now stands is $2.18 for No. 2 wheat at Kansas City. It should be understood that under the plan in operation this year the competitive feature enters, and mills can bid up on wheat giving more than the minimum price if they so choose. The President's reasons for returning the bill without his signature were clearly given. In order that our readers may have them in full, we print the President's statement and would urge that all give it a careful reading:

"I regret to return without my signature so important a measure as H. R. 9054, entitled 'An Act Making Appropriations for the Department of Agriculture for the Fiscal Year Ending June 30, 1919," but I feel constrained to do so because of my earnest dissent from the point of view of principle as well as wise expediency from the provisions of that part of Section 14 which prescribes a uniform minimum price for No. 2 northern spring wheat of $2.40 a bushel.

"I dissent upon principle, because I believe that such inelastic legislative price provisions are insusceptible of being administered in a way that will be advantageous either to the producer or to the consumer, establishing as they do, arbitrary levels which are quite independent of the normal market conditions and because I believe that the present method of regulations by conference with all concerned, has resulted in the most satisfactory manner, considering the complexity and variety of the subject matter dealt with.

"It is evident that the present method of determining the price to be paid for wheat has had the most stimulating effect upon production, the estimated crop of spring wheat for this year exceeding all high records in a very remarkable and gratifying way. By an overwhelming majority of the farmers of the United States, the price administratively fixed has been regarded as fair and liberal and objections to it have come only from those sections of the country where, unfortunately, it has, in recent years, proved impossible to rely upon climatic conditions to produce a full crop of wheat, therefore, many disappointments to the farmer have proven to be unavoidable.

"Personally, I do not believe the farmers of the country depend upon the stimulation of price to do their utmost to serve the nation and the world at this time of crisis by exerting themselves to an extraordinary degree to produce the largest and best crops possible. Their patriotic spirit in this matter has been worthy of all praise and has shown them playing a most admirable and gratifying part in the full mobilization of the resources of the country. To a very greatly increased production of wheat they have added an increased production of almost every other important grain, so that our granaries are likely to overflow and the anxiety of the nations arrayed against Germany with regard to their food supplies has been relieved.

"The administrative method of agreeing upon a fair price has this very great advantage, which any element of rigidity would in large part destroy, namely, the advantage of flexibility, of rendering possible at every stage and in the view of every change of experience a readjustment which will be fair alike to producer and consumer.

"A fixed minimum price of $2.40 per bushel would, it is estimated, add $2 per barrel to the price of flour; in other words, raise the price of flour from the present price of $10.50 to $12.50 at the mill, and, inasmuch as we are anticipating a crop of approximately 900,000,000 bushels of wheat, this increase would be equivalent to the immense sum of $387,000,000.

"Such an increase of the price of wheat in the United States would force a corresponding increase in the price of Canadian wheat. The allied governments would, of course, be obliged to make all of their purchases at the increased figure and the whole scale of their financial operations in this country, in which the government of the United States is directly assisting, would be thereby correspondingly enlarged. The increase would also add very materially to the cost of living, and there would inevitably ensue an increase in the wages paid in practically every industry in the country. These added financial and economic difficulties, affecting practically the whole world, cannot, I assume, have been in contemplation by the congress in passing this legislation."

STUDY TRACTOR WITH OPEN MIND

WE HAVE devoted considerable space in this issue to the subject of power farming. Not all of our readers by any means are directly interested in the tractor as a source of power for performing farm work. Probably a rather small percentage are directly so interested, but we know that more and more of the farmers of Kansas are each year considering the possibilities of the tractor as a piece of farm equipment. The war is forcing it rapidly to our attention because of its relation to keeping up production as man power decreases. This is our justification for giving in this issue the latest developments bearing on the use of tractors.

The necessity for keeping up our record as being the best farmers in the world from the standpoint of man yield is forcing us more and more to depend upon the best of modern machinery. This has been a characteristic of our whole agricultural and industrial development. It has enabled us to build up the finest kind of a rural civilization in the world. God forbid that we should ever have in this country a peasant class living as do the farm laborers of Europe. We owe it to posterity to be up and alive to anything that will maintain the proud position occupied by the American farmer and his family.

Mechanical power, the utilization of the untold reservoirs of energy stored in this old earth, has wonderful possibility. Man's mechanical ingenuity has not yet begun to reach its limit. Under the stimulus of war needs we are making even more rapid strides than in the past. We do not mean by this to predict the immediate passing of the horse as a farm animal. In the immediate future there will still be much work for the horse, but we cannot ignore the possibilities for multiplying the power at the command of a single individual through a larger use of tractors.

It is not every man who has the mechanical ability to succeed with tractors. This will be a factor limiting their general use. There are 175,000 or more farms in Kansas. It would require a wild stretch of the imagination to conceive of every one of these farms being operated exclusively by mechanical power. The five or six thousand tractors now in use in the state are but a drop in the bucket as compared with the total power being used for farm work. We feel sure, however, that this number could be multiplied perhaps three or four times in the near future with the best of results, assuming that each man adding a tractor to his equipment is temperamentally adapted to successfully handling this kind of power. Even with a three- or four-fold increase, the tractor would still be furnishing a comparatively small part of the total power used on the farms of the state and there would probably be little if any decrease in the total number of good horses used.

It is up to the progressive Kansas farmer to keep an open mind on this question of power farming, weighing carefully all its possibilities and seeking every opportunity to learn of the progress being made in developing practical tractors and the implements used with this kind of power.

G. C. Wheeler.

FARMERS' DECISION ON TRACTOR

Men Who Have Used Mechanical Power Report on Results

TO PERFORM the work now necessary in growing crops, the man must be able to multiply the labor of his hands. Power is essential to the successful operation of a farm, be it large or small. The best of tillage methods must be followed if the land is to produce big crops.

Ordinary power equipment is entirely inadequate. The plowing that is done is seldom deep enough and often of necessity done at the wrong time. Every wheat grower knows that he could increase yields four or five bushels to the acre by early work in seed-bed preparation. Millions of acres of land should be fall-plowed each year. Lack of sufficient power makes these operations impossible.

The cost of necessary power and the expense of its upkeep is one of the big items in farm management. Busy power and busy machinery must be combined with busy men to produce large profits in farming. A combination of tractor and work animals as a source of farm power saves money, increases the efficiency of machinery, and makes larger crops possible.

G. W. Wheeler.

THE man considering the purchase of a tractor is usually furnished with an abundance of information setting forth the theoretical advantages of mechanical power for farm work. What is of far greater importance in enabling him to make a wise decision is the practical experience of men who have actually used tractors. They know the principal advantages and disadvantages of tractors from their experience in using them in their farm work.

The United States Department of Agriculture has been accumulating information gathered from farmers who have used tractors on their farms. In 1916 more than 200 Illinois tractor men were asked the questions: "What do you find to be the principal advantages of a tractor for farm work?" and "What are the disadvantages?" The information so obtained was published in Farmers' Bulletin 719, "An Economic Study of the Farm Tractor in the Corn Belt." This line of investigation has been continued, and during the summer of 1917 detailed reports were received from 359 tractor owners in Illinois and from 284 in the spring of 1918.

It is stated in Farmers' Bulletin 963, "Tractor Experience in Illinois," just published, that the replies received last year and this spring emphasize the same points as were brought out in the 1916 investigation.

It is evident that the ability of a tractor to do heavy work and do it quickly, thus covering the desired acreage within the proper season, is considered the principal advantage. The saving of man labor and the doing away with hired help, enabling a man to farm a larger acreage and thus increase the crops he can raise, is next in importance. The ability to plow to a good depth, especially in hot weather, is also emphasized, while other points are mentioned occasionally, but not in a sufficient number of cases to warrant listing in this connection.

The availability of the tractor for work at night as well as by day was not mentioned by many owners, although theoretically this should be a decided advantage.

Under disadvantages, the difficulty of efficient operation is the principal point, and this fact should be kept in mind by everyone who considers the purchase of a tractor. Packing of the ground when damp is mentioned by several owners, but not as frequently as was the case when more of the older and heavier machines were in use. Expensiveness, delays, and inability to use the tractor for many kinds of work for which horses could be used are disadvantages mentioned by several owners. Other disadvantages are noted, but not by a sufficient number to warrant mentioning here. It may also be noted that disadvantages are not emphasized to so great an extent as formerly, nor in nearly so many cases as advantages.

Size of Farm and Tractor

The size of the farm as related to the using of a tractor for power is a practical problem for consideration. The introduction of an improved farm machine may be expected to reduce the man labor required for farm operations, permitting one man to accomplish more work and farm more land than with the older methods, but it is obvious that the farm business must be of sufficient size to permit the economical use of an improved machine in order to justify the necessary investment. This means that on many small farms older methods must be used or else the operator must depend on hiring modern equipment, because the small amount of work done each year does not warrant owning the machine.

Among the more important facts disclosed by the study of the use of the tractor for farm work, as given in the Government report, are those relating to the increase in the acreage which can be farmed by one man when a tractor is used in connection with horses, over that farmed with horses alone.

Approximately one-third of all the Illinois farmers reporting increased the acreage they were farming after purchasing a machine, the percentage of men so doing being slightly higher in the group reporting the tractor profitable. The percentage of the entire number of tractor owners who have enlarged their farms is significant, for whereas there has been a tendency for the size of corn-belt farms to increase in recent years, the increase among farms in general is not nearly so pronounced as in the case of farms on which tractors are used.

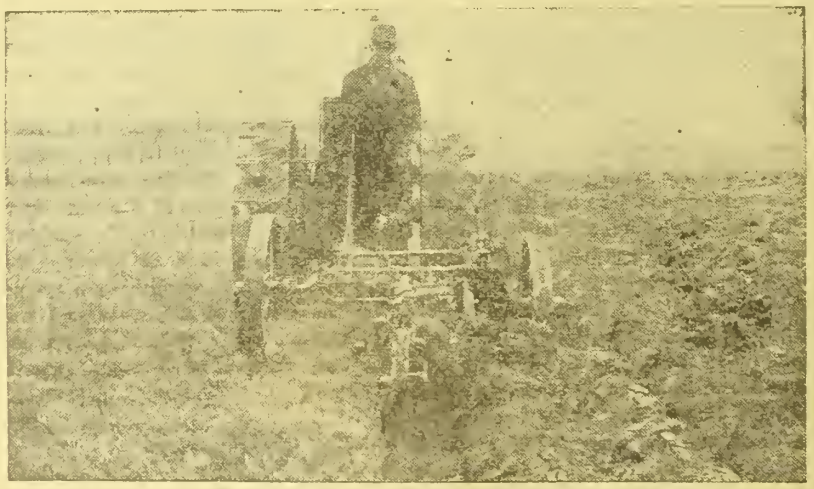
Farm-management studies repeatedly have demonstrated the fact that a great many farms are not large enough to furnish economical employment for the equipment which they possess. That is, the various implements are capable of doing the work on a larger acreage within the time which the seasons allow, and the purchase or renting of additional land often will increase the gross receipts considerably without materially increasing the operating expenses. This increase in the size of farms upon which tractors are used is merely another proof of the fact that the use of improved farm implements increases the amount of land one man will farm.

Three-Plow Outfit Popular

With the tractor, as with any other farm machine, it is important that a suitable size should be selected for a given acreage. A few years ago there was a wide range in the sizes of tractors on the market — outfits pulling from two to fourteen plow bottoms being sold—but there has been a decided tendency during the last year or two to reduce materially this wide range in size, and by far the largest percentage of the tractors sold at this time pull either two, three or four plows, with the three-plow size much the most numerous. For several reasons the large outfits did not prove successful or economical under ordinary farm conditions, and for a short time the tendency was strong to go to the other extreme, most of the tractors produced and sold for a short period being two-plow machines. However, during the last two years, and especially during the 1917-18 season, the tendency has been toward a somewhat larger tractor, with the result that three-fourths of all machines studied in Illinois in 1917-18 were three-plow or four-plow outfits, with the three-plow size predominating.

It is doubtless as a result of the more general use of the three-plow and four-plow machines, and hence a better acquaintance on the part of farmers with these sizes, that 76 per cent of all owners reporting recommend the three-plow machines, while 13 per cent favor the four-plow outfit, and only 11 per cent advise a two-plow rig, whereas, as the time the data on which Farmers' Bulletin 719 was based were collected—1916—a somewhat greater percentage of tractor owners recommended the four-plow than the three-plow outfit, with 13 per cent advising the two-plow rig. At present there seems to be no doubt that the three-plow size is the general favorite for corn-belt conditions, whereas the four-plow is more generally preferred than the two-plow size.

Even on farms of comparatively small size the three-plow tractor is recommended by the largest percentage of owners. This, taken with the other facts, seems to indicate that the two-plow tractor does not increase sufficiently the amount of work which one man can do, hence does not possess, except to a slight degree, the greatest advantage of tractors in general, namely, timeliness in performing farm operations through much more rapid work than is possible with horses. Moreover, a two-plow tractor does not ordinarily develop enough power to make it suitable for operating grain separators, silage cutters, etc., which are tasks for which power is required on the average corn-belt farm. It happens not infrequently that the owner of a two-plow tractor has to hire an engine with slightly more power to do his belt work, so it is not to be wondered at that in case he were buying another machine he would select one with more power.



THIS TWO-BOTTOM GANG IS DOING A SPLENDID JOB OF PLOWING.—ADEQUATE EQUIPMENT NOW AVAILABLE FOR TRACTOR POWER

Smallest Size Farm for Tractor

The question as to the smallest size of farm on which a tractor may be expected to prove profitable is one often asked and one that has been much discussed. Certainly no more reliable opinion on this point could be obtained than the average of the estimates of a large number of tractor owners. In the opinion of these men the minimum number of acres on which two-, three- or four-plow outfits may be expected to prove profitable are 130, 170, and 210 acres, respectively.

Attention is called especially to the fact that these figures represent the smallest size of farm for which these tractors should be purchased, in the opinion of men who have had experience with them, and not the size on which they can be used most profitably. A farmer who is contemplating the purchase of a tractor and whose farm is smaller than the acreages above given, should consider carefully before acting contrary to the opinions of experienced men.

While a tractor is less efficient on a small farm, because of the smaller fields and a correspondingly greater loss of time in turning, larger percentage of the area of fields to be finished up with horses when plowing, etc., these points are not so important as the fact that the small farm is usually thrown out of balance, from an economic standpoint, by the investment of a disproportionate amount of capital in power which can be used fewer days than would be the case with the same machine on a larger farm. The overhead charges per unit of work done are, therefore, much higher on the small farm. The obvious course for the small farmer who has already invested in a tractor is to acquire more land in order to utilize the tractor more efficiently, which, as mentioned elsewhere, is the course followed by a large percentage of tractor purchasers.

The average sizes of the farms reporting on which two-, three- or four-plow tractors are in actual use, are considerably above the minimum figures given above, being 180, 250, and 300 acres, respectively.

Tractor to Fit Farm

To obtain the fullest degree of satisfaction it is necessary that the proper size of tractor be bought. A tractor which is not powerful enough for the work required of it will prove more or less unsatisfactory, of course, and to exchange it for a larger one entails an expense which would be unnecessary if the right size were obtained in the first place. On the other hand, an outfit which is much too large may be too clumsy or expensive in operation to make it economical for a great deal of work on which a tractor of the proper size could be used with satisfaction and economy.

The three-plow and four-plow sizes seem to meet best the tractor requirements of the average farm in Illinois; they enable plowing to be performed much more rapidly than is usual when horses are employed. The man labor is also reduced when using three sizes of tractors, as one man attends to three or four plows at one time, instead of only two, as is ordinarily the case where horses are used. Where modern self-lifting gang plows are used, one man ordinarily handles the entire outfit in plowing, no matter what size gang is used. Furthermore, the four-plow size of tractor is generally powerful enough to operate practically all of the machines which are commonly found on the average farm, including the silage cutter and the medium-sized grain separator. At the same time it is not so expensive in operation as to prohibit its use for many odd jobs which do not demand a great deal of power.

Plan for Belt Work

In purchasing an outfit, care should be exercised to obtain one with ample power for the heaviest work which will be required of it. This may be either field work or belt work; probably it will be the latter more often than the former. Frequently the work of a tractor in driving a grain separator or silage cutter requires more power than the

(Continued on Page Eleven)

COOKING FOR THRESHERS

Good Food for Threshers as Important as Proper Rations for Army

THE MEN WHO SAVE THE WHEAT must be well fed. The woman who gives them wholesome, nourishing food, is serving her country.

HOUSEHOLD HELP IS SCARCE and food is no longer abundant and cheap. This makes careful planning even more necessary than usual.

WRITING OUT EACH DAY'S MENUS ahead of time helps to insure greater variety and well-balanced meals.

LEARN TO USE SUBSTITUTE FOODS. Use recipes given in magazines and exchange with your neighbors. Sometimes serve quick breads.

AVOID WASTE OF FOOD. Do not serve too much of one kind. Use all left-overs. This is true economy.

DO NOT WASTE HUMAN ENERGY. The housewife should plan to spare herself by saving steps wherever possible.

IT IS not only an army that travels on its stomach. How far would our men get with the arduous work of saving the wheat without the co-operation of the women who spare no pains to set before the harvesters and threshers nourishing, wholesome, appetizing food? This necessary task is not an easy one. "The subject of meals for threshers," says Mrs. Mary Whiting McFarlane, leader of home economics specialists of the extension division of the Kansas Agricultural College, "assumes an unwonted difficult aspect just now in the light of the shrunken flour barrel."

An analysis of the housewife's problem, according to Mrs. McFarlane, shows four distinct phases. She must feed her family and the precious laborers that are so few so that they may efficiently do their work; she must serve meals that will please and keep them happy; she must conform to the Food Administration regulations, and she must do it all economically, both as to money and her own strength. The woman who does all these things this summer is certainly a patriot of the first order and entitled to recognition as such.

The friendly rivalry which has existed in the past among farmers' wives as to who should set the most bountiful table for the threshers, Mrs. McFarlane believes should not be indulged in this year. The ideal for this summer for every American housewife is patriotic efficiency. To secure this means a degree of thought which has not always been given to the planning of meals. "It really is not a difficult thing to plan meals," says Mrs. McFarlane, "nor is it at all an unfamiliar task to most of us who keep house. The only point that is new to anyone is the planning ahead of time and putting these plans on paper. It will not do to trust to the old way of planning just at the moment when we must put our plans into execution. That leads down the broad road of inefficiency. All through this war the Germans have shown us plainly the value of well considered plans. Our campaign this summer calls for this same style of efficiency in using the food of the world, and will require as careful planning.

"It is often objected," says Mrs. McFarlane, "that the efficient planning of meals calls for a certain knowledge of food values and types, which everyone does not have, but plain common sense applied to every day's menus will do wonders. The starting point should be a quiet hour or two some time beforehand, when a list of the things available can be made and these arranged to the best advantage so that the much sought after variety shall not all appear in one meal." To be specific, a table might be roughly ruled and the various types of foods grouped under appropriate heads, such as cereals, meat, vegetables, breads, and drinks, these being separated into the ones appropriate for breakfast, dinner, or supper."

A few practical points Mrs. McFarlane says should be kept in mind in planning any meal. One is a reasonable uniformity in quantity and kinds, not a feast one day and a famine another. This means foresight. Another is that foods containing fats, such as fried foods, do not leave the stomach as quickly as other sorts, and its practical application is that such foods keep one from getting hungry for a longer period, or in the common parlance "stay by" one better. Hunger is our knowledge of the fact that the stomach is empty, and so in the ordinary cases of three meals a day it is wise to provide foods that will not be too quickly digested and pass out of the stomach, causing that troublesome organ to clamor too loudly before the next meal time. Another point not to forget is to not let these overlap; for instance, the serving of potatoes, and macaroni with rice pudding for dessert, gives too many starchy foods. In general, a meal should carry some sort of meat or meat substitute dish, some starchy food, as potatoes, some vegetables or fruit, and in times of strenuous effort such as we are now considering, something containing fat to keep down hunger.

The proportions of these various kinds of food Mrs. McFarlane gives roughly as follows: One-tenth of the day's food should be either meat or something equivalent, as beans, cheese, etc. This is the protein element for which the farmer pays such a high price in his stock feeds. One-third of the day's food should be fats, including of course all that goes into shortenings and what is served as butter, and approximately three-fifths of the day's rations should be something in the line of starches or what are technically known as carbohydrates; in everyday English, potatoes, vegetables, fruits, oatmeal, cornmeal, flours of various kinds, etc.

"This brings us to what for most of us is the crucial point just now," says Mrs. McFarlane. "This year these necessary carbohydrates are under the ban included in the list of wheat substitutes and so not to be used with their former lavishness. How are we going to provide three-fifths of our meals from such things as corn meal and barley flour, expensive rice and potatoes flours, etc., and fulfill all the requirements of the harvest table? How can anyone feed so many hungry men the bread they require and use these new cereals?

"To begin with, certain facts about these substitutes must be learned. They can be very well used, but one must know how. Bread to most of us means yeast bread, but bread raised with yeast can only be made satisfactorily with a certain percentage of wheat flour—usually two-thirds—and when we do not have that amount to use we cannot hope to have the customary loaf. Yeast breads can be made with substitutes only, but they require quick handling, lest they ferment and sour, and it often is not worth while to attempt them, since these substitutes can be so very well used in baking powder breads.

"But Kansas farmers are given a ray of cheer in the ruling of the State Food Administrator, Walter Innes of Wichita, who has published the following statement: 'During harvesting, wheat flour in excess of the amounts ordinarily allowed, may be obtained on the 50-50 basis, upon consultation with the local Food Administration representative.'

"Hundreds of recipes for using substitutes abound in current periodicals, and each woman has her own particular pet recipe for muffins and gems as well. Indeed it takes very little skill to make good quick breads with baking powder. Finding the particular kinds of muffins or biscuits that her family likes is every housewife's task just now, and she should not forget that it is also a privilege to cook for her own loved ones who are here beside her, and minister to their comfort at the same time she serves her country.

"Last, but not least," Mrs. McFarlane points out, "comes the item of economy. In these days of hard times probably the best way of economizing is a careful avoidance of waste. Of course nobody who reads this ever wasted anything themselves, but everybody has seen instances of waste among their neighbors; and so, as this is a delicate subject, perhaps it will be as well to consider it from the standpoint of our neighbors.

"One way your thriftless neighbor wastes food is not realizing its purpose and serving too much of the same kind of food. The instance cited above where several varieties of starches appeared together is a case in point. We have all eaten dinners in a neighbor's house where there were several kinds of meat and beans and possibly peas with macaroni and cheese as well and a dessert of mince pie and cheese. This is a shining example of too much protein and a clear case of waste, since the human system can make use of only a limited amount of protein. Then of course there is the poor unfortunate neighbor who never uses left-overs, but lets them accumulate until they spoil and must be thrown out. All kinds of food wastes are little short of criminal."

Another form of waste which Mrs. McFarlane believes should be vigorously avoided is that of human energy. Wherever possible the woman of the family should arrange to spare herself. This also calls for forethought. The good old adage of our grandmothers perhaps states the case as well as it can be stated: "Let your head save your heels." One way suggested is to occasionally have a meal served cafeteria style out of doors with explicit directions given to each individual about cleaning up and sorting his dishes for washing. The magazines are full of suggestions for step-saving and wherever such helps are available they should be used by the housewife.

Harvest menus adapted to war conditions are given in Bulletin No. 10, Volume 1, "Meals for Harvest Time," prepared by the home economics department of the Kansas Agricultural College. Other available bulletins are: "One-Dish Meals," "Use of Wheat-Saving Cereals," and "Wheatless Recipes." These bulletins may be obtained without cost by any resident of the state who will write to the Home Economics Department, Kansas Agricultural College, Manhattan, Kansas.



SAVING LABOR BY RUNNING THE OATS INTO THE BIN AND THE STRAW INTO MOW. FEEDING THRESHERS ALSO CALLS FOR ECONOMY OF EFFORT AND FOOD MATERIALS

Pulping Fruit

Every housekeeper is anxious to build up safe reserves of fruit and vegetables for winter, and a good provider takes justifiable pride in well-filled shelves. To such women the twenty-five-pound allotment of sugar, or even a more generous allowance for canning, will not provide a safe margin unless there is a careful distribution—so much sugar for cherries, and so much for peaches—and this program backed up with generous supplies canned without sugar.

England has adopted a method of preserving fruit without sugar, known as "pulping," that is employed both commercially and in the homes. This method is economical of jars, as no water is used in canning the fruit.

The method, according to the Bulletin of the Royal Horticultural Society, is as follows:

Pack sterilized jars full of fruit, add no water, place rubbers and caps in position, and fill pan with water up to the shoulders of the bottles. Place pan on fire and bring water to the simmering point and keep it at this point half an hour. Remove bottles and fill them one from the other, replace rubbers and caps, and put the bottles back in the pan and bring them up to the simmering point again for another five minutes. Take them out one at a time and screw down the tops. Invert to cool and test the joints. Wrap in paper to prevent bleaching and store in a dry, cool place.

Cooking the fruit before bottling is a simple method of pulping, but the fruit will be darker than if the above method is followed. This method is as follows: Place fruit over a gentle heat until enough moisture comes out to prevent burning, then increase the heat until the fruit boils. Boil an hour, stirring all the time, and can, following usual methods of sterilizing. In putting up apples, a little water will have to be added to the fruit to prevent burning.

Pulped fruit can be used for jam, stewed fruit, puddings and pies. The English housewife who has to be very careful of sugar makes up pulp into jam one jar at a time, allowing half a pint of sugar to a pint of fruit. This does not make so sweet a jam as the usual quantity of sugar, but as this English woman writes, "It is quite good enough and in these days jam of any kind is almost a luxury."

Conserve Surplus Food

Increased planting of vegetables this year almost certainly will mean an unprecedented yield of fresh vegetables in the spring and summer.

This will mean plentiful supplies for summer tables and a large surplus.

This surplus, to be useful to America, must be conserved.

It must be canned, dried, brined, or stored in the homes of America.

Home-conserved food means that the home will be more nearly self-sustaining and that the burden on transportation will be lightened.

Women who have never canned should now learn how; women who know how should prepare to do more.—U. S. Department of Agriculture.

Save gasoline waste by stopping the engine whenever you can. Many drivers let the engine run when stopping for a few minutes. Gasoline is an essential war material and should not be wasted.

TRACTOR AND FARM LABOR

Must Train More Tractor Operators to Take Place of Those Gone

By W. H. SANDERS, Farm Engineering Department, K. S. A. C.

ANY intelligent discussion of the part tractors are playing in Kansas agriculture must be predicated on war conditions and not on theories any man or group of men may have regarding the work tractors can or cannot do. Everything these days comes back to the war at some angle. In view of this fact, it is wise to consider some of the labor conditions now existing in Kansas and to note what the tractor has been able to accomplish before forming any definite conclusion as to its practical utilization now or in the future.

We have been largely dependent in Kansas for the past few years, during seed time and harvest at least, upon the general labor conditions existing in states as far east as Ohio, north to Minnesota and Montana and even into Canada, west to the Pacific Coast and even to the southernmost parts of Texas. In times past there has been a floating labor population in these sections the entire year, varying in numbers according to the seasonal work in each locality. The Kansas wheat harvest has been able to draw labor from many sources and from all walks of life because of the relatively high wages and the vacational spirit which has induced many to go to the Kansas harvest fields.

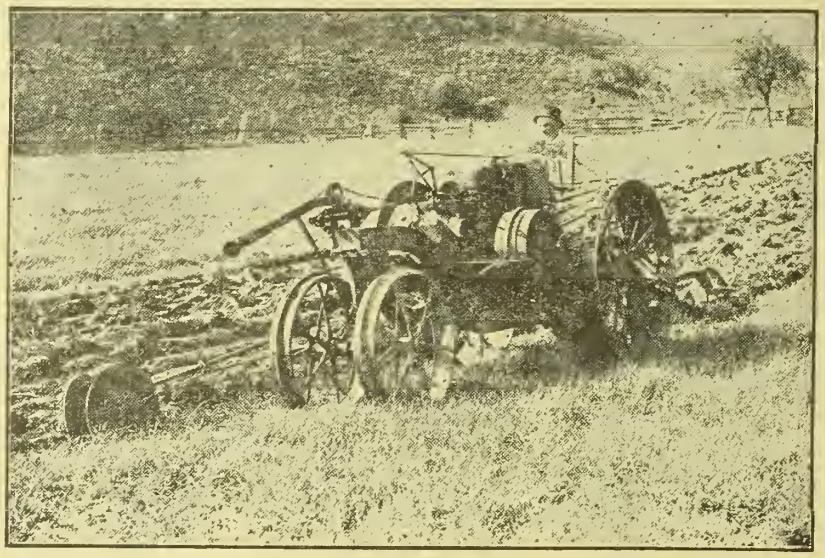
Since the beginning of the war Kansas has suffered large losses of our young farmers who have been called to the colors. Kansas is not alone in this regard, for all of the states have furnished their quota of men from the ranks of the laboring classes that had formerly been wont to assist in our harvest fields. This means that Kansas is not only facing a shortage of home labor, but a very acute shortage of imported labor because of the fact that these groups of men no longer exist in large numbers anywhere and those who still remain in various sections of the United States have found such improved conditions at home that the prices offered by farmers for the wheat harvest will not induce them to leave.

Now that we have lost many of our actual farmers to the army, not less than 20,000, we have no source of supply except our own home folks to replace these experienced farmers who have in the past produced the crops. The home folks in most instances consist of the younger brothers and sisters or possibly the wives of those gone to war. Usually the father, if still living, has retired from active farm operation. Therefore, the farms must be handled, if at all, by these brothers, sisters, wives, or fathers, or its acres will stand idle. Uncle Sam has taken the best, physically, of our manhood. Those of mature age who are still in the draft limits and have been rejected are nearly always physically unfit and are more or less physically unfit for the strenuous life of the successful farmer. If we are to overcome this loss of farmers and have no outside resources upon which to draw, we must recruit from young men under draft age who lack experience and have not yet arrived at the steadiness of the young man twenty-one or over. When we have exhausted this supply we must make good any further shortage of farm help by recruiting from the ranks of the young women, and this means that while we have a large number from which to draw this supply, their physical ability is still less than their brothers' and their actual farming ability and experience is decidedly less. There remains to supplement these two classes of labor the retired farmer, those who thought to lay aside the strenuous labor of the farm and pass their declining years in rest and reflection. The patriotic call to the Kansas citizen does not stop with our boys nor even with our young women who can and must help their brothers. In view of the fact that these old farmers have the experience the young people lack, it is their duty as well as privilege at this time to place at the disposal of these untried and immature laborers their riper experience, careful guidance, and thoughtful planning so that our present farming production can not only be maintained but actually increased.

Now if this class of labor is to accomplish the best results it must not only utilize to the fullest extent the best plows, cultivators, harrows, seeders, harvesters, and other machinery on the market, but in addition the power used to handle this machinery must be such that even though the drivers are girls or comparatively young boys, they can still do as much as had formerly been done by mature, experienced men with the biggest horse teams they could handle. Man power and its skilled use demands that we have the best, the most easily used and handled, and the easiest maintained power plant that we can lay our hands on.

The experience of farmers for the past five or six years has increasingly shown that the modern gas tractor of suitable size and properly handled has proveu to be the almost perfect power for doing certain work, doing it cheaper than where horses are used, and, what is more important, doing a piece of work at the time it should be done.

The chief drawback to the more extended use of the tractor in past years hy the weaker and less experienced help which we must use has been the difficulty of starting the large motors, and



PLOWING LIKE THIS CAN BE RAPIDLY DONE IN HOT WEATHER WITH TRACTOR

when the units handled were of fairly large capacity, the relative cumbersomeness of the entire outfit as compared with the two-, three- and four-horse teams commonly used. Fortunately this objection is being noted by several far-seeing tractor manufacturers. They are now manufacturing and will show at the National Tractor Demonstration in Salina machines which have the familiar electric storage battery starting system so commonly used in automobiles, and in addition to making it easy to start the motors these storage batteries and the additional equipment of electric lighting makes possible the utilization of the power plant for night service as well as day. This important point at once increases the capacity of any given tractor to double its capacity when used in daylight only. The chief drawback to this fuller use of each tractor for full service lies not so much in the ability of the machine to stand up to such work as to the fact that at least two operators must be at hand for each twenty-four-hour service.

The manufacturers are also building lighter, smaller-sized tractors than in the past, and this with the fact noted above adds much to the possibilities for further extending the use of this form of power. Five or six years ago the more common sizes of tractors were from the 20-40 to 30-60 sizes. The tools handled, plows, seeders, and harrows, were heavy and cumbersome. At least two men were required to operate the outfit. Such a rig called for too heavy an investment and only bonanza farmers, or those having very large fields, could afford to own and operate them. Today this is all changed. The small tractor of from two- to four-plow capacity is in greatest demand. Plows and other tools for use with tractors of this size have been designed and are on the market. They are light but strong, and automatic in action so that the tractor driver can easily handle the power plant as well as the tools. The whole outfit is as flexible and easily handled as are horse teams and their tools. The cost of these small machines is less than their equal power in horseflesh. The cost of the mechanical power when measured against horses is thus in favor of the tractor, because when the work is done the endless feeding and daily grooming needed for horses is entirely absent. The five or six acres now used to grow feed for a horse is vitally needed to grow more wheat or it could supply the needed grain and forage for a steer and a half or six hogs. In view of these facts, the question arises why a larger use is not made of tractors. Probably the most important single reason is that it is largely a matter of education. We as farmers are a frightfully conservative bunch. We do not take kindly to new-fangled ideas or ways of doing things. It takes a big charge of dynamite set off under some of us to actually wake us up and make us realize we are alive. The war is certainly a big enough chunk of dynamite, but the chief trouble is that it is not shot off under some of us until our own sons, brothers, or a father or husband have been "sent west" by a Hun bullet. But the dynamite is now exploding rapidly and we stay-at-homes are getting deeply concerned in increasing numbers as day follows day.

While it is true that there are already large numbers of tractors owned by Kansas farmers, we are still far short of what might be profitably used. The five or six thousand tractors now in farmers' hands in Kansas have served to develop a large number of fairly successful operators, but almost half of these operators have already answered the call to the colors or will do so during this present summer. The call has been for men having mechanical experience, and this call will continue. This week 515 young men from all parts of the state who have been specially selected because of some mechanical experience, start a course of intensive training at the Kansas Agricultural College. Two hundred and fifty have just completed a course at this institution. Similar groups are being trained at the State University, the Pittsburg Normal School, the Hays Normal School, and others.

The lack of enough competent operators is another reason for the limited use of tractors. This lack can be remedied in a short time, however. Every tractor owner should consider it his patriotic duty to thoroughly teach all he knows of the machine he operates to at least one apprentice at once and to more than one wherever practical. An intensive short course of two months' duration at any educational institution giving such instruction will usually serve to make a fairly successful operator. Young women should be urged to seek such experience and training and to dedicate themselves to this service, as is being done by their sisters in France and England. They can expect to be of increasing service each year the war is prolonged. The boys under or near draft age must look forward to being called to the colors later.

The tractor multiplies the power controlled by a single individual and even in the hands of a girl or woman properly trained can be of great service in keeping up our production. England is now using over 8,000 tractors of American make and has 5,500 more ordered. Remarkable results are being achieved in making England self-sustaining in food production. In spite of the fact that her able-bodied man power is all in the army, England and Wales will this year, largely through the use of tractor power, produce a third more wheat, barley, oats, corn, and potatoes than in 1916. The tractor has completely revolutionized English farming methods. The causes bringing this about are operative in Kansas and in every other agricultural state. We cannot ignore the tractor as the necessity for production increases while our farm labor decreases. The National Power Farming Demonstration which will be held at Salina July 29 to August 3 is being given the fullest sanction of our government. It will be an exceptional opportunity to learn what the tractor can do for you on your farm.

EDITOR'S NOTE.—Mr. Sanders is the tractor expert of Kansas. He has had a wide and varied experience in the use of mechanical power for farming operations. He is much in demand for helping to locate such troubles as beginners may have in learning to operate tractors. If you have tractor problems and difficulties of any kind, send them in to KANSAS FARMER, giving as much detail as possible. As far as he is able, Mr. Sanders will answer, furnishing such suggestions as necessary to help you over the little points which come up and cause trouble. He is heart and soul committed to the task of doing his best to help win the war. Mr. Sanders is as truly enlisted as are his two sons now in France, and will spare no pains in seeking to give the best possible suggestions toward the solving of your tractor troubles.

Tractor Equipment

During the past few years the farm tractor has developed more rapidly than has the field equipment for use with it, with the exception of gang plows. On many farms where tractors are used no special equipment other than plows is bought, other operations for which the tractor is used being performed with the ordinary machines designed for use with horses.

It is obviously impossible to obtain maximum results with a tractor when it is used with implements designed primarily for use with horses, and the objection of many tractor owners that the tractor can not be used with profit for certain types of field work will probably cease to hold good with the development of special machinery for use with the tractor. There is considerable activity at present in the line of inventions of implements and attachments designed especially for use with the tractor. Many of these will doubtless increase its value for farm work, making it practicable and economical for many field operations where its use is now both impracticable and uneconomical. It is for the purpose of doing work of the nature last mentioned that several horses are often kept after the purchase of the tractor. With the development of special machinery as above outlined, it seems probable that a higher percentage of work stock will be displaced where the tractor is used.—Farmers' Bulletin 963.

The motor truck can be made an important factor in facilitating the transportation of perishable farm products. It promises to prove a permanent and valuable adjunct to the railroads.—U. S. Food Administration.

Cleveland Tractor



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The Prairie Dog Tractor is a wonder. It is a small, light tractor with great strength and speed. It will do your plowing, harrowing, listing, planting, drilling. It pulls your binder, mower, corn harvester, manure spreader, and is equipped with belt pulley with 18 horse-power under the belt that will grind your feed, pump your water, saw your wood, and do every kind of farm work. The Prairie Dog is a time-saver and a money-maker. The price is surprisingly low. There is some satisfaction in this machine, as you can run it on high or low speed, handle it like an automobile, and it is full spring mounted and rides as easy as a buggy.

The Prairie Dog Tractor will do the work in one day that a team will do in four, and you can plow your ground and work it while it is in good shape to work—ahead of the drouths and ahead of the floods. Remember the price is right. Send for free circular and full information today. It will pay you big.

Kansas City Hay Press Company, Kansas City, Mo.—(Advertisement.)

The most important thing to control the fly nuisance is to swat the fly before it is born. Clean the stables and yards and keep the garbage cans covered.

KANSAS FARMER DAIRY CLUB

Food Value of Dairy Products

WE ARE learning some truly remarkable things about the value of milk as a food. The boys and girls of the Dairy Club and others engaged in producing milk may well feel proud of the part they are taking in supplying this most vital of all human foods. Nature made no mistake in providing milk as a food. All will be interested in the discoveries being made by Dr. E. V. McCullom of Johns Hopkins University. For a number of years Doctor McCullom has been investigating most closely problems having to do with the value of different foods. It adds to the interest to know that he is a former Kansas man. He has learned that artificial foods prepared by chemists, seemingly containing all the necessary food elements, fail to sustain life properly. He has found that there are two substances necessary in addition to the protein, carbohydrates, and fats. Chemists have been unable to analyze these substances and have not even given them names. Doctor McCullom's investigations show that such substances are in existence, because of their effects in making for proper growth and development. These substances are found in butter fat and in smaller quantities in some other animal fats, but not in vegetable oils, such as olive oil or cottonseed oil, although present in the leafy green vegetables.

Doctor McCullom spoke to the students of the Agricultural College last spring and gave some very interesting facts about food values. He pointed out that without a liberal supply of milk or leafy vegetables in the diet, one cannot maintain the proper state of nutrition. "The proper diet," said Doctor McCullom, "will bring about aggressiveness, ambition, and achievement in the individual. One does not need meat in the diet. The protein in milk is worth three times its equivalent weight in wheat or other grains.

"Animals will not thrive when restricted to a diet constituted solely of seed food. No animal ever was successfully raised which did not make liberal use of a supply of leafy vegetables. Experiments made with groups of domestic rats proved that if their diet was derived solely from one seed product or a mixture of seed products they would not grow and the death rate was higher, but if the grain were mixed with some leafy vegetable or dried milk they continued to have normal health.

"Mankind is classified in two groups, Japanese, Chinese, and all tropical people constituting the one, and Europeans and North Americans the other. The first class has always attempted to nourish itself on seed, tubers, roots, and meats as a diet, eliminating leafy vegetables and milk. The members of this class are undersized; their span of life is exceedingly short; the infant mortality is high.

"Statistics show that for many years the people of the United States have secured as much as 18 per cent of their food supply from the dairy, but in the last year there has been a decrease in the sales because people resent the rise in the price of milk and refuse to buy it. The dairy industry is in a serious condition. The people are changing their dietary habit and making a serious mistake. This is particularly noticeable among the poorer classes in the congested parts of the cities. Dairy products do not constitute any part of their diet, and their condition is such that tuberculosis and various diseases are the result.

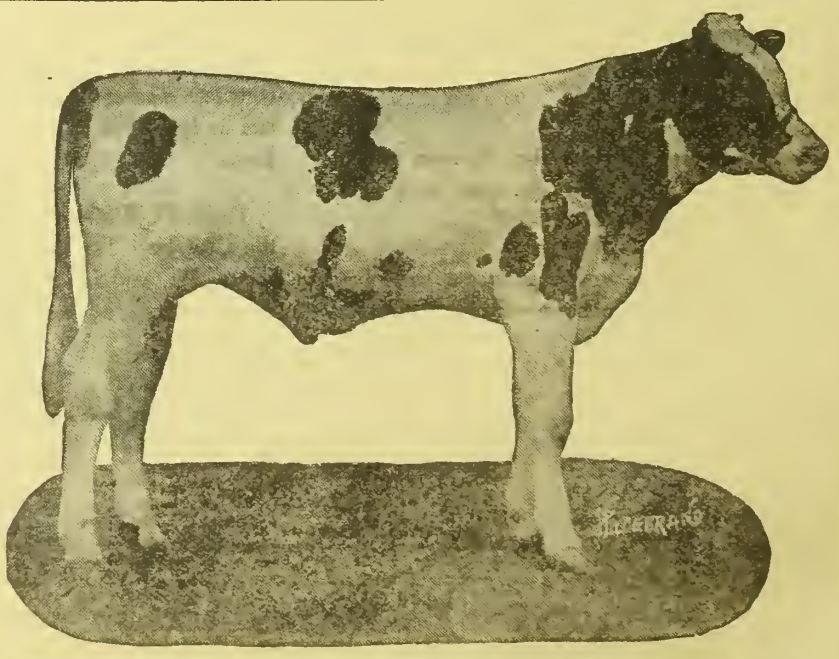
"The rise in the price of milk has been comparatively small in proportion to increased cost of production. Some foodstuffs have increased 300 per cent in price in the last three or four years. Yet people continue to purchase meat regardless of its high cost."

We are giving you this information so you will realize the vital nature of the human food you are producing. For children there is absolutely nothing that can take its place. Eating meat in excess is harmful, and people are learning in these times of high prices for meat that much smaller quantities are necessary than many of us had supposed. In addition it takes a good deal more feed to produce a given amount of human food in the form of meat than as milk. The dairy cow is a more efficient animal than the beef steer, using her feed to better advantage.

Dairying as an industry is certain to increase because of the great value and economy of milk and butter as human food. It is being urged all over the country that no family of five persons should think of buying meat until it has first purchased at least three quarts of milk.

Baby Bonds for Premiums

The International Farm Congress has decided to pay 50 per cent of the premiums to be won at the International Soil Products Exposition, at Kansas City, October 16-26, in War Savings Stamps and 50 per cent in cash. The only exceptions are premiums won by exhibitors residing outside the United States.



CARNATION King Sylvia, the six-months-old bull calf here shown, sold at the annual sale of the Holstein-Friesian Society of America held in Milwaukee last month for $106,000, to Carnation Stock Farms, Seattle, Washington. His dam is the forty-one-pound cow, May Echo Sylvia, holding the world's record for milk production for periods of one, seven, thirty, and one hundred days. Her single day record is 152.1 pounds; seven-day, 1,005.8 pounds; thirty-day, 4,196.3 pounds, and her hundred-day record, 12,898.8 pounds.

Why you should attend the Tractor Demonstration



ONLY abundant food supplies from America will bring victory.

Power farming alone will accelerate and increase our food production to the point desired.

So that you may know the tractor and tractor implement best suited to your needs — all representative tractor types and tractor implements will be gathered at Salina, Kansas, during the week of July 29th to August 2nd.

There you will see hundreds of power outfits operating under actual working conditions; there you may watch and learn and decide upon the machine to buy.

Attend the National Tractor Demonstration. Urge your friends to go. The Tractor market of America will be brought practically to your door.

Watch Oliver Plows at the Tractor Demonstration

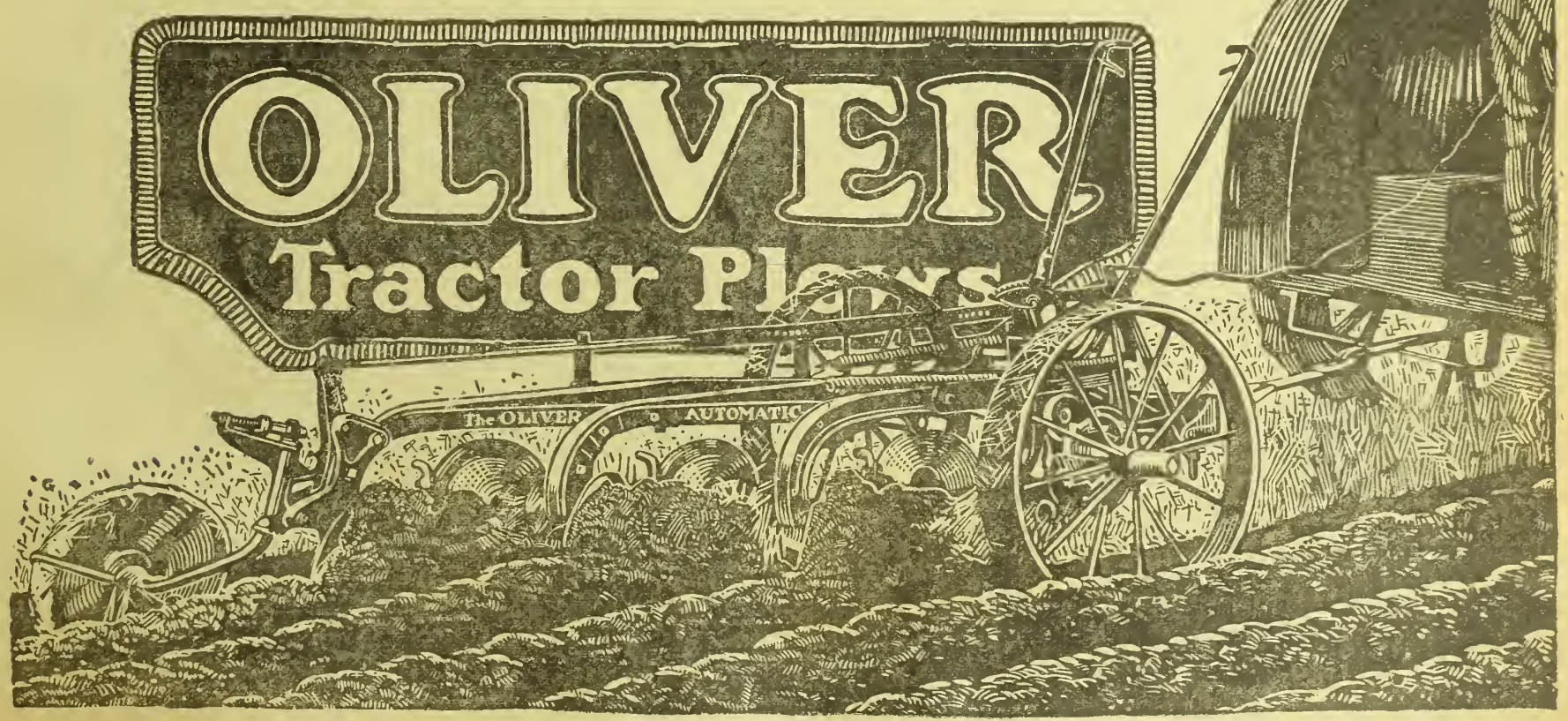
You know the record of Oliver Plows at Demonstrations large and small. At Fremont in 1917—and also at Toronto—they were not only the plowing equipment for the majority of tractors — they were the plows most watched and most commended.

And this year at Salina, they again will uphold the record for quality plowing they have sustained for over 60 years.

Oliver No. 78 was the plowing equipment of the prize-winning outfit at Wheatland in 1916. Again in 1917 No. 78 was pulled by the machine that won 98 out of a possible 100 points for good plowing—the highest award made.

Henry Ford & Son have chosen the Oliver No. 7 as the plow that will work to the best advantage with the Fordson Tractor. Their choice was based on Oliver's 60 years experience in building plows for all conditions of climates and soils.

Oliver Chilled Plow Works, South Bend, Indiana



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Eleventh and McGee Streets
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Located in center of shopping district, convenient to car lines, stores, and all points of interest. Direct car line to stock yards. The hotel of quality, comfort and refinement.

European Plan, $1.00 to $2.50 per Day.

Cafe in Connection.

KUPPER-BENSON HOTEL COMPANY

Walter S. Mars, Manager

DAISY FLY KILLER placed anywhere, attracts and kills all flies. Neat, clean, ornamental, convenient, cheap. Lasts all season. Made of metal, can't spill or tip over; will not soil or injure anything. Guaranteed effective. Sold by dealers, or 6 sent by express prepaid for $1.



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SCHOOLS AND COLLEGES



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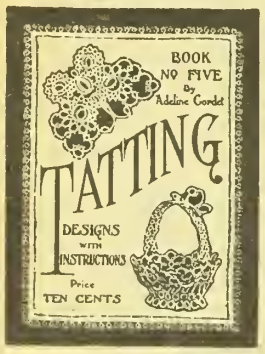
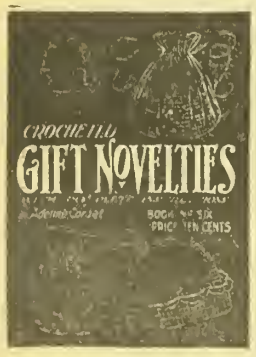
NEW TATTING BOOK



A collection of sixty pretty tatting designs with instructions, by Adeline Cordet. Price, postpaid, 10 cents. Ask for Book No. 5 when ordering. Address **Fancy Work Dept., Kansas Farmer, Topeka, Kansas.**

CROCHETED NOVELTIES



This book contains an assortment of fifty gift ideas, by Adeline Cordet. Price, postpaid, 10 cents. When ordering, be sure to ask for Book No. 6. Address **Fancy Work Dept., Kansas Farmer, Topeka, Kansas.**

Care must be taken in laundering silk, as a high degree of heat or sudden change of temperature injures the fiber. Careless washing will destroy the gloss, or the silk may be easily scorched if it is pressed with an iron that is too hot.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

Work

Let me but do my work from day to day,
In field or forest, at the desk or loom,
In roaring market-place or tranquil room;
Let me but find it in my heart to say,
When vagrant wishes beckon me astray:
"This is my work; my blessing, not my doom.
Of all who live, I am the one by whom
This work can best be done in the right way."
Then shall I see it not too great, nor small,
To suit my spirit and to prove my powers;
And cheerful turn, when the long shadows fall
At eventide, to play and love and rest,
Because I know for me my work is best.
—Henry Van Dyke.

I believe in my job. It may not be a very important job, but it is mine. Furthermore, it is God's job for me. He has a purpose in my life with reference to His plan for the world's progress. No other fellow can take my place. It isn't a big place, to be sure, but for years I have been molded in a peculiar way to fill a peculiar niche in the world's work. I could take no other man's place. He has the same claim as a specialist that I make for myself. In the end the man whose name was never heard beyond the house in which he lived, or the shop in which he worked, may have a larger place than the chap whose name has been a household word in two continents. Yes, I believe in my job. May I be kept true to the task which lies before me—true to myself and to God, who intrusted me with it.—REV. CHAS. STELZLE.

Recognition of the "Angelus"

The noon whistle, or the stroke of twelve where there is no whistle, is being observed at the present time by millions of Americans as an "Angelus," or call to prayer. This custom has become so general that a resolution has just been introduced in the United States Senate asking for its official recognition. This resolution, presented by Senator Myers of Montana, asks that the President announce by proclamation the setting aside of one minute at noon for prayer for the success of the American forces and their allies.

Immediate consideration of the resolution was blocked by objection on the ground that it might lead to debate. The suggestion to make the custom universal is, however, a good one. It is as natural for nations as for individuals to turn to God in trouble. But our prayer must not be a selfish one. The nations of the world have outgrown the old idea of a tribal god who went with his worshipers to battle and if he was stronger than the gods of their adversaries, gave them the victory. The simple fact that we desire victory, that it will save us suffering and sacrifice and inconvenience, is not a sufficient reason to warrant our asking or expecting it, for the same thing is true of our enemies. But if, as we believe, the cause for which we are fighting is a righteous one and the ends we seek are not altogether selfish, we may surely ask the God of battles to use us to save the world. The cause for which we give our lives is worthy of our prayers. Perhaps, too, a general spirit of prayer will help to make us fit to be trusted with the victory.

To Rid Pantry of Ants

Housekeepers are complaining of annoyance by ants in the kitchen and pantry this season. In order to get rid of this nuisance the Department of Entomology of the University of Nebraska recommends the use of a poisonous syrup prepared by dissolving a pound of sugar in a cup of hot water to which one-twentieth of an ounce of sodium arsenate, previously dissolved in a little hot water, is added. Small sponges are soaked in this syrup and placed in jelly glasses, the lids of which have been punched with several large holes. The sponge should about half fill the glass. Several glasses should be prepared in this way and placed where the ants are foraging. When the ants stop visiting any glass of poisoned syrup it should be moved a short distance, where they will visit again. They will carry the poisoned syrup to their nests and eventually the whole colony will be destroyed or driven away. It should be remembered that this syrup is poisonous and must be kept away from children. Honey or syrup can be substituted for sugar in making the ant poison.

Sugarless Fruit Preservation

"Save on Sugar" is the latest S. O. S. flashed by the Food Administration to housekeepers. "Maximum Canning with Minimum Sugar" is the reply message to Washington, and with this slogan the women are going ahead with the campaign to save the perishables. Here are six methods of preserving fruit without sugar:

Fruit Juice—Sterilize and bottle fruit juice for jellies, beverages, and sauces. (Bulletins 859, p. 5; 839, p. 21; 853, p. 18.)

Fruit Syrups — Bottle concentrated fruit juice for table syrup. Combine with corn syrup when served. Bulletin 839, p. 21.)

Fruit Pulp—Reduce fruit to a thick pulp and bottle or can for winter pies, sauces and marmalades.

Fruit Butter—A tart butter is made without sugar. Sorghum, corn syrup or a little sugar may be added when opened for use. (Bulletins 900, 853, p. 28.)

Dried Fruits—Drying is the simplest method of preserving fruit and saves both sugar and cans. (Bulletin 984.)

Canned Fruits — All fruits can be canned without sugar for winter use. (Bulletin 839, p. 15.)

All references given are to Farmers' Bulletins issued by the United States Department of Agriculture, which may be secured from that department.

The free use of macaroni for the next six or seven weeks is urged by the Food Administration in order to prevent this food from spoiling. Macaroni is a wheat food. Use of other cereals made of wheat also is urged as there is an abundance on hand, which was manufactured last winter before the wheat-saving rules became stringent. Following is a statement made by the Food Administration: "Because of the patriotism of the public, wheat products have been conserved to such an extent that there is on hand an accumulation of macaroni, wheat flakes, wheat cereals and pancake flours, which will spoil unless it is soon eaten. They are economical and wholesome food products and should be utilized."

Wheatless Plain Cake

½ cupful butter—or substitute
1 cupful sugar
2 eggs
3 cupfuls flour—2 cupfuls barley and 1 cupful rice flour
4 teaspoonfuls baking powder
1 cupful milk

Cream fat and sugar until light. Add the eggs. Sift flour and baking powder and add with the milk. Bake in a moderate oven until cake shrinks from side of the tin.

Chocolate Cake

Use the recipe for plain cake, adding two squares of melted chocolate or four tablespoonfuls cocoa.

Spice Cake

Use the recipe for plain cake and add 1 teaspoonful nutmeg, 1 teaspoonful cloves, 1 teaspoonful cinnamon, and 1 teaspoonful allspice. Raisins or other fruit may be added.

Good can rubbers may be stretched to nearly twice their size and yet return to their original shape, or they may be folded or squeezed without showing breaks or cracks. Tests of this kind should be applied before making use of rubbers in canning.

Eating war bread should be something more than a fad. It is a real patriotic duty of vital necessity.

FASHION DEPARTMENT

All patterns, 10 cents.



No. 8680—Men's Shirt: Cut in sizes 15, 16, 17, 18 and 19 inches neck measure. The shirt has an applied yoke at the back which has a double row of stitching all around to give a neat finish. A soft turnover collar is attached to the neck. The breast pockets are box-plaited and finished with neat pointed flaps. The sleeves have placket opening and soft link cuffs. **No. 8650—Misses' or Small Women's Dress:** Cut in sizes 14, 16, 18 and 20 years. The dress hangs straight from the shoulders, but an odd belt marks the rather low waistline. The belt has a slash at the center front through which one end of the belt passes. The waist has a surplice closing with a narrow shawl collar. **No. 8666—Girls' Dress:** Cut in sizes 6, 8, 10, 12 and 14 years. The dress has a plain waist buttoning at the back, with a straight one-piece skirt gathered to it. The neck of the dress may be cut high and finished with a standing collar or the V-neck style may be used with the large collar.



No. 8653—Children's One-Piece Dress: Cut in sizes 2, 4, 6, 8 and 10 years. The dress is to be slipped on over the head and it is slashed for a short distance below the collar and laced up with a coroled tape. The lower part of the dress is slightly circular and it is stitched to the yoke. The sleeves may be long or short. **No. 8683—Ladies' Apron:** Cut in sizes 36, 40 and 44 inches bust measure. The neck is cut square at front and back and the armholes are open to the waist line. The apron is in one piece and it is to be slipped on over the head. The apron may be worn loose if preferred. **No. 8670—Ladies' Four-Gored Skirt:** Cut in sizes 24, 26, 28, 30 and 32 inches waist measure. The skirt is cut in four gores, and has the front gore plaited to give the effect of a double panel. The other three gores are gathered all around to the slightly raised waist line.

Kansas Wheat Program

DURING the fiscal year 1914-15 the wheat exports of the United States amounted to 332 million bushels. In the year 1915-16 the amount exported was 243 million bushels. Our normal per capita consumption of wheat varies from year to year, the highest, as given by the United States Department of Agriculture, being 5.8 bushels in 1915 and the lowest 4.7 in 1916. The Bureau of Crop Estimates gives our average per capita consumption as 5.3 bushels and estimates on the basis of the 1916 population that normal consumption would require 556 million bushels and seed requirements for that year 87 million bushels.

Our estimated production this year, as reported by the Department of Agriculture July 1, is 891 million bushels, a slump of about forty million bushels from the June estimate. On the basis of normal consumption, this leaves 248 million bushels.

The wheat situation at the beginning of the year 1917-18 was summarized as follows in the 1917 Department of Agriculture Yearbook: "The total production of the neutral and entente allied countries, exclusive of Russia and Roumania, is greater than in 1916-17, but stocks are low except in Australia. The allied Western European countries have produced 213 million bushels less than their average before the war, but the exporting countries which supply their deficiencies are harvesting more grain this year and will probably reduce consumption so that they may export a larger proportion of their crops. Argentina, the United States, and Canada, the three countries which are in a position to export grain in largest quantities and most easily, are harvesting this year (1917) nearly 150 million bushels more than last year and slightly more than before the war."

Owing to the developments of the year and especially the activity of the German submarines, a very large portion of the needs of the Allies in Western Europe had to be supplied by the United States. We entered the war with a short crop and with a low stock on hand. We simply had to reduce domestic consumption, and through the voluntary cooperation of the people our Allies' needs have been met. It was a splendid response to the call which came to us as the result of a most critical condition.

We are now harvesting a crop estimated to be about 240 million bushels in excess of last year's production. This is most encouraging, but the conflict is not yet won, and we cannot relax our efforts in wheat production and in husbanding our resources by reducing our own consumption of this cereal so essential in carrying on the war.

"As the war continues, this country will play an increasingly important part," said President Jardine of our Agricultural College in stating his views on the Kansas wheat program for 1918-19. "The conflict has reached that stage where its successful prosecution depends upon the united efforts and co-operation of every man, woman and child in this country. There is work for everyone to do, directly related to the winning of the war. Next to supplying our quota of fighting men, our big job in Kansas has been and will continue to be the furnishing of wheat to sustain the allied armies and nations. This year our contribution to the world's food supply will be between 80,000,000 and 100,000,000 bushels of wheat. Kansas farmers have fulfilled their promise for the harvest of 1918."

"The Kansas wheat program for 1918-19 now demands attention," continued President Jardine. "A recent trip to headquarters at Washington revealed the fact that the public eating places of the East have observed the request of the Food Administration to use no wheat flour until the product of the new wheat comes in. Corn bread, kafir muffins, and bread made from a combination of rye, potato and corn flour, furnish the staff of life to a very considerable portion of the citizens of this country. Even with the new crop of wheat estimated at from 850,000,000 to 900,000,000 bushels for the United States, we shall yet have need for careful conservation and continued substitution throughout the year. Reports indicate that Canada's wheat crop will be cut short by recent drouths. There is, therefore, every reason why we must not lie down on the job now. We must prepare to plant as large an acreage as last year and to do a better job of it than ever before. Right here is where the emphasis must be laid this year. With labor scarce, we cannot hope to greatly increase the acreage for the state as a whole, but we can use more timely and better methods of preparing the seed bed and thereby insure an increased yield of from five to ten bushels an acre with no extra expense of seed and labor. Early seed bed preparation is the secret.

Must Harvest Larger Acreage

"Of the 9,600,000 acres planted to wheat in Kansas last fall, 6,500,000 acres yielded a crop. The loss of 3,000,000 acres was due to winter-killing and drouth. The year preceding, 5,000,000 acres were lost from practically the same causes. Yet in the counties which lost most heavily these two seasons there were farmers who had a good crop. Why? Because they prepared their ground early and thoroughly. This year we must endeavor to plant as large an acreage as last year, but we must endeavor to harvest a larger percentage of the acreage planted by means of early seed bed preparation. That early seed bed preparation will result in increased yields and insure against failure, is common information with farmers. I am advancing nothing new. I desire to call attention to what they already know. A hundred million bushel wheat crop for Kansas next summer will be the biggest contribution that we who stay at home can possibly make towards the winning of the war. Let us all pull together for such a crop by means of early and thorough seed bed preparation."

FARMERS' DECISION ON TRACTOR

(Continued from Page Four)

plowing, and in such cases the tractor bought should be powerful enough to handle the belt work properly. On the other hand, if the belt work which will be required of the tractor will not demand a great deal of power, while there may be a considerable amount of plowing which it will be desired to complete within a limited season, the tractor should be capable of pulling enough plows to enable the work to be performed within the time available.

Then there are cases where only a small amount of belt work is required, and most of the field work will be done with horses, the tractor being wanted merely to make extra power available in rush seasons, or to relieve the horses during hot spells. In such cases the small two-plow outfits frequently have proved most satisfactory. Such an outfit has the advantage of not necessitating a large investment and on this account is frequently recommended by experieneed men as a good size to buy at first in order to gain experience in the use and care of tractors.

If it is desired to use the tractor for custom work on neighboring farms or for road work, care should be exercised to choose an outfit with sufficient power to handle such work satisfactorily.

As a general rule it is better to err through buying an outfit with too much power rather than too little, but this should not be interpreted as recommending the purchase of the largest sizes. It refers rather to the apparently too-common practice of getting a two-plow outfit to do work which should properly be done with a three-plow or four-plow machine.



"Scientific Refining"

Why En-ar-co National Motor Oil Should Be Your Preference

Scientific Refining

UNLIKE things mechanical, lubricants cannot be made alike from day to day except as the workmen are trained to their tasks. But oils *must* be free from quality fluctuation if they are to give satisfaction.

Little skill is needed in distilling water. Steam that escapes through a tea-kettle spout, if caught and condensed, would be pure water — distilled water. Impurities would remain as scale in the kettle.

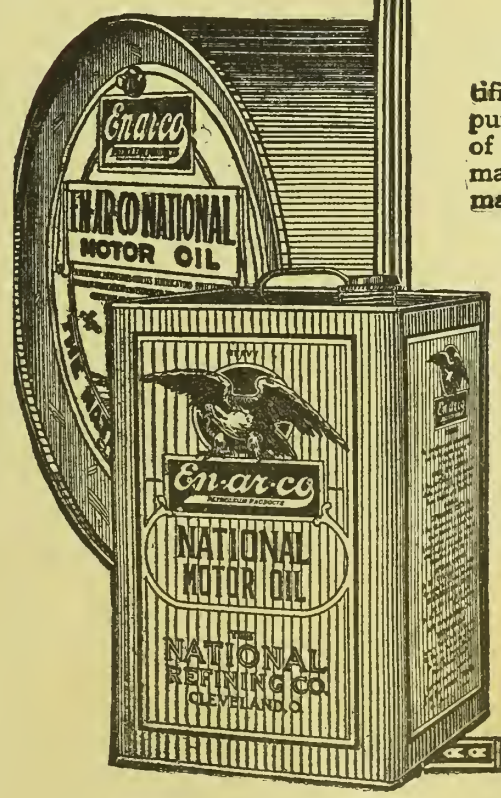
Refining processes are similar. But here, skill plays a most important part. Extreme heat is applied to huge, 25,000 gallon stills of crude oil. The vapors that arise are condensed, re-distilled, further refined and filtered. Only men of proved ability are assigned to this work.

En-ar-co National Motor Oil Made by Graduate Workmen

En-ar-co workmen must pass the rigid tests of scientific instructors and efficiency engineers. Processing and purification standards have been set. Well defined grades of instruction have been provided. And every workman strives for perfection, for thus he attains his master degree.

These methods produce a lubricant of unvaried quality. It is always clean and pure, and will perform its function properly every day. Regardless of the motor you use, your investment demands that you lubricate with oil made by "men who know" — graduate workmen. *That* oil bears the En-ar-co label.

Tractors, Automobiles, Aeroplanes, Trucks and Motor Boats give better service and last longer when lubricated with En-ar-co National Motor Oil.



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I use.... gals. motor oil per year
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Tear or Cut Out—Mail Today

NOTE: This can will not be sent unless you give make of your auto or tractor.

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Branch Offices in 77 Cities — General Offices: Cleveland, Ohio

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There is now a demand for pure-bred live stock of all kinds that is without precedent, and this demand will continue until the close of the war and longer. Inquiries for breeding stock are steadily increasing. Beef cattle of all breeds, dairy cattle, sheep and hogs, are in demand at profitable prices.

BREEDERS NOW HAVE AN OPPORTUNITY

to sell their surplus breeding stock. It is the opportune time to advertise.

Let prospective buyers know that you have pure-bred stock for sale and they will quickly take your surplus.

KANSAS FARMER reaches the live stock buyers in this field and space used in the live stock advertising columns of KANSAS FARMER will sell your offering quick and at a small cost. Write for our special live stock advertising rate.

If your offering is ready, advertise now. It will result in quick sales at profitable prices.

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

HIGH-GRADE HOLSTEIN CALVES, VIRtually pure-bred, $25 delivered. R. B. Hellen, Sec'y Milk Producers' Association, Jefferson, Wisconsin.

FOR SALE—VERY CHOICE HOLSTEIN and Guernsey calves, either sex, six weeks old, 95 per cent pure-bred, at $25 each, delivered. Lewis Dutcher, Peary View Farm, Janesville, Wis.

HOLSTEIN BULL CALF FOR SALE—Born October 24, 1917. Mostly black. Price $250. His mother is one of the best milk and butter producers I know. Jay B. Bennett, Holton, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

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IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 56th St., Chippewa Falls, Wisconsin.

NEBRASKA FARM FOR SALE—240 acres. Son going to war. Will sell this ideally located 240-acre farm, ten miles northeast of Lincoln, one mile from C. R. I. & P. station, five miles from paving. Eighty acres virgin soil. School house on farm. $15,000 in new and modern improvements. Price $54,000. No trades considered. An unusual opportunity, as this is $25 per acre less than near-by farms have sold for. Investigate this. I. W. Jacoby, owner, Route 2, Havelock, Nebraska.

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WANTED—TO BUY.

WANTED—TO HEAR FROM OWNER OF farm for sale. Mrs. Booth, Pulaski, Iowa.

HOGS.

LOCUST GROVE POLANDS—PIGS FOR sale, registered, immuned, by A Big Wonder, King Jumbo and Big Mint. Satisfaction guaranteed. Priced right. V. M. Johnson, Kinsley, Kansas.

MISCELLANEOUS.

FOR SALE—WE HAVE A NUMBER OF Manson Campbell farming mills and graders for sale, $30 f.o.b. Louisburg. All new mills and in first class condition. Interstate Mercantile Co., Louisburg, Kansas.

THE STRAY LIST.

TAKEN UP—BY M. V. HOOVER, OF Grinnell, Kansas, on the 26th day of May, 1918, one red yearling heifer appraised at $30. W. L. Davidson, County Clerk of Sheridan County, Kansas.

DOGS.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

POULTRY.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swalm, Geuda Springs, Kansas.

POULTRY WANTED.

NON-FERTILE EGGS, BROILERS AND hens wanted. Coops cases loaned free. The Copes, Topeka.

TRACTORS.

1916 BULL TRACTOR, NEVER BEEN used. New Case tractor plow. Both for sale cheap. Chas. Daenzer, Sterling, Kan.

PATENTS.

PATENTS PROCURED, BOUGHT AND sold. International Patent Co., Brandeis, Omaha.

In case some cockerels need to be eaten or sold on a fancy market, it would pay to put them in a crate and fatten them for two weeks. The following ration has not only put one pound of weight on two- to three-pound cockerels, but it has improved the flavor of the meat wonderfully: Ground oats, 2 pounds; shorts, 2 pounds; corn meal, 2 pounds; beef scrap, 1 pound. This has been tested out at our Kansas Experiment Station.

The egg shell is made up mostly of lime, hence something which contains lime that can be easily liberated is necessary for laying hens. Most of the soft-shelled eggs found on the roosts are due to a lack of the right amount of lime. Experiments have been carried on to prove that hens deprived of lime entirely would not lay.

Skim milk is valuable as a meat food. It can be fed sweet or sour, with a mash or alone. Its one objection is that it makes necessary frequent cleansing of the vessels in which it is fed. It is a splendid food for growing and fattening chicks.



Keep Henhouses Free of Pests

FOWLS are infested by two kinds of body parasites—lice and mites. Lice live continuously upon the birds. The common mite feeds upon them on the roosts at night, and after feeding secretes itself in the cracks and crevices about the roosts.

There are many different kinds of poultry lice. Those most common on fowls are the body louse, yellowish in color and about one-tenth of an inch in length, which remains on the skin of the fowl; the shaft louse, somewhat smaller and very pale in color, which is usually seen on the shafts of the feathers; and the head louse, a large gray species which is most frequently observed on the heads of young chickens.

Lice are not usually very abundant on healthy fowls which are kept under sanitary conditions and provided with dust baths. They multiply rapidly upon birds of low vitality and sluggish temperament, and are quickly distributed through flocks upon premises where attention to cleanliness is indifferent.

For novices in poultry keeping, and with small flocks generally, it is advisable to make sure that the flock is free from lice by giving the birds individual treatment, which will secure that result. The most universally procurable article for this purpose is powdered sulphur. The method of applying this is to hold the bird by the feet, head down, and dust the sulphur freely into the feathers, using either a small insect-powder gun or a can with a perforated cover. Pyrethrum may be used in the same way. Neither of these remedies will thoroughly and permanently rid poultry of lice. When they are used treatment must be repeated at more or less frequent intervals, as may appear necessary.

By using commercial sodium fluorid in the form of powder, or as a dip, all species of poultry lice may be destroyed at one application. As the high efficiency of sodium fluorid in destroying lice on poultry is of recent discovery the material is not ordinarily found in all drug stores. With a demand for it, however, local druggists will secure supplies. Poultry keepers who desire to thoroughly eradicate lice from their flocks should write the United States Department of Agriculture, Washington, D. C., for Farmers' Bulletin 801, which gives, with full details of the use of sodium fluorid, complete information on the control of mites and lice.

The common chicken mite is a very small gray insect which, when it has filled itself with blood, becomes bright red, hence the name "red mite" by which it is often called. It may be discovered, if present, by looking on the under sides of the roosts and nest supports, and in the wall crevices near them. Where the mites are very abundant they may be found in large masses in such places. They also frequent the nests of sitting hens. With reasonable attention to the cleanliness of poultry houses, mites are not likely to be troublesome except in warm weather.

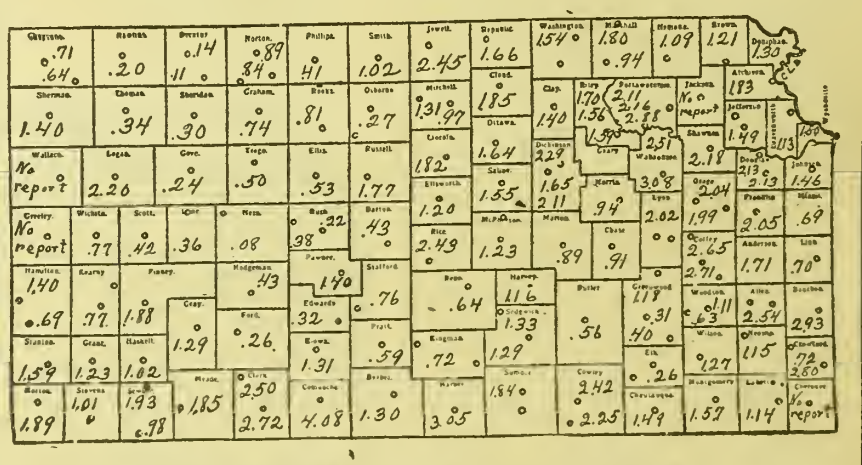
Treatment for mites consists in applications of liquid insecticides or disinfectants to them and to the places where they harbor, repeating the applications at intervals of about a week until all are destroyed. Any of the petroleum products commonly used for disinfectant purposes will be found effective for the destruction of mites.

Best Laying Hens

The hen with white shanks isn't always weak and sick; she may be the best layer in the flock. It's worth while to find out before you cull out the flock, for the fading of color in the shanks is one good indication that the bird is laying, so the poultrymen at the Wisconsin Experiment Station say.

"A heavy laying hen of the yellow-skinned variety lays the color out of her feet and shanks," says J. G. Halpin. "The feet become pale or white, the color depending upon the breeding, vitality, feed and range. Orange-colored shanks fade slowly, light yellow shanks fade rapidly. Some strains of the white-skinned varieties have creamy or yellowish ear lobes before laying, which becomes white after a few eggs are produced. At the Wisconsin Station it has been noticed that the color of the face, and often of the ear lobes of the red-lobed breeds, fades during heavy laying.

"While hens that are culled from the flock may be judged by this method, the best plan is to cull out the flock in the fall. Late molting hens are the best layers; early molting hens are loafing on the job. The way to build up the flock is to get rid of these loafers, and hatch eggs only from the hens whose records are known to be good."



Rainfall of June, 1918

Reports Furnished by S. D. Flora, Meteorologist, Weather Bureau, Topeka

THIS was the driest and hottest June on record in Kansas, except 1911. The drouth was severe in all parts and the month's rainfall was deficient at every station except Coldwater, in Commanche County, where the excess was due to a heavy local downpour. Even in the eastern third and south central counties, where the heaviest amounts were recorded, most of the rain fell the last two days, previous to which time the need of moisture was greatly felt.

The latter part of the month was ideal for harvesting wheat and oats and for threshing, but the excessive heat and dry weather did a great deal of damage by shriveling wheat and barley in the north central and extreme western counties and cut short the yield of oats and potatoes. Corn made a satisfactory growth all month despite the heat and lack of rain. It was well cultivated and had a healthy color and the rains the last two days revived it greatly.



Fairs Build Up Community

FAIRS have a distinctive educational value and should not be put in the class of activities that are of no value in promoting the war. We need all the inspiration and help we can get in order to be more efficient in agricultural production. Agricultural fairs and live-stock shows are strong factors in the formation of progressive ideals and rural community upbuilding. We recognize now more than ever before the importance of mingling with our friends and others engaged in the same business, exchanging ideas, making criticisms, and gathering new information.

The fairs afford great opportunities for education as well as entertainment. Those who go meet as exhibitors in competition and as spectators. Some win and others lose. The winning of the money prizes, however, is of minor importance. The money offered as premiums is an inducement to exhibit because it helps defray the expenses. Many exhibitors may go home considering they have lost money. But they have taken home a new opinion of their own stock or products aud revised standards. This will lead to their doing better work in selecting and breeding and perhaps they will be able to come back the next year and win.

The live-stock industry is especially dependent upon the many fairs held throughout the country. A great deal of breed improvement comes as a direct result of public exhibitions and grading of the animals shown. Many men have been encouraged to produce better live stock simply through the incentive gained in attending live-stock shows. S. T. Simpson, of the Missouri Agricultural College, says: "The fair circuit is the school of the constructive breeder. Few men have attained outstanding success as breeders who have not been close students and critics of show ring standards and awards."

The public generally should realize that they can do a great deal to bring about better breeding, feeding, and management of live stock by giving their encouragement to fairs. It takes people to make fairs. Exhibitors alone cannot do this. A fair is just what the people of the community make it.

Shorthorn Prizes at Fairs

The board of directors of the American Shorthorn Breeders' Association at their June meeting voted appropriations for 400 county fairs throughout the United States for champion prizes to be limited to Shorthorns owned and exhibited within the county. The total amount of the appropriation is $10,000 and applies to the county fairs of 1919. This is a most practical and useful move and offers encouragement to the proper class—the live-stock farmers.

As a means of extending the market in Canada, particularly in the Canadian Northwest where trade is rapidly developing, the board voted to duplicate Canadian prizes awarded to Shorthorns bred in the United States, regardless of ownership.

The present condition of the Shorthorn trade is most flattering as indicated by the fact that during the past three months 640 Shorthorns have sold at public auction for $1,000 or more each, a total approximating $1,000,000. There were but three animals in the entire list that sold for anything like spectacular prices. It is the consistent relation of the values and prices and the wide territory represented by the purchasers and the sellers which indicate the stability of the trade.

Shipping Hogs in Hot Weather

Every hog that is killed in transit due to overcrowding or mishandling means a loss, at present prices, of probably more than $30 to the shipper as well as a waste of meat needed by the nation. Mortality in transit or after arrival at the central market can be lessened greatly in hot weather by the practice of the following simple precautions on the part of shippers and dealers:

1. When hogs are very hot, during or after a drive, never pour cold water over their backs.

2. Before loading, clean out each car and bed it with sand which, during dry, hot weather should be wetted down thoroughly. Hogs in transit during the night only are not so likely to be lost from overheating as are the animals shipped in the daytime. With day shipments in hot weather it is highly advisable to suspend burlap sacks of ice from the ceiling in various parts of the car in order to reduce the temperature and, incidentally, to sprinkle the animals with cool water. The ice sometimes is placed in sacks on the floor, but the animals are likely to pile and crowd around the cakes so that only those close to the ice are benefited. The ice should be sufficient to last to the destination.

3. Do not overload. Crowding hogs in a car during warm weather is a prolific source of mortality.

4. The feeding of corn, because of its heating effect, before and during shipment in hot weather, should be reduced to a minimum. Oats are preferable where a grain feed is necessary. The maximum maintenance required of hogs in transit for twenty-four hours is one pound of grain a hundredweight, or approximately three bushels of corn to a car. In the past thousands of bushels of corn have been wasted in live-stock cars.

Silo Saves Expensive Feed

Silos will cost more this year than before the war, but so does feed. Alfalfa hay has sold at from $25 to $35 a ton during the past year and at the present time is selling for about $21 a ton in Kansas City. Some were disappointed last year because companies selling silos were unable to deliver them after sold. Conditions are somewhat better this year and silo firms report that they will be able to make prompt delivery, subject of course to the railway condition.

The silo may seem practical this year to some because of the high price and the shortage of labor, but we can figure silage as worth about one-third the price of alfalfa hay. Making an acre of corn or kafir into a feed worth from $50 to $70, depending on the tonnage yield, is worth considering. On the smaller farm where the home labor cannot handle the filling, work out a neighborhood cooperation plan of exchanging work at silo-filling time. In many communities this is being successfully done. The time to plan for it is now, for some might buy silos if the matter of filling can be worked out in advance. It is not safe to wait until the silo is needed before ordering or building.

A rather singular method of handling exchange work came to our attention a few years ago. It has the advantage of doing away with all possibility of misunderstandings as to the amount of work each man supplies to his neighbors during the period of filling. The plan in brief is to settle upon a scale of wages for the different kinds of work in advance. At the end of each job the men co-operating sit down and figure out how much the man whose silo has just been filled owes each member of the exchange group, and he writes each one a check for the amount. The process is repeated at each job. There is no carrying along of small differences in the amount of work between the different members co-operating. It is all settled, the members furnishing more work than they got in return having the difference in cash and those furnishing less being out that much in cash.

The main point is to save this valuable feed. Silos may cost 25 to 50 per cent more than a year ago, but the silage is worth more than double what it was when the silos were cheaper.

Some of those having their first experience in handling sheep may find maggots troublesome in hot weather. This is especially apt to happen if sheep are yarded in filthy places. When sheep become infected with maggots the use of a little antiseptic chloroform, denatured alcohol, or some of the ordinary stock dips, weakened with water, will destroy them. Chloroform is probably the best remedy. It takes only a small quantity, and usually one application will kill all the maggots. When using the dip it should be weakened by the addition perhaps of seventy parts of water to one of dip. After the maggots have been killed and the wound cleaned out, the sore spots should be smeared with pine tar.

Tractors Relieve Situation

Farm tractors are playing an important part in relieving the labor situation on the farms, farm labor specialists of the United States Department of Agriculture say. In Pennsylvania more than 2,800 tractors are in use. Through the Public Safety Commission tractors have been bought and are equipped with an operator and mechanic, and placed in communities. The farmers guarantee a reasonable acreage for plowing and pay from $3.50 to $5 an acre for the breaking of the land. This co-operation, according to the farm labor specialists, has meant much to small farmers who are unable to purchase tractors for their individual use. It also saves them the large amount of time and labor required in breaking land which is the slowest and most expensive operation on the farm.



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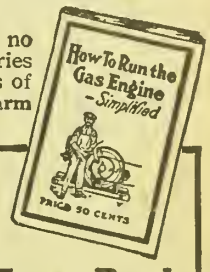

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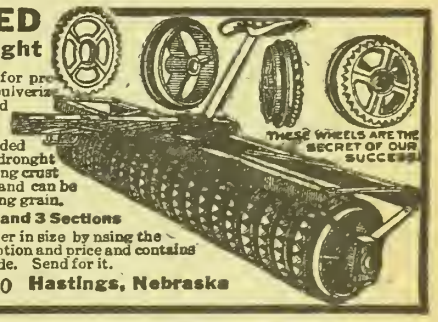

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Two to nine months. Also females. Bred right, priced right.

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Seed-Bed Preparation in West

EARLY seed-bed preparation is the secret of success in wheat growing. In Western Kansas the preparation of a seed bed for wheat must of necessity be somewhat different than in the eastern section. It is sometimes so dry early in the season, and especially on land that has grown a crop of wheat, that early work is practically impossible. It is also necessary to constantly guard against soil blowing. If the surface is pulverized too fine it is almost sure to blow. The cultivation of plowed land in this section of the state should always be of such a nature as to destroy or prevent weed growth, but at the same time leave the land in a rough or furrowed condition. The use of tools that will destroy the weeds and leave the surface rough or corrugated is to be preferred to harrowing and dragging.

Listing is often a successful method of preparing land. It can be done more rapidly than plowing and time is often a most important factor. Unless the field is covered quickly, it will get so dry that nothing can be done until rain comes. If possible list in July, and work the ridges down with a lister cultivator when the weeds start. By the time the ground is leveled it will have been worked sufficiently to be in good condition for the seed. The tests at Hays show that double listing or splitting the ridges later in the season does not increase the yield enough to pay for the extra work.

In some counties of the West and Northwest where wheat killed out badly last fall there are quite large acreages of corn or grain sorghums. This land may be the ideal place to sow wheat this fall. The cultivation of the crop, if well done, prepares the seed bed in good shape. In some years the corn-land wheat is a failure. If the fall is unusually dry the soil does not get settled enough, and the wheat makes a poor start, thus favoring winter-killing.

Because in occasional years the land given the poorest preparation does best, we are too apt to attribute success solely to the season. Our memory does not carry us back far enough. This is not a safe rule. Too many men have studied out the conditions over a period of years and adapted plans that are on the average more successful than trusting all to the season to justify the wheat grower in adopting this rule which makes it solely a matter of luck. There is an element of chance in all farming operations and for that reason, in Western Kansas especially, it is not safe to go into wheat farming so heavily that a total failure means ruin. The men who have made the most pronounced successes are those who restrict their wheat growing to such acreages as can be given careful seed bed preparation. Some years they sow more than other years because of conditions affecting seed bed preparation and reserve moisture in the soil.

Testing Threshing Machine

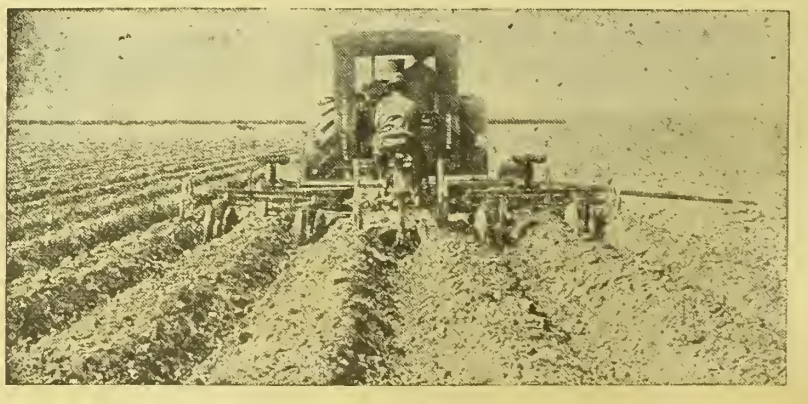
It is a matter of common knowledge that a great deal of grain is wasted by being blown into the straw during threshing. The plan of having a threshing machine expert assisted by committees in every county was proposed as a means of saving some of this waste. We do things on such a big scale in our Kansas wheat fields that in the rush and hurry of harvesting and threshing, the wheat grower and thresherman have too often neglected to watch these little leaks.

An instance has just been reported of where the threshing machine expert for Kansas, Delano Bechtel, has condemned a machine and sent it back to the factory. This machine was operating west of Wichita and farmers had been complaining that it was wasting wheat. The owner asked to have the expert for Kansas sent to one of the jobs to investigate. He lowered the straw blower and directed the straw into a wagon sheet while two and a half bushels of wheat ran into the wagon. Three pints of threshed wheat were blown into the straw during this time and in addition an equal quantity of wheat still in the head which the cylinder had failed to knock out. One of the threshing machine company's experts had been working for two days trying to adjust the machine so it would do good work. Mr. Bechtel tried a number of readjustments but the machine continued to waste grain at the rate of about four bushels to every hundred bushels threshed. He gave up and ordered the machine taken out of the field. The owner will return it to the factory, as it was guaranteed to do good work. It was noted in connection with this same job that it was found that none of the wagons used in hauling the grain from the field had tight bottoms. Before leaving the field Mr. Bechtel got all the men to promise that they would make the bottoms tight before doing any more threshing.

This sort of work is without doubt well worth while. We have got so in the habit of overlooking these little wastes that they have increased in number and in the aggregate a very large amount of grain is lost. By having someone whose sole business is to watch for the leaks and who is not worried and rushed with anything else, a great deal of saving can be made. We hope the men who are watching the work of threshers are tactful in performing their duty. The wheat growers and threshing machine owners should welcome such assistance and should heartily co-operate in this systematic effort to save grain which has in times past been wasted.

July Crop Report Shows Loss

The wheat crop of Kansas will not be as large as was estimated a month ago. A forecast of 91,871,000 bushels is made in the monthly Government crop report based on conditions July 1. This is a falling off of over five million bushels from the June 1 estimate. The unusually dry hot weather which extended over the whole state was responsible for this falling off in yield. The losses were proportionate to the maturity of the crop when the extreme heat began. The Northwest, which has been unfortunate in weather the past two years, was damaged the most because the crop was the farthest from maturity when struck by the extreme heat. In making the Government report, Edward C. Paxton, field agent for Kansas, says: "South of the Kaw and east of a line drawn from Topeka through Wichita to the Oklahoma



RAPID PREPARATION OF SEED BED IN WESTERN KANSAS BY LISTING METHOD

border the wheat was so nearly matured as to suffer very little depreciation. Elsewhere premature ripening and some shriveling of the grain was the general rule. The winter wheat outlook for Kansas on the whole fell off 5 per cent from June 1 to the time of harvest."

Corn was not much injured by the unusual June heat and lack of rain. It is an old saying among corn growers that a dry June means a good corn crop. Judging from Mr. Paxton's report, corn over the state has demonstrated its ability to get along without much rain in June. The crop came up to July with fairly good growth and color and clean of weeds, although but thin in stand. The preliminary survey made by the Government indicates that the acreage of corn in the state is 6,590,000, which is 2,566,000 acres less than was planted a year ago, but almost equal to the average for 1911-1916 inclusive. The Government forecast on the basis of July 1 condition is 132,312,000 bushels. Last year we grew 128,184,000 bushels of corn. Since Mr. Paxton's report was issued we have had fine rains over most of the corn-growing sections of the state. The condition of the crop has improved with the exception of the southeastern and the northwest and north central sections where the rains did not extend.

Oats were injured more severely than wheat. The extreme heat caught large acreages in the central and western parts of the state in the blossom or milk stages. In these sections the crop was quite largely harvested for hay. A production of 52,093,000 bushels is forecasted, which is twelve and a half million bushels less than the June 1 forecast and nearly nineteen million bushels less than last year's crop.

Barley also suffered severely from the dry hot weather of June. The greatest depreciation was in the northwest counties, where most of the barley is grown. The forecasted production is 9,180,000 bushels. Much of the barley was cut for hay in the blossom or milk stage.

The excessive heat of June came at a most critical time for potatoes. The early planting is best, but the potato outlook for Kansas is rather poor. The Government report rates the crop for the state at 55 per cent, or a total production of 3,720,000 bushels from 80,000 acres. Last year we produced 4,446,000 bushels from 78,000 acres. The crop is being dug in the Kaw Valley, where fifty commercial growers rate the condition July 1 as only 46 per cent.

The grain sorghum acreage of the state is given as about one and three-quarter millions. This is exclusive of cane, or sweet sorghum. Last year we planted over two million acres of grain sorghums. The condition is given as 78, which is better than last year at the same time.

Corn Land for Wheat

June conditions over most of Kansas were especially favorable for corn cultivation. The corn farmer always dreads a wet June. It means weeds and grass in the corn and a lot of extra work to get it cleaned out later. This comes at a time when harvesting, threshing, and haying are pushing jobs. Following a wet June the corn crop too often must struggle along through the dry weather which is sure to come later without being cleaned of weeds and grass.

This year corn is coming into the trying period of the year for this crop in far better than average condition. It is clean, and the later cultivation can be light. Too much cultivation injures corn after it gets large enough to fill all the surface between the rows with roots. When it gets foul as a result of too much wet weather early in the season it is sure to be injured in the process of tearing out the weeds and grass. From present indications it would seem that more than the usual acreage of corn land will be in the right condition for seeding to wheat this fall. We need to grow as much wheat as possible, and it would be well to keep in mind the possibility of seeding wheat in corn land in the handling of the crop from now on. Where the corn crop goes into the silo it will be off the land in time to do what little additional work may be necessary to put it in seed-bed condition. Well-cultivated corn land needs little additional work to prepare it for wheat. In fact many times the wheat can be drilled in the stubble without any additional work. We have had quite a large acreage increase of wheat in Eastern Kansas the past year, and there is no reason why a large acreage should not again be seeded the coming fall. As wheat is handled in Eastern Kansas in connection with other crops, it should be a profitable crop to grow at present prices.

An engine gets noisier as it gets older. This can be remedied by watching it closely and making the needed adjustments and repairs from time to time. The clutch collar will work loose and have to be repaired. The timing gears wear and have to be replaced. The valve tappets should be kept adjusted as they will become very noisy if they open up.

Look on the bright side. If there is no bright side, polish up the dark one.—Exchange.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

Address All Communications to Kansas Farmer, and Not to Individuals

Personal mail may have to be held for several days, or be delayed in forwarding, and Kansas Farmer cannot assume any responsibility for mistakes occurring thereby

CLAIM SALE DATES.

Holsteins.
Sept. 4—E. S. Stoughton, Hutchinson, Kan.

Jersey Cattle.
Oct. 9—B. R. Thompson, Garrison, Kan.

Spotted Poland Chinas.
Oct. 5—W. J. Honeymoon, Madison, Kan.
Oct. 19—C. A. Gooch, Orrick, Missouri.

Poland Chinas.
Aug. 8—Fred B. Caldwell, Howard, Kan.
Aug. 24—Bert Harriman, Pilot Grove, Mo.
Oct. 15—H. B. Walter & Son, Effingham, Kansas.
Oct. 16—Dr. J. H. Lomax, Leona, Kansas.
Oct. 31—F. J. Dowe, Hiawatha, Kan.
Oct. 29—Hill & King, Topeka, Kansas.
Oct. 31—Adams & Mason, Gypsum, Kansas.
Nov. 1—E. B. Myers, Hutchinson, Kansas.
Nov. 6—Earl Bowers, McLouth, Kan.
Nov. 6—M. C. Pollard, Carbondale, Kan.
Nov. 7—Schmitz Bros., Seneca, Kan.
Nov. 8—Ketter Bros., Seneca, Kan.

Duroc Jerseys.
Oct. 19—W. W. Zink, Turon, Kansas.
Oct. 18—Wreath & Givens, Manhattan, Kan.

Spotted Poland Chinas.
Oct. 3—Alfred Carlson, Cleburne, Kan.

Chester Whites.
Oct. 23—J. H. McAnaw, Cameron, Missouri.
Nov. 7—Arthur Mosse, Leavenworth, Kan.

Andrew Kosar, of Delphos, Kansas, owner of Grand View Farm and one of the good herds of big-type Poland Chinas in this state, reports the sale of his good herd boar, Hercules 2d, and three choice sows to Mr. Engle, of Abilene, Kansas.

I. W. Poulton, of Medora, Kansas, owner of one of the best herds of Red Polled cattle in the state, reports his herd doing well. Mr. Poulton has been breeding Red Polled cattle for years and only high class bulls have been used in his herd. A feature of the herd at this time is the choice lot of young cows, all bred; also a fine lot of yearling heifers.

E. M. Reckards, of Ozawkie, Kansas, owner of one of the great herds of Chester White hogs, reports his herd doing well and young stock growing out fine. Mr. Reckards has been breeding pure-bred Chester White hogs for fifteen years and all of the popular blood lines of the breed are represented in his herd. At present a feature of the herd is the choice lot of young stock, including good herd material.

A. E. Whitzel, of Sterling, Kansas, owner of one of the high class herds of Red Polled cattle in Kansas, reports his herd doing well. This herd was founded in 1907 and now consists of fifty-three head of registered cattle. Among the herd bulls that have been used in this herd are such bulls as Blucher, Enterprise, Orphan Boy, Duke, and other noted sires. A feature of the herd at this time is the choice lot of young stock. Mr. Whitzel also makes a specialty of pure-bred seed corn.

A. H. Burg, of Lakin, Kansas, reports his herd of pure-bred Duroc Jerseys doing well. Mr. Burg owns one of the good Duroc herds in Kansas. Illustrator and Pathfinder blood lines predominate in his herd. This year he raised a choice lot of March pigs that have grown out fine.

L. F. Cory & Son, of Belleville, Kansas, owners of Corydale Farm and one of the heavy producing herds of Holsteins in Kansas, report their herd making a good record again this year. The senior herd sire of this herd was Jewel Paul Butter Boy 94245, followed by Dutchland Creamelle Sir Iuka 199300, a son of Creamelle Korndyke Lad, the great Fields bull. A feature of the herd at this time is the choice lot of heavy producing cows and a fine lot of record-bred young stock.

CHESTER WHITE HOGS

CHESTER WHITE HOGS

Five December boars ready for service, out of my grand champion sow, Tip Top. Spring pigs from other good sows for sale.
COLEMAN & CRUM, DANVILLE, KANSAS

RECKARD'S CHESTER WHITES
Have raised pure-blooded Chester White hogs for fifteen years. Breeding stock for sale from prize-winning strains. Large kind and smooth.
E. M. RECKARDS - OZAWKIE, KANSAS

The World's Champion Bred Sow Sale

AUGUST 8, 1918

FORTY-FIVE HEAD BIG POLAND CHINA SOWS
All Bred to the Champion Caldwell's Big Bob

We have selected forty-five head of our best sows, all bred to Caldwell's Big Bob for September litters. We want every breeder of big Poland Chinas to be our guest August 8 and view the splendid offering of brood sows. Please send today for nicely illustrated catalog. I want you to read it. Address

FRED B. CALDWELL, Howard, Kansas

JERSEY CATTLE.

TESSORO PLACE

OWL INTEREST FINANCE JERSEYS (REGISTER OF MERIT)
Buy a bull from a R. of M. cow and be more certain in your herd building. Every cow in milk in our herd has a year's test or one now on. Our two-year-olds will average 400 pounds of butter. Write for prices and other information.
R. A. Gilliland, Mayetta, Kansas

Longview Jerseys

(Register of Merit Herd)
Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.
Longview Farm
LEE'S SUMMIT - - MISSOURI

B. C. SETTLES

MAKES A SPECIALTY OF MANAGING JERSEY SALES.
Write for catalogs.
Palmyra - - Missouri

Allen Center Stock Farm

Registered bull calves — some ready for service. Sale or exchange for bull or heifers.
TREDWAY & SON, LA HARPE, KANSAS

FINE YOUNG JERSEY BULLS

From Register of Merit and tested cows; Register of Merit sire.
Dornwood Farm, Topeka, Kan.

IDYLWILD STOCK FARM

Place your order for a Sophie Tormentor, Jacoba Irene, spring bull calf to increase your production.
C. F. Blake - Glasco, Kansas

POLAND CHINAS

PALMER'S BIG POLANDS

Fall boars by Big Bob Wonder, Sir Dudley, and Exile, and out of choice big-type dams. They are good ones.
C. B. PALMER, ROUTE 5, MARION, KAN.

Big-Type Poland China Hogs

September and October boars. One real herd boar prospect. Fifty bred sows and bred gilts. 250 spring pigs.
DEMING RANCH - - OSWEGO, KANSAS
H. O. Sheldon, Herd Manager

LANGFORD'S SPOTTED POLANDS
Last call for fall gilts.
T. T. Langford & Sons, Jamesport, Missouri

Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
J. EDW. PLILEY - GILMAN CITY, MO.

Registered Big-Boned Spotted Poland China Hogs—Young stock for sale at all times, either sex. Address Walter Dodd, Jasper, Mo.

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. Chas. E. Greene, Peabody, Kan.

AUCTIONEERS.

FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. VALLEY FALLS, KANSAS

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri

JERSEY CATTLE.

100 GOOD JERSEYS FOR SALE

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.
J. W. BERRY & SON, Jewell City, Kansas.

REGISTERED JERSEY BULLS

Butter-Bred, from High-Producing Cows. Photo furnished.
MAXWELL'S JERSEY DAIRY
Route 2 Topeka, Kansas

J. B. PORTER & SON

MAYETTA, KANSAS
Breeders of High-class Jerseys. Stock for sale at all times.
Write Us Your Wants.

BROOKSIDE JERSEYS

Registered Jersey Bulls, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.
THOS. D. MARSHALL, SYLVIA, KANSAS

ANGUS CATTLE

Edgewood Farm Angus

I have for sale
40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.
D. J. WHITE, Clements, Kan.

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Percherons—Belgians—Shires
After harvest take the most enjoyable little trip of your life. Come see all my show and breeding horses and have a fine visit with me. Drop me a card now. FRED CHANDLER, R. 7, Charitan, Iowa. Above Kansas City.

GALLOWAY CATTLE.

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.
E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

Registered Galloway Bulls

Ten Two-Year-Olds. Ten Long Yearlings.
These are in extra good condition.
Ready for immediate service.
Come and see them.
CALLAHAN & BECK, KINGMAN, KAN.

RED POLLED CATTLE.

ADVANCED REGISTRY RED POLLS

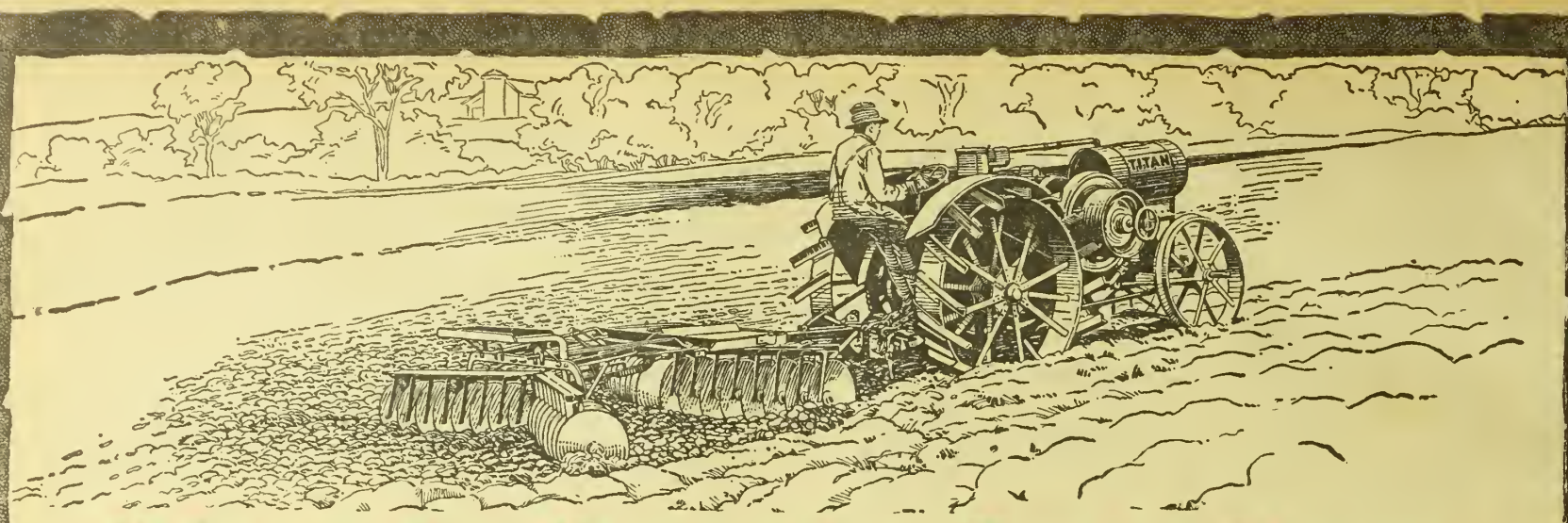
Choice young bulls from heavy milking dams. Inspection of herd invited.
CHAS. L. JARBOE - QUINTER, KANSAS

RED POLLED BULLS
Two extra good ones, year old, ready for service. Priced for quick sale.
A. E. WHITZEL - STERLING, KANSAS

RED POLLED CATTLE
For Sale—Four-year-old herd bull. Some extra good cows to calve in winter and early spring. A few yearling heifers.
I. W. POULTON - MEDORA, KANSAS

TURNER & SON SHROPSHIRES

Fifty good big registered rams, $50 each, crated and express paid here. Also about 100 head of Lincoln and grade Shropshire ewes, ranging in age from one to six years, $22.50 per head. Sheep three miles north of town. Send check or draft with order. Pedigrees furnished for pure-breds. Always return crate. Reference, Harveyville State Bank.
J. R. TURNER & SON - - - - - - HARVEYVILLE, KANSAS



Pointers for Prospective Tractor Buyers

Successful Tractors are Developed Through Actual Work on Many Farms

YOU MUST SETTLE THE TRACTOR QUESTION

Your business is farming, which requires implements, machines and power. The business of The Harvester Company is to supply you with just the machines and power you need for your work. Just now we are both deeply interested in the problem of a safe, dependable, economical farm power.

You may have a tractor. If not, you are probably needing one. Practically every farmer is now in one class or the other. We cannot properly analyze your individual power needs without seeing your land or talking with you, but we can point out some things that will help you in making the wisest decision when you finally select a tractor.

Our interest in your decision goes deeper than you may think. No matter what tractor you buy, sooner or later you will undoubtedly hitch it to some of our machines. It's the machines that do the farm work, and they can do it properly only when the power is right.

POWER AND POWER MACHINES MUST BE ADAPTED TO ONE ANOTHER

As you know, The Harvester Company pioneered the harvesting machine business, beginning about seventy-five years ago. In the meantime they have produced many other necessary field and belt machines. No one yet has suggested a better way to harvest grain than with the binder they developed through years of experience. Many of the machines you are using owe their present efficiency to that same long experience.

Isn't it logical that The Harvester Company with all this knowledge of farming should know what kind of tractor would best operate all your machines? Who, would you say, could be in better position to supply the right kind of power, than a concern that has for so many years made both farm machines and tractors?

PRODUCED TRACTORS YEARS AGO

No world war or sudden demand caused The Harvester Company to develop a tractor. The farm power and labor conditions which the war has only intensified existed years ago. Knowing these conditions The Harvester Company started producing tractors over twelve years ago. Since then, in peace and war, they have never relaxed their efforts to develop tractor power to a point where most farmers could use it profitably.

THE VALUE OF EXPERIENCE

Every power unit must be designed for the particular kind of work to be performed. The automobile is well designed with lots of power, but useless for plowing, harvesting and threshing, because it is not hooked up right for that work. A tractor may be well designed as a power unit for field work, and still not be hooked up right for belt work. Again, it might be well adapted for belt work and very poor for drawbar work because it could not stand the field strains that wreck every machine not especially built to stand them. A successful tractor is not only designed especially for the work to be done, both field and belt, but must be economical in operation and one that farmers can keep in running order. Every part liable to damage or wear must be easy to get at for adjustment or repair.

The Harvester Company's years of experience with tractor power and both belt and drawbar machines has enabled them to provide a most successful and economical power for all purposes. Without farming experience no firm can be sure that its tractor will be successful. Real tractors are developed by wide experience with both the tractor and the machines it must operate. Many of their most valuable qualities are hidden beneath the surface and only show up when the work is extra hard. Behind every International Harvester tractor stands twelve years' tractor experience, not on a draftsman's table or in a pattern shop, but in the factories and on the thousands of farms where International Harvester tractors have been in use for years in the United States, Canada, and twenty-five foreign countries.

MORE THAN A TRACTOR

As soon as a tractor is sold by many concerns, the deal is closed. Everything you get is in the tractor. They have nothing more to sell.

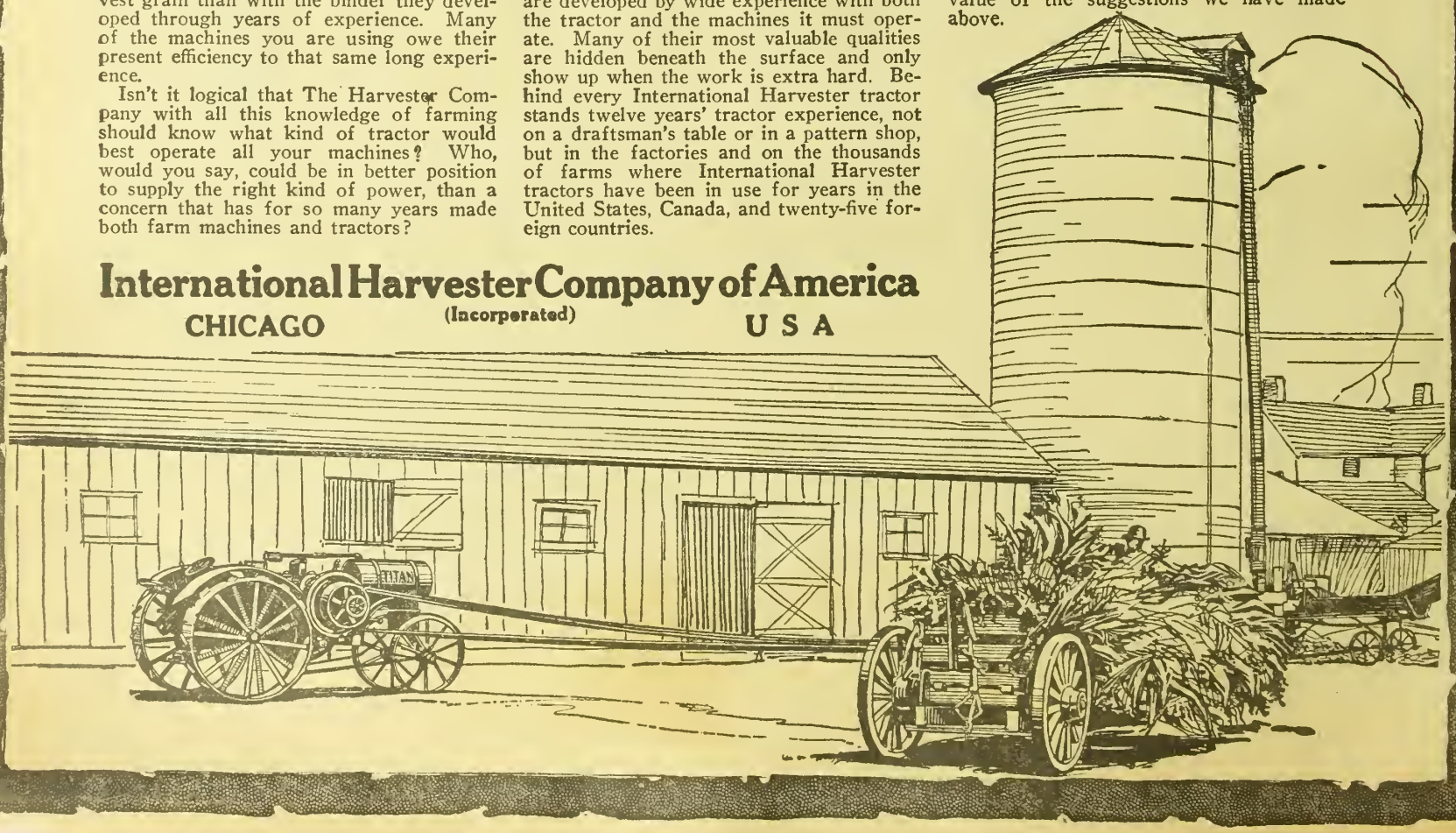
We sell a complete line of farm machines. Every time you need a machine, we have a chance to do business with you. Every time we sell you a satisfactory machine, we have that much better chance to secure your future business.

The concern that sells tractors only can rest content with one sale—satisfactory or not. We cannot. We want to sell you other machines after you have purchased a tractor. If our tractors should not live up to our promises, we would lose not only your tractor business but your confidence in the other machines that we sell. In this respect we have more at stake than most concerns selling farm machines.

To give satisfaction to our customers, both at the time of the sale and after, is a vital matter with us. In order to do it, we have developed a distributing organization of ninety branch houses each carrying a complete stock of machines and repair parts, backed up by a dealer's services unequalled by any.

THE NATIONAL TRACTOR DEMONSTRATION

Come to Salina, Kansas, if you possibly can, July 29th to August 3rd. The National Tractor Demonstration at Salina this year will be far different from the usual plowing demonstration. All kinds of work for which the tractor is adapted will be demonstrated. This will be your first and only chance this year to compare every type of tractor in every kind of farm work. It will also give you an opportunity to see the value of the suggestions we have made above.



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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 30. TOPEKA, KANSAS, JULY 27, 1918. Established 1863. $1 a Year

A SCHOOL WAR GARDEN ARMY

Delphos Community Sets the Pace in Directing Energy in Children

By Marion Mateer, Boys' and Girls' Club Department, Kansas Agricultural College

A SCHOOL superintendent and a school board of three men who were quick, progressive, and unselfish enough to see a great opportunity, not only for their own school district but for all the children in neighboring districts, are responsible for putting Ottawa County on the map in boys' and girls' club work. These four men, however, could have done nothing without the co-operation of their people, and Delphos, wide awake, energetic little town that it is, rose valiantly to the rescue. By this one act they have done for their county what no other district of equal size has ever yet accomplished in Kansas.

Funds for Providing Leadership

During the year 1918 sufficient funds were appropriated by the Government whereby fifteen counties of Kansas were given the opportunity of having county club leaders, these leaders to be selected by the Boys' and Girls' Club Department which is a part of the division of extension of the Agricultural College. Ottawa County, due to the splendid club work formerly done by her boys and girls, was entitled to one of these leaders, providing the county did its part.

The club authorities visited this county and put the proposition before the county officers. Providing the county would furnish headquarters and twenty-five dollars a month for local expenses, the salary of a club leader would be met by federal funds. Practically every public organization in the county was consulted but each in turn felt that the undertaking was far too large. Finally when it seemed that every possible source had been tried and that the boys and girls were again to be disappointed and left without a leader, Delphos and her noble far-sighted school board took up the proposition. "Let such a chance as this go out of our county? Never! Our boys and girls mean more to us than any other part of our population. They are our future citizens and what is for their good and interest is worth our consideration."

Must Have Right Leader

Therefore they took upon themselves and their small district the responsibility of financing and providing their county with a public benefit. Next came the task of securing a person to fill this position. Did they take just anyone handy? No. They searched throughout the county for a person whom the children all loved; for a person who was really capable of teaching the boys and girls the true standards of citizenship, namely, self reliance, independence, truth, and co-operation. Such a person is Miss Jessie G. Adee, the present county club leader of Ottawa County. Miss Adee was formerly county superintendent of schools and knows and loves every single one of her boys and girls.

What Delphos has done, other towns with equal progressiveness and spirit can do. It is not a large city or even centrally located in the county. But the influence and good started in that one locality in the northwestern corner of Ottawa County has spread all over the state and even to the Club Department at Washington, D. C.

During the past season Miss Adee organized in her county the United States School Garden, an organization having five companies with a total membership of ninety. These companies make use of the vacant ground in different localities and not a weed is allowed to grow in peace. Each member is also required to have an individual garden one rod square. Expenses are all figured and at the end of the season each child will know exactly the amount he has made on his gardening. Does this not promote industry and patriotism? In addition to the garden supervision, Miss Adee has seven poultry clubs with a total membership of 120 members, and two pig clubs with twelve members. What boy will not feel two inches taller if he knows that the pig he is raising is going to help feed the Allies next winter?

Club Members Busy and Happy

The girls of the county are organized into bread clubs for the conservation of wheat flour, and twenty-six canning clubs with a total membership of more than eight hundred are helping to store away food for this winter.

Miss Adee is a true helper for her boys and girls. When old straw is needed for mulching the gardens, she goes with the youngsters to haul straw instead of asking for the time of some busy farmer. They borrow horses not otherwise in use, and unload a hayrack of oats in order to obtain a wagon. The aim of club work is to make the child independent and individually responsible.

Patriotic parades, picnics, and programs are planned and carried out most effectively. Poultry tours and garden inspection, not to mention pig judging contests, are helpful forms of amusement for the club members. On the Fourth of July the poultry club boys, chaperoned by their leader, had a jolly picnic. So much fun is possible where they all have a common aim and interest! Club songs are sung everywhere and even a few new verses have been written especially for these boys and girls, such as "The Battle Cry of 'Feed Them'," to the tune of "Rally 'Round the Flag."

Workshop at School House

In the basement of the Delphos School there is a room where boys and girls can bring their tools and materials to build nests for their prize hens, feeding troughs for use in the pig club contests, or cutworm sprays for the contest garden. Upstairs there is a kitchen where the girls can bake bread and try different conservation recipes, the results of which they are privileged to take home for dinner. Here also the boys are allowed to clean vegetables from their gardens for canning. "Why are all these duties such pleasures?" you ask Because the children are living up to their club pledge, "I consecrate my head, my heart, my hands, and my health, through food production and food conservation, to help win the World War and World Peace."

Probably in no other community in this state are the children busier and happier. Miss Adee has a task for each and every one of them. She is their big "playfellow" who makes the smallest duty look like something pleasant and worth while. The Boy Scouts delight in doing "good deeds" in behalf of club work.

Lesson from Delphos Community

All of this good, however, cannot come to a community where no spirit of progressiveness or co-operation exists. Either the county, or as in this instance an individual town, must stand back of the boys and girls, providing funds and supplying a club leader.

Don't you want your boys and girls to be useful, energetic, and happy? Don't you realize that their interest and welfare is of far more importance to your county and nation than a mere little sum of twenty-five dollars a month? This is your opportunity. Be progressive and far-sighted. Delphos has set the pace; surely you are not going to be outdone. Help make your community influential and your boys and girls better citizens. Don't put it off. Do it now. Has your county a club leader? If not, why not?



THESE boys and girls are the officers of the Delphos School Garden Army. It is not a dress parade. They are in the service uniform. They love and honor their commander-in-chief, Miss Adee, and both officers and privates are putting a lot of pep and enthusiasm into the various things they are doing. It is really work, but they are making it seem like play, and for that reason they are tireless in their gardening, poultry and pig raising and other club activities.

Poultry Club Roundup

The first annual picnic of the boys' and girls' poultry clubs of Jefferson County was held in Briner's Grove just east of Oskaloosa Friday, July 12, with every club in the county but one represented. Six clubs put on demonstrations in powdering hens for lice, selecting eggs for display, candling eggs, and testing eggs. The silver cup was carried off by Plum Grove, with Veta Roberts as demonstrator in egg testing. Honorable mention was given to Pleasant Point and Lone Tree clubs. Plenty of fried chicken and deviled eggs were provided for the picnic dinner by the young poultry raisers.

The boys and girls of Jefferson County have raised about a thousand chickens this year. Of course the chickens have not reached maturity, but they are now past the danger point unless a pro-German skunk or weasel or rat should get in his deadly work. The different breeds owned by club members of the county are: Barred Plymouth Rocks, White Plymouth Rocks, White Wyandottes, White Leghorns, Brown Leghorns, Rhode Island Reds, Buff Orpingtons, Black Minorcas, Anconas, and geese.

Ernest H. Wiegand, of the extension division of the Kansas Agricultural College, was present and gave several demonstrations to the boys and girls and answered many questions. Club songs were sung, and when the members departed all felt glad they belonged to the poultry club.

"Set hens; hatch chicks;
Grow pullets our way,
Merrily, merrily, cheerily, cheerily,
Winter layers will pay."

MRS. JESSIE S. MCCAFFERTY,
County Club Leader.

Our Flag Is Still There

The flag is still flying over the wheat bin. Intelligence and patriotism saved the colors. Now let's plant "Old Glory" on the sugar bin so firmly that 1919 will see our flag still there.

Make one spoonful of sugar do the work of two every day until the war is through.

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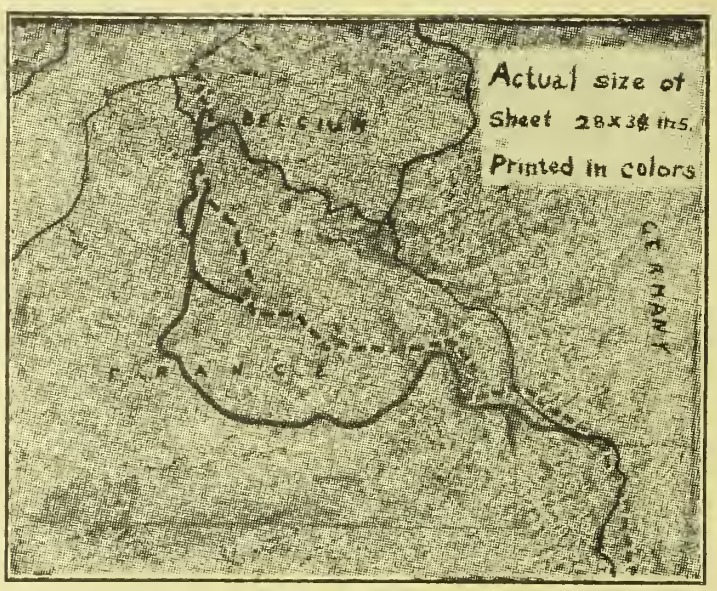

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YOU CAN TELL JUST WHERE THE BOYS ARE FIGHTING ON THIS ELEGANT MAP

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KANSAS FARMER

THE FARM PAPER OF KANSAS

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NEW DEANS AT K. S. A. C.

The position of dean of agriculture and director of the Kansas Experiment Station, formerly held by President W. M. Jardine, has just been filled by the appointment of Francis D. Farrell, a practical farmer and a leader in the work of the United States Department of Agriculture.

Previous to entering college Mr. Farrell was on a Wyoming cattle ranch. In working for the Department of Agriculture he has supervised actual farm operations. He is associated also in a large farming enterprise on western land.

Mr. Farrell was graduated from the Utah Agricultural College in 1907, since which time he has been with the United States Department of Agriculture, except one year spent as director of the branch experimental farms of the University of Idaho.

For the last four years Mr. Farrell has been chief of the division supervising the establishment of agricultural industries on government irrigated land in fifteen western states. The work has been chiefly in live stock, including improvement of breeding and management, production of special feed crops, and the utilization of range lands for summer grazing.

Mr. Farrell created a very good impression on the members of the Experiment Station staff during a recent visit which he made. He is the author of numerous bulletins and special articles. He will take up his work September 1.

A new dean of the home economics division has also just been appointed, this being necessary because of the unusual demands on the time of Mrs. Mary Pierce Van Zile for work as dean of women. Dr. Helen B. Thompson, a well known scholar in nutrition, is the new dean of home economics. This will leave Mrs. Van Zile free to devote her attention exclusively to the duties of dean of women. Doctor Thompson is a Kansan, holding the degrees of bachelor of science and master of science from our Agricultural College. She has studied under Dr. L. B. Mendel of Yale University and holds a doctor's degree from that institution and in addition a degree of master of arts from Columbia University. She has been highly successful as a teacher of her chosen subjects in the Kansas Agricultural College, Lincoln College, Rhode Island State College, Brown University, New Hampshire State College, and Connecticut College.

JUDGES OF SUPREME COURT

The personnel of our Supreme Court is of vital importance. We do not know as much about our courts and judges as we should. The work of a judge is not spectacular. Probably very few people in the state have very clear ideas as to the type of men now serving on our supreme bench. The man who is performing honest, efficient service on the supreme bench of the state seldom is found proclaiming his achievements from the housetops. For that reason voters are at a loss to know how to vote when they go to the polls to nominate candidates.

This year we have but one contest, namely, that between Justice R. A. Burch and A. A. Graham. We are writing these lines because we feel that voters in the primary are likely to go to the polls with little or no information about some of the candidates, and especially judges. We hope you will make some effort to inform yourselves so as to be able to vote intelligently. In this connection we would call attention to the fact that Judge Burch is widely known outside of Kansas for his able decisions and particularly for his courage in cutting out red tape and technicalities. His opponent is a lawyer of ability, but we should not fail to give consideration to the record made by such a judge as Justice Burch.

Remember that the soldier's chance of life depends upon the support given him by the folks back home.

Attend Tractor Demonstration at Salina

NEXT Monday, July 29, will be the opening day of the big National Tractor Demonstration at Salina. Over fifty tractor and plow companies will demonstrate their machines in the field performing the various farm operations. In addition each day a number of machines will be going through tests showing their drawbar and belt power. There will be other tests of efficiency of the various outfits shown.

All the companies are sending large numbers of their best men to explain the various points which may come up in the course of the week. You cannot afford to miss this opportunity to get first-hand information showing the very latest accomplishments in power farming. The demonstrations will continue five days, closing Friday, August 2. The editor of KANSAS FARMER will be present a part of the week and will report some of the results of our observations in our issue of August 10.

Can We Stand Steadfast?

WHEN we as a nation took up arms in this greatest conflict of the ages we had not fully counted the cost of carrying it through to a just and triumphant conclusion. The war lords of Germany had, on the contrary, as they supposed, counted the cost and made all their preparations through the years that have passed until they were ready to start on their program of conquest with the assurance that they could win. Now that we are beginning to see the awful cost, can we be steadfast and keep the great issue for which we are contending closely in mind, not only the men at the front, but the people behind the lines, who will probably be the first to falter?

As President Wilson stood at the tomb of Washington on Independence Day and addressed the diplomatic force, he made it clear that our participation in this war was but the fruitage of what our forefathers planted in 1776, with the difference that now it is our privilege to concert with men of every nation in making the liberties of America the liberties of every people as well. In closing he reiterated his program of no compromise with Prussianism in the following words:

"There can be but one issue. The settlement must be final. There can be no compromise. No halfway decision would be tolerable. No halfway decision is conceivable. These are the ends for which the associated peoples of the world are fighting and which must be conceded them before there can be peace:

"1. The destruction of every arbitrary power anywhere that can separately, secretly and of its single choice disturb the peace of the world; or if it can not be presently destroyed, at the least its reduction to virtual impotence.

"2. The settlement of every question, whether of territory, of sovereignty, of economic arrangement or of political relationship, upon the basis of the free acceptance of that settlement by the people immediately concerned and not upon the basis of the material interest or advantage of any other nation or people which may desire a different settlement for the sake of its own exterior influence or mastery.

"3. The consent of all nations to be governed in their conduct towards each other by the same principles of honor and of respect for the common law of civilized society that govern the individual citizens of all modern states in their relations with one another; to the end that all promises and covenants may be sacredly observed, no private plots or conspiracies hatched, no selfish injuries wrought with impunity, and a mutual trust established upon the handsome foundation of a mutual respect for right.

"4. The establishment of an organization of peace which shall make it certain that the combined power of free nations will check every invasion of right and serve to make peace and justice the more secure by affording a definite tribunal of opinion to which all must submit and by which every international readjustment that can not be amicably agreed upon by the peoples directly concerned shall be sanctioned.

"These great objects can be put into a single sentence. What we seek is the reign of law, based upon the consent of the governed and sustained by the organized opinion of mankind.

"These great ends cannot be achieved by debating and seeking to reconcile and accommodate what statesmen may wish, with their projects for balances of power and of national opportunity. They can be realized only by the determination of what the thinking peoples of the world desire, with their longing hope for justice and for social freedom and opportunity.

"I can fancy that the air of this place carries the accents of such principles with a peculiar kindness. Here were started forces which the great nation against which they were primarily directed at first regarded as a revolt against its rightful authority but which it has long since seen to have been a step in the liberation of its own people as well as of the people of the United States; and I stand here now to speak—speak proudly and with confident hope—of the spread of this revolt, this liberation, to the great stage of the world itself! The blinded rulers of Prussia have roused forces they knew little of—forces which once roused, can never be crushed to earth again; for they have at their heart an inspiration and a purpose which are deathless and of the very stuff of triumph."

SILOS FOR WESTERN KANSAS

We have repeatedly made the statement that the silo is indispensable on the live-stock farm of Western Kansas. Live stock is a business depending on a sure feed supply. It is a type of farming which must almost of necessity be practiced to a greater or less extent in the western third of our state. With a silo or two on the farm there need be no sacrificing of live stock because of an exhausted feed supply. If live stock is very extensively handled, it may be necessary to store a good reserve of feed in the good years so as to be prepared for an occasional poor year. Silage can be kept over, so this is perfectly feasible. Many live-stock farmers have demonstrated the possibilities in carrying over silage and feeding it a year or two later when there happens to be a shortage of feed.

A silo-building campaign is to be conducted in the four western tiers of counties beginning August 5. The plan is for each county to conduct its campaign in a single week, either the week beginning August 5 or the week beginning August 12. Like the campaign in the counties of Eastern Kansas, this one in Western Kansas is to be carried on through the activities of county agents, farm bureaus, or county councils of defense. The State Council of Defense has carefully gone into the silo question, and regards it as of enough importance to use its influence to bring the matter to the attention of as many people as possible, in these two sections of the state particularly.

Two days of each week will be devoted to visiting farmers having silos, and at each place the owner will be asked to give his experience in detail. In addition men of experience in feeding silage both to beef and dairy cattle will be present and give additional information. The subject of silo construction will also be studied, although no particular type of silo is being urged. Probably in the west end of the state considerable attention will be given to the pit silo, since a silo of this type is satisfactory under Western Kansas conditions and requires a minimum of actual cash outlay. In the eastern part of the state it will largely be a matter of getting silos which can be rapidly constructed.

Last year there was some trouble about deliveries of silos, some being ordered and not delivered. Silo companies have given assurance, however, that they will be able to deliver silos this year but must have the orders soon, not later than August 10, and earlier if possible.

This Western Kansas silo campaign should result in the building of a good many silos in that section. By depending on the silo as a means of preserving and storing feed, live-stock farming can be made dependable and safe. We would urge our readers to watch closely for local announcements and plan to go on the visiting trip in your home county. You do not have to take the word of some theorist on this silo question. There are men enough in every one of the counties in question who have had actual experience. Go and find out for yourself what these users of silage have to say.

It very seldom comes amiss on the live-stock farm to have a little extra feed such as can be grown in the form of a catch crop. We would suggest that if there is any possibility of your being short on feed for the live stock next winter, you try drilling in some late crops, such as feterita or Sudan grass, in the oat stubble land. Sometimes it is in such a condition as not to require plowing, although as a rule better results will follow plowing the land before seeding. In Eastern Kansas it is frequently possible to grow quite a crop of feed on oat stubble land handled in this way. The land might as well grow a feed crop as weeds. Unless it is to be planted to wheat in the fall it will be in better condition for the next crop than to be left alone to grow weeds.

CO-OPERATIVE MARKETING

Where and When Co-operative Marketing Should Be Undertaken

C. E. BASSETT and O. B. JENNESS
in Department of Agriculture Year Book for 1917

A CO-OPERATIVE ENTERPRISE to be successful must grow from below upward. It is a mistake to form a large central organization before it has been tested in a small way and the details of the plan carefully worked out.

MANY CO-OPERATIVE ENTERPRISES FAIL because of lack of support. Every possible precaution should be taken to hold members together. Usually the area covered should be limited. A scattered membership is more difficult to hold together.

SELFISHNESS OF THE INDIVIDUAL is the greatest single obstacle to successful co-operation. Selfishness and petty jealousies have no place in co-operative undertakings. It is team work that counts. Play the co-operative game as a team plays a football game.

LACK OF SUFFICIENT BUSINESS causes many failures. Co-operative marketing associations should not be undertaken unless there is enough business in sight to make it worth while. This means as large a membership as possible and guaranteed support.

SOCIAL AND EDUCATIONAL ORGANIZATIONS pave the way for co-operative business associations. The community improvement club can teach value of co-operation for business purposes while members are learning to work together. As a child creeps before it walks and runs, so a community must first learn the fundamentals of co-operation.

RAPID development of co-operative marketing activities among the farmers of the United States has taken place during recent years. The popular faith in co-operation as a means of improving marketing methods has been very strong and has brought about the formation of a large number of associations. Indeed, the term "co-operation" has been employed in such a way that many people have come to believe that a co-operative organization offers a solution for almost all difficulties encountered in the marketing of farm products. While a great deal may be accomplished through organized effort when it is properly applied and correctly employed, too much emphasis cannot be placed on the fact that co-operation is not automatic and is not a panacea for all the ills of mankind. Faith in the possibilities of co-operation is essential to its success, but this faith must be expressed in deeds as well as in words.

Under certain conditions, a farmers' co-operative marketing organization may be the means of improving the business conditions of its members. Co-operation may be considered a remedy which, when properly applied at the proper time to the proper patient, may be expected to give relief. When the farmers of a district undertake co-operative activities, they must have faith in the remedy. Each must be willing to lay aside his individual desires and take the whole remedy, the bitter portions as well as the sweet. This means that each must be willing to surrender a portion of his freedom of action; must abide by the will of the majority; must be willing to bind himself to a definite contract and then live up to that agreement, even though there may come a time when to do so would result in a temporary loss.

Each member must realize that the management of the business must be intrusted to one or more persons selected because of superior skill and experience, and that the management cannot be expected to accomplish satisfactory results if it is hampered by the interference of those whom it attempts to serve. If the members of a co-operative organization do not feel that the men to whom they have intrusted the management are better qualified to know what to do and when and how to do it than they themselves, why have such men been employed? When we consider how seldom the management of a farmers' co-operative association has any real control of the business, the wonder is that the success of such organizations has been as great as it has.

Not only must the personal attitude of the members be favorable to a business plan of organization, but local conditions must be such as to make organized marketing advisable. Too many co-operative organizations are formed when conditions are not ripe for the undertaking of such an enterprise. Many organizations fail because they are not founded on necessity. Every co-operative organization should result from a widespread demand based on a well-felt need.

Ordinarily, a community which specializes on one or a few products offers a more promising field for a co-operative marketing organization than one which produces small amounts of a large number of different products. A farmer naturally will devote more attention to an organization which markets his principal products than one which handles products which are raised by him as side lines.

If the service rendered by existing marketing agencies is unsatisfactory, a co-operative marketing organization is likely to receive heartier support than if the farmers are satisfied with the existing system. This factor should be given careful consideration when a co-operative organization is proposed. An association should be formed only when it can perform profitably some definite service, for an organization without a definite purpose is not likely to accomplish very much. Prejudice and misconception make a very insecure foundation for co-operative effort.

Precautions to Be Observed

There are a number of precautions to be observed in the organization of co-operative associations. One of these is that the demand for organized effort should come from those who unite to form the organization. Another important point to be observed is that the organization should grow from below upward. The mistake frequently is made of attempting to form a large central organization before organized effort in a small way has been tried out successfully and the details of the plan carefully worked out. A number of co-operative organizations fail because of lack of support, and on that account every possible precaution should be taken to hold the members together. Ordinarily a co-operative association should cover only a limited area. If a large territory is included, the membership is scattered and it is more difficult to keep the organization intact.

One of the principal obstacles to successful co-operation is the selfishness of the individual. The success of a co-operative undertaking depends largely on the support it receives from its members. On this account it is important that the members understand clearly the purposes of the organization and the methods by which it expects to accomplish the desired results, in order that they may realize fully the responsibility resting upon them. The members should not be led to expect impossible results from an organization. The making of sweeping claims may serve to attract people to the association and may assist in its organization, but unless the organization is able to come up to expectations these claims are likely to react very strongly against the movement. Each member should understand very clearly that the success of his organization depends upon him and that it is his duty to do his part. Selfishness and petty jealousies have no place in any co-operative undertaking.

Lack of sufficient business to make the operation of a marketing organization practical has been the cause of many failures. A co-operative marketing association should not be undertaken unless the volume of business available is sufficient to make it worth while. As large a membership as possible should be secured, because there is a direct connection between membership and the support accorded to an organization. Disregard of this fact has resulted in the failure of some organizations.

The attitude of farmers in a community toward co-operative effort cannot be ignored in organizing an association. The statement that a co-operative organization must be founded on a definite and well-felt need in order to be successful is true to a large extent at least. If the growers have not reached the stage where they are ready to give up individual effort for co-operative effort, the necessary support to make an organization successful is likely to oe absent.

Social and Educational Organizations

There is a close relationship between co-operative marketing organizations and the more general associations formed for educational and social purposes. Many communities are not ready for co-operative marketing activities, and frequently a social or educational organization in such a neighborhood is invaluable in teaching its members the value of co-operation and how to co-operate. Just as a child creeps before it learns to walk and run, so a community has to understand the fundamentals and the requirements of co-operation before great results can be obtained from organization. An educational or social association, when properly directed, furnishes an excellent place for a full and free discussion of organization and marketing problems and in this way lays the foundation for future co-operative marketing activities.

Marketing farm products is the biggest problem with which we have to contend. It is a business proposition and must be handled in a business way. There is no political curesall for the difficulties existing along this line. Producers of farm commodities can most effectually handle this matter of marketing by genuine co-operation. Farmers of Kansas have made splendid progress along this line. It works both ways. For example, fully 60 per cent of the binding twine used in Shawnee County this year was bought co-operatively through the Grange. Co-operation along all lines is certain to be widely extended. We will give later more specific suggestions on how to most successfully conduct co-operative selling enterprises.

Soldiers Study Tractors

THESE men of the 37th Engineers are taking a two-weeks' course of instruction in tractor construction and operation. The work is being given at the manufacturing plant of one of the big tractor companies at Racine, Wisconsin. The men were enlisted from nearly every branch of engineering and constructive industry and most of them had had some experience in the care of motors.

In addition to the shop work they were given repair work and actual field work. Most of the men had never plowed with a tractor before, but they picked it up very quickly. Each man in the company plowed every day, using different sized tractors and styles of plows. To test them in repair work the instructors practiced the rather unique method of "queering" a tractor and putting it up to the soldier student to get it running again.

The men ate and slept at the plant, the barracks being furnished by the motor department and the meals being taken in a big dining room maintained for employes. The men learned a great deal about tractors in the comparatively short time they were there. In all probability it is the purpose of the Government to use these men in instructing the farmers of Europe in the use of the tractor.



SOME OF UNCLE SAM'S SOLDIERS LEARNING HOW TO OPERATE AND CARE FOR TRACTORS

Injurious Insects

Injurious insects are becoming more and more a menace to crop production of all kinds. Insects comprise fully four-fifths of the animal kingdom, there being 400,000 species in existence. The losses due to insects run yearly into millions of dollars in the United States. A knowledge of how to prevent insect injury is one of the essentials of farming. The book, "Injurious Insects and Useful Birds," will help to solve many of the problems of insect control. Its author, Prof. F. L. Washburn, has over twenty years' experience in economic entomology. He is an enthusiast in his field and has prepared one of the best books on the market covering this subject in a popular manner. Insect pests of all kinds are described and illustrated, their habits given, and methods of control described for each species. The four-footed pests are also described and practical methods given for their control. The illustrations are not only very numerous and clear, but exceptionally attractive, a number being color plates. This book will be a valuable addition to the farm library. It is one of the Lippincott Farm Manual series. It sells for $2.

"Extravagance costs blood, the blood of heroes."—Lloyd George.

KEEPING THE FLOCK IN HEALTH

Sheep Most Responsive to Kind Treatment and Sanitary Surroundings

By Dr. I. D. Wilson, Pennsylvania State College, in American Sheep Breeder

OF ALL the domestic animals, none are more responsive to kind treatment and hygienic surroundings than the sheep. It is equally true that none possess less resistance to disease, and when once attacked succumb more readily than do sheep. The old adage that an ounce of prevention is worth a pound of cure is truer in the maintenance of the health of the flock than in any other class of domestic animals.

The first essential in the hygienic surroundings of the flock should be high, well drained and well ventilated quarters for both winter and summer. As long as the winter quarters are dry and free from draughts, it matters little how cold they are, excepting, of course, during the lambing season. Low, damp, poorly ventilated barns predispose the animals to colds, pneumonia and kindred diseases. Once a sheep is affected with pneumonia, recovery is rare. Low, damp pastures in the summer time lead to parasitic infestation and occasionally to blackleg, anthrax, and hemorrhagic septicemia. The latter three diseases can be successfully combated by vaccination. Foot rot is another disease brought on by damp, filthy surroundings. Too much emphasis cannot be laid on having the winter quarters high, dry and well ventilated, and the pastures well drained. If such conditions exist the losses from parasitic diseases, pneumonia and foot rot will be reduced to a minimum, and should be very small indeed. The sheep is a native of high, dry surroundings and as such we must pattern after nature, or as in all other digressions from nature's way, pay the penalty.

Fresh Water

Important as clean, dry surroundings are, pure fresh water is equally as important. The all too common practice of allowing the flock to drink from stagnant pools in the pasture or even from a stream which drains from a pasture where sheep are kept cannot be too strongly condemned. Water from such sources is almost certain to be contaminated with the eggs of many of the various parasites affecting sheep, as well as carriers of the germs of some of the infectious diseases to which the sheep is subject. The ideal water supply comes from a well or spring where there is no possible chance for pollution with the eggs of parasites or germs of infectious diseases.

In the summer time the water should always be kept fresh and cool, not cold, however, preferably in a shaded spot, while in the winter time it is much better if it can be kept reasonably warm. It should never be ice cold. While it is true that nature has made provision so that the sheep can stand external cold without harm, yet internally the animal possesses little resistance to cold in the form of frozen feeds or ice water. In the majority of cases a sheep will not drink enough cold water in the winter time to properly carry on digestion, resulting in constipation and diminished gains, or in severe cases diarrhea and death if the condition is not promptly remedied. Ice water given to pregnant ewes in some cases has been known to produce abortion.

Errors in feeding often seriously menace the health of the flock. Frozen or mouldy silage is almost sure to produce serious intestinal disorders often leading to death. Too much roughage with too little concentrates often produces constipation or impaction of the first stomach, which if not immediately treated, ends fatally. In feeding, the animals should be kept under close observation to see that they are getting enough laxative feed in the way of silage, roots or concentrates, to keep the bowels open. However, it must be remembered that too much of such feeds must not be given, especially to pregnant ewes, or bad results will follow. The condition of the animal's bowels is the best guide to follow. High-priced mutton and wool, and high-priced feed, not only make it profitable from a health standpoint to keep the animals in a good, thrifty, growing condition, but from a financial one as well.

One other essential to the health of the flock is exercise. Pregnant ewes especially cannot be expected to bear strong lambs unless they have regular exercise during the period of pregnancy. Of course it is not advisable to have the animals out during stormy weather, but on all dry days they should have plenty of range. Many successful sheep men force their flocks to take exercise by having part of the feeding racks forty or fifty rods from the barn. While such a practice means more work, yet these men are rewarded by vigorous breeding stock and strong, healthy lambs.

Parasitic Trouble

Of all the diseases to which the sheep falls heir, none give the flock owner as much concern as those caused by parasites. In the past many sheep men have been put out of business by parasitic diseases of their flocks. In the future with more men going into the sheep business, trouble from parasites is sure to increase unless intelligent measures are taken to keep them under control. Once a flock is infested with parasites, its complete cleaning up is very difficult. The important question to answer then is, can a clean flock be raised from infested breeding stock? Fortunately in the case of most parasites the answer is in the affirmative.



WESTERN KANSAS FLOCK OF HAMPSHIRE SHEEP.—ON THIS FARM THE SHEEP ARE GIVEN THE BEST OF CARE AND ARE RETURNING GOOD PROFITS

Let us consider some of the most important parasites individually. Probably no disease is more widely spread among sheep than nodular disease. The life history of the parasite causing this disease is imperfectly known, yet it is certain that in most cases, at least, the infection is taken in by the sheep with the food or drinking water. It has been amply demonstrated, first by the Louisiana Experiment Station, and later by others, that by what is known as the bare-lot method of feeding, clean lambs can be raised from infested ewes. Essentially this method consists of providing the lambs with food and water not contaminated by the feces of the ewes. To accomplish this, the ewes with their lambs are not allowed to run on pasture together, but are kept in a bare lot free from all vegetation. All food is fed in racks and troughs so constructed that none will drop upon the ground and become contaminated. The watering troughs are also arranged so that there is no possibility of their becoming contaminated with feces of infected sheep. After the lambs become old enough so that it is only necessary that they suckle twice a day, the lambs can be kept in one pasture, and their mothers in another. Of course the pasture where the lambs are kept should be one that is positively known to be free from infection, which generally means land which has not been pastured by sheep the year previous, and is well drained. While such a plan involves considerable extra labor, yet it is time well spent, as a sheep suffering from nodular disease never makes rapid gains, especially in the winter time. The greatest losses from the disease occur during the winter months when the animals are on dry feed. The affected animals become unthrifty and weak. If many parasites are present, death results. Post-mortem examination reveals from one to several hundred nodules about the size of a pea or larger in the walls of the intestines caused by the parasite having buried itself there.

The Stomach Worm

Probably the most difficult parasite which we have to combat is the stomach worm. It is a reddish-brown, thread-like worm a little over an inch in length, living chiefly in the fourth stomach. It does its harm by absorbing nutritive elements from the stomach, by abstracting blood from the walls of the stomach, and by producing a poisonous substance which destroys the red blood cells. Numerous experiments have been conducted in an effort to find some method of pasture rotation or bare-lot feeding to control this parasite, but up to the present time such methods have proven of little avail. It is known that the young larvæ are taken in with the food or drinking water, and that lambs become infected at an early age by taking in the larvæ as they suckle their contaminated mothers. The most pronounced symptoms are noted in lambs and yearlings. In lambs the first symptoms usually are noticeable just after weaning. At this time they gradually fall away in flesh, become weak, and if the mucous membranes of the mouth are examined, they will be found to be pale in color; later swellings appear about the neck and brisket. Of course, all infested lambs do not succumb to the disease, the greatest loss being from lack of thrift. Once a flock is infested, it cannot be hoped to entirely rid it of the parasites. Their control can in a large measure, however, be accomplished by proper management, such as pasture rotation, and at all times plenty of pure water, and by medicinal treatment with copper sulphate, gasoline or one of the various combinations of iron, arsenic, areca nut and salt.

Another parasite of considerable importance is the lung worm. It is grayish-white in color and about an inch in length. Its life history is not completely known, yet it is known that the organism will live for a long time in moist soil, outside of the animal's body. The first symptom noticed in the affected animals is a more or less violent cough, later difficult breathing, emaciation and debility. The cough is especially noticeable during exercise. Post-mortem examination reveals the parasites in the lungs and bronchial tubes. Until Horms and Freeborn of California discovered the chloroform treatment, little or nothing could be done to relieve this condition. The chloroform treatment has, however, proven to be very effective. The affected animals are given enough chloroform by inhalation to make them stagger. This produces enough irritation to start the animals coughing and thus expels the worms which have been partly anesthetized by the chloroform. As the animal swallows most of the parasites as they are expelled from the lungs, a saline purge should follow in two or three hours. Food and water must be so placed that it cannot become contaminated with the infective feces. This treatment should be repeated in about three days, two or three treatments usually being sufficient to practically rid the animals of infection. After such treatment it is highly important to keep the animals in a good thrifty condition so that they will be able to keep free from infection.

During the winter months the disease known as gid causes the flock owner more or less trouble in most sections of the country. This disease is caused by the cystic form of a tape worm common to dogs, foxes and wolves. The eggs are passed out with the feces of those animals and when taken up with the drinking water of the sheep hatch out into the larva form which finally finds its way to the brain or spinal cord. Here it develops, causing pressure on the brain or spinal cord of the sheep. The symptoms produced are clearly those of brain trouble, causing the animal to travel in a circle or stand with its head pushed in a corner or against a wall. Little or nothing is practical in the way of treatment. However, the disease can be prevented by providing the flock with water uncontaminated with the feces of dogs, foxes or wolves which harbor the adult form of the tape worm. Of course, it goes without saying those animals should never be allowed to devour the carcass of a sheep having died of the disease—a method by which the disease has been spread on the western ranges.

A parasite causing the sheepmen considerable annoyance is the larval form of the sheep gad fly. The adult fly is somewhat larger than the ordinary house fly. During the summer months the female deposits her eggs around the nostrils of the sheep; in a few days they hatch out into the larval form which crawl back into the upper part of the nasal cavity. Here they remain during the winter in the form of a grub about three-fourths of an inch in length, causing the affected animal considerable irritation manifested by a discharge from the nostrils. The condition rarely produces death, the loss being that of lessened gains and loss of condition. Probably the most practical way to prevent infection is to smear pine tar about the noses of the flock during the summer months, which will generally keep the adult fly away from the sheep. This can be done in a practical way by boring two concentric holes in a log, the smaller hole being the deeper. Salt is then placed in the bottom of the smaller hole, while pine tar is smeared around the larger. When the animal comes to get salt, it will then automatically smear its nose with the tar. In case of valuable animals, it is sometimes advisable to have the grubs surgically removed.

The liver fluke is a parasite that occasions considerable loss in the southern half of the United States. The worm is lance-shaped, about three-eighths of an inch in length. The adult form lives in the liver where it causes yellowish nodules, each of which contains one of the flat ovoid worms. As the fluke requires the snail as an immediate host, and as the larvae are taken in with the drinking water, plainly the mode of prevention of the infection is to provide pure water and well-drained pastures. Once an animal is infected but little can be done in the way of treatment aside from giving it extra care and if possible getting it ready for market. Lambs are most often affected.

This by no means exhausts the list of

(Continued on Page Nine)

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

AT THIS season of the year the different jobs on the farm pile up in a most bewildering manner. The cultivation of the corn would not be hard to handle if the first cutting of alfalfa did not have to be cut and put up right in the midst of the cultivation work. Then the second cutting comes on in the midst of harvesting and stacking or threshing small grain. In some cases the late corn cultivation has not been completed when these jobs come. On the alfalfa-growing farm hay making is almost a continuous performance. The weather is not always favorable for making good hay and rapid work is necessary not only to get it out of the way of some other pressing job, but in order to get it cured properly.

Adequate hay-making machinery in first class condition is a great advantage in handling hay. A hay fork is almost indispensable where very much hay is handled, and most barns are equipped with forks. The use of a hay sling is not so common. By the use of slings, which are laid flat on the wagon rack before and during the process of loading, much time is saved in cleaning up the last of the load. Otherwise it would have to be pitched to the mow by hand.

The side-delivery rake is another tool that greatly facilitates hay-making. By its use the hay can be cured largely in the windrow and then taken up by the hay loader. This saves time and cuts out the work of bunching the hay and pitching it by hand. If it happens to rain when the hay is in the windrow, it can be turned with the rake, thus avoiding all hand labor. A crew of six men and eight horses using a good hay loader, a barn fork, and sling, will put in the barn from two to three tons of hay an hour.

The most rapid and effective way of handling hay is by the use of the buck rake and same type of hay stacker. Where a large amount of hay must be put up in a short period of time, these tools are almost necessary with the present shortage of labor. The hay may be shocked or taken directly from the windrow when weather conditions are right. Five men and six horses will stack from two and a half to three tons an hour with such an outfit when handled effectively. There are various stackers on the market giving very satisfactory results and there are also many home-made devices.

It is not possible to do effective work in haying without having a full haying crew. In many cases it is almost impossible to hire enough extra labor to handle the hay crop to the best advantage. Some plan might be worked out whereby adequate equipment is available, requiring several men, the extra labor being obtained by exchanging work with neighboring farmers. With good equipment and a full crew, the hay on two farms can usually be handled in less time than if each farm attempted to handle its own work with a smaller crew and less effective equipment.

It is especially necessary this year to have carefully laid plans for keeping the farm work going. The use of improved machinery of the most effective type and co-operation between neighboring farms in order to have enough labor to use the machinery to the best advantage will help in overcoming a difficult labor situation.

Fighting Grasshoppers

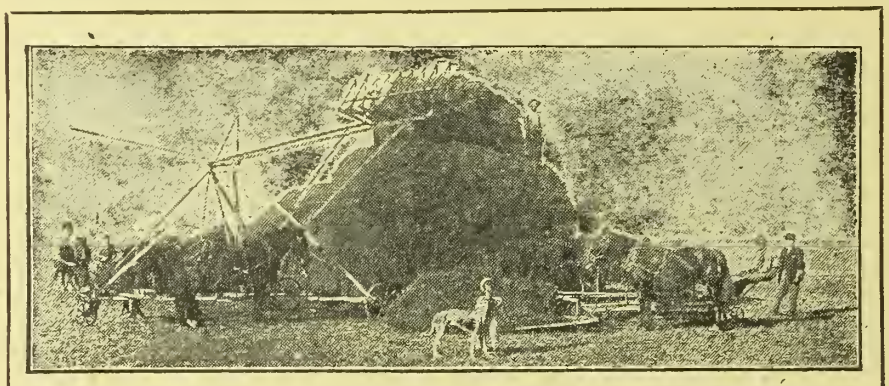
Considerable grasshopper damage has been reported from the northwestern section of Kansas. Grasshoppers at times have done a great deal of damage, particularly in the western part of the state. It has been demonstrated that it is practical to poison grasshoppers, completely checking their depredations on farm crops. The poison bran mixture is used for this purpose, the formula being the result of very careful experimentation. The ingredients are as follows: Twenty pounds of bran; 1 pound Paris green, white arsenic or London purple; 2 quarts of molasses or corn syrup; 3 oranges or lemons, and 3½ gallons of water. Mix the bran and the poison thoroughly in a tub. Squeeze the juice of the oranges or lemons into the water, chop the remaining pulp and peel fine, adding it also. Add the syrup and wet the bran and poison with the liquid, stirring the mixture thoroughly. This damp mash or bait should be sown broadcast in the infected areas early in the morning or at the time the grasshoppers are beginning to move about after their night's rest. Very little of the poison bait is eaten after it becomes dry, so it should be scattered fresh each morning, placing it where the largest number of grasshoppers will find it most quickly. When sown broadcast in this way there is practically no danger of poisoning birds, chickens, or live stock.

Checking Threshing Reports

We never have been able to say positively just how many bushels of wheat were threshed in any one year. All reports have been to a considerable extent estimates. This year it looks as though by means of the system of threshing machine reports the Food Administration is requiring we might check up on these estimates.

Record books are being placed in the hands of each of the 24,000 threshermen of Kansas. At the end of the season these books will be called in and they will show how much grain of each kind was threshed for each farmer. In addition to finding out, for once at least, exactly how many bushels of grain were produced, there is another angle to this machine record for each job. It will be easy for the township food administration to find out who has grain and how much in case of an emergency such as arose last May. All elevators and mills will furnish reports of the grain purchased and, by the simple matter of subtracting, the grain still held can be located.

Having accurate figures will be of great value in making wheat rules for next year and incidentally if anyone is disposed to ignore or defy regulations it will be easy to locate them.



IMPROVED MACHINERY OF EFFECTIVE TYPE SAVES MUCH LABER IN PUTTING UP HAY

Flour Milling Profits

The Food Administration issues the following:

The Food Administration has made public the measures that were taken earlier in the season to prevent profiteering in the flour-milling industry. The millers, under the original regulations, were allowed a maximum gross profit of 25 cents a barrel, based on their annual business. The business is a seasonal one and can not be determined upon a few months' operations. The milling year ends on July 1, and as some differences of opinion had arisen between the millers and the Food Administration as to the basis upon which profits were to be calculated, the question was referred to a committee comprising the chairman of the United States Tariff Commission, a member of the Agricultural Advisory Board, with Charles Espenschied, a retired miller, and a representative of the Food Administration.

The chief differences with respect to the conduct of the millers under the regulations, to date, revolve upon whether they should include excess profits taxes as a part of their expenses. Based on the decision which was sent out to the millers on June 17, neither excess profits tax nor income taxes should be recognized as items of expense for the purposes of the mills' accounting.

With regard to millers finding themselves at the end of the fiscal year with an amount in excess of 25 cents a barrel profit, it was suggested that they could release themselves from the difficulty by selling a sufficient amount of flour at a nominal price to the Food Administration or the Army or Navy to liquidate any such surplus profit. The accounts of millers will be, and are, audited by the representatives of the Enforcement Division of the Food Administration.

Silo Pays for Itself

A silo paid for itself in one year on the farm of Robert P. Campbell, of Harper County. The first silo was built on Mr. Campbell's farm in 1913, which he states was the driest year on record for that section. He put eighty acres of feed into the silo that year and then did not have enough to fill it. But he says:

"Every bit was good, and the silo, we considered, paid for itself that year. Have filled it every year since and in one year twice. Last year we built our second silo. We consider the silo the greatest single asset for cattle in this section and believe silo space for storing for lean years will pay well."

Draft Horses to Canada

During the last nineteen months the Percheron breeders of the United States have sold more than 1,000 Percherons to Canadian buyers. Of these, 611 were purchased during the last seven months by ninety-one different Canadian buyers. Thirty-two purchasers were located in Alberta; four in British Columbia; twelve in Manitoba; one in New Brunswick; seven in Ontario; and thirty-five in Saskatchewan. Of the 611 sold this past season, 239 were mares. It is believed that this constitutes a record for the exportation of any kind of pure-bred live stock to Canada. These very heavy exportations are significant of the growing popularity of Percherons in all parts of the Dominion, and of the Canadian's firm belief in the prosperity in store for breeders of good draft horses.

It is also a matter of interest to know that 7,436 transfer certificates, showing sales of Percherons, were cleared through the offices of the Percheron Society of America between November 1, 1917, and June 24, 1918. This shows a gain of 4 per cent in sales over the same period last year.

Measured by the total number of registrations made last year, Illinois and Iowa are far in the lead of all other states in Percheron production. Out of the 10,508 Percherons recorded during the last fiscal year, Illinois recorded 2,386, or 22.7 per cent of the total; Iowa, 2,110, or 20.07 per cent; Ohio, 864, or 8.22 per cent; Kansas 759, or 7.22 per cent; Nebraska 523, or 4.97 per cent; Minnesota 447, or 4.25 per cent; Indiana 440, or 4.18 per cent; South Dakota 392, or 3.73 per cent; North Dkaota 370, or 3.52 per cent; Wisconsin 353, or 3.35 per cent; Missouri 308, or 2.93 per cent; Pennsylvania 244, or 2.32 per cent; Michigan 223, or 2.12 per cent; Oklahoma 168, or 1.59 per cent; Montana 146, or 1.38 per cent; and Virginia 107, or 1.01 per cent.

Registrations of Percherons were made from forty-seven out of the forty-eight states, and those ranking below Virginia each contributed less than 1 per cent of the total. New York, Idaho, Oregon, California, Washington and Colorado, come next in order after Virginia.

The Percherons in America are reared by average farmers who use the mares in regular farm work. Most of the colts recorded have been registered by men who raise only one or two colts per year, as is clearly shown by the fact that the 10,508 registrations made during the last fiscal year were made by 5,198 separate breeders. The distribution of breeders by states is approximately the same as distribution by registrations given in the paragraph above. —WAYNE DINSMORE.

Save Railroad Ties

The wastefulness of burning up discarded railroad ties has got on the nerves of many a Kansas farmer living near a railway line. With coal out of sight in price and, during last winter at least, almost impossible to get except in small quantities, it seemed criminal to see great piles of ties going up in smoke.

Thousands of ties are burned annually on every railroad division. In Western Kansas, where there is a scarcity of timber, these ties are greatly desired, but farmers and others who could use them have always had to stand by and see the fuel burned because of the custom of burning, to which all railroads seemed to adhere.

Arrangements have just been completed making it possible to use these old ties and save some coal. The Food Administration asked farmers to plow a fireguard to save grain stacks from fires set by passing engines, and then the railroads were in turn asked to turn over the old ties in payment for this service. It is an act of thrift, however it came about.

New Wheat Grades

The amended standards for wheat became effective July 15. They are more liberal than the former standards. This will be greatly appreciated by wheat growers as it will mean higher grade and therefore better prices for their wheat. The weight per bushel requirement has been reduced, a larger percentage of moisture is allowed, and larger amounts of damaged grains and foreign materials are permitted. The restrictions on admixtures of other classes of wheat are also more lenient. The full details of the amended grades are given in the Markets Service and Regulatory Announcement No. 36, just issued by the United States Department of Agriculture. Wheat growers should write for a copy of this pamphlet so as to be able to familiarize themselves with the standards under which their wheat must be sold.

Economics of Silo Building

"A silo that cost $350 before the war can be bought for $500 now," says Edw. C. Johnson; "an increase of $150, or less than 50 per cent. Alfalfa hay, corn, sorghums, and other feeds are worth twice as much or more now than they were before the war. Therefore, if a silo was a good investment then it is even a better investment now, and on a beef or dairy farm of 160 acres or more often will pay for itself in one year in the amount of feed saved and the increased production of beef or milk. Less bushels of corn or wheat will buy a silo now than before the war."

But farmers are not spectacular performers—they never are. They do not furnish sensations and headlines. They have no fixed labor day. They work in season and out of season—from early morning till dusk—but they do not work in the limelight. They are not in the view of people living in cities, the centers of intense publicity. * * * * * It is one thing to ask a man to save. It is one thing to ask a man to invest in Liberty Bonds. These things tremendously aid the nation; but they are also a certain benefit to the individual. It is another thing to ask a man to put his labor and capital into the production of food, facing the hazard of the weather, of distribution, and of the market.—Extracts from Secretary Houston's address before Iowa State Bankers' Association.

Farm Advisory Committee Progressing

LAST March a farmers' advisory committee of twenty-four men was appointed by the Food Administration and the Secretary of Agriculture. These men were selected with reference to geographical location as well as with reference to the various agricultural interests. It was recognized that agricultural interests of the country are not organized as are other interests for protection against governmental action by various war boards. These boards often, simply from lack of information, do things that are decidedly against the interests of farmers.

It is too early to judge as to the value of this advisory committee in its capacity of keeping all war activities informed as to agricultural conditions. It is making progress, however, and it is felt that farmers have real representation. As a move towards efficiency the commission has appointed a subcommittee of seven members, its chairman being Henry C. Stuart of Virginia. Oliver Wilson, national master of the Grange, is also a strong member of this executive committee.

The plan calls for the holding of at least four meetings each year of the whole committee, in March, July, September, and December. The executive committee will meet often and one member will have permanent headquarters in Washington and keep in constant touch with the entire agricultural situation through the other members of the committee. Chairman Stuart has been given a place on the War Industries Board, thus being in a position to represent the agricultural interests of the country on this important war board. This committee, having as it does in its membership officials and representatives of various national agricultural organizations such as the Grange and the Farmers' Union, should be able to render a patriotic service to the country and in addition be in position to protest against any injustice to the people of the farms. In a recent issue of the National Grange Monthly, National Master Wilson outlines what the committee is trying to do. He says:

"There has been much speculation as to how far this committee would be allowed to go and whether its work would be of any real benefit. I think the work at the recent meeting of the seven members of this committee, who have been chosen as an executive committee, will prove to all that this is a real, live, active committee, and they are expected to consider all problems affecting agriculture.

"The committee was in session from May 27 to 30. It had before it many questions, and made several recommendations to the agricultural department and food administrator. It is not in the province of this committee to make the suggestions public until passed upon by the department. This committee is now represented on the War Industries Board and will be called to counsel whenever that body has to consider the fixing of prices. For the first time the farmers will have a voice in their own affairs.

"This committee is desirous of hearing from farmers on any and all questions, and especially asks members of the Grange to discuss all problems which in any way affect agriculture, and forward their conclusions to some member of this committee, and it will receive due consideration. There is an effort being made by manufacturers and dealers to standardize farm machinery. This question was before the executive committee and will be considered very carefully by the full committee at their next meeting, probably in July. If farm machinery is to be standardized it should be done in the interests and to the profit of the user, and not alone to the manufacturer and dealer.

"After the committee heard many complaints from farmers regarding delay in shipping and unloading live stock as well as other freight, it passed the following resolution:

"'It is resolved as the sense of this committee that the greatest and most discouraging obstacle to the increase of agricultural production in every line is the delay and uncertainty connected with the transportation of freight, resulting in losses not only from limitation of business in nonperishables, but in shrinkage, damage, and deterioration in quality of all perishables, including live stock; and we respectfully request that every effort be made to remedy this situation as rapidly as the exigencies of the national situation may permit.'

"If this complaint is general the committee would be glad to know it by private correspondence or, what would be better, by resolutions passed by Granges and other farm organizations. The committee stands ready to consider any question which affects agriculture and desires the full co-operation of all farmers. Again I urge our membership to make use of this committee in making their wants known to government officials."

Silo for Storing Feed Reserve

Handling live stock is almost essential to safe farming in Western Kansas. In the pamphlet, "Silo in War Time," E. J. Guilbert of Wallace County gives his experience as follows:

"I have used silage more or less, feeding my herd of pure-bred Galloways, since 1913, and like it very much. I think there is nothing like it with alfalfa hay for wintering calves. We did not put up any last year on account of shortage of labor in the fall, and surely missed it, especially for the spring feeding. The silo is the only thing to solve the feed question for Western Kansas, where some years we have a shortage of feed, and in other years more than we need. By storing in the silo when the crop is good, one can hold over for the lean years. I have used corn, cane, kafir, and milo, all making good silage. In 1913 we filled one silo with a mixture of stunted corn and Russian thistle, which made very good feed. Part of one silo was filled with straight Russian thistle, but was not very satisfactory."

Mosquito Repellant

Where time and circumstances will not permit of sanitary means of control, an effective mosquito repellant can be made by the use of one ounce of cedar oil, two ounces oil of citronella, and two ounces of spirits of camphor.

A small amount of this solution applied to the face and hands or on a handkerchief tied around the neck will keep the mosquitoes away. Equally good results may be obtained if the liquid is applied to a cloth and hung near the face when mosquitoes are troublesome at night.

How to Kill Black Ants

The large black ants which cause trouble in lawns may be destroyed easily by using carbon bisulphide. This is a clear liquid which has a very disagreeable odor, is highly volatile and explosive. A broomstick or any sharp stick may be used to make a hole from six to twelve inches deep in the center of each ant mound. Pour into it a cupful or more of the carbon bisulphide, depending upon the size of the mound, and close the hole with dirt and tramp it down.

Feed Only Good Cows Grain

"With the price of feed where it now is, farmers can no longer afford to feed all their cows the same rations," says J. B. Fitch. "The high producers should get the high-priced grain, because they are the ones that can make good use of it, while the low producers should be fed only on hay and silage."

Silberman Official Wool Buyer

The name of the firm, S. Silberman & Sons, of Chicago, was inadvertantly omitted from the list given in our issue of July 13 of wool buyers officially designated or licensed by the War Industries Board to receive and distribute this year's wool clip. This is one of the largest wool-buying houses in the country and was one of the first licensed to officially handle wool after the Government decided to take over the 1918 clip. The approved distributing centers for fleece wool are Boston, New York, Philadelphia, Chicago, St. Louis, Detroit, Kansas City, Louisville, Baltimore, and Wheeling. Country dealers not located in these designated centers can also obtain permits to operate by applying to the Wool Division of the War Industries Board, the wool later going to the officially designated centers.

Growers who desire to do so will be allowed to pool the clip in quantities of not less than minimum carlots of 16,000 pounds and consign as one account to any approved distributing center. This eliminates the profit of one middleman. If sold in the original bags, the commission for handling wool in the designated distributing centers is limited to 3 per cent of the selling price. If the wool must be graded, the commission will be 3½ per cent of the selling price. The Government valuation committees fix prices and the limitations as to commissions absolutely protect the sellers from any profiteering.

Making Nitrogen from Air

The largest experimental plant in the United States for the manufacture of fixed nitrogen from the air, with the exception of the ones now being constructed for the War Department, is in operation at the United States Department of Agriculture Experiment Farm, Arlington, Va. At this plant the nitrogen from the air is combined with hydrogen to form ammonia which can be used in the manufacture of explosives and fertilizer. Experiments are now being conducted at this plant by the Bureau of Soils with a view to increase the efficiency of the process. The War Department is co-operating in this work. What is known as the Haber process of nitrogen fixation is being used. This process involves the production of ammonia from hydrogen and nitrogen. The two gases are mixed in the proper proportions, put under high pressure, subjected to intense heat and passed over spongy iron, whereupon a portion of the mixture combines to form ammonia.

Care of Cream

In handling and selling cream there are many sources of loss which can and should be cut out. In the Meadow Gold Messenger, Prof. N. W. Hepburn, of Illinois University, points out that cream is money to the producer and a high-grade food product for the consumer and in this time of national crisis in which both food and money play so important a part it is a shame to waste either.

"In Illinois," says Prof. Hepburn, "more than 35 per cent of the butter is made from hand separator cream, originating in the three- to five-cow dairies where dairying is not the main farm activity, but is even regarded as a side line. The same condition exists in Kansas and yet the products from these small herds aggregate a sufficient quantity of cream to yield about fifty million pounds of butter annually.

The army of producers contributing to this supply no doubt realizes that there are many problems coincident with converting this amount of raw material into a finished product, and it is only through their united support and co-operation that many of these problems can be solved.

One of the greatest offenses which anyone can commit at the present time is that of being responsible, directly or indirectly, for the waste of any food product. What are the sources of waste in this phase of the dairy business? They are losses by spilling milk and cream, loss of drippings, loss of separator flushings, and losses by incomplete skimming. Any of the wastes from the above mentioned causes are easily preventable and while in the aggregate they add up to vast quantities of cream they are insignificant when compared with the enormous waste occasioned by deterioration in quality.

Competition on the part of the cream buyers has tended to teach us that one can of cream is as good as another; that old, sour, overripe cream is as good as cream which has been properly cared for and delivered two or three times a week. At this point the experience of the producer in making butter on the farm is that poor cream makes poor and unsalable butter, and good cream yields butter of superior quality. This result is as true in the factory as it is on the farm. Our facilities at the factory in this country for making a high grade of butter are unsurpassed, but no method has ever been discovered which will yield a superior finished product when the raw material is inferior. The system of cream grading now in operation is tending to act as a corrective of these conditions.

"How do these facts apply to the question of 'waste and our food supply'?" asks Professor Hepburn. Poor butter resulting from poor cream demands a lower price and the consumer pays because the poorer grades of butter are expensive at any price; the manufacturer pays because poor butter is more difficult to handle at a profit than good butter. The producer pays because no plant can, in the long run, afford to pay as high a price for poor cream as it can for first grade cream. This charge must reach the producer who contributes the poor cream or it must be prorated among all the cream producers, either of which means loss and waste.

"These are the months when second grade cream is most prevalent. A strict adherence to the following rules would obviate 90 per cent of the losses occasioned by poor cream.

"Keep the milk as clean as possible and separate directly after milking.

"Wash and scald the separator each time it is used. The bowl parts should always be kept dry when not in use.

"Set the separator so that it will skim a cream testing 40 to 45 per cent.

"Cool the cream as soon after skimming as possible. The cream should be cold when it is mixed with cream from previous skimmings. Keep all cream in cold running water and stir it at least twice a day to keep it smooth.

"Deliver the cream at least twice a week.

"In following the above rules we become conservators of cream, one of the most highly prized food products."

This war will not be won by a miracle or by enchantment. The quickest way to win it, the cheapest way, if you please, is to put into the struggle every ounce of our will, intelligence, and power as quickly as possible where it will be most effective. It will not be won by soap-box orators or professional pacifists. If such people could win a war against the Germans, the Russians would have been in Berlin long ago.—D. F. HOUSTON.



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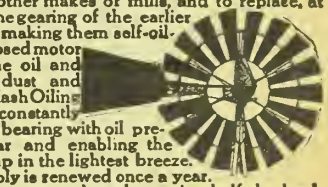

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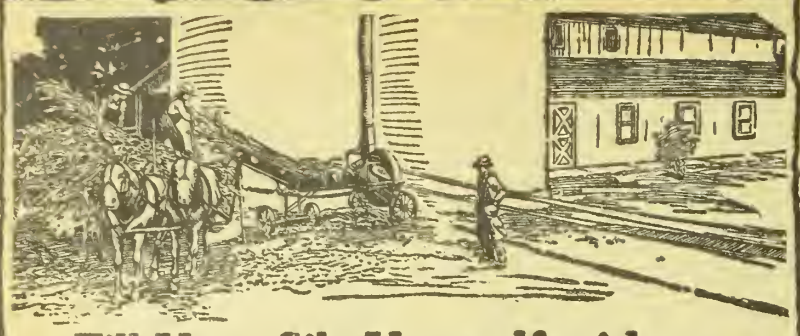

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The following table shows the sizes and capacities of the five types of **International** ensilage cutters. There is, you see, a size for every farm. The smaller sizes will easily fill a 30-ft. silo. The largest are used to fill the highest silos in the country.

Type	Feed Throat Sizes	Capacity Tons per Hour	Power Needed	Length of Cut	Speed
A	16" x 6½"	16—25	20-25 H.P.	⅜" to 1 3/16"	500—700 R. P. M.
B	14" x 5½"	12—16	15-20 "	⅜" " 1 3/16"	700—800 "
E	11" x 4½"	10—12	10-15 "	⅜" " ⅞"	800—900 "
G	11" x 5 "	8—10	8-10 "	3/16" " 1 "	800—900 "
F	9" x 3 "	3— 6	4—6 "	3/16" " 1 "	800-1000 "

All **International** cutters are of the knife on blower type—simplest and requiring least power. All are equipped with a corn chute for feeding from the wagon. Steady power feed insures even cutting, silage packs properly and keeps. The low speed at which they run, and the safety devices on the machines insure the safety of the operator. The machines are complete, there are no extra sprockets or gears.

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Coal to Breweries Cut

The brewer will soon be out of business whether Congress immediately passes a wartime prohibition measure or not. The non-essential character of this industry is apparent without argument. The United States Fuel Administration just notified brewers of both alcoholic and non-alcoholic beverages that they will not be able to count upon a supply of coal beyond that needed to utilize the materials in the process of manufacture, including malt already made.

On July 3, after consultation with the War Industries Board, the Fuel Administration issued a regulation curtailing for one year the consumption of fuel by breweries to 50 per cent of the average annual amount of fuel consumed at such brewery during the period from January 1, 1915, to December 31, 1917.

Cattle Feeder Indorses Silo

W. H. Burke, of Rice County, one of the big cattle feeders of Kansas, enthusiastically indorses the silo as a means of providing cheap feed for cattle. He has been using silos for five years, having a silage capacity at present of about two thousand tons. In a Council of Defense circular he says:

"Under present conditions we regard them as quite indispensable to the successful management of the average Kansas farm that combines the raising of grain and the handling of live stock. A silo will, in our opinion, double the capacity of the average farm in handling and carrying young stock. While we regard silage as valuable in the full feeding of cattle for the market, its best claim to importance lies in the fact that silage is one of the best and far the cheapest feed for growing all kinds of young stock through the winter season.

"We are of the opinion that a very large percentage of our farmers will be brought to realize the necessity of the silo in the years that are to come."

Remember this—that every dollar and every penny of every dollar that you give to your Red Cross war fund goes only for war relief. All costs of administration and for humanitarian work, other than war relief, such as the Halifax and Guatemala disasters, are taken care of out of the revenue derived from membership dues.

KANSAS FARMER DAIRY CLUB

Letters From Club Members

THE letters from members of the Dairy Club show that the interest in the cows and the record work is not waning because of the hot summer weather. It is difficult to keep up our interest in things when the weather gets extremely hot, as it was in June. The letters indicate that most of the members are depending largely on pasture now, and that cuts down feed bills. Floyd Gerardy, of Americus, in sending in his June report, writes as follows:

"I am sending in my June records, which should have been in your hands today. I could not send them earlier because I did not get the test of my sample until today. The first of last month I finished paying off my note. The last payment was only $18.19. Say, you folks ought to see my cow and calf, Lily Belle, especially Lily Belle, she is a dandy. At least I think so. The other day I turned down an offer of $150 for them, and the calf only nine months old. I will send some pictures of Blue Belle and her calf, Lily Belle, as soon as I can get some taken."

Floyd is making a fine record. He is taking a keen interest in the work. His cow is a grade Holstein and cost him $94.

Claude Carter, of Meriden, who bought Bonnie Belle, the grade Holstein cow Glen Romig bought and paid for in the first year of the club work, writes a most interesting letter:

"I have had my records ready since July 2, but had to wait on my test.

"I began drying up my cow the first of July, as she will be fresh the twenty-fifth of next month. She is looking pretty good now, but is a little stiff in one front leg. This will probably be my last record for this year unless you require my feed records. I have $34.13. I am glad I joined the club as I did, for I now own a fine heifer calf and have my cow almost paid for and I think I can pay for her by the first of October, as I will have a month in which to do it after she is fresh again.

"I see my name was taken off the Honor Roll last month for not having my records up in time. Do you think I will have a chance of getting one of the prizes this year?

"I have learned many things since I have been in the club, some of them being how to keep records, how a cow should be fed, and what kind of feed and when to give it. I think it would be a fine thing if there were lots of others in this club. I have told lots of my friends about it and asked them to join and they say there is too much work about it, but I just tell them they never will get anything without work and time. That is the way I look at it."

We have assured Claude that failure to get on the Honor Roll for one month does not lose him the chance of standing high for his year's work. When the tests are late we make an allowance of a few days and do not count the records late because they are not in by the tenth.

Hazel Shriver, of Lyndon, tried to have a meeting of the Dairy Club members of Osage County at the Fourth of July picnic, but some could not come. This was a fine idea, and we hope she will be able to get the members in that county together at some future time. She gave the editor a special invitation to come to this Fourth of July picnic which was held in a grove out in the country. We were very sorry we could not go. In sending in her June records she writes as follows:

"The Fourth of July picnic was fine. Mr. Stubbs and Mr. Lansdon each gave good talks. There were about three thousand people there. Two of the Dairy Club members could not come, so we did not all get acquainted or have our pictures taken, as you asked. We are going to get together some time later if possible. I have been helping with the work in the hay field and was so busy I could not write before, and I did not think it very important, as the Dairy Club members were not all at the picnic, but I wish you could have been there anyhow. I am still enjoying the Dairy Club work and hope to visit the KANSAS FARMER office some time. My cow is doing fairly well now and she is only getting pasture.

The day may yet come when the child life of the world will be in the hands of the dairyman of America. He is a part of the world's reserve army that may, at any moment, be called into battle for our existence and the existence of the next generation.—U. S. Food Administration.

Summer Milk Production

During hot weather there is always a falling off in milk production. This year the extremely hot weather came in June, which is earlier than we usually have extreme heat. The falling off in milk is more due to the heat than to the flies or perhaps even lack of feed. Cows suffer from heat even more than human beings, because they do not perspire. The only thing we can do in extremely hot weather is to save them all the exertion possible and be sure they have enough feed. They will not go out and graze over the pastures during the heat of the day. It helps some to get them out in the pasture as early in the morning as possible or letting them graze at night if the pasture is near the barn.

If the milk flow is once allowed to get down during a severe hot spell of weather, it is hard to get the cows back where they were. For this reason it is well to make a special effort to keep them up, even though a little extra grain feed may be necessary. If there is any green feed big enough to cut, give it to the cows when it is too hot for them to get enough feed in the pasture. Do not be afraid to go into a field of corn or other green feed growing near the barn and cut a few armfuls for the cows. It will pay big in helping to keep up the flow of milk during these spells of hot weather. During the weeks following the extremely heated period in June we have had weather much cooler than is common for this time of the year, but we can count on other heated periods before the summer is over.

If you do not have a silo on your farm we would suggest that you investigate the silo proposition. Feeding silage is probably the most practical way of handling the feed question during hot summer weather. If you know of anyone who is feeding silage to cows during the summer when pastures are short, go and learn for yourself what results they are getting. The silo is the solution of one of our biggest dairy problems, and dairymen more and more will learn to depend on silage as the cheapest and most effective feed for keeping up the milk flow during the summer season.

Grow Feed for Cows

Whenever you hear a dairyman complaining about the difficulty of making any profit in his business it will usually be found that big feed bills are the main cause of his trouble. Of course this is assuming that such cows as will not pay under any conditions have been culled out and sold from the herd. On farms where dairying is the chief project, labor and feed are the two big items of expense, and of the two feed is probably the greater. This suggests the necessity for cutting the monthly feed bills down as much as possible. This cannot be done profitably simply by feeding the cows less. A cow cannot make milk without feed, in fact her job is turning feed into milk and no manufacturing plant can run without raw material.

To reduce feed bills, the cropping plans of the farm should be such as will supply all the rough feed and at least a part of the concentrates needed in feeding the dairy cattle. These feeds represent labor and expense, but if plenty of the right kind are grown, the cows can have the material to make milk without buying large quantities of mill feed and milk will be produced at less cost.

Cane or some of the sorghums can be grown on any farm in Kansas. In the form of silage these crops make ideal roughage for the milk cow, and there is practically no waste. To supply the protein we have alfalfa, sweet clover, or red clover, and where these cannot be grown, cow peas or soy beans. If it is impossible to grow any kind of roughage rich in protein, some cottonseed meal or linseed meal, which are the richest protein concentrates on the market, can

be bought and profitably fed in combination with good silage.

The dairyman who is able to grow a well balanced ration on his own farm will be almost entirely relieved of the heavy burden of feed bills. Some even claim that all they need for their dairy cows is plenty of alfalfa and good silage. Dairy herds have been fed such a ration and yielded good profits. Big records cannot be made on roughage alone, but from the standpoint of profit the cows having plenty of silage and alfalfa will give a good account of themselves without being fed heavy grain rations.

Cow Test Report

On account of the hot dry weather and flies, the cows of the Arkansas Valley Cow Testing Association show quite a falling off in their production for June, but the record is one of which to be proud. Thirty-seven cows produced over forty pounds of butter fat for the month. C. S. Behrman, the tester, states that two Holstein bulls of exceptionally good breeding have recently been purchased by members of this association. One was purchased by ex-Governor Stubbs for use on his farm at Mulvane. This bull's dam is now on yearly test and is making a good showing. His great granddam produced almost 1,400 pounds of butter in one year, and his granddam almost 1,300 pounds. The Stubbs herd bids fair to become one of the great producing herds of the state. The other bull was purchased by G. Regier. This animal's five nearest dams have seven-day records that average a little better than thirty-two pounds of butter a week. The following table gives the records of the cows in the association which have produced more than forty pounds of butter fat during the thirty-day period ending June 30.

Owner—	Pounds Milk	Per Cent Fat	Pounds Butter Fat
W. M. Spurlock, J.	1,149	3.7	42.513
W. M. Spurlock, H.	1,554	3.5	54.390
W. M. Spurlock, H.	1,446	2.9	41.934
A. C. Dewitt, S. H.	951	5.0	47.550
A. F. Babb, J.	657	6.8	44.676
Lon Turner, J.	1,122	3.7	41.514
L. Y. Posey, S. H.	756	5.3	40.068
J. R. Pringle, J.	1,077	3.9	42.003
J. R. Pringle, H.	1,254	3.3	41.382
Chas. R. Gordon, H.	1,014	4.3	43.602
Fred Harvey, H.	1,536	3.8	58.368
Fred Harvey, H.	1,356	3.3	44.748
Fred Harvey, G.	1,254	4.0	50.160
Fred Harvey, H.	1,215	3.7	44.955
Fred Harvey, H.	1,404	3.3	46.332
Fred Harvey, G.	1,074	3.8	40.812
Fred Harvey, H.	1,113	4.0	44.520
Fred Harvey, H.	1,773	3.0	53.190
Fred Harvey, H.	1,350	3.2	43.200
Fred Harvey, H.	1,509	3.3	49.797
Fred Harvey, H.	1,650	3.1	51.150
Fred Harvey, H.	1,461	3.7	54.057
Fred Harvey, H.	1,584	2.8	44.352
Fred Harvey, H.	2,076	3.5	72.660
P. W. Enns, H.	1,236	3.6	44.496
Chas. R. Weede, H.	1,140	3.8	43.320
Dr. J. T. Axtell, H.	1,413	3.4	48.042
G. Regier, H.	1,536	3.5	53.760
G. Regier, H.	1,962	3.4	66.708
Elise Regier, H.	1,830	3.2	58.560
Appleman Bros., H.	1,284	3.3	42.372
Appleman Bros., H.	1,194	3.8	45.372
Appleman Bros., H.	1,242	3.8	47.196
J. C. Corfman, H.	906	4.8	43.488
J. C. Corfman, H.	996	4.8	47.808
Al Howard, H.	1,164	3.6	41.904
Stubbs Farm, H.	1,176	3.5	41.160

H. stands for Holstein; J. for Jersey; G. for Guernsey, and S. H. for Shorthorn.

History tells of Roman farmers who carefully chopped fine various green, succulent feeds and packed them in pits for use during the winter season. The practice seems to have been common and the feed kept well. From these early times it has been good practice to store various green crops in pits or airtight containers for feeding to stock. The silo is the present-day result, and a farmer who raises live stock cannot afford to be without one. The advantages of the silo are numerous, but some of the more important are: (1) Green succulent feed is available throughout the year; (2) a silo stores more feed for less cost than any other farm building; (3) the feed is handy for use.

Silo Good Investment Now

In writing to the committee on agricultural production of the Kansas Council of Defense, H. J. Waters, president of the Council, refers to the fact that he is putting his own money into a silo this year in spite of the increased cost. He says in support of the expenditure:

"This year a silo will pay better return on the investment than any other year I have known. Of course, many farmers are tremendously busy harvesting and threshing their wheat, and getting the ground ready for the new crop; material is expensive, and labor is costly, but these are not reasons enough to justify one who has live stock and no silo in not building a silo this year. On the farm near Manhattan in which I am personally interested, we are building a silo this summer, notwithstanding the shortage of labor, and the high cost of material. It is our own money that is being spent for a silo and we wouldn't invest it that way unless we felt reasonably certain that it would be more profitable there than in any other way it could be invested."

Honor Roll for June

The tests were sent out a little late this month, and so we allowed members a few days after the tenth to get their records in. Each month now some are completing their year's record and dropping out, so the list is getting smaller. Following are the names of those whose June records were carefully kept and sent to us promptly:

Claude Carter
Gary Cook
Floyd Gerardy
Carlito Griswold
Melvern Lee
Emma Mae Lenhert
Theresa O'Mara
Glen Romig
Roland E. Roney
Hazel Shriver
Glen Will.

We are not going to lose the war, but did you ever stop to think what would happen to us if we did lose it? The speed with which we win it depends upon the way you and I save and give the Government our financial support.

KEEPING THE FLOCK IN HEALTH

(Continued from Page Five)

internal parasites affecting sheep, yet it includes most of the important ones found in this section of the country. In general, it may be said that pure water, pasture rotation, thrifty animals and medicinal treatment will in a large measure control parasitic diseases. Too much emphasis cannot be laid on pure water. The flock should never be allowed to drink water out of pools or water that drains from a sheep pasture. The ideal pasture is high, dry and well drained. Another important factor in the prevention of parasites is to eliminate all unthrifty animals from the breeding stock. The vigorous growing lamb is less likely to become a host to the various parasites than the unthrifty one.

External Parasites

So far as the external parasites are concerned, their control is easy. If the flock is dipped twice in the spring and twice in the fall at intervals of about a week, no trouble will be experienced from ticks, lice or scabies. The spring dipping should be immediately after shearing. Of course a warm, bright, still day should be selected for the job, both spring and fall, or colds and pneumonia are liable to result. The dip should be kept reasonably warm—about 110 degrees F.—if greatest efficiency is desired.

Relatively few drugs are used internally in the treatment of sheep diseases, This is due to the tendency of the animal to give up as soon as it gets sick. Epsom or Glaubers salts given in three- to five-ounce doses will generally relieve impaction of the first stomach or constipation, both of which are usually brought on by diatetic error already discussed. Diarrhea can usually be controlled by bismuth and salol, equal parts, given in one-half teaspoonful doses every three or four hours.

A few drops of spirits of camphor or a few inhalations of aromatic spirits of ammonia will often revive a lamb apparently born dead. Artificial respiration should always be resorted to in such lambs. During the lambing season the ewes should be watched closely for unborn dead lambs, improper cleaning following lambing, or difficult parturition due to faulty presentation of the lamb. If the lamb is to be saved, the latter condition must be relieved promptly. If the ewe continues to discharge, the uterus—womb—should be flushed out carefully with a two per cent lugols solution in water heated to about 105 degrees, or therapogen 1 per cent solution, or creolin one-half of one per cent solution may be substituted for the lugols solution. The first two mentioned drugs are to be preferred, however.

What is known as mastitis, or "caked udder" or "blue bag," is quite common in ewes. It is a difficult condition to treat, yet it responds fairly well if taken in hand early to tincture of iodine one part and spirits of camphor two parts, painted on the udder twice a day. The udder should be milked out often and carefully. The male lambs should be castrated when they are about two or three weeks old. For this operation it is well to choose a warm sunshiny day. Avoid causing the lambs to be castrated undue excitement while catching and do the operation as quickly as possible, removing as much of the cord and membranes surrounding the testicle as possible. Rapid work to lessen the pain and shock to the lamb is essential to successful operating. During fly time the scrotum should be smeared with pine tar after the operation to keep flies away.

Another trouble that causes the flock owner considerable annoyance and often serious loss is bloating. This is most likely to occur when the flock is on clover pasture following a rain or heavy dew on hot sultry days, although it may occur at any time of the year, or in any kind of weather when the flock is on grass. Treatment consists of drenching the animal with a one-half of one per cent solution of creolin, or coal tar dip. The solution is more effective if warm. Fresh cow's milk is also used successfully where there is time to obtain it. If nothing else is at hand, use plain water. The mechanical effect of swallowing will often start the animal erupting gas. It is generally necessary to act quickly and too much time cannot be taken to find a remedy if successful results are to be obtained.



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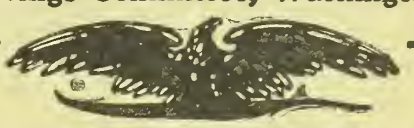

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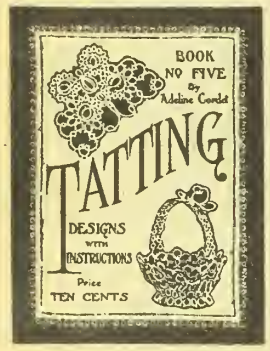
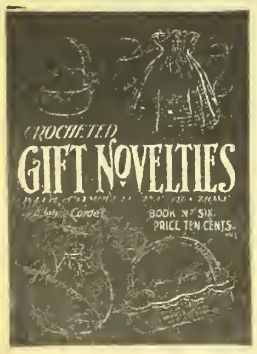


A collection of sixty pretty tatting designs with instructions, by Adeline Cordet. Price, postpaid, 10 cents. Ask for Book No. 5 when ordering. Address **Fancy Work Dept., Kansas Farmer, Topeka, Kansas.**

CROCHETED NOVELTIES



This book contains an assortment of fifty gift ideas, by Adeline Cordet. Price, postpaid, 10 cents. When ordering, be sure to ask for Book No. 6. Address **Fancy Work Dept., Kansas Farmer, Topeka, Kansas.**

Save sugar. Sugar means ships. Ships mean soldiers. Soldiers mean victory.

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Not a Question of What We "Like"

SHAME on us! Some of us. Those who talk about not 'liking' war bread, for instance. Those who grouch because sugar is doled out to them. Those who go to their grocers and beg for 'just a little white flour for me—nobody need know of it.' Those who 'can't' go without plenty of butter. Those who will have meat every day though France starves." This is the opening paragraph of a scorching editorial in the July number of American Motherhood. The editor, Mrs. Lutes, believes there are a good many slackers around us besides the boys and men who try to get out of being drafted, and that there is less excuse for this kind of a slacker than "for a chap's feeling a bit squeamish about trotting on the double quick up to a front line trench." The fact that Mrs. Lutes' only son is "Somewhere in France" gives her a right to feel and speak strongly on this subject.

She continues: "Over in Germany they are parading fifteen American soldiers—prisoners—about from town to town, starved, just to show the German people that the American soldier is nothing to be afraid of. These boys were captured in a trench raid last October and they have not been allowed to communicate with anyone. The report says: 'They had had no chance to wash or get clean clothes and had been marched for miles over hard roads to the towns and villages where they were exhibited to the German people by non-commissioned officers to demonstrate that the American army could not stand against German trained soldiers. The Americans were then weak and dazed mentally as the result of their treatment. Their daily fare consisted of a breakfast of acorn coffee, two slices of bread made of rye, sawdust, and potato flour; a dinner of soup with a small piece of tough beef, turnips ordinarily fed to cattle, and no potatoes; supper of soup again, with two slices of bread. They had not received any parcels of food, like other prisoners.'

"Do you suppose they 'like' it?

"That is what the American soldier is up against. The Germans have crucified the French and English and Canadians—literally crucified them with bayonets pierced through their bodies. They have cut off their hands, their feet, their ears, and have mutilated both soldier and civilian. But—they intend to punish the American even worse when they get hold of him.

"Are you going to prolong the possi-

THIS DEPARTMENT IS YOURS

HOW do you like our new head? Will you help us to make this truly a home-makers' forum? In the old days in Rome the forum was the market place or public square of a city, surrounded by shops or by public buildings. This open space was the center of judicial and other business and formed a natural place of popular assembly. That is just what we want this to be, "a natural place of popular assembly" for our rural home-makers.

Did you ever look over a countryside at night as the light appeared here and there, and think that each light represented a home in which were a husband and wife, parents and children, and brothers and sisters, all of them working for the same things you are working for and in much the same way? You could see only a little way, but you knew that just out of sight there were other homes and beyond them still others, and if you could visit them all, the homes of one community would be much like those of another.

We are all working at similar problems. When one of us finds an easier or a better solution to one of these common problems let us pass it along to others, and when we meet with difficulties let us remember that among the homes of KANSAS FARMER readers are others that have had that same trouble and perhaps could help us with it.

Specialists in our own and other states and government experts are also devoting their time and bringing their experience and training to bear on the same questions that are puzzling you. Their conclusions and suggestions are not theories, but the results of careful tests and long experience. Your money helps to support this work. Are you getting what you should get out of it? No matter how efficient the worker or how carefully the work is done, if the results do not reach you, you are not benefited.

Perhaps you do not have as much time as you would like to read bulletins and attend lectures and demonstrations. As editor of this department it is a part of my work to bring the best and most practical material from these various sources to you at the time you need it. I am here for the express purpose of serving you, and I want to help you in any way I can. If I succeed in getting for you the information you want, I shall know that I am also helping others, for someone else is sure to need the same thing. If I can help you I am always glad to do it, and if I cannot, probably some housewife who will read your letter has had the same experience and has found a way out.

We want to help you, and we want you to help others. It may be that the simple telling of your experiences, of the Red Cross work you are doing and other ways you have found of doing your part toward winning the war, of how bravely you sent your boy, of your experience with substitute foods and how you make them appeal to the family appetite, of your problems with the little ones and how you are solving them, will be more helpful than you imagine. All of us working together can help each other to accomplish more than any one of us working alone.

Ethel Whipple

FASHION DEPARTMENT

All patterns, 10 cents.



No. 8822—Ladies' Shirtwaist: Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. The front has a hemstitched hem, button-trimmed, and a tiny roll collar finishes the neck. The sleeves are set in without fullness and the long full style is gathered into deep straight cuffs which button snugly at the wrists. **No. 8845—Girls' Jumper Dress:** Cut in sizes 4, 6, 8, 10, 12 and 14 years. The dress is in the popular jumper style which looks so well on most schoolgirls. The upper part is cut in a graceful U-shape at front and back. A one-piece skirt with straight lower edge is gathered to the jumper. **No. 8813—Ladies' House Dress:** Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. The waist of the dress is in surplice style and the skirt has four gores. The front gore is curved from hips to waist line, with inserted pockets.



No. 8677—Boys' Suit: Cut in sizes 4, 6, 8 and 10 years. The coat is a double-breasted model with the side closing. The coat is held in at the back with a narrow belt. The separate straight trousers are included in the pattern. **No. 8648—Ladies' House Dress:** Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. The shoulder edges of the back extend over to the front, where the lower sections are gathered. The sleeves may be long or short, and they are finished with neat white cuffs. The three-goded skirt is gathered all around to the slightly raised waist line. **No. 8652—Ladies' Two-Gored Skirt:** Cut in sizes 24, 26, 28, 30 and 32 inches waist measure. The skirt has two gores, and there are two inverted plaits at each side of the back and the same at the front. These plaits are stitched down to hip depth. A narrow belt of the material makes a very neat finish at the waist line.

bility by sticking to your 'likes'? Or are you going to sacrifice every last penny in your pocket to get ships and ammunition and men over there to put a stop to their damnable outrages?

"This war cannot be fought or finished by soldiers, and soldiers alone. The soldier in the front ranks depends upon your pocketbook for his life. The poor old women and the little children of France depend upon your pocketbook for food to keep the breath of life in them. They would be thankful beyond words for the bread you despise.

"We are living like kings—yet—in spite of our little restrictions on bread and sugar and meat. We have not learned the meaning of sacrifice. Can't we wake up before the boys have to lose their lives to teach us?

"For pity's sake, let's cut out this talk about what we 'like' or don't like, and let's get down to brass tacks and help push this thing through to a finish. Eat black bread if that's what we get. Go without sugar if there isn't plenty. Drink milk and eat vegetables and forget cake and cookies and doughnuts.

"The kind of patriotism that sheds copious tears before a war play or at a Red Cross speech, and then goes home to a full meal and hollers because the bread is black, is patriotism not worth the powder to blow it to thunder."

A Paper for the Wee Ones

The following letter was recently received from Mrs. C. G. M., of Osborne County:

"I see an article in your paper of June 8, 'The Children's Hour,' which contains some very good advice, and I am writing to see if you can give me the address of some paper for children under ten years of age.

"The children care more for the pictures than they do for the stories, but we want some of both. They have been getting a comic paper from one of their friends, but some of the pictures were not fit to be seen, and it is so full of slang that I do not care to take that kind of a paper.

"We have plenty of books for them, but they would like a paper. The Youth's Companion is a good paper, but they are not old enough yet to understand it. They liked 'Jack and Betty' in the Woman's Home Companion, but that paper is too high in price to take for that story alone. So I am writing to see if you can help me."

We quite agree with this correspondent regarding the pictures in the comic papers. The children enjoy the highly-colored pictures of course, but they are slangy and coarse and often vulgar, and should at least be supplemented, if not replaced, by a higher class of reading.

"Little Folks, the Children's Magazine," published by the S. E. Cassino Company at Salem, Massachusetts, is the paper we recommend to this mother. The price is $1.50 a year, or fifteen cents a copy. "St. Nicholas" and "John Martin's Book," both $3 magazines, are very good for children a little older, but "Little Folks" seems to be almost alone in the field for the younger children.

An excellent home paper which has recently come to our notice is "American Motherhood." This has several pages of stories for children, one or two picture-stories for the very little ones, and one or two for older girls and women. There are also articles on health and hygiene, child care, parents' problems, food and dietetics, and woman's war work, a girls' department, and scattered through the whole, snappy, strong editorials. It is published monthly by the Arthur H. Crist Company, Coopersstown, New York. The price is one dollar a year, or ten cents a number.

We would suggest that those who may be interested in any of the papers mentioned write for sample copies to see which is best adapted to their special needs.

Picture Books Educational

We have been intensely interested in watching our little daughter with her first books. In addition to their educational value, they are a source of great pleasure and have grown to be her daily companions. When she was about fourteen months old she was given her first book, a small linen one containing pictures of animals. These we would call by name as we pointed them out to her, and as they became familiar she would point them out herself. After she had learned to talk she would say the names also. Linen books containing pictures of objects in colors were next given the child and when she had become acquainted with these, group pictures were added to the collection.

By counting the objects in the various groups—not over five at first—and by calling attention to their color, the child learned both number and color. Emilie Poullson's book on "Finger Plays" is an enjoyable supplement to pictures of this kind.

We found simple, home-made, indestructible scrap books most satisfactory and attractive. Anticipating the book stage, we had collected a number of colored pictures from magazines. For the leaves of these books we used brown paper-muslin, cutting a number of pieces twelve by twenty-four inches and, after laying them one on top of another, stitching them through the center, thus making a book twelve by twelve inches when closed. On the pages we mounted the pictures with paste.

One book contained pictures of fowls, turkeys, chickens, ducks, geese, guinea fowls, and some pigeon and crow pictures also. In another book we pasted pictures of four-legged domestic animals. Many of the pictures showed the family life of these in their natural surroundings. They proved most interesting as the child's experience is confined almost exclusively to the family of which he is a member, and animal families naturally appeal to every child.

Our little girl is now nearly two and a half years old, and she has never tired of her scrap-books. Through them she has become acquainted with the different animals and the sound made by each, and is able to connect the animals and their calls.

The number of books of this kind which would be of great educational value to the child is almost limitless. Birds, flowers, vegetables, trades, farming, and history might all be presented to the child in this form. As our little girl grows older we have planned books of harvesting pictures showing the various stages in the growth of wheat from the preparation of the soil, planting of the seed and so on, until it passes through the hands of the miller and baker and finally reaches the child in the form of her daily bread.

Another interesting process is the building of the homes from the trees to the finished product. This book will contain pictures of the forest where the trees grow, the man felling the great trees, the horses and wagons which haul the trees to the saw-mill, the cutting and planing of the boards, the train which transports them to the lumberyard, the carpenter at work putting the boards together, the house in the process of construction, and, lastly, the finished home and the family which lives in it. From these process books the child can be led to realize that it takes rain, sunshine and warmth to make the trees and the grains grow, and that there are many people to thank for providing our simplest food and that above all God is the great source of everything.

"Mother Goose Rhymes" and the child's favorite, "The Night Before Christmas," are always welcome diversions, and after repeated readings the child is able to supply words, lines, and later whole verses, thus incidentally developing the memory.

With the exception of a few simple books which are really story-telling pictures, I would advocate the telling of stories rather than the reading of them to small children. The primary object of story-telling is to stimulate the imagination of the children, cultivate a taste for good literature, and guide them to the best books.

NOTE.—This article by Mrs. Jesse Sweitzer Sheaffer is one of the series issued by the United States Bureau of Education and the National Kindergarten Association, containing suggestions by mothers who have been kindergartners.

Pie Without Crust

Wouldn't you really prefer to eat the filling out of your pie and leave the crust, if that was not impolite? Most children would do this if allowed to. Then why have a crust, especially in hot weather when we eat too much rich food anyway?

A lemon meringue custard, prepared in just the same way as the filling for a lemon pie, baked in individual ramekins or in a large baking dish which can be brought to the table, then covered with a meringue made of the whites of eggs and browned in the oven, is just as appetizing as pie, more digestible, more easily made, and saves both fat and flour.

A pumpkin custard, without the meringue, is just as good as if it were baked in a pie crust, and much more wholesome. Some people like to eat it hot with a little butter, while others prefer it cold.

BETHANY COLLEGE

LINDSBORG, KANSAS

Offers Many Advantages in the Following Departments

COLLEGE. First Kansas Church College to be accredited by the State Board of Education. Five courses leading to A. B. degree. Graduates receive a certificate to teach in any high school. No failure at the state examinations in eight years is our unequaled record.

ACADEMY. Corresponds to a first class high school, and offers college preparatory, normal, commercial and music courses. Music students having completed twelve or thirteen high school units save a year's time by enrolling in the Academy.

MUSIC. Faculty of specialists. Thorough courses in all branches of music. Endorsed by Schumann-Heink, Fremstad, Gates, Nielsen and other world-famous musicians. Free instruction in band, chorus and orchestra. Music students may take Harmony, Public School Music, History of Music, or courses in other departments, without additional cost. Famous Messiah concerts every Easter.

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PAINTING. Instruction by an artist of national reputation. Oil, charcoal, crayon and pencil. Courses for high school teachers a specialty.

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Before selecting a school, investigate the many distinct advantages Bethany offers. For free catalog, write

ERNST E. PIHLBLAD, PRESIDENT, LINDSBORG, KANSAS

Food Value of Milk and Butter

One quart of milk, on energy basis, equals:

8	eggs
2	pounds chicken
.79	pound sirloin steak
7	oranges
4.55	pounds tomatoes
3.35	pounds oysters
½	dozen bananas
.79	pound English walnuts
3.5	pounds asparagus
.76	pound fish

Figuring this on a price basis (Lincoln prices for December 1, 1917), one quart of milk at 14 cents a quart is worth as much as 27 cents' worth of eggs; 48 cents' worth of chicken; 23 cents' worth of sirloin steak; 24 cents' worth of English walnuts; 22 cents' worth of cabbage; $1.22 worth of asparagus; 82 cents' worth of tomatoes; 23 cents' worth of fish; 83 cents' worth of oysters; 15 cents' worth of bananas; 23 cents' worth of oranges.

One pound of butter on energy basis equals:

3	loaves wheat bread
11.6	pounds potatoes
40	pounds lettuce
3½	dozen eggs
34.3	pounds tomatoes
34.3	pounds asparagus
4	pounds sirloin steak
8	quarts oysters

Too many hesitate to use butter when prices go up, thinking of it largely as a luxury instead of a necessary article of food. For instance, but few know that a pound of butter yields almost as much energy as four pounds of sirloin steak.

Can More Than Ever Before

"Some folks right here in this state will go hungry next winter unless more greens, vegetables, and fruits are canned this year than ever before," says Miss Lella Gadis, state leader of home demonstration agents for Indiana. "The government has contracted for from 40 to 60 per cent of the output of the country's canning factories. This is taken away from the consumers at home. Frost and drouth losses in gardens this year must be met by replanting, and every bit of surplus garden produce must be canned or put away in brine, any way to save it."

"A can of vegetables, a can of fruit, and a can of greens for every day in the year," is the slogan of the girls' canning clubs, and as many as possible are living up to the letter of this expression.

Anyone who has more garden produce of any kind than can be used or preserved should not let it go to waste, but should see that it gets to the less fortunate so that it may be saved.

"Lafayette, we are here."—Pershing.

Pattern Notes

Pattern No. 8845, shown on opposite page, will be a very serviceable model for a school dress for early fall. Laundry work can be saved by making more than one guimpe, as the sleeves are usually soiled before the skirt. In dark wool or silk with a guimpe of lighter color or of a harmonizing plaid, it would make an attractive winter dress.

The little boys' suit shown is neat and easily made. In these days when we are all trying to save wool, we imagine the trousers pattern will be used many times for converting the best part of father's suit or mother's skirt into school trousers.

Chicken a la Providence

Cook chicken in water until tender. Remove chicken and reduce liquid to two cupfuls. Mix two tablespoonfuls of flour with a little cold water and add to liquid. Cook until thickened. To this add one-half cupful cooked carrots cut in small cubes, one-half cupful peas, salt, pepper, and yolk of one egg—if desired. Pour over chicken, sprinkle with chopped parsley, and serve hot.

Wheatless Sandwich Loaf

Wheatless bread made according to the following recipe, tested by the home economics division of the University of Minnesota, was served in sandwiches to a large picnic, receiving an enthusiastic reception. Try it to help out the wheatless campaign.

- 1 cup liquid
- 2 to 4 teaspoonfuls fat
- 1 tablespoonful syrup or sugar
- 2 eggs
- 6 teaspoonfuls baking powder
- 1 teaspoonful salt
- 1 cupful corn flour
- 2 cupfuls barley flour
- ½ cupful raisins cut in small pieces.

Mix and sift the dry materials. Add milk, egg and melted fat. Bake as a loaf in a moderately hot oven until thoroughly done.

Rice Lemon Pudding

- ½ cupful rice
- 1 quart milk
- 2 egg yolks
- ¾ cupful sugar
- 2 lemons (grated rind and juice)
- ¼ teaspoonful salt.

Cook rice in milk until soft. Use a double boiler. Add, while hot, the egg yolks, sugar, lemon rind, and salt. Cook five minutes and add lemon juice. Make a meringue by beating whites of two eggs until very stiff; add two tablespoonfuls sugar and place on top of pudding. Brown in a moderate oven.

Cabbage is one of the vegetables that is best simply cooked. It may be poor or it may be delicious, depending upon how you cook it. Don't boil it too long—twenty or thirty minutes in salted water is long enough.

Food wasted is food lost and no money can replace it.

Pure-Bred Live Stock in Demand

There is now a demand for pure-bred live stock of all kinds that is without precedent, and this demand will continue until the close of the war and longer. Inquiries for breeding stock are steadily increasing. Beef cattle of all breeds, dairy cattle, sheep and hogs, are in demand at profitable prices.

BREEDERS NOW HAVE AN OPPORTUNITY

to sell their surplus breeding stock. It is the opportune time to advertise.

Let prospective buyers know that you have pure-bred stock for sale and they will quickly take your surplus.

KANSAS FARMER reaches the live stock buyers in this field and space used in the live stock advertising columns of KANSAS FARMER will sell your offering quick and at a small cost. Write for our special live stock advertising rate.

If your offering is ready, advertise now. It will result in quick sales at profitable prices.

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE—REGISTERED GUERNSEYS, male and female. R. C. Krueger, Burlington, Kansas.

HIGH-GRADE HOLSTEIN CALVES, VIRtually pure-bred, $25 delivered. R. B. Hellen, Sec'y Milk Producers' Association, Jefferson, Wisconsin.

FOR SALE — REGISTERED JERSEY cows, fresh this fall, bred to a son of Owl's Design, year record 764 pounds butter. R. O. McKee, Marysville, Kansas.

FOR SALE—VERY CHOICE HOLSTEIN and Guernsey calves, either sex, six weeks old, 95 per cent pure-bred, at $25 each, delivered. Lewis Dutcher, Peary View Farm, Janesville, Wis.

REGISTERED HOLSTEIN BULL, READY for service. Five of his dams average 106 pounds milk in one day and 34 pounds butter in seven days officially. $125. Wisconsin Live Stock Association, Appleton, Wis.

HOLSTEIN BULL CALF FOR SALE—Born October 24, 1917. Mostly black. Price $250. His mother is one of the best milk and butter producers I know. Jay B. Bennett, Holton, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

REAL ESTATE.

WOULD YOU SELL YOUR FARM IF you got your price? Sell direct, no commissions. Particulars free. Charles Renich, C-18, Woodstock, Illinois.

HALF SECTION WELL IMPROVED, choice farm, good road to near-by railroad town and high school. Write for my bargain price, subject to prior sale. Joseph Schwickrath, Stratton, Colorado.

NEBRASKA FARM FOR SALE — 240 acres. Son going to war. Will sell this ideally located 240-acre farm, ten miles northeast of Lincoln, one mile from C. R. I. & P. station, five miles from paving. Eighty acres virgin soil. School house on farm. $15,000 in new and modern improvements. Price $54,000. No trades considered. An unusual opportunity, as this is $25 per acre less than near-by farms have sold for. Investigate this. I. W. Jacoby, owner, Route 2, Havelock, Nebraska.

AUTO TIRES.

TIRES — FORD, $6.50. LARGER SIZES equally low. "Wear like iron." Booklet free. Economy Tire Co., Kansas City, Mo.

DOGS.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

HOGS.

EXTRA GOOD DUROC MALE PIGS FROM prize winning sows and males. Prices right. W. H. Fulks, Turon, Kansas.

THE STRAY LIST.

TAKEN UP—BY M. V. HOOVER, OF Grinnell, Kansas, on the 26th day of May, 1918, one red yearling heifer appraised at $30. W. L. Davidson, County Clerk of Sheridan County, Kansas.

MISCELLANEOUS.

FORTY-FIVE HORSE RUMLEY OIL tractor, most good as new, located in McPherson County, Kansas. W. S. Power, Chaonia, Missouri.

FOR SALE — GRAND DETOUR FOURbottom power-lift engine plow. W. H. Fulks, Turon, Kansas.

FOR SALE—WE HAVE A NUMBER OF Manson Campbell fanning mills and graders for sale, $30 f.o.b. Louisburg. All new mills and in first class condition. Interstate Mercantile Co., Louisburg, Kansas.

THREE-UNIT CALF-WAY MILKER AND fittings, $300; 50-gallon Perfection Junior pasteurizer and cooler, $200. Both good as new, used few weeks. Liberty bonds accepted. Owner in U. S. service. W. J. Breakenridge, Cherokee, Iowa.

POULTRY.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swaim, Geuda Springs, Kansas.

POULTRY WANTED.

GUARANTEED SATISFACTORY PRICES paid for eggs and poultry. Coops and cases loaned free. The Copes, Topeka.

PATENTS.

PATENTS PROCURED, BOUGHT AND sold. International Patent Co., Brandeis, Omaha.

Real Estate For Sale

CALIFORNIA

Farm in Sunny California. Learn all about land, water, soil, crops, fruit, markets, schools, churches. Send 25c for six months' subscription to Farm and Irrigation Illustrated. **DEPT. 33, SAN FRANCISCO.**

Don't Overlook This Bargain

200-Acre Combination Stock and Grain Farm, in Northern Chautauqua County, Kansas; 80 acres farm land, 40 acres fine prairie hay meadow, balance good pasture; 5-room house, good barn 32x36, on R. F. D. and telephone line; 6½ miles to Moline; two miles from one of Chautauqua County's biggest oil wells in a new field. Land leased and pays rental of $1 per acre until drilling begins. Price of this farm for sixty days, $50 per acre. $5,000 will handle it.

The Eastern Kansas Land Co.
Quenemo, Kansas

AN EXCELLENT BARGAIN

Forty acres, 3 miles from town of 1,700 and two railroads in Labette County; well improved; possession at once. Price $3,400; $1,200 cash, balance five to twenty years. Send for complete description. Address

Allen County Investment Co.
Iola, Kansas

WANTED—TO BUY.

WANTED—TO HEAR FROM OWNER OF farm for sale. Mrs. Booth, Pulaski, Iowa.

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Is There Anything to the Hogan Test?

BY T. E. QUISENBERRY, LEAVENWORTH, KANSAS

IF I EVER had any doubt about the good, standard-bred hen of exhibition qualities being able to lay a profitable number of eggs, that doubt would now be dispelled. In Orpingtons, Plymouth Rocks, Rhode Island Reds, Wyandottes, Leghorns, Sussex, and practically every variety in this contest we are now conducting at Leavenworth, there are females among the highest layers which are also high-scoring birds. Most of the birds in our present contest are winners from America's best shows, such as Madison Square Garden, Boston, Chicago, and Kansas City, and from our best advertised exhibition strains. Many predicted that practically all of these birds would make a disgraceful showing because they were largely standard-bred exhibition birds. Their records so far have been most creditable in practically every case. Nearly all of these varieties, judging from present indications, have individuals that will go well over two hundred eggs for the year. Our best record to date has been 218 eggs in eight months, laid by a yearling White Plymouth Rock hen.

Why shouldn't a standard-bred bird lay? Or why should not both standard qualities and egg-laying ability be combined in the same fowl? The body of both are about the same. The head and tail is where the main difference is between a standard-bred bird and what is ordinarily known as a utility bird. In a standard bird there is a neatness and carriage to tail and head that is produced by careful selection and breeding. In the ordinary layer no attention is given to head and tail points or to disqualifications in many cases, just so the bird will lay a large number of eggs. But the body in both cases is practically the same. So is it not reasonable to believe that these minor head and tail points can be bred into a good layer? It can be and is being done.

We have heard considerable discussion of late of the Hogan system of selecting layers as compared to the trap-nest. Some condemn the Hogan system since reading the report of the All Northwest Contest. In the first place it was unfortunate that Mr. Hogan attempted to predict as to the record of the pullets before they had ever laid an egg or reached maturity. I so wrote Mr. Hogan and Mrs. Whittaker, directors of the contest, at the time the test was made, over a year and a half ago. It is impossible with any method to predict what an immature pullet will do. But after a bird has laid one season or even only 25 or 30 eggs, has practically reached maturity and her bones and body at least show some signs as to what they will be regarding thickness, condition, width, type and capacity, you can then get a very accurate idea of the laying ability of a female by testing her according to the Hogan method. The majority of poultrymen haven't the time to trapnest the greater portion of their flock, neither should they breed from immature pullets, for these usually lay small eggs at the beginning, which batch small, weak chicks, and for that reason we advocate forcing the pullets the first year and trapnest only the breeders. Then at culling time, in June or later, when you wish to cull and market the nonproducers and to keep the pullets for future breeders which have been your best layers, you can do so with almost absolute accuracy by applying the Hogan test, even though none of the birds have been trapnested. The test will correspond favorably with actual trapnest records in the large majority of cases. The value of the Hogan test is not in making predictions, but in culling the non-producers.

The test made at Pullman, Washington, after the birds had traveled over a distance of 400 miles on the average and over 2000 miles in some cases, and on immature pullets which had not reached their natural shape or full state of development would necessarily be a guess and not a scientific test. Even though it could have been accurately done at that early age, it would have been useless in that contest and their own official reports show, as I remember it, that they lost by disease nearly 20 out of every 100 birds sent them. They reported an epidemic of colds, roup and other diseases at different periods throughout the year, so where there was such a large death rate there must have been more or less birds out of condition. Therefore, remember that by giving good treatment you can get the maximum record from a poor hen, and by wrong methods of feeding, poor treatment, or because of disease you can cut down the record of a good hen. We would not like to condemn or commend a system, or compare results by records made where so many deaths and so much disease prevailed, which must have affected the birds that lived to at least some extent.

We do not understand that Mrs. Whittaker condemns the Hogan method for she states: "Whatever conclusion the reader may draw as to the respective merits of Hoganizing or trapnesting as a means of culling a laying flock the director of the first All Northwest Contest would like to offer for its consideration of her personal belief that the poultry world is greatly indebted to Mr. Hogan for having given perhaps more than any other man outside the ranks of trapnesters, an impetus to the study of the individual birds to determine her merit or her lack of merit as an egg producer. Whatever book or system is intelligently and sincerely given to the increasing interest among those who cannot trapnest in the selection of the layer, has value direct or indirect to the poultry industry."

Mr. Hogan has sold over 20,000 books which explain his system in detail. They have all been sold under a guarantee of "money back if the purchaser does not find that birds tested by his method tallied very close to actual trap-nest records." Not a book has ever been returned. In this national crisis which poultrymen have been passing through, with war conditions and high-priced feeds, I truly feel that Mr. Hogan's method alone saved the poultrymen of this country more than one million dollars last year, by helping them get rid of the drones and unprofitable birds in their flocks, and by the saving made on their feed bills.

For seven years I have conducted national and international egg-laying contests and during that time have trapnested many more than 10,000 laying hens. All of the good ones and most of the poor ones as well as some of the mature layers have been tested at different periods during the year by the Hogan method and compared with our trap-nest records, and in far the larger majority of cases the Hogan test and the trap-nest record corresponded to a surprising degree. It would almost be suicidal at this crucial time in the history of our industry for the country to lose faith in any system or method which means so much to poultrymen. If you doubt our word, we now have the trap-nest records for eight months for all individuals in the American contest and we would be glad to demonstrate to all "doubting Thomases" how near the two tests really compare.

Give Your Boy a Square Deal

Does your boy ever talk with you about going into partnership in the farming business? Or does he talk about leaving the farm just as soon as he gets through school and going to town to get a job? And if he does leave the farm, as so many boys do, whose fault is it exactly? What inducements are you holding out? How does he get his spending money? Never mind how you got yours when you were a boy. That is thrown out as irrelevant, incompetent, and inadmissable. Times are different. —American Motherhood.

A Soldier's Goodbye For France

A TROOP train was pulling in at the station—Paul's train, his invalid mother was almost certain. She had sat in an armchair at the station all through the long day watching for her soldier boy. A little while before a trainload of soldiers had passed through and in answer to her inquiry an officer who stepped from the train had said: "I am sorry, but we are not allowed to tell what troops are heing moved"; then added, looking back over his shoulder as he stepped on the moving train, "There is another train following this one. Perhaps you had hetter wait." The mother felt sure from the expression on his face that the kindhearted officer wanted her to understand that her boy was on the next train, and her weariness was forgotten now that she was certain her waiting was to he rewarded.

When the train reached the station, Paul, not expecting anyone, was nowhere in sight. "Who are you looking for?" called the soldiers who were looking out, as the mother hurried from coach to coach, and when his name was given the word was passed along until it reached Paul in the rear coach. So many others were already at the windows that he could only find room to put his head out of a small upper window in the end of the car and hy reaching down as far as possible could just touch his mother's uplifted hand. "O Paul," she sighed, "I wish you were down here where I could kiss you goodhye." Paul smiled sadly as he looked at the guards standing at each end of the car. "It doesn't look as if there is much chance, does it, mother?" he said. The words were hardly out of his mouth hefore his head and shoulders were pushed out of the lower part of the window and he was fairly forced down into his mother's arms while his comrades held him hy the feet, thus observing the letter of the regulation forhidding privates to leave the train. Rather an uncomfortable position perhaps for a goodhye kiss, but neither the soldier lad nor his mother thought of that. For the next ten minutes he leaned from the car window, looking into his mother's eyes and saying all that can be said at such a time. Then the train whistled. "Here, Paul, are a few things I hrought you," said the mother, handing him a basket packed with fruit and other delicacies. "Well, I hope to the Lord, mother, it's something to eat," he exclaimed in his boyish way. "Our grub outfit has been packed for several days and we have been getting along as hest we could."

"Goodhye," he waved, as the train hegan to move, and then was gone, leaving the frail mother worn out and in tears, now that her hoy was not there to see, hut with the memory of those few minutes to brighten the long, anxious period of separation. And Paul, as he lies at night out under the stars on some hillside in France, will not fail to remember that hrief stop in his home town when he hung hy his feet from a car window to receive his mother's kiss and Godspeed for the great task to which he has committed himself.

Plan for Selective Draft

Uncle Sam's hig selective draft plan was prepared years in advance. General Crowder practically spent a lifetime studying for the hig joh he now holds. When located as a junior lieutenant at an ohscure army post in Texas he chanced upon a copy of the old Civil War draft regulations. Reading them over, partly out of curiosity and to pass away the time, he was led gradually to evolve ideas of how a draft should he run. The conviction came to him that some day his country might he in need of a great army and he felt that this army would he raised not from volunteers, hut by a process of selection from the total man power of the country.

General Crowder during the years that followed advanced in the Army step hy step. When the United States entered the war he was the one man in the Army ready to go before Congress with a concrete suggestion for the framing of a selective draft law. The members of the military committee state that the hill was written almost without change from his suggestions.

Just Like America

The American in England affords cause for much perplexity and astonishment to his English kinsmen.

A Yankee soldier was being shown over an old church wherein hundreds of people were huried.

"A great many people sleep hetween these walls," said the guide, indicating the inscription-covered floor with a sweep of his hand.

"So?" said the Sammy. "Same way over in our country. Why don't you get a more interesting preacher?"—Pittsburgh Chronicle Telegraph.

A Business Proposition

It takes ahout $2,000 at the least estimate to draft a man, equip him, place him in France, keep him there, and care for his dependent. When the Government huys a Missouri mule for $300, an attendant goes with him and a veterinarian is there to take care of him. When a farmer buys a tractor he takes care of it. Shall we be more tender with a machine or with a Government mule than with our soldiers?

The business man who buys a Liberty bond and then fails to subscrihe to the repair work of the Red Cross is not only unpatriotic hut a blundering fool heside. It is not charity to take care of our boys over there. It is a duty and a husiness proposition.

German Estimate of Red Cross

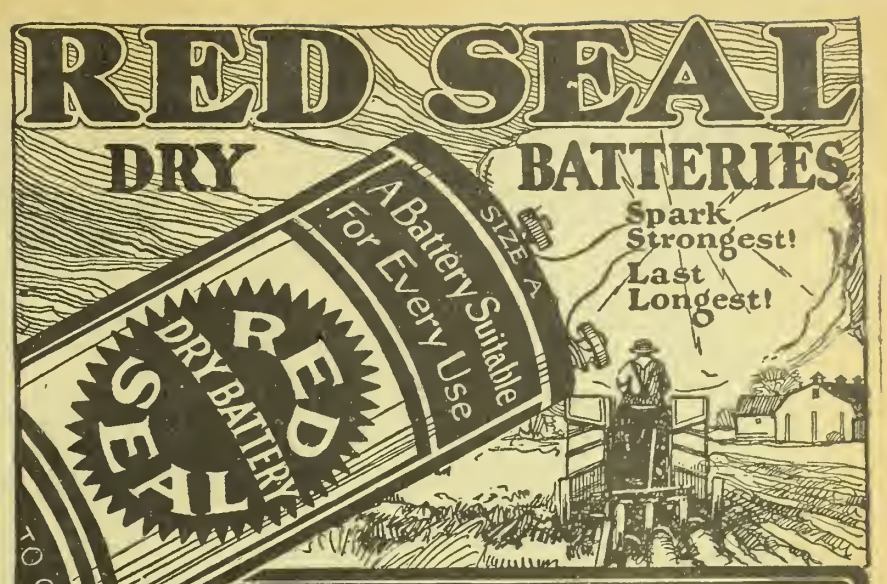
We may judge the value of the Red Cross hy the estimate our enemies place upon it. Looking at it from the standpoint of cold-hlooded German efficiency, it has heen demonstrated that it takes only a short time to make a good soldier from the sort of material to be found in our untrained American citizenry. The general education, the professional training, and then the experience necessary to make an efficient Red Cross physician or nurse requires a much longer time. For this reason the Germans consider a Red Cross physician equal to twelve ordinary soldiers, and in terms of future usefulness worth several hundred men. That is why they make a special effort to destroy hospitals and to kill doctors and nurses.

In one of our national army camps a new recruit was on guard duty for the first time. Ohserving a shadowy form approaching, he called out according to instructions: "Who goes there?" "Shut up!" came the reply in a husky whisper; "I ain't goin'. I'm just gettin' back."

G. Arthur Hoppe is the first graduate of the Kansas Agricultural College to give his life at the front for the cause of democracy. He was killed in action in France June 12. He was first sergeant in Company D, Second Engineers. Mr. Hoppe graduated in 1915. He was holding the office of assistant county engineer in Manhattan when he enlisted a year ago.

DEEDS OF VALOR

WE WANT to print in KANSAS FARMER accounts of special deeds of valor performed by farm boys in the mighty battles being fought on land or sea. Our own army is now getting into action in France. Already reports are coming hack of the splendid fighting ahility of these soldier boys we have sent out from our homes to hattle in the cause of righteousness and justice. Fully 20,000 of our Kansas farm boys are in the service and among them are many from the families of KANSAS FARMER readers. As the stories come home, send in accounts of special acts of bravery, awards of medals, or other recognition for heroic deeds performed in action. Also a photograph of the boy in uniform if possihle. As far as our space will permit we will print the stories that come to us of unusual deeds of valor hy the farm hoys from the homes of our KANSAS FARMER folks.



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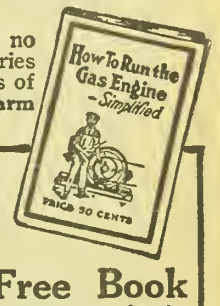

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Notice our milk and butter average, under semi-official test for 305-day periods: Milk, 10,570 pounds; butter, 491 pounds, at the average of four years and eight months, and we are breeding them better.

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Holstein Calves

We offer for sale choice beautifully marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated, f. o. b. cars: One to two weeks old, $17 each; three to five weeks old, $20 each; six to eight weeks old, $25 each. First check takes them. Write

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CORYDALE FARM HERD

Senior herd sire, Jewel Paul Butter Boy 94245, followed by Dutchland Creamelle Sir Iuka 199300, a son of Dutchland Creamelle Korndyke Lad, the great Fields bull. For sale, two young bulls old enough for service out of A. R. O. dam. Call or address

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For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

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Either Sex, Practically Pure-Breds

From high-producing dams and registered bulls, five to seven weeks old, $27.50, express prepaid in Kansas; outside, $30. Safe delivery and satisfaction guaranteed. Also fifty registered cows and heifers and 100 high-grade young cows and two-year heifers.

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GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

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If you want big producers, males and females, write us. All our own breeding.

Lilac Dairy Farm
Route 2 Topeka, Kansas

Pedigreed Holsteins for Sale

Two nice bull calves, good milking strains; three months old, mostly white, $60; nine months old, mostly black, $75, f.o.b. here.

CASTILLO & SON, INDEPENDENCE, KAS.

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. **Clover Valley Holstein Farm, Whitewater, Wisconsin.**

CHOICE HEIFER CALVES

Twelve heifers and three bulls, 15-16ths pure, five to seven weeks old, beautifully marked and from heavy milkers, at $25 each, crated for shipment anywhere.

FERNWOOD FARMS, Wauwatosa, Wisconsin

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For Sale—Young bulls, bred heifers and cows. All sired by the great bull, Sir Rag Apple Korndyke De Kol. Two cows will be fresh this month. Fourteen-thousand-pound milkers.

G. REGIER & SONS, Whitewater, Kansas.

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For Sale—Two registered pure-bred Holstein bulls from A. R. O. cows. Age 9 and 11 months. **P. W. ENNS, Newton, Kansas**

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35 Young Cows, some fresh, some springers. Also good fall cows from heavy producing dams. All bred to registered bull.

W. P. PERDUE - CARLTON, KANSAS

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Two to nine months. Also females. Bred right, priced right.

MARLOW & McCARGER, Mankato, Minn.

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.

H. B. COWLES, 608 Kan. Av., Topeka, Kan.

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Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

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100 GOOD JERSEYS FOR SALE

We are offering some fine young cows and heifers, now fresh of to freshen in May and June. The best blood lines and good individuals.

J. W. BERRY & SON, Jewell City, Kansas.

SHORTHORN CATTLE.

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For Sale—Twenty-five cows and heifers, several with spring calves at foot; others bred to ROAN MODEL; also seven young bulls eight to eleven months old. All priced to sell. Come and see our herd.

D. BALLANTYNE & SON, Herington, Kan.

MARKS LODGE RED SHORTHORNS

For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

DUROC JERSEYS.

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. **W. J. Harrison, Axtell, Kan.**

WOODDELL'S DUROCS

Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

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DUROC JERSEYS

Our sows average 13 pigs to the litter. March pigs for sale at $25 each. Can furnish pairs not akin. Bronze turkeys.

A. H. BURG - - LAKIN, KANSAS

TWO BIG SALES

Fifty Duroc Jersey Bred Sows and Gilts, September 4. Entire herd of Red Polled Cattle September 5. Catalog ready July 15. Write early.

W. T. McBRIDE - PARKER, KANSAS

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SPRING PIGS

Priced in pairs or trios. Come and see my herd.

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Five December boars ready for service, out of my grand champion sow, Tip Top. Spring pigs from other good sows for sale.

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Go easy with your spoon—more than five million soldier boys are dipping from that sugar bowl.

MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

SAVE YOUR GASOLINE

IN OUR issue of June 1 appeared an article showing the need for gasoline economy. The United States Fuel Administration, thru mark L. Requa, director of the oil division, has issued the following statement in regard to gasoline:

"Up to now there has been sufficient supply of gasoline to meet all requirements; but in order to be prepared for any shortage, should it arise, plans are being considered by the oil division of the Fuel Administration, in co-operation with the automobile industry and the national petroleum war service committee, for the purpose of determining the most satisfactory method of gasoline conservation.

"It is not expected in any event that it will be necessary to restrict normal consumption for freight vehicles, and provided there is a reasonable conservation by all concerned, it may not be necessary to seriously interfere with passenger cars and motor boats.

"It must be borne in mind, however, that the paramount use for gasoline is for war purposes, all of which requirements will be supplied. The volume of this will largely govern the situation.

"It seems possible that rational conservation by the public will render government action unnecessary."

The National Automobile Chamber of Commerce is co-operating to help in this conservation movement.

While there is need for saving, there is no official suggestion of any necessity for curtailing use of passenger cars on Sunday or any other day, nor the issuance of gasoline cards to limit the amount to be sold to each individual owner.

Every motorist should conserve gasoline in every way. The following methods are suggested:

Do not use gasoline for cleaning mechanical parts.

Studiously avoid spilling, leakages and evaporation.

Do not let engine run when car is standing.

Have carbureter adjusted to give largest possible mileage per gallon.

Adjust brake bands so they do not drag; keep all bearings well lubricated and tires fully inflated.

Keep spark plugs clean, have ignition correctly timed and drive with spark well advanced.

Do not accelerate and stop quickly; avoid high speed; stop engine and coast long hills.

Avoid aimless and unnecessary use of cars; do a number of errands in one trip; carry purchases home in the car to reduce deliveries by stores.

Combine with neighbors and friends in the use of cars.

Power Farming in England

In connection with the increased food production in the United Kingdom shown by official reports it is interesting to know that a very great part of this increase has been made possible by the importation of American motor tractors since the beginning of the food campaign in November, 1915. According to unofficial figures 8,100 motor tractors have been imported up to the present. There are, furthermore, outstanding orders for tractors to the number of 5,500, which are coming forward from time to time. The use of these tractors in plowing has completely revolutionized farming methods, and it is quite unlikely that the old-fashioned horse plow will ever come into use again in Great Britain as heretofore.

According to this same unofficial information, and assuming that crops reach a fair average by next year, this country should then be independent in the matter of breadstuffs, whereas at the beginning of the war probably not more than one-third of the domestic requirements were covered by domestic crops.

The report of the Director General of Food Production for England and Wales shows that up to April 27, 1918, there had been planted 8,302,000 acres of wheat, barley, oats, rye, corn, potatoes, and other food crops, an increase over 1916 of 2,042,000 acres, or 33 per cent. The above information comes from Consul General Skinner at London and appeared in "Commerce Reports."

Complete returns of the acreage of grass land plowed are not yet available, but a census taken on March 11, 1918, showed that over 1,800,000 acres of permanent grass in England and Wales had been broken up by that date, and it is estimated that a total addition of not less than 2,500,000 acres to the tillage area of England and Wales (as compared with 1916) has now been made. If, as may be anticipated from the recent forecasts of the boards of agriculture for Scotland (300,000) and Ireland 1,500,000), the corresponding addition to the tillage area in those two countries will approximate 1,800,000 acres, the total for the United Kingdom will be well over 4,000,000 acres.

The foregoing figures indicate that the total acreage in the United Kingdom under wheat, barley, and oats in 1918 will be the highest ever recorded in the history of British agriculture. The acreage under potatoes will be the greatest since 1872. Particulars of other crops are not yet available.

The significant feature of these accomplishments in increasing production is the part being taken by American-made tractors. There are almost no able-bodied men left for performing agricultural labor. The tractors in the hands of women, old men, and cripples, are solving the problem of increased food production in Great Britain.

No other one thing causes more trouble than faulty lubrication. Study your lubrication chart and follow it carefully. A very useful chart on auto lubrication was printed in our issue of June 8. A thorough study should be made of the car so no part needing lubrication will be overlooked.

If you are taking out a new car, observe faithfully the instruction to run it carefully the first five hundred miles. More harm can result during the first five hundred miles of running than in all the rest of its life. After a couple of hundred miles, go over the whole car, taking up slack bolts and bearings. Give the pistons excessive lubrication during the break-in period, and be sure all universal joints are kept fully lubricated. The life of the engine will depend largely on the manner in which you limber it up.

Many a mysterious puncture might be traced to a grain of sand or other foreign material left in the casing when putting in a new tube. The inside of the casing should be carefully wiped out with a damp cloth to remove any grit or sand that may be present before replacing the repaired tube or putting in a new one.

As recently as 1906 there were only 100,000 motor vehicles in the United States compared with nearly 5,000,000 in 1917, while in 1904 the total outlay in money and labor on the public roads aggregated only $80,000,000, compared with some $300,000,000 for 1917. Thus the public roads have been changed with bewildering rapidity from the status of the purely local utility to that of a utility of national importance and scope.

A full complement of tools is a necessary part of the car equipment. Different people have different ideas as to what tools are essential. It is a good plan to make a list of the tools usually carried and check it up occasionally and thus avoid being caught some time with the very tool most needed missing.

If compression cocks have a tendency to stick, put a drop of oil on them occasionally while the engine is not running. Work it around so it will reach every part. Keeping the compression cocks so they will operate easily will help you to take better care of your car.

THE SILO IN WAR TIME

THE Kansas Council of Defense considers the building of silos as a most important factor in making this state produce larger returns in meat and dairy production. It is a feature of our war program and in a pamphlet just issued by the Council, C. W. McCampbell of the animal husbandry department and J. B. Fitch of the dairy department of the Agricultural College, point out that in times of peace the silo is an economic need on every farm where cattle are produced. In times of war and high prices of feed it is an absolute necessity.

We have kept close watch of silo development in the state and agree absolutely with the conclusions of this pamphlet. It is not only a matter of experimental results but the experience of every farmer who has consistently used silage in feeding live stock.

Our civilian people and our armies as well as our Allies and their armies are calling for more beef and dairy products. These can be produced only through a supply of cheap feed which in turn can be supplied by the proper utilization of the rough feeds many of which have otherwise no commercial value. The silo offers the solution to the problem.

Not only, for example, will the silo save 40 per cent of the corn crop from waste and deterioration, but it puts it in better condition for feeding purposes. One acre of corn preserved in the form of silage has a feeding value equivalent to that of one and a half to two acres preserved in the form of shock corn. In seasons where the grain fails to develop the ratio in favor of silage may run as high as one to five.

Silage has no equal in reducing feed costs. During the last few years all feeding tests with beef and dairy cattle have shown that where silage is used as a major portion of the ration, beef and milk are produced most cheaply. During the winter of 1917-1918 the Kansas Experiment Station fed one lot of baby beeves corn, linseed meal and alfalfa hay. Another lot was fed corn, linseed meal, alfalfa hay, and silage. In the latter lot the cost of gains was $1.20 a hundred cheaper than in the former and it sold on the market at 25 cents a hundred more.

During the last ten years, due largely to the expense of winter maintenance of the cow herd, the number of beef cattle on Kansas farms has decreased 50 per cent. In view of this fact it is significant that the Kansas Experiment Station kept mature cows in good breeding condition during the winter of 1917-1918 on a ration chiefly of silage and wheat straw at a cost of five cents a day.

The dairyman has used silage longer than the cattle feeder, though it is equally valuable for both. In a report of the cow testing associations of Minnesota covering records of 5,500 cows it is shown that the cows receiving silage produced 1,275 pounds more milk per cow and 51 pounds more butter fat than did those not fed silage.

In a farm management contest conducted by the Wisconsin Agricultural College records of the business were secured on 531 average farms for two successive years. The 390 farms which had silos made an average net profit of $875 per farm, while the 141 without silos made an average net profit of $535 per farm per year. It is pointed out that the difference, or $340 per farm, is enough to pay for a good silo once a year.

The Kansas farmer is fortunate in having at his disposal three common crops—corn, kafir, and cane—any of which will make good silage. Feeding tests with dairy cattle by the Dairy Department of the Kansas Agricultural College covering a period of three years have produced very favorable results with kafir and cane silage. Corn silage was found to be slightly superior to kafir and kafir slightly superior to cane, pound for pound, but when tonnage yield and the certainty of getting a crop were considered both the cane and the kafir ranked higher than corn. Covering a three-year period on bottom land at the college farm the following yields in silage have been obtained: Corn 11.88 tons per acre, kafir 11.8 tons, and cane 18 tons per acre. Basing estimates on these tests the amount of milk produced from the above yields per acre would be: Corn, 22,000 pounds; kafir, 21,600 pounds; cane, 30,000 pounds. In more than half the counties of Kansas a greater yield of kafir and cane can be obtained with greater certainty than with corn. Manifestly the crop should be used which will return the greatest tonnage.

Silage alone is not a balanced ration. For the best results it should be supplemented with a small amount of clover, alfalfa, cowpea hay or linseed or cottonseed meal. This is particularly important in the case of calves and young stock. Silage and alfalfa hay make the cheapest ration obtainable for feeding a dairy cow. One giving less than a gallon and a half of milk daily needs nothing else.

The general advantages of the silo and silage may be summarized as follows:

1. The silo reduces the amount of labor required to feed live stock during the winter, also in preparing the ground for next year's crop.
2. More live stock may be carried on a given acreage when crops are fed in the form of silage.
3. Silage insures the utilization of practically the whole corn or sorghum plant. Feeding in any other form results in the loss of 20 to 40 per cent of the plant.
4. The silo is an economical means of storing feed. A cubic foot of hay contains approximately four pounds of dry matter, while a cubic foot of silage contains ten pounds.
5. The silo preserves the succulence of the plant ensiled and this has a beneficial effect upon the digestive organs.
6. The silo preserves the palatability of the plant ensiled and the animal will consume more roughage than when fed in any other form, thus resulting in a saving of other feeds.
7. The use of silage lessens the costs and adds finish in fattening cattle.
8. Silage insures a succulent feed for any season of the year.
9. Silage eliminates the bother of corn stalks in handling manure.
10. Manure is more easily preserved and less plant food is lost when crops are fed in the form of silage.

See your county agricultural agent about getting some seed of the Kanred wheat. It is outyielding other strains of Turkey wheat four or five bushels to the acre.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

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CLAIM SALE DATES.

Holsteins.
Sept. 4—E. S. Stoughton, Hutchinson, Kan.

Jersey Cattle.
Oct. 9—B. R. Thompson, Garrison, Kan.

Spotted Poland Chinas.
Oct. 5—W. J. Honeymoon, Madison, Kan.
Oct. 19—C. A. Gooch, Orrick, Missouri.

Poland Chinas.
Aug. 8—Fred B. Caldwell, Howard, Kan.
Aug. 24—Bert Harriman, Pilot Grove, Mo.
Oct. 15—H. B. Walter & Son, Effingham, Kansas.
Oct. 16—Dr. J. H. Lomax, Leona, Kansas.
Oct. 31—F. J. Dowe, Hiawatha, Kan.
Oct. 29—Hill & King, Topeka, Kansas.
Oct. 31—Adams & Mason, Gypsum, Kansas.
Nov. 1—E. B. Myers, Hutchinson, Kansas.
Nov. 6—Earl Bowers, McLouth, Kan.
Nov. 6—M. C. Pollard, Carbondale, Kan.
Nov. 7—Schmitz Bros., Seneca, Kan.
Nov. 8—Ketter Bros., Seneca, Kan.

Duroc Jerseys.
Oct. 19—W. W. Zink, Turon, Kansas.
Oct. 18—Wreath & Givens, Manhattan, Kan.

Spotted Poland Chinas.
Oct. 3—Alfred Carlson, Cleburne, Kan.

Chester Whites.
Oct. 23—J. H. McAnaw, Cameron, Missouri.
Nov. 7—Arthur Mosse, Leavenworth, Kan.

P. W. Enns, of College Hill Holstein Dairy Farm, Newton, Kansas, reports his Holstein herd making a good record. The herds of pure-bred and high-grade Holsteins on that farm are among the best in the state and are classed with the high-producing herds. A feature of their herd at this time is a fine lot of young stock from A. R. O. dams.

T. R. Maurer & Company, of Maurer's Holstein Farm, Emporia, Kansas, report their herd doing well. Their herds of pure-bred and high-grade Holsteins are among the good herds in Kansas and they have furnished foundation stock for many of the good herds in Kansas and other states. A feature of their herd at this time is the fine lot of pure-bred and high-grade cows and heifers.

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The

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BY

EDW. C. JOHNSON

Dean, Division of Extension, Kansas State Agricultural College

AND

PRESTON E. McNALL

Specialist in Farm Management Demonstrations
Kansas State Agricultural College
and the U. S. Department of Agriculture

1918

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For the improvement of the Farm and Home

Volume 56, Number 31. TOPEKA, KANSAS, AUGUST 3, 1918. Established 1863. $1 a Year

Supervising the Nation's Grain Trade

Activities and Plans of the Food Administration's Cereal Division and Grain Corporation

Prepared Especially for KANSAS FARMER by the U. S. Food Administration

FARMERS of our great Central West to whom the sight of golden harvests is a familiar commonplace, realize in a general way that they have won a crop victory on the food firing line this year. But to the populations of the allied nations, the new harvest figures signify much more. They mean a reprieve from famine and, it is confidently hoped, some relief from the narrow food rations which since last winter threatened their national life and even their continuance in the war. With the new harvest in the United States we have apparently reached the pinnacle of grain production, especially of wheat.

Still it is quite conceivable that next season may be less favorable with a consequently smaller yield. In the face of military events that cannot be anticipated with accuracy and with prospects of three or four million men overseas, the U. S. Food Administration has decided to build up grain reserves both in this country and abroad. With such reserves on hand next winter, the U-boat menace will be a less important factor in the food situation.

To still eat "Victory" bread within earshot of a threshing machine whose hum indicates plenty of wheat may seem odd to some readers of KANSAS FARMER. But the music of wheat rattling down the grain-spout has more or less a Lorelei note and is less dependable than statistics showing present stocks of grain and food within shipping distances of the war area. The Food Administration therefore asks for continued adherence to its various requests, and for the information of grain growers it outlines the general plan by which their crops will be handled, distributed and stored without speculation and at least expense.

Recent Changes in Organization

The marketing machinery is similar to that of last year but certain modifications may be noted. The Food Administration Grain Corporation has been expanded to cover all cereals and the name of the organization which will henceforth supervise the grain trade is the Cereal Division of the Food Administration. The Grain Corporation will, as before, be the instrument through which the financial transactions of the Food Administration will be carried out.

The capital stock of the Grain Corporation has also been increased by executive order signed by President Wilson from $50,000,000 to $150,000,000. All of this stock is owned by the United States Government. The enlargement of capital stock made possible the readjustment of wheat prices to compensate for the increase in railroad rates. Julius H. Barnes, who has been head of the Grain Corporation, will be the head of the Cereal Division.

The comprehensive work of this branch of the Food Administration begins with an organized effort to reduce waste of grain in harvesting and threshing and follows the grain through commercial channels including milling, final distribution to retailers and arranging for export.

By Act of Congress the legal authority of the Cereal Division and of the Grain Corporation covers the following points that are of special concern to producers:

To purchase any wheat for which a guaranteed price may be fixed.

To hold, transport, store it or sell it to any citizen of the United States; or any government engaged in war with a country with which the United States is at war.

To use it as supplies for any department or agency of the United States Government.

Under this authority the Food Administration purchased and sold up to the first of May more than 313,000,000 bushels of wheat or its equivalent in flour. For his wheat grown during the harvest of 1917 the American farmer received approximately 40 per cent more than for wheat grown the previous year, and 131 per cent more than his pre-war average. The development of wheat marketing problems has required the most careful thought and knowledge of international conditions—especially when we remember that some 400,000,000 to 500,000,000 bushels of Australian, Argentine and Indian wheat have been hanging over the market.

The organization of the grain trade has been satisfactorily accomplished and a general system of licensing which applies to elevators, mills and wholesale dealers requires each licensee to make regular and complete reports showing his business dealings. From these reports the Food Administration is in a position to know stocks on hand in all parts of the country.

One of the most important duties of the Food Administration is to find a market for every bushel of wheat regardless of class or grade and it offers to sell for any farmers or organization of farmers wheat delivered at terminal points. For this service it makes a commission charge of 1 per cent.

The farmer can protect himself by the study of the primary prices, deducting intermediate charges, or he can ship to the Food Administration Grain Corporation, or he may ship to a commission merchant at a terminal market, and through him secure the benefit of competitive buying.

There is nothing in the "1918 plan" which prevents a buyer at point of origin from placing his own grade upon the wheat which he purchases. If, by the buyer's act, the grade is raised, it is equivalent to an increase in the price. If the buyer lowers the grade, the producer or dealer's protection is to ship to the Food Administration Grain Corporation.

Producers or dealers have the right to bill cars of wheat direct to the Food Administration Grain Corporation at any of the principal markets named below. When the wheat is unloaded in the elevator, and weight and grade returns are made to the Food Administration Grain Corporation, remittance will be made on the basis of weight and grades so reported, and on the basis of the Government price less 1 per cent administration charge for the service.

The Food Administration maintains a traffic bureau for the purpose of assisting shippers of grain and flour in securing their car supply, and also in expediting the movement of shipments to destination. Application for assistance can be made to Food Administration Grain Corporation offices in each primary market.

Producers and dealers, in shipping grain to said primary markets, should advise their commission men to see that their grain is correctly inspected and graded, and that if in his judgment the grain has been improperly graded, an appeal should be taken to the Federal Supervisor.

The producer or dealer should always keep in mind that if he is not satisfied with the prices paid by individual buyers, or with the grading of wheat, his protection lies in his being able to ship to the Food Administration Grain Corporation at the various terminal markets named.

Plan of Milling Control

There are altogether nearly 20,000 country elevator points in the United States and about 7,000 mills distributed throughout the nine milling divisions. The milling year ended on July 1 and certain modifications in control have since been inaugurated. To establish a competitive trade, which is now possible in view of the new crop and is also considered desirable, present arrangements permit millers to buy or sell in any market, but they are under restrictions to reflect the Government prices within the profit limitations upon flour announced in the schedule of "Fair Flour and Feed Prices." These figures do not include bags and are on a cash or draft basis for carload lots at the mill. Wholesale prices in excess of those shown in the table will be considered as including unreasonable profits until more [illegible] prices can be worked out.

In making sales at points other than those named above, the mill can figure the proper relative reasonable price by deducting the regularly used local freight rate between the milling point and any of the above named terminal points on which its freight rates in milling are naturally based. This deduction of freight will give the price, bulk mill, for carload cash or draft sales. When sales are made in small quantities or if the product is in sacks, allowance should be made for necessary handling expenses and cost of sacks. The foregoing schedule has a definite relation to the fixed prices for wheat already announced and which are also given in the table. These are the new wheat prices which compensate for the recent increase in freight rates and are for the grades of No. 1 northern spring, No. 1 hard winter, No. 1 red winter, No. 1 durum, and No. 1 hard white, in store in public elevators approved for storage by the Grain Corporation (seaboard or in store on export terms). These prices went into effect July 1.

The basis for No. 1 wheat will be 3 cents below No. 1, and the basis for No. 3, 7 cents below No. 1. Grades below No. 3 will be dealt in on sample. Other classes of wheat will be bought according to a specified differential.

It is expected that the changes in federal grading standards will throw more wheat into higher grades than last year. The changes in price are worked out as nearly as possible to compensate for increases in railway and sea freights.

The Feed Outlook

The feed situation for the coming winter will depend largely on the final outcome of the wheat growers' grain crops. Last year there was no control of feed until late in December and owing to outstanding contracts, high prices for mill feed prevailed in some localities until late in the spring.

The mill-feed industry is now in a stabilized condition but price is not the only consideration during times like these when demands for railroad transportation makes ability to secure cars a matter of prime importance. Far-seeing farmers may advantageously secure their winter feed supply in September and October when danger of spoilage is over. In the winter months the demand for feed usually exceeds the output of the mills, but by ordering early farmers will avoid the uncertainty of winter deliveries.

In a broad way the United States seems to be in a much stronger position regarding food, feed, and especially of cereal grains, than a year ago. The splendid spirit with which farmers have responded to the food situation has been accompanied by a full measure of support from patriotic consumers and members of the food trade. But we must remember our obligation to build up a safe surplus against the future and as we "carry on" it may be a source of satisfaction to know that the Food Administration has not permitted nor will it permit any speculation in the nation's bread.

FAIR FLOUR AND FEED PRICES—GOVERNMENT SCHEDULE

	Flour, Bbl.	Feed, Ton		Flour, Bbl.	Feed, Ton
Portland	$10.83	$26.88	Pensacola	$10.53	$26.05
Boston	10.83	26.88	Mobile	10.47	25.89
New York	10.77	26.71	New Orleans	10.27	25.33
Philadelphia	10.73	26.59	Galveston	10.35	25.59
Baltimore	10.71	26.53	San Antonio	10.35	25.59
Norfolk	10.71	26.53	El Paso	10.35	25.59
Newport News	10.71	26.53	Brownsville	10.35	25.59
Wilmington, N. C.	10.84	26.84	San Diego	9.95	24.44
Charleston	10.85	26.96	Los Angeles	9.95	24.44
Savannah	10.85	26.96	San Francisco	9.95	24.44
Jacksonville	10.85	26.96	Portland	9.95	24.44
Tampa	10.88	27.03	Seattle	9.95	24.44

These prices are temporary only.

GOVERNMENT WHEAT PRICES—BASIC GRADES

Terminal	Prices	Terminal	Prices	Terminal	Prices
New York	$2.39½	Galveston	$2.28	San Francisco	$2.20
Philadelphia	2.39	Galveston	2.28	Los Angeles	2.20
Baltimore	2.38¾	Duluth	2.22½	Portland	2.20
Newport News	2.38¾	Minneapolis	2.21½	Tacoma	2.20
Chicago	2.26	Kansas City	2.18	Seattle	2.20
New Orleans	2.28	Omaha	2.18	Astoria	2.20

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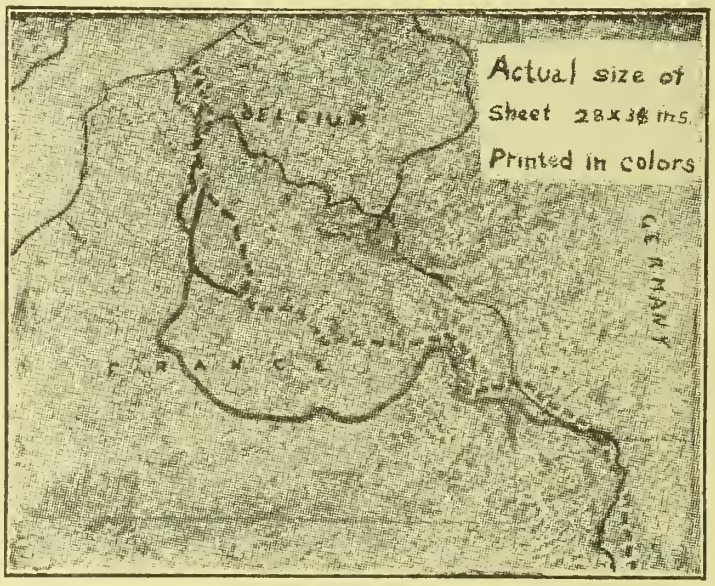

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Watch for special article next week on the lessons of the big National Tractor Demonstration now being held at Salina, Kansas

REGULATIONS OF GRAIN TRADE

In supervising the grain trade of the country, the Government has fixed a base price for wheat which for Kansas City is $2.18 a bushel for No. 1 hard winter. It has also fixed a definite price for mill feeds and a price for flour. Since July 1, the beginning of the milling year, the 1918 and 1919 plan has been in operation. At that date the "fair prices" for flour and feed had been fixed at seaboard points. These prices, which were announced as temporary, are given on page 1 of this issue in a special article prepared for KANSAS FARMER by the Food Administration. Since this article was placed in type more permanent plans have been worked out and flour and feed prices have been fixed for local milling points all over the United States. Up to July 1, 4,800 of these "fair price" schedules had been forwarded to millers, and by this time probably every mill east of the Rocky Mountains has its price schedule for flour and feed.

Last year it will be remembered the plan was to allow millers a profit of 25 cents a barrel above cost, but millers figured their own costs and as a matter of fact they came nearer to making a profit of 45 cents than the 25 cents which they were allowed. The Federal Trade Commission has gone into the costs of manufacturing flour, and their figures show that the actual cost of milling flour last year was from 90 to 97 cents a barrel. The Food Administration has used these figures and makes an allowance of $1.10 a barrel to cover all incidental charges and the profit, this of course being figured on the Government price for wheat. The Government is also requiring that all millers who made more than the 25 cents a barrel profit allowed them last year, return the excess profit in the form of flour for the army without cost. Of course this will eventually get back to the people because it will save that much in taxes for buying army flour.

The new schedule of fair flour-feed prices are as follows for the points in which Kansas growers and consumers are interested: Kansas City—Flour, $9.89 a barrel; bran, $22.26 a ton; mixed feed, $23.51 a ton; and middlings, shorts, and red dog, $24.26 a ton; Wichita—Flour-$9.58; bran, $19.41; mixed feed, $20.66; and middlings, shorts, and red dog, $21.41. These are bulk carlot cash prices at the mill. Competition may at times lower these prices slightly. The cost of the package must be added, which amounts to approximately 65 cents a barrel when flour is shipped in 98-pound and larger sacks. In smaller packages it may run as high as $2.55 a barrel. When sales are made in smaller than carlot quantities the Food Administration allows 50 cents a barrel to cover the additional cost, and on sales by mills to individual customers, $1.20 a barrel. Jobbers are required to sell at not more than 25 to 50 cents over delivered costs to them, and the retailer at not more than $1.20 advance over the price he pays for the flour. Each mill invoice must have printed on it the so-called "fair price," so representatives of the Food Administration or buyers can know whether a mill has overcharged or not.

Under Government regulations the mill must make a barrel of flour from four bushels and twenty-four pounds of wheat, 74 per cent of this going to flour and the other 26 per cent to the bran and other feeds. The bulk mill price for bran is 38 per cent of the wheat price from which it was made; for shorts, $2 a ton more than bran; and for mixed feed, $1.25 a ton more than bran. Feed sacks are today costing from $5.50 to $6 to the ton of feed.

After the Government had fixed basic prices for wheat and figured out a schedule of fair prices for flour and feed, it practically gave millers permission to buy and sell in any market. They could not get above a fixed price for their finished product and could not expect to buy wheat at less than the established price, for the Grain Corporation stood ready to buy all the wheat offered at the Government price. The fluctuations of wheat prices during the past month have been most confusing. Wheat in Kansas City brought 10 to 13 cents above the Government price. Country buyers reflected these prices to some extent, but in the main they played safe and bought as low as they could. The condition which brought this about was the fact that the millers in the hard wheat districts began to mill wheat as soon as the new crop came in, paying the Government price. They began marketing flour in direct competition with northern mills which depend on spring wheat. The northern mills in order to protect their trade bid up on the Kansas and Oklahoma wheat, even though, with the fixed price for the flour and feed, they stood to lose the premium of 10 to 13 cents they were paying. When they got enough wheat and stopped buying, the price dropped, and the Grain Corporation had to buy large quantities of wheat to make good the Government guarantee. Every elevator and country buyer was rushing in wheat. On one day last month 1,051 cars of wheat reached the Kansas City market.

Now that this little flurry is over, the prices can be expected to stick close to the Government guarantee. As will be noted by careful reading of the article on page 1, the grower who thinks the local buyer is taking out too much to cover expenses and profit for handling can ship direct to the Grain Corporation, thus cutting out the elevator man. The Government has promised car service to the individual shipper on a par with the elevator, providing the farmer shows that he is prepared to load promptly.

These new rules are apparently a great improvement over those of last year in that they prevent the millers from making excess profits by placing a fixed price on flour and feed. They have not been in operation long enough for us to form any positive opinions. It will be of interest to know that the plan has been approved by the agricultural advisory committee of twenty-four members appointed to confer with the Food Administration on matters concerning producers. In fact this committee had an active part in helping to work out the details of the plan. Do not fail to read carefully the article on "Supervising the Nation's Grain Trade" in this issue.

NEXT YEAR'S WHEAT CROP

Again our Government is asking for a record acreage of winter wheat in the United States. A goal of not less than forty-five million acres has been set and the Department of Agriculture is suggesting that it would help out the war situation, particularly in the proper feeding of our Allies, if we could have an acreage of forty-seven and a half million planted. The amount actually sown last year was a little less than forty-three million acres, which shrunk at harvesting time to about thirty-seven million acres. The average winter wheat acreage for a ten-year period is about thirty-five and a half million, and the harvested acreage about thirty-two millions. The average loss between seeding and harvest has thus been 10.7 per cent. If the goal of forty-seven and a half million acres is reached we might expect, on the basis of average abandonment, to harvest about forty-two and a half million acres of winter wheat next year.

Uncle Sam pays a high compliment to Kansas in placing our quota for next year at 100 per cent of our 1917 seeding, which is given as 9,497,000 acres. It is recognized that Kansas has done her best in spite of short labor, a dry fall, and other drawbacks. As a matter of fact, Kansas did even better than the above estimate. Mr. Mohler in the State Board of Agriculture figures for July shows that the state acreage of winter wheat was 9,890,420. This is based on assessors' reports from ninety-two of the one hundred five counties.

Kansas can be counted on to do her part again in growing the wheat needed. The Government is asking Iowa to increase 31 per cent over last year's seeding; Nebraska, 17; Missouri, 8, and many other states are asked to make increases in their seeding of winter wheat.

CONTROL OF STOCK YARDS

As announced several weeks ago, the Federal Government is to handle the big live-stock markets of the country. The preliminary draft of the rules under which the licensees operating the yards or handling or dealing in live stock in connection with stock yards, has just been issued. The Government is not planning to take over and operate the yards as it is operating the railroads of the country. It is apparently to be only a regulatory measure. Licenses will be issued to the company operating the yards, also to commission men, order buyers, and traders, or speculators, as they are commonly called. The various licensees are to be required to furnish any information called for by the Chief of the Bureau of Markets regarding their business. General and special reports made on blanks furnished by the Bureau will be required. Representatives of the Department of Agriculture designated for the purpose are to have free access during business hours to the place of business of every licensee. The records kept must be of such a nature as to disclose the transactions and enable the Government to verify the information given. These preliminary rules prescribe general restrictions as to the manner in which stock shall be handled, fed, watered, and weighed. No unjust or exorbitant charges shall be made. Feed must be of good quality and accounted for and sold by actual weight and by grade if possible.

The Government control began July 25 and all commission men, traders, or speculators, and packer buyers, began operating under license on that date. Supervisors are placed at the different big markets and there are also regional supervisors who will have jurisdiction over groups of smaller markets or yards.

Samuel Ray, of the Bureau of Markets, is acting as supervisor of the Kansas City Stock Yards. He has made a few suggestions as to changes that would be beneficial to the live stock industry and these are being worked out as rapidly as possible. Railroads have been requested to start their short haul stock trains earlier in the afternoon so as to get the stock into the hands of the Kansas City Terminal Railway Company as soon after midnight as possible. Railroads have been requested to cut out all unnecessary delays en route in handling live stock trains, such as stopping at way stations to do switching and handling of dead freight. Long haul stock trains have been greatly delayed in transit. This has been most aggravating to shippers. The Government, through its control of the railroads, can stop this delaying of live stock, and one of the functions of the Bureau of Markets in its stock yards control will undoubtedly be to make complaints of such abuses.

FINANCIAL AID TO FARMERS

It was announced last week that the War Finance Corporation would extend financial aid to farmers in various sections of the United States. The plan apparently is to advance funds through banks in the Dallas, Kansas City, and Minneapolis federal reserve districts to farmers whose production has been seriously cut by adverse weather conditions. It is stated that the corporation will not only lend through the reserve banks, but will also finance loans through state and private banks that are not members of the system.

It has been hoped that this action of the War Finance Corporation would help to solve the seed wheat problem in our Western Kansas counties where farmers have exhausted their credit and cannot plant maximum acreages this fall without some sort of financial assistance. Up to our date of going to press we have been unable to get the details of the plan, and it is not yet apparent whether it will meet the seed wheat situation in these western counties of Kansas or not.

PREPAREDNESS — Corncrib bursting. Smokehouse full of meat. Pantry stored with canned and dried fruits. Cellar stocked with vegetables, syrup and vinegar. Woodpile stacked high. Every American on the job.

Must Accumulate Reserve Supply of Wheat

OUR reserve supply or carry-over of wheat this year is practically exhausted and is the smallest on record. The need of an emergency supply is evident. For the year ending June, 1918, we exported wheat and flour to the amount of over 100 million bushels. In 1917 our exports were over 178 million bushels; in 1916, 236 million, and in 1915, 331 million bushels. The enormous exports of 1915 and 1916 were possible because of the large crops of 1912, '13, '14 and '15, which gave us large accumulated stocks. We have now reached the bottom of the bin and even with our big crop of this year we must conserve the supply and plan for another record crop.

The following significant statements appear in the special article on page 1:

"It is quite conceivable that next season may be less favorable with a consequently smaller yield. In the face of military events that cannot be anticipated with accuracy and with prospects of three or four million men overseas, the U. S. Food Administration has decided to build up grain reserves both in this country and abroad. With such reserves on hand next winter, the U-boat menace will be a less important factor in the food situation. * * * * *

"The splendid spirit with which farmers have responded to the food situation has been accompanied by a full measure of support from patriotic consumers and members of the food trade. But we must remember our obligation to build up a safe surplus against the future and as we 'carry on' it may be a source of satisfaction to know that the Food Administration has not permitted nor will it permit any speculation in the nation's bread."

BABY BEEF ON A MISSOURI FARM

Calves Must Be Above Average in Beef Type and Early Maturity

MARKETING of beef animals at an earlier age is a tendency of the times noted all through the section where cattle are finished for market. Making baby beef involves real beef production from the ground up. The experience and methods of W. C. White, of Carroll County, Missouri, will be of value and interest to beef men generally. Mr. White's load of Angus yearlings exhibited at the 1916 International Live Stock Show in Chicago averaged 1,105 pounds in weight and sold for $20 a hundred.

His beef-making methods, as reported by Roy A. Kinnaird, are taken from a Missouri State Board of Agriculture pamphlet on "Growing and Feeding Meat Animals."

In talking with Mr. White about his methods of cattle feeding and about the production of baby beef in general, the first thing which he emphasized was the necessity of having calves which possessed the beef type for baby beef production.

Since the calves are to obtain a finished or ripened condition by the age of eighteen or twenty months, it is necessary to have feeders which possess early-maturing qualities and above the average in beef type. It is difficult for the feeder to judge accurately the early-maturing qualities of individuals when they are calves. The more milk fat which the calf carries, the less it shows any lack of quality or breed.

Almost any kind of a calf looks pretty good when it carries a considerable amount of milk fat, but not every calf will attain a ripened or finished condition by the age of eighteen months and be suitable for baby beef. For these reasons Mr. White raises his own calves for the production of baby beef. He keeps a herd of about fifty pure-bred and high-grade Angus cows.

In building up the herd he has always selected and kept the cows showing the beef type in the highest degree, that is those of blocky and compact conformation. Even more important than the individual cows, in his estimation, is the bull. He considers the bull one-half the herd—and is therefore very careful to have a bull of excellent beef type. He insists on a compact, blocky, low-down individual. It is from this sort of a herd that the calves which he fattens for baby beef are produced.

The cows are wintered on hay and other roughage—usually timothy and clover hay mixed—and no grain has ever been fed to the cows during winter time. The calves are dropped in March, April, and May, and run with the cows on bluegrass pasture all summer until late in the fall. Since he has his feed lot full of yearlings being prepared for the International, he has no place to put the calves and they are usually not weaned until the yearlings are shipped to the International. He thinks, however, that it would be better to wean the calves during October and November.

Another point to consider in baby beef production, and which Mr. White emphasizes especially, is the necessity of never allowing a calf to lose its milk fat, so he gets the calves on full feed just as soon as possible after weaning. In weaning the calves they are put into a small lot where they have access to a little grain and hay, so that they learn to eat as soon as possible. They are restless for a day or two, but have never shown any appreciable shrinkage at this time. After the calves begin to eat hay and grain the amount of feed is increased until they are on full feed at the end of three weeks to a month, and they are kept on full feed until they are disposed of, which in the case of his show cattle is a year later.

The calves have been fed clover and timothy hay for roughage. Mr. White prefers as large a proportion of clover as possible, or even better, straight clover or alfalfa. However, straight timothy has been used at times. The grain ration consists mainly of shelled corn balanced with linseed meal, molasses feed, oats, or bran. He has tried ground corn and corncob meal but does not like these feeds as well as shelled corn, and he believes that with a sufficient number of hogs to follow the cattle, best results can be obtained from shelled corn. Sometimes only one of the feeds which have been used to supplement the corn have been used, but sometimes a little of two or three of these feeds is included. By having a variety of these feeds Mr. White believes that the calves hold their appetites better and will continue on full feed making gains more steadily than if a ration were fed where there is danger of some of them going off feed.

Of all the feeds which have been used to supplement corn, he considers bran one of the very best. He says that his calves will eat bran longer without getting tired of it than they will any other supplements. Some years when wheat was very cheap ground wheat has also been fed. When spring comes these yearlings have an abundance of bluegrass pasture, but the grain ration is not reduced. They are kept on full feed right up until they are disposed of and while they are on pasture a little hay is always kept where they can take it if they want it. Even on good pasture they will continue to eat a little hay.

Since the heifers mature a little earlier than the steers, they are often disposed of when they are yearlings and weigh around 700 pounds. The show cattle, however, are kept on full feed on up until December. Mr. White says, however, that if he were producing baby beef for the general market, he would market them all by July or August.

Mr. White is a very strong believer in the advisability of fattening the calves as soon as possible rather than wintering them over for older feeders and fattening them out at an older age. It is his aim never to lose the milk fat which the calf has when it is weaned. If this is lost it has to be replaced, of course, which will add to the expense of the finished beef.

One very good reason for fattening the beeves when they are calves is that they will make gains on much less feed when they are calves than when they are older feeders. During the six months' feeding period beginning with the first of November, the calves will make just as good gains as the yearlings past, and do it on approximately one-half the feed.

In other words, he thinks it will cost about twice as much to put a pound of gain on feeders during the second winter as it will to put the same on calves during the first winter. Another reason for feeding them out as baby beef is that if the calves are held over they will require a considerable amount of the roughage which is produced on the farm and this will make it necessary for him to keep fewer cows.



MATCHLESS DALE, HEAD OF AGRICULTURAL COLLEGE SHORTHORN HERD, AND TWO OF HIS GET.—THIS SIRE IS STAMPING HIS CHARACTER ON THE COLLEGE HERD

Diversified Farming Safe Farming

IN THE western third of Kansas it is not safe to depend exclusively on wheat or any other single crop. Conditions at the present time in this section demonstrate the truth of this statement. F. A. Kiene, of the Hays Experiment Station, spent July 16 and 17 in Gove County, passing through Trego, and on his return made the following report:

"Showers during the week of July 9 to 15 have put row crops in good condition. Where the fields are clean, corn, kafir, milo, and forage sorghum are from one to three and one-half feet high and show a green, healthy color. Many acres of the row crops are in a weedy condition, have thin stands, and give relatively less promise of a crop. Grasshoppers are very numerous, and small isolated fields of corn have been entirely destroyed. Many of the larger fields show considerable damage. A general rain on July 16 and 17 over the whole county will assure rapid growth of the row crops and a safe condition as far as moisture is concerned for the succeeding three weeks.

"The 1918 crop of wheat is practically a failure. No wheat will be shipped from the county. Not enough seed wheat will be raised in the county to seed 10 per cent of the 1918 acreage. The banks of the county are loaded with farm paper on which the bankers assert they are forced to collect this fall. As a result, many responsible men will be closed out. The local banks cannot back seed wheat distribution in the fall of 1918. As a result of this uncertain condition thousands of acres of wheat land are lying untouched by the plow. This land is covered by a mat of weeds which will rapidly dissipate the moisture of these present rains and make the seeding of wheat this fall as hazardous as in the past.

"Unless relief comes quickly in the form of assurance that wheat will be available for seeding on early and well-prepared land, the Government stands to lose the productive power of at least 60 per cent of the county. Responsible parties assert that not more than 40 per cent of the 1918 wheat acreage will be seeded for 1919.

"The distribution of seed wheat, under any system or scheme, for indiscriminate seeding in Gove County, would in my opinion be sending good money after bad. Wheat should not be seeded on land that has produced a crop of corn or sorghum or on land from which the late summer rains have been dissipated by a growth of weeds. Wheat should be seeded in this county on early well-prepared land or on clean corn land where the crop has been destroyed by grasshoppers.

"Two produce buyers assert that the total cream and poultry produce checks to patrons for the month of June amounted to $14,000 at the town of Quinter. This does not include local butchering or the shipment of live stock.

"Three years ago a certain citizen of the county was called to his bank and told that unless he changed his system of farming immediately he must seek backing elsewhere. This year he has eighty head of cows and their produce about him. He seeded 1,400 acres of wheat last fall with little or no return, but he can get the backing at this same bank for a similar effort in behalf of the Government in 1919.

"Diversified farming and careful seedbed preparation for wheat should be encouraged."

These last paragraphs in Mr. Kiene's report suggest the way out. The silo-building campaign is in line with the program for safe farming in Western Kansas. We need all the wheat that can be grown, but following wheat farming exclusively if not safe in the section in which Gove County is located. The conditions as reported by Mr. Kiene are the logical consequences of such a system of farming.

Keeping Books and Income Tax

P. L., Cowley County, asks if the Internal Revenue Department is compelling farmers to keep books.

That requirement is not as yet being made. The information required, however, in preparing income tax statements almost necessitates the keeping of books. Many farmers who made income tax returns the past year guessed at their receipts and expenses and usually disregarded inventories in figuring income. The Government may make some definite requirements later. A ruling has already been made by the United States Treasury Department providing as follows: "Farmers who keep books according to some approved method which clearly shows the net income and take annual inventories may, if the same method is consistently followed from year to year, prepare their returns in accordance with the showing made by the books and inventories.

The farm account book prepared by the extension division of our Agricultural College and offered by KANSAS FARMER as a renewal premium provides for keeping the accounts in the form required by the income tax statements, and the farmers using it can take advantage of this ruling. While the Government is not as yet requiring farmers to keep books, it is our belief that some form of accounts is almost necessary. The book referred to has been prepared to meet the requirements of the Government and at the same time furnish accurate information regarding the farm business.

Everbearing Strawberries

J. C., Jefferson County, asks about caring for some everbearing strawberries through the summer season.

It is important that everbearing strawberries be given thorough cultivation throughout the summer to retain soil moisture. They should be hoed between the rows to keep down all weeds and to maintain a soil mulch throughout the growing season. After every rain the surface of the ground should be stirred to break the crust around the plants.

If the summer is very hot and dry it is a good plan to apply between the rows a mulch of old, finely rotted straw, decomposing leaves, or other available material, avoiding, however, material containing weed seeds. This mulch keeps the ground cooler, helps to retain moisture, induces fruitfulness, and keeps the berries clean. A mulch should not be applied, however, until the weeds in the rows have all been killed. If clean cultivation between the rows has been kept up during the spring and early summer, most of the weed seeds will have sprouted and the weeds will have been killed before the mulch has been applied.

In the fall the everbearing strawberries should be mulched with straw, prairie hay, or other loose material as ordinary strawberries.

The cost of producing the 1918 wheat crop in Missouri will be about $19.72 an acre. The land cost, which includes 6 per cent interest on $85 land, taxes, and upkeep, will average about $5.63 an acre. The cost of putting in the wheat in the fall of 1917 as determined by records is estimated at $6.66 an acre. The cost of cutting and threshing the wheat is placed at $7.43 an acre. These figures are from the farm management department of the Missouri College of Agriculture.

"America is God's last chance to save the world."—Emerson.

AGRICULTURE IN HIGH SCHOOLS

Bring Farming Principles Within Reach of Every Boy and Girl

RAISING four acres of sweet potatoes is no small job for a high school boy, and when the sweet potatoes have to be irrigated it means a still bigger job. This is the job, however, that Harley Kelly, of Garden City, has undertaken. Harley is a member of the class in vocational agriculture and his project for this year is five acres of irrigated land, four acres of which he planted to sweet potatoes, one-half acre of tomatoes, and the other half acre is in alfalfa.

Harley's father advanced the money to pay for the rent of the land and the power for pumping the water. As a part of the high school work this spring, Harley studied the growing of sweet potatoes, and drew up a plan for growing his crop. First, he built the hotbeds and grew the plants, then prepared the ground for planting the sweet potatoes, and engaged the help of two other boys to set out the plants. He has one of the best prospects for growing a big crop ever seen in the Garden City vicinity.

Paul Horst, a classmate of Harley's, who lives thirteen miles out in the country, is growing nine acres of milo as his project. Both these boys, together with nine others, are members of the class in vocational agriculture which was organized at Garden City last year. Five other high schools—Webster, Arkansas City, Fort Scott, Tonganoxie, and the Dickinson County high school—have classes in vocational agriculture. In these six schools sixty-six boys are doing work such as Harley Kelly and Paul Horst are doing. This is the first time in the history of the state that boys doing high school work in agriculture have been required to put the theory which they get during the winter into practice during the summer.

The summer project work is looked upon as a part of the regular school work. It is supervised by the teacher of agriculture, who visits the boys frequently, giving them advice and direction as well as checking up on the work which they are doing.

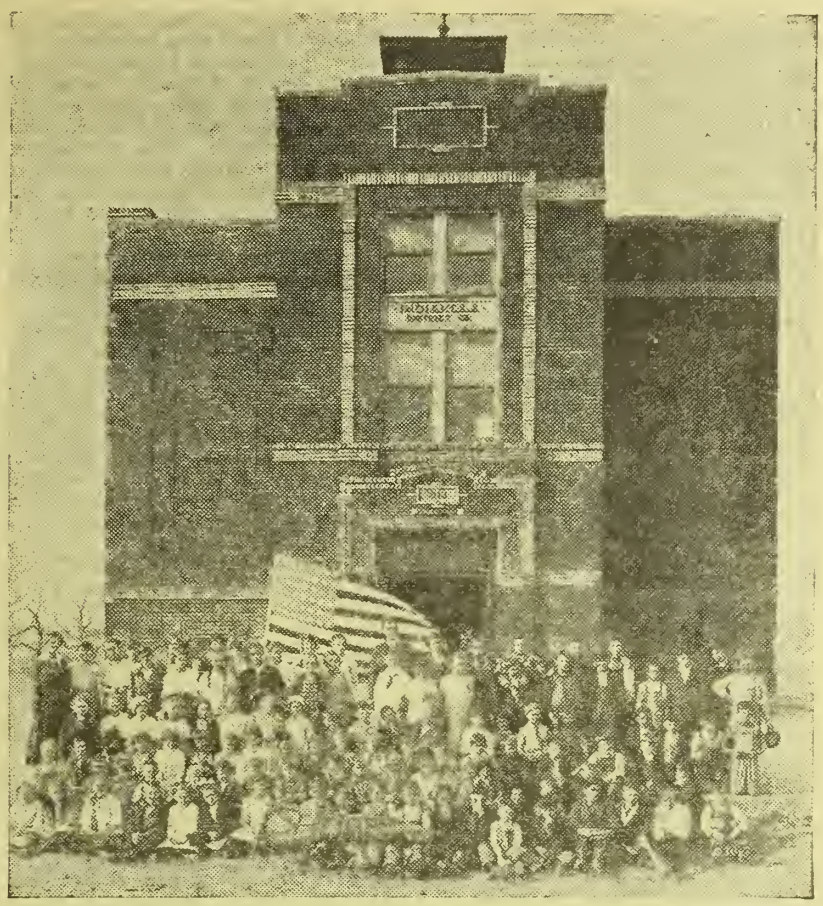
Federal Aid for Rural School

This work is a part of the new program for training farm boys to do farm work. The work was started when the Federal Government gave Kansas over $12,000 which might be used to help pay the salaries of teachers of agriculture who should be employed for vocational agriculture. The state matched that fund, and during the last year the work in vocational education has been organized and six schools have started such courses. The course in vocational agriculture requires that the student spend one-half his time in high school studying vocational agriculture and related shop work. During the summer the student must conduct a productive project. Mind, the work must be productive, not experimental or demonstration work. The income from the project must belong to the boy. Of course he may be required to pay rent to his father for the land and to pay for the seed and any other expenses out of the crop, but the net gain is his. The boy keeps records and accounts so that he learns business methods as well as farming operations. He makes his plan for growing a crop during the year and then during the summer carries out that plan.

The State Board of Education is now preparing new plans for the work as it is to be conducted during the coming year. It is expected that at least a dozen schools will be doing work of this kind next year. Each of the schools will receive aid from both the Federal Government and the State in order that the work may be put on an efficient basis at once.

Another Step in Advance

"The organization of these courses represents the last step in a scheme of education for rural children which we have been endeavoring to develop for the past six years," said Superintendent W. D. Ross. "In the first place we attempted to improve the rural schools by standardizing schools which met the requirements of the state board. The result of the standardization movement was to arouse interest in the rural school and to educate people as to the requirements for a really efficient school. More than five hundred schools have been standardized. This means a wonderful improvement in the elementary school work. The next step was to secure legislation permitting the establishment of rural high schools. That legislation was secured and improved until now rural high schools are springing up all over the state and it will be but a short time until nearly all country boys and girls can attend a high school while living at home. The one thing lacking was a course of study in these high schools which would give the country boy and girl the kind of training which they needed to make them the most efficient possible farmers and farmers' wives. The course in agriculture described above and a course in home economics which may be organized on the same basis will do this for boys and girls who live in the country and expect to remain there. This is only fair to these boys and girls. We have been spending a great deal of money getting their brothers and sisters ready to teach or to go to college. Justice demands that we give them the same chance to prepare themselves to make better farmers and housewives."



SCHOOLS LIKE THE ONE HERE SHOWN SHOULD TAKE ADVANTAGE OF FEDERAL AND STATE AID FOR VOCATIONAL TRAINING

It is the hope of the state department that many of the rural high schools will put these courses in vocational agriculture and home economics in their schools and that before long a majority of the boys and girls who take over the farms in their community will have had four years of intensive training in vocational agriculture before they begin the real problem of farm management.

Standardization of rural schools aroused interest and caused people to strive for greater efficiency. More than 500 Kansas rural schools have been standardized.

Legislation permitting the organization of rural high school districts has resulted in establishment of rural high schools all over the state.

The last step is the obtaining of federal and state aid for providing practical instruction in agriculture and home economics for farm boys and girls.

Silos on Large Stock Farm

THE value of silage in handling live stock on a large scale has been amply demonstrated by John Cottrell, of Irving, Kansas. Mr. Cottrell was recently asked by R. W. Kiser, of the extension division of the Agricultural College, to express his opinion of silage. He replied as follows:

"I have had four years' experience with silos. The first year I had one silo of almost 400 tons capacity, the second year two holding about 675 tons, and the last two years four silos of about 1250 tons capacity. I have never let a silo stand a year without filling, and expect to fill all my silos again this year. I do not think that corn is ever too good in quality or yield to put into a silo, but of course think the percentage of profit is larger on poorly eared corn.

"I consider the silo a first-class business proposition from the financial standpoint and think it would be a gilt-edged investment on the majority of Kansas farms. Of course there are many farms affected by conditions that present serious difficulties to the extensive use of the silo. Among these are places where it is hard to get sufficient labor at filling time, the localities where it is difficult to get sufficient quantities of good water for stock, for silage must be fed on the farm where produced.

"In this locality I find corn to be the best crop for silage on rich bottom land, but do not consider this statement to hold good in all parts of Kansas on all kinds of land. I think silos will prove good investments on a majority of Kansas farms up to a capacity approximating one-third to one-half the amount of forage crops grown on such farms, and feel sure the building of silos in Kansas will be greatly increased in the near future.

"An objection often raised is that taking the whole crop off the land will rapidly injure its fertility. I will answer this by saying the person who has had no experience with silos has little conception of how much real feeding value is contained in the stalks that are left scattered over our fields in winter or the wastage in other forage crops poorly harvested and cared for. The saving of this great waste has become highly important since all feeds have doubled in value very recently, and the whole world is calling for more food. We can no longer afford to leave this forage on our fields for fertilizing purposes only. Two dollar wheat would probably make good fertilizer if scattered over the fields, but such practice would shock us all because of our knowledge that it is too valuable for such purpose. I think we have reached the time when our forage is too valuable for fertilizer alone.

"I do not mean by the foregoing statements to slight in any way the importance of keeping up the fertility of our land, but there are better ways of doing this than by wasting valuable feed. I believe the farms which carry the largest proportion of live stock carefully handled, having the fertilizer produced by this stock saved and properly used, and the rotation of crops judiciously practiced, are in the least danger of any of our farms of deterioration in fertility. Nothing will permit so great an increase in the amount of live stock on a farm and consequent increased production of fertilizer as the use of silos.

"It is not difficult to put up silage so it will keep. I have never lost any. All that is necessary is just ordinary good judgment. When the silos are full of properly prepared feed they become the safest property on the farm. If made properly of concrete, brick, or tile, they and their contents cannot be destroyed by fire, are practically proof against all storms and weather, and will keep with almost no loss an indefinite length of time.

"As silage is especially suited to feeding cattle and sheep, it necessarily follows that the silo means greater production of beef and mutton. I believe the production of these food products is a stable and safe business and the prospect for a prosperous future in this line was never better than now."

How Much Paint

To determine the quantity of paint required to cover a given area, measure the length and width of the building and obtain the perimeter or number of feet around the building. Multiply this by the average height and the product will be the number of square feet to be painted.

A good paint should cover three hundred square feet of surface, two coats, per gallon of paint. Divide the number of square feet to be painted by 300 and the result will be the number of gallons that will be necessary to cover the ordinary surface. A very porous, rough or scaly surface will naturally take up more paint. If three-coat work is desired, half again as much paint will be needed.

Any paint must be well brushed out and a lazy workman will spoil an otherwise perfect job by neglecting to spread the paint properly.

Don't overlook the necessity of shellacing all knots, sappy or pitchy spots, before applying the first coat.

Don't paint a damp or green surface, as no paint will adhere properly under such circumstances.

Don't forget that yellow pine is very hard to paint and must be well seasoned if success would attend your efforts.

Don't use ochres of any description for priming. Use the same paint that is to be used for finishing coats, thinning it, however, according to the directions accompanying each can.

Don't try to paint over a surface which has scaled or blistered without wire-brushing or burning off the old paint.

Don't forget that the better the paint, the better the job, and the more satisfaction and service will be produced. That's what you are looking for.

Sheep are dual-purpose animals. They produce both wool and mutton—products in strong demand. British breeds have demonstrated the possibilities of getting wool and mutton from the same animal. Future farm flocks will be developed on the dual-purpose basis.

Good crops are brave promises to the Allies.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

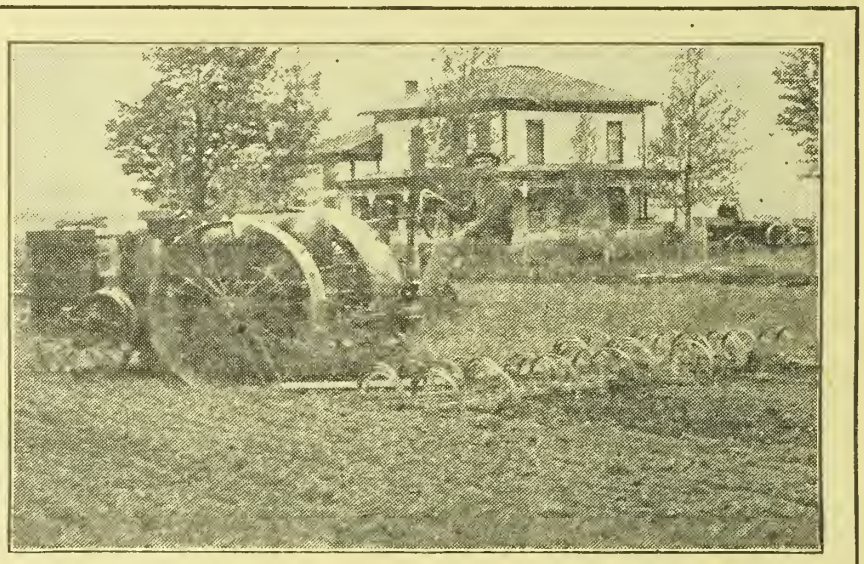
ROBERT H. HAZLETT, of Eldorado, the well known breeder of Hereford cattle, writes as follows of his experience in using silage: "My experience with silage has been entirely with the sorghums. I have used silos for a number of years and, while I have never made any scientific tests to determine anything about the feeding value of the silage, I know we have been very much pleased with the results from its use—so much so that I would not think of running a stock farm in any portion of the country where the sorghums do well, without silos."

Wheat Price for 1919 Crop

A. W. J., an Illinois reader of KANSAS FARMER, asks if the President has authority under the present laws to fix the price on the 1919 crop of wheat and if the minimum price for next year's crop will be $2 a bushel.

The Food Control Bill passed by Congress August 10, 1917, entitled "An act to provide further for the national security and defense by encouraging the production, conserving the supply, and controlling the distribution of food products and fuel," is the President's authority for fixing wheat prices. Section 14 of this act contains the provision for the guaranteed price. This section is as follows: "That whenever the President shall find that an emergency exists requiring stimulation of the production of wheat and that it is essential that the producers of wheat produced within the United States shall have the benefits of the guaranty provided for in this section, he is authorized, from time to time, seasonably and as far in advance of seeding time as practicable, to determine and fix and to give public notice of what, under specified conditions, is a reasonable guaranteed price for wheat, in order to assure such producers a reasonable profit. The President shall thereupon fix such guaranteed price for each of the official grain standards for wheat as established under the United States Grain Standards Act, approved August 11, 1916. The President shall from time to time establish and promulgate such regulations as he shall deem wise in connection with such guaranteed prices, and in particular governing conditions of delivery and payment, and differences in price for the several standard grades in the principal primary markets of the United States, adopting No. 1 northern spring or its equivalent at the principal interior primary markets as the basis. Thereupon the Government of the United States hereby guarantees every producer of wheat produced within the United States that, upon compliance by him with the regulations prescribed, he shall receive for any wheat produced in reliance upon this guarantee within the period, not exceeding eighteen months, prescribed in the notice, a price not less than the guaranteed price therefor as fixed pursuant to this section. In such regulations the President shall prescribe the terms and conditions upon which any such producer shall be entitled to the benefits of such guaranty. The guaranteed prices for the several standard grades of wheat for the crop of 1918 shall be based upon No. 1 northern spring or its equivalent at not less than $2 per bushel at the principal interior primary markets. This guarantee shall not be dependent upon the action of the President under the first part of this section, but is hereby made absolute and shall be binding until May 1, 1919. When the President finds that the importation into the United States of any wheat produced outside of the United States materially enhances or is likely materially to enhance the liabilities of the United States under guarantees of prices therefor made pursuant to this section, and ascertains what rate of duty added to the then existing rate of duty on wheat and to the value of wheat at the time of importation, would be sufficient to bring the price thereof at which imported up to the price fixed therefor pursuant to the foregoing provisions of this section, he shall proclaim such facts, and thereafter there shall be levied, collected, and paid upon wheat when imported, in addition to the then existing rate of duty, the rate of duty so ascertained; but in no case shall any such rate of duty be fixed at an amount which shall effect a reduction of the rate of duty upon wheat under any then existing tariff law of the United States. For the purpose of making any guaranteed price effective under this section, or whenever he deems it essential in order to protect the government of the United States against material enhancement of its liabilities arising out of any guaranty under this section, the President is authorized also, in his discretion, to purchase any wheat for which a guaranteed price shall be fixed under this section, and to hold, transport, or store it, or to sell, dispose of, and deliver the same to any citizen of the United States or to any government engaged in war with any country with which the government of the United States is or may be at war or to use the same as supplies for any department or agency of the Government of the United States. Any moneys received by the United States from or in connection with the sale or disposal of wheat under this section may, in the discretion of the President, be used as a revolving fund for further carrying out the purposes of this section. Any balance of such moneys not used as part of such revolving fund shall be covered into the Treasury as miscellaneous receipts."

It will be noted that Congress specifically fixed a guaranteed minimum price on the 1918 crop. The President by the authority given in this bill fixed the 1917 price, appointing a wheat-price-fixing commission to advise him. The result was the fixing of a $2.20 price for the basic grade at Chicago. This year, as we announced on page 3 of our July 13 issue, the Chicago price for the basic grade is $2.26 a bushel. This has been established by the President and is twenty-six cents above the minimum set by Congress in the section of the act quoted above. There is no established or announced guarantee for the 1919 crop. The food control act made the specific $2 a bushel minimum guarantee apply only to the 1918 crop, expiring May 1, 1919. The matter of a guarantee for next year's crop is in the President's hands by the provision of the food control act quoted above.



SAVING THE MOISTURE BY BREAKING THE CRUST AND KILLING WEEDS.—MUST BE DONE RAPIDLY WHEN LARGE ACREAGES ARE HANDLED

Summer Pruning

The fact that the main part of the pruning in apple orchards should be done in winter does not remove the necessity for additional pruning in summer. All dead limbs should be pruned out of the trees whenever they occur during the summer. If the dead limb is not removed promptly, its decayed tissues may be attacked by apple canker and other fungi which are likely to grow down into the tree and ruin it. Dead and dying limbs are also harboring places for many noxious insects, such as borers, pinhole bark beetles.

Apple canker is caused by a fungus which develops in the growing layer and it should be cleaned out and the wound disinfected. This canker causes the shrinkage and blistering of the bark on limbs or the main trunk of the tree. A limb dying of canker should be removed. If only a small area is infected, the diseased part should be scraped out clean up to a rim of healthy wood and the wound painted with common white lead and oil paint, and disinfected with corrosive sublimate. This solution may be made by dissolving a teaspoonful of corrosive sublimate in about one ounce of turpentine and stirred into a quart of paint.

Crossing Jersey and Holstein

A reader asks about crossing a high grade Holstein cow with a Jersey. Our advice would be, don't do it. Such a cross is too violent. Of course the theory is that the high test of the Jersey will be combined with the heavy milk flow of the Holstein in the progeny resulting from such a cross. Nature does not work that way. A lot of other complications arise in crossing two breeds having such widely differing characteristics as Jerseys and Holsteins.

Producers of market animals, such as beef cattle, hogs, and sheep, sometimes find making crosses between breeds gives good results, but the animals so produced go to market and are not used for breeding purposes. The dairyman had better decide on what he wants in a dairy animal and then follow that line of breeding. This means picking out your breed and sticking to it.

Thinning Apple Tree Tops

If proper pruning has been neglected, the branches of apple trees may be so dense that the sun cannot get in to ripen the fruit crop properly or to mature fruit buds for the coming year. Such trees should be thinned out by judicious summer pruning. It is not wise to begin at the bottom to prune and cut off large lower limbs. Begin at the top of the tree to prune, and thin out upright central limbs to let in a filtered sunlight to the parts beneath.

If the main lower limbs are bare of fruiting wood near the body of the tree, it is because they are too much shaded from above. Thinning out the small limbs above will let in light so fruit spurs and fruit buds will develop to make fruit buds for a full crop of apples down in the body of the tree the next year.

All wounds should be painted as soon as the pruning is done.

Binder Twine for 1919

Binder twine for the harvest of 1919 will cost about three cents a pound less than this year. This will make an estimated total saving to grain growers of the United States of $6,000,000. This price announcement of the United States Food Administration follows an arrangement it has made with the Comision Reguladora, the Yucatan monopoly controlling sisal, whereby the Comision has contracted to sell 500,000 bales of sisal to twine mills of this country at a price three cents a pound less than a year ago.

That quantity of sisal represents the principal supply of fiber needed to manufacture binder twine for the grain harvest of 1919. To maintain an economical operation of twine mills in the United States, sisal is contracted for about a year ahead and is manufactured into the finished twine throughout the year. By the new arrangements, the cost of sisal will be approximately 16 cents wholesale at gulf ports compared with 19 cents a pound for the sisal used in making the twine for the present harvest.

Since its early investigations of binder twine, which is a vital element in our grain harvest, the Food Administration has maintained that the Comision Reguladora of Yucatan must sell its sisal at more reasonable prices if it expects to retain this country as a large customer. Sisal growers have complained, however, of the high cost of food and supplies which they secure from the United States. With the hope of establishing a better understanding between Mexican and American producers, the Food Administration proposes an exchange of agricultural commissions. A commission of Mexican farmers has been invited to visit the United States and study the production and distribution of articles they secure from this country.

In case the proposal is accepted, the Food Administration plans to have a committee of American farmers visit Yucatan to study methods and costs of sisal production. Such an interchange of study is expected to prepare the way for mutually satisfactory conditions in future sisal arrangements.

Value of Blue Sky Law

In a recent issue of the Glen Elder Sentinel the editor questions the value of our Blue Sky law. We are not familiar with all the facts in the case to which he refers, but he raises some interesting questions in connection with the marketing to farmers of approximately two million dollars' worth of worthless stock. He says:

"There are a few things the farmers who have been defrauded by Felix Broeker and his confederates would like to know:

"The first is, is the Blue Sky law of any value? If so, why was the banking department and attorney general's office unable under it to prevent Broeker from selling the farmers approximately two million dollars of worthless Oklo-Queen Oil Company, the National Banding and Casualty Company, and the Globe Life Insurance Company, all of Salina, Kansas?

"Second, why should it be possible for the banking department to gobble up all the assets of Broeker which were paid for and contributed by the farmers, for the benefit and use of the Traders' State Bank, a Salina institution, whose principal officers were associated with Broeker in his fraudulent enterprises? The bank and its depositors are protected by the Bank Guaranty law; wry does not the Blue Sky law protect the farmers?

"Third, are the insurance laws of any more value than the Blue Sky law? If so, why was the insurance department of the state unable to discover the fraudulent shortages of Broeker until the farmers had invested and practically lost more than a million dollars?

"Fourth, is there lack of law or a lack of law enforcement?

"Fifth, will Broeker be prosecuted or be honorably discharged and given an iron cross for heroism in action?"

Big Wheat Yield

Rotation of crops as a factor in increasing wheat yields is the lesson of a big-yield story reported in the Quenemo News. The owner of the farm, which is near Lyndon in Osage County, got $575 as his rent for the wheat grown on a twelve-acre field which threshed out 602 bushels of wheat selling for $2.10 a bushel.

This is a yield of over fifty bushels to the acre. The field had been in alfalfa, alsike clover, and for two years had been pastured. In all twenty-seven acres of wheat was threshed which yielded 1,100 bushels and sold for $2,300.

RECORD WHEAT CROP

THE hundred million bushel wheat yield in Kansas is practically assured. Both acreages and yields are in excess of the estimates of a month ago. In the State Board of Agriculture report issued July 24, based on the situation as reported July 18, it is stated that, should present indications as evidenced by threshing returns to date be borne out with the remaining 78 per cent of the crop yet to be threshed, the winter wheat yield this year will aggregate approximately 102 million bushels. The average yield reported for the state, 15.1 bushels per acre, is greater than the prospective acre yield of 14.66 bushels reported a month ago. As it is understood that wheat on "bottom" lands, subject to overflow, was threshed first, this fact should be borne in mind as having a bearing on the final report, after threshing has been completed. Acre yields are reported as turning out higher than pre-harvest estimates in most of the counties comprising that region lying east and south of an imaginary line drawn diagonally across the state from northeast to southwest, beginning at the northwestern corner of Washington county and extending to the southwest corner of Comanche County. This region comprises about one-half of the state's land area and embraces 58.5 per cent of the total winter wheat area harvested. Complete assessors' returns from ninety-two of the state's 105 counties reveal further increases in the area sown to winter wheat last fall, the total for the state as shown by this report amounting to 9,890,420 acres, or exceeding by 303,000 acres the area sown the year before, which was previously the greatest. Naturally, therefore, the area harvested is increased—from 6,654,686 as reported in June to 6,752,268 acres.

East and south of the diagonal line the wheat is grading good, testing as high as sixty-one pounds average to the bushel in some counties. To the west and north of the diagonal line there is much excellent wheat, but the grade is by no means so uniformly good.

Threshing is general much earlier than usual, and every effort is being made to relieve the wheat shortage by promptly marketing the grain. Reports suggest that 22 per cent of the crop is already threshed, and correspondents state it as their belief that 60 per cent of the state's wheat this year will be sold direct from the threshing machine, although even now there are frequent complaints of failure to secure cars when needed. It is estimated that 62 per cent of this year's wheat was harvested with the binder, some twenty counties in the eastern part of the state using the binder exclusively, and it is further estimated that two-thirds of the bound wheat will be threshed from the shock, or approximately forty-one million bushels.

Corn conditions are not so encouraging. Frequent showers netting more than an inch in many of the western counties and a few of the central counties fell in the week ending July 23. During the past few days heavy rains have occurred in Northeast Kansas and in a few other scattered localities. The corn has without doubt been greatly improved since the correspondents reported to the State Board July 18. According to this report, the assessors' returns that have been received from ninety-eight of the state's 105 counties indicate that the earlier estimates of correspondents of slightly more than seven million acres to be devoted to corn were too high. The present official data, practically complete for the state, show that Kansas actually planted approximately 6,318,000 acres. The average condition on this, based on 100 as representing satisfactory growth and development, is 75.6 per cent, a decline of 6.4 points from the report of a month ago, when the average was 82, but 24.2 points higher than the condition of the state's corn crop in July last year. The acreage this year, though about 2,800,000 acres less than in 1917, is not far short of the average for the five-year period of 1913-1917. Dry, hot weather is the cause of the decreased prospect since June 15.

Marked depreciation is reported in many of the important corn-growing counties in the southeast, the southern tier, the northern tier, and in a number of the north central counties. Of these the greatest decrease is found in the extreme southeastern counties, where for example, in June, Montgomery County reported the condition of its corn crop as 83 and now 36, while adjoining counties show decreases nearly if not fully as heavy. In this region dry weather caught the corn in a critical stage of its development, the tasseling period, and to this is ascribed the damage. Corn in the Kansas River counties, in the extreme northeastern part of the state, in a dozen northwestern counties, and in a number of the middle counties of the central third, shows improvement in the past month. Generally, outside of the Kansas River counties, the soil is at present reported too dry in the eastern third of the state, while elsewhere, with few exceptions, soil conditions are such as to favor the rapid growth of corn. The fields are unusually clean and free of weeds.

The Board's report indicates that the oat crop will be about fifty-five million bushels. This is the second largest crop ever produced, being surpassed only by the oat production of last year. It is a very marked falling off, however, from the estimated yield of a month ago. This is largely due to the dry, hot weather which prevailed during the period when oats were developing and maturing grain.

There has also been a very decided falling off in the estimated yield of barley, due to the extreme heat and lack of moisture during the dough and milk stages. The present estimate of the state's crop is a little over seven million bushels, which is a loss of fully ten million over the estimated yield of a month ago. Nearly all the barley is grown in the northwestern part of the state, Thomas and Sheridan counties being the largest growers of this crop. A month ago they reported a prospective yield of twenty and twenty-two bushels, respectively. Now their estimate is thirteen and six bushels.

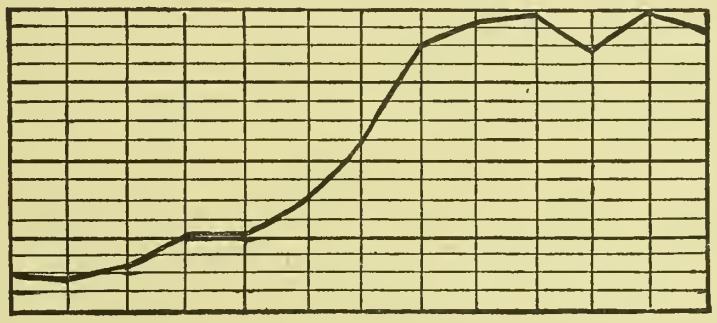
The potato crop has also suffered because of unfavorable conditions. In the commercial potato-growing districts of the Kansas River territory yields are averaging around fifty bushels to the acre. Kafir, milo, feterita, and cane, are reported from "fair to good" in every county except Cherokee and Crawford, where these crops are "poor."

This year's alfalfa acreage is the second largest in the history of the state, being exceeded only in 1915. Including the second cutting, which is now harvested, we have produced almost two million tons of this most valuable hay and it has been cured and saved in fine condition.

Grasshopper damage has been quite serious in some of the western counties. In at least a half dozen counties these insects have contributed extensively to the damage suffered by crops. No other insects are mentioned by the Board's correspondents.

War Savings Stamps will be given at the Kentucky State Fair in payment of nearly half the premiums. A total of $78,000 is offered, and at least $25,000 of this will be paid in the "baby bonds."

A barrel of sorghum in the cellar is worth a ton of sugar in Java.



Why live stock prices go up and down

WHEN there is more dressed meat on the market than there is consumer demand for it, meat and live stock prices go down.

But when the consumer demand for meat is greater than the supply, meat and live stock prices go up.

This is the law of supply and demand. It is the law that determines the prices the producer gets for his cattle.

* * * *

Between the producer of live stock on one hand and the consumer of dressed meat on the other hand is the service of the packer.

The packer turns the live stock into dressed meat and by-products and then distributes them to the retailer.

Out of every dollar the packer receives for this meat and by-products he pays 90 cents, approximately, for the cattle.

The remaining 10 cents on the dollar must pay for dressing, freight to market, operation of distributing houses, and in most cases delivery to the retailer.

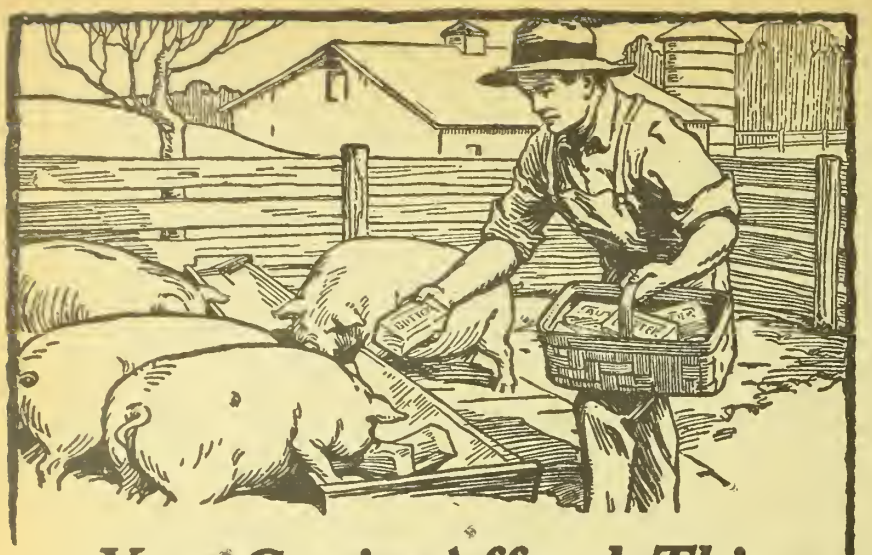
Out of what is left must come the packer's profit. For Swift & Company during 1917 this amounted to a net profit of ¼ of a cent per pound of beef. On *all* products, it was only a little over half a cent per pound.

A reasonable profit margin is necessary to enable the packer to operate without endangering the efficiency of the business and its value to the producer as a marketing agency for live stock. Complete elimination of these profits would have practically no effect on the farm prices of live stock nor the retail prices of meat.

Swift & Company will gladly co-operate in the carrying out of any national policy that will tend to steady the prices of live stock and meat.

Swift & Company, U. S. A.

A nation-wide organization with more than 20,000 stockholders



You Can't Afford This

No farmer is rich enough to feed 40-cent butter to his hogs or his calves in partially skimmed milk.

It's a waste of money.

It's a waste of food.

It's a waste that your pocketbook, your neighbors, your country, all condemn.

But it's a waste that is going on today on every cow-owner's place where an inferior or half-worn-out cream separator is being used, or where the farmer is skimming by the wasteful "gravity" method.

And it's a wholly unnecessary waste, too.

Because a De Laval Cream Separator will soon save enough cream to pay for itself, and put a stop to all the waste of cream and time and labor for many years to come.

There is no other cream separator that can compare with the De Laval in clean skimming, capacity, ease of operation, freedom from repairs, and durability. It's the world's greatest cream saver.

Order your De Laval now when you need it most and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash or on such liberal terms as to save its own cost. See the local De Laval agent, or, if you don't know him, write to the nearest De Laval office as below.

THE DE LAVAL SEPARATOR CO.

165 Broadway, New York 29 E. Madison St., Chicago

Men, Women, Boys and Girls

Read the following list of valuable articles. Is there anything in the list that you want? They are all or any of them given FREE in exchange for Kansas Farmer Coupons.

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Lace Curtains	Carving Sets	Set Dishes
Butcher Sets	Knife Sharpeners	Pocket Knives
Maps	Pictures	Music
Rings	Books	Watches
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Do you know about Kansas Farmer FREE COUPONS? If not, write us today. It means money to you. Every coupon is exchangeable for either goods or money. THE COUPONS ARE FREE TO YOU.

SPECIAL.—Clip this advertisement and mail it to us today and we will send you one Coupon redeemable in either goods or cash.

Write for information as to how and where to get the Coupons. Address

KANSAS FARMER

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KANSAS FARMER DAIRY CLUB

Tribute to Dairy Cow

YOU may not feel very enthusiastic about your job as you milk your cow these hot summer days, but console yourself with the thought that this cow is a far more economical producer of human food than the steer. In some cases high-producing cows have returned fully ten times as much food value from the feed they consume as a steer eating the same quantity of feed. A. L. Haecker, a national authority on dairying, has the following to say about the dairy cow:

"In these trying days of war, when a hungry world is crying out for food, and strict economy is demanded, we can look to the dairy cow for a perfect example. We have long known that the cow was the greatest friend of man, and we have often paid tribute to her splendid qualities, but I do not believe we realize the marvelous change brought about by our breeders, and it is well for us to take note of the worth of the dairy cow of today.

"With due apology to those who prefer to raise beef and to breed beef cattle, I here wish to make a comparison which will illustrate the point I have in mind.

"Some ten or twelve years ago there was produced at the Nebraska Experiment Station a famous steer known as Challenger. This steer won the grand champion prize at the Fat Stock Show at Chicago. He was heralded as the champion steer of the world; he received great advertising with full-page and double-page pictures in our agricultural journals. He was stuffed and put on a pedestal and is still to be found in this institution of learning. In this same institution there was a Holstein cow called Katy Gerben, a three-year-old, that produced a record at the same time the steer Challenger was being fed at the station. In comparing the work of these two animals we have an example worthy of note. The steer gained about 700 pounds during the year. This gain dressed in carcass to about 400 pounds, and deducting bone and water there remained 200 pounds of meat in the form of dry matter, and we will assume that this amount was all digestible.

"The cow at the same time produced 650 pounds of butter fat, a fat which is the most assimilative of all fats, can be taken by even a small baby; there were 750 pounds of milk sugar, the most nourishing of all sugars; 400 pounds of casein, that which builds muscle and tissue in the animal; 150 pounds of albumen, the first to build vital structure of the animal; 100 pounds of digestible ash, that part which makes the bone and teeth; in total, 2,000 pounds of digestible matter.

"Then this cow produced, with about the same feed, ten times more digestible matter than the champion steer of the world. In other words, she made ten times better use of her food; she could keep ten people where the steer kept one. The steer had to give his life for the food he produced; the cow still lives and I understand is now giving fifty pounds of milk per day. She has produced many splendid daughters, one of which will far exceed her as a producer.

"This cow is not a great exception; there are hundreds of cows today that have surpassed her in the production of human food. With proper care and management we can see that a bunch of good dairy cows will produce ten times more human food than a bunch of steers, and when it comes to economy, the good dairy cow is undoubtedly an example of the greatest efficiency, while the steer is perhaps the most extravagant. Is it any wonder we find it necessary to arrange meatless days? Those who are complaining that the dairy business is irksome and unprofitable can at least be contented in the thought that they are engaged in an industry that is wholesome and beneficial to all. They are making good use of the grains and hay they are feeding, and the dairy cow can be considered 100 per cent efficient when it comes to producing human food from the rough feeds and forages of our farms."

Remedy for Stringy Milk

Sometimes milk becomes stringy soon after it is drawn. This is not caused by the feed or any unusual condition of the cow. Stringy milk is caused by certain germs which get into the milk, either during milking, while the milk is being strained, or from the utensils. It is not unhealthful to use stringy milk, but it is certainly not very appetizing. The kind of germs, or bacteria, causing this trouble ordinarily live in water and may get into the milk from the cow's body during milking or from the strainers, pails, or other vessels. If it is caused by the germs being in the strainer or the pails, the remedy consists in thoroughly boiling the strainer or scalding with the greatest of care all the pails and other utensils. Be very careful after the scalding or boiling to keep ordinary cold water such as is used for washing or rinsing, away from these utensils. If the germs are in the water, it would be of little use to boil the strainer and then immediately allow it to be wet with cold rinsing water which had not been boiled. If the trouble continues, it may be necessary to heat the fresh milk on the stove to 150 degrees Fahrenheit. After letting it stand twenty minutes, cool as quickly as possible.

Oleomargarine Tax

Every dairyman is vitally interested in the legislation for regulating the sale of oleomargarine. G. L. McKay points out that the Grout Bill, now in effect, places a tax of ten cents a pound on colored oleomargarine; that is, when it is artificially colored to imitate butter; but only one-fourth of a cent a pound when put up in its natural shade, white or light yellow. When this bill was up in Congress the fight in the Senate was very close. In fact a single vote would have defeated the measure. Senator Foraker of Ohio managed to slip in a "joker," this being the insertion of the words "artificially colored." Dairymen were forced to accept this compromise in order to get the bill through. The result is that certain highly colored oils may be used which give a color to the substitute product resembling that of butter.

"Ever since the passage of the present oleomargarine legislation in the United States," says Mr. McKay, "the big packing interests of Chicago and the big cottonseed interests of the South have kept up a continual agitation for the repeal of this law and have had different bills introduced in Congress for this purpose, which so far have not been adopted owing to the united opposition of the dairymen.

"Does the lack of coloring of oleomargarine handicap its sale? My answer to this is 'Yes' and 'No.' It does handicap its sale as butter, but not as oleomargarine. The best evidence of this is found in Denmark. The Danes prohibit the color of oleomargarine in imitation of butter; that is, the color cannot be deeper than the shade they call No. 9, which leaves oleomargarine almost the same shade as lard. In addition to this Denmark requires that it must be sold in oblong-shaped packages. And yet the Danes eat more oleomargarine per capita than any people in the world, averaging about forty-one pounds annually per capita.

"Pennsylvania, the great manufacturing and mining state, has a law that requires oleomargarine to be sold white or very light in color, and this law is rigidly enforced. Instead of decreasing its sale it actually increases it. So we find that the only effect lack of color has is to prevent it from being palmed off as butter on the public. When it is sold in its natural color, white or very light yellow, the public can buy it at prices somewhat commensurate with the cost of production.

Switzerland Rations Milk

Although known the world over as a dairy country, Switzerland has under stress of present food conditions established milk rations. Beginning June 1, 1918, the daily allowance per person is one-half liter (about four-fifths pint) except that children under fifteen years, adults over sixty years, and farmers' families may have double that amount per capita.

Great Britain has 384 sheep to each 100 cattle, while the United States has 73, and the fourteen Northeastern States have 59 sheep to 100 cattle.

MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Tractors Increase Man Power

THE advantage of the tractor, like that of most other improved farm machinery, lies not so much in the reduction of the cost of performing a unit of work as in the fact that it permits one man to do considerably more work in a given time, according to Farmers' Bulletin 963 of the United States Department of Agriculture, which is a report of the experiences of over 600 farm-tractor owners on representative corn-belt farms in Illinois collected during 1917 and the spring of 1918. This has been true of practically all improved farm machines, the bulletin explains. Even the grain binder, generally considered as one of the greatest agricultural inventions of the century, which has increased about eightfold the acreage one man could handle, has not resulted in decreasing materially the cost of producing grain.

Men who hope to reduce greatly the cost of farming operations by the purchase of a tractor should bear these facts in mind, the federal specialists point out. Judging hy the experience of tractor users, it is not safe to expect any material reduction in the cost of farm operations per acre through the use of the tractor, but it is safe to expect to be able to increase the crop acreage to a very considerable extent, and, at the same time, the amount of crops which one man can raise.

Furthermore, it should be remembered that the cost of doing the work with a tractor in most cases can not be directly compared with the cost of doing it with horses, since on farms where tractors are used a numher of horses generally are retained, and any comparison, therefore, must he made hetween the cost of operating the farm with horses alone and the cost of operating with the tractor and a certain number of horses. Not infrequently horses stand idle while the tractor is being used for ficld work, because there is not sufficient help available to use them at the same time, and in such cases part of the cost of their maintenance must be considered when figuring the cost of farm operations, since they are as much a part of the farm power plant as is the tractor.

Not only should the relative expense of operation with the two methods he considered, but also the relative results. The increased crop acreage and consequent increase in incomes which the purchase of the tractor will often make possible may much more than offset a slight increasc in the operating expenses of the farm.

Tire-Changing Hint

A couple of wood blocks 2x4x4 will come in handy when it becomes necessary to change tires on a steep grade. A stone is not always at hand to hlock the wheels. When a front tire is being changed they will not he needed, hut the car must be hlocked when a rear tire is changed or it will start down the grade when the brake is released to free the wheel while making the change.

Keep Tractors Busy

Manufacturers of tractors have given out the information that they will not he able to supply the demand this year. They are limited in raw material and lahor. Demands have increased so rapidly that even if they were ahle to get plenty of material and labor it would still be impossible to turn out enough machines with their present facilities.

This would indicate that a good many farmers will he disappointed in not heing able to get tractors. Those who now own tractors or are able to get machines should hy all means plan to keep them husy not only on their own farms, but on the farms of their neighbors who may need such power for performing various farm operations. By helping out neighbors in this way, tractor owners can perform a patriotic as well as a neighborly duty. A tractor owner who wishes to do everything possible to help out the present food situation will see that his tractor is kept busy all the time. If he does not have enough work to keep it busy at home, he will arrange to do work for his neighbors.

Shelter Farm Machinery

The present labor shortage is increasing the use of all kinds of farm machinery. It has been possible by using better machinery to extend operations and increase production ever where labor has actually decreased.

We can expect labor to be fully as scarce next year and the demand for increased production will continue. This means continued dependence on machinery of all kinds. It is important that this machinery be kept as efficient as possihle. If you ever tried to use a binder that had been sheltered under a tree from the time the wheat harvest was over until it was needed again, you know what it means to reduce a machine's efficiency by exposure to the weather.

With the increased need for using good equipment goes the need for better housing facilities. A farm implement shed is a most important part of the farm equipment.

Implement Repairs

Many manufacturers of farm machinery are also making war supplies. This perhaps came to your attention most forcihly when you had trouble getting repairs for farm machinery last spring. Manufacturers warned against this difficulty early in the season, suggesting the possihility of a shortage of repairs. That possihility will increase as the war continues. The safe plan is to note the repairs needed now on machines that are being laid away and send in the orders at once. The machines can then be put in order for work next season at odd times through the fall or winter.

Sizes of Silo Fillers

At a recent meeting of the silage machinery department of the National Implement and Vehicle Association it was recommended that the number of silo filler sizes be reduced to four, each manufacturer to select the four sizes he will make and cease putting out other sizes. While there are two general types of machines, any manufacturer who is now making the two kinds or types will still confine himself to four sizes selected from his present line. In other words, he will not huild four sizes of each type.

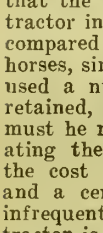
Fewer Pleasure Cars

The hint given out recently by Fuel Administrator Garfield recently that a material curtailment of coal supply to be applied to the manufacture of pleasure automobiles was prohahle, was later more fully confirmed by a statement by the administrator.

He stated that the general question of curtailing this industry was in the hands of the War Industrics Board, which is considering the suhject from the standpoint of the use of steel. Nevertheless, he feels that he will be compelled to limit the use of coal to manufacturers of pleasure automobiles to not more than 25 per cent of the amount consumed in the season 1917-18.

This proposed curtailment does not apply to the manufacture of trucks or other cars for war use, nor the enormous amount of other war material which the automobile companies have already undertaken for the Government.

If you jerk loose your emergency brake in releasing it, the notches and pawl will be worn a little each time until finally they will refuse to hold or grip some time when the car is being held on a steep grade. You can prevent this wear by always pulling the lever a little tighter just as you release the powl or catch.



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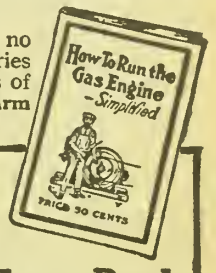

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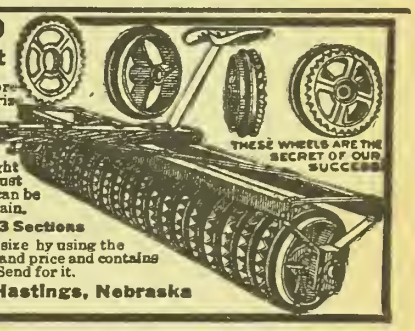

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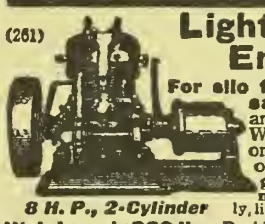
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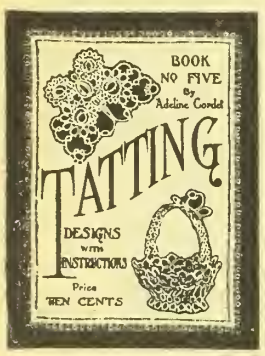

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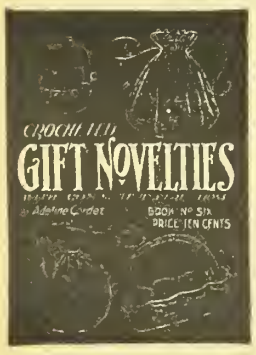

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THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Conserving Food by Drying

IT IS evident that during this world war, with its need for conserving all available food, we must not only learn to can some things that have not been generally canned before and to can larger supplies of those we have been accustomed to preserving in this way, but we must also dry more fruits and vegetables than usual. Drying is an inexpensive and practical way of preserving garden and orchard products that might otherwise be wasted. It affords a means of supplying to our tables in winter the healthful acids of fruits and the vitamines contained in vegetables, which are essential to health and growth. On account of the high price of glass jars and the shortage of tin cans, the amount that may be canned is limited, and when canning cannot be done, drying is always desirable.

The following directions for drying fruits and vegetables are taken largely from a circular issued by the extension service of the University of Missouri. The author of tbis circular is Miss Addie D. Root, known to many of our readers through her work in the extension division of the Kansas Agricultural College before taking up similar work in Missouri.

Fruits and vegetables may be dried by sun or artificial heat. The latter metbod is more rapid and more certain and usually gives better results. It is necessary to have sufficient heat to cause rapid evaporation and an air current to carry tbe moisture away from the product. A simple, satisfactory apparatus for home drying consists of a series of trays witb wire mesh bottoms. These trays fit together closely, the heat is applied beneath, and the warm air takes the moisture up and out of the evaporator. Such an arrangement makes it easy to handle various products at the same time and to dry a quantity with little trouble.

Oven drying has been practiced for many years. Tbis method is not so satisfactory as the one described, since there is more danger of overbeating the products and tbe air circulation is poor in the oven. The fire must be kept very low, the oven door must be left open so that moisture may escape, and the product should be stirred occasionally.

Sun drying must be done during the brightest days of summer and early fall. The product should be protected from insects with screen or netting and should be brougbt in before dew falls. Sun-drying is slow, since sun heat does not cause rapid evaporation; inconvenient, since the product must be put out and taken in each day; uncertain, since a cloudy or rainy day early in the drying period may allow the product to sour.

Drying Vegetables

Beans and peas lose color in the drying proccss unless they are blanched before being placed in the dryer. Blanching consists of placing the vegetable in boiling water for a number of minutes and then plunging it into cold water. Prepare the beans or peas as for cooking. Beans should be strung and may be dried whole or broken. Peas should be shelled. Blanch from two to five minutes and place in the dryer at a temperature of 140 to 160 degrees Fahrenheit. About three bours will be required for drying beans or peas in the dryer. If dried in the oven or by the heat of the sun, it will take longer.

Corn may either be cooked on the cob in boiling water from eight to fifteen minutes to set the milk, then cut from the cob with a thin, sharp knife, placed in the dryer, and dried about three hours at 140 to 160 degrees F., or it may be cut from the cob before cooking, seared in the oven until the milk is set, and the drying process completed in the dryer. Through the latter method more of the natural flavor is retained, but care must be taken not to use too much heat.

Greens, such as Swiss chard and spinach, should be dried when fresh. Wash carefully, pick over, and place in the dryer. Keep at a temperature of 140 to 160 degrees F. About three hours are necessary for drying greens.

Such vegetables as carrots and sweet potatoes may be cut into small pieces and dried. Some of the other vegetables are cut in thin slices and dried, or they are cooked and tben dried in shallow pans.

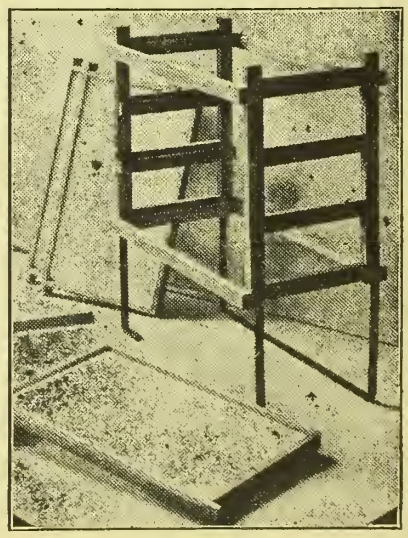
Drying Fruits

Apples may be peeled and quartered or cut crosswise into one-eighth-inch slices. The fruit may be prevented from turning brown by dropping the slices into water containing one tablespoonful of salt to the gallon before placing them in the dryer. If the apples are dried quickly at a high temperature, they will be as attractive and light in color as commercial dried apples. During the drying process the apples should be stirred occasionally to insure even drying. The temperature should be kept at about 140 degrees. If beads of moisture come out and the apples become very sticky, the temperature is too high. From two to two and one-half hours are sufficient for drying apples with artificial heat at the temperature given. Apples are sufficiently dry when they will give tbe following tests: Impossible to press water out of the freshly-cut ends of tbe pieces; sufficiently elastic not to break when pieces are rolled tightly; when a mass of slices is pressed firmly into a ball, and released, the slices should separate at once; surfaces sbould be soft and adhere slightly to tbe fingers.

Some of the other Kansas fruits and vegetables which can bc preserved by drying are: Peaches, apricots, plums, pears, blackberries, cherries, currants, huckleberries, persimmons, quinces, raspberries, cabbage, corn, citron, peppers, pumpkins, spinach, squashes, and sweet potatoes. When there is a sbortage of cans, preservation by drying is especially recommended for corn, pumpkins, and apples.

Storing Dried Products

All dried products should be stored in a dry, well ventilated place away from insects, worms, and rodents. It is well to keep tbe product for several days in a large container which can be protected by either a cloth cover or a wire screen. If after a few days there is any indication of moisture collecting on this dried product, it should be dried in pans in the oven or exposed to tbe sun or air current for a few hours and then packed in the permanent containers. Any sort of container which will prevent the product from absorbing moisture and protect it from rodents and insects will answer the purpose. Glass jars, large tin cans or boxes, and, for some products, paraffin containers, pasteboard boxes, and paper sacks, make good receptacles. Tin



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All patterns, 10 cents.



No. 8481—Girls' Empire Dress: Cut in sizes 4, 6, 8, 10 and 12 years. The dress is to be slipped on over the head. **No. 8487—Ladies' House Dress:** Cut in sizes 36 to 44 inches bust measure. The sleeves may be long or short and the skirt is cut in three gores. **No. 8509—Ladies' Waist:** Cut in sizes 36 to 44 inches bust measure. Sleeves may be long or short.



No. 8796—Children's One-Piece Dress: Cut in sizes 2, 4, 6, 8 and 10 years. The body and sleeves are in one, and the long kimono sleeves are gathered into cuffs at the wrists. The dress has a round neck with a slash at the left side which fastens with buttons and loops. The dress is belted in at the natural waist line by a belt of patent leather. **No. 8789—Misses' or Small Women's Dress:** Cut in sizes 16, 18 and 20 years. The dress buttons all the way from neck to hem at center front. The shirtwaist has a V-neck with a broad collar attached. The long sleeves may be used or the three-quarter length. The two-piece skirt may be gathered or plaited in shallow side plaits to the slightly raised waist line. **No. 8771—Ladies' Two, Three or Four-Gored Skirt:** Cut in sizes 24, 26, 28, 30 and 32 inches waist measure. This pattern may be used in several different ways. A four-gored skirt may be made from narrow material by using a seam at center back.

How mankind defers from day to day tbe best it can do, and the most beautiful things it can enjoy, without tbinking that every day may be the last one, and that lost time is lost eternity.—Max Muller.

boxes or glass jars can be stored with safety anywhere. If packed in paraffined containers, paper bags, or pasteboard boxes, the products should be stored in a very dry place and where rodents cannot get at them. Paper bags should be carefully closed after filling, by twisting the top tightly, then folding it over and securely tying it with a string.

Care should be taken that moths have no opportunity to lay eggs on the products during the process of drying or before storing. If these eggs are on the fruits or vegetables, they will hatch, under favorable conditions, and your product will be wormy.

It is best to pack the fruit or vegetables in small containers of about the size to supply a sufficient amount for use at one or two meals. This will lessen the chance of large quantities being spoiled.

Cooking Dried Fruits and Vegetables

The palatability of dried fruits and vegetables depends largely upon the manner in which they are prepared for serving. The product should be washed and then soaked from six to twenty-four hours to replace the water which has been dried out. It is well to use a sufficient amount of water to soak properly and still leave enough for cooking. Ordinarily the product should be cooked in the same water in which it is soaked; otherwise much food value will be lost. In the case of vegetables or fruits which have a strong or bitter taste, such as turnips, a more pleasing flavor may be obtained by changing the water while cooking or soaking. Cook slowly for several hours to make a plump, attractive product, and to retain the flavor. Keep covered closely while cooking to prevent escape of steam and flavor. For fruits use as little water as possible and only a little sugar. If it is a fruit which has a flat taste, add a little lemon juice or a little cream of tartar. Chopped nuts may be sprinkled in stewed fruits after cooking to give variety and to increase the food value.

Circular No. 4, issued by the Kansas Agricultural College, entitled "Home-Made Apparatus for Drying Fruits and Vegetables," gives complete instructions for making inexpensive covered trays for drying in the sun and a drying rack for the back of the cook stove. It also describes fully a home-made dryer heated with incubator lamps or an oil heater, which does the work quickly and conveniently. This circular will be sent to anyone requesting it from the division of college extension, Kansas Agricultural College, Manhattan.

Another comprehensive bulletin on this subject is Farmers' Bulletin 984, "Farm and Home Drying of Fruits and Vegetables," which may be obtained by writing the Division of Publications, United States Department of Agriculture, Washington, D. C. This bulletin discusses different methods of drying, describes convenient equipment for preparing vegetables and fruits for drying, and gives detailed instructions for drying cherries, prunes, figs, berries, and practically all garden products as well as the more commonly dried fruits. Directions are also given for making the evaporated soup mixture used in the British armies.

Bulletin on Child Care

Things every mother must know if the nation is to meet the health needs of its children as indicated by the draft and still further revealed by the weighing and measuring test, are made available by the Children's Bureau of the U. S. Department of Labor in its new bulletin on Child Care, prepared by Mrs. Max West.

A third of the men examined for military service in the first draft were found to have physical defects which rendered them unfit. Many of these defects might have been overcome if they had been recognized and dealt with in early childhood; the period between two and six is often the time when such defects make their first appearance. "Child Care" has been prepared in the hope that it would enable mothers to understand and recognize symptoms which indicate the need of special care, and also to give mothers the better understanding of the simple laws of hygiene through which it may be possible to prevent the development of such defects at all. It will be especially useful to thousands of mothers who have learned by the weighing and measuring test of defects and weaknesses in their children which need particular attention.

"Child Care" deals with children from two to six years old and is the third issue in the series which began with "Prenatal Care" and "Infant Care." It contains simple rules of health and hygiene, including carefully compiled directions about proper food, suitable clothing, suggestions for play and exercise, for discipline and training. It gives simple menus for young children. A list of books on child care and training is added.

Nurses Needed in United States

The need for nurses on the other side of the water is great. But no woman is wanted there who is not efficient, or who is not qualified to carry on her trained work officially. If a woman is not free to go abroad or is not fitted for service over there, she can help by staying at home and releasing some woman who is prepared for work at the front. There is going to be a wide demand for nurses here at home to replace those who go to the front during the war. For a long time after the war a large number will also be needed to care for the wounded and sick. This is a good time for those who have a talent for this kind of work to take hospital training.

A Sugar-Stretcher

A pound of sugar will go farther in making jam than in making jelly. That is, the same amount of fruit and sugar will make more preserve if both pulp and juice are included. For example, five quarts of fresh currants and three pounds of sugar will make about ten glasses of jelly, or about fourteen glasses of jam.

Of course jelly is pretty and sparkling and wobbly, but the jam will cover more bread for the same amount of sugar used, and that is what counts this year. Perhaps the seeds do stick in our teeth; that is but a very mild nuisance of war. Another argument in favor of jams is that more of the food value of the fruit is used, since the pulp retains a great deal of protein and mineral material. But since jams are used more as appetizers than as foods, this point will not appeal to most people. Still another argument against jellies is that they require more work and time in extracting and straining the juice.—J. J. WILLAMAN, University of Minnesota.

Write Big Newsy Letters

Let all the letters from home to the boys "over there" be as bright and as newsy as possible. Also, do not forget to tell the boys what the home folks are doing to keep up their end of the war. They want to hear good reports about the Red Cross, the Liberty Loan and the War Savings Stamp drives. If a letter is cheerful and hopeful, a man will tell the good news to his comrades. If it is depressing he will take it away and read it by himself in some quiet corner and its influence is more far-reaching than the writer could ever have imagined it might be.

Apple Snow

3 sour apples
1 tablespoonful lemon juice
2 egg whites
Sugar to taste—about ¼ cupful

Bake or steam the apples until very soft, rub them through a coarse strainer, add lemon juice and sugar. To this cooled pulp add the whites of the eggs, unbeaten. Beat with a wire egg beater until the mixture is stiff and white like snow. Pile it up lightly in the center of a glass dish and pour soft custard around it. To make the custard, take

3 eggs
½ cupful sugar
1 pint milk
½ teaspoonful flavoring

Cream one-fourth cupful of the sugar and yolks until very light. Add the scalded milk, and cook in a double boiler until the mixture coats the spoon. Remove from the fire, add the flavoring, and beat until smooth. Beat whites until stiff, beat the remaining one-fourth cupful of the sugar into them, and fold into the custard. One-half tablespoonful of cornstarch may be substituted for one egg.

For a custard sauce to be eaten with puddings, etc., omit the whites and serve as a sauce.

Potato Pastry

½ cupful mashed potato
½ cupful flour
¾ teaspoonful salt
¼ teaspoonful baking powder
¼ cupful fat

Sift together the dry ingredients, and combine them with the potato. Cut in the fat in the usual way, and roll out the pastry. This recipe makes enough for a one-crust pie. The crust may be baked before the filling is added.

Roses in Your Home

ALL YEAR

Beautiful climbing roses of brilliant colors, fragrant roses of upright growth, and trailing roses with delicate tints; all yielding most delicious perfume. Our New Collection of Native American and Japanese Roses is

GROWN FROM SEED



The seed germinates quickly, and the plants make rapid growth, bearing hundreds of beautiful roses. If grown in the house they will bloom all the year around. They can be grown outdoors during the summer, and if taken inside for the winter will continue to bloom. Nothing is prettier than the fragrant flowers and "berries" of these Native Roses.

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We will send you a big packet of the seed of our new Rose Collection, together with full instructions for planting and for making a window box, as shown in the picture. If you take advantage *now* of our liberal offer, and plant the big packet of Native American and Japanese Rose Seeds, you will have hundreds of beautiful roses blooming in your home the year around. They require very little attention, except for an occasional watering.

Plant NOW! Roses in 8 Weeks!



Just do us the favor of sending us one NEW TRIAL subscription to KANSAS FARMER for three months at 25 cents, and we will send you the big packet of Rose Seed FREE and postpaid, with full instructions for planting. Send today to

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Gentlemen: Send me FREE and postpaid, your big packet of Native American and Japanese Rose Seeds, with instructions for planting and for making the Window Box.

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I enclose 25 cents, for which you will please send KANSAS FARMER three months to the following address:

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For the breeder of pure-bred live stock, advertising space used at the right time is a profitable investment.

Advertising Means Quick Sales

and quick sales, when the offering is ready to go, means profitable sales. The demand for breeding stock is growing. It is the opportune time to advertise.

Let prospective buyers know that you have pure-bred stock for sale and they will quickly take your surplus.

KANSAS FARMER reaches the live stock buyers in this field and space used in the live stock advertising columns of KANSAS FARMER will sell your offering quick and at a small cost. Write for our special live stock advertising rate.

If your offering is ready, advertise now. It will result in quick sales at profitable prices.

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks**, for bona fide seekers of employment on farms.

HELP WANTED.

WANTED—MEN AND WOMEN. MAKE 8 to 18 dollars a day, easy, no fake. Newest novelty out. Men's under drawer supporters, never wear out. A dandy present to a soldier boy. Price list and one pair, 25c. If not satisfied, 25c returned. Mt. Pleasant Novelty Co., Box 187, Sta. C., Cleveland, Ohio.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

HIGH-GRADE HOLSTEIN CALVES, VIRtually pure-bred, $25 delivered. R. B. Hellen, Sec'y Milk Producers' Association, Jefferson, Wisconsin.

FOR SALE—VERY CHOICE HOLSTEIN and Guernsey calves, either sex, six weeks old, 95 per cent pure-bred, at $25 each, delivered. Lewis Dutcher, Peary View Farm, Janesville, Wis.

REGISTERED HOLSTEIN BULL, READY for service. Five of his dams average 106 pounds milk in one day and 34 pounds butter in seven days officially. $125. Wisconsin Live Stock Association, Appleton, Wis.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

REAL ESTATE.

WANTED—TO HEAR FROM OWNER OF good farm for sale. State cash price, full particulars. D. F. Bush, Minneapolis, Minn.

WOULD YOU SELL YOUR FARM IF you got your price? Sell direct, no commissions. Particulars free. Charles Renich, G-18, Woodstock, Illinois.

HALF SECTION WELL IMPROVED, choice farm, good road to near-by railroad town and high school. Write for my bargain price, subject to prior sale. Joseph Schwickrath, Stratton, Colorado.

SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price $10 to $15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address E. T. Cartlidge, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kan.

FARMS WANTED.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 56th St., Chippewa Falls, Wisconsin.

DOGS.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

PLEASE MENTION KANSAS FARMER WHEN WRITING TO ADVERTISERS

HOGS.

EXTRA GOOD DUROC MALE PIGS FROM prize winning sows and males. Prices right. W. H. Fulks, Turon, Kansas.

KODAKS.

FREE—WITH FIRST ORDER AND FIVE names of kodak owner, a beautiful 5 x 7 enlargement from any film. Developing, 10c; prints, 3c up. Foto Art Company, Dept. H, Lincoln or Norfolk, Nebraska.

MISCELLANEOUS.

FORTY-FIVE HORSE RUMLEY OIL tractor, most good as new, located in McPherson County, Kansas. W. S. Power, Chaonia, Missouri.

POULTRY.

WHITE ROCKS, SIZE AND QUALITY.—Cockerels and pullets. Reduced prices for August and September. G. M. Kretz, Clifton, Kansas.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swaim, Geuda Springs, Kansas.

FOR SALE—A FEW VIGOROUS COCKerels, S. C. White Leghorns, bred from heavy laying strain. Will sell for $2 each if taken soon. Mrs. E. F. Tinker, Damar, Kansas.

POULTRY WANTED.

GUARANTEED SATISFACTORY PRICES paid for eggs and poultry. Coops and cases loaned free. The Copes, Topeka.

PATENTS.

PATENTS PROCURED, BOUGHT AND sold. International Patent Co., Brandeis, Omaha.

Real Estate For Sale

Don't Overlook This Bargain

200-Acre Combination Stock and Grain Farm, in Northern Chautauqua County, Kansas; 80 acres farm land, 40 acres fine prairie hay meadow, balance good pasture; 5-room house, good barn 32x36, on R. F. D. and telephone line; 6½ miles to Moline; two miles from one of Chautauqua County's biggest oil wells in a new field. Land leased and pays rental of $1 per acre until drilling begins. Price of this farm for sixty days, $50 per acre. $5,000 will handle it.

The Eastern Kansas Land Co.
Quenemo, Kansas

FRANKLIN COUNTY, KANSAS
Stock and Grain Farm, 160 acres farm land, 13 acres alfalfa, 20 acres clover, balance pasture and timber, plenty of good water. House five rooms, good barn and other buildings; 3½ miles from Pomona, 4 miles from Quenemo, R. F. D. and telephone. Price, $50 per acre. Terms.
THE EASTERN KANSAS LAND COMPANY
Quenemo, Kansas

FOR SALE—IMPROVED FARM
110 acres under cultivation, 50 in pasture; nearly level. Price, $9,000.00.
T. J. GETZ - - - HOPE, KANSAS

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Dealers Required to Candle Eggs

NEVER before during the egg-packing season have so few bad eggs come from the farms of Kansas. This information was recently received by the Food Administrator, coming direct from egg packers. It can be attributed largely to the fact that egg-candling is now compulsory. For years progressive poultrymen and dealers have been trying to bring about this method of buying eggs during the summer season. During the five years prior to 1918 every fourth egg on the average received at the storage houses during the summer months was spoiled.

This year every egg shipper, even the small country grocer, must candle eggs or quit business. He is forbidden by the Food Administration to buy bad eggs. For many years it was the custom of some shippers to buy all eggs, both good and bad. They covered their losses by paying 25 per cent below the proper price. The farmer who took no care of his eggs was rewarded for his negligence, while the farmer who kept his eggs in a cool place and sold only the good fresh eggs was penalized.

Now only good eggs can be bought. As a result store keepers can pay a better price for good eggs.

Storage houses report that nearly all retailers are trying to live up to the regulations, but some are inexperienced and do not candle eggs properly. Instructions in egg candling is being furnished by the Kansas Agricultural College, which has fifty egg-candling schools touring the state. Eggs left in a warm place start to hatch at once. Since the heat is irregular the chicks do not develop and blood rings are formed in the eggs. These are the eggs thrown out in candling. Infertile eggs keep better in summer than fertile eggs.

Produce Infertile Eggs

Produce and market only infertile eggs. The male has no influence whatever on the number of eggs produced. His usefulness is limited only to the breeding season and then only with a few carefully selected hens. The presence of the male in the flock lowers the value of the eggs produced, because fertile eggs deteriorate very rapidly during warm weather. The development of the embryo begins at a temperature of 68 degrees F. A temperature of 85 degrees for three or four days or a temperature of 100 degrees for twenty-four hours may cause sufficient development of the embryo to make the egg unfit for use as food. An infertile egg may be subjected to a temperature of 100 degrees for a week or ten days and still be perfectly good for cooking purposes.

Investigations conducted by the Bureau of Animal Industry of the United States Department of Agriculture show that the total loss of fertile eggs is nearly twice that of infertile eggs regardless of how the eggs are handled. The increased loss of fertile eggs is due mainly to the development of blood rings and rots which can occur only in fertile eggs. This loss may occur even when the eggs receive reasonably good treatment; practically the only depreciation of infertile eggs aside from breakage was a slight shrinkage. This loss of fertile eggs, which amounts to many millions of dollars in the United States every year, can be prevented by removing the males from the flock as soon as the breeding season is over.

Marketing Broilers

The Food Administration emphasizes the importance from a food standpoint of killing only such young poultry as is reasonably plump, but under present conditions official restrictions on sales of small broilers seem unwise and unnecessary.

The great majority of chickens weighing between one and two pounds and sold alive to poultry buyers are not killed until they have undergone a fleshing process, which increases their weight 40 per cent or more.

Usually farmers retain the choicest pullets with the expectation of hastening their development into early layers. To interfere with the sales of other young poultry would in many cases result in crowded quarters and delayed maturity of the pullets.

Selecting the Young Layers

In culling the flock we are always anxious to save the young pullets likely to become good layers. E. C. Foreman, poultryman at the Michigan Agricultural College, suggests a method whereby the good layers can be selected when the pullets are only six or seven weeks old. The same method can be followed in saving cockerels that will produce heavy laying pullets. The method involves a study of the maturity of the chickens as indicated by the feather development. He points out that a chicken develops feathers in a definite order. First the wing feathers appear, then the breast and body feathers, and lastly the feathers on the back. He measures a pullet's capacity for laying by the percentage of feathers over the back at the age of six or seven weeks. The Leghorns and other chicks of the Mediterranean type mature early and at the age of six to seven weeks should be completely feathered. The American breeds are slower to mature, but should be feathered when seven weeks old. There is a definite correlation between the rate of maturity and strong vitality, both of these being essential characteristics of heavy laying flocks.

In every farm flock there will be representatives of three types as regards this point of maturity. The inferior ones will be very much behind in feathering, and will very seldom develop into heavy layers. The best developed pullets, even of the American breeds, when well feathered at the age indicated, can usually be expected to begin laying at five months. These are the pullets to keep in culling the flock.

Some strains are noted for their early maturity. Other strains are always late in maturing. Early-maturing strains of Leghorns properly reared should commence laying when from four and a half to six months of age. The general purpose breeds, such as the Barred Rocks and Wyandottes, usually require two weeks longer, or should be laying when from five to six and a half months of age. These early strains are the profitable ones to keep. They will begin putting eggs in the market basket two months in advance of their later maturing sisters.

Market Young Cockerels

As a rule it is more profitable to market young cockerels when they reach a weight of about two pounds than to feed them until fall or early winter. The Ohio Experiment Station reports that it will take ten pounds of grain to make a pound of gain on these young cockerels if they are fed until fall. Grain is too expensive to be used in that way unless there is a special market for the heavy fowls later in the season. The young cockerels marketed now bring attractive prices as broilers and by getting rid of them the balance of the flock may be given more room and better care and fed with the idea of developing winter egg producers.

To keep down mites, clean poultry houses, nest boxes, roosts and coops thoroughly and spray with kerosene oil or some good disinfectant at least twice a month throughout the hot summer months.

Poultry Profits Doubled

Breeding Males and Expert Advice Offered Free by World's Best Known Authority.

T. E. Quisenberry, director of one of America's greatest poultry experiment stations, Box 950, Leavenworth, Kansas, sends his new bulletins on "Fighting Lice and Mites," and "Feeding Growing Chicks and Laying Hens," free, to all readers. His advice has helped thousands to prevent loss and increase profits by getting more eggs, better layers, saving feed, eliminating diseases, etc. Write Mr. Quisenberry today for free bulletins and explanation on how to get free cockerel and hatching eggs from American Poultry Experiment Station.

Interesting War Items

THIS is the third time in the world's history that French soil has been the battleground from which were driven back harbarous hordes which threatened Western Europe and thus the world. In the fifth century Attila, the Hun, crossed the Rhine with a million men, intending to carry his troops to the Atlantic, and was met and turned hack hy the French. In the ninth century the Saracens poured into France and were driven hack by Charles Martel. And in the twentieth century the Germans, 'amhitious to conquer the world, are meeting the same fate at the hands of the French and American soldiers under General Foch.

Comparison of Resources

The Entente Allies—excluding Russia and including only those British dominions which are self-governing and only the United States proper—have 11,000,000 square miles of territory, 303,300,000 people, and $495,000,000,000 of national wealth.

The entente owe an aggregate debt of $69,000,000,000, which is ahout 14 per cent of their total assets. The Central Powers owe $37,000,000,000, or 28 per cent of their national wealth.

Is This Your Difficulty?

Do you receive your husband's or son's letters?

Does he receive yours?

Is he insured? Has he been wounded?

Do you want to know more fully how he is?

Do you receive your allotment and allowance?

In such matters as these consult the Home Service Section of the nearest Red Cross.

Soldiers' Insurance

Secretary McAdoo has received the following cahlegram from General Pershing:

"All ranks of the American Expeditionary Forces appreciate deeply the generous measure the Government has taken to provide insurance for their families, in proof of which more than 90 per cent of men have taken our insurance. To wisely provision for their loved ones heartens our men and strengthens the bonds that unite the army and people in our strong determination to triumph in our most righteous cause."

The Burcau of War-Risk Insurance up to June 28 has written $21,566,000,000 insurance, representing 2,570,455 applications. The average amount of insurance applied for is $8,387, and in some battalions and regiments, some in Franco and some here, every man has taken out insurance. In some units every man is insured for the maximum, $10,000.

One of the American generals says that this Government insurance is an element of victory. All Liherty Bond holders and all purchasers of War Savings Stamps may feel that they had a part in this insurance—the most just and humane provision ever made hy any nation for its fighting men.

Where Do We Go from Here?

The cheerful spirit in which our soldier boys meet whatever comes to them is illustrated in the following incident. A ship carrying American troops had met a suhmarine in midocean with disastrous results to both. After the smoke of hattle had cleared away a young American soldier clinging to a piece of wreckage in the water, while he waited for a lifeboat to find him, looked around and saw many of his comrades in the same plight. The irrepressihle Sammy grinned and began to sing, "Where do we go from here, hoys, where do we go from here?" and those near him took up the chorus and sang it with him. The man telling the story comments, "I would rather take my chance in hattle fighting with a sullen, desperate German than with that cool, smiling Yankee boy."

How Marriage May Be Proved

In compensation or insurance cases marriages must be proved to be legal marriages according to the law of the place where the parties resided at the time of marriage. This may be shown, according to the law of October 6, 1917, hy a duly certified copy of a church record; hy the affidavit of the clergyman or magistrate performing the ceremony; hy the testimony of two or more witnesses; hy a duly certified copy of the church record of the baptism of children, or hy the testimony of two witnesses that the parties lived together as husband and wife and were recognized as such, the witnesses stating how long to their knowledge such relation continued. In the ahsence of proof, the provision is made that legal marriage shall be conclusively presumed if the man and woman have lived together in the openly acknowledged relation of husband and wife during the two years immediately preceding the date of the declaration of war or the date of enlistment, if subsequent to such declaration.

Compulsory allotment is made to a divorced wife who has not remarried and to whom alimony has been decreed.

Mother Comes First

"If our mothers would not worry it would be better for them and better for us,' is the cry of hundreds of our hoys in the hospitals of Europe," said Mrs. Edward Vickers, of Boston, who has returned to the United States after passing three years in war work in England and France.

"Men with amputations staring them in the face will say this again and again," declared Mrs. Vickers. "The mother comes first at the vital moment and the main anxiety is that she may not suffer. When a hoy is lying on a hospital cot, every other sentence contains the words, 'my mother,' or 'my wife,' or 'my girl,' and very often 'my pal.'

"And I would like to tell the girls of this country that men ahroad regard their girl friends at home in accordance with the standard which the girls have set for themselves. That the girls they have left behind are worth fighting for is a sustaining thought that comforts the boys as they fight and when they must suffer and die."

A Soldier's Child

The term "child," as used in the law providing for family allowances and allotments, includes a legitimate child; a child legally adopted more than six months before the enactment of the act of October 6, 1917, or hefore enlistment—whichever of these dates is the later; a stepchild, if a member of the man's household; an illegitimate child, if acknowledged in writing hy the father, or if he has heen judicially ordered to contribute to its support. If such child was born after Decemher 31, 1917, he must have heen born in the United States or in its insular possessions.

Four Million in 1919

More than three million men will be under arms in the army and navy of the United States when the last of the July draft contingent goes to the military camps. Before the close of 1918 a force of four million will be under arms if the movement of men to camps proceeds according to schedule for the remainder of the year.

In the recent registration of those who have passed their twenty-first hirthday during the year, more than 700,000 enrolled. There are still enough men in Class 1, supplemented by this second registration, to provide the fourth million.

Carrying On in France

He was standing in a cemetery in France. In orderly array on the hillside were little white crosses, each bearing a numher. It was the place where our boys who have already given their lives to the cause lie sleeping. He was an American soldier, newly arrived in the line of battle. His meditations were interrupted by a Y. M. C. A. man who tells the story.

"It's just this way," he said; "I was just thinking of these fellows who have 'gone west' and was saying to this one lying here," pointing to the nearest cross, "I don't know who you are, old boy, but you're a good scout. I'm going to take your place. I don't know your name, but I've got your number, D672—that's me, and I'll 'carry on' for you." Thus he was consecrating himself to the task before him.



Help Fight the War in the Cornfield

Save 100 Per Cent of the Corn Crop

You can do it with a concrete silo, and keep green fields on tap through the winter.

A concrete silo prevents the 40 per cent waste of the corn crop that happens when corn is harvested in the old way.

You should have a *concrete silo* because it is rotproof, ratproof, windproof, fireproof, permanent.

Write for Bulletins Nos. 55 and 56

PORTLAND CEMENT ASSOCIATION

Offices at

Atlanta, Chicago, Dallas, Denver, Detroit, Helena, Indianapolis, Kansas City, Milwaukee, Minneapolis, New York, Parkersburg, Pittsburgh, Salt Lake City, San Francisco, Seattle, Washington, D.C.

Concrete for Permanence

WATER! Lots of It When-Where You Want It!

DON'T DEPEND ON WIND

For the Summer's water supply! Our small pumping engine will pump water when and where you want it. Both portable and stationary type. Other tough jobs easily handled too. Order now the complete engine and pumpjack here shown and be safe.

Only $3.50 Yearly Cost on Investment

Which is interest charge. Cheaper, more reliable than wind mills. For simplicity Galloway Engines are unexcelled. Leave them running without attention for hours! 300,000 satisfied Galloway customers—some near you—testify to the quality of Galloway Engines, Tractors, Spreaders, Separators. Until further notice this price of $65.40 for complete water-cooled, pumping engine and double-geared belt-drive pump-jack. Order now!

EVERY SIZE—FREE ENGINE BOOK READY—All engine sizes from 1¾ to 16 h.p. heavy duty portable or stationary operate on any fuel. My new free engine book ready. A postal gets it. Also gives lowest prices on highest quality farm implements of all kinds.

Price Only $65.40 Complete

Wm. Galloway Co. Box 215 Waterloo, Ia.

SAVE W.S.S. WAR SAVINGS STAMPS ISSUED BY THE UNITED STATES GOVERNMENT SERVE

GROUND LIMESTONE

For Agricultural Purposes

Write for Price and Free Sample.

DOLESE BROS. COMPANY

14 So. LaSalle St. CHICAGO, ILLINOIS

Plant: El Dorado, Kansas.

Get a 2-Man Silo Filler

Silver's "Ohio"

Fill Your Own Silo

Produce your own cheap feed this year—avoid buying feed at high prices. You can get Silver's famous "Ohio" in a variety of sizes, 4 horse-power up. 40 to 300 tons per day. "Silverized" Silage—cut even, packs air-tight—makes better feed.

Write for Free Catalog

The Silver Mfg. Co.

Box 352 Salem, O.

"Modern Silage Methods" 264 pages, 25 cents

Poison the Grasshoppers

The small quantity formula for the grasshopper poison is as follows:

Bran	1 pound
Paris green, white arsenic, or London purple	1 ounce
Syrup or cheap molasses	3 ounces
Orange or lemon	¼
Water	1½ pints

Scatter broadcast early in the morning where the largest numher of grasshoppers will get it. Do not put it out in piles. Fowls or farm animals might get enough to poison them.

My body's old, but that's not my fault. I'm not to blame for an old hody, hut I would he to hlame for an old soul. An old soul is a shameful thing.—Margaret Deland.

HOLSTEIN CATTLE.

SAND SPRINGS FARM

REGISTERED HOLSTEINS—THE DEBT-PAYING, MONEY-MAKING KIND.



Our ten years' experience in milking and raising Holsteins may be of value to you.

Notice our milk and butter average, under semi-official test for 305-day periods: Milk, 10,570 pounds; butter, 491 pounds, at the average of four years and eight months, and we are breeding them better.

Correspondence solicited and visitors welcome.

E. S. ENGLE & SON - - - - ABILENE, KANSAS

MAURER'S HOLSTEIN FARM

Offers special attractions in pure-bred females of all ages with high class breeding, and a number of choicely bred yearling bulls; also grade cows and heifers with size and quality. Don't fail to see this herd before you buy, as they are all bred RIGHT and priced RIGHT.

T. R. MAURER & CO - - - - EMPORIA, KANSAS

$15 Holstein or Guernsey CALVES

From Waukesha County heavy producing stock. Write us today, we guarantee to satisfy you.

RIVERDALE FARMS, Oconomowoc, Wis.

Holstein Calves

Choice, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write

W. C. Kenyon & Sons

Holstein Stock Farms Elgin, Illinois

CORYDALE FARM HERD

Senior herd sire, Jewel Paul Butter Boy 94245, followed by Dutchland Creamelle Sir Iuka 199300, a son of Dutchland Creamelle Korndyke Lad, the great Fields bull. For sale, two young bulls old enough for service out of A. R. O. dam. Call or address

L. F. Cory & Son, Belleville, Ks.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or car-load lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

Either Sex, Practically Pure-Breds

From high-producing dams and registered bulls, five to seven weeks old, $27.50, express prepaid in Kansas; outside, $30. Safe delivery and satisfaction guaranteed. Also fifty registered cows and heifers and 100 high-grade young cows and two-year heifers.

MAGEE DAIRY FARM

CHANUTE - - - - - KANSAS

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

REGISTERED HOLSTEINS

If you want big producers, males and females, write us. All our own breeding.

Lilac Dairy Farm

Route 2 Topeka, Kansas

Pedigreed Holsteins for Sale

Two nice bull calves, good milking strains; three months old, mostly white, $60; nine months old, mostly black, $75, f.o.b. here.

CASTILLO & SON, INDEPENDENCE, KAS.

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

CHOICE HEIFER CALVES

Twelve heifers and three bulls, 15-16ths pure, five to seven weeks old, beautifully marked and from heavy milkers, at $25 each, crated for shipment anywhere.

FERNWOOD FARMS, Wauwatosa, Wisconsin

REGIER'S HOSTEIN-FRIESIANS

For Sale—Young bulls, bred heifers and cows. All sired by the great bull, Sir Rag Apple Korndyke De Kol. Two cows will be fresh this month. Fourteen-thousand-pound milkers.

G. REGIER & SONS, Whitewater, Kansas.

COLLEGE HILL HOLSTEINS

For Sale—Two registered pure-bred Holstein bulls from A. R. O. cows. Age 9 and 11 months. P. W. ENNS, Newton, Kansas

HOLSTEIN COWS

35 Young Cows, some fresh, some springers. Also good fall cows from heavy producing dams. All bred to registered bull.

W. P. PERDUE - CARLTON, KANSAS

REGISTERED HOLSTEIN BULLS FOR SALE

Two to nine months. Also females. Bred right, priced right.

MARLOW & McCARGER, Mankato, Minn.

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.

H. B. COWLES, 608 Kan. Av., Topeka, Kan.

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

MULEFOOT HOGS.

Knox Knoll Mulefoots

Bred sows and gilts. Open gilts, spring gilts and boars. Satisfaction guaranteed. Free catalog.

S. M. KNOX - HUMBOLDT, KANSAS

SHORTHORN CATTLE.

Abbotsford Shorthorns



For Sale—Twenty-five cows and heifers, several with spring calves at foot; others bred to ROAN MODEL; also seven young bulls eight to eleven months old. All priced to sell. Come and see our herd.

D. BALLANTYNE & SON, Herington, Kan.

MARKS LODGE RED SHORTHORNS

For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

DUROC JERSEYS.

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. W. J. Harrison, Axtell, Kan.

WOODDELL'S DUROCS

Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

ILLUSTRATOR PATHFINDER

DUROC JERSEYS

Our sows average 13 pigs to the litter. March pigs for sale at $25 each. Can furnish pairs not akin. Bronze turkeys.

A. H. BURG - - LAKIN, KANSAS

TWO BIG SALES

Fifty Duroc Jersey Bred Sows and Gilts, September 4. Entire herd of Red Polled Cattle September 5. Catalog ready July 15. Write early.

W. T. McBRIDE - PARKER, KANSAS

Wreath's Durocs

SPRING PIGS

Priced in pairs or trios. Come and see my herd.

L. G. WREATH, MANHATTAN, KANSAS

CHESTER WHITE HOGS

CHESTER WHITE HOGS

Five December boars ready for service, out of my grand champion sow, Tip Top. Spring pigs from other good sows for sale.

COLEMAN & CRUM, DANVILLE, KANSAS

RECKARD'S CHESTER WHITES

Have raised pure-blooded Chester White hogs for fifteen years. Breeding stock for sale from prize-winning strains. Large kind and smooth.

E. M. RECKARDS - OZAWKIE, KANSAS

Breeders' Directory

RED POLLED CATTLE.

Mahlon Groenmiller, Pomona, Kansas.

DORSET HORN SHEEP

H. C. LaTourette, Route 2, Oberlin, Kan.

Hereford Cattle.

F. S. Jackson, Topeka, Kan.

Many New Silos

Many silos are being built in Kansas even in the wheat belt where the major crop is wheat and where help has been short. In McPherson County alone it is estimated by V. M. Emmert, county agent, that 100 new silos are being erected this year. Many of these already have been built and others will be constructed before silo-filling time.

This year bids fair to establish a record in silo building in many parts of the state.

NEW BLACKLEG VACCINE

A NEW method of making a germ-free blackleg vaccine has been worked out by the veterinary department of the Kansas Experiment Station. The developing of a method of making and testing a practical germ-free vaccine was a big forward step in the control and prevention of blackleg. Dr. L. W. Goss writes as follows of a new method of making vaccine which is now being used:

"During the past year we have been making and testing a new blackleg vaccine known as Blackleg Filtrate. In action it is very similar to Germ-Free Blackleg Vaccine. The principal difference is that it is made in the laboratory by growing the organisms upon media. After due time it is clarified and filtered. This gives a material which contains the products of bacteria but does not contain the germs.

"The Germ-Free Blackleg Vaccine is made by inoculating animals which usually die in about two weeks, at which time the juice is pressed from the lesion and passed through filters so as to remove all the germs from the fluid. By these processes the germs are entirely removed from both products. Therefore these products cannot produce blackleg, but have substances in them which, when injected into the animals in doses of five cubic centimeters to each individual, will make the animal highly immune to blackleg.

"Tests which have been run during the past year show that Blackleg Filtrate immunizes cattle to blackleg fully as well as Germ-Free Blackleg Vaccine. On account of the production of Blackleg Filtrate being a more simple process and it being unnecessary to use cattle in its production, it is less expensive to make. Therefore we are able to offer Blackleg Filtrate at 25 cents a dose. The dose is of the same size and is administered in the same way as Germ-Free Blackleg Vaccine.

"We shall continue to make Germ-Free Blackleg Vaccine, which we are selling at 35 cents a dose. At the present time we are unable to distinguish any difference in the immunizing value of the two products. People who have been using Germ-Free Blackleg Vaccine may wish to continue using it, because they have had excellent results with it, and hesitate about changing to something else. For that reason we shall continue to make Germ-Free Blackleg Vaccine as well as Blackleg Filtrate."

Uniform Rations for Horse

Work horses should be fed a uniform ration both as to kind and amount. This lessens the danger of colic and other digestive disorders. As simple a change as that from old oats to newly threshed oats sometimes causes trouble. The daily feed of grain should be given in three equal feeds, but only one-fourth of the daily allowance of hay should be given in the morning. An eighth of the daily allowance of hay may be given at noon and the balance at night. The grain ration of horses should always be in proportion to the severity of the work they are doing.

Feeding Work Horses

It is essential in a season like the present, when a good day's work from a horse is more important than it has ever been, that the horse be kept in the best possible condition. Farm work horses usually carry less flesh in summer than in winter and this is probably a safer condition for the hot weather. But while hard-worked horses are bound to lose flesh in summer, they should not be allowed to get so thin as to lessen their strength and ability to do hard work. Work horses, like men, need plenty of good wholesome feed given at regular intervals. A mixture of corn and oats, one-half each, and good hay fed in sufficient quantities is as satisfactory under all conditions as any ration.

Work horses enjoy a cool lot or small pasture at night and do better there than in a hot and often dirty stable. The privilege of drinking frequently and in small quantities refreshes horses doing hard work in hot weather. Sore shoulders may be lessened by making certain that the collars fit the horses' necks properly, and by washing both the neck and collar each night.

E. A. Trowbridge, of the Missouri Experiment Station, states that mares on the station farm nursing foals lost 77 pounds in weight between April 22 and May 20. They lost 44 pounds between May 20 and August 12, or a total of 171 pounds from April 22 to August 12. By December 30 these mares had gained 269 pounds, which was a recovery from the effects of a hard summer. Mares not nursing foals underwent about the same changes, but ate less feed during the summer.

Frequently horses are taken off pasture and put into the rush season and expected to do as much work as horses that have been on a grain ration and worked regularly all summer. It is not logical to expect such results; and it should be remembered that enough feed to supply the required energy is necessary if results are expected.

Avoid Overheating Horses

A little care will increase the efficiency of the average farm horse 25 per cent. He should be watered frequently, for his body needs much water during hot work. Watering frequently overcomes the dangers that result from watering freely at long intervals.

Horses doing hard work in hot weather should be allowed to stop for a few minutes whenever possible for a brief rest and a chance to breathe freely and deeply. Drooping ears, unsteadiness of gait, short breath, and a sudden ceasing to sweat are danger signals demanding prompt attention. They mean that the horse is getting too hot and that he must have rest.

The work horse should be provided with as cool a place as possible at night. A pasture or open lot is best.

Red Cross Shorthorn Sale

A fund of $71,000 was turned over to the Red Cross fund recently, that being the amount realized from the Red Cross sale of fifty-seven Shorthorn bulls in Birmingham, Alabama, July 2. An additional $3,000 from the sale of catalogs was added to this amount. F. I. Derby, of Ward, Alabama, who has been instrumental in distributing a great many registered cattle in the southern states, suggested this Red Cross sale. The fifty-seven bulls of the consignment were contributed by Shorthorn breeders of the corn belt, more particularly from the membership of the Central Shorthorn Breeders' Association.

A show was held in connection with the sale, and the champion bull, Lavendar's Lord, donated by Mrs. Albert Marty, Kansas City, bred by Ravenswood Farm, Bunceton, Missouri, was knocked down to President Wilson in consideration of his personal check for one dollar. The bull was then resold to Mr. Allison and three other business men of Birmingham for $10,000. The awards in the show were made by Dean C. F. Curtiss of the Iowa State College.

A feature of the occasion was a spectacular parade, each bull in the offering bearing a Red Cross banner and being led by a lady in Red Cross attire attended by a soldier in uniform. Fully 5,000 people were present at the opening of the sale and a number of addresses were made by prominent men.

List of Approved Wool Dealers

We have just received from Louis Penwell, chief of the wool division, War Industries Board, a complete list of the wool dealers in Kansas City, St. Louis and Chicago who have been issued permits to warehouse and grade wool under Government regulations. After grading, the wool will be valued by Government appraisers and returns made to growers accordingly.

Government prices are calculated on a clean, scoured basis, ranging for Kansas wool from $1.07 to $1.80 a pound. This method of announcing prices has been rather confusing to the grower, who must of necessity market his wool in the grease. The shrinkage from the grease weight will range from 45 to 68 per cent. It differs with the different grades and is quite variable and must be determined by the appraisers. For example, the average Government price on a wool grading "half blood clothing" will range from 57 to 62 per cent. Assuming that the shrinkage of a given lot of this grade is estimated to be 60 per cent, the price in the grease would be figured as follows: A hundred pounds of the grease wool would scour, or clean, to forty pounds, valued at $1.57 a pound, or $62.80. Dividing by 100 gives 62.8 cents as the price per pound in the grease.

The Government is urging wool growers to pool their wool clips in carload lots of 16,000 pounds whenever possible,

POLAND CHINAS

Erhart's Big Polands

A few fall boars ready for hard service. Can spare two tried herd boars. Have the greatest showing of spring boars we have ever raised. Some by the 1,250-pound A Big Wonder. Will make prices on pairs and trios. Write me your wants. All immune.
A. J. ERHART & SONS, NESS CITY, KAN.

Morton's Poland Chinas

For Sale—Twenty-five choice boar pigs, sired by Morton's Giant by Discher's Giant and Girstdale Jumbo by Girstdale Jones, out of my best herd sows. Priced reasonable. Write or come and see my herd.
GEORGE MORTON
Oxford : Sumner County : Kansas

Oxford Herd Poland Chinas

Herd boar, Giant Lunker by Discher's Giant out of Lady Lunker. I have 57 early spring pigs. A few choice boars. Priced to sell. Come and see me; I can please you.
Howard R. Wenrich
Oxford - - - - Kansas

POLAND CHINA BOAR PIGS

For Sale—Twenty choice boar pigs, sired by Model Wonder, he by Big Bob Wonder; The Giant by Hercules by Big Ben; King Ben by Giant Ben; Captain Gerstdale Jones, Big Bob Jumbo, and A Big Wonder. Several herd boar prospects.
Ross & Vincent, Sterling, Kan.

Big-Type Poland China Hogs

September and October boars. One real herd boar prospect. Fifty bred sows and bred gilts. 250 spring pigs.
DEMING RANCH - - OSWEGO, KANSAS
H. O. Sheldon, Herd Manager

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene, Peabody, Kan.**

LANGFORD'S SPOTTED POLANDS
Last call for fall gilts.
T. T. Langford & Sons, Jamesport, Missouri

Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
J. EDW. PLILEY - GILMAN CITY, MO.

RED POLLED CATTLE.

RED POLLED BULLS
Two extra good ones, year old, ready for service. Priced for quick sale.
A. E. WHITZEL - STERLING, KANSAS

RED POLLED CATTLE
For Sale—Four-year-old herd bull. Some extra good cows to calve in winter and early spring. A few yearling heifers.
I. W. POULTON - MEDORA, KANSAS

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.
CHAS. L. JARBOE - QUINTER, KANSAS

HAMPSHIRE HOGS

HALCYON HERD HAMPSHIRE HOGS
One hundred spring pigs priced in pairs and trios. **Geo. W. Ela, Valley Falls, Kansas**

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THE STRAY LIST.

TAKEN UP—BY T. F. CALLAHAN, OF Denton, Kansas, July 8, 1918, one red steer calf, weight about 350 pounds; also two red and white spotted steer calves, weight about 350 pounds each. T. F. Callahan.

TAKEN UP—BY M. V. HOOVER, OF Grinnell, Kansas, on the 26th day of May, 1918, one red yearling heifer appraised at $30. W. L. Davidson, County Clerk of Sheridan County, Kansas.

FARM AND HERD.

Dr. J. A. Roberts, of Oconomowoc, Wisconsin, owner of one of Wisconsin's famous herds of pure-bred Holstein cattle, reports their herd making a good record again this year. Doctor Roberts owns one of the best equipped stock farms in his home state. His herd has been bred from the foundation for producers and at this time is made up almost entirely of record bred Holsteins.

E. S. Engle & Son, of Abilene, Kansas, report the sale of six head of choice high-grade Holstein heifers to A. Kosar, of Delphos, Kansas. Mr. Kosar owns one of the high class herds of pure-bred Poland China hogs in Kansas and has decided to add a herd of producing Holsteins. This combination will increase the profits on the Kosar farm.

in order to secure the carload rate on wool. However, they may pool their lots in any quantity, but when pools are of less than 16,000 pounds in weight it will be necessary for them to pay the less than carload rate. The wool so pooled may be shipped to an approved dealer in any approved distributing center east of the point where wool originates. By pooling their wool the growers save the necessity of paying any commission or handling charge at all to local dealers. Where this plan is adopted the growers constituting the pool should get a representative of the house to which the wool is shipped, or someone else with a knowledge of grades, to go over the pooled wool in order to determine how the proceeds should be distributed to the growers, according to grade. All pools should be consigned as one lot and the approved dealer in the distributing center will make returns as one lot, so that it will be necessary for the clerk of the pool to make individual settlements with the growers when the check in settlement for the wool in the pool is received from the approved dealer in the distributing center.

The list of approved dealers follows:

Kansas City—C. J. Mustion Wool Commission Company; M. Lyon & Company; A. B. Stevens & Company; Charles P. Shipley; E. W. Biggs & Company.

Chicago—S. Silberman & Sons; The Boynton Wool Scouring Company; Bolles & Rogers; Chicago Wool Company; National Wool Warehouse & Storage Company; John H. Howard & Son; National Wool Company; R. W. Nordlie; Midland Wool Company; B. C. Porter; Herman Reel & Company.

St. Louis—B. Harris Wool Company; The E. Spohr Wool Company; Picker & Beardsley Commission Company; John Finnigan Company; Eugene Donselot & Son; McKenna Brothers; Jacob Goldsmith & Company; Gottwald Fur & Wool Company; W. C. Jager; H. W. David & Company; J. C. Crowdus & Company; Parker & Block; A. Frank & Company; Rogers Fur Company; Abraham Fur Company; Goldsmith & Seidel; M. Wolfheim; M. Wolfheim Hide & Wool Company; Wahlert & Guntsler.

Allies Want Lighter Pork

To acquaint hog growers of the United States with new conditions brought about by foreign demand, the Food Administration outlines the present situation and possible developments. Last fall, owing to the large amount of soft corn, there was a general heavy feeding of hogs, with a consequent large increase in their weight when they arrived at market. Foreign orders were filled with fatter and heavier hogs than the European populations had been acenstomed to, and foreign buying ageneies now request a return to the eustomary weights.

From the present outlook, swine produeers may anticipate preferenee for lighter weights of hogs. This country is not likely to have to repeat any request for heavy feeding.

The condition outlined has been fully discussed by the Agricultural Advisory Committee which met in Washington in a recent conference with officials of the Food Administration and the Department of Agriculture.

FARM AND HERD.

Tredway & Son, of LaHarpe, Kansas, owners of choice herds of Jersey cattle and Duroc Jersey hogs, report their herds doing fine. A feature of their Jersey herd at this time is the choice lot of heifers by their fine herd bull, Owl's Jolly King. They will freshen this fall and are a very uniform lot, already giving promise of being heavy producers. A feature of their Duroc herd is the extra good lot of spring pigs, including boars that are herd header prospects.

S. M. Knox, of Knox Knoll Stock Farm, Humboldt, Kansas, owner of one of the largest herds of Mulefoot hogs now assembled, reports his herd doing well. He has bred a large number of sows and gilts for fall farrow, among them sows and gilts bred to Corrector 3d, junior champion at three state fairs. Mr. Knox reports that on account of scarcity of labor he contemplates reducing his herd.

The nicely illustrated catalog of Fred B. Caldwell's Poland China bred sow sale to be held August 8 is out. The offering is one of the best lots ever sold from the Elkmore Farms. Every one is bred to the champion, Caldwell's Big Bob. Sows in Mr. Caldwell's last February sale averaged $445, bred to the champion boar. Requests for catalogs indicate a widespread interest among Poland China breeders and Mr. Caldwell's August 8 sale will be one of the August sale events in Poland China circles.

Howard Chandler, of Chariton, Iowa, owner of one of the oldest and largest flocks of pure-bred Shropshire sheep in that state, reports his flock doing fine. He also reports a good demand for Shropshire breeding stock. Many of the best flocks of Shropshires now assembled were started with foundation stock from the famous Chandler flock.

Galt & Spencer, of Dixon, Illinois, owners of Prairiedale Farm and one of the best herds of registered Holsteins in Illinois, have announced a dispersion sale of their great herd to be held at Dixon, October 3, 1918. Seventy-four head of choice Holsteins will be catalogued for this sale, all registered and all A. R. O. Holsteins, and all but herd bull and one foundation cow raised on Prairiedale Farm.

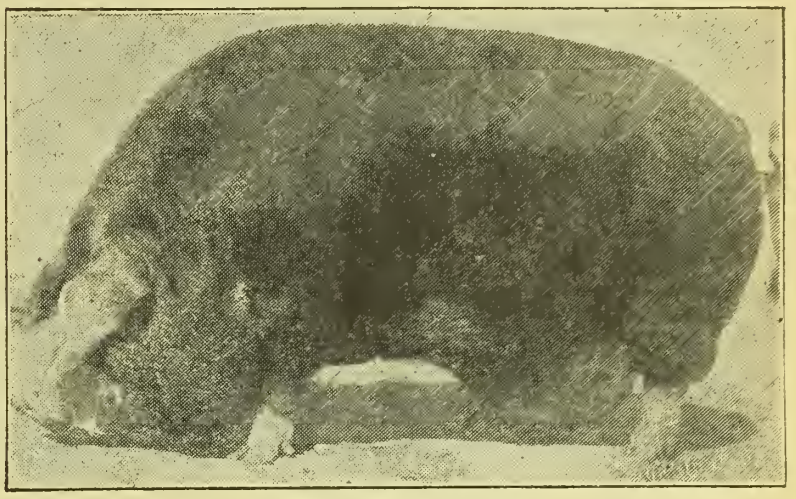
WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

POLAND CHINA SOW SALE

AUGUST 8th

45 Head of Big, Roomy, Selected Sows

The Entire Offering Will Be Bred to



Caldwell's Big Bob
THE WORLD'S GRAND CHAMPION

You know the value of sows bred to this sensational sire, so we are giving you a chance at the best offering we have ever presented. Every lot catalogued will be a credit to the herd from which it comes, the herd to which it goes, and to the great sire to which it is mated.

BE SURE TO ATTEND THIS SALE
IT IS THE SEASON'S BIG EVENT

Send in your name for the catalog. Mention Kansas Farmer

FRED B. CALDWELL

ELKMORE FARM HOWARD, KANSAS

JERSEY CATTLE.

TESSORO PLACE

OWL INTEREST FINANCE JERSEYS (REGISTER OF MERIT)
Buy a bull from a R. of M. cow and be more certain in your herd building. Every cow in milk in our herd has a year's test or one now on. Our two-year-olds will average 400 pounds of butter. Write for prices and other information.
R. A. Gilliland, Mayetta, Kansas

100 GOOD JERSEYS FOR SALE

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.
J. W. BERRY & SON, Jewell City, Kansas.

Longview Jerseys

(Register of Merit Herd)
Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.
Longview Farm
LEE'S SUMMIT - - MISSOURI

Allen Center Stock Farm

Registered bull calves—some ready for service. Sale or exchange for bull or heifers.
TREDWAY & SON, LA HARPE, KANSAS

FINE YOUNG JERSEY BULLS

From Register of Merit and tested cows; Register of Merit sire.
Dornwood Farm, Topeka, Kan.

IDYLWILD STOCK FARM

Place your order for a Sophie Tormentor, Jacoba Irene, spring bull calf to increase your production.
C. F. Blake - Glasco, Kansas

J. B. PORTER & SON

MAYETTA, KANSAS
Breeders of High-class Jerseys. Stock for sale at all times.
Write Us Your Wants.

BROOKSIDE JERSEYS

Registered Jersey Bulls, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.
THOS. D. MARSHALL, SYLVIA, KANSAS

REGISTERED JERSEY BULLS

Butter-Bred, from High-Producing Cows.
Photo furnished.
MAXWELL'S JERSEY DAIRY
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JERSEY CATTLE.

GALLOWAY CATTLE.

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.
E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

Registered Galloway Bulls

Ten Two-Year-Olds. Ten Long Yearlings.
These are in extra good condition.
Ready for immediate service.
Come and see them.
CALLAHAN & BECK, KINGMAN, KAN.

ANGUS CATTLE

Edgewood Farm Angus

I have for sale

40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.

D. J. WHITE, Clements, Kan.

HORSES AND MULES.



Percherons—Belgians—Shires
After harvest take the most enjoyable little trip of your life. Come see all my show and breeding horses and have a fine visit with me. Drop me a card now. **FRED CHANDLER, R. 7, Charitan, Iowa.** Above Kansas City.

SHROPSHIRE SHEEP



FOR SALE

A bunch of good big Registered Shropshire Bucks, not high in price. Also ewes.
Howard Chandler, Chariton, Ia.

TURNER & SON SHROPSHIRES

Fifty good big registered rams, $50 each, crated and express paid here. Also about 100 head of Lincoln and grade Shropshire ewes, ranging in age from one to six years, $22.50 per head. Sheep three miles north of town. Send check or draft with order. Pedigrees furnished for pure-breds. Always return crate. Reference, Harveyville State Bank.
J. R. TURNER & SON - - - - - - HARVEYVILLE, KANSAS

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YOU NEED THIS BOOK

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There is no better time than right now to begin keeping Farm Records so that you will have the required information ready to make your income tax statement next year. No doubt you are already keeping your records. You want the most simplified and easiest way. Get this book. It's FREE.

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This book is a PRACTICAL Farm Account Book which has been developed under the direction of the United States Government men, working in co-operation with hundreds of farmers in Kansas. It is not merely theoretically correct, but has been prepared to fill the needs as shown by practical use on farms in this state.

THIS BOOK WILL MAKE YOUR WORK EASIER

Keeping accurate records of farm business is becoming more and more popular, not only because it is practically necessary for the income tax statement, but also for the value of the records to the farmer. The most important thing, however, is to secure and keep the information desired with the least amount of work and time; that is, in the simplest way.

The book which KANSAS FARMER is offering on this page, FREE to subscribers, is gotten up with the idea of keeping all the information necessary and valuable with the smallest amount of work. The book is a one-year record. It is small and convenient to keep. It contains full but simple instructions on how to keep the records required, with sufficient blanks for all entries.

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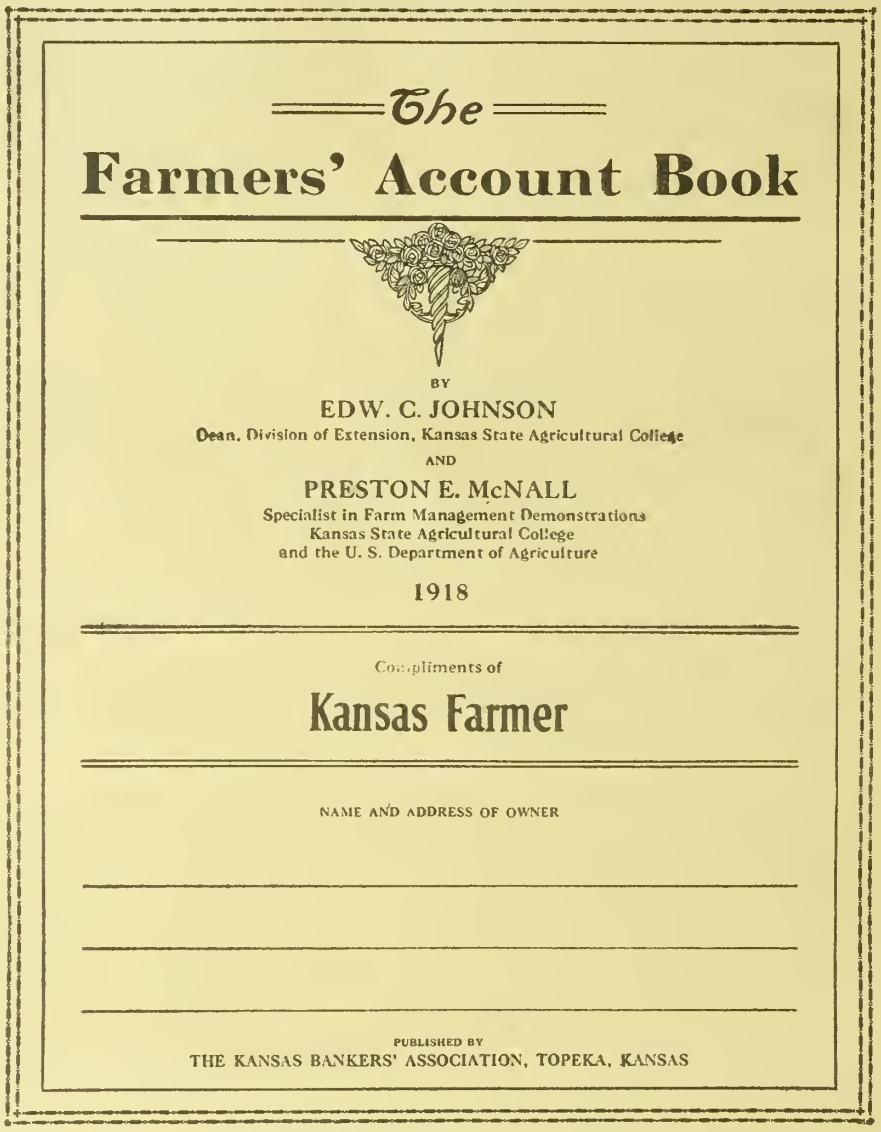

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The book is published by the KANSAS BANKERS' ASSOCIATION. It has been prepared by Dean Edwin C. Johnson and Preston E. McNall, both of the Extension Division of the Kansas Agricultural College, who have done their work on the book in co-operation with the United States Government.

This book has been used in Farm Management studies on hundreds of farms in Kansas where owners have heartily co-operated and offered many valuable suggestions for making it thoroughly practical and suited to actual farm conditions. These suggestions have been incorporated in this latest edition.

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It is the ultimate object of the Internal Revenue Office to adopt a uniform method of computing farmers' incomes. This includes farm inventories, farm receipts, and farm expenses, and follows very closely the book which is given by KANSAS FARMER to its subscribers. From year to year there may be a few slight changes made. For this reason it is best to buy a one-year book in order that each year your book will conform to the Internal Revenue rulings for that year.

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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 32. TOPEKA, KANSAS, AUGUST 10, 1918. Established 1863. $1 a Year

POWER WILL WIN THE WAR

"FOOD will win the war," is a slogan oft repeated these days. No one doubts the fundamental basis for this slogan or others of similar import, but underneath any and all war slogans is the one which says "Power will win." Trained man power, the great need on the battlefield, has been the theme of speech after speech made by that far-seeing soldier, General Leonard M. Wood. And with the man power must go highly developed mechanical power to multiply human strength. When the history of this greatest of all wars is written it will be found that the tractor, the gasoline engine, electricity, the auto truck, the automobile, and the many kinds of machinery, such as manure spreaders, cream separators, improved hay-making equipment, and the various labor-saving devices of the farm had no small part in crushing autocracy.

Only the relation of the tractor and power farming machinery to our war program along agricultural lines could be given as a justification of the tremendous expenditure of time, effort, and money in such a demonstration as was conducted at Salina last week. We have attended the previous demonstrations held in Kansas and before going to Salina questioned whether in attendance and interest these could be equaled or surpassed. In the minds of some it was considered unwise to think about a demonstration this year, but in view of the great need for multiplying our man power it was decided early last winter to hold a national power farming demonstration. It has been estimated that we have lost fully 20,000 men from the farms of Kansas for war services. As far as one can see from observing the progress of farm work, their removal from the ranks of farm workers has not appreciably slowed up farming operations. It has required strenuous work, however, on the part of those remaining, to overcome this heavy draft on our farm labor.

Fully three thousand men representing the tractor and power farming machinery manufacturing business were present at the great demonstration, and they were not there as mere sight-seers, for with the immense amount of machinery to unload and put in shape for demonstration purposes they had worked for days preceding the opening to the public of the exhibition. The tractor and machinery business has also been hard hit in the matter of man power. Every company had its service flag with numerous stars representing the men who had gone to the front. It was estimated that of those represented at the Salina show fully twelve thousand employes were serving on the battlefield.

The essential character of the power farming and farm machinery business is recognized, although as with farming this industry must furnish its share of the fighting men. It is evident that our Government did not consider the energy and expense going into this demonstration as a waste or it would not have been possible to get the equipment handled.

The immensity of the business impressed itself upon the visitor as he gazed at a half mile of tents housing the fifty or more companies represented and saw the million dollars' worth or more of equipment assembled and placed in shape for demonstration purposes. One could not attend such a demonstration and see the earnestness with which every man connected with the power farming business—from the presidents of the companies on down to the local representatives—exerted himself to show visitors the possibilities of multiplying man power in agricultural production without receiving a new vision of the future.

At previous demonstrations the novelty of the thing brought many to the plowing field. It was looked upon somewhat in the nature of a circus or a gala day, and furnished excitement and amusement to many who had little apparent interest in power farming at the time. The Salina demonstration did not lack for attendance. In spite of the drafts made on farm labor, the attendance was estimated to be as high as twenty-five or thirty thousand a day. By far the larger portion seemed to come in automobiles, and it was no small problem to so handle the traffic on the streets, at the headquarters tents, and on the field, as to avoid confusion and danger.

The thousands who went to Salina last week were not ordinary sight-seers. Work on the farms was too pushing to lay off out of mere curiosity and spend time in attending a power farming demonstration. The people who came were there to study the relation of the tractor to solving the many problems of the farm.

Probably the outstanding lesson was that having to do with the relation of the tractor to helping out the shortage of labor on the farms. It is becoming more and more apparent that one man must do the work of two. In the demonstration field a slip of a girl on a tractor was seen pulling a big power-lift wheat drill back and forth across the plowing field. Another young woman who had received her first instructions in operating a tractor only the day previous, was pulling three plows in one of the toughest fields of gumbo in Saline County. Will investment in a power farming outfit make it possible to do the work with half the help? was the question in the minds of a large proportion of the men and women who tramped over the field watching the different outfits at work.

This demonstration was no place for the high-pressure salesman. People were there to study the tractor. The practical operator running the outfit and doing the work had the attention of the man studying the power farming problem. The tractor in times past has been too much oversold. There has not been enough of the selling of the machine exactly as it is.

In looking over the tractor field it still looks as though too much attention is being given to bringing out models of freakish type. A farmer continually asks the question, "Will it work and keep at it?" Enclosing gears to protect them from dirt, putting high grade material into bearings and important parts, making all parts more accessible for repair work, and in fact putting real gray matter into perfecting a motor and tractor that will be as near trouble-proof as possible, is the need. Inventive genius along these lines will do more to put the tractor on a practical basis than wasting time and energy in inventing new breeds or types. It might be said that this sort of improvement is a feature to be noted in many of the standard makes of tractors seen at the Salina demonstration. It apparently has been the aim of the manufacturers to correct every weak point as soon as located and to gradually bring them to a point where they can be taken out and make good in the hands of the man who will give a reasonable amount of study and thought to the operation of such machinery. After seeing the work of the various outfits in the fields, the tents were the scenes of more minute examination of parts to observe the material, protection from dirt, and accessibility for repairs and adjustments.

Another important lesson of the Salina show was the demonstration of how widely tractor power can be applied to different farm jobs. It might be said that any improved machinery is more profitable when kept busy at work than when standing idle a considerable portion of the time. Interest goes on night and day. The tractor, to be most profitable, must be kept busy at productive work. In the demonstration field most of the outfits followed the plow with disks, corrugated rollers or packers, and drills. On many of the tracts plowed the land went from the stubble to the ideal seed bed for wheat before the afternoon's demonstration ended. Tandem disks, packers, huge power lift drills, straw and manure spreaders all were handled with the same power. At the headquarters tents belt equipment was shown, threshing machines, silage cutters, electric light plants, and other belt-driven machinery.

The cost of operation is a factor in tractor use and the tractor buyer can profitably spend some time studying fuel and oil consumption. This was made possible at the Salina demonstration. Many outfits asked for special tests along this line. Horse power tests, both belt and drawbar, were also given, and the results officially certified so tractor companies can quote them to prospective buyers in the future.

The National Tractor Demonstration proved beyond a shadow of doubt that the day of the practical tractor is here and the use of mechanical power must be given consideration in our labor-saving and food production program.

E. H. Wheeler.

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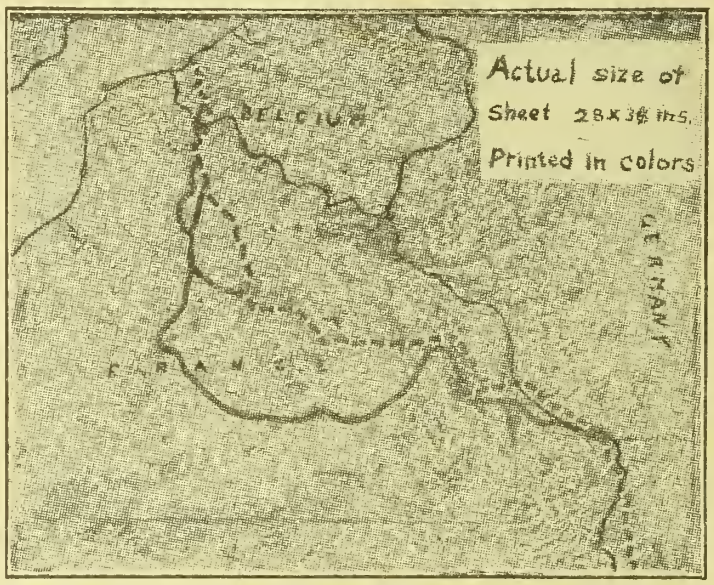

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O. E. REED LEAVES MANHATTAN

In the resignation of Prof. O. E. Reed, who for eight years has been head of the dairy department of the Kansas Agricultural College, the state loses one of its valuable men. Professor Reed took up his new duties at Purdue University, Lafayette, Indiana, August 1, at a considerable increase in salary over what the Kansas institution was able to offer He will have charge of the dairy department at Purdue University and will be chief of dairy husbandry in the Purdue University Agricultural Experiment Station.

Before coming to Kansas eight years ago Professor Reed had served as instructor in milk production at Purdue University, so he will be going back to a familiar field. His duties will include the administration of the Indiana Creamery and Teachers' License Law and the management of the Purdue creamery.

During the time Professor Reed has been with the Kansas institution the dairy industry of the state has made wonderful progress. His influence has been felt all over the state along the lines of improvement in dairy breeding and methods. His experimental work has always been of a practical nature and the high-class dairy herd which has been built up at the Agricultural College has attracted wide attention, not only in Kansas but among dairy specialists all over the United States. The average production of the twenty-six cows of the college dairy herd eight years ago was 253 pounds of butter. During the eight years of Professor Reed's administration the herd has increased to 175 cows and the records of the past year show the average butter production per cow to be 510 pounds. Dairymen from the Department of Agriculture have stated that this herd is the best college dairy herd in the United States.

Along feeding lines probably one of the most practical demonstrations worked out is the use of sorghum silage in feeding dairy cows. Eight years ago very few silos were filled with this crop. Sorghums can be grown successfully as silage crops all over the state, and now probably 60 per cent of the silos are filled with sorghum silage.

Readers of KANSAS FARMER who have been developing dairying on their farms have come to depend upon Professor Reed's advice and judgment and will greatly regret to lose him from the state.

BEER AND SHIP BUILDING

In our opinion the men who testified before the United States Senate that taking beer from the shipyards workers of the country would reduce the output of the yards 25 per cent, were offering an exceedingly flimsy excuse for giving the tottering booze industry a few more months of grace. Fully a third of our shipyards are in dry territory, and they are among the most efficient in the country. The almost unanimous report from the yards in the dry territory is that under no consideration would the shipbuilders of such towns as Seattle go back to the open saloon. "Too silly to contradict," said the superintendent of one of the most important shipyards on the Pacific Coast when asked his opinion of the testimony given by Mr. Hurley, Mr. Colby, and Mr. Gompers. "We are building ships faster than any other shipbuilding center in the world today, not because our men are any stronger or more capable than shipyard workers elsewhere, but for the simple reason that our men are 100 per cent efficient six days a week. Our men are as efficient Monday as they are Saturday, and we have a crew of active, clear-brained, steady-nerved men, Monday, instead of an inefficient corps of workers getting over a Saturday night spree."

Even while Mr. Hurley, Mr. Colby, and Mr. Gompers, were making their pleas for booze, a most remarkable contradiction of their testimony was being worked out in the Camden, New Jersey, shipyards. The achievement of turning out the naval collier, Tuckahoe, in twenty-seven days from the laying of the keel to the launching, has been heralded from coast to coast. Mr. Hurley cited this record as proof of his opinion that booze was a help and not a hindrance to efficiency in building ships, since the Camden yards are in wet territory. But Tommy Mason, the hard-headed superintendent of construction, a man who works in the yards where they are pounding out the ships, has a different tale, and he expresses not an opinion, but cold facts.

Mason's record with the Tuckahoe was so remarkable that Mr. Schwab asked him the secret of the wonderful speed and efficiency with which this fabricated ship was rushed to completion. He answered in five words: "No booze; that's the secret." When he was picking the men for the Tuckahoe job, he saw to it that no boozers got on the gang. He made two exceptions in the beginning. These two men took "a drink or two" in the morning before starting work. He watched them day by day, counting the rivets they drove, and soon found that these two men did not get to maximum speed for several hours. He figured out their loss of efficiency by comparing it with the average number of rivets driven by the sober men. At the end of two weeks he replaced these two men with workmen who let liquor alone. The "experts" who were called in to testify before Congress were not competent witnesses. Congress should have had a few of the Tommy Masons who could give facts instead of express opinions.

Emergency war prohibition is not an issue of a few fanatics and cranks who care not how our war program is effected. Booze is a handicap, and it is so regarded by our leaders of industry all over the country. An argument advanced by the wets is that a million men are engaged in the brewing industry and they would be thrown out of work by the closing of the breweries. Never have they had an easier time to get out and get into something worth while. We need more men in hundreds of essential industries. Mr. Hoover states in his letter to the President on this question that we are using 4,500,000 bushels of grain a month for beer. The Fuel Administration recognizes the non-essential character of the industry and notified breweries that they could have only 50 per cent as much coal as they used last year, and more recently issued another warning to the brewers that they need not hope for more coal than was required to manufacture the grain already malted. In Camden, where the Tuckahoe was built, heads of plants are asking that the excise commissioners keep the saloons closed until the men get to work. Heads of great industries everywhere are petitioning that booze be kept from the workmen. Superintendents of great coal mines are pleading to have booze cut out so they can increase the coal output. These are facts and with scores of other facts of similar nature should furnish ample evidence that the business is absolutely non-essential and should be stopped at once as a war emergency measure. Waiting for the states to ratify the constitutional amendment is too slow. Stopping absolutely the wastage of grain, sugar, fuel, transportation, and labor, now tied up in the manufacture of beer and other useless, or worse than useless drinks, will help to speed up our war machine. We should insist on Congress passing at once the needed legislation.

Money for Seed Wheat

THE sum of five million dollars has been appropriated by the President from his war emergency fund to be used in helping farmers who have been unfortunate the past few years through crop failures. This fund will be administered through the agency of the Treasury Department and the Agricultural Department. The financial aid which will be furnished banks through the War Finance Corporation to which we referred last week will help take care of those who have bankable collateral, but this fund is restricted to farmers whose credit and resources are exhausted.

The Department of Agriculture has the machinery ready at hand for administering the fund. In nearly every county in Kansas there are now agricultural agents or emergency agents who work under the direction of the Department of Agriculture in co-operation with our State Agricultural College. These men will probably pass on all requests for aid from this fund and will see that such requirements as the Department of Agriculture may make with reference to seed-bed preparation and methods are met. From the advance information it is likely the loan will be restricted to $3 an acre with a maximum of $300, with interest at 6 per cent payable October 1, 1919. The Federal Land Bank at Wichita will make the loans after the Department of Agriculture has investigated and made its recommendations. The money will not be advanced until the seeding is completed, but a certificate will be given which can be used as security for temporary credit.

The weakness of the plan is that the season is already far advanced. Plans should have been made and put in operation weeks ago where wheat is to be seeded this fall. Through the west end of Kansas it is not advisable to put out wheat except on land where the conditions are most favorable. It would in all probability be a sheer waste of good seed to plant land which must of necessity be seeded without proper preparation.

It is our understanding that financial help is not necessarily limited to the farmer who expects to seed wheat this fall. The official announcement from Washington, which we print on another page of this issue, would leave this inference. It is restricted, however, to farmers who could not remain on the land and continue their production work without some sort of temporary assistance to tide them over the critical period resulting from successive failures.

Applications must be made to the Federal Land Bank at Wichita, and farmers desiring to take advantage of this federal money should get busy at once. Secretary Mohler of the State Board of Agriculture is urging the local banks to get the full details from the Federal Land Bank, and is suggesting that the bankers in each county organize and co-operate with a view of putting the plan into operation quickly and effectively. His idea is that the local banks should receive the applications through a central committee. In counties having agricultural agents these men would naturally work with the committee and the recommendations could be promptly made and filed with the land bank. In this way all the individuals in a single county would have their applications sent in at the same time with all the proper endorsements made. In line with this suggestion it would seem that the first step for the individual farmer who wishes to take advantage of this emergency fund is to consult with his local bank. If bankers do not lend their assistance, it will be necessary to make the application direct to the Federal Bank and from it receive the instructions as to necessary endorsement.

This plan to obtain federal assistance for unfortunate wheat growers was initiated by the Kansas State Board of Agriculture some six weeks ago. Through its efforts the President and the Food Administration were made aware of the situation and the appropriating of the emergency war fund is a result of the activity of the state board.

WHEATLESS SIGNERS RELEASED

Those persons who signed wheatless until harvest pledges have been released by a cable from London by Herbert Hoover. "There were thousands of such persons," said State Food Administrator Innes in commenting on the cablegram, "who voluntarily agreed the latter part of May to cease the use of wheat flour and wheat products until such time as Mr. Hoover announced a release.

"Their abstinence from wheat increased the bread supply of the Allies materially and was a factor in the victory of Allied and American arms recently. Those who did not sign the wheatless pledges will continue as formerly. The fifty-fifty rule is still in force."

NEW LIMIT ON SUGAR

Two pounds of sugar a month for each person is the household limit announced for August by the Food Administration. The same limit goes into effect in hotels and restaurants, certificates for eating-houses being issued on a basis of two pounds of sugar for each ninety meals served. In households and eating houses the two-pound limit must provide both for cooking and table use.

Sugar is a vital necessity for men who undergo the great hardship of soldiers. Men who fight and who are forced to remain for hours or days in the wet and mud of trenches must have sugar to rebuild their tissues quickly. Sugar furnishes energy as speedily as alcohol furnishes stimulant. If soldiers have plenty of sugar they will not have a craving for alcohol.

Government experts have found that sugar will decide battles for, all things being equal, the soldier with sufficient sugar will recuperate quickly after the fatigue of battle and will be enabled to overcome the antagonist who has been curtailed on sugar supplies.

STRIP OFF THE CAMOUFLAGE

The word "camouflage" fills a long-felt want in the English language. We never knew what to call the antics of the various candidates just before election time. Now when we see some of these men take up arms and fight for the rights of the "dear people" in long-drawn-out speeches, some of them not actually spoken but sent out wholesale under Government frank, write long open letters to the President or other public officials, jump up in the air, crack their heels together and smite the packers or the profiteers, the railroads, or almost anything, we have a word which describes it all without wasting any time or effort in going into details. They are simply camouflaging, and it is such a fine art nowadays that it fools many a voter.

Not "our bit" to the call, but our best and our all.

FARM CREDIT ON OPEN ACCOUNT

Supply Working Capital by Enlarging Land Bank Powers

LACK of working capital is a serious handicap to increasing agricultural production. The farming business does not have equal facilities with other lines of business for obtaining on favorable terms the money needed. Very few farmers have a line of credit that will enable them to finance their operations in proportion to their ability and fixed investment. David Lubin, delegate of the United States to the International Institute of Agriculture at Rome, points out that a system of farm credits on open account capable of taking care of this situation is an important war measure in that sufficient operating capital is a decided factor in increasing food production. He maintains that the food situation will largely determine the outcome of the war; that we need, first, increased production, and second, decreased cost of living. He proposes a plan for supplying capital on open account through the machinery of the federal land banks. It will require, however, a simple amendment to the land bank act to put the system in operation. In showing the need of such a system and its feasibility, Mr. Lubin says:

"A rural credit system has been adopted in the United States; the land banks are in working order; long-time mortgage credit is in operation, and now there is need for a system of rural credits on open account.

"It will be seen as we proceed along that there is as much need for an open account system as there is for a mortgage system; in fact more so, for while only a limited number of farmers are interested in mortgage credits, almost every farmer would be interested in open account credits.

"They would be interested because every farmer has current expenses in conducting his business which must be met either by cash on hand or by getting credit. Very few farmers, if any, have the cash on hand; they are, therefore, generally obliged to meet their current expenses by buying on credit, by transacting their business on credit, substantially on a year's time.

"This, in substance, is an indirect method of money borrowing, and such indirect borrowing is an expensive luxury. For instance, the price of a hat, a saw, a dress, manure, when bought for cash is, as we know, quite a different matter to when it is bought on credit.

"The country storekeeper is generally blamed for it all, and often unjustly, for buying and selling as he does on long time credit he also is a victim of this vicious system.

"Now, this system could be done away with at a stroke if the farmers were able to place themselves on a cash basis. But how could this be done?

"It could be done under the present rural credit system by enlarging the powers and functions of the twelve federal land banks so as to add to each of them a 'department for farm credits on open account.'

"Said department would issue, at the request of a farmer, a modified mortgage in the form of a security certificate drawn up by the land bank, recorded on the county records, and attested on the certificate by the county recorder of deeds.

"This certificate would be held by the land bank, which would detach therefrom a perforated portion which it would endorse and hand to the applicant farmer. This detached portion would show that the farmer is good for a stated line of credit, not to exceed, as a rule, one-third of the amount of the mortgage loan which he could obtain on the land, or one-sixth of the land's value; and the land bank's endorsement on the same would make the land bank responsible up to that amount.

"By depositing this detached portion of the certificate in a commercial bank in any section of the Union the farmer could then obtain credit on open account at the rate, say, of 5 per cent per annum up to the stated limit. He could then draw against this account by check from time to time as he would require, and would have the right to close the account at any time by paying up and withdrawing his certificate.

"Would the operation of this system be a risk to the land bank? Since the limit of the open account would, as a rule, be about one-third of the value of the loan which this same land bank would be willing to make on a long-time mortgage loan, the land bank would, in substance, run no risk whatever by its endorsement guaranteeing such an account.

"Let us take, as an example, a farm valued by the federal land bank at twenty thousand dollars, and recognized by it as good security for a ten thousand dollar long-time mortgage loan. And let us say that the farmer desires a line of credit on open account for three thousand dollars. The land bank would then proceed, through its department for farm credits on open account, to issue the certificate, have the transaction recorded on the county records and attested on the certificate by the county recorder. The next step would be for the land bank to endorse the perforated portion of the certificate and detach and hand same to the farmer. The farmer would then deposit it in a commercial bank in any section of the Union, when he would be given a line of credit on open account for the three thousand dollars, against which he would from time to time draw by checks for any amounts that he might require within the stated limit.

"The farmer would have the right, at any time, to close the account by paying up to the commercial bank any money drawn, and withdrawing the certificate. He would have the transaction canceled on the county records, and on that portion of the certificate which it held against the farmer, when it would hand this canceled portion of the certificate back to him. The entire transaction would thus be closed.

"Under this system the farmer would be placed on a cash basis.

"In presenting this proposal it was my intention, first, to give an outline of the same, and, second, to enter into details, showing the needs for its adoption. But the needs are so obvious, and the proposal is so relevant to these needs, that there is hardly any necessity for a recital of such details.

"We all know that there is need for increased production and for reducing the cost of farm products to the consumer. The question, therefore, remains: How would the enactment of this proposal tend to increase production and to lower the cost of farm products to the consumer? And here again there is hardly any need for a lengthy argument.

"We all know that doing business on a year's credit is a costly luxury, is a vicious system. We all know that a year's credit means 10 per cent, 25 per cent, or even 50 per cent higher cost than business done on a cash basis. Now then, if the proposed system would place the farmer on a cash basis it would tend to increase production on the one hand and to reduce the cost to the consumer on the other.

"The question therefore remains: Would the adoption of the proposed system place the farmer on a cash basis?

"It certainly would, since the open account would place the farmer in a position to transact his business for cash during the whole year.

"But would not the farmers have difficulty in finding commercial banks willing to open accounts with them?

"Under the proposed system, no; for the security farmers would then offer would be more than ample; and, besides, the guarantee by the federal land banks would render this security gilt-edged and mobile.

"But what risk would attach to the federal land banks in giving this guarantee?

"None at all, since there can be no risk in guaranteeing, say, three thousand dollars on property valued at twenty thousand dollars.

"But would not many farmers object to availing themselves of this system for fear of incurring indebtedness?

"I do not think so; I think that the majority of farmers would see from the start that the proposed system, by placing them on a cash basis, would get them out of debt, would get them out of the old rut at last. They would see that the proposed system would place them, as to banking facilities, on the same level as the merchants. It would mobilize their assets and give them the command of dynamic money.

"Just as soon as the economic benefits accruing under this system would become manifest there would be very few farmers who would hold back from availing themselves of it.

"And the time is opportune for its adoption. We need this system as a war measure, and we need it as a peace measure, and we need it right away. The adoption of this system would increase the net earnings of the farmer by lowering his cost of production, at the same time it would reduce the price to the consumer, thus reducing the high cost of living. And there is another reason in its favor: We can have this system and have it right away, for the machinery whereby all this can be done is already here; it is here in the form of the federal land banks."



HANDLING HAY BY TRACTOR POWER.—GREAT SAVING OF MAN LABOR

Mr. Lubin has presented the plan to the Farm Loan Commission through Representative Julius Kahn. A letter to Mr. Kahn throws further light on the proposition. It will be interesting to note the opinion of the Food Administration which is quoted in this letter. This communication to Mr. Kahn follows:

"Dear Mr. Kahn: I have your letter of December 24 in relation to my proposal of November 16 for farm credits on open account. Therein you say that you will bring it to the attention of the farm loan authorities, and today I have the letter you forward me, giving the opinion of Senator George W. Norris, farm loan commissioner. The commissioner says:

> The proposition has merit. . . . Just at this time, however, it would be impossible for us to take action upon it.

"But why? And the commissioner gives as a reason that there has been a disturbance in the market value of long-time mortgage bonds; that there is a lesser demand for them owing to the fact that 'foreign mortgage companies and domestic insurance companies are curtailing their operations in the farm loan field.' And because of all this the commissioner says:

> We are obliged to ask for some temporary assistance from Congress in the shape of an authorization to the Secretary of the Treasury to buy a limited amount of bonds.

"Therefore, says the commissioner:

> Until after congressional action on this matter it would be useless for us to consider any enlargement of the system.

"But is this reason relevant and material to the cause at issue? The answer depends upon a proper understanding of the proposal.

"If the proposed system of farm credits on open account were to be financed by the federal land banks or through the sale of their bonds, then the commissioner would be right. But this is by no means the case. Under the proposal the function of the federal land banks in the matter would be limited to issuing to the farmer the security certificate on his land and guaranteeing the validity of the same. It is the federal land bank's guarantee on that paper, on that certificate, which would render it acceptable as security to any commercial bank in the United States.

"Let us say, for instance, that a farmer requires a limit of three thousand dollars on open account. Say his farm is worth twenty thousand dollars. If it is safe for the federal land bank to loan him ten thousand dollars on this farm—as it now does—how much safer would it be for the federal land bank to guarantee him a line of credit of three thousand dollars on this same farm?

"In other words, while the long-time mortgage loan is made by the federal land bank at the rate of fifty cents on the dollar, the proposed farm credits on open account would be guaranteed by the federal land bank at the rate of sixteen and two-thirds cents on the dollar.

"Now, let us ask which paper would be more acceptable to a commercial bank as security for an open account: Would it be the merchant's paper, the value of which as security is largely arrived at from the reports of Dun's or Bradstreet's mercantile agencies, or would it be the farmer's paper, the security certificate we are now considering, guaranteed by the federal land bank, with a dollar of assets behind each sixteen and two-thirds cents loaned? Would it not be gilt-edged in any commercial bank in the United States? Would it not place the small farmer near the village of Milpetes, or way back behind Kalamazoo, on as good a financial footing as the great wholesale merchant of New York, Chicago, or Philadelphia?

"And right here let me quote a letter on this proposal just received from the United States Food Administration, showing the present needs for such farm credits on open account:

> Mr. Hoover has received your kind letter of November 26, with your proposal for supplementing the existing rural credit measure by a system of farm credits on open account.
>
> This is an exceedingly interesting proposition and one which has a true relation to the problem of the Food Administration. One of the chief difficulties with which we have to contend is the problem of the farmer, particularly in remote districts, who is able to finance his business only once a year when he disposes of the merchandise of his farm, and who during the balance of the year is compelled to live on credit.
>
> Your suggestion is very valuable to us, and we desire to express to your our sincere appreciation of your letter. (Signed)
>
> U. S. FOOD ADMINISTRATION.

"And the question remains: Could the proposal be put into operation right soon, right now when we most need it, when we need it as a war measure?

"I believe that it could, as the machinery for doing this work is here; it is here in the form of the federal land banks. All that is required is the legislation that would authorize these federal land banks to perform their service in the matter, to issue and guarantee the farmer's security certificate. So far as the money is concerned, that would be had readily enough from the commercial banks anywhere.

"And the requisite legislation could, no doubt, be had at short notice if the matter were properly pressed forward.

"And can we be indifferent to a proposal which, when put into operation, is bound to invigorate American agriculture? Can we be indifferent to the adoption of a proposal for supplementing the power of American agriculture, so that it may the better perform its supremely beneficent task of assisting in the emancipation of the world from the thraldom of autocratic slavery?"

If in the smallest way you are trying to help somebody, they you have become a co-worker with God, and are a part of the infinite worth of the universe.—Minot J. Savage.

COST OF OPERATING A TRACTOR

Includes Operating Expenses, Repairs, Depreciation, and Cost of Labor

PROBABLY the one point in which the prospective purchaser of a tractor will be more interested than in any other will be the cost of performing farm operations with the tractor. This cost is made up of four main factors, namely, operating expenses—including fuel, oil, and grease—repairs, depreciation, and cost of man labor. In addition there will be some less important charges, such as interest on the investment, cost of housing, time spent in caring for the outfit other than repair work, etc.

When calculating cost of tractor work the mistake should not be made of omitting any of the first four items, as each of them will amount to considerable per unit of work. The others may be comparatively insignificant in some cases, although they must be included to obtain a strictly accurate figure.

In order to give the prospective purchaser an idea of the average cost of using a tractor, the figures for the sizes most commonly used have been compiled by the United States Department of Agriculture, the information coming from 600 Illinois tractor owners. This information appears in Farmers' Bulletin 963. From the facts given it is believed that a farmer can approximate the costs for any other size in which he may be interested.

Fuel Cost of Operation

The average quantity of fuel consumed per acre in plowing for all tractors on Illinois farms reporting is two and one-half gallons. This figure does not vary materially for the different-sized outfits, so long as each pulls its normal load. It is possible, however, to reduce the fuel consumption somewhat by overloading the tractor; that is, adding one more plow bottom than the machine is intended to pull. This reduces the distance the machine must travel to plow an acre, and, consequently, results in a slight saving of fuel. The saving is not in proportion to the actual distance traveled, however, since with the overload there is much more slippage of the wheels and consequent loss of power.

There is some slight difference in the fuel consumption between different makes of machines, and also usually a slightly lower consumption in some makes of tractors where gasoline is used instead of kerosene. These differences, however, do not usually amount to a great deal, and for most purposes the figure of two and one-half gallons of either gasoline or kerosene per acre of plowing will be as nearly accurate as any that can be used for an average.

The investigation shows that less difficulty is being encountered by owners of kerosene tractors in burning the lower grade of fuel than was indicated in 1916. Slightly more than 50 per cent of the tractors on the Illinois farms reporting are operating on kerosene, and where the machines have been especially designed to burn this fuel the results are apparently very satisfactory, particularly in view of the present price of kerosene as compared with gasoline. However, the greater ease in operating on gasoline, and the somewhat greater certainty of steady operation, are sufficient to cause many men to prefer this fuel to kerosene. The fuel consumption, of course, varies considerably, even with the same make of machine and under practically the same conditions, when driven by different operators, as a proficient operator will be able to make such adjustments as will reduce the fuel consumption to the minimum, whereas an inefficient operator will frequently run the outfit in such a manner as to increase unduly the amount of fuel used.

In this case, as in others, a prospective purchaser is not safe in assuming that he can obtain better results than the average, although of course he should endeavor to do so. In making calculations it is always best to be on the safe side. The average price paid for gasoline by the Illinois tractor owners in 1917 was about 20 cents per gallon, and for kerosene slightly less than 10 cents per gallon. With these prices, therefore, the fuel cost per acre for plowing with the tractor averaged about 25 cents where kerosene was used and 50 cents where gasoline was used, not making any allowance for warming up the kerosene engine with gasoline. All kerosene tractors start and warm up on gasoline, but the quantity used for this purpose varies greatly with different makes and with different operators. The quantity of gasoline required for this purpose is in most cases less than one gallon per day, and the extra cost for gasoline will usually not exceed 10 cents per day, and should seldom be more than one cent per acre plowed.

Cost of Lubricating Oils

The quantity of lubricating oil used with different outfits showed a much greater variation than the fuel required. Some men reported using nearly a gallon of lubricating oil per acre, while many reported less than one pint per acre. The quantity used will, of course, vary somewhat with the different makes of machines, but the greatest variation will be due to the idea of the operator as to the quantity with which the engine should be supplied.

It is usually false economy to cut the quantity of oil down too low, but on the other hand it is easy to use more than is necessary and more than will really be of benefit. The average quantity of oil per acre used in plowing, for all tractors reported from Illinois, was about three-fifths of a quart. With oil at 35 cents a gallon—the average price paid for it—this would amount to 5¼ cents an acre. The kind of fuel used does not seem to make any decided difference in the quantity of lubricating oil required.

The quantity of grease, or "hard oil," used also varies widely with different machines and different operators. No attempt to obtain definite figures on this point was made, as it is of such minor importance that few farmers pay much attention to the quantity used. It is not believed that the consumption will amount to one pound per day on the average, and the cost is usually in the neighborhood of 10 cents per pound, thus making the cost of this item amount in most cases to less than two cents per acre. At any rate, two cents an acre would be a reasonable figure.

Based on the figures given above for the Illinois farms reporting, the average cost per acre plowed for gasoline, oil, and grease, is about 57¼ cents where gasoline is used, and 32¼ cents where kerosene is used.

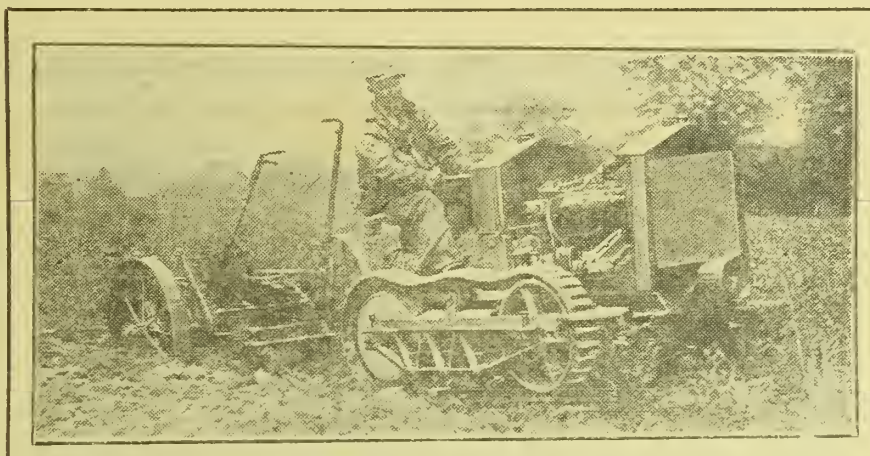
Repair Expense

According to the reports made, the average annual repair charge, figured on reports of 158 operators, was 4 per cent of the first cost. The average number of days of the year the Illinois operators used tractors was forty-five. Using these figures, the average repair charge per day for the two-, three- and four-plow outfits of average price would be 71 cents, 98 cents, and $1.24 per day, respectively. For the average acreage covered with these different-sized rigs, the repair charge per acre would therefore be 11, 11, and 12 cents, respectively.

Amount of Depreciation

Assuming the average life of a tractor to be seven and one-half years—this being the average of the answers received on this point—the average annual depreciation on the two-, three- and four-plow outfits will be $106.67, $146.67, and $186.67, respectively. The daily charge, therefore, based on forty-five working days per year, will be $2.37, $3.26, and $4.15, respectively.

The depreciation cost per acre, based on the average acreage plowed by the different-sized outfits, will be 36 cents, 37 cents, and 42 cents, respectively. From these figures it will be seen that the depreciation charge is one of the largest items which go to make up the total cost of performing work with the tractor, yet it is one which many people ignore entirely when figuring tractor costs. In this case, too, a rather long life has been used, which makes the depreciation somewhat lower than would be altogether safe to count upon.



A SMALL-APPEARING BUT POWERFUL TRACTOR TURNING UNDER A HEAVY GROWTH OF WEEDS AND GRASS AND DOING A SPLENDID JOB

The cause of the depreciation cost for the four-plow machines being so much higher per acre than that for the smaller rigs is that the four-plow machines in use up to the present time have cost more in proportion to relative working capacity than in the two-plow and three-plow rigs, owing partly to the fact that the smaller sizes have been manufactured in larger quantities, thus reducing the cost of production, and partly to the fact, stated elsewhere, that fewer low-priced machines have been produced in the four-plow size. This difference undoubtedly will increase with increased production of the four-plow outfits.

Cost of Man Labor

Comparatively few of the Illinois tractor owners reporting hire operators, and in cases where the machine is operated by hired help the wages paid vary widely. Some men intrust their machines to ordinary hired hands at comparatively low wages, while others attempt to secure first-class operators and are willing to pay fairly high wages to secure thoroughly competent men.

The cost per acre for man labor will be considerably affected, of course, by the wages paid, although in many cases a high-priced operator may do enough more work per day partly to offset his higher wages, and by reducing operating and repair charges may much more than offset them. The greater reliability of the higher-priced operator and the consequent certainty of having the work done when desired also has a value, but this cannot be calculated.

To ascertain the cost per acre for man labor in plowing with the tractor, in order to round out these cost figures, the cost for man labor has been placed at $3 per day. This is about the actual cost for operators to many corn-belt farmers when cost of board, etc., is included. Using this figure, the cost per acre for man labor with the two-, three-, and four-plow outfits, based on the average acreage given, would be 46 cents, 34 cents, and 30 cents, respectively.

Interest on Investment

The interest charge on a tractor is a fixed annual charge, and the interest cost per unit of work obviously will vary with the number of days the tractor is used, decreasing as the number of days used increases. Figure interest at 6 per cent on the average investment—one-half the first cost—for the different-sized tractors, and assuming the average number of days used annually to be forty-five, the average interest charge per day for the two-, three, and four-plow outfits will be 53, 73, and 93 cents, respectively.

The interest cost per acre, based on the average acreage covered by the different-sized rigs, would therefore be 8, 8 and 9 cents, respectively. The fact that the acreage covered per day by the four-plow outfit does not increase in proportion to its cost makes the interest charge per acre for this size higher than for either the two-plow or three-plow tractor. The increased acreage plowed per day by the three-plow rig as compared with the two-plow rig offsets the increased interest charge due to higher price. It should be borne in mind, however, that the number of days used annually will cause a variation in the interest charge per unit of work.

The approximate total cost for plowing an acre with a tractor under normal pre-war conditions, as calculated from the figures given, would be as shown in the table on this page. This table gives the cost of plowing an acre with two-, three-, and four-plow tractors, based on average cost of $800, $1,100, and $1,400, respectively, and a life of seven and one-half years of forty-five working days per year.

From the figures given it will be a comparatively easy matter to arrive at relative costs for other operations with the tractor. For all field operations the daily charges for interest, depreciation, and man labor will, of course, be about the same, but must be divided by the acreage covered by the implement used. This acreage will vary with different implements. The fuel and oil charge will be the same for a ten-hour day in other field operations as in plowing, provided the tractor is loaded to the same extent. This, however, is frequently not the case. If a comparatively light load is drawn, the fuel and oil consumption will be somewhat reduced, but not in proportion to the load. For stationary work, if the engine is working to full capacity, the fuel and oil charges will be approximately the same as for a day's work in plowing, but no grease will be used on most machines. This, however, would be only a small item.

Economy of Tractor

From the figures given it will be noted that the cost of doing plowing or other field operations with a tractor is approximately the same as with horses excepting for the item of man labor. This will average lower with the tractor than where horses are used, assuming wages to be the same in each case.

The advantage of the tractor, therefore, like that of most other improved farm machines, lies not so much in the reduction of the cost of performing a unit of work as in the fact that it permits one man to do considerably more work within a given period of time. This has been true of practically all improved farm machines, even of the grain binder, which is generally considered as one of the greatest agricultural inventions of the century, which did not, contrary per-

(Continued on Page Seven)

TOTAL COST OF OPERATION

Size of Tractor	TOTALS		FUEL		Oil	Grease	Repairs	Depreciation	Man Labor	Interest
	Gasoline Tractor	Kerosene Tractor	Gasoline	Kerosene						
Two-plow.	$1.58¼	$1.33¼	$0.50	$0.25	$0.05¼	$0.02	$0.11	$0.36	$0.46	$0.08
Three-plow.	1.45¼	1.22¼	.50	.25	.05¼	.02	.11	.37	.34	.08
Four-plow.	1.50¼	1.25¼	.50	.25	.05¼	.02	.12	.42	.30	.09

NOTE.—The cost of housing and other minor overhead charges, such as taxes, insurance, etc., are not included.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

ONE farm owner near Emporia reports Kanred wheat yielding fifty bushels to the acre on bottom land; another a yield of forty-seven bushels, also on bottom land. On an upland farm near Americus a field of Kanred wheat produced forty-five bushels to the acre. The county agent, H. L. Popenoe, reports that a carload of seed of this variety will be distributed in the county for this fall's planting.

Price of Next Year's Wheat

At the present time there is no positive guarantee on next year's wheat. In the event of peace before next year's crop is marketed, large quantities of Australian and Argentine wheat might be dumped on the world's market. This wheat cannot get into the world's trade now because no shipping can be spared for the long trip from these countries to Europe.

Wheat growers should have some assurance of next year's prices. Questions are already being asked on this point. Congressman Shouse of the Seventh District in Kansas took the matter up with the Food Administration and reports in an interview given out last week that he feels justified in predicting a proclamation guaranteeing the price for 1919 wheat on the same basis as for the 1918 crop. This is within the authority of the President by the provision of the Food Control Bill. At Mr. Hoover's request Congressman Shouse prepared a memorandum on the subject for him to present to the President before he left for Europe.

Action of this kind is justified because it is no more than fair that farmers who are being asked to put out maximum acreages of wheat at unusual expense be given assurance that they will not suffer loss. This might easily happen if peace should come in the next sixteen months and the accumulated stocks now tied up be thrown on the market.

Live-Stock Farm Partnership

A reader of KANSAS FARMER in Southwest Kansas who signs himself "Cowman" puts up an interesting partnership proposition in the handling of a live-stock ranch or farm. He says:

"I am rapidly getting into the class known as 'old, gray, and toothless.' I have two sons. One is twenty-seven, married, has a family, lives in a tenant house on the ranch, and works for me for wages. He has fifty head of cattle of his own. He is entitled to pasture during summer for seventy-five head as a wedding present. He has had parts of four years at the Kansas Agricultural College in the live stock and farming line. He is an expert cowboy and looks after the stock. The other boy will be twenty-one this summer. He has had one term in mechanics at the Agricultural College and a short course in an engine school. He is the farm mechanic.

"I have a stock ranch. There is nearly six thousand acres, mostly rough land suitable only for grazing, with four hundred acres along the creeks in cultivation. I am pretty well stocked up on farm machinery, tractor, plows, disks, binders, etc.; have ten head of work horses and mules, one hundred head of yearling heifers, one hundred 'twos,' and over three hundred cows with the present season's calf crop.

"It has been my practice to sell the steer calves in the fall and from sixty to one hundred dry, old, or cull cows, putting the heifers in their place to keep the herd up. We grow as much of the feed required as we can and buy 'cake' and fodder for the balance. I would like the ranch continued along this line. The cattle are high-grade Herefords; the males used have been registered for twenty years.

"What I want is this—to put these boys on a percentage basis; I to furnish the ranch, stock and equipment, and pay the taxes; the boys to do the work or hire and board such help as they may have to have, and to buy such feed as they fail to grow. The fact that they each have some stock complicates it somewhat. How should we share? On wheat farms here where the land owner furnishes everything, he gets one-half. It seems to me that a stock ranch would be quite different. Any ideas you can give me along this line will be thankfully received. I want to encourage good work in the boys by letting their profits depend on their work."

We asked P. E. McNall, specialist in farm management at the Agricultural College, to study over this problem and offer some suggestions. He says in reply:

"The general method of stock share renting consists of the land owner balancing his capital which is invested in land and buildings against the renter's time, team, and machinery. All cattle and other productive stock are usually owned together and all expenses, except taxes, and all receipts are divided equally between the land owner and the tenant.

"The case mentioned by the 'Cowman' is different from the foregoing in that the land owner furnishes the work stock, machinery, and part of the cows, while the tenants, or boys in this case, furnish the remainder of the cows and pay all operating expenses, excluding taxes. In addition to this the one boy seems to have summer pasture for seventy-five head of cows, which must be taken into consideration.

"It is quite possible that had the owner furnished all of the cows and the boys paid all of the expenses, the income could still be divided half to the land owner and one-fourth to each of the boys. With the boys furnishing part of the cattle, however, and with one of the boys having pasture for seventy-five head of stock which is put into the partnership, he should receive more than the other boy and they should both receive more than one-half of the returns. Probably the best way to get at the summer pasture for the seventy-five head of cattle would be on a cash basis. That is, give the boy a bonus of so many dollars for the summer pasture which would then be pooled with the other pasture. The share of the two boys could then be figured more nearly alike.

"It would probably be equitable to figure the father receiving half of the proceeds from his share of the cows while the boys receive the other half plus the proceeds from their own cows. As an example, let us assume that the father owns three hundred head of cows which are in the partnership and the boys each own fifty head, making the total of four hundred head of cows for the boys to handle. Let us assume that the returns from the four hundred head of cattle are $12,000 for the year, which would be $30 per head. The father in this case would receive one-half of the returns from three hundred head, which amounts to $4,500. The boys would receive the other $4,500 to be divided equally between the two. In addition to this they would each receive one-half of the $3,000, which represents the increase from the one hundred head of cows which they own. Then one-half of the $4,500, or $2,250, plus one-half of the $3,000, or $1,500, equals $3,750, or the share of each of the boys, while the father receives $4,500 for his share. To the older boy's share must be added, however, the cash bonus which is given to him by the father for the summer pasture for the seventy-five head of cattle.

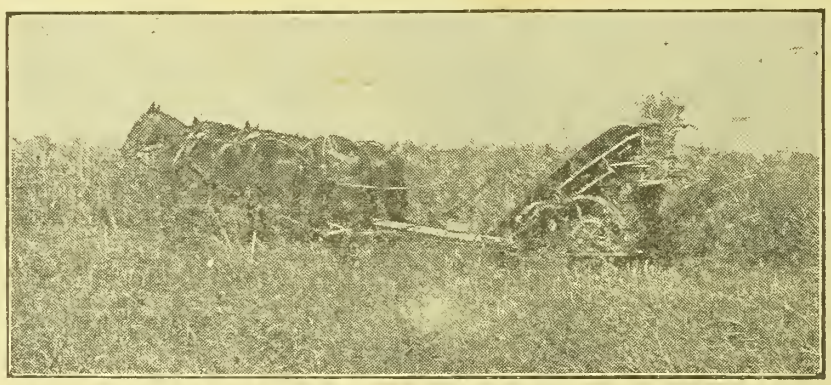
"In this case it is assumed that the father buys the new machinery and work stock which may be needed for the place while the boys keep up the repairs of the same. Any increase in the herd of cows for the father would be made from his share of the increase of proceeds. This arrangement would seem to give the boys the better end of the bargain, but it should be remembered that the father does not run the risk that the boys do, since they are paying all operating expenses. In case of a complete failure of the calf crop, all the father would be out for the year would be taxes and possibly some loss from cows, while the boys would be out all running expenses in addition to their share of the calf crop.

"The foregoing assumes that the father is going to keep full interest in practically all of the cows. The crop sales are usually divided half and half."

Silo-Filling Machinery

A great many silos will be put up this summer and fall. Putting up silos involves adding to the equipment of the farm silo-filling machinery. In neighborhoods where a number of new silos are to be built it would be the part of wisdom to begin planning right now on the filling of these silos. Orders for the necessary machinery should be sent in at once. There are sure to be delays as a result of war conditions, and silage is a crop that cannot wait very long when the time comes to put it into the silo.

The necessary labor must also be given consideration. Co-operation in silo filling is almost necessary. Perhaps this will more naturally follow as more silos are put up. Sometimes the one lone man in a community with a silo finds it difficult to get the help he needs at filling time. When a number of farmers have silos and are all interested in getting their silos filled, co-operative silo-filling clubs can be formed. This not only makes it possible to solve the labor question, but it uses machinery to the best possible advantage. As scarce as labor is at the present time, there is probably no other way in which the silo-filling job can be handled than by co-operation among neighbors.



HARVESTING SUDAN GRASS FOR SEED ON M'PHERSON COUNTY FARM

Stack the Grain

The scattering showers over the state have delayed threshing. There are not enough threshing outfits to do all the work as promptly as it should be done if it is planned to thresh from the shock. As long as the shocks stand in the field, plowing is delayed. Since early work is so important in preparing for next year's crop, this is a serious drawback. Grain left standing in the shock is also likely to be damaged in the course of time both by the bleaching effect of the sun and rain and by actual sprouting in some cases. Many fields are growing up to weeds while the owners are waiting for a machine.

The state threshing committee of the Food Administration is frowning on the threshing of damp grain because too much wheat is wasted due to the grain not being beaten out of the heads. The matter of stacking in the various counties is being left to the local threshing committees, these men being expected to use their own judgment and have absolute jurisdiction in the matter of advising or urging wheat growers to stack if it seems the best thing to do under the circumstances. Some of our best farmers never think of waiting very long for a threshing machine, but go ahead and stack if a machine is not available at the proper time.

Record Meat Purchase

The United States is sending enormous quantities of meat abroad. During the first six months of the present year we have exported more meat than was sent abroad in any single year of the three preceding. Our army, which is the best fed army of all the Allies, is taking large quantities of meat. A soldier eats probably on an average twice as much meat as he consumed in civil life. The Quartermaster's Department of the United States Army has just placed an order with the Chicago packers for 9,956,000 pounds of bacon and 134 million pounds of canned beef. It will take 1,900,000 hogs to produce the bacon, and on the basis of prices at the time the order was given producers will get $80,000,000 for the hogs required. About 900,000 cattle will be required for the beef order, valued at about $50,000,000. The packers are planning night and day shifts in order to get out these enormous quantities of meat before the end of the year.

Sudan Grass Hay

A reader asks about making Sudan grass hay. He is having his first experience with this crop and does not know at what stage to cut it to get the best results.

The best hay will result from cutting Sudan when the plants are in full bloom. After the seeds form and ripen the hay becomes more woody and coarse. Sudan grass, however, does not deteriorate so rapidly with advanced maturity as does most other hay and forage crops. Some growers who wish to save the seed let it ripen and, after threshing, feed the straw. They report that the Sudan grass straw makes an excellent rough feed.

When Sudan grass is seeded reasonably early and cut in the bloom for hay it will come on and make quite a luxuriant second growth which can be used for pasture. Even when allowed to mature seed there will be an aftermath which can be pastured.

When Sudan is sown broadcast for hay there is probably no better method of harvesting the crop than to mow it and handle it much as cane hay or millet hay is handled.

Grasshoppers in East Kansas

Grasshoppers are doing more than the usual amount of damage in Eastern Kansas counties. In some instances leaves of orchards have been stripped and corn eaten to stubs before the cause of the trouble was located. It is important in fighting grasshoppers to do the poisoning as soon as they begin working on a new crop. The poison bran mash, the formula for which we have printed in recent issues, is being used by the ton in Western Kansas counties with the greatest success. We find some of the Eastern Kansas farmers seem a little slow to take advantage of this method of destroying the pests. Some fear that stock will be poisoned. Our experiment station people who have worked for several years in the field with the poison mixture are positive in their statements that there is no danger if the mixture is spread broadcast and never put out in piles.

Sell Scrap Iron

On every farm there is a big accumulation of scrap iron and steel in the form of wornout and discarded machinery. All this material should be made over into new castings. We are constantly replacing wornout machinery with new and more modern equipment. Prices are high on the scrap material and it will help out the steel industry and contribute to the war program to turn in all the old machinery.

Love the spot where you are, and the friends God has given you, and be sure to expect everything good of them.—John Albee.

Cost of Operating Tractor

(Continued from Page Five)

haps to general opinion, decrease the cost of harvesting wheat to any considerable extent, but did increase about eightfold the acreage which one man could handle.

Men who hope to reduce greatly the cost of farming operations by the purchase of a tractor should bear these facts in mind, and also the fact that few tractor owners mention as an advantage reduction in the cost of performing farm work. Judging by the experience of tractor users, it is not safe to expect any material reduction in the cost of farm operations per acre through the use of the tractor, but it is safe to expect to be able to increase the crop acreage to a very considerable extent, and, at the same time, the amount of crops which one man can raise.

Furthermore, it should be remembered that the cost of doing the work with a tractor as above outlined in most cases cannot be directly compared with the cost of doing it with horses, since on farms where tractors are used a number of horses generally are retained, and any comparison, therefore, must be made between the cost of operating the farm with horses alone and the cost of operating with the tractor and a certain number of horses. Not infrequently horses stand idle while the tractor is being used for field work because there is not sufficient help available to use them at the same time, and in such cases part of the cost of their maintenance must be considered when figuring the cost of farm operations, since they are as much a part of the farm power plant as is the tractor.

Neither should it be forgotten that not only should the relative expense of operation with the two methods be considered, but also the relative results. The increased crop acreage and consequent increase in incomes which the purchase of the tractor will often make possible may much more than offset a slight increase in the operating expenses of the farm.

LIVE STOCK ITEMS

THE present light cattle situation is such that many of the leading cattlemen are urging a further reduction in the weight of beef carcasses on Government contracts. Conferences have recently been held at the stock yards between commission men and representatives of the United States Department of Agriculture to consider this point. The present United States beef carcass minimum for Government uses both here and abroad is 435 pounds. One of the missions of Joseph P. Cotton in Europe at the present time is to have our European Allies take lighter beeves.

The conditions over much of the cattle country have been such as to make the supply of light beeves at this time above the normal. For that reason it is urgent that the minimum be reduced to an even lower weight than that established in June. There is also some discussion as to the advisability of removing the ban against serving beef at all meals as a measure for overcoming the situation as it now exists.

Royal Stock Show in Old Home

The American Royal Live Stock Show bids fair to be one of the biggest and best expositions ever held. It will go back to its old home in the stock yards. This is one of the features that will be especially pleasing to old-time visitors. The big new sheep barn in the southeast corner of the yards will be used for the show ring. The pens will be torn out in this building, which is one of the largest in the yards, and it will be converted into an arena for judging purposes. A large amount of floor space will be available in the other sheep barns also, these opening on the large barn so as to handle the exhibits in an ideal way. The Royal this year will be held November 18 to 23, which fits in with the International at Chicago. Royal exhibitors can ship directly to the International Show in Chicago.

The big fair at Dallas, one of the biggest state fairs in the country, cannot be held this year on account of the Government using the grounds and buildings for aviation training purposes. This will release all the Texas exhibits for the Royal.

Hog Campaign Successful

Although definite figures are not yet available, the Department of Agriculture has just given out a statement that the campaign made last fall to increase pork production at least 15 per cent this year has been successful. From the reports received practically every state has done its part in obtaining the increase, and some have produced more than their quota. The Department figures for April 1 on brood sows show an increase of 9½ per cent over the number on the same date a year ago.

Weather conditions were very favorable during March and April over almost all the hog producing country, and this resulted in a larger percentage of pigs being raised than for a number of years past.

Protect Lambs from Parasites

Sheep growers should guard against stomach worms, these parasites nearly always becoming more troublesome the longer sheep are kept on the same farm. The ewe lambs being kept back for the breeding flock will need attention all summer. It is much safer and a better policy to prevent the lambs from becoming infested with worms than to rely on curing them. The most practical preventative measure is frequent change of pasture. If the lambs can be kept all summer long where sheep did not run the previous year, there is little danger of infection. If practical, the lambs should be changed to fresh pasture every two or three weeks. The wheat or oats stubble which has not been plowed makes a good place for the lambs to run. The stubble left where hay has been removed is also a good place, and sure to be free from the parasites. During August lambs can run in the corn field. They will clean up the weeds and grass and be in no danger of becoming infected with stomach worms. It is important that they have access to clean, fresh water, and salt should be kept before them at all times. Stagnant pools and water holes are very apt to be infested with parasites.

Swine Show at Topeka Fair

Two new modern swine barns have been added to the equipment of the Topeka fair grounds. There will now be eight buildings used exclusively for hogs. Present indications are that this year's hog show will be the biggest in the history of the Free Fair. Exhibitors should get their entries in early so that reservations may be made for the accommodation of their stock.

In connection with the hog show will be held the Kansas Poland China futurity and the Kansas Duroc Jersey futurity. These are held under the management of the national record associations for these two breeds.

The Hampshire hog show will also be a strong feature this year, as both the Kansas Hampshire Breeders' Association and the American Hampshire Swine Record Association have offered cash premiums in addition to those offered by the fair association.

Stock Yards Receipts in June

Receipts of cattle, hogs, and sheep at thirty-six cities in June show increases over receipts in June, 1917, according to the monthly report just issued by the Bureau of Markets. The June totals for the two years covering all the larger cities, with 1918 figures given first, are: Cattle, 1,580,920, 1,544,299; hogs, 2,596,619, 2,472,090; and sheep, 1,247,115, 1,042,235. Although previous monthly reports have shown increases in one or two classes of live stock, it is pointed out that this is the first time increased receipts are reported for all three classes of live stock, cattle, hogs, and sheep, in the same month.

Meat Exports to Europe

In a recent letter to the President in which he summarizes the work of the Food Administration, Mr. Hoover states that the shipments of meats and fats to Allied destinations for the fiscal year 1917 and 1918 amounted to over three billion pounds, or an increase of 844,600,000 pounds over the shipments of the year preceding.

Our slaughterable animals at the beginning of the last fiscal year were not appreciably greater in numbers than the year before, and in hogs they were probably less. The increase in shipments is due to conservation and the extra weight of animals added by our farmers. The full effect of these efforts began to bear their best results in the last half of the fiscal year when the exports to the Allies were 2,133,100,000 pounds, as against 1,266,500,000 pounds in the same period of the year before. This compares with an average of 801,000,000 pounds of total exports for the same half years in the three-year pre-war period.

Labette County Pig Club

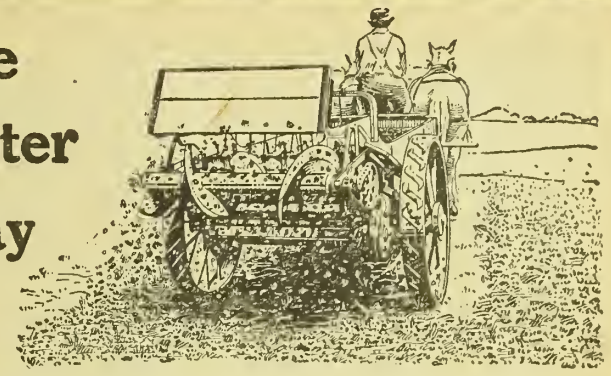
Probably the largest pig club in the state is the one organized in Labette County July 24 with a membership of seventy-five boys and girls, most of them living in the vicinity of Parsons. Each member owns a pure-bred Duroc Jersey pig between eight and twelve weeks of age.

The club was organized by Charles L. Gastineau, assistant emergency county club leader, and F. T. Rees, emergency county agricultural agent, Parsons banks furnishing the capital and taking the notes of the boys and girls in payment. The following officers were elected: President, Chauncey Dennis; vice-president, Kenneth McClure; secretary, Richard Arnett.

In this county the Parsons public schools are co-operating with the Kansas Agricultural College and the U. S. Department of Agriculture in supporting the boys' and girls' club work.

Your part in the war is to produce as much as possible, consume as little as necessary, and loan your savings to the Government. Are you facing your task as cheerfully as our fighting men face theirs?

The Better Way



THE FARMER who can get stable manure to spread on his fields this year and who fails or refuses to take care of it and spread it properly, is losing the chance of a lifetime to make his farm pay handsomely. No farmer can possibly raise too much of any of the staple crops in these times. Increased acreage is pretty nearly out of the question; labor and power are too hard to get. There is a better, easier, less expensive way to grow bigger crops. Save stable manure, add phosphate as your soil requires, and spread it in a thin, even coat with a widespreading

Low Corn King, Cloverleaf, or 20th Century Manure Spreader.

Begin right after harvest. With one of these machines, and no additional power or help, you can increase immediate yields, and put your soil in better condition for future crops. They are low, light draft, narrow box machines, each made in three handy sizes—small, medium and large. The entire load is spread in 3 to 5 minutes, in an even coat that extends well beyond the rear wheel tracks. See the machine at the local dealer's place of business—or write us.

International Harvester Company of America
(Incorporated)

CHICAGO U S A

Champion Deering McCormick Milwaukee Osborne

Help Save the Canadian Crops

When Our Own Harvest Requirements are Completed

United States Help Badly Needed Harvest Hands Wanted

Military demands from a limited population have made such a scarcity of farm help in Canada that the appeal of the Canadian Government to the United States Government for

Help to Harvest the Canadian Grain Crop of 1918

Meets with a request for all available assistance to go forward as soon as our own crop is secured.

The Allied Armies must be fed and therefore it is necessary to save every bit of the crop of the Continent—American and Canadian. Those who respond to this appeal will get a

Warm Welcome, Good Wages, Good Board and Find Comfortable Homes

A card entitling the holder to a rate of one cent per mile from Canadian Boundary Points to destination and return will be given to all Harvest Applicants. Every facility will be afforded for admission into Canada and return to the United States. Information as to wages, railway rates and routes, may be had from the

UNITED STATES EMPLOYMENT SERVICE

Branches at Dodge City, Hays, Hutchinson, Kansas City, Parsons, Topeka or Wichita.

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KANSAS STATE FAIR

HUTCHINSON, SEPTEMBER 14-21, 1918

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An Unprecedented Pyrotechnic Spectacle, Five Nights

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Send for catalog and make your entries early. For information, write

H. S. THOMPSON Pres. A. L. SPONSLER, Secy.

Men, Women, Boys and Girls

Read the following list of valuable articles. Is there anything in the list that you want? They are all or any of them given FREE in exchange for Kansas Farmer Coupons.

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A PARTIAL LIST ONLY

Lace Curtains	Carving Sets	Set Dishes
Butcher Sets	Knife Sharpeners	Pocket Knives
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Do you know about Kansas Farmer FREE COUPONS? If not, write us today. It means money to you. Every coupon is exchangeable for either goods or money. THE COUPONS ARE FREE TO YOU.

SPECIAL.—Clip this advertisement and mail it to us today and we will send you one Coupon redeemable in either goods or cash.

Write for information as to how and where to get the Coupons. Address

KANSAS FARMER

Coupon Dept. TOPEKA, KANSAS

Sweet Corn Fodder

If you have a good patch of sweet corn, cut the fodder and feed it to the cows as soon as the roasting ears have been picked. There is nothing better to help out the pasture than green sweet-corn fodder. The boys and girls of the Dairy Club should watch the sweet-corn patch and get permission to harvest every stalk as soon as the corn is picked. It will save feed and help keep the cows giving milk when the pastures get short.

Brown County Silos

Brown County is evidently building her fair share of the new silos this year. In a letter just received from C. W. Yoder he says seven tile block silos are to be built near the town of Morrill this season. On these farms the whole crop will be saved and turned into beef or milk. Good silos are investments that oftentimes will pay for themselves in a year or two.

Credit Manure from Cows

The dairyman should not fail to credit his cows with the fertilizing value they produce. Land that has been farmed a long time can be brought back to its original state of productivity by keeping dairy cows and carefully saving and spreading the manure. At present prices of crops, a ton of manure is worth $4.20. This is not a guess, but a statement based on actual figures in which the value of the increased production from manure has been calculated. When we see the soil improve and produce larger crops each year we can feel that here is a source of profit that must not be overlooked.



If you actually knew that by buying only those things you absolutely needed and by putting your savings into War Savings Stamps you could save lives, would you do it? Take the word of the President that you do save lives when you do this.

KANSAS FARMER DAIRY CLUB

Two Classes of Dairymen

THERE is a lot of work connected with dairying, and many dairymen are on the verge of distraction these days when it is so hard to get help on the farm. The editor of the Pacific Dairy Review divides dairymen into two general classes. He says that every once in a while he runs across one who seems to be so supremely contented with his lot that he has come in his own mind to put this kind in a class by themselves. It is the dairyman who, in all probability, has a small, well-kept farm, a herd of ten to twenty good cows —as likely as not registered pure-breds —who milks and cares for them himself, who loves them and loves to work with them and who is making money out of them. He knows his cows as "Pet," and "Daisy," and "Crumpy," and nothing goes wrong with his pets without attracting his attention. Such is the man who belongs to the class of contented, non-worrying dairymen.

Contrast this class with the dairyman —of whom we have many—whose business is too big for him, who is trying to spread out over a big weed-covered, half-cultivated and half-cared-for farm and who hopes to gratify his ambition by a large number of indifferent cows, none of which he or his help know anything individually about and care less. In numbers he can make a show, but generally he is in a rush to make a clean-up and get away from the dairy business at the first opportunity. There is no satisfaction in such a state of affairs, not even for the hired help, and in the average case this class of dairyman is not getting ahead as substantially as is the other class and instead of getting satisfaction out of the business, he is leading a life of misery.

If you study the dairy business in California, says this writer, you will find just this situation—on one hand successful, prosperous, small dairymen with good cows, who have their business well in hand, and on the other, the so-called "big" dairyman, too often making little or no progress and operating under a burden of debt and with an unsystematic and unprofitable enterprise. Success in any line of business is measured by one's grasp of its details. The dairy business is essentially one of details and these often overwhelm the would-be dairyman.

Lime Water for Separator

We wonder if any of our readers have ever tried using lime water to keep the hand separator sweet. Washing the separator after the evening work is done is a job all dislike. As the machine runs, particles of dirt and any foreign substances are thrown to the outside of the bowl. The sticky material remaining after the milk and cream has passed through the machine is called separator slime. It is alive with germs and will contaminate the milk at the next separation unless the separator is washed and carefully sterilized. Some persons simply rinse the separator at night and let it stand until the morning's milk is run through before giving it a thorough washing. This is fatal to the quality of the cream. The suggestion is made that by careful rinsing in cold water and then placing the separator parts in a solution of lime water the germs will be destroyed, or at least kept from increasing over night. Then give the machine a real cleaning after separating the morning's milk. This plan cannot be as good as washing after each skimming, but may serve the purpose occasionally.

Milk Pays for Cow

Gary Cook, of Leavenworth County, writes that he made the last payment on his note at the bank last month and now owns his cow clear. He says:

"I paid for Martha with the money I got for her milk and the calf, which I sold for $11.75. I could not raise the calf because I wanted to sell whole milk. The milk brought $6.61 in October, $11.08 in November, $4.31 in December, $4.82 in January, $2.44 in February, $1.98 in March, $11.92 in April, $15.44 in May, and $11.84 in June. I got 24 cents a gallon after deducting the cost of feed, the total amounting to $82.19. I paid $3.98 interest on the note and had $2.21 left in the bank when I made the last payment."

This is a fine record. Gary sold about $120 worth of milk and his feed for the nine months cost about $50. He said in his letter that his cow was holding up in her milk in spite of hot weather. By the end of the year he will have a nice little balance in the bank.

Sweet Cream Test Equals Sour

Does cream test more when it is sour than when it is sweet? This question has been asked many times, and many have been led to believe that by holding their cream until it is sour they would be given a higher test. "This would be possible under one condition," says E. O. Hanson, of the dairy husbandry division, University Farm, St. Paul, Minnesota, "and that is, if a can of cream is allowed to stand for a long time at a rather high temperature, enough moisture will evaporate to increase slightly the percentage of fat, but it will be very slight and the cream will no longer be fit for food. It would bring no higher price, as the extra percentage of fat would only make up for the moisture that had evaporated.

"To illustrate: In eighty pounds of sweet cream testing 30 per cent fat there are twenty-four pounds of butter fat. If this cream were allowed to stand until five pounds of moisture have evaporated, there would be seventy-five pounds of cream testing 32 per cent fat. It also would yield twenty-four pounds of butter fat, and it is needless to say that the butter made from this seventy-five pounds of so-called cream would not be fit for human consumption."

"How do you know that cream will not test more when it is sour?" In reply Mr. Hanson tested eight samples, sweet, of one pint each, using retested glassware and one of the best cream scales on the market, making the tests in duplicate. They ran from 16.5 to 38 per cent. They were then kept in air-tight bottles sealed with paraffin to prevent the escape of any moisture. They were held at approximately 80 degrees F. for ten days. They were then tested again, using the same test bottles to avoid any possible error, and were again tested in duplicate. On comparison, the two tests were found to be exactly the same.

It may be true that in some cases a higher test has been reported when the cream was sour, especially in thin cream. If a can of cream has been allowed to stand for any length of time and has become sour, the milk solids settle and become very sour and firm, making it almost impossible to get the cream thoroughly mixed, and the sample which is taken will not represent the contents of the can, as there would be practically no fat in the milk solids, which are left unmixed. If a higher test is given it is neither fair nor accurate.

Clots in Milk

Nearly everyone who milks cows has had experience with lumpy or clotty milk. This is caused by what is called garget. It is a disease of the udder attributed by veterinarians to germs which get into the teats. Sometimes cows will give lumpy milk from one quarter for a day or so and it will disappear without treatment. At other times the whole udder will be affected, becoming hard and feverish. Some cows have spells of giving gargety or lumpy milk at intervals throughout the milking period. A cow that persists in being troubled in this way is not a very valuable cow. Sometimes the only thing that can be done is to dispose of such cows on the market.

Professor Eckles, of the Missouri Agricultural College, recommends giving a cow affected with garget a physic of one and one-half pounds of Epsom salts in the form of a drink, also a tablespoonful of saltpeter once a day for two or three days. If a cow is getting considerable grain, cut down the grain ration while she is giving lumpy milk.

A new remedy suggested by Doctor Dykstra of our Agricultural College is to give one-eighth ounce of formalin in a quart of water once a day for ten days. If you are having trouble with lumpy milk, look up the answer given by Doctor Dykstra in the July 13 issue of KANSAS FARMER.

Pro-Germans probably think the War Savings Campaign a foolish one.

"Maximum canning with minimum sugar"—the summer slogan.

PURE BRED
Tauranian Turkey Seed

WHEAT

In 1914 Geo. Ripke, of Salina, Kansas, made a trip to the Black Sea District of Russia and at very great expense brought to Kansas a very small quantity of "Thoroughbred Wheat." This he planted and cultivated carefully, increasing his acreage annually until now he has a limited quantity for sale.

Analysis has shown this wheat to be richer in gluten, stronger in straw to resist wind and storms than ordinary kinds. Actual growing tests have proven it to yield very heavy and more productive than domestic varieties. It is now thoroughly acclimated and grows and yields exceedingly well in this section of the country. It requires no more care in cultivation than other kinds.

It is very highly recommended by the Kansas State Agricultural College of Manhattan, Kansas. It has been grown for two years at the College, where the tests have been very satisfactory.

A limited quantity is offered for sale in 5, 10, 15 and 20-bushel lots at $5.00 per bushel, delivered in sacks, f. o. b. Salina to railroad specified. Checks or Postal Money Orders should accompany each order.

Send orders to, and for further information address

The Western Star Mill Co.
SALINA, KANSAS



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Reduces **Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from Bruises or Strains;** stops Spavin Lameness, allays pain. Does not blister, remove the hair or lay up the horse. $2.50 a bottle at druggists or delivered. **Book 1 R free.**

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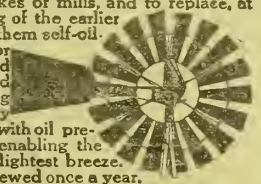
THE SELF-OILING WINDMILL

has become so popular in its first three years that thousands have been called for to replace, on their old towers, other makes of mills, and to replace, at small cost, the gearing of the earlier Aermotors, making them self-oiling. Its enclosed motor keeps in the oil and keeps out dust and rain. The Splash Oiling System constantly floods every bearing with oil preventing wear and enabling the mill to pump in the lightest breeze. The oil supply is renewed once a year. Double Gears are used, each carrying half the load



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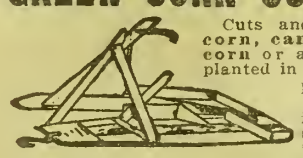

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J. A. COLE, Mfr., TOPEKA, KANSAS

SENATE CONCURRENT RESOLUTION
No. 18.

A proposition to amend section 1 of article 5 of the constitution of the state of Kansas relative to the right of suffrage.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members elected to each house thereof concurring therein:

Section 1. The following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their approval or rejection: That section 1 of article 5 of the constitution of the state of Kansas be amended to read as follows:

Section 1. Every citizen of the United States of the age of twenty-one years and upwards—who shall have resided in Kansas six months next preceding any election, and in the township or ward in which he or she offers to vote, at least thirty days next preceding such election—shall be deemed a qualified elector.

Sec. 2. That this proposition shall be submitted to the electors of the state at the general election in the year 1918 for their approval or rejection. The amendment hereby proposed shall be designated on the ballot by the following title: "The suffrage amendment to the constitution," and shall be voted for or against as provided by law under such title.

Sec. 3. That this resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 8, 1917.
Approved March 12, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 18, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

Interesting War Items

GERMANY wants to know what the United States is fighting for. She thinks the sinking of neutral ships without warning isn't enough to bring us in. All right! Let's tell her!

We're going to fight for outraged women!

We're going to fight for crucified nuns!

We're going to fight for little children with hands and arms missing!

We're going to fight for namelessly mutilated soldiers!

We're going to fight for innocent thousands strewn upon the bottom of the sea!

We're going to fight for Belgium—outraged and desecrated as no nation in the previous history of the world has ever been!

We're going to fight for France—that magnificent nation of heroes—bled white defending civilization against the Power of the Beast!

We're going to fight for England—which chose the path of honor blacktinted with despair—when the little nation she had sworn to defend was set upon as by a wild beast!

We're going to fight for Italy—which took up the cause of Right against the power of Wrong—terrible though she knew the cost must be!

We're going to fight in defense of those principles of human liberty which were laid down nineteen centuries ago by that first great teacher and preacher of human rights—the Man of Galilee!

Every iota of the philosophy and creed of hate, and blood, and violence, and bestiality, and diabolic cruelty, and the human enslavement that mark every footstep of the kaiser and his cohorts of hell—are in direct and damnable opposition to every thought, word, and deed, of the Man of Galilee!

This is therefore no fight of democracy against autocracy!

It is no battle of nation against nation!

It is no contest of man against man!

It is a titanic struggle between right and wrong; between the philosophy of Jesus Christ and the powers of evil, through the earthly defenders of each!

And we're going to fight — fight — fight side by side with our fellows in the cause of humanity, until there is no vestige left on all this great earth, of the powers that—defying God and man—precipitated this cataclysm of blood and tears.

There is only one sentiment in this whole broad land today, and the man who does not recognize it must indeed be deaf, dumb and blind; and that sentiment is a dogged determination deep down in the very bowels of every man that we are going to fight until we have justified Italy; saved England! Swept immortal France free of the Hun! Liberated Belgium! Avenged so far as is within human power the countless crimes of Germany against civilization; broken the Hindenburg line and swept the army of the beast as chaff before the wind; humbled the empire of hell; and—please God—rid the earth of the kaiser and all his fell breed!

If anyone asks you, tell them that is what we're going to fight for!—J. C. DIONNE in the Gulf Coast Lumberman.

Advice.

"I want to know how to succeed in the world," said the young man to the older one.

"Young man," said the gray-haired individual, "right now you've no business worrying about your own success. All you've got to do is to get a job in the army or navy and help to win the war. After that I'll be glad to give you a tip on how to become rich or famous."—Norton Courier.

Books and Magazines Needed

Here is a service which everyone can render. A very recent message from General Pershing says: "We must keep the American soldiers clean," and to assist in this great work he wants fifty tons of books each month from overseas.

"The desire of the Library Association," says Miss Maggie Neff, state chairman, "is to have every idle book now in the homes of America doing service, helping entertain and instruct our soldiers wherever they may be. One million books was the first call, 2,500,000 were donated, and Kansas gave one-twenty-sixth of that number. Get busy and see that your community donates more books and mail out your current magazines as soon as they are read. A one-cent stamp, and your postmaster will do the balance."

Any detailed information desired can be obtained from Mrs. Adrian Green, of Topeka, secretary of the Kansas Traveling Library and member of the National War Liberty Association.

Four Huns for Each American

Private Edw. Bird, of Coffey County, a member of the 2d U. S. Engineers, writes to his sister from a base hospital in France, where he is recovering from a wounded knee, a letter reproduced in the Burlington Republic from which we quote the following paragraph:

"Believe me, if you could only see what I have seen, you people in America would surely be more patriotic than ever before! The Germans came over after our boys a great many times while I was there, but there were very, very few of them ever went back. For every American killed there are at least four and sometimes more Germans that pay the price. Anyway, they're a yellow bunch."

Of the hospital, he says: "This is such a beautiful place in which to be, one which takes the sad things out of a man's life and just makes one think of those things which are beautiful and noble and good."

Enthusiastic About Red Cross

The soldier's appreciation of the work the Red Cross is doing even on this side of the water is shown by the following extract from a letter written by Albert Smith, of Beloit, to his cousin living at that place, as reported in his home paper:

"Say, talk about the Red Cross. Believe me, it is the greatest work going. I will try and tell you a few things that it does for us soldiers. At Atlanta, Georgia, the Red Cross workers met our train and gave use grape juice, post cards and cigarets. In Rome, Georgia, they gave us pop and smokes. In Topeka we were showered with apples and flowers. At Kansas City we had all the pop we could drink, and besides they gave us post cards and papers to read. At Moberly, Missouri, they showered us with cookies and other things, and let me tell you these things taste mighty good to a hungry man who is hundreds of miles from home and his people."

Baseball New Bond

American baseball is supplying a new bond of fellowship between men of the Italian army and American Red Cross workers along the Italian front. It made an instant hit with the Italians. An ambulance man wrote recently: "Most of them as yet catch the ball with their stomachs, but they are making rapid progress. They borrow our ball whenever it is not in use."

Soldiers Receive Razors

Razors are being issued to the men of the American Expeditionary Forces. One is supplied to each man, with replacements in case of loss through no fault of the man's. In addition to the razors, which are of standard safety type, each man is issued a toothbrush, comb, hair brush, soap and towels.

Believes in Preparedness

The editor of the Rooks County Record issues the following warning:

"Our boys who stay in France or Italy for some time will of course adopt many of the social customs of these lands, though they may at first shy at them. Be prepared to have him kiss you on both cheeks as well as pump your arm when he comes home."

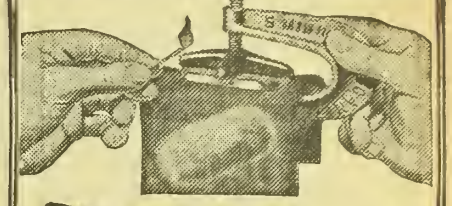
What the Soldiers Say

"The Red Cross is surely the soldier's best friend."

"We were given hot coffee and sandwiches by the Red Cross. All the good you hear of the Red Cross is true."

"It gives a fellow a wonderful feeling of home. The Red Cross meets us at every point and even accompanies us to the trenches."

Mend Your Tubes As Good As New



SHALER

5-Minute Vulcanizer

Works automatically—without fail. Makes a perfect, lasting, feather-edge tube repair—anywhere on the road—in any weather—in five minutes. So simple a child can do it. No acid, cement or gasoline. Makes tube repairs far superior to any "stuck on" patch. Easily carried in tool box. Saves cost of spare tubes and repair bills.

Complete Outfit With 12 Patch & Heat Units $1.50

Comprises handy, nickel plated vulcanizer, 6 round Patch & Heat Units for punctures, and 6 oblong units for cuts and tears—(everything necessary to make 12 perfect, permanent tube repairs) with full instructions, only $1.50. (Additional Patch & Heat Units only 75c per doz.) *Buy from your garage or hardware dealer*—or we will send prepaid, guaranteed, by parcel post direct from factory if your dealer does not sell it.

Write for FREE BOOK—*"Care and Repair of Tires"*

Tells how to make your own tire repairs—how to increase tire mileage—how to prevent blowouts, sand pockets—general care of tires, etc. Don't fail to write for this valuable Free Tire Book now—before you forget.

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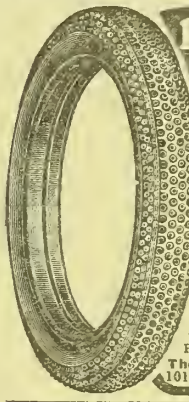

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Find out at our risk the wonderful service qualities of Brictson Pneumatic Tires. Don't pay unless satisfied. Write today for details of Free Trial Plan and descriptive book.

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PROCESS MFG. CO. **Salina, Kansas.**

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65 CENTS FOR 3 YEARS
KANSAS' GREATEST FARM WEEKLY

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WAR SAVINGS STAMPS ISSUED BY THE UNITED STATES GOVERNMENT
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Gem City Business College
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Take a business course or train for civil service, a secretaryship or for commercial teaching. Write for year book. Good positions waiting.
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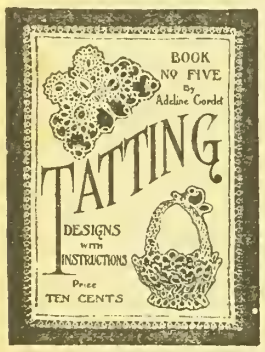
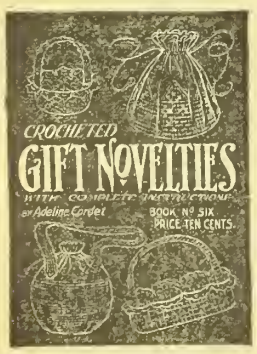
NEW TATTING BOOK



A collection of sixty pretty tatting designs with instructions, by Adeline Cordet. Price, postpaid, 10 cents. Ask for Book No. 5 when ordering. Address **Fancy Work Dept., Kansas Farmer, Topeka, Kansas.**

CROCHETED NOVELTIES



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THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Convenient Kitchen Equipment

THE purchase of special kitchen equipment for use in preparing fruit and vegetables for immediate use or for drying or canning is unnecessary and unwise if the material to be cared for is only that from a small home garden or a few fruit trees, as the kitchen equipment will contain everything absolutely necessary. Two cheap kitchen knives, one with a short, narrow, rather stiff blade, for use in paring and trimming, the other with a longer, flexible blade, for use in slicing, are all that will be needed for paring, trimming, and slicing small quantities of apples, pears, apricots, peaches, onions, potatoes, carrots, beets, and other vegetables.

If saving of time rather than economy of expenditure is a primary consideration, or if the quantities of the various materials are considerable, the Department of Agriculture bulletin on "Farm and Home Drying of Fruits and Vegetables" suggests that the individual household may advantageously secure several special machines. For handling apples in considerable quantities, one of the small hand-paring machines which peel and core, or peel, core and slice in one operation, will save much time. A number of machines are on the market at prices ranging from $1.75 to $2.50. While these low-priced machines are not sufficiently strong to stand continuous heavy usage, they will serve all the needs of the ordinary family for several seasons. A kraut cutter will be an aid not only in preparing cabbage for drying or for making sauer kraut, but it can also be used in slicing potatoes, carrots, onions, pumpkin, squash, or any of the larger vegetables or fruits. Any blacksmith can make cutting blades for an inexpensive home-made device made by attaching the blade with screws diagonally to the center of a board of a convenient size and weight to place over the top of a bucket, or such a cutter may be purchased at small cost. A somewhat more expensive type of slicing machine is a rotary sheer which is made in several sizes at prices ranging from $2 to $12. These machines will slice a great variety of products and may be so adjusted as to cut uniform slices of any desired thickness, thus securing greater regularity in drying or cooking than is possible when the slices are of varying thickness.

Keeping Baby Fit in Summer

Through the long hot summer days it is a great task to keep children happy, well and out of mischief, especially when the mother already has her hands more than full with the work of her house.

In the first place, children must be kept as cool as possibe. In hot weather this is not an easy task, but it may be accomplished in some measure by clothing them suitably. Babies need only the diaper and one other garment, band or slip. Older children need only enough to cover their bodies. As far as possible, children should sleep out of doors at night, if screened porches are available, or, if not, with all the windows and doors wide open. A full tub bath in cool or tepid water will do much to make sleep comfortable, and a little plain talcum powder will help to allay the irritation of prickly heat.

Children must be provided, too, with occupations suited to their age. A play pen on a cool porch, or even under the trees in the yard where mother can watch the baby, will give much pleasure. Sand piles, swings, and many other simple pieces of play apparatus which are easily made at home without any great expense will keep older children happy and out of mischief. Rainy days may be spent on the porch. Very much of the annoyance of mothers and the fussiness of children would be done away with if the little hands and minds had plenty of occupation. Many a cross child is cross because he has nothing to do which interests him, and many a piece of mischief is only the result of the child's trying to find something with which to busy himself.

Children's food must be chosen with special care in summer to suit the ages, and proper food habits should be established. The nursing baby will cause the least anxiety. If a baby is nursed at regular times, preferably three or four hours apart, and is clean and as cool as possible, he will not usually suffer harm even in very hot weather.

Babies newly weaned from the breast and up to the end of the second year will need special care. Properly modified cows' milk will form the principal part of the diet of all such children, and must be as clean and as fresh as possible. Detailed directions for the feeding of children will be sent free from the Children's Bureau of the U. S. Department of Labor to all who care to send for the bulletins on the care of children.

Other children should be taught to observe regular habits, also, and mothers must guard against the dangers of over or underfeeding, and especially against poor food materials, such as overripe fruit. Young children need to be taught to chew their food thoroughly and to eat slowly. Cleanliness of the body is necessary for health and comfort at all times, but is demanded in the summer time. These fundamental rules for health should be in effect in every family, and where carried out faithfully sickness should be largely done away with.

NOTE.—This is one of the series of articles by Mrs. Max West, of the Children's Bureau of the U. S. Department of Labor, Washington, D. C., on "How Mothers Can Help in Children's Year."

Only a Little Thing?

PLANNING and preparing three meals a day may seem a thing of small importance. It has to be done over again every day, and the wearisome routine for one day is no sooner finished than you must begin to plan for the next. Sometimes it seems just like going around and around in a treadmill, and we feel that if it were not for this constantly recurring task we might be able to accomplish something worth while.

The next time you are tempted to think of your work in that way, just remember that, though one may not seem to get very far in a treadmill and though it must become tiresome, it is often used as a means of furnishing the power to run important machinery. And the power for the whole machinery of your home is furnished in just this way. All the strength for the work and the study and the play of the different members of the family, as well as the material used in building up the bodies of the little ones, comes from the food prepared by your hands. If you are giving the members of your household wholesome food served in an appetizing way three times a day, you are doing much to keep them well and happy, and this is no small thing.

Ethel Whipple.

FASHION DEPARTMENT

All patterns, 10 cents.



No. 8913—Ladies' and Misses' Blouse: Cut in sizes 16 and 18 years and 36, 38, 40, 42 and 44 inches bust measure. The separate blouse can work wonders in the way of freshening up an old dress. The front edges are rolled back to form revers at the neck, and a collar in fancy outline is attached. The long sleeves are gathered into deep cuffs, but the shorter length may be used. **No. 8911—Girls' One-Piece Dress:** Cut in sizes 4, 6, 8 and 10 years. A red and white checked gingham was chosen for this quaint little one-piece dress, which is worn with a guimpe of white lawn or batiste. The dress is slashed at the front almost to the waistline, where it is laced with a ribbon or silk tape. The sleeves may be either long or short. **No. 8901—Ladies' Apron and Cap:** Cut in sizes 36, 40 and 44 inches bust measure. This trim apron with cap to match forms an efficiency uniform for the housewife. The skirt section is in one piece, and it is plain at the front and gathered across the back to the belt. The cap is included in the pattern.



No. 8688—Ladies' Waist: Cut in sizes 36, 38, 40 and 42 inches bust measure. The smart model here illustrated is developed in challies, with a long roll collar of satin and a band at the top of the tucker of the same material. The shoulder edges of the back extend over and the fronts are gathered. **No. 8721—Ladies' Dress:** Cut in sizes 36, 38, 40 and 42 inches bust measure. The addition of an attractive shawl collar and a jaunty overblouse makes this simple dress very fashionable. The plain waist closes at center front, and there is a two-piece skirt gathered to it at the slightly raised waist line. The long sleeves may be finished with or without the pointed cuffs. **No. 8714—Children's Dress:** Cut in sizes 4, 6, 8 and 10 years. A little tailored dress to wear to school is shown in No. 8714. The long-waisted style, which always looks well on tiny girls, is featured. The waist is plain, but it is side-plaited all around to the long

Distributing the Sugar

So long as the war continues it is likely that the Allies will be on a meager sugar ration and America on a short allowance. The situation calls for a cheerful acceptance of facts and an all-round reciprocity on sugar—reciprocity between nations, between consumers and manufacturers, and between the American public and the Food Administration. Common sense and reciprocity all around will bring us to the end of the year without an embarrassing shortage.

In the plan of distribution which was put in force July 1, manufacturers of candy, soft drinks, tobacco, wine and such less essential products, were cut to 50 per cent of normal requirements. Ice cream makers will be allowed 75 per cent and canners of fruits and vegetables 100 per cent. No sugar can be sold to manufacturers, to retail merchants or to proprietors of eating places except on certificate from the local Food Administrator indicating the quantity that may be bought.

The householder is on honor to ration his family to two pounds a month per person and is urged to co-operate with the Government in a fair distribution of sugar supplies. If the sugar is available, home canners can obtain more than the 25-pound allowance for canning on approval of local administrators.

Making Tomato Preserves

"Don't peel the little yellow pear tomatoes that you are going to use for preserves," says my little neighbor. "The skin is so thin it will not be tough, and they will keep their shape much better."

"And when I make preserves of the ordinary large tomatoes," she went on, "I like to slice them at night and pour the sugar over them and let them staud until morning. The sugar toughens the slices so that they keep their shape better than they otherwise would.. In the morning I pour off the juice, slice lemon in it and boil it down until it is quite thick. Then I add the tomatoes and cook them slowly until they are tender. Boiling away some of the water before putting the tomato in makes it unnecessary to cook the tomato so long and prevents a strong flavor."

Easy Way to Peel Peaches

When a considerable quantity of peaches is to be dried or canned, a convenient way of peeling them is to plunge them into a lye solution made by adding one pound of commercial concentrated lye to ten gallons of water and heating it to boiling. An enamel lined vessel is to be preferred for the lye solution. The fruit is placed in a basket or old bucket with the sides punched full of holes to serve as a dipping basket, plunged into the boiling solution for one-half to one and one-half minutes—the exact time depending upon the variety and being determined by the cracking or splitting of the skins. It is then withdrawn and immediately transferred to a vessel of cold water, thoroughly washed, and the peels rubbed off between the hands or by rubbing gently against a wire screen and rinsing.

Wire Basket for Blanching

For blanching or steaming such vegetables as require this treatment before canning or drying, a very convenient device is a wire basket made from heavy window screening or wire netting, of such size and shape that it can be placed inside the vessel to be used. A wooden or heavy wire frame which will permit the circulation of water beneath it should be placed inside the vessel and the basket containing the vegetables set upon it, the water being brought to vigorous boiling before the vegetables are put in. The cover is then replaced and the material left to steam for the prescribed time.

Children's Clothes

Children's garments should be simple, substantial, comfortable and attractive. The simple clothes cost less, wear longer, look better and are more easily kept in order than the fussy articles of dress.

All garments should allow for freedom of motion, as it is child nature to be active. A garment which binds, interferes with the proper development of the child and makes him irritable. Skirts should be attached to waists, as a band which is tight enough to hold the skirt in position is likely to interfere with the circulation.

Dull uninteresting colors should not be used for children's dresses. Even if a color does fade it is better to have the dress bright and attractive for a time rather than to have it always ugly. If colored material is soaked in salt water, washed carefully and dried in the shade, the color will usually hold for some time.

The proper fit of a garment has much to do with its attractiveness, therefore it is unwise to make a dress too large even if children do grow rapidly. With the loose-fitting garments of the present day an extra tuck will be all the provision needed for growth. — CHARLOTTE E. CARPENTER, Colorado Agricultural College.

One Year of Food Control

During the first year of food administration, the American people by saving and thoughtful use of resources have gained these ends:

For our sailors at sea and our soldiers overseas, ample provision.

For the Allies, maintaining the common cause, salvation from famine.

For the armies, renewed courage to keep a steel wall between us and destruction.

For the community of free peoples, a stronger unity of purpose.

For the future, a more resolute will to go on through sacrifice to victorious peace.

Canning Bulletin Revised

Farmers' Bulletin 839, "Home Canning by the One-Period Cold-Pack Method," by the United States Department of Agriculture, has been rewritten and enlarged. It is being distributed in this state by the Division of Home Economics of the Kansas Agricultural College at Manhattan, with an inclosed circular giving the changes in the time of sterilization made necessary by the difference in altitude between Washington and the greater part of Kansas. As long as the supply lasts the bulletin may be obtained free of charge by writing to the Home Economics Division.

Wheatless Sponge Cake

1 cupful corn flour
1 cupful sugar
4 eggs
2 tablespoonfuls lemon juice
¼ teaspoonful salt

Separate whites and yolks of eggs. Beat the yolks until thick and light lemon color. The secret of a light sponge cake lies in beating the eggs until very light, as no baking powder is used and the only leavening agent is the air buhles in the beaten egg. Beat sugar into the stiffened yolk and add the lemon juice. Fold in alternately the stiffly beaten whites and flour. This must be carefully done so that the air bubbles are not broken. A demonstrator expresses it in this way: "You don't stir the egg whites in; you don't even fold them in; you just love them in." Bake in an ungreased pan for thirty-five to forty minutes. Start in a moderate oven and when about half done raise the temperature to that of a hot oven. This may be baked in a loaf or baked in two tins and put together with jelly.

The same recipe may be used for barley sponge cake, using one and one-third cupfuls of barley flour instead of the corn flour. If rice flour is used, three-fourths of a cupful will be enough. Oat flour and corn flour may be combined, using one-half cupful of oat flour and one-third cupful of corn flour. If made with barley or with the oat and corn flour combination, one tablespoonful of lemon juice is all that is needed. The larger amount of lemon juice seems necessary with corn and rice flours to improve the flavor and cover up the tendency toward a starchy taste. The experimental kitchen of the U. S. Food Administration reports that any of these combinations make a sponge cake of good texture, the corn cake being especially tender.

Rice Apricot Pudding

¼ cupful rice
1 quart milk
½ teaspoonful salt
4 tablespoonfuls sugar
1 tablespoonful fat
White of one egg
Apricot marmalade or other preserve

Cook first five ingredients in double boiler until soft and thickened. Place in pudding dish and bake until set. Remove from oven, spread with the preserves or marmalade, and meringue made with beaten white of one egg plus one tablespoonful of sugar. Brown delicately and serve cold.

Candied or crystallized honey makes a filling for a layer cake that is both wholesome and delicious and requires no work to prepare. It also helps to save the sugar.

Roses in Your Home

ALL YEAR

Beautiful climbing roses of brilliant colors, fragrant roses of upright growth, and trailing roses with delicate tints; all yielding most delicious perfume. Our New Collection of Native American and Japanese Roses is

GROWN FROM SEED

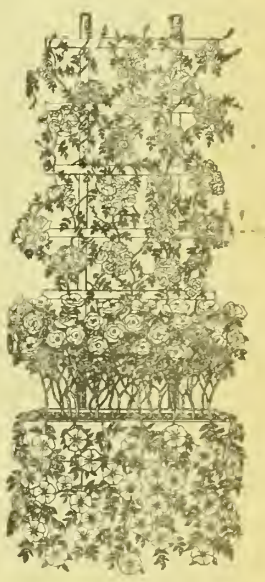


The seed germinates quickly, and the plants make rapid growth, bearing hundreds of beautiful roses. If grown in the house they will bloom all the year around. They can be grown outdoors during the summer, and if taken inside for the winter will continue to bloom. Nothing is prettier than the fragrant flowers and "berries" of these Native Roses.

You Can Have This Beautiful Window-Box of Roses in Your Home

We will send you a big packet of the seed of our new Rose Collection, together with full instructions for planting and for making a window box, as shown in the picture. If you take advantage *now* of our liberal offer, and plant the big packet of Native American and Japanese Rose Seeds, you will have hundreds of beautiful roses blooming in your home the year around. They require very little attention, except for an occasional watering.

Plant NOW! Roses in 8 Weeks!



Just do us the favor of sending us one NEW TRIAL subscription to KANSAS FARMER for three months at 25 cents, and we will send you the big packet of Rose Seed FREE and postpaid, with full instructions for planting. Send today to

KANSAS FARMER,
Topeka, Kansas

Gentlemen: Send me FREE and postpaid, your big packet of Native American and Japanese Rose Seeds, with instructions for planting and for making the Window Box.

Name.....R. F. D.....

Town..... State.....

I enclose 25 cents, for which you will please send KANSAS FARMER three months to the following address:

Name.....R. F. D.....

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A PROFITABLE INVESTMENT

For the breeder of pure-bred live stock, advertising space used at the right time is a profitable investment.

Advertising Means Quick Sales

and quick sales, when the offering is ready to go, means profitable sales. The demand for breeding stock is growing. It is the opportune time to advertise.

Let prospective buyers know that you have pure-bred stock for sale and they will quickly take your surplus.

KANSAS FARMER reaches the live stock buyers in this field and space used in the live stock advertising columns of KANSAS FARMER will sell your offering quick and at a small cost. Write for our special live stock advertising rate.

If your offering is ready, advertise now. It will result in quick sales at profitable prices.

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE—VERY CHOICE HOLSTEIN and Guernsey calves, either sex, six weeks old, 95 per cent pure-bred, at $25 each, delivered. Lewis Dutcher, Peary View Farm, Janesville, Wis.

REGISTERED HOLSTEIN BULL, READY for service. Five of his dams average 106 pounds milk in one day and 34 pounds butter in seven days officially. $125. Wisconsin Live Stock Association, Appleton, Wis.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PAINT.

FARMERS, ATTENTION. I CAN SAVE you money on good paints this fall. A special red barn paint, freight paid, at $1.20 per gallon in 25 and 50 gallon lots. An extra good black roof paint at 42 cents per gallon, freight paid. Order at once. John Nelson, Stamford, Nebraska.

REAL ESTATE.

WOULD YOU SELL YOUR FARM IF you got your price? Sell direct, no commissions. Particulars free. Charles Renich, G-18, Woodstock, Illinois.

DOGS.

MALE COLLIES, 2½ MONTHS, $7.00. Frank Barrington, Sedan, Kansas.

CHEAP IF ORDERED IMMEDIATELY, all kinds hounds and dogs; sent to try. R. G. Mason, Kirksville, Mo.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

RABBIT HOUNDS, FOX HOUNDS, COON, opossum, skunk, squirrel dogs. Setters, pointers, ferrets, rabbits. Catalog 10c. Brown's Kennels, York, Pa.

MISCELLANEOUS.

BEET RAISERS, GUARANTEED METHod for raising beets. Send dollar for information. Merville Larson, Vesper, Kansas.

SHEEP.

BIG BARGAINS IN SHROPSHIRE SHEEP on account of room. Order your lambs now. Leading breeds cattle and pigs at farmers' prices. Farm poultry and baby chicks; 25,000 chicks this year sold here. Cheap farm and other dogs and all kinds hounds sent to try. Captain Richard Mason, Kirksville, Mo.

SITUATION WANTED.

WANTED—WORK ON FARM BY EXperienced farm hand; also experienced in handling live stock, machinery. Exempt from war service. Harvey M. Harpoter, Halfway, Mo.

KODAKS.

FREE—WITH FIRST ORDER AND FIVE names of kodak owner, a beautiful 5 x 7 enlargement from any film. Developing, 10c; prints, 3c up. Foto Art Company, Dept. H, Lincoln or Norfolk, Nebraska.

THE STRAY LIST.

TAKEN UP—BY T. F. CALLAHAN, OF Denton, Kansas, July 8, 1918, one red steer calf, weight about 350 pounds; also two red and white spotted steer calves, weight about 350 pounds each. T. F. Callahan.

POULTRY.

WHITE ROCKS, SIZE AND QUALITY.—Cockerels and pullets. Reduced prices for August and September. G. M. Kretz, Clifton, Kansas.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swaim, Geuda Springs, Kansas.

FOR SALE—A FEW VIGOROUS COCKerels, S. C. White Leghorns, bred from heavy laying strain. Will sell for $2 each if taken soon. Mrs. E. F. Tinker, Damar, Kansas.

POULTRY WANTED.

IF DISSATISFIED WITH LOCAL POULtry and egg market, ship direct. We loan coops and cases free. The Copes, Topeka.

PATENTS.

PATENTS PROCURED, BOUGHT AND sold. International Patent Co., Brandeis, Omaha.

Real Estate For Sale

FRANKLIN COUNTY, KANSAS
Stock and Grain Farm, 160 acres farm land, 13 acres alfalfa, 20 acres clover, balance pasture and timber, plenty of good water. House five rooms, good barn and other buildings; 3½ miles from Pomona, 4 miles from Quenemo, R. F. D. and telephone. Price, $50 per acre. Terms.
THE EASTERN KANSAS LAND COMPANY
Quenemo, Kansas

CALIFORNIA
Farm in Sunny California. Learn all about land, water, soil, crops, fruit, markets, schools, churches. Send 25c for six months' subscription to Farm and Irrigation Illustrated. **DEPT. 33, SAN FRANCISCO.**

Cut Weed Before Seeds Mature

Many weeds are propagated only by seeds. Weed seeds are produced in large numbers along roadsides, fence rows, and ditch banks, in vacant fields, and in waste places, and the seeds are scattered by wind, water, birds, and other agents. By cutting the weeds before the seeds are sufficiently mature to germinate, an enormous amount of trouble and labor and loss could be avoided.

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Marketing Surplus Stock

HOW large are your early-hatched cockerels? asks Ross M. Sherwood in an extension poultry leaflet just from the press. Are they old enough to market? Possibly they have been mating with the hens and in that way have injured the eggs for keeping or hatching. If this is the case, you no doubt have confined them or are planning to sell them at once.

Mr. Sherwood suggests that at this time certain other selections should be made in the flock. There may be some exceptionally strong and vigorous cockerels which have grown much better than the others. If they are pure-bred chickens they should certainly be saved to help supply breeding stock for the coming season. As these are being separated some weak pullets will be noticed. They may be small in size, have long, narrow heads, and may be narrow throughout. These will never make profitable laying fowls and should be marketed with the cockerels.

The remaining pullets should be so fed and housed that they will be mature during October or November. If early hatched they should not be developed too rapidly, because they might moult the first winter. They may be given cracked corn or kafir or a mixture of equal parts of bran and shorts, together with all the sour skim milk or buttermilk they can drink. If milk is not available, meat scrap should be added to the bran and shorts in quantities not to exceed 10 per cent. If plenty of waste grains or seeds are available it may not be necessary to feed cracked corn or kafir, but the other feeds are needed for good growth.

If the laying flock contains a number of old hens it will be found that a number of these have passed their useful period. As summer comes on they are broody a large part of their time and thus are unprofitable. During the very hot weather the death loss of these old fowls is often great. For these reasons it is advisable to market these old hens after they finish laying in the spring. They may be picked up from time to time as they become broody.

How Long to Keep a Hen

On the average farm too little attention is given to culling out the old hens. It does not pay to keep hens until they die of old age. A Kansas farmer told us that last fall on account of the extremely high price of feed he culled his flock from 200 or 300 hens down to about seventy-five and got more eggs during the winter season than ever before.

A Kansas poultryman expressed himself as follows in regard to the profitable age of hens:

"I have not the least doubt that if every farmer in the country would dispose of all his fowl pensioners that have been living on the balance of his flock without paying anything for what they eat, and put in their places pullets just coming into laying, the revenue of the flocks of this country would be increased by 25 per cent without the expenditure of a minute more in labor or an ounce more of feed. It may be safely said that the hen that is kept after she is from eighteen months to two years old becomes a pensioner on the bounty of her owner to a certain extent."

Raising Fall Chicks

There is still a shortage of meat and there is still time to hatch and rear young chicks before cold weather. The chances are that feed will be cheaper and more plentiful in the fall than it was in the spring.

It is possible to have fries up to Christmas time with but little extra care, the eggs being hatched either by hens or in an incubator. If hens are set, be very careful to see that they are free from lice and mites, as the eggs will not hatch well if the hen is disturbed by these pests. Provide nest boxes with good clean straw in a cool place, where they will not be disturbed by other hens. Keep feed and clean cool water before the setting hens all the time. If incubators are used, run the heat a degree or two lower than in the spring, as there is more danger of the heat running high at this time of the year. Cool the eggs once a day for a little longer time than usual.

Eggs may be successfully hatched in July, August, and September. If hatched later than this, cold weather is apt to set in before they get sufficiently feathered out to stand the cold.

Summer chicks should be provided with plenty of shade and cool water. They should also be fed more sparingly than the early chicks. They will not bear crowding as will the earlier hatches, but with proper care they will grow into fries as quickly as earlier in the season. —MRS. LIZZIE B. GRIFFITH, Lyon County.

American Hen in High Esteem

Among the echoes following in the wake of the Food Administration's so-called "live-hen order" is this thought which harmonizes with recent developments in poultry conditions:

"Restrictions last winter and spring on the sale of live hens and pullets for slaughter," says a poultryman in discussing the situation, "forcibly directed the attention of American producers to the value of the industrious hen who now occupies a place more nearly than ever before on a par with other farm live stock.

"The extent to which farmers recognize her true value is shown by the fact that they have refused to sell hens to any extent, even though prices have been unusually high ever since the embargo was lifted."

The large spring and summer egg trade is ample evidence of the liberal amount of poultry now in the country and contributing to the nation's food supply. Through systematic supervision and licensing regulations, the Food Administration is now endeavoring to reduce to a minimum the hot-weather spoilage of eggs. Encouraging results are announced.

Treating Scaly Leg

Scaly leg of poultry is a common and well known affection of chickens that sometimes causes affected birds to become worthless. It is caused by an extremely small mite that works in and under the crusts that form on the legs. Caraway or sulphur ointment will kill the pests.

The disease is slowly contagious and for this reason a quarantine pen is desirable on the farm so that purchased fowls may be treated for parasites and watched for any contagious or infectious disease.

To treat scaly leg, the legs and feet of affected fowls should be held in hot water for several minutes, so that the crusts may be softened and easily removed. A mite killer is then applied to the dry diseased surface.

The Ohio Experiment Station recommends the following mixtures: (1) Oil of caraway mixed in four times as much lard or vaseline, and (2) flowers of sulphur, one dram; carbonate of potash, 20 grains, and lard or vaseline, half an ounce.

Some poultrymen have used a mixture of one part of kerosene and two parts of raw linseed oil with speedy effect. The legs of the affected fowls are dipped in this mixture, care being taken that the feathers are not wet.

With summer and hot weather with us, we must ever be on the alert for lice and mites. The hen teeming with body lice that is forced to roost in a mite-infested poultry house, hasn't much of a chance to be an egg layer and profit maker. It takes all the food she consumes to keep up life and support the parasite with which she is infested.

Do not let up on Red Cross work. Don't think enough is being done without your aid. Every bandage you roll and every stitch you take means just that much comfort to some sick or wounded man.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

Address All Communications to Kansas Farmer, and Not to Individuals

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CLAIM SALE DATES.

Holsteins.
Sept. 4—E. S. Stoughton, Hutchinson, Kan.
Oct. 3—Galt & Spencer, Dixon, Illinois. Dispersion sale.

Jersey Cattle.
Oct. 9—B. R. Thompson, Garrison, Kan.

Red Polled Cattle.
Oct. 8—W. T. McBride, Parker, Kan.

Herefords.
Aug. 30—Wm. Andrews & Sons, dispersion sale, Morse, Iowa.

Shorthorn Cattle.
Nov. 8—Shorthorn Breeders' Sale, Peabody, Kan. O. A. Homan, Peabody, Kan., sales manager.

Spotted Poland Chinas.
Oct. 5—W. J. Honeymoon, Madison, Kan.
Oct. 19—C. A. Gooch, Orrick, Missouri.

Poland Chinas.
Aug. 24—Bert Harriman, Pilot Grove, Mo.
Oct. 15—H. B. Walter & Son, Effingham, Kansas.
Oct. 16—Dr. J. H. Lomax, Leona, Kansas.
Oct. 31—F. J. Dowe, Hiawatha, Kan.
Oct. 29—Hill & King, Topeka, Kansas.
Oct. 31—Adams & Mason, Gypsum, Kansas.
Nov. 1—E. B. Myers, Hutchinson, Kansas.
Nov. 6—Earl Bowers, McLouth, Kan.
Nov. 6—M. C. Pollard, Carbondale, Kan.
Nov. 7—Schmitz Bros., Seneca, Kan.
Nov. 8—Ketter Bros., Seneca, Kan.

Duroc Jerseys.
Sept. 4—W. T. McBride, Parker, Kan.
Oct. 17—L. G. Wreath, Manhattan, Kan.
Oct. 19—W. W. Zink, Turon, Kansas.

Spotted Poland Chinas.
Oct. 3—Alfred Carlson, Cleburne, Kan.

Chester Whites.
Oct. 23—J. H. McAnaw, Cameron, Missouri.
Nov. 7—Arthur Mosse, Leavenworth, Kan.

William Andrews & Sons, of Morse, Iowa, well known breeders of the great Bonnie Brae family of Herefords, have announced a dispersion sale of Herefords to be held at Morse August 30. Their offering abounds in special features with the famous herd bull, Bonnie Brae 37th, heading the list. Now seven years old, Bonnie Brae 37th has proved a great sire, as his get in this great dispersion will amply prove. He was an International winner in 1911 as a senior calf. Among the others are three great two-year-olds: Bonnie Brae 101st, dropped January, 1916, that stood third at the last International as a junior yearling; Bonnie Brae 104th, sired by Bartlett's Bonnie Brae 60th, dam Miss Brae 28th, has the length, scale and size to qualify him for a top notch herd bull that will mature at 2,600 pounds; Lanthus Donald 4th, dropped October, 1915, by Sir Donald 12th, dam Belle Donald 103d, has great size with good bone and is one of the choicest plums of the entire offering. Other splendid Bonnie Brae bulls include Beau Gossamer, Bonnie Brae 113th, Bonnie Brae 115th, Bonnie Brae 112th. The breeding matrons include the daughters of the grand champion Bonnie Brae 3d, also daughters of the grand champion Princeps 4th, Beaumont, Beau Dandy, Handsome Lad, and other noted sires.

T. T. Langford & Sons, of Jamesport, Missouri, owners of one of Missouri's good herds of Spotted Polands, report their herd doing fine. They have raised sixty head of the best spring pigs in the history of their herd. This lot of pigs was sired by the good sires in the Langford herd and the lot includes some excellent herd boar prospects.

L. M. Shives, of Iuka, Kansas, owner of one of the good flocks of Hampshire sheep, reports his flock doing well and young stock growing out fine. Mr. Shives has found Hampshire sheep very profitable on his farm. A feature of his flock at this time is the choice lot of fine spring lambs.

Dornwood Farm, Topeka, Kansas, is doing its share in boosting for improved stock on Kansas farms. It is the home of herds of Jersey cattle and Chester White hogs that are among the best in the state. Their Jersey herd is made up entirely of record-bred animals and is noted for heavy production. The best blood lines of the breed will be found in their choice herd of Chester Whites.

L. G. Wreath, of Manhattan, Kansas, has changed the date of his public sale of Duroc hogs from October 18 to October 17. He reports his Durocs doing fine and will have a choice offering of richly-bred Durocs for his October 17 sale.

A Shorthorn breeders' sale to be held at Peabody, Kansas, has been announced for November 8. O. A. Homan, of Peabody, will manage the sale. Seventy head of choice Shorthorns will be catalogued for this sale and the offering will be carefully selected from some of the best Shorthorn herds in the state.

W. T. McBride, of Parker, Kansas, the well known breeder of Red Polled cattle and Duroc Jersey hogs, has changed the date of his Red Polled cattle sale from September 5 to October 8. On September 4 Mr. McBride will hold his annual fall sale of Duroc Jerseys.

It is not enough to deplore what the Germans have done. That will not hurt the Germans; they don't care what you think of them. Help your Government to fight them. That is the only thing that counts with a German.

BERT HARRIMAN'S

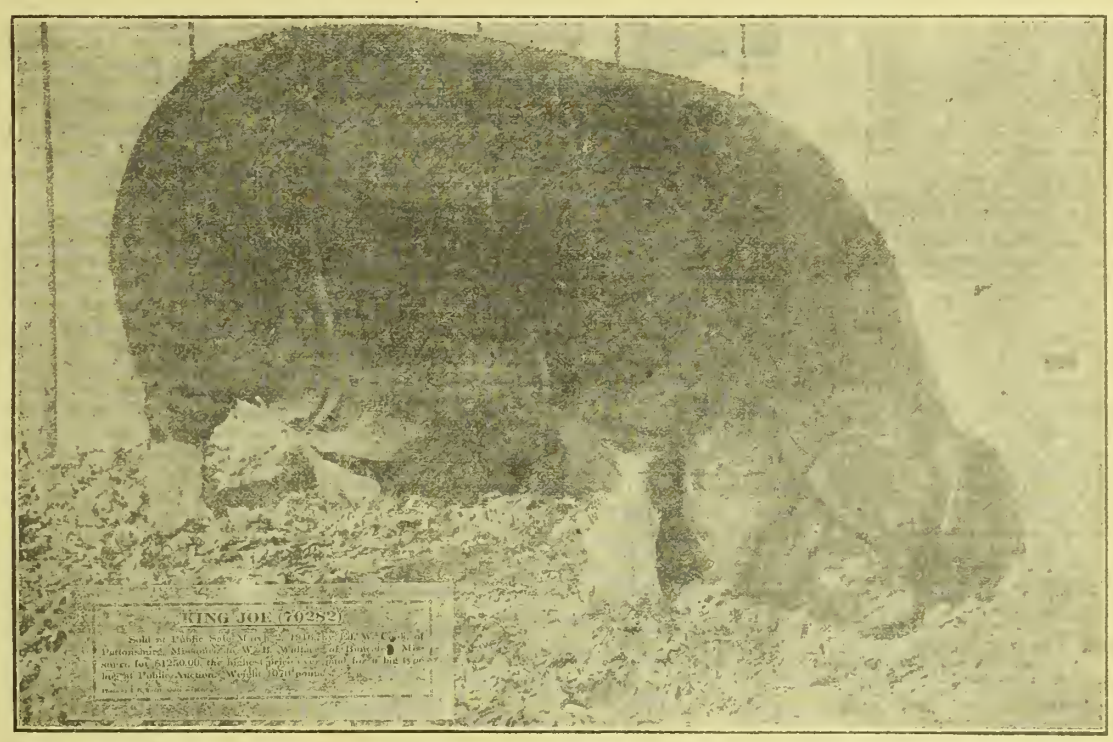
King Joe Bred Sow Sale

AT

PILOT GROVE, MISSOURI

AUGUST 24th

THE MOST ATTRACTIVE OFFERING EVER MATED TO THE GREAT KING JOE



King Joe, "The Boar that Made Good"

Just think what this means to Poland China breeders! Forty-five sows and gilts, the best we could buy, the best they breed, mated to **King Joe,** a better and more popular boar than ever.

Sows in the sale will be by **Gerstdale Jones, The Giant, Harrison's Big Bob, Big Bob Leader, Joe Wonder, Giant King, World's Big Timm, Rood's Giant, King Wonder 2d, Ex King, Long Jumbo Again**—roomy, stretchy tried sows and gilts.

All Immuned! All Safe! All Ready!

Remember the date—**August 24, 1918.**

Send for catalog at once. Mention Kansas Farmer.

BERT HARRIMAN

PILOT GROVE, - - - MISSOURI

Col. R. L. Harriman, Auctioneer

HOLSTEIN CATTLE.

SAND SPRINGS FARM

REGISTERED HOLSTEINS—THE DEBT-PAYING, MONEY-MAKING KIND.



Our ten years' experience in milking and raising Holsteins may be of value to you.

Notice our milk and butter average, under semi-official test for 305-day periods: Milk, 10,570 pounds; butter, 491 pounds, at the average of four years and eight months, and we are breeding them better.

Correspondence solicited and visitors welcome.

E. S. ENGLE & SON - - - - ABILENE, KANSAS

MAURER'S HOLSTEIN FARM

Offers special attractions in pure-bred females of all ages with high class breeding, and a number of choicely bred yearling bulls; also grade cows and heifers with size and quality. Don't fail to see this herd before you buy, as they are all bred RIGHT and priced RIGHT.

T. R. MAURER & CO - - - - EMPORIA, KANSAS

$15 Holstein or Guernsey CALVES

From Waukesha County heavy producing stock. Write us today, we guarantee to satisfy you.

RIVERDALE FARMS, Oconomowoc, Wis.

Holstein Calves

Choice, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write

W. C. Kenyon & Sons

Holstein Stock Farms Elgin, Illinois

CORYDALE FARM HERD

Senior herd sire, Jewel Paul Butter Boy 94245, foliowed by Dutchland Creamelle Sir Iuka 199300, a son of Dutchland Creamelle Korndyke Lad, the great Fields bull. For sale, two young bulls old enough for service out of A. R. O. dam. Call or address

L. F. Cory & Son, Belleville, Ks.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or car-load lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

Either Sex, Practically Pure-Breds

From high-producing dams and registered bulls, five to seven weeks old, $27.50, express prepaid in Kansas; outside, $30. Safe delivery and satisfaction guaranteed. Also fifty registered cows and heifers and 100 high-grade young cows and two-year heifers.

MAGEE DAIRY FARM

CHANUTE - - - - - KANSAS

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Heilo No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

REGISTERED HOLSTEINS

If you want big producers, males and females, write us. All our own breeding.

Lilac Dairy Farm

Route 2 Topeka, Kansas

Pedigreed Holsteins for Sale

Two nice bull calves, good milking strains; three months old, mostly white, $60; nine months old, mostly black, $75, f.o.b. here.

CASTILLO & SON, INDEPENDENCE, KAS.

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

CHOICE HEIFER CALVES

Twelve heifers and three bulls, 15-16ths pure, five to seven weeks old, beautifully marked and from heavy milkers, at $25 each, crated for shipment anywhere.

FERNWOOD FARMS, Wauwatosa, Wisconsin

REGIER'S HOSTEIN-FRIESIANS

For Sale—Young bulls, bred heifers and cows. All sired by the great bull, Sir Rag Apple Korndyke De Kol. Two cows will be fresh this month. Fourteen-thousand-pound milkers.

G. REGIER & SONS, Whitewater, Kansas.

COLLEGE HILL HOLSTEINS

For Sale—Two registered pure-bred Holstein bulls from A. R. O. cows. Age 9 and 11 months. P. W. ENNS, Newton, Kansas

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service hulls, bull calves. H. B. COWLES, 608 Kan. Av., Topeka, Kan.

SEGRIST & STEPHENSON, HOLTON, KANSAS
Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

MULEFOOT HOGS.

Knox Knoll Mulefoots

Bred sows and gilts. Open gilts, spring gilts and boars. Satisfaction guaranteed. Free catalog.

S. M. KNOX - HUMBOLDT, KANSAS

HAMPSHIRE SHEEP.

HAMPSHIRE SHEEP

A few extra good ram lambs for sale.

L. M. SHIVES, R. F. D. 1, IUKA, KANSAS

WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

HOLSTEIN CATTLE.

SAND SPRINGS FARM

REGISTERED HOLSTEINS—THE DEBT-PAYING, MONEY-MAKING KIND.

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Offers special attractions in pure-bred females of all ages with high class breeding, and a number of choicely bred yearling bulls; also grade cows and heifers with size and quality. Don't fail to see this herd before you buy, as they are all bred RIGHT and priced RIGHT.

T. R. MAURER & CO - - - - EMPORIA, KANSAS

SHORTHORN CATTLE.

Abbotsford Shorthorns



For Sale—Twenty-five cows and heifers, several with spring calves at foot; others bred to ROAN MODEL; also seven young bulls elght to eleven months old. All priced to sell. Come and see our herd.

D. BALLANTYNE & SON, Herington, Kan.

MARKS LODGE RED SHORTHORNS

For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

DUROC JERSEYS.

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. W. J. Harrison, Axtell, Kan.

WOODDELL'S DUROCS

Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

ILLUSTRATOR PATHFINDER

DUROC JERSEYS

Our sows average 13 pigs to the litter. March pigs for sale at $25 each. Can furnish pairs not akin. Bronze turkeys.

A. H. BURG - - LAKIN, KANSAS

Wreath's Durocs

SPRING PIGS

Priced in pairs or trios. Come and see my herd.

L. G. WREATH, MANHATTAN, KANSAS

CHESTER WHITE HOGS

CHESTER WHITE HOGS

Five December boars ready for service, out of my grand champion sow, Tip Top. Spring pigs from other good sows for sale.

COLEMAN & CRUM, DANVILLE, KANSAS

RECKARD'S CHESTER WHITES

Have raised pure-blooded Chester White hogs for fifteen years. Breeding stock for sale from prize-winning strains. Large kind and smooth.

E. M. RECKARDS - OZAWKIE, KANSAS

Dornwood Chester Whites

For Sale—Several choice young brood sows.

DORNWOOD FARM - TOPEKA, KANSAS

SENATE CONCURRENT RESOLUTION No. 15.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members of each house concurring therein:

Section 1. That the following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their rejection or approval:

Sec. 2. The Legislature may levy a permanent tax for the use and benefit of the state educational institutions and apportion among and appropriate the same to the several institutions, which levy, apportionment and appropriation shall continue until changed by statute. Nothing herein contained shall prevent such further appropriation by the Legislature as may be deemed necessary from time to time for the needs of said state educational institutions.

Sec. 3. This proposition shall be submitted to the electors of this state at the election for representatives in the Legislature in the year 1918. The amendment hereby proposed shall be known on the official ballot by the title "Amendment to the constitution providing for a permanent income for the state educational institutions," and the vote for and against such amendment shall be taken as provided by law.

Sec. 4. This resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 7, 1917.
Approved March 10, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 15, now on file in my office.

J. T. BOTKIN,
Secretary of State.

(Seal)

Government to Aid Farmers Financially

AN EMERGENCY fund is to be made available for assisting farmers in financing their wheat seeding operations this fall. This act of the Government will undoubtedly be of quite material help in enabling Kansas to equal the record of last year in wheat planting. Last year the Government asked Kansas farmers to plant ten million acres to wheat. We missed it by only a small margin. This year we are simply asked to equal our output of a year ago.

In spite of the labor shortage, there is at the present time probably more than the usual amount of land plowed in Eastern and Central Kansas. Harvesting and threshing progressed rapidly. In traveling the Kaw Valley from Topeka to Salina last week the large amount of land already plowed was most noticeable. This would seem to indicate that farmers are making the most strenuous effort to meet the requirements in wheat production.

In the western third of Kansas, and particularly in the northwestern counties, a series of failures has left many farmers in bad condition financially. Wheat is by no means a sure crop in this section, but three bad years have come together, which has not happened before in the history of the state. It is not advisable to increase wheat acreage in this section, but there is need for immediate financial help in a good many instances. This was brought to the attention of the President and the Food Administration by our State Board of Agriculture, and provision has finally been made for furnishing a small amount of financial aid to farmers who have exhausted their available credit and are deserving of assistance.

The following statement was given out by the Treasury Department and the Department of Agriculture last week:

"Acting upon the urgent representations that many wheat growers in certain sections of the West who have lost two successive crops by winter-killing and drought, have exhausted their resources and may be compelled to forego fall planting and, in some cases, to abandon their homes unless immediate assistance is extended, the President on Saturday, July 27, placed at the disposal of the Treasury Department and the Department of Agriculture, $5,000,000 to enable them to furnish aid to that extent. The two departments are already actively at work formulating plans for making loans under this authorization, and complete details will be announced within the next few days and operations begun.

"It may be stated generally that the Federal land banks in the districts affected will be designated by the Secretary of the Treasury as the financial agents of the Government to make the loans and to collect them. The Department of Agriculture, through its special officers, including the county agents, will ascertain the needs of the individual farmers and determine the feasibility of the planting.

"The primary object of this fund is not to stimulate the planting of an increased fall acreage of wheat or rye in the severely affected drought areas, or even necessarily to secure the planting of a normal acreage, but rather to assist in tiding the farmers over the period of stress, to enable them to remain on their farms, and to plant such an acreage as may be determined to be wise under all the conditions, with a view to increase the food supply of the nation and to add to the national security and defense. It is distinctly not intended to be used to stimulate the planting of wheat or any other grain where such planting is not wise from an agricultural point of view and where other activities are safer.

"It is not intended that this fund shall be used to make loans to farmers who have banking collateral and can otherwise secure loans. The recent action of the War Finance Corporation, indicating its willingness to make advances to banks and trust companies which have made loans to farmers and cattlemen, should ease the general financial situation and in large measure enable bankers to extend accommodations to farmers having such collateral. Banks are urged to avail themselves of the offer of the War Finance Corporation.

"This fund, because of its limited amount, will be used necessarily principally in connection with the fall planting of wheat, or of preferred substitute grains in the areas involved. This will not exclude consideration of cases of individuals who do not intend to or who can not engage in fall seeding, who might otherwise be compelled to abandon their homes and make great sacrifices provided sufficient funds are left after considering the pressing fall planting needs.

"The loans will probably not be made for more than $3 an acre, and it is likely that a maximum of 100 acres in some localities and of 150 in others will be established. In addition to paying a reasonable rate of interest, each farmer will be required to contribute to an insurance fund out of the proceeds from the sale of his crops if his operations are successful."

U. S. Grain Storage Capacity

That country elevators provide more than half of the nation's total grain storage capacity is shown by investigations of the U. S. Food Administration into facilities for taking care of this season's crops. The amount and distribution of grain storage in the United States is indicated in the following summary:

Country elevators numbering 20,643 have a storage capacity of 527,861,855 bushels. There are 959 additional county elevators, of which the storage capacity is unknown; 399 terminal elevators have a storage capacity of 250,708,060 bushels, and 6,961 mills have a storage capacity of 150,177,939 bushels, or a total storage capacity of 928,747,854 bushels.

Cities having a total storage capacity exceeding 100,000,000 bushels are Minneapolis, Chicago, Kansas City, and Philadelphia. It will be observed that the grain storage units of the United States have a capacity equivalent to more than nine bushels for every person. These facts and the knowledge that there are additional storage facilities on farms show the practicability of building up grain reserves, especially of wheat, against future food needs. The Food Administration also plans to build up grain reserves in France in order to render less serious any temporary interruption of shipping.

Tomatoes a Paying Crop

A two-acre field of tomatoes raised by E. G. Griswold, of Rossville, last year yielded $654 worth of canned tomatoes, as reported by A. D. Folker, county agricultural agent for Shawnee County, in the Shawnee County Farm Bureau Monthly News. Mr. Griswold has about two acres of tomatoes again this season and expects to can several hundred cans with his steam pressure canner.

Holding the Line

We have the task of maintaining the men in that living line made up of soldiers and the people back of that line. We must not run any risk. There must be no narrow margins. We must see that there is plenty of food over there, so that no matter what happens to the shipping in any one month, they are safe. Then we have the chance to win the war and make good.

The food program is a fighting program. We here in this country have the education, we have the brains, we have the loyalty. We must live up to our privilege of backing up our splendid men who represent us in the army and navy. Let each of us live each day so that when our boys come back from France we can look them in the eye and say, "I did my share and all that I could do at home."—U. S. Food Administration.

Protecting New Concrete

All newly-placed concrete work must be protected against the elements and against injury from other outside causes until the concrete has thoroughly hardened. In most cases this protection need be no other than a covering of some sort which will prevent rain from falling directly on the exposed concrete surface.

In seasons of extreme heat it is necessary to protect the concrete against direct rays of the sun and direct exposure to the heat. Such exposure will cause the water in the concrete mixture to evaporate or dry out before the concrete has had an opportunity to harden, and thus an inferior concrete will be produced, particularly at the surface. The best way to protect the concrete against such injury is to keep it covered with water until it has hardened. In the case of pavements or floors this is easily accomplished by building little dams of clay or other suitable material across the surface of the concrete and

keeping the enclosed spaces filled with water for several days, or until complete hardening has been accomplished. In other cases where this method is not practicable the concrete may be protected by keeping the air in the room in which the concrete is located saturated with moisture either by means of escaping steam or fine spray of water.

The presence of water or moisture in the atmosphere will not in any way injure the concrete either before it has hardened or after. Before hardening has set in the presence of moisture in the air is exceedingly beneficial to the complete and thorough hardening of the concrete. After the hardening has been accomplished the presence of moisture in the air will not affect it.

The application of paint or other protective coatings to concrete work before it has hardened will cause it serious injury. This injury arises from the fact that the hardening process will be materially retarded by the admixture of any substance not properly a part of the concrete mixture. The concrete at the surface will also be materially weakened by this application and in all probability will peel off after the concrete below the surface has hardened. After the hardening process has been completed no protective coatings of paint or other material are necessary.

New Kansas Road Map Out

We are just in receipt of the new State Road Map of Kansas put out by the Kansas Good Roads Association. It is 22 x 34 inches, on bond paper and shows all of the 7,000 miles, more or less, that have been designated by the State Highway Commission as state roads. Also the 750 miles that have been financed for hard surface. It shows where about 2,000 miles more are soon to be financed, dotted lines marking where active work is being done.

The map is put out to show the results of the first year's state-wide campaign of education for hard roads that has been conducted by the Kansas Good Roads Association, with J. Frank Smith, general manager, headquarters at Topeka.

The showing is good for a beginning in Kansas and if the war ends soon the building of 365-day roads will become one of the biggest improvement propositions in the state.

The road map goes with the set of maps, books, etc., that the Good Roads Association is giving to all new members who remit $2 for dues. If you expect to travel over strange roads in Kansas you cannot afford to be without these road guides.

Hold Your Liberty Bonds

To successfully finance the war it is necessary that owners of Liberty bonds hold their bonds if possible. Where for any good reason it is necessary for them to turn their bonds into cash they should seek the advice of their bankers.

Liberty loan bonds are very desirable investments, and crafty individuals are using various means to secure them from owners not familiar with stock values and like matters. One method is to offer to exchange for Liberty bonds stocks or bonds of doubtful organizations represented as returning a much higher income than the bonds.

There are various other methods used and likely to be used, some of the goldbrick variety and others less crude and probably within the limits of the law. All offers for Liberty bonds except for money and at market value should be scrutinized carefully. The bonds are the safest of investments and have non-taxable and other valuable features.

To hold your Liberty bonds, if possible, is patriotic. To consult your bankers before selling them is wise.

Control of Smut

It is estimated that the treatment of seed of wheat, oats, and barley for smut has resulted in a saving of ten million bushels of wheat, twenty-five million bushels of oats, and four million bushels of barley. In the Northern States forty field men of the United States Department of Agriculture, working under the direction of eight leaders, have been able to get fully 50 per cent of the seed planted treated for smut.

War for Humanity

War, in a good cause, is not the greatest evil which a nation can suffer. War is an ugly thing, but not the ugliest of things; the decayed and degraded state of moral and patriotic feeling which thinks nothing worth a war is worse. When a people are used as mere human instruments for firing cannon or thrusting bayonets, in the service for the selfish purposes of a master, such war degrades a people. A war to protect other human beings against tyrannical injustice; a war to give victory to their own ideas of right and good, and which is their own war, carried on for an honest purpose by their free choice, is often the means of their regeneration. A man who has nothing which he is willing to fight for, nothing which he cares more about than he does about his personal safety, is a miserable creature who has no chance of being free, unless made and kept so by the exertions of better men than himself. As long as justice and injustice have not terminated their ever-renewing fight for ascendency in the affairs of mankind, human beings must be willing, when need is, to do battle for the one against the other.—JOHN STUART MILL.

This was written half a century and more ago, but it might have been written yesterday it applies so well to today's conditions. The truth is the same yesterday, today, and tomorrow.

One Ounce of Sugar a Day

One moderately heaping teaspoonful of sugar weighs approximately a quarter of an ounce, the Food Administration announces in giving out a basis of measuring sugar rations.

Our daily allowance under the new sugar orders is two pounds a month, or about one ounce per person daily. Four teaspoonfuls of sugar will provide the daily ration for each person. This includes the allowance for cooking, so all four teaspoonfuls cannot be served at the table.

After the allowance for cooking has been made, those who dine must content themselves with what is left. A man who uses two spoonfuls of sugar for his cereal and two for his coffee, has not only used up his daily allowance, but has also used up his part of the cooking allowance for the kitchen for that day.

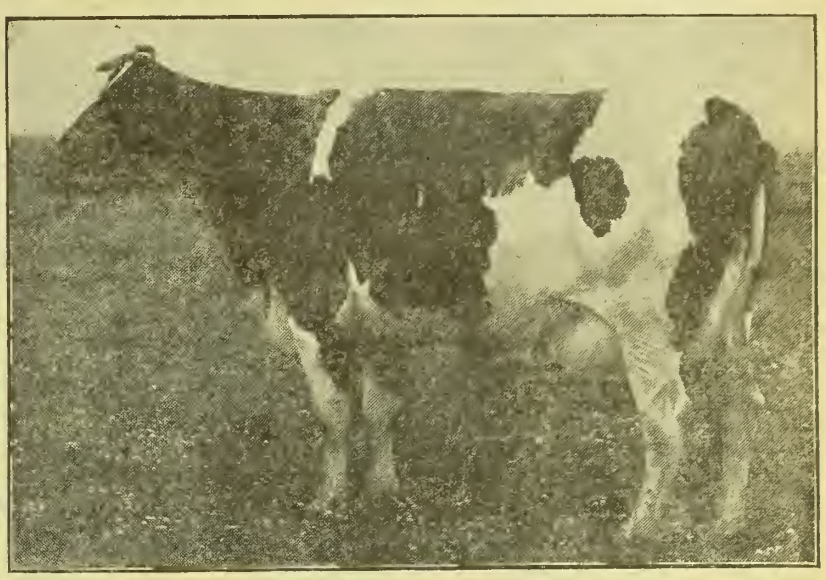
When writing to KANSAS FARMER live stock advertisers, please mention this paper.

Pondview Herd Registered Holstein Cattle

DISPERSION SALE 100 HEAD
at Farm 9 Miles Northeast of Hutchinson, Kan.

One and One-Half Miles South of Medora, Kan., on Rock Island and Frisco Railways

SEPTEMBER 4, 1918



I am dispersing my entire herd of 100 head registered Holstein cows and heifers, also selling two herd bulls whose seven nearest dams averaged 24 pounds butter in seven days—**King Segis Pontiac Raymond 186663**, a three-year-old bull just in his prime, and **Pondview King Segis Pontiac**, 18 months old. I am selling a number of high class bull calves by King Segis Pontiac Raymond; twenty-five coming two-year-old heifers bred to Pondview King Segis Pontiac; twelve heifer calves; five coming three-year-old heifers bred to freshen this fall; two two-year-old heifers out of A. R. O. dams; forty-two cows in milk or bred to freshen soon. Four of these cows have A. R. O. records from 14 to 17 pounds butter in seven days.

My herd is clean and free from any abortion. Every cow is a regular producer. Every animal over six months old will be tested and sold subject to retest in ninety days. I have spent twelve years building this herd, starting with the best cows I could buy, and have always used high class bulls with records back of them.

Every animal will be sold, nothing reserved. I have not gone to a large expense feeding them up for sale, but selling right off the pastures in every-day working condition. If you want profitable cattle that will make money, send for catalog and arrange to come to sale.

S. E. STOUGHTON & SON, Hutchinson, Kansas

AUCTIONEERS

Col. John D. Snyder, Hutchinson, Kansas; Col. R. E. Colbert, Medora, Kansas

Free conveyance from Midland Hotel to farm day of sale to parties from a distance

POLAND CHINAS

Erhart's Big Polands

A few fall boars ready for hard service. Can spare two tried herd boars. Have the greatest showing of spring boars we have ever raised. Some by the 1,250-pound A Big Wonder. Will make prices on pairs and trios. Write me your wants. All immune.
A. J. ERHART & SONS, NESS CITY, KAN.

Morton's Poland Chinas

For Sale—Twenty-five choice boar pigs, sired by Morton's Giant by Discher's Giant and Girstdale Jumbo by Girstdale Jones, out of my best herd sows. Priced reasonable. Write or come and see my herd.
GEORGE MORTON
Oxford : Sumner County : Kansas

Oxford Herd Poland Chinas

Herd boar, Giant Lunker by Discher's Giant out of Lady Lunker. I have 57 early spring pigs. A few choice boars. Priced to sell. Come and see me; I can please you.
Howard R. Wenrich
Oxford - - - - Kansas

POLAND CHINA BOAR PIGS

For Sale—Twenty choice boar pigs, sired by Model Wonder, he by Big Bob Wonder; The Giant by Hercules by Big Ben; King Ben by Giant Ben; Captain Gerstdale Jones, Big Bob Jumbo, and A Big Wonder. Several herd boar prospects.
Ross & Vincent, Sterling, Kan.

Big-Type Poland China Hogs

September and October boars. One real herd boar prospect. Fifty bred sows and bred gilts. 250 spring pigs.
DEMING RANCH - - OSWEGO, KANSAS
H. O. Sheldon, Herd Manager

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene, Peabody, Kan.**

Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
J. EDW. PLILEY - GILMAN CITY, MO.

LANGFORD'S SPOTTED POLANDS
Last call for spring boars, $40 to $50.
T. T. LANGFORD & SONS, Jamesport, Mo.

RED POLLED CATTLE.

RED POLLED BULLS
Two extra good ones, year old, ready for service. Priced for quick sale.
A. E. WHITZEL - STERLING, KANSAS

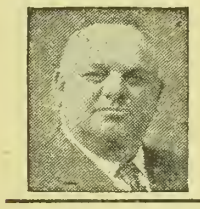
RED POLLED CATTLE
For Sale—Four-year-old herd bull. Some extra good cows to calve in winter and early spring. A few yearling heifers.
I. W. POULTON - MEDORA, KANSAS

ADVANCED REGISTRY RED POLLS
Choice young bulls from heavy milking dams. Inspection of herd invited.
CHAS. L. JARBOE - QUINTER, KANSAS

AUCTIONEERS.

FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. **VALLEY FALLS, KANSAS**

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri



P. M. GROSS
Live Stock Auctioneer
Twelve years on the block.
Pure-bred sales a specialty. Sales made anywhere.
4230 Paseo
Kansas City, Mo.

HAMPSHIRE HOGS

REGISTERED HAMPSHIRE HOGS. Thirty spring boars, immuned. Am booking orders for fall pigs. **Geo. W. Ela, Valley Falls, Kans.**

Breeders' Directory

RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
Hereford Cattle.
F. S. Jackson, Topeka, Kan.

JERSEY CATTLE.

100 GOOD JERSEYS FOR SALE

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.
J. W. BERRY & SON, Jewell City, Kansas.

GALLOWAY CATTLE.

GALLOWAY CATTLE
30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.
E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

Registered Galloway Bulls
Ten Two-Year-Olds. Ten Long Yearlings.
These are in extra good condition.
Ready for immediate service.
Come and see them.
CALLAHAN & BECK, KINGMAN, KAN.

ANGUS CATTLE

Edgewood Farm Angus

I have for sale
40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.
D. J. WHITE, Clements, Kan.

HORSES AND MULES.



Percherons—Belgians—Shires
After harvest take the most enjoyable little trip of your life. Come see all my show and breeding horses and have a fine visit with me. Drop me a card now. **FRED CHANDLER, R. 7, Charitan, Iowa.** Above Kansas City.

SHROPSHIRE SHEEP



FOR SALE
A bunch of good big **Registered Shropshire Bucks**, not high in price. Also ewes.
Howard Chandler, Chariton, Ia.

TURNER & SON SHROPSHIRES

Fifty good big registered rams, $50 each, crated and express paid here. Also about 100 head of Lincoln and grade Shropshire ewes, ranging in age from one to six years, $22.50 per head. Sheep three miles north of town. Send check or draft with order. Pedigrees furnished for pure-breds. Always return crate. Reference, Harveyville State Bank.
J. R. TURNER & SON - - - - - - HARVEYVILLE, KANSAS

The Government's Call for Income Tax Statements Makes it Certain that

YOU NEED THIS BOOK

GET STARTED RIGHT

There is no better time than right now to begin keeping Farm Records so that you will have the required information ready to make your income tax statement next year. No doubt you are already keeping your records. You want the most simplified and easiest way. Get this book. It's FREE.

PRACTICAL ACCOUNT BOOK

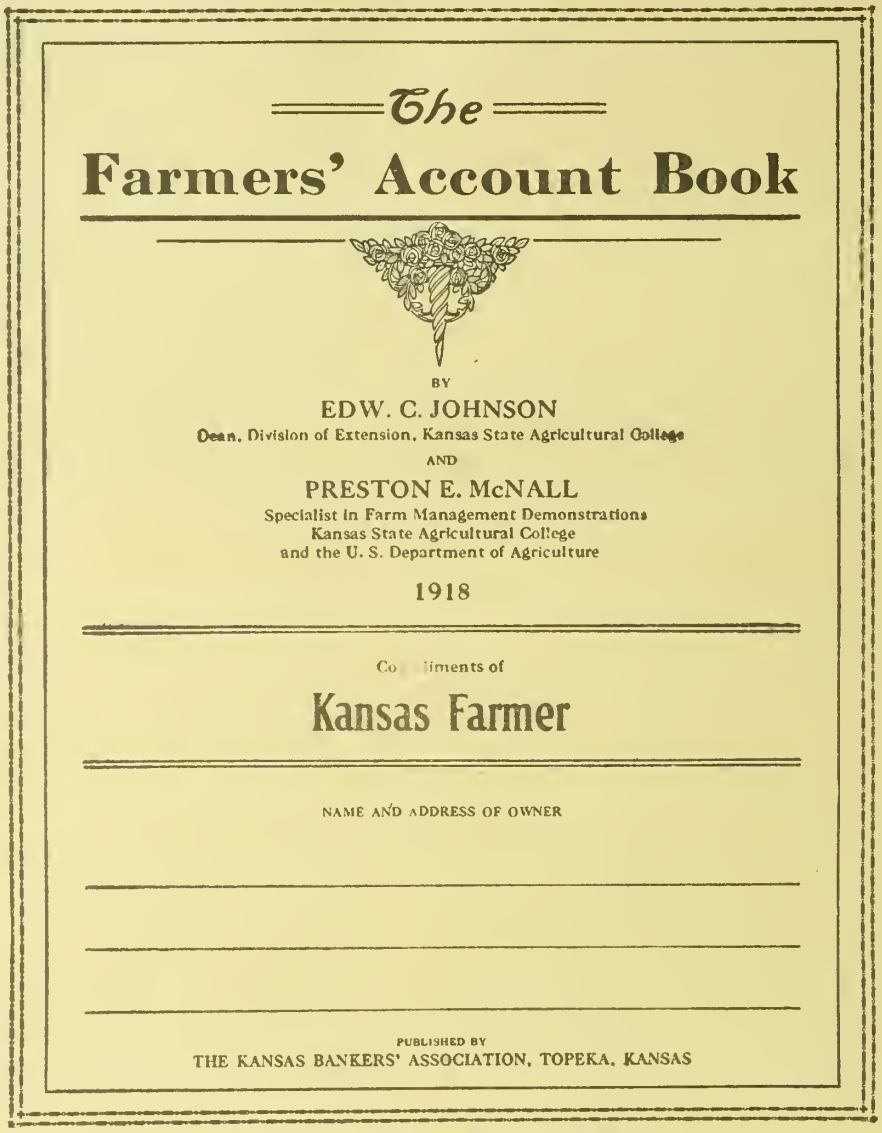
This book is a PRACTICAL Farm Account Book which has been developed under the direction of the United States Government men, working in co-operation with hundreds of farmers in Kansas. It is not merely theoretically correct, but has been prepared to fill the needs as shown by practical use on farms in this state.

THIS BOOK WILL MAKE YOUR WORK EASIER

Keeping accurate records of farm business is becoming more and more popular, not only because it is practically necessary for the income tax statement, but also for the value of the records to the farmer. The most important thing, however, is to secure and keep the information desired with the least amount of work and time; that is, in the simplest way.

The book which KANSAS FARMER is offering on this page, FREE to subscribers, is gotten up with the idea of keeping all the information necessary and valuable with the smallest amount of work. The book is a one-year record. It is small and convenient to keep. It contains full but simple instructions on how to keep the records required, with sufficient blanks for all entries.

ONE-HALF ACTUAL SIZE



ACTUAL SIZE OF BOOK, 8 x 11 INCHES

A PRACTICAL BOOK NOW IN USE BY FARMERS

The book is published by the KANSAS BANKERS' ASSOCIATION. It has been prepared by Dean Edwin C. Johnson and Preston E. McNall, both of the Extension Division of the Kansas Agricultural College, who have done their work on the book in co-operation with the United States Government.

This book has been used in Farm Management studies on hundreds of farms in Kansas where owners have heartily co-operated and offered many valuable suggestions for making it thoroughly practical and suited to actual farm conditions. These suggestions have been incorporated in this latest edition.

CONFORMS WITH REQUIREMENTS OF THE GOVERNMENT

It is the ultimate object of the Internal Revenue Office to adopt a uniform method of computing farmers' incomes. This includes farm inventories, farm receipts, and farm expenses, and follows very closely the book which is given by KANSAS FARMER to its subscribers. From year to year there may be a few slight changes made. For this reason it is best to buy a one-year book in order that each year your book will conform to the Internal Revenue rulings for that year.

FARMERS' ACCOUNT BOOK GIVEN FREE

HOW AND WHERE TO GET THIS BOOK

KANSAS FARMER desires to assist its readers in getting a book which will meet all their requirements at the least possible expense. The book described on this page is adapted to your needs and can be obtained FREE from many banks in Kansas, or KANSAS FARMER will give the book FREE with a subscription. Read our offer below and send today.

OUR OFFER

We will mail you ABSOLUTELY FREE and postpaid one of these Account Books for your renewal subscription to KANSAS FARMER at $1.00. Send us your order today and get your accounts started in such a way as will be easy to keep and which you know will be correct.

SPECIAL

To subscribers whose subscriptions are already paid in advance we make the following offer: Send us one new subscription to KANSAS FARMER for six months at 50 cents and we will send you one of the books FREE AND POSTPAID. This offer is open only to subscribers whose subscriptions are paid in advance, and the subscription MUST be a NEW ONE; that is, for someone not taking KANSAS FARMER at the present time.

ORDER BLANK

KANSAS FARMER, TOPEKA, KANSAS.

GENTLEMEN: Inclosed please find $1.00, for which renew my subscription for one year and send me the Farmers' Account Book as per your offer.

Name..... R. F. D.....

Town..... State.....

AF

OCT 25 1918

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 33. TOPEKA, KANSAS, AUGUST 17, 1918. Established 1863. $1 a Year

Another Attempt to Graft on the Farmer

Farm Account Books Failing to Meet Needs Are Being Sold at Exorbitant Prices

THE latest scheme of playing the farmer for a sucker is to sell him an elaborate and expensive account book so he can keep out of the clutches of Uncle Sam in the matter of making his income tax statements in the correct form. It must be admitted that the failure of the average farmer to keep books has resulted in some difficulties in arriving at his taxable income. The requirements of the Internal Revenue Department will act as a decided stimulus to keeping more records on the farm business.

Various concerns over the country are seeking to capitalize on this genuine need for a simple and practical system of farm accounts. They are offering books selling as high as five dollars, and one of these concerns managed somehow to edge a story into the reading columns of a Wichita daily paper recently consisting of a lot of hombast, claiming among otber things that the simplified accounting system it was offering to sell the farmers of Kansas was endorsed by the Treasury Department of the United States and that it was the first time such a practical account book had been made available to our farmers, pointing out that this would save them from filing erroneous income tax statements and thus making themselves liable to a thousand dollar fine and six months in jail.

We happen to know something about this particular concern, having begun a quiet investigation several months ago. It has adopted the name "Federal Farm Bureau," and has conducted a national advertising campaign, using some of the leading farm papers having nation-wide circulation. This advertising is very adroitly worded, and apparently seeks to convey the impression that it is in some way officially connected with the Government. It also advertises extensively for agents and in the glowing literature sent out to those who bit, some of which came to our attention, we noted that a rubber stamp had been used carrying the words "No connection with the United States Government" in small type in parentbesis. Another peculiar thing about this literature was that the statement was made that Federal Farm Bureau agents might call any day, and would "wear our badge with the name 'Federal Farm Bureau Authorized Agent'" the quoted words, however, having been blotted out, although still legible. The sentence with these words out simply stated that the agent would have a letter of authority, etc. There were many other misleading statements, all apparently having for tbeir purpose the conveying of the impression that this was an officially authorized farm account book.

The rubber stamp suggested tbat some action had been taken by the United States Government and, to get at the facts as to what had heen the relationship of this concern to the Federal Government, we wrote the office of Farm Management of the United States Department of Agriculture, asking some questions and enclosing the advertising of this concern clipped from one of the national farm papers. J. S. Ball, assistant in farm accounting in the Office of Farm Management, replied as follows: "Your letter of June 15 to this office has been referred to me for attention. It is

DO NOT fail to read this expose of an attempt to play the farmer for a sucker. Commercial concerns are seeking to capitalize on the need for a simple and practical system of farm accounts and particularly as related to the making out of income tax statements. There is absolutely no excuse for buying expensive account books that do not meet your needs after you get them.

Illinois farm management man bad invaded the office of this concern and been not the first letter we have had concerning the operations of the self-styled 'Federal Farm Bureau.' About four months ago I had letters from farmers in New York State who had been visited by representatives of this concern who stated to these farmers that the Government had passed a law that all farmers must keep books and that the books they were selling were official, etc. As this was a mis-statement, and also as the title 'Federal Farm Bureau' was being used by these men in a way to lead the farmers to believe that they represented, at least indirectly, the Government, all these letters were referred to the Treasury Department for action by its inspectors, but no means were found to handle the situation in a legal way, there being no law on the statute books under which prosecution could successfully be carried out.

"It seems that the rural press can be of assistance in bringing matters of this kind before their readers so that the true state of affairs may be understood hy them and it appears to me that advertisements such as the one you sent me should be refused unless it is specifically stated therein that there is no connection between the United States Government or any of its branches and the concern being advertised.

"Of course you will understand that as far as the Department of Agriculture is concerned there has been no official approval given to this or any other system of accounting except those put out by the regular activities of the Department in co-operation with the several state experiment stations. I agree with you that tbe actions of the company in question are such as to excite suspicions that they are using their apparently official name and their claimed endorsement by Government officials to influence the farmers to buy their publication. I am forwarding your letter to the Treasury Department as additional documentary evidence of the activities of this concern."

To get information as to the merits of the book, we consulted P. E. McNall, farm management demonstrator of the extension division of our Agricultural College. Mr. McNall has for a number of years been doing co-operative farm record work with Kansas farmers and knows their needs. He is a joint author of a farm account book such as is referred to by Mr. Ball as being officially approved by the United States Department of Agriculture. He had met a few farmers in Kansas who had purchased tbis particular book and had only recently been in consultation in Chicago with other farm management demonstrators in a national meeting and had an interesting story to relate of how the taken for an agent wanting to sign up for a few hundred books. He was told that the reason the word "Federal" was used was because of the advantage of approaching the farmer with a name suggesting Government connection; that the "farm bureau" was taken because of the influence it would give the agent in selling books to thousands of farmers belonging to Government financed organizations known as farm bureaus. The manager of the concern also outlined a suggested discussion of the income tax which would lead the farmer to believe it was necessary for him to keep accounts in this particular book which they were offering for sale. Up to this point the young man bad not even given his name, and he was compelled to make a rather burried get-away when it dawned on the manager that he was not what be seemed and had ohtained a lot of inside information without their even getting his name.

It appears that a good many of these books have been sold in Illinois. The high price is not the only objection. Those in touch with the real needs of Illinois farmers find the book does not answer the requirements which have developed because of the demand of the Internal Revenue Department for financial statements of the farmer's business.

Other concerns are putting out account books. Mr. McNall tells of one which has copied the Income Tax Primer put out by the Internal Revenue Department. Tbis information is good, but a very large proportion of it does not apply at all to the farm business. The blanks themselves in this particular book are not prepared to keep all the information and only such information as is needed in figuring taxable income. For example, it has entered in inventories all farm buildings, household goods, cash in hand, casb in bank, and life insurance paid up. These will not be needed in figuring the taxable income, with the exception of the farm buildings, which should include all tbe buildings except the residence. No note to this effect is made in the inventory record. It is also necessary that the huildings and machinery be itemized in detail in income tax statements so that the depreciation may be arrived at on each particular building or piece of machinery. This book also contains a blank for all household expenses, which do not enter into the figuring of the taxable income in any way.

No summary is contained which will provide for figuring the net income of tbe farm or which will summarize the income of the farm in any way except to get the total farm receipts and expenses. Mr. McNall says: "No farmer's account book has come to my attention which has the proper blanks for the keeping of the records necessary for determining the taxable income. I make this statement not only because I think the price for which some of them are selling is exorbitant, but because they will not serve the purpose for which the farmers want them."

As yet Kansas has not been invaded very extensively by such commercial concerns excepting through the advertising appearing in some of tbe farm papers of national circulation. Evidently such books are being offered to some extent, for we note the following warning in the August Farm Bureau Newsletter of one of the county agents, this statement being signed by P. E. McNall, farm management demonstrator:

"Many commercial firms are now putting out farmers' account books for the purpose of meeting the demands of the income tax.

"I have examined several and find none which will meet the requirements, e. g., containing blanks for the farm business separate from personal items, and containing a summary. I also find the price of these books to the farmers to vary from twenty-five cents to five dollars. Some of the firms have names which are suggestive and use arguments in selling the books which tend to convince the farmers tbat they must buy that particular kind of book.

"If you have the opportunity will you warn farmers not to buy such books unless they have been approved by some one whom you know realizes what the farmers need.

"Will you please send me any information you may get concerning the operation of such agencies in your county? Recommendations or approval of such books should not be given."

Undoubtedly all county agents in Kansas have been similarly warned.

We do not know whether the Federal Farm Bureau or other commercial concerns selling farm account books plan advertising campaigns in Kansas or not. The Federal Farm Bureau could not buy a line of space in KANSAS FARMER, neither would we use its book as a premium, for we have gone into its methods far enough to satisfy us that it is simply a game of playing someone for a sucker, both farmers and agents. We consider it one of our duties to expose such schemes to our readers.

We know that in all the states the farm management men working co-operatively through the agricultural colleges and the Federal Department of Agriculture are keeping in direct touch with the Internal Revenue Department, and have not only prepared account books that will tell the farmer what he should know of his business hut also enable him to make bis income tax statement absolutely as the Government asks for it. Slight modifications are being made each year, and Mr. McNall of Kansas is now in consultation with the Internal Revenue Department in order that the next year's edition of the Farmer's Account Book publisbed each year by the Kansas Bankers' Association will incorporate any changes in rulings with regard to the details of making out income tax statements. The banks of Kansas for several years have furnished this book free to their customers. There seems little excuse for farmers buying expensive books which do not meet their needs after they get them.

PURE BRED
Tauranian Turkey Seed

WHEAT

In 1914 Geo. Ripke, of Salina, Kansas, made a trip to the Black Sea District of Russia and at very great expense brought to Kansas a very small quantity of "Thoroughbred Wheat." This he planted and cultivated carefully, increasing his acreage annually until now he has a limited quantity for sale.

Analysis has shown this wheat to be richer in gluten, stronger in straw to resist wind and storms than ordinary kinds. Actual growing tests have proven it to yield very heavy and more productive than domestic varieties. It is now thoroughly acclimated and grows and yields exceedingly well in this section of the country. It requires no more care in cultivation than other kinds.

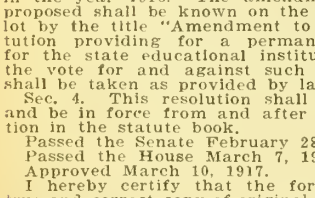
It is very highly recommended by the Kansas State Agricultural College of Manhattan, Kansas. It has been grown for two years at the College, where the tests have been very satisfactory.

A limited quantity is offered for sale in 5, 10, 15 and 20-bushel lots at $5.00 per bushel, delivered in sacks, f. o. b. Salina to railroad specified. Checks or Postal Money Orders should accompany each order.

Send orders to, and for further information address

The Western Star Mill Co.
SALINA, KANSAS

GREEN CORN CUTTER



Cuts and gathers corn, cane, kafir corn or anything planted in rows.

Runs easy. Long lasting. Thousands in use. Fully protected by patents. Send for free circulars. Price $15.00 f. o. b. Topeka.

J. A. COLE, Mfr., TOPEKA, KANSAS

SENATE CONCURRENT RESOLUTION No. 18.

A proposition to amend section 1 of article 5 of the constitution of the state of Kansas relative to the right of suffrage.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members elected to each house thereof concurring therein:

Section 1. The following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their approval or rejection: That section 1 of article 5 of the constitution of the state of Kansas be amended to read as follows:

Section 1. Every citizen of the United States of the age of twenty-one years and upwards—who shall have resided in Kansas six months next preceding any election, and in the township or ward in which he or she offers to vote, at least thirty days next preceding such election—shall be deemed a qualified elector.

Sec. 2. That this proposition shall be submitted to the electors of the state at the general election in the year 1918 for their approval or rejection. The amendment hereby proposed shall be designated on the ballot by the following title: "The suffrage amendment to the constitution," and shall be voted for or against as provided by law under such title.

Sec. 3. That this resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 8, 1917.
Approved March 12, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 18, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

SENATE CONCURRENT RESOLUTION No. 15.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members of each house concurring therein:

Section 1. That the following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their rejection or approval:

Sec. 2. The Legislature may levy a permanent tax for the use and benefit of the state educational institutions and apportion among and appropriate the same to the several institutions, which levy, apportionment and appropriation shall continue until changed by statute. Nothing herein contained shall prevent such further appropriation by the Legislature as may be deemed necessary from time to time for the needs of said state educational institutions.

Sec. 3. This proposition shall be submitted to the electors of this state at the election for representatives in the Legislature in the year 1918. The amendment hereby proposed shall be known on the official ballot by the title "Amendment to the constitution providing for a permanent income for the state educational institutions," and the vote for and against such amendment shall be taken as provided by law.

Sec. 4. This resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 7, 1917.
Approved March 10, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 15, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

O little Ben Zene, come blow your horn,
You plow my meadow and hoe my corn,
Till the hired men that I used to keep
Look over the fence at my tractor and weep.
—Youth's Companion.

MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Care of the Tractor

CLEANLINESS is absolutely essential in keeping a tractor in good working condition, points out E. M. Mervine, of the Iowa State College, in the American Fruit Grower. Old grease serves merely to collect and hold dust and this mixture of dust and grease is then a grinding agent instead of a lubricant. A few gallons of kerosene will take off all the dirt and grease and make the tractor look like new. When clean, it is much easier to perfect adjustments than when the parts are clogged and hidden from view.

Since many tractors have exposed gears, the question arises as to how these gears can be lubricated and still not collect dirt. Some companies answer this by saying that you should not lubricate the gear where it is exposed to dirt. In this case they depend on hard faced gear teeth and think that a clean, dry gear will wear longer than a dirty one even though the latter is greased. It is possible to use a lubricant on these exposed gears which is so dry that it will not collect dust. Such a mixture is made by moistening equal parts of flake graphite and powdered resin with gasoline and smearing this on the gear teeth. The gasoline evaporates, leaving the resin to hold the graphite in place. This, of course, applies only to drive gears.

The lubricating system should be examined to make sure that it is working correctly. Over 90 per cent of tractor troubles are due to improper lubrication. Here again cleanliness is absolutely essential. Unless the machine is in such bad shape that it needs overhauling completely, kerosene poured into the cylinders will soften carbon deposits, cut the gummy oil residue and loosen gummed piston rings. When the cylinders have been drained, the crank case must also be cleaned. Drain the old oil from the crank case and fill it with kerosene. Turn the engine over a few times to clean the case and then drain out the kerosene as before. Carefully examine all bearings to see that they are tight and then refill the crank case with new oil.

See that there is proper clearance between the valve push rods and the valve stems when the engine is turned over. It should equal the thickness of a thin postal card.

Keep a supply of spark plugs on hand, also a few good tools. Good tools, properly cared for, will save a lot of time and money when the spring work begins.

Dependability of Tractor

The investigations of the Department of Agriculture in the State of Illinois where more than six hundred tractor owners made detailed reports, indicate that little trouble is experienced with modern machines if the operators are proficient and careful. Of the tractor owners investigated, 54 per cent stated that their outfits were not disabled a single day when needed during the entire season last year. Of the remaining 46 per cent, the average number of days their tractors were out of commission when needed was five. This average, however, did not include one man who stated that his machine was out of commission about half the time. A gas tractor in the hands of a careful and proficient operator can without doubt be regarded as a dependable source of power, although occasional slight delays will probably occur. The serious ones will be exceptional except where the outfit is handled by careless or incompetent operators, in which case expensive delays are apt to be of frequent occurrence.

Of these Illinois farmers reporting, about 90 per cent stated that either the owner or some member of his family operated the tractor, and the best results are usually obtained by this class of operators. Thirty-six per cent of them reported that no time was lost in the field on account of trouble with the outfit. Most men do not consider it trouble when they know at once the cause of the irregularity of the engine's operation and know exactly what to do to remedy it promptly. The average time lost per day by the 46 per cent reporting trouble was a little over three-quarters of an hour.

Rural Motor Express Lines

Despite the unprecedented demand for food, great quantities are wasted because farmers cannot profitably get it to market. This must be cured by the operation of rural motor express lines, which have been endorsed by the Council of National Defense, the Food Administration and every other interested department of the Government.

A rural motor express line means the operation of a truck between towns, calling for the farmers' produce, carrying it to market and bringing back anything the farmer, merchant, hotel or other consumer may need.

The rural motor express line increases the food supply by furnishing regular transportation of farm products; stimulates the farmer's efforts by the knowledge that such transportation is available; enables the farmer to avoid driving to town, thereby increasing his time on the farm and partly compensating for the shortage of labor; enables the farmer to obtain goods from town on the day of order, and generally facilitates traffic between the farmer, the market and the consumer.

Hundreds of lines are in operation. There are twenty-five running into Washington and carrying 100 tons of food daily, as well as carrying merchandise back to the farmers. Production has been greatly stimulated and many farms previously idle are now under cultivation.

Rural motor express lines mean that every farm and village store practically has a railroad station at its door.

Operators of trucks have found the work profitable. In many cases farmers have combined and bought a truck for their mutual benefit.

On file at the office of the Highways Transport Committee there are scores of letters from farmers who say, among other things, that without the trucks they would have to stop shipping milk; that their produce is hauled more cheaply than ever before; that the quick delivery of goods enables them to get better prices; that the time of a man and a horse are saved, and that they can now put three times as much food as formerly on the market.

The National Truck Committee, 7 East Forty-second Street, New York, has prepared a pamphlet, "Organization of a Rural Express Line," which furnishes every detail of organization and operation. It includes a list of services the truck owner may render; a sample cost and charge sheet; tells how to make a preliminary survey of the proposed route and a canvass of prospective customers; suggests operating plans, how to advertise, how to interest the farmer and merchant, and shows how and why everyone in the community is interested. A copy may be obtained by anyone, on application, without cost.

A number of farmers were seen driving their tractors home during the week of the demonstration. Most of the small tractors have high speed gears which make it possible to move them rapidly on the road. We noticed a few which were equipped with solid rubber tires like auto trucks for road use.

Tractor Credit Ruling

The Federal Reserve Board has authorized the rediscount at reserve banks of notes given in the purchase of farm tractors. The ruling is to the effect that tractors are to be regarded as farm implements rather than permanent or fixed investments and that a farmer's note given in payment for a tractor to be used in farming, and maturing within six months, is eligible for rediscount at federal reserve banks as agricultural paper.

Fill Your Own Silo

You will find exactly the size and kind of machine you want in

Silver's "Ohio"
The Logical Silo Filler

Built in individual outfits—"two or three-men" machines—big enough to take care of all your own work. Variety of sizes, 4 horsepower up. 40 to 300 tons a day.

All with big "Ohio" features—direct drive, friction reverse, single lever control, etc. Automatic beater feed on larger sizes. Silverized Silage—packs air tight—ferments properly—makes better food for stock. Write for catalog.

The Silver Manufacturing Co.
Box 352 Salem, Ohio

"Modern Silage Methods," 264-page text-book, 25 cents.



WITTE
Kero-Oil Engines



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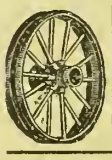

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KANSAS FARMER

THE FARM PAPER OF KANSAS

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SHARE SUGAR WITH ALLIES

The patriotic response to the call for wheat-saving made it possible to supply our Allies with 140 million bushels in the crop year just closed, in the face of an apparent surplus, with normal home consumption, of less than twenty million bushels. We are now asked to save sugar in order that our Allies and our own soldiers may be supplied. We are told that there will be no sugar famine, but that there is a serious shortage. No sugar now comes from Central Europe, none from Java, and less than usual from Hawaii and the West Indies. French sugar territory is overrun by German armies and the French sugar mills are all destroyed. Much sugar has been lost through submarine sinkings.

For England the present allowance is two pounds of sugar a month to each individual. For France and Italy it is one pound a month. In this country manufacturers and the trade are now under the most rigid restrictions. The saving of sugar in the households is a matter of honor. As in the wheat-saving program, the success of our sugar-saving rests on the honor and co-operation of the American people.

GRANGE RALLY WEEK

Grangers of Kansas are to have the pleasure of hearing the national lecturer, John C. Ketcham, in a series of addresses given the week of September 2 to 7. The dates are as follows: Olathe, Monday, September 2; Holton, Tuesday afternoon, September 3; Topeka, Highland Park school house, Tuesday evening, September 3; Manhattan, Wednesday, September 4; Chapman, Thursday, September 5; McPherson, Friday, September 6, and Haven, Saturday, September 7.

Mr. Ketcham is one of the able men of the National Grange organization. He is a thinker and a worker and has proven himself a constructive leader of rural improvement, particularly along social, educational and economic lines. He understands farm conditions thoroughly and is an interesting and entertaining speaker.

This series of Grange rally meetings should be given the widest publicity. People of the open country, whether members of the Grange or not, will profit greatly by hearing the National Grange lecturer give his spirited message.

GOVERNMENT CROP REPORT

The August 1 estimate of crops for Kansas given out by Edward C. Paxton, field agent, places the average yield of wheat for the state at 13.8 bushels an acre. This is less than the estimate of the State Board of Agriculture two weeks previous. The acreage given is 6,730,000, it being stated, however, that this may be revised upward when all the assessors' reports made to the State Board of Agriculture are in.

The corn crop is the object of the greatest solicitude at the present time. In the Government report the average condition of the 6,590,000 acres of corn on August 1 is given as 60 per cent of normal. This would seem entirely too high to the ordinary observer. The extreme heat of the closing days of July and the heated period of the fore part of August, combined with lack of rain and the hot, dry winds, has seriously injured corn. The Government report states that the percentage condition given for August 1 does not reflect the damage done by these extreme periods of heat and light rainfall. The poorest condition prevails in the southeastern and the north central sections of the state where corn had been seriously damaged before the advent of the August hot wave. The forecasted production on the basis of 60 per cent of normal conditions August 1 would be 15,365,000 bushels. No one, however, now expects any such yield of corn for the state. Corn is a crop that can suffer the most serious damage in a very short period of time.

It is very interesting to note the condition of the sorghums as reported by Mr. Paxton in this report. Kafir, milo and feterita continue to offer prospects for a fair crop in spite of the extreme weather conditions. The percentage condition of these crops is given as 77 compared with 53 for a year ago and 74 as a five-year average for the same date. Milo in the southwest section of the state looks unusually good. Feterita is making the poorest showing of the grain sorghums thus far. The sweet sorghums and Freed Sorgo are coming into head with excellent prospects for good yields. There is no getting around the fact that the sorghums are to be depended on when it comes to standing up against short rainfall and extreme heat. These are the most reliable feed crops of the state and must be given more and more recognition as crops that will make livestock production safe and profitable.

Oats and barley suffered a decline from the July 1 report. The oat crop forecast for August 1 is given as 49,516,000 bushels, a decline of over two and a half million bushels since July 1. The barley outlook is for a yield of 9,180,000 bushels. The grain of both oats and barley where threshing reports are made is below normal in quality and weight.

FARM BUREAU ENDORSED

The farm bureau organizations have demonstrated their value in many ways. It is really remarkable how this movement, which met with so much opposition in the start, has developed and taken up the working out of many farm problems which can only be solved through the activity of such an organization. During the present year locating, testing, and aiding in the distribution at reasonable prices of seed of corn and of sorghums, was a farm bureau activity which has meant much to the farmers of Kansas.

In the face of a labor shortage that threatened to seriously hamper the harvesting and tending of crops, the farm bureau organizations in co-operation with the Farm Labor Director, the State Council of Defense, the United States Department of Labor, the State Board of Agriculture, and chambers of commerce in various cities, saved the day, definitely listing over 30,000 harvest laborers and helping in the distribution of over 90,000. The problem of saving every grain of wheat produced through the exercise of greater care in harvesting and threshing was put up to the farm bureaus by the Food Administration, and again these organizations were able to rise to the occasion and render a most patriotic service.

The War Department recognizes the essential nature of the work of these organizations, as is shown by a recent telegram from Provost Marshal Crowder to local and district draft boards stating that the Department of Agriculture is charged by Congress with the duty of stimulating economical food production along all lines and that the extension machinery is the most valuable single agency for this purpose. We are glad to record the fact that the Kansas State Council of Defense in a meeting held in Topeka August 10 expressed in the form of a resolution, passed unanimously, its great appreciation of the work of the farm bureaus of the state, urging the giving of every possible aid to these organizations and the placing of county agents in all counties of the state, particularly pointing out the necessity for boards of county commissioners making liberal appropriations for the support of this most valuable work in their respective counties.

Keep Up Schools, Urges President

EVERY Government agency is emphasizing the importance of keeping up all kinds of school work. Boys and girls need have no doubts as to what our Government wants of them in this respect. The opportunity which will be given in every college in the land to enlist and receive military training along with college instruction has for its distinct purpose the checking of premature interruption of the training so much needed by the younger boys to fit them for their country's service. This gives them an opportunity to feel that they are definitely enrolled in military service and that they will be called when needed. President Wilson in a letter to Secretary Lane heartily approves the Bureau of Education plans for an educational campaign this summer and fall. He says:

"I am pleased to know that despite the unusual burdens imposed upon our people by the war, they have maintained their schools and other agencies of education so nearly at their normal efficiency. That this should be continued throughout the war and that, in so far as the draft law will permit, there should be no falling off in attendance in elementary schools, high schools, or colleges, is a matter of the very greatest importance, affecting both our strength in war and our national welfare and efficiency when the war is over. So long as the war continues there will be constant need of very large numbers of men and women of the highest and most thorough training for war service in many lines. After the war there will be urgent need not only for trained leadership in all lines of industrial, commercial, social, and civil life, but for a very high average of intelligence and preparation on the part of all the people. I would therefore urge that the people continue to give generous support to their schools of all grades and that the schools adjust themselves as wisely as possible to the new conditions to the end that no boy or girl shall have less opportunity for education because of the war and that the nation may be strengthened as it can only be through the right education of all its people. I approve most heartily your plans for making through the Bureau of Education a comprehensive campaign for the support of the schools and for the maintenance of attendance upon them, and trust that you may have the co-operation in this work of the American Council of Education."

ASSOCIATIONS NEED TESTERS

Many cow testing associations are being formed in Kansas communities where dairying has become an important part of the farm business. In practically every instance that has come to our attention the farm bureau is the agency through which these associations are being formed. Production costs are so high that no dairyman can afford to get along without some sort of individual check on his cows. In the best of herds individual tests locate slackers, or cows not making profitable returns for the feed they consume. Under ordinary conditions the average of the herd might be enough above production costs so these slackers among the cows could get by, but in these days the wide-awake dairyman is determined to carry no unprofitable cows at the expense of good cows.

The principal difficulty just now is to find competent men for official cow testers. Usually the dairy department of the Agricultural College can furnish help in locating cow testers, but Professor Fitch reports that he is finding it practically impossible to meet the demands for official cow testers. A number of associations are ready for work and only await a man for the job of cow tester. In some of the states women are qualifying themselves for cow testing work. If any of our readers know of anyone suitable for performing the work of an official tester in the cow testing association, they would be performing a real service to report the names of such persons to Prof. J. B. Fitch at Manhattan. Unless cow testers can be located, many of these new associations cannot go on with their work.

SEED WHEAT PLANS

The application blanks for money to aid in seeding wheat this fall have been mailed to banks in the counties where such help is needed. To qualify, a farmer must show that he has had two successive failures, that all his property is mortgaged so he cannot give security for additional loans, and he must agree to subscribe to a guarantee fund and give a note and a chattel mortgage on the crop. The terms of this guarantee have been changed from the original plan, as announced on another page of this issue, and the farmer will pay fifteen cents a bushel for each bushel over a six-bushel yield up to eleven bushels, not to exceed seventy-five cents an acre.

L. M. Estabrook, of the United States Department of Agriculture, who will direct the use of the fund in Kansas, has established headquarters at Wichita. He was present at the August 10 meeting of the Kansas Council of Defense where the plans were discussed. It apparently was assumed at Washington that on the approval of the application by the local department representative, local banks would furnish temporary aid so the seed could be purchased and planted. Banks, however, cannot advance this temporary money. Their funds are already tied up. Telegrams were sent to Washington by the Council of Defense and the State Bank Commissioner, the Council's message being signed by Mr. Estabrook in addition to the officers, urging that the five million dollar fund be at once apportioned and deposited in the Federal Land Banks and redeposited in local banks so as to provide them with the money to loan pending completion of the details of sending in applications and actually getting the seed into the ground. Loans cannot be legally made nor the chattel mortgages given until the crop is in the ground.

It has been estimated by the State Board of Agriculture that about eleven thousand farmers in Kansas can qualify for financial help under the Government terms.

A detail which has not as yet been worked out is the providing of the seed wheat. Seed must be provided from outside sources for all the counties where the Government aid will be used. Mr. Estabrook has already been assigned several other men from the Department of Agriculture and in co-operation with the state authorities provision will without doubt be made for getting the seed at a minimum of expense and trouble.

NATIONAL CANNING PRIZES

Women of Kansas are to have national recognition of their patriotic work in conserving the products of the soil by canning. The National War Garden Commission will give to the winner of first honors in canning at Kansas fairs a National Capital Prize Certificate and a half-filled book of thrift stamps. Otis E. Hall, state club leader of Kansas, has been informed that this commission has allotted one of these awards to the Kansas Free Fair at Topeka, September 9 to 14; to the Kansas State Fair at Hutchinson, September 14 to 21, and to the International Wheat Show at Wichita, September 30 to October 12.

Our future is vitally linked with that of the allied nations.

ECONOMY OF PRESSURE COOKER

Comparative Tests with Pressure Cooker, Fireless Cooker and Open Kettle

ALTHOUGH the value of steam pressure in canning has been recognized for a number of years, it has been but little used in home cookery. Recently pressure cookers of various types, based on the use of steam under pressure, have been put on the market. The chief advantages urged by the manufacturers are the saving of time and of fuel in ordinary cooking. To determine just how great this saving might be and whether or not the pressure cooker was equally valuable for cooking all kinds of food, a series of experiments has been conducted by the home economics department of the Kansas Agricultural College at Manhattan. Comparative tests were made using the pressure cooker, the fireless cooker, and the ordinary open kettle.

The method of conducting these experiments and the conclusions reached are given in Home Economics Bulletin No. 11, "Steam Pressure for Home Cooking," by Miss Alice E. Skinner and Miss Ida E. Rigney, instructors in domestic science at the Agricultural College. This bulletin will be of particular interest to housewives possessing a pressure cooker which they can use for canning, or to those who would like to own one but hesitate to make the investment for use in canning alone. It may be obtained free by writing Mrs. Mary Pierce Van Zile, dean of the division of home economics of the Agricultural College and home economics director of the United States Food Administration for Kansas.

In all tests the fuel used was gas, because it is easily measured and easily controlled. This was manufactured gas purchased at the rate of $1.25 per thousand cubic feet. The burner used was the giant, such as is found on the ordinary gas range. The meter was graduated to one-fourth cubic feet only, so it is possible that readings may show slight inaccuracies or variations. The giant burner when turned on at full blast consumed .54 cubic foot of gas per minute, and was found to be wasteful. Hence none of the cooking was done with a full flame. When the cock was turned at three-fourths blast, .25 cubic foot of gas was consumed per minute; at half blast, .12 cubic foot; at one-fourth blast, .06 cubic foot. For these flames the terms high, medium, and low, were used. Variations in the pressure and richness of gas necessitated the use of different flames to secure the same heat at different times.

Selection of Foods for Test

The number of foods available for testing was so large that the tests were limited to foods typical of certain classes. For instance, prunes were chosen as being typical of dried fruits; apples, of fresh fruits; navy beans, of dried vegetables, and so on. The results of these tests are given briefly in the following paragraphs:

Dried Fruits

The prunes used were soaked for one and one-half hours in enough tepid water to cover. After cooking in the pressure cooker for ten minutes at twenty pounds pressure, the fruit was of good flavor and shape. It was found that prolonged soaking produced a watery, insipid fruit, whereas unsoaked prunes remained somewhat waxy. The prunes cooked in the open kettle for twenty-three minutes were watery, rather mild in flavor, and of good shape. Less gas was used in this process and more time taken. The work with the fireless cooker gave prunes of good flavor and shape, but was more expensive, as it required twenty-four minutes to heat the stone and the food. The prunes were left in the cooker sixty minutes. The cost of the gas consumed in using the pressure cooker was $.0041; the open kettle, $.0026, and the fireless cooker, $.008.

The results of the work with dried fruits proved that the pressure cooker was valuable for this class of foods in saving time and in producing good flavor, but that the cost was slightly greater than with the open kettle. The fireless cooker proved most expensive in this case.

Fresh Fruits

The apple was chosen as a typical fresh fruit. Various pressures and lengths of time were tried and it was found that the apple could not withstand high pressure, probably because of the large water content. The best results were obtained with seven pounds pressure for ten minutes. Considering the amount of gas required to obtain this pressure, there seemed to be no material saving of time or of gas in using the pressure cooker for foods which were so easily cooked by ordinary means.

Dried Vegetables

In the work with dried vegetables, navy beans which had been soaked for one and one-half hours and then drained were used. On being cooked for forty-five minutes at twenty pounds pressure, they were of excellent flavor, resembling baked beans, dry and mealy, with very tender skins. The cost of gas was $.0094. Beans which were unsoaked and cooked forty-five minutes in water in the pressure cooker resembled ordinary boiled beans, having a tender skin and excellent flavor. The cost was the same as for the soaked beans. It required two hours to cook the beans in the open kettle, costing $.0145. The flavor of the beans was weak; the skins were tough and separated from the body. Beans cooked in the fireless cooker four hours were rather tough, not so mushy as those cooked by the open kettle method, and with loose skins. The cost was $.011.

From these experiments it would seem that the pressure cooker is an excellent means of cooking dried vegetables. Certainly there was great saving of time and expense.

Fresh Vegetables

Inasmuch as fresh vegetables differ greatly, a number of these were tested. Although an excellent product was obtained in cooking the Irish potato under steam pressure, it was found that there was not sufficient saving of time and of gas to warrant the use of the pressure cooker for this type of vegetable. Twenty pounds pressure was used and the Irish potato was steamed for twelve minutes. The gas consumed cost $.0044. In the open kettle less gas was consumed because it was possible to keep the water boiling by using a low flame. The cost of cooking by this method was $.0031. The fireless cooker seemed least satisfactory because it required as much gas as it would take to cook the potato in the open kettle. In all cases the sweet potato cooked in less time than the Irish potato, so here, too, the pressure cooker was found to have but little advantage over the other two methods.

Fibrous Vegetables

In cooking those vegetables which contain a relatively large amount of woody fiber, such as the carrot and the beet, the pressure cooker proved valuable because the softening of the fiber in the open kettle requires a long time and much fuel. With carrots in good condition there was much saving of time, though less saving of gas with the pressure cooker, as is shown by the following data: Firm, medium sized carrots required sixty minutes in the open kettle at a cost of $.0052. Carrots of similar nature and size cooked in the pressure cooker in only fifteen minutes, the gas costing $.0049. When the fibrous vegetables used were old and shriveled, the saving in gas was much more marked, the time of cooking in the pressure cooker being but one-third of that needed to cook them by the open kettle method. Although the fireless cooker produced good carrots, the cost exceeded that of the other two methods.

Strong-Flavored Vegetables

In order to render strong-flavored vegetables palatable, it is well to cook them in water in an uncovered pan. Since the pressure cooker cooks the food wholly by steam with little or no loss of flavor, such vegetables as onions were found to be objectionably strong and badly discolored. Consequently it seems unwise to attempt to cook strong-flavored vegetables in the pressure cooker. Cabbage cooked by this method was less objectionable in flavor than might be expected, but it showed marked discoloration.

Cereals

In studying cereals the cracked, rolled and granular forms were used in order to determine whether or not this method of cookery could be used to equal advantage with these three types. Some difficulty was experienced in cooking a granular cereal in the pressure cooker. Even though the cereal and water were thoroughly mixed on putting into the cooker, it seemed impossible to prevent the formation of a compact cake in the bottom of the pan. With cereals less finely ground, this difficulty was not encountered. Rolled cereals cooked in the pressure cooker required twelve minutes for cooking at twenty pounds pressure and the cost of the gas used was $.0044.

The fireless cooker compared favorably with the double boiler in the condition of the food and the amount of gas used. The pressure cooker seemed particularly adapted to the cookery of whole or cracked cereals, which are difficult to cook by ordinary means. Steel-cut oats cooked in the double boiler required five hours and forty minutes at a cost of $.027. The pressure cooker required but twenty-three minutes at a cost of $.0061. The fireless cooker, usually so well liked for the cookery of cereals, cost $.0103; and the product, although thoroughly cooked, was less fluffy than that cooked in the pressure cooker.

Water Necessary with Dry Foods

A certain amount of water is necessary for the softening of any vegetable food. If the food does not contain enough water, it must be soaked or cooked in water. When dry foods are cooked in the pressure cooker without water they do not absorb moisture enough from the steam to swell and soften, but remain practically uncooked. However, when using the pressure cooker one adds less water in cooking cereals than is necessary in the double boiler, because there is no loss through evaporation.

Meats

In the boiling or steaming of tough meats the housekeeper finds the cost of fuel no small item. Very tough chickens required from forty-five to sixty minutes, which was about one-fourth the time needed in the open kettle, the cost being about $.01. The meat had a good flavor and yielded a well-flavored broth. It was found that strong-flavored meats, such as neck of mutton, like strong vegetables, had too pronounced flavor on being cooked in the pressure cooker. Large pieces of meat, such as pot roast, can be cooked to advantage in the pressure cooker. As in ordinary cooking, the flavor is much improved by searing the roast before it is placed in the pressure cooker. All meat must be placed in a pan in order to save the broth, whereas vegetables may be placed on a rack.

Toughness of meat is largely due to the connective tissue surrounding the meat fibers. This tissue is completely dissolved by prolonged cooking with moisture, hence the value of long stewing of tough meats. In the pressure cooker this dissolving is accomplished very quickly by the steam. Although meat fibers are made tougher by high temperature, it has been found that if superheated steam is applied for some time the process of digestion is begun and toughening will be overcome. Hence there would seem to be no objection to cooking meats in the pressure cooker.

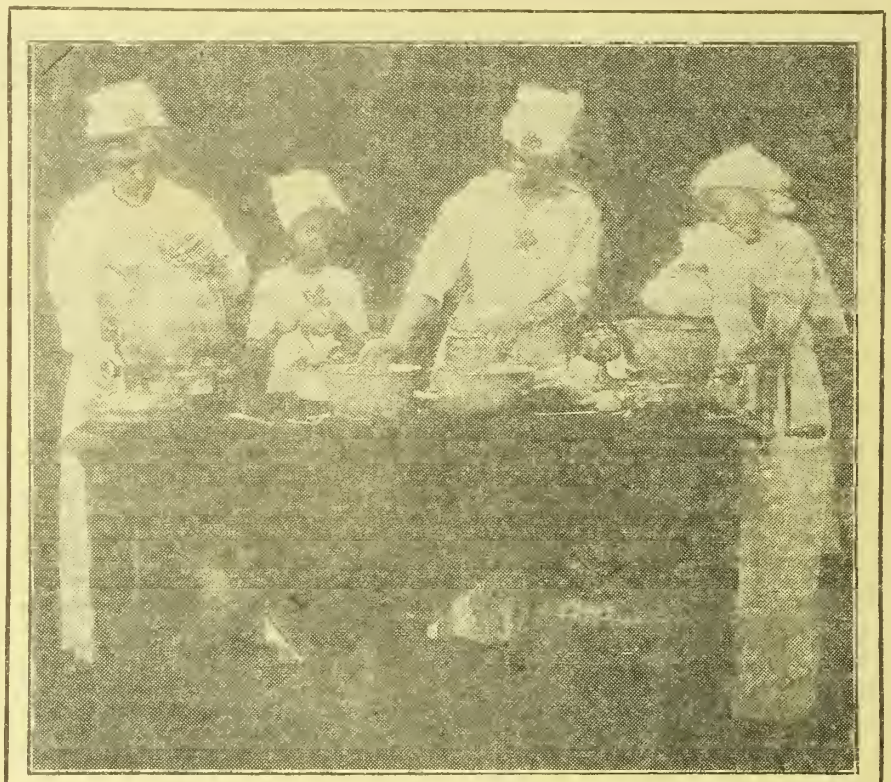
Leavened Foods

Such foods as steamed puddings or Boston brown bread, which ordinarily require long steaming, were very satisfactorily cooked in the pressure cooker if a pressure of three to five pounds was used. A higher pressure prevented the expansion of the gas formed by the leavening agent and gave a product which, though thoroughly cooked, was heavy and unpalatable. Cooking in the ordinary steamer requires about three hours; the pressure cooker used but one-third the time, with a proportionate saving of fuel.

The authors of the bulletin referred to believe that the results of these experiments indicate that steam pressure is a saver of time and fuel in the cookery of those foods which ordinarily require a long application of moist heat. In foods easily cooked by ordinary means the pressure cooker showed no advantage.

The use of pressure cookers for canning is becoming quite common. They are being found particularly valuable for corn and similar vegetables which are difficult to sterilize. In these tests no work was done in canning. However, it is stated that a considerable amount of canning has been done with the pressure cooker at different times in the laboratories of the home economics department with very satisfactory results.

Corn, peas, beets, and similar vegetables having no acids of their own to help in their preservation and being comparatively dense and dry, require either several hours continuous boiling in a water bath, or three one-hour periods of boiling on consecutive days. These same products may be sterilized in the pressure cooker in one to one and one-fourth hours at a very much lower cost. As the bacteria infesting these foods are destroyed only by prolonged boiling or by a shorter cooking at an increased temperature, a device like the pressure cooker which reduces the fuel cost so appreciably will soon pay for itself if much canning is done.



—Photo courtesy of Otis E. Hall, State Club Leader

USE OF PRESSURE COOKER IN CANNING.—IT IS JUST AS CONVENIENT AND ECONOMICAL FOR COOKING VEGETABLES AND FRUIT FOR IMMEDIATE USE

INCOME FOR STATE SCHOOLS

Permanent Income Amendment Will Increase Educational Efficiency

THE war bas placed a new burden on our state scbools. They are trainiug specialists for this highly technical war. Their shops, laboratories, and classrooms have hundreds of men wearing the khaki under detail from Uncle Sam and helping to make the world safe for you.

These institutions must be made permanent, and to be permanent they must have a permanent income. November 5 the people of Kansas vote on the permanent income amendment. Too often we go to the polls with very little knowledge of the proposed amendments, and vote "No" or not at all for fear of making a mistake. The time to ask questions and learn about proposed amendments is now. Two amendments of vital importance are to be submitted at the coming election. The State Council of Defense, in recognition of the relation of these amendments to our war program, passed an important resolution at its July meeting and appointed a committee on educational efficiency. This committee has already taken steps to familiarize people with the permanent income amendment and has prepared answers to a few of the questions we naturally ask about any proposed amendments to our state constitution.

What Is the Amendment?—An amendment to the constitution called the permanent income amendment which will secure the same war efficiency in education as in otber lines.

This amendment provides for a definite income for the upkeep of the state schools.

The State Board of Administration, of which the Governor is chairman and for wbich tbe business manager is the executive, will, under the permanent income plan, direct the expenditures of all scbool funds, as heretofore.

Tbe difference between the old method and the new is that instead of having to appropriate funds for state educational institutions at each session, the legislature will determine their fixed and regular needs and establish a levy sufficient for these needs and that levy will continue until the need changes. This fund can only be used for the schools and is not available for other state expenses. The legislature can change the levy at any time.

Who Are Its Backers?—Leading business men of Kansas have been urging for years that the schools were big business institutions and that the best business methods be adopted in support of them. They have urged the plan of a permanent and separate school fund.

Many members of the legislature have long appreciated the inefficiency of the present plan and have submitted this amendment because it will lead to better and more economical administration of the schools.

The presiding officers of the two houses of the legislature say:

> From several years' experience in the legislature and especially from our experience as presiding officers, we are convinced that the passage of the permanent income amendment submitted by the last legislature would greatly expedite the work of future legislatures and allow them to provide for the schools more effectively and efficiently. (Signed)
>
> W. Y. MORGAN,
> Lieutenant Governor.
> A. M. KEENE,
> Speaker of the House.

The official state war body, the State Council of Defense, adopted this resolution July 11, 1918:

> Whereas, the legislature of Kansas of 1917 realizing the sacredness of the ballot, directed the submission to the voters of Kansas at the general election to be held November 5, a proposal to limit the franchise to those persons who had taken out their final papers and become full citizens of this country and renounced their allegiance to kings and potentates of other countries; and
>
> Whereas, the legislature of the State of Kansas of 1917, realizing the need of a more scientific manner of supporting the state schools, and that money raised for education should be held sacred for education, and that the state was being seriously hampered in the administration of her educational institutions by the lack of a permanent income, directed the submission to the voters of the State of Kansas of an amendment permitting the legislature to establish a definite permanent income for the schools that would make possible the planning of the affairs of these schools in advance;
>
> Whereas, the war conditions have made both of these amendments timely;
>
> Therefore, be it resolved by the Council of Defense that it does hereby fully endorse both of said amendments and does hereby ask the people of the State of Kansas to vote for said amendments as war measures.
>
> The State Council of Defense has appointed a committee on educational efficiency to present the vital importance of this amendment to the voters of the state as an emergency war measure, because efficiency in education means efficiency in army organization, greater fighting power and better preparation for handling the after-war problems.

What Will It Accomplisb?—In the first place, the people will know wbat they are raising money for. The funds used for expenses of the state can be more easily scrutinized. They will know what they are investing in the young men and women of the state for the state's welfare.

The people will know what they are paying taxes for. The funds for the ordinary expenses can be more easily scrutinized as can the funds set apart by the state for education.

The amendment will put the money to be used for institutions of higher education in Kansas into a separate fund according to the same plan by which all other school funds are kept separate and sacred to educational purposes. The grab-bag methods now in use will be discontinued.

The fixed limited income, having once been established by the legislature, will be reasonably permanent. The schools with a permanent income can get better men than under present methods, and will be able to save money on salaries, on maintenance, and on construction work, since they can plan for years ahead along lines of greatest economy and efficiency.

The legislature in preparing the amendment combined provisions for permanence with growth, stability with flexibility, and confidence in the present with hope for the future.

The State of Kansas took an important step in securing a business manager for its institutions. The next step is to enable the business manager to get the best results by giving him the same conditions for doing his work that any business manager of a great concern should have.

The permanent income amendment will take the state institutions out of politics.

It will make higher education in the future safe for Kansas children now in the elementary and secondary schools.

It will prevent selfish interests of one kind and another from seeking to use money which ought to go to the schools.

It will by introducing permanence into school affairs, tend to keep strong men from leaving Kansas for positions in institutions having more permanence.

It will relieve the legislature from the impossible task of trying to master, in a few days, the intricacies of larger appropriation bills.

It will strengthen higher education—demonstrated to be one of the most important links in the war chain.

It will put Kansas alongside of the otber sixteen states which have adopted the fixed limited income method. They are as follows: Michigan, in 1873; Nebraska, in 1875; Colorado, in 1881; Indiana, in 1883; Ohio, in 1890; Minnesota, in 1894; Iowa, in 1896; Wyoming, in 1897; North Dakota, in 1899; Kentucky, in 1901; California, in 1901; Wisconsin, in 1897; Nevada, in 1908; Tennessee, in 1909; Washington, in 1911, and Illinois, in 1911. The permanent income method is still in use in all of these states. These get and hold tbe best men in their state schools.

This amendment will be voted upon November 5, 1918. At the same time you can vote for the other war-time measure, the amendment to withhold the franchise from those who bave taken out only their first naturalization papers. Both amendments are in the interest of safety—efficient Americanism.

Advantages of an Education

From Pamphlet of National Bureau of Education

AN investigation of the educational advantages enjoyed by the eight thousand persons mentioned in "Who's Who in America," for the years 1899-1900, brought out tbe following facts: Out of the nearly five million uneducated men and women in America, only tbirty-one have been sufficiently successful in any kind of work to obtain a place among the 8,000 leaders catalogued in this book. Out of thirty-three million people with as much as a common school education, 808 were able to win a place in the list, while out of only two million with high school training, 1,245 have manifested tbis marked efficiency, and out of one million witb college or university training, 5,768 have merited this distinction. That is to say, only one child in 150,000 has been able in America, without education, to become a notable factor in the progress of bis state, while the children with common school education have, in proportion to numbers, accomplished this four times as often, those with high scbool education eighty-seven times as often, and those with college trainiug eight hundred times as often.

If this list had been selected by the universities or school teachers, or if literary leaders only were chosen, it might easily be claimed that the apparently greater success of the educated was due to the line of work from which the leaders were selected. But the selection of the men and women in this book was not in the hands of professors, but in the hands of a firm of business men. They selected leaders in all lines of industry, commerce, agriculture, and other fields of practical endeavor besides the professions; and still this enormously increased efficiency and productivity of those with education was found.

Dr. Charles Thwing made a similar study of the 15,142 eminent men mentioned in Appleton's "Encyclopedia of American Biography" to find the facts especially with regard to the relation between college training and success in political life and in amassing wealth.

Of the one hundred wealthiest men in the United States, he found that in proportion to the total number in America possessing a college education there were 277 times as many college-bred men who had amassed great wealth as there were of non-college bred men. In proportion to their numbers in the population, the college men have become members of tbe national House of Representatives 352 times as often as the non-college bred men; members of the Senate 530 times as often; President 1,392 times as often; Justices of the Supreme Court 2,027 times as often. Of the more than 10,000 prominent and successful men in all lines mentioned who were still living, 58 per cent were college graduates and 75 per cent had some college training. On the whole, the college-bred man had attained enough eminence to be mentioned in such a cyclopedia 870 times as often in proportion to his number as the non-college-bred man.

In 1898 Prof. J. C. Jones, of the University of Missouri, made a special study of the college graduate's success in tbe field of national politics. This study is doubly pertinent to this subject, for not only do congressmen, cabinet officers, supreme court judges, and presidents receive larger salaries than do average citizens, but, since they make, interpret, and enforce the laws wbich govern customs, banking, transportation, corporations, policing, and international relations, they exert a powerful and widespread influence upon national industry and wealth. Professor Jones made his study also through an examination of Appleton's "Encyclopedia of American Biography," but considered only those who had remained in college long enough to graduate instead of including, as President Thwing had done, all who attended college.

Professor Jones found that over 5,000 of tbe 15,000 men mentioned in Appleton's were college graduates. He also investigated the schooling of the Fifty-fourth and Fifty-fifth Congresses, and found that 36 per cent of the Representatives and over 36 per cent of the Senators were college graduates. Among those who have been elected to the position of Speaker of the House, 47 per cent have been graduates. Furthermore, the proportion is increasing. From 1789 to 1841 the percentage of Speakers wbo were graduates was 35, whereas from 1841 to 1898 it was 55. Of the Presidents, 55 per cent had likewise been graduates, this percentage also having increased during the preceding seventy-five years from 50 to 57. Fifty-four per cent of the Vice-Presidents, 62 per cent of the Secretaries of State, 50 per cent of the Secretaries of the Treasury, 67 per cent of the attorneys general, 69 per cent of the justices of the Supreme Court (87 per cent during the preceding fifty years) were college graduates. As only about 1 per cent of the population ever graduate from college, it is plain that the graduates attain these remunerative and important positions from thirty-six to eigbty-seven times as often as tbe non-graduates, and that this ratio is still increasing.

Cut Weed Crop in Orchard

How is the crop of weeds and grass in your orchard right now? No doubt it is in fine growth, green and thrifty, shading tbe ground so there is no chance for the sun and wind to reach it and steal the soil moisture. That's one way of looking at it. But how about sizing it up from a different angle? This little article is not to be a plea for clean cultivation, so it will be confined to pointing out the need and advantages of prompt attention to the weed and grass-grown orchard.

Here in Kansas we should plan our farm practice on the tbeory tbat we will be short on rainfall. Then if we are sbort, we planned wisely; if we have abundance, so much tbe better. On this basis how does a heavy growth of weeds and grass effect our supply of soil moisture in a dry spell? Every leaf and every blade of grass is a surface of rapid evaporation, using moisture tbat is badly needed by the trees. Besides, the weeds are using a large amount of immediately available plant food, which the trees need, especially if heavily set with fruit.

Now before our weeds get older and woodier, let us get in and mow them close. What has the one operation accomplished? First of all, we've stopped the ripening of countless seeds that would otberwise give us trouble all over tbe farm. If it does not rain our weeds will not be really bothersome again. We have cut them when tbey are relatively tender in stalk, thus readily convertible into valuable humus material if turned under. Our big accomplishment is the moisture conservation. We bave cut off the loss occasioned by the growing plants; then we have formed a mulch that really does prevent tbe sun and wind from doing their worst. What moisture is saved may be just the difference required to bring a crop of apples through to the harvest; to prevent the trees from weakening through drouth and thus becoming a prey to blister canker; to insure a sufficiency of plant food to mature an abundance of fat, vigorous fruiting buds capable of setting a good crop next year. With the weeds cut away there is better chance for circulation of air under and through the trees, whose leaves do not function efficiently in stagnant air. The fruit on the low-hanging limbs will now grow without being blemished by rubs and scratches from the coarser weeds.

Altogetber, this weed cutting helps a lot. Success with fruit, as with anything else, is the sum of little things. With one fell swoop of the scythe or the mowing machine we have contributed materially to that sum.—Harold Simonds, Extension Service, K. S. A. C.

"The American people will gladly make any sacrifice in consumption and in the production of foodstuffs that will maintain the health, comfort and the courage of the people of the allied countries. We are in fact eating at the common table with them."—President's Message to the Conference of Allied Food Controllers in London.

There is no vacation on the firing line.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

THIS country has wonderful possibilities in water transportation and there is some evidence that we are to have a revival of this cheapest of all forms of transportation. There are wonderful possibilities in developing our waterways.

The Bureau of Markets reports that the Mississippi River boats have hauled more live stock to the Independent Stock Yards at St. Louis during the first half of this year than they did during the corresponding period last year. This quite materially reduces the strain on rail transportation. More than a third of the cattle and hogs received at the Independent Yards the last four months came by the river route. Practically all the river boats using St. Louis as a terminal carry some live stock. The boat rates are slightly higher than rail rates, but stock reaches the market in much better condition and shows less shrinkage. The loss in dead and crippled animals is small as compared with the loss in shipments by rail. It is stated that usually less than carloads are shipped by many individual owners, a system of tagging permitting the stock to be bunched in the same pen.

Co-Operative Stock Shipping

Producers are learning to cut the corners in many ways in marketing farm products these days. A number of co-operative live stock shipping associations have been organized in McPherson County through the efforts of the farm bureau. The county agricultural agent, V. M. Emmert, reports that the margin between McPherson prices for live stock and Kansas City prices has narrowed about one dollar a hundredweight since the co-operative associations have been doing business.

Pooling Wool

In Morris County the county agent, A. L. Clapp, has helped the sheepmen of the county in forming a wool shipping pool. This plan of shipping is being urged by the War Industries Board. The plan is to pool all the wool into a single shipment, shipping directly to an official Government distributing point, thus avoiding the payment of a commission or other handling expense locally. Such a pool must be carefully conducted, as the wool must be sorted and tagged in such a way that the returns can be made out for each consignor. In Marion County, Missouri, a group of farmers sold their wool in this way recently, forty-six men contributing over ten thousand pounds. This pool was handled by the county agent, H. T. Nielsen, who formerly was a district agricultural agent in Kansas. The sales amounted to $6,710.16. About one-fourth of the wool was classed as Grade 1, one-half as second grade, and the balance in lower grades.

Government Loans to Farmers

In a supplementary statement from the Treasury and Agricultural Departments relative to the special fund referred to in our issue of August 10 it is explained that the money will be loaned to farmers in certain sections of the Northwest and Southwest where two successive crop failures have occurred due to lack of rain and winter killing. Of course farmers in the western third of Kansas will be eligible for assistance under this ruling.

The money is to be loaned by the federal land banks, but these banks will expect the co-operation of the local banks in the taking of applications. Forms for applications will soon be available.

The determination of the question of making each loan will in the first instance rest with the Department of Agriculture. Investigations can be made through various agencies, such as farm bureaus, farm loan associations, and other local farmers' organizations. Applicants must agree to use seed and methods approved by the Department of Agriculture, and the money will not be advanced until the crop is planted and a representative of the Department certifies to the federal land bank that the applicant has completed his planting in a proper manner and with proper seed. The land bank will then take the applicant's note and a chattel mortgage on the crop planted. As a basis for temporary credit a statement of approval will be issued by the land bank. The Department of Agriculture is planning to investigate all applications, so there need be no serious delays in getting the plan into operation. It is up to the communities, however, to do their own part promptly.

As a part of his contract each borrower will be required to agree to pay into a guarantee fund a sum equal to 25 per cent of the amount loaned him to cover any losses that may occur, providing his yield is over seven bushels to the acre. If the money so contributed is greater than the actual loss to the Government, the excess will be pro-rated back to the contributors.

Need for More Live Stock

Live-stock producers can count on a strong demand for their products for a good many years to come. There has been a tremendous loss of live stock in Europe as a result of the war. It has been estimated that the Central Powers were much better prepared for the war than were the Allies in the matter of live stock, having fully 42 per cent more meat per capita. The Germans have apparently captured a great deal of live stock from conquered countries, which has made it possible for them to save much of their stock at home.

Belgium, Serbia, and Roumania, have lost practically all their live stock. The Allies have decreased their herds and flocks almost forty-six million head, while it is estimated that the Germans have reduced theirs about eighteen million head. Neutral nations of Europe have shown a decrease of a million and a half in their live stock. European losses, therefore, exceed sixty-five million, leaving out of consideration Austria, Turkey, and Russia. The Food Administration estimates that the total European decrease is at least a hundred million head. According to the best estimates available, we have of sheep, hogs, and cattle in this country a total of about 187 million. It would thus appear that Europe has lost considerably more than half the number of meat animals we now have in the United States. After the war it will be up to the live-stock growers of the United States to furnish not only current supplies but breeding stock to the depleted nations of Europe.

Markets Bureau Stock Report

The headquarters of the live-stock loading-report service of the Bureau of Markets have been transferred from Washington to Chicago. The loading-report service has been furnished by the bureau since June 1. Moving the headquarters to Chicago will facilitate the preparation of the telegraphic reports on estimated receipts. A series of reports are sent out each market day. The press associations are furnished a report at about 11:30 A. M. and a closing report is furnished at 3 in the afternoon for the morning papers.

Prior to the taking over of this service by the Bureau of Markets, the first report sent out by the telegraph companies included a market prospect which was much criticised by producers and members of the trade as being unreliable, and as being based on someone's guess rather than on authentic information. This prospect was discontinued at the request of the National Live Stock Exchange when the Bureau of Markets began to furnish the live-stock market reports. The majority of the members of the live-stock trade have expressed approval of the elimination of the prospect report, and it is expected that when the public becomes accustomed to the new service and understands that the reports are prepared by unbiased Government officials from authentic information heretofore unavailable, greater confidence in the live-stock market reports sent from Chicago will be established.

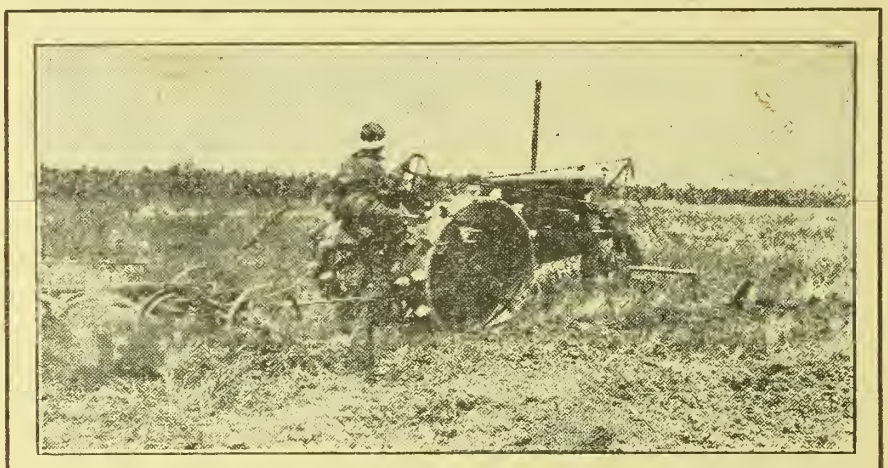
Prizes for Kansas Percherons

Percheron breeders of Kansas should not overlook the liberal premiums offered by the Kansas Free Fair, especially in the yearling and suckling classes. No other fair in the country offers such splendid inducements to their home breeders as does this fair.

Kansas Percheron breeders do not have the prestige they justly deserve, largely because they have in the main neglected to show their horses at the state fairs.

The $800 in prizes for Kansas owned yearling and suckling Percherons should interest every Percheron breeder in the state. If these liberal premiums are appreciated to the extent that the best interests of the breed demand, Kansas breeders will put on a show this year equal to that of any other state in the Union.

Don't forget to send for a catalog and have your entries in before September 1.



SPECIAL DEMONSTRATION IN GUMBO LAND AT SALINA.—THIS TRACTOR OPERATED BY A YOUNG WOMAN IS PULLING THREE PLOWS SIX INCHES DEEP

Silage for Summer Feeding

Practically every man who has had any experience in feeding silage is now wishing he had a summer silo or a reserve supply to be used during the dry hot part of the season when pasture is short. Almost every year we have a period when stock suffers for want of feed because the pastures are so dry and short. Young cattle are checked in growth and milk cows fall off in their milk flow.

The ideal plan is to have at least two silos, one for winter feeding and a smaller one for summer. If the summer silage is not needed it can always be carried over and fed later. The summer silo must be smaller because a much thicker layer should be fed from the surface each day to keep it from spoiling.

Keep Machinery Busy

The "work or fight" policy should be applied to farm machinery as well as to men. Though machines can not fight, they can be put to work on many occasions instead of standing idle in the barn lot. Most farm machines and implements are capable of doing much more work than they usually do, and the more they are used the less man labor will be required on the farm. Three men with a corn binder, one operating the machine and two gathering and shocking the bundles, will cut from seven to ten acres a day, while four or five acres would be a fair day's work for the same three men cutting corn by hand.

The average corn binder lasts about eleven years, but during that time does only about forty days' actual work. There is no doubt that it could render several times this much service before wearing out if there were more work to do. These points are brought out in a bulletin soon to be published by the United States Department of Agriculture on the use of machinery in cutting corn. There seems to be very little relation, the bulletin says, between the amount of work done annually by a corn binder and the years of service.

The bulletin refers to a survey conducted in New York which showed that the more the corn binder could be used each year, the less the cost of cutting the corn when the cost of using the binder was taken into consideration. Two hundred and thirty-three of the 458 binders on which data were obtained, cut fifteen acres or less annually at a cost of $9.78 per day used and $1.67 per acre. The remaining 225 cut over fifteen acres annually, averaging thirty-two and one-half acres, at a cost of $3.24 per day of service and 57 cents per acre. The original cost of one of these binders was about $125. Thus if there is only one or two days' work for the binder to do each year, the cost of cutting the corn with it will be so great that its use will not be advisable unless it is impossible to cut the corn by other methods without seriously neglecting other work. If this is the case, the bulletin recommends that two or three neighbors, each of whom has only a small crop, combine in the purchase and operation of a corn binder. The first investment required of each and the machinery cost per acre will then be greatly reduced. This plan should not only apply to corn binders, but to other labor-saving machinery.

Grange Bans Needless "Eats"

The practice of having great quantities of all kinds of things to eat at farmers' gatherings has been outlawed by a local grange in Ohio. It is evidently the sentiment of this grange that the proverbial groaning tables at such gatherings are to be outlawed as unpatriotic. The resolution putting this grange on record is as follows:

Whereas, each and every housewife is commanded to conserve all foodstuffs:

Resolved, th t the matrons of said grange refuse to prepare bread, cake, pickles, meat sauce, chow chow and other kinds of chow for the consumption of patrons of the grange during the months from June to October, inclusive, unless such food can be served at a time to take the place of a regular meal.

Stock Hogs in Kansas City

Now that satisfactory vaccination methods have been put in operation at the Kansas City stock yards, that market is becoming popular as a stock hog market as well as a stock cattle market. Men from points two hundred or three hundred miles away are buying their feeding hogs to follow after cattle. This is one of the developments coming from the working out of plans whereby stock hogs can be moved safely from central stock yards back to the farms for feeding.

More Shorthorn Money

The American Shorthorn Breeders' Association money offered at the Kansas Free Fair has been increased over the amount shown in the premium list as published. This increase was authorized at a recent meeting of the board of directors of the association. As published the total Shorthorn money amounts to $2,150, one-third of this being paid by the Shorthorn Association. All Shorthorn premiums will be increased, according to a statement just made by the fair secretary, so that the total Shorthorn money will amount to $2,508.

The more intensive use of farm land and effort to secure the most economical use of every acre, as well as all available labor, will necessitate the general inclusion of sheep in our system of mixed farming and live-stock production.

"The spaces of land and sea are nothing where common purposes bind."—GENERAL PERSHING.

THE health of American soldiers on the transports going to France is safeguarded by strict medical and sanitary precautions. Before embarking, a thorough examination of the troops is made by army medical officers to eliminate the sick. Within five days of sailing the commanding officer of troops submits to the senior naval surgeon a statement that all his men have received protective vaccinations. If any have not, he designates the men to be vaccinated.

After embarkation all troops must spend at least an hour and a half daily on deck, each man bringing his blankets to be aired. Commanding officers must see to it that their men receive thirty minutes of physical exercise during this period. All men are expected to live in the open as much as the weather will permit.

All men and their effects are inspected twice weekly by medical and commanding officers to make sure that the men are observing the rules of hygiene. Officers are instructed to see that the men sleep with proper coverings and that they do not sleep on deck or elsewhere without proper protection.

Men are not permitted to close the ventilators or otherwise interfere with the flow of air. Guards are stationed day and night at drinking fountains and other points to enforce cleanliness. Spitting on deck is strictly forbidden. Every man must take a shower bath daily and change his underclothing at least once during the voyage.

These and other regulations were promulgated by the surgeon general of the navy. The senior naval surgeon is made responsible for the sanitation of the ship and for the routine care of all men who are sick enough to require treatment other than first aid.

The President on Mob Law

"I have called upon the nation to put its great energy into this war and it has responded—responded with a spirit and a genius for action that has thrilled the world. I now call upon it, upon its men and women everywhere, to see to it that its laws are kept inviolate, its fame untarnished. * * *

"I can never accept any man as a champion of liberty either for ourselves or for the world who does not reverence and obey the laws of our beloved land, whose laws we ourselves have made. He has adopted the standards of the enemies of his country, whom he affects to despise."—PRESIDENT WILSON.

Interesting War Items

Kansas Boys Real Soldiers

"I wouldn't be in civilian life while this is going on," writes one Kansas boy from an aviation camp where he is in training. Another sends the message from the front, "I'd rather be here in the midst of things than to be back there with some other fellow here fighting for me."

Two thoughts which seem to be uppermost in the mind of the average American soldier, as indicated by the letters written home, are the wish to spare the home folks anxiety and the desire to play his part well. There is also a certain pride in the bigness of the task in which he has a part, a feeling thus expressed by Maltbie B. Babcock:

"It seams the face, and it tires the brain,
And it strains the arm till one's friend is pain
In the fight here for man and God.

"But it's great to be out where the fight is strong,
To be where the heaviest troops belong,
And to fight there for man and God."

German Letters Barred

The following resolution regarding the use of the German language in letters leaving the United States has been passed by the censorship board:

"Be it resolved that all outgoing communications in the German language, subject to the United States censorship, shall not be passed by the United States censorship, with the exception of the mail of enemy prisoners of war."

Might Help

Whatever we noncombatants can do for our soldiers seems trifling and futile beside what these young heroes are doing for us. The most generously contributing noncombatant, when compared with the fighting soldier, is in much the same position as the lady visitor at the base hospital told of in the Hutchinson News:

"And so you've lost a leg?" the lady visitor said to a young patient.

"Yes, ma'am," said he.

"Poor dear!" said the lady visitor. "Have a chocolate!"

Arms and Munitions

On one day in June last approximately 27,000,000 cartridges of various descriptions were produced in the United States manufacturing plants for the United States Government.

The daily average production of United States Army rifles was broken in the week ending June 29, an average of 10,142 rifles a day of a modified Enfield and Springfield type being maintained. In addition spare parts equivalent to several thousand rifles and several thousand Russian rifles were manufactured.

The Ordnance Department has produced 2,014,815,584 cartridges, 1,886,769 rifles, and 82,540 machine guns since the United States entered the war. The daily output of cartridges is now 15,000,000.

French Mother's Letter

The Committee on Public Information issues the following:

"Mrs. Wilson permits publication of the following letter as illustrative of the viewpoint of the mothers of France:

"'Madame Woodrow Wilson, Washington, D. C.

"'Madame: It is from the mothers and women of France that I send you these words to prove our gratitude for the comforting and brotherly support that these young Americans bring us with such noble enthusiasm, who are not afraid of leaving their families, their country, and their hopes, to come to our rescue. Alas! I myself have given my beloved son to my unhappy and cruelly tried country, and I can understand the pain of those who see their sons go so far, so very far away. Tell them, those mothers, those women with the sublime hearts, how near we are to them in thought, and how moved we are at their sacrifice. They are our sisters through suffering and agonizing worries, and we are brought together through the same sorrow. That we will never forget. It would make me happy, Madame, to correspond with some of these mothers, if they will send me a few lines.

"'Very respectfully, Madame, I salute you, "'MADAME M. BARBON

"'No. 1, Rue du 14th Juillet, Pan-Basses, Pyrenees, France.'"

Democracy

Secretary of War Baker said at a luncheon in Washington: "Ours will be the most democratic army in the world, for ours is the most democratic country.

"A millionaire, as he climbed into his limousine, snarled at a newsboy: 'No, I don't want any paper! Get out!'

"'Well, keep yer shirt on, boss,' the newsboy replied. 'The only difference between you and me is that you're makin' yer seeond million, while I'm still workin' on my first.'"—Washington Post.

Keep Smiling

"Our privates have a way of grinning when they salute," an officer in the National Army remarked only the other day, "that shows a higher morale than a dozen ordinary salutes."

These smiling Sammies, so Irvin Cobb reports, are giving new will and courage to the Tommy and the Poilu. Their dash and enthusiasm is revivifying the exhausted Allies and giving them a spirit that cannot know defeat.

Mr. Cobb says: "Always our fellows are smiling. They smile when they enter the trenches, they smile when they charge, and when they return for rest from the heat of the battle, still they smile."

The morale of any army is only a reflection of the morale behind the lines.

Ameriea's men and women must keep that smile on the lips of their soldiers.

A Success-Making School—A Nation-Building School

Such a School is the Kansas University of Commerce

VOCATIONAL EDUCATION

The Most Important Training for the Young Men and Women of the United States

"The actual, practical and working purpose of the American Public School System is to prepare for higher education. A system which accomplishes only seven per cent of what it sets out to accomplish is about ninety-three per cent a failure. Not more than one-third of the children who enter the public schools in this country ever finish even the elementary grades. Not one-half of them finish the sixth grade." These are the words of a prominent writer interested in facts as they pertain to the education of the American youth.

The school system of the United States gives no thought of what the millions of children are to do when they leave school. The youth who spends the most impressionable years of his life in the school room is not prepared for practical work.

The High School course has been built with the aim of preparing students to enter a freshman class of some college or university, but only one out of one hundred who graduates from a high school enters a college.

THE KANSAS UNIVERSITY OF COMMERCE, with its Business and Trade Schools, fills this long felt need in our educational system. It gives the youth intensive training for a Successful Life of Service.

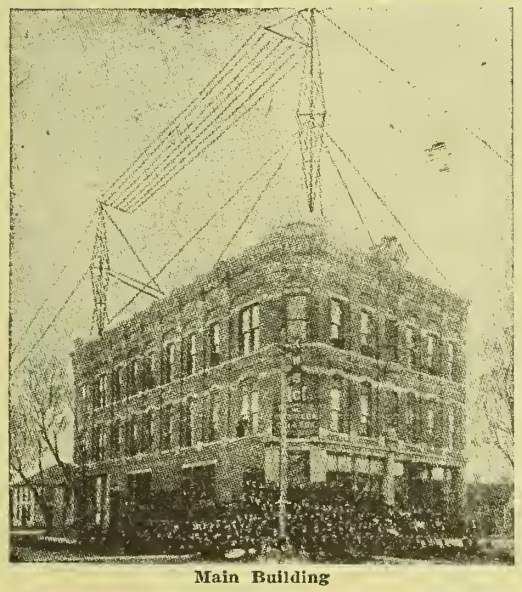
THE KANSAS UNIVERSITY OF COMMERCE

is the Greatest Vocational Training School of the West. It stands for "Industrial Efficiency and Commercial Leadership." Through its employment office 18,000 trained graduates have been placed in responsible positions.

It aims to produce industrial engineers, broad visioned and resourceful organizers and managers, experts and specialists in the various lines of trade and commercial activities.

Our equipment in each school is modern and complete. Our twenty-five experts, ten of whom have University degrees, assure you of thorough training in every department.

REMEMBER: That this school is a part of the Kansas Wesleyan University. That you can get just the course you want here—from a four-weeks' course in Tractor Engineering to a two-years' course in Business. That every graduate is placed in a good position. That every boy has free military training.



Main Building

THE SCHOOL OF COMMERCE, FINANCE AND BUSINESS ADMINISTRATION offers a two-year course of University and professional character, equipping for success in business in the larger, more intricate and remunerative affairs of commerce, industry and finance.

THE KANSAS WESLEYAN BUSINESS COLLEGE (established twenty-six years ago) offers intensive business training courses fitting for Civil Service, Banks, and business positions of all kinds. Thousands of the leading business men and bankers of the country graduated from this great school.

THE AUTO, TRACTOR AND AERO SCHOOL offers complete courses in Automobile, Traction, and Aeroplane Engineering, equipping for leadership in one of the greatest industries in the world today. Nieuport Speed Scout Monoplane. Free Flying Model.

THE MORSE AND RADIO SCHOOL offers most complete courses of training in both wire and wireless. Greatest opportunities for competent operators in the history of the world. Men and women paid unheard of salaries. Powerful Wireless equipment. Main line wire of Union Pacific.

Fill Out, Tear Off, and Mail Today

THE KANSAS UNIVERSITY OF COMMERCE,
SALINA, KANSAS.

Please send me Free and Postpaid your 1918 catalog and a copy of "The New Era" telling me all about your school and positions to graduates.

My Name .....

My Address .....

Interested in .....

THE KANSAS WESLEYAN BUSINESS COLLEGE

THE KANSAS UNIVERSITY OF COMMERCE

L. S. WELLER, Pres. **SALINA, KANSAS**



Uncle Sam Expects You

to be the "home fire" tenders—to raise larger crops and more meat. **Learn the labor short-cuts** in power farming, in latest machinery for better planting, cultivation and harvesting methods.

GET conservation into your system. Mothers, housewives, daughters—enjoy educational and patriotic features of the Greatest fair in Kansas history.

At the Kansas Free Fair

The great victory show of the West with its U. S. War Exhibit—Million Dollar Stock Show, Tractor and Machinery demonstrations—$30,000 in Premiums—Four Days of Racing—$8,000 in Purses—Automobile Racing Championships—Coney Island Midway—Gigantic War Spectacle every night. Three Bands—The Modocs—Vaudeville Stars—Automobile Show.

REMEMBER THE DATE—THE PLACE—PLAN TO BE THERE.

THE GATES STAND OPEN

THE KANSAS FREE FAIR

TOPEKA-SEPT. 9 TO 14-1918

$30,000 In Premiums

$1,000,000 Stock Show

L. M. PENWELL, President PHIL EASTMAN, Secretary

Help Save the Canadian Crops

When Our Own Harvest Requirements are Completed

United States Help Badly Needed Harvest Hands Wanted

Military demands from a limited population have made such a scarcity of farm help in Canada that the appeal of the Canadian Government to the United States Government for

Help to Harvest the Canadian Grain Crop of 1918

Meets with a request for all available assistance to go forward as soon as our own crop is secured.

The Allied Armies must be fed and therefore it is necessary to save every bit of the crop of the Continent—American and Canadian. Those who respond to this appeal will get a

Warm Welcome, Good Wages, Good Board and Find Comfortable Homes

A card entitling the holder to a rate of one cent per mile from Canadian Boundary Points to destination and return will be given to all Harvest Applicants. Every facility will be afforded for admission into Canada and return to the United States. Information as to wages, railway rates and routes, may be had from the

UNITED STATES EMPLOYMENT SERVICE

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KANSAS FARMER DAIRY CLUB

Look Ahead Before You Quit

WE occasionally change our plans and methods too hastily because of some abnormal condition. That it is wise to observe a "Stop, Look and Listen" signal before deciding to quit the dairy business is the conclusion of H. C. Taylor of the agricultural economics department of the University of Wisconsin, in a recent bulletin, "Price Fixing and Cost Accounting."

Mr. Taylor, himself a dairy farmer, puts the case thus:

"In deciding upon prices both the farmer and the price commissioner should keep in mind the long-time as well as the immediate effect. It takes decades to build up the dairy industry in a community. Equipments require time for construction. Years are required to build up good herds and decades are required to train a whole community in the fine art of producing high-class milk. When such a community is diverted from dairying to another line of production, the farmers suffer a great loss while making the change and while adjusting themselves to new lines of production, after which they may again prosper.

"The records of one year may indicate that the profits would have been greater had the farmer been in another line of production, but in going over these figures the farmer should look for conditions which have made this true. If the conditions are temporary he should hold fast to his present line and recall the years when his profits were much greater because he was in the dairy business.

"It is easy to disperse a good dairy herd, but it takes years to rebuild it. A much safer plan is to cut down a little on the number of cows by cutting out the least profitable ones, and plan to sell more grain and hogs in addition to the milk rather than to make a radical change in the type of farming."

Control of Butter Dealers

Dairymen will be interested in the regulations just issued by the Food Administration which will exert a definite control of margins of profit, commissions and resales by dealers in cold storage butter.

It will no longer be possible for the dealer to figure the cost of his goods at the price he would have to pay to replace them. He must add not more than the definite margins specified by the Food Administration to the actual cost, which can include nothing more than the purchase price, transportation charges if any, actual storage and insurance charges, interest on money invested at the current rate while the butter is in storage, and the actual cost of printing if the butter is put into prints from tubs or cubes. No allowance is made for shrinkage.

Cold storage butter is butter that has been held in a cold storage warehouse for more than thirty days.

Maximum margins that may be added by the dealer are fixed, but that does not mean that he may always take the full amount even on a rising market. These margins are to prevent speculation and are purposely made wide to provide for any cases where the expense may be unusually high. The margin taken must never be more than enough to give the dealer a fair or reasonable profit. The maximum margins are 1 cent a pound on carloads, 1¼ cents on less than a carload and more than 7,000 pounds, 1¾ cents on lots from 700 to 7,000 pounds, and 2¾ cents a pound on sales less than 700 pounds.

If the butter is held in storage not less than two calendar months, dealers are permitted to add not more than 1 cent a pound and ¼ cent a pound additional for each calendar month thereafter, but the total must not exceed 2 cents a pound in any case.

If one dealer sells to another at a price higher than prevails on the open market on which he could have bought, the deal will be considered as collusion and a violation of the rules. When a manufacturer does the work of a wholesaler or jobber, the rules applying in these lines of business apply to him. The new regulations specify the method of figuring costs in such cases.

Commission merchants cannot charge more than ¾ cent a pound for selling cold storage butter without violating the Food Control Act or these rules. This charge must be included in the margin allowed over cost.

In general, the butter must be kept moving to the consumer in as direct a line as practicable and without unnecessary delay, and no profits must come to dealers without corresponding service.



DAIRY CLUB COW OWNED BY RONALD RONEY, SCRANTON

Jersey Cattle Show

The only exclusive Jersey cattle show in America will be that held in Convention Hall, Kansas City, Missouri, September 16-21. The official premium list is now ready for distribution. The premiums are very liberal, and in addition the Jersey breeders will find that showing at this southwest gateway of the territory hungry for dairy cattle will have great advertising value. Jersey breeders should by all means plan to make entries at this great Jersey show. A Jersey sale will be held in connection. For premium list and other information address H. E. Colby, Manager, Dwight Building, Kansas City, Missouri.

Cow Test Report

The hot dry weather has cut down the records of the cows in the Arkansas Valley Cow Testing Association. Only fifteen cows produced above forty pounds of butter fat in the month of July. The following table gives the records and owners of cows producing more than forty pounds of butter fat in the period ending July 31, as furnished by the official tester, C. B. Wehrman:

Owner—	Pounds Milk	Per Cent Fat	Pounds Butter Fat
Lon Turner, J.	1,104	3.7	40.848
F. H. Bock, H.	1,448	3.2	46.336
C. R. Gordon, H.	1,082	4.3	46.526
P. W. Enns, H.	1,872	3.4	63.648
P. W. Enns, H.	1,606	3.5	56.210
C. R. Weede, H.	1,380	3.2	44.160
Wm. Spurlock, J.	1,085	4.0	43.400
Wm. Spurlock, H.	1,448	3.1	44.888
Wm. Spurlock, H.	1,259	3.2	40.288
Wm. Spurlock, H.	1,166	3.6	41.976
Dr. J. T. Axtell, H.	1,259	3.2	40.288
Fred Harvey, H.	1,398	3.3	46.134
Fred Harvey, H.	1,640	2.8	45.920
Fred Harvey, H.	1,426	3.3	47.058
Fred Harvey, H.	2,099	4.1	86.059

In the table H stands for Holstein and J for Jersey.

Lectures to Calf Club Members

Members of the Wyandotte County Dairy Calf Club are not asleep on their jobs. They hold regular monthly meetings, making reports to the county agent on the condition of their calves. These meetings also offer opportunity for exchanging ideas on methods of feeding. At one of the meetings A. G. Van Horn, the county agent, gave the members an illustrated lecture on the dairy breeds of cattle.

In this same county a group of dairy farmers made a trip to the United States disciplinary barracks at Leavenworth to look over the high class Holstein herd which has been assembled there. This was a most profitable trip. Three directors of the co-operative breeding association in this county, which is the first to be formed in the state, also made a visit with Mr. Van Horn to the Mulvane district, where they visited the pure-bred herds of George Appleman and W. R. Stubbs. This breeding association has purchased several young Holstein bulls from the Stubbs farm. These young bulls are sired by animals having exceptionally good production records back of them. It is a distinct advantage to place a number of sires of similar breeding in a co-operative breeding association such as has been formed by this group of dairy farmers in Wyandotte County.

SCHOOLS IN WARTIME

THE school question has been a puzzling one not only to school officials over the country but to the young man under draft age. The Government now takes enlistments at eighteeu years of age and drafts at twenty-one. There are two interpretations that might be made. Is the Government saying, "We want you at eighteen, but we will not force you until you are twenty-one," or does it say, "We will take you at eighteen if you insist, but we would rather have you stay in school until you are twenty-one"? The average high-spirited boy is likely to choose the first interpretation, feeling that he is shirking a duty by not getting into the game just as soon as the Government will take him.

Responsible officers of the Government have made it clear that it is for the best interests of the country to increase the efficiency of the schools, to the end that those under draft age may be of the greatest possible service when they are needed a little later. The President has repeatedly called the attention of the nation to the urgent necessity for this special form of conservation. He has particularly urged graduates of high schools to avail themselves of the opportunities offered by technical schools and colleges "to the end that the country may not lack an adequate supply of trained men and women." He assures young people that are not now called to military service that "by pursuing their courses with earnestness and diligence, they also are preparing themselves for valuable service to the nation." These statements are quoted from a letter to Secretary Lane. Later in a letter to the National Education Association the President expressed his "very urgent concern that none of the educational processes of the country should be interrupted any more than is absolutely unavoidable during the war."

There is a strong demand for clerks, stenographers, and typewriters, points out the Federal Bureau of Education in a recent leaflet. These places cannot be filled by boys and girls under eighteen years of age and no advantage would accrue to the civil service in any way by shutting down or curtailing such schools. It even points out that many schools could render a much needed service by organizing classes to train this class of workers. It further says that in so far as the army and navy are concerned there is nothing more important that the schools can do than to keep going at full capacity and at the same time emphasize in every possible way their work in physical education. High school boys will render the best service of which they are capable by remaining in school until the completion of their high school course. Attention is called to the fact that as soon as the army is able to announce definitely its need of men possessing certain technical and trade qualifications it will be necessary for large numbers of young men eighteen years of age and over to respond by taking the training courses that may be provided to prepare them in the shortest time possible. Meantime there is nothing they can do that will make them more ready for this training than by laying the very best possible foundation by continuing their regular school work. When they are wanted they will be called.

In order that the high-spirited boy may feel that he is really preparing for the job of doing his part in crushing to the earth this monster of Prussianism, military training will be provided this fall in every college in the land, meeting the requirements of the War Department. The official statement of P. P. Claxton, United States commissioner of education, who is urging boys to take advantage of this opportunity, follows:

"Beginning with September, 1918, military instruction, under officers and noncommissioned officers of the army, will be provided in every institution of college grade enrolling for the instruction of one hundred or more able-bodied students over the age of eighteen, according to the War Department's announcement. The necessary military equipment will, so far as possible, be provided by the Government.

"There will be created a military training unit in each institution. Enlistment will be purely voluntary, but all students over the age of eighteen will be encouraged to enlist. The enlistment will constitute the student a member of the Army of the United States liable to active duty at the call of the President. It will, however, be the policy of the Government not to call the members of the training units to active duty until they have reached the age of twenty-one, unless urgent military necessity compels an earlier call. Students under eighteen, and therefore not legally eligible for enlistment, will be encouraged to enroll in the training units. Provision will be made for co-ordinating the Reserve Officers' Training Corps system, which exists in about one-third of the collegiate institutions, with this broader plan.

"No nation has made such generous provision for combined military and college education as has the United States in this new plan. The youths who avail themselves of the privilege will be serving their country's immediate as well as future needs. They will be answering the nation's imperative demand for trained men in the war and they will be building up a competent leadership for the work that is to come after the war."

This is a clear, concise statement of what our Government wants of its boys. School work has never been a more serious matter than it is at the present time. There is no place in colleges or schools for idlers, those who do not know what they are there for and are not doing their level best to train themselves for the work of the future. No boy can consistently go on in school work unless he realizes that he is clearly making himself more valuable to his country every day he continues. If he is too much upset by the stress and strain of war conditions to study, he had better not get in the way of those who are busy training themselves for whatever service the Government may call them to later.

If the new man-power bill goes through Congress, lowering the draft age to eighteen, colleges will of necessity be devoted largely to what they may contribute to military and technical training. Statements made concerning this proposed bill indicate that the boys from eighteen to twenty-one will not be put directly into the battle line, but will be held back, meanwhile being definitely trained under Government direction for the task of the future.

All over the country there are schools of every kind giving special training such as is absolutely essential to the making and maintaining of a great army of effective fighting men. The question at issue in the mind of the boy or girl is, What does the Government most desire of me? In the words of Alexander Meiklejohn, president of Amherst College, "Even in time of war young men must go to college to learn from wiser men the lessons which they need to know; must learn the art of war, since very soon they may be called upon to practice it; and must learn the sciences and arts of peace so that in days to come we may not lose the victories which force of arms shall soon, we trust, have brought within our grasp."

Save the Straw

Straw is still being burned on Kansas farms. We have observed a number of instances in the past week where strawstacks have been sent up in smoke. This is short-sighted policy simply from the standpoint of destroying soil fertility, but now the monetary value of straw is well worth considering. At every big army camp straw is greatly in demand. It will pay to bale straw as soon after threshing as possible. The grain and hay reporting service of the Federal Bureau of Markets stands ready to assist in finding a market for baled straw. For assistance from this bureau, address the Kansas City Office, Bureau of Markets.

Sugar Board Created

The sugar situation is such that the Food Administration has created a sugar equalization board. George Rolph, sugar director in the Food Administration, is president. The board will be incorporated with a capital stock of five million dollars, the stock to be held by the President for the United States Government.

This arrangement will facilitate joint dealing with the Allies in foreign sugars. It may be necessary in order to keep production at a satisfactory level to acquire the output of some of the beet sugar factories that cannot under the present price of beets sell sugar to the public at a reasonable price. The board will absorb the peak prices by the small profits realized on sugars produced at less cost and thus equalize the price to the consumer.



Edna Kohnle

Her time clock card for the week of July 23 to 27 shows:

	Morning In	Morning Out	Afternoon In	Afternoon Out
Monday	7:56	11:59	12:37	4:31
Tuesday	7:54	12:00	12:20	4:59
Wednesday	7:54	11:58	12:40	4:52
Thursday	7:53	11:58	12:31	4:22
Friday	7:55	11:56	12:15	4:27

Regular School Sessions
9:00 to 12:00 and 1:00 to 4:00

Living at Centerview

a small town in Missouri, Edna Kohnle, after finishing the grades decided upon a business career, enrolling in the Topeka Business COLLEGE for the Combination Course in the summer of 1917, worked hard, and in February, 1918, took the Civil Service examination, passed with an excellent average grade and received her appointment about three weeks later at $1,100 per year.

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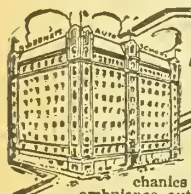

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One 3,500-acre ranch, one 2,880 acres, one 1,880 acres, all well improved, living water.

THE STRAY LIST.

TAKEN UP—BY T. F. CALLAHAN, OF Denton, Kansas, July 8, 1918, one red steer calf, weight about 350 pounds; also two red and white spotted steer calves, weight about 350 pounds each. T. F. Callahan.

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Providing for Our Own

HE THAT provideth not for his own, and especially for those of his own household, is worse than an infidel and hath denied the faith." As we read those fiery words of the Apostle Paul to the early church, we wonder whether provision for the material necessities of life was the only thing he referred to, or if this strong denunciation was not also directed against those who might fail to provide for the higher needs of those whose lives depend so largely upon the opportunities given to them in youth. Since the things which make for the growth of character and the development of the individual are of even greater importance than provision for the needs of the body, the failure to provide for them must surely be a more serious fault.

The majority of parents feel this responsibility and, like Tennyson's Enoch Arden, are willing to work and to sacrifice to the end that their children may have "a better bringing up than his had been, or hers." The most unselfish thought and planning and work of this selfish old world centers around the children and the young people. Many instances come to mind like that of the mother in delicate health and rather poor circumstances who sent her two daughters to college, doing the work of the household, for which she was scarcely strong enough, herself, and helping the girls to make their own clothes. Before the younger daughter had finished her college course the mother's health, never very good, began to fail. From time to time it was necessary for the daughter to miss a term of school and take the helm at home, but as soon as the mother had regained her usual strength she insisted that the young woman return to her school work. In reply to the protests of her sister, who insisted that the daughter's place was in the home, the mother exclaimed: "Oh, you don't understand. That is what I am living for. If I can just live until she is through college I shall be satisfied."

A father of ten bright, healthy children, who worked at hard manual labor to support them all and give them the best education in his power, said: "If I can just get those ten children through college, I will be the richest 'man in Kansas." He has come very near to realizing his ambition, and as one looks at the fine family of talented, useful young people around him and sees the father's pride in the work they are doing, it is easy to see that it has not all been one-sided. He is amply repaid for the years of toil and sacrifice.

Appropriate House Dresses

How do you suppose your husband and children will remember you in after years—as you looked when you "prettied up" for some special occasion in your "company" dress, or as they saw you day after day in the home? If they could paint the picture of you they carry in their minds, don't you think it would portray you going busily and cheerfully about your daily tasks, patiently meeting the constantly recurring little annoyances, and efficiently directing the entire household machinery, as they have seen you through the years? One of the things that will help to make this mental picture one you will like to have them recall when the birdlings have flown from the nest is a sufficient supply of suitable dresses for every-day wear so that you can keep yourself looking tidy.

Simple, neat house dresses are not very expensive for the woman who can make them herself, and are most appropriate. A simple model like No. 8891 is easy to iron. If the white cuffs and collar soil too easily, either make a duplicate set and baste them in, changing when necessary, or make them of the same material as the dress. Large aprons to wear when doing the dirtier work are also a great help in keeping clean and save laundry work.

It is not yourself only you will serve by the formation of hopeful views and habits; you will be a perpetual cordial and tonic to all those with whom your lot is cast.—Disraeli.

The Purpose of Education

WE HAVE outgrown the old prejudice against education for women simply because they are women, but there are still some people who think of an education simply as something which can be turned into money, of no value for the woman who is not to work outside her own home. It is not long since we heard the mother of an ambitious young woman say: "I don't see much use of letting daughter go away to school. She probably will not make a teacher anyway, and she will never need to earn her own living."

What is, after all, the real purpose of education? Is it not in the truest sense a preparation for life rather than for making a living? A well rounded education should, to be sure, include training for some means of earning one's livelihood and of doing one's part of the world's work. It may be, however, that we are too much inclined to measure the worth of education by its commercial value. It is the tendency of these practical times to emphasize industrial training. But while doing this we should not forget that the real purpose underlying any sound educational system is the development of the individual. "To prepare us for complete living is the function which education has to discharge," says Herbert Spencer.

If our schools teach us to think clearly and logically, that is perhaps the biggest thing they can do for us. The study of scientific subjects under the direction of scholarly minds will develop habits of thought which will be of more value in after life than any of the facts learned. The stimulation of mingling with other mentally alert young people and taking one's place among them and the association with teachers who are worthy models for our youth is another phase of school life which has a high character value. Teaching the student some means of self-expression is also an essential part of his education, and the cultural value of this self-expression will not be less if it takes the form of the work to which he expects to devote himself in the future.

The young woman who is to be a home maker has before her a task which is not only a reasonable one, but which demands skill in many different lines, and she needs special training for her work as much as the one who is to teach or to go into the business world or into any of the many lines of work now open to women. But even more than that she needs to "find herself" as an individual, to be fitted to take her place as a citizen of the world, to be a fit companion for her educated husband and fully capable of giving the men and women of the next generation a right start in life.

Ethel Whipple.

FASHION DEPARTMENT

All patterns, 10 cents.



No. 8905—Girls' Set: Cut in sizes ½, 1, 2, 4, 6, 8, 10 and 12 years. An ideal set of undergarments is illustrated in No. 8905. The set consists of a simple little Gertrude petticoat and a pair of closed drawers. **No. 8910—Misses' or Small Women's Three- or Four-Gored Skirt:** Cut in sizes 14, 16, 18 and 20 years. This pattern represents a practical war-time economy. The large front view shows the three-gored style with tuck closing at center front. The back is gathered at the slightly raised waistline. **No. 8891—Ladies' House Dress:** Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. Crisp and cool and very practical is this house dress. The simple waist is in shirtwaist style, with closing at center front. The sleeves may be made either long or short. The three-gored skirt has a tuck at center front and is gathered all around to the slightly raised waistline.



No. 8651—Ladies' Shirtwaist: Cut in sizes 36, 38, 40 and 42 inches bust measure. The waist is slightly gathered at the shoulders to the back, which extends over to give the effect of a yoke. The narrow collar of contrasting color has long points at the front. The sleeves are set in without fullness, and they are gathered into deep cuffs. **No. 8649—Girls' Long-Waisted Dress:** Cut in sizes 4, 6, 8, 10 and 12 years. The dress has the new blouse waist buttoning at the center front. The long bishop sleeves are gathered into flare cuffs. The simple skirt is in one piece and it is gathered all around to the wide belt. **No. 8645—Ladies' Dress:** Cut in sizes 36, 38, 40 and 42 inches bust measure. The waist fits the figure rather closely and it buttons at center front. The long close-fitting sleeves have narrow cuffs. The feature of the two-gored skirt is that it is cut wider at the top than at the bottom.

Canning Fruit Without Sugar

"Sugar is of no special value in keeping fruit," says Miss Abby L. Marlatt of the home economics department of the University of Wisconsin. "It improves the color of the fruit and, to most people, improves the flavor when it is cooked with the fruit in the first process of canning. But today, with a world shortage of sugar, the demand on us to use less is such that we can well afford to sacrifice a little color and a slight amount of flavor for the greater need of sugar among our allies.

"The increase in thickness of syrup does not aid in improving the keeping quality of the fruit. Neither does sugar added as a part of the canning process make the fruit any sweeter. As a rule, its sweetening power is less, for the fruit acid changes the sweet sugar into a less sweet type, although it has the same food value as before.

"Fruit juices made as usual may be canned by the cold pack method without sugar, and will keep perfectly for years. Better than jellies, in fact, for jellies kept for a long time tend to form crystals. When jelly is needed, the juice that would have made jelly in the beginning will be fully as satisfactory for jelly making. In addition, the juices may be used for beverages, flavoring in sauces, and in ice creams.

"Fruits may be put up entirely without sugar and, by cooking them in their own juices without addition of water will occupy less space. Fruit butters may be concentrated without sugar, or with white corn syrup, or made without sugar."

A Personage

We in America might well be tempted to ask the following question which finds its way into print in an English publication: "Who is this Mr. Less who advertises so much?" inquired the dear old lady. "He seems to deal in everything, too! First it was 'Eat Less bread,' and now it is 'Use Less gas!'"—Youth's Companion.

Care for Spirit of Child

You may be over-punctilious about your child's body and still be extremely careless about his mind. "There is a physical body," says St. Paul, "and there is a spiritual body," and according to our Christian belief, the physical body wastes away and goes back to earth, and the spiritual body steps into eternity. It is essential that we keep the physical body "clean and sweet" like the song in "The Water Babies," for the sake of health, out of courtesy to those who have to look at us, for our own satisfaction, and because of the effect on the mind and soul; but it is infinitely more important that we keep the spiritual body clean.

What are you doing about it?—American Motherhood.



U. S. Food Administration.

Arter de wise ol' owl spit on de bait he say, sez ee—"I gwine ter sprize you all wid a mess er fishes 'cause you alls mus' save de meat en eat sumpin' else instid en jes git out dat ol' game bag en make it work, too," sez ee. Den he kotch a big fish and say, sez ee, "t-hoot—t-hoot—t-sub-stl-toot," sez ee. W'en he say dat he means dat when you alls make riz biscuits jes don't make 'em—use corn meal ter save wheat flour fer de sojers.

Potatoes the Good Old Ways

Mash them.

Peel hot boiled potatoes. Mash them well. Add salt, butter, and hot milk. Beat until very light. Serve at once.

What makes them good: Work quickly to keep them hot. Use plenty of milk. The more they are beaten, the better they get.

Fruit Paste

Fruit pastes are made by boiling down fruit pulp, adding sugar and drying out slightly. Practically all fruits can be used in making this paste. Mixing the fruits improves the flavor.

PEACH PASTE.—Select ripe, sweet peaches, peel, pit and place in a kettle with two tablespoonfuls of water, cover tightly and steam slowly until enough water forms to allow them to cook slowly without burning. Boil until soft, rub pulp through sieve, return to fire and cook slowly until very thick. Weigh pulp, add half its weight in sugar, let it dissolve, return to the fire and boil until the paste is so thick that when a spoon is passed through it the mass does not run together immediately.

Pour fruit in half-inch layer in flat dishes rubbed lightly with salad oil, and dry in a draft for two days. Cut in squares or fancy shapes, place on wax paper, sprinkle with granulated sugar, leave in draft two days, dip in sugar and pack in tin or wooden boxes lined with paper and with paper between the layers of paste.

Another method of preparing the paste is to dry slowly in the dryer and pack away in jars without sprinkling with sugar.

OTHER FRUITS.—With plums, cherries, pears, apples and figs, proceed as with the cherries. Apricots need more sugar and might be struck from the list this year. Fancy varieties of paste can be made by adding finely cut citron or candied peel. For an attractive bon-bon, arrange pastes of different fruits in layers when nearly dry. Cut in half-inch strips like a slice of layer cake and dry.

Sin Is Sin

Don't send my boy where your girl can't go,
And say, "There's no danger for boys, you know,
Because they all have their wild oats to sow."
There is no more excuse for my boy to be low
Than your girl. Then please don't tell him so.

Don't send my boy where your girl can't go.
For a boy or a girl, sin is sin, you know,
And my baby boy's hands are as clean and white
And his heart is as pure as your girl's tonight. —Selected.

Steamed Apple Pudding

Core, pare, and slice apples. Arrange on pie plate well oiled. Sprinkle with sugar and a few drops of lemon juice. Over all place a biscuit dough rolled one inch thick. Steam three-fourths of an hour. Serve with lemon sauce.

Potato Muffins

½ cupful liquid
1 tablespoonful fat
2 tablespoonfuls syrup
1 egg
1 cupful mashed potatoes
1½ cupfuls wheat flour
1 teaspoonful salt
4 teaspoonfuls baking powder

Add the liquid, melted fat, syrup and beaten egg to the cooked potato. Sift the dry materials together and add to the first mixture. The dough will be too stiff to mix easily with a spoon. Use a knife or a fork. Bake about thirty minutes in a moderately hot oven. Makes eight large or twelve to sixteen small muffins.

FREMONT COLLEGE

ECONOMY **EFFICIENCY**

WAR ECONOMY

1. Saves time in preparing students for **well-paying positions.**
2. Saves money by giving superior education at a **minimum cost** in teaching, banking, stenography, bookkeeping and pharmacy.

WAR EFFICIENCY

Thousands of business and professional men testify to the efficiency of the instruction received here. **Patriotism** needs education, the Government needs educated people. Fremont College prepares for **civil service** positions with a beginning salary of $1,200.

Intelligent Preparation Means Success. College in session fifty weeks in the year. Fall term opens September 3. Expenses within the reach of all. Save time and money by writing to

W. H. Clemmons, President - Fremont, Nebraska

Roses in Your Home

ALL YEAR

Beautiful climbing roses of brilliant colors, fragrant roses of upright growth, and trailing roses with delicate tints; all yielding most delicious perfume. Our New Collection of Native American and Japanese Roses is

GROWN FROM SEED



The seed germinates quickly, and the plants make rapid growth, bearing hundreds of beautiful roses. If grown in the house they will bloom all the year around. They can be grown outdoors during the summer, and if taken inside for the winter will continue to bloom. Nothing is prettier than the fragrant flowers and "berries" of these Native Roses.

You Can Have This Beautiful Window-Box of Roses in Your Home

We will send you a big packet of the seed of our new Rose Collection, together with full instructions for planting and for making a window box, as shown in the picture. If you take advantage *now* of our liberal offer, and plant the big packet of Native American and Japanese Rose Seeds, you will have hundreds of beautiful roses blooming in your home the year around. They require very little attention, except for an occasional watering.

Plant NOW! Roses in 8 Weeks!



Just do us the favor of sending us one NEW TRIAL subscription to KANSAS FARMER for three months at 25 cents, and we will send you the big packet of Rose Seed FREE and postpaid, with full instructions for planting. Send today to

KANSAS FARMER,
Topeka, Kansas

Gentlemen: Send me FREE and postpaid, your big packet of Native American and Japanese Rose Seeds, with instructions for planting and for making the Window Box.

Name.....R. F. D.....

Town..... State.....

I enclose 25 cents, for which you will please send KANSAS FARMER three months to the following address:

Name.....R. F. D.....

Town..... State.....

A PROFITABLE INVESTMENT

For the breeder of pure-bred live stock, advertising space used at the right time is a profitable investment.

Advertising Means Quick Sales

and quick sales, when the offering is ready to go, means profitable sales. The demand for breeding stock is growing. It is the opportune time to advertise.

Let prospective buyers know that you have pure-bred stock for sale and they will quickly take your surplus.

KANSAS FARMER reaches the live stock buyers in this field and space used in the live stock advertising columns of KANSAS FARMER will sell your offering quick and at a small cost. Write for our special live stock advertising rate.

If your offering is ready, advertise now. It will result in quick sales at profitable prices.

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

TEN HEAD OF REGISTERED JERSEY cows and heifers priced for quick sale. J. O. McCrone, Haddam, Kan.

FINE REGISTERED SHORTHORN RED bull, three years old, sure calf getter, gentle. $150. W. T. Chilcott, Route 3, Mankato, Kansas.

FOR SALE — REGISTERED JERSEY cows, fresh this fall, bred to a son of Owl's Design, year record, 764 pounds butter. R. O. McKee, Marysville, Kansas.

FOR SALE—VERY CHOICE HOLSTEIN and Guernsey calves, either sex, six weeks old, 95 per cent pure-bred, at $25 each, delivered. Lewis Dutcher, Peary View Farm, Janesville, Wis.

REGISTERED HOLSTEIN BULL, READY for service. Five of his dams average 106 pounds milk in one day and 34 pounds butter in seven days officially. $125. Wisconsin Live Stock Association, Appleton, Wis.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PAINT.

FARMERS, ATTENTION. I CAN SAVE you money on good paints this fall. A special red barn paint, freight paid, at $1.20 per gallon in 25 and 50 gallon lots. An extra good black roof paint at 42 cents per gallon, freight paid. Order at once. John Nelson, Stamford, Nebraska.

REAL ESTATE.

HAVE YOU $5,000 PAYMENT DIRECT to owner? Productive 40-cow farm, new buildings, 3 miles railroad. Frank Rose, Hobart, New York.

WOULD YOU SELL YOUR FARM IF you got your price? Sell direct, no commissions. Particulars free. Charles Renich, G-18, Woodstock, Illinois.

SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price $10 to $15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address E. T. Cartlidge, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kan.

PATENTS.

PATENTS PROCURED, BOUGHT AND sold. International Patent Co., Brandels, Omaha.

MISCELLANEOUS.

FOR SALE—ADVANCE CORN HUSKER, eight rolls with feeder and bagger complete; used to shred 100 bushels corn. Practically as good as new. Purchased in 1909. No use whatever here as do not raise corn. Price $300 f.o.b. here. Address Double U Company, Post, Texas.

KODAKS.

FREE—WITH FIRST ORDER AND FIVE names of kodak owner, a beautiful 5 x 7 enlargement from any film. Developing, 10c; prints, 3c up. Foto Art Company, Dept. H, Lincoln or Norfolk, Nebraska.

POULTRY.

PARTRIDGE PLYMOUTH ROCK COCKerels and pullets, also a few Buff Orpington cockerels. Ewing White, Saint Francis, Kan.

WHITE ROCKS, SIZE AND QUALITY.—Cockerels and pullets. Reduced prices for August and September. G. M. Kretz, Clifton, Kansas.

REMOVAL SALE—S. C. BUFF ORPINGtons. Breeding pens, $15 up. March and April chicks, bargain prices. Must sell at once. Ely Poultry Yards, Altus, Okla.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swaim, Geuda Springs, Kansas.

POULTRY WANTED.

IF DISSATISFIED WITH LOCAL POULtry and egg market, ship direct. We loan coops and cases free. The Copes, Topeka.

FARMS WANTED.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 56th St., Chippewa Falls, Wisconsin.

HELP WANTED.

WANTED — BY SEPTEMBER 1, GOOD farm hand. Must be a good milker. Steady job for right party year around. J. P. Mast, Scranton, Kansas.

SHEEP.

TEN VERY HIGH GRADE SHROPSHIRE rams at $40. These are yearlings that clipped last May 16¾ pounds of wool. References, Lee Bros. & Cook or Harveyville (Kan.) State Bank. H. C. Shaw & Son, breeders of Hampshire hogs and Shropshire sheep, Harveyville, Kansas.

BIG BARGAINS IN SHROPSHIRE SHEEP on account of room. Order your lambs now. Leading breeds cattle and pigs at farmers' prices. Farm poultry and baby chicks; 25,000 chicks this year sold here. Cheap farm and other dogs and all kinds hounds sent to try. Captain Richard Mason, Kirksville, Mo.

DOGS.

MALE COLLIES, 2½ MONTHS, $7.00. Frank Barrington, Sedan, Kansas.

FINE FOX HOUND PUPS FOR SALE. Satisfaction guaranteed. Guffy Bros., Route 4, Fort Scott, Kansas.

CHEAP IF ORDERED IMMEDIATELY, all kinds hounds and dogs; sent to try. R. G. Mason, Kirksville, Mo.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

RABBIT HOUNDS, FOX HOUNDS, COON, opossum, skunk, squirrel dogs. Setters, pointers, ferrets, rabbits. Catalog 10c. Brown's Kennels, York, Pa.

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Boost for Poultry Show

APPRECIATION of the opportunity afforded for showing poultry at the agricultural fairs does not overlook the advantages of winter shows in their special field; on the contrary it looks toward an increase of small winter shows as a direct result of making the poultry departments of small fairs more attractive and instructive.

The development of a good poultry show, whether at a fair or independently, has always been the result of the interest and efforts of a few poultrymen. Where shows are being held under efficient management those in charge should have the hearty support of all poultrymen in the vicinity. Where the field is clear, local poultrymen should confer with the fair management and endeavor to secure its co-operation in a special effort to make the display of poultry one that will stimulate interest in the community.

The attitude of the poultrymen making such a proposal usually determines the attitude of the management of a fair toward it. If the poultrymen are enthusiastic and ready to do the work necessary to make the display of poultry a notable one, the fair management are usually prompt to respond and willing to give the poultry department its share of space, publicity and prizes. But the mere suggestion that the fair should have a better poultry department, with the implication that it is up to the general management to see that this feature is put on a par with others, has very little force with men who, as a rule, are giving free service in the general management and relying upon those with like public spirit to help in details of departments in which they are especially interested.

The first rule for making a successful poultry exhibition—whether in a big city or in a sparsely populated county—is to interest as many people as possible in it. Activity on this line should be the first step and should begin even before the management of the fair is approached. They can respond more promptly and more liberally when informed that so many poultry keepers would, with suitable inducements, enter so many birds, than when asked to authorize offers of inducements as the preliminary to a canvas for exhibits. At any time, and especially now when many things not ordinarily done are done from patriotic motives—a movement of this kind draws its first and best support from those who enter it early with more consideration for the public good than for any personal advantage it may bring to them.

Everyone who has poultry that he thinks is a little better than his neighbor's should be urged to show it at the fair. With standard poultry as generally distributed as it is now there is probably no place where a fair is held that can not supply from some farm or poultry yard fairly typical specimens of the popular varieties of poultry. Everyone who has such stock should be urged to send something to the fair as a contribution to the movement to create more interest in poultry.

Besides soliciting exhibits from those who already have good poultry, it is good policy to urge such of them as appreciate better quality than they have to purchase birds to show at the fair. Interest can also be helped if people of some prominence in the community who have not perhaps had any interest in poultry, can be induced to take it up and to import some good stock to show at the fair for their own credit and for the benefit of those who attend and who might not otherwise have the opportunity to see really good stock of that particular kind. These suggestions are not theorctical, but are simple statements of the means that for seventy-odd years have been successfully used by promoters of poultry exhibits in places where they had been neglected.

One of the most important things to observe in developing the poultry exhibit at fairs is to follow the standard method of classifying fowls for exhibition and for the award of prizes. The original method at fairs and at the early shows was to show birds in pairs, male and female, and award the prizes for pairs. The standard method is to show birds either singly or in pen of a male and four females. Innumerable experiences have demonstrated that providing separate classification for cock, hen, cockerel and pullet in each variety gives the widest recognition and fairest distribution of prizes to meritorious individual birds, while the classification for pens of five birds with appropriate prizes in the class gives the breeder who can make a fine exhibit in it the special reward he deserves. It is a matter of poultry show history that the adoption of the standard classification almost invariably starts the poultry department at a fair on a course of enlargement and progress.

Another essential thing in making a poultry department interesting and instructive is the employment of a qualified judge. Nothing is so discouraging to the novice in exhibiting poultry as the decisions and explanations of the judge who is supposed to be good enough for a country fair though he would not be considered for a minute as judge at a show where substantial interests were involved in the decisions or where experienced exhibitors were showing. The judge at a large show making decisions on very close comparisons of birds of very even quality may be exempt from explaining his awards in detail, but the judge at a small show has only half done his work when he has made his decisions — the other half is to tell exhibitors why certain birds are better than others and where the best on exhibition there might be improved. A judge who does this well can easily double the influence of a first poultry show for good in the community.

With the poultry always the main feature of a poultry department such accessory features as can be secured should be provided. Exhibits of appliances and supplies always interest the general public and those little versed in methods of poultry culture. Many things familiar to the experienced poultry keeper, that he would not stop to look at them in a show, and hence supposes they can add nothing to its attractiveness, are of special interest to novices.

Wherever possible the attendance of one or more representatives of the state college or experiment station should be secured for demonstrations and lectures. In any case arrangements should be made for a supply of literature from the state institutions and the United States Department of Agriculture for distribution to visitors, and for the display of a full line of the posters used in promoting poultry production.



THIS young lady, Stella Mae Heywood, is president of the Bennington Poultry Club. She is here shown with her little flock of Barred Rock prize winners. This club is one of seven poultry clubs in Ottawa County, having a combined membership of 120 boys and girls. It is one of the many activities so effectively organized in that county by the club leader, Jessie G. Adee.



PATRIOTIC PICTURE NO. 1



PATRIOTIC PICTURE NO. 2



PATRIOTIC PICTURE NO. 3



PATRIOTIC PICTURE NO. 4

BEATUIFUL PATRIOTIC PICTURES

SIZE 16x22 INCHES

PRINTED IN COLORS

Each Picture Tells Its Own Story. Get One or more of them

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PATRIOTIC PICTURE NO. 5

KANSAS FARMER has just completed arrangements to supply its subscribers with any or all of the beautiful patriotic pictures illustrated in miniature on this page. The illustrations herewith cannot do justice to the real pictures on account of the greatly reduced size. The pictures we will send you are full 16 x 22 inches in size and all except No. 5 and No. 6 are printed in appropriate colors. No. 5 and No. 6 are printed in black and white. They are really fine pictures. We are sure our subscribers will like them.

SPECIAL TEN-DAY OFFERS

OFFER NO. 1. If you will send us ONE NEW TRIAL SUBSCRIPTION to KANSAS FARMER for three months at 25 cents, we will send you your choice of any one of the pictures illustrated on this page absolutely FREE and prepaid.

OFFER NO. 2. If you will send us ONE NEW SUBSCRIPTION to KANSAS FARMER for one year, at $1.00, we will send you your choice of any five of the pictures illustrated on this page, absolutely FREE and prepaid. Or if you desire, send your own renewal subscription for one year at $1.00 and we will send you your choice of any five of these beautiful pictures.

THIS OFFER IS GOOD FOR TEN DAYS ONLY In sending your remittance, order pictures by number.

USE ONE OF THESE COUPONS TODAY

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KANSAS FARMER, TOPEKA, KANSAS.

GENTLEMEN: Enclosed please find 25 cents, for which send KANSAS FARMER for three months to

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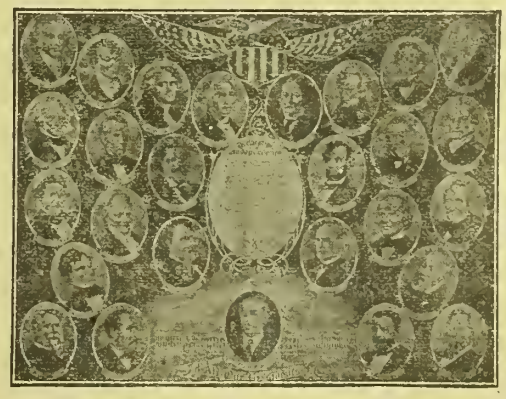

PATRIOTIC PICTURE NO. 6

COUPON

KANSAS FARMER, TOPEKA, KANSAS.

GENTLEMEN: Enclosed please find $1.00, for which send KANSAS FARMER for one year to the following:

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HOLSTEIN CATTLE.

SAND SPRINGS FARM

REGISTERED HOLSTEINS—The Debt-Paying, Money-Making Kind



Our ten years experience in milking and raising Holsteins may be of value to you. Will sell or trade for young stock our junior herd sire, a fine 22-pound bull, individually right. His calves are a credit to him. Correspondence solicited and visitors welcome.

E. S. ENGLE & SON - - - - ABILENE, KANSAS

MAURER'S HOLSTEIN FARM

Offers special attractions in pure-bred females of all ages with high class breeding, and a number of choicely bred yearling bulls; also grade cows and heifers with size and quality. Don't fail to see this herd before you buy, as they are all bred RIGHT and priced RIGHT.

T. R. MAURER & CO - - - - EMPORIA, KANSAS

$15 Holstein or Guernsey CALVES

From Waukesha County heavy producing stock. Write us today, we guarantee to satisfy you.

RIVERDALE FARMS, Oconomowoc, Wis.

Holstein Calves

Choice, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write

W. C. Kenyon & Sons

Holstein Stock Farms Elgin, Illinois

CORYDALE FARM HERD

Senior herd sire, Jewel Paul Butter Boy 94245, followed by Dutchland Creamelle Sir Iuka 199300, a son of Dutchland Creamelle Korndyke Lad, the great Fields bull. For sale, two young bulls old enough for service out of A. R. O. dam. Call or address

L. F. Cory & Son, Belleville, Ks.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

Either Sex, Practically Pure-Breds

From high-producing dams and registered bulls, five to seven weeks old, $27.50, express prepaid in Kansas; outside, $30. Safe delivery and satisfaction guaranteed. Also fifty registered cows and heifers and 100 high-grade young cows and two-year heifers.

MAGEE DAIRY FARM

CHANUTE - - - - - KANSAS

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

REGISTERED HOLSTEINS

If you want big producers, males and females, write us. All our own breeding.

Lilac Dairy Farm

Route 2 Topeka, Kansas

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. **Clover Valley Holstein Farm, Whitewater, Wisconsin.**

CHOICE HEIFER CALVES

Twelve heifers and three bulls, 15-16ths pure, five to seven weeks old, beautifully marked and from heavy milkers, at $25 each, crated for shipment anywhere.

FERNWOOD FARMS, Wauwatosa, Wisconsin

REGIER'S HOSTEIN-FRIESIANS

For Sale—Young bulls, bred heifers and cows. All sired by the great bull, Sir Rag Apple Korndyke De Kol. Two cows will be fresh this month. Fourteen-thousand-pound milkers.

G. REGIER & SONS, Whitewater, Kansas.

COLLEGE HILL HOLSTEINS

For Sale—Two registered pure-bred Holstein bulls from A. R. O. cows. Age 9 and 11 months. **P. W. ENNS, Newton, Kansas**

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves. **H. B. COWLES, 608 Kan. Av., Topeka, Kan.**

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

MULEFOOT HOGS.

Knox Knoll Mulefoots

Bred sows and gilts. Open gilts, spring gilts and boars. Satisfaction guaranteed. Free catalog.

S. M. KNOX - HUMBOLDT, KANSAS

GALLOWAY CATTLE.

GALLOWAY CATTLE

80 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

Registered Galloway Bulls

Ten Two-Year-Olds. Ten Long Yearlings.

These are in extra good condition.
Ready for immediate service.
Come and see them.

CALLAHAN & BECK, KINGMAN, KAN.

SHORTHORN CATTLE.

Abbotsford Shorthorns



For Sale—Twenty-five cows and heifers, several with spring calves at foot; others bred to ROAN MODEL; also seven young bulls eight to eleven months old. All priced to sell. Come and see our herd.

D. BALLANTYNE & SON, Herington, Kan.

MARKS LODGE RED SHORTHORNS

For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

SHORTHORN HERD HEADER

Bonnie Lad 482727, cheap for quick sale.

R. E. HAILEY - WILSEY, KANSAS

DUROC JERSEYS.

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. **W. J. Harrison, Axtell, Kan.**

WOODDELL'S DUROCS

Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

Wreath's Durocs

SPRING PIGS

Priced in pairs or trios. Come and see my herd.

L. G. WREATH, MANHATTAN, KANSAS

CHESTER WHITE HOGS.

CHESTER WHITE HOGS

Five December boars ready for service, out of my grand champion sow, Tip Top. Spring pigs from other good sows for sale.

COLEMAN & CRUM, DANVILLE, KANSAS

RECKARD'S CHESTER WHITES

Have raised pure-blooded Chester White hogs for fifteen years. Breeding stock for sale from prize-winning strains. Large kind and smooth.

E. M. RECKARDS - OZAWKIE, KANSAS

Dornwood Chester Whites

For Sale—Several choice young brood sows.

DORNWOOD FARM - TOPEKA, KANSAS

RED POLLED CATTLE.

RED POLLED BULLS

Two extra good ones, year old, ready for service. Priced for quick sale.

A. E. WHITZEL - STERLING, KANSAS

RED POLLED CATTLE

For Sale—Four-year-old herd bull. Some extra good cows to calve in winter and early spring. A few yearling heifers.

I. W. POULTON - MEDORA, KANSAS

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.

CHAS. L. JARBOE - QUINTER, KANSAS

AUCTIONEERS.

FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. VALLEY FALLS, KANSAS

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri

HORSES AND MULES.



Percherons—Belgians—Shires

After harvest take the most enjoyable little trip of your life. Come see all my show and breeding horses and have a fine visit with me. Drop me a card now. **FRED CHANDLER, R. 7, Charitan, Iowa.** Above Kansas City.

BONNIE BRAE HEREFORDS DISPERSED

On August 30th we will put into the sale ring all the famous breeding herd of **Bonnie Brae** Herefords as well as the cows, heifers, bulls and calves that we had planned to reserve and show. Competent judges say this famous show and breeding herd's dispersion means the opportunity for many more breeders to dip unrestrictedly into this intensely bred Beau Donald blood. The offering comprises twelve bulls, including **Bonnie Brae 37th**, one of the few great sires of the breed, as well as a line of tried young sires of wonderful breeding promise and show ring possibilities. Nearly every animal of the 65 lots was bred by us. They have the true **Bonnie Brae** type—low set, well boned, straight backed, well sprung ribs, deeply covered loins and backs, typical Hereford heads and horns. The sort that have made this breeding establishment so heavily drawn upon by many breeders. If you are in need of exceptional Herefords and want to go into a famous breeding and show herd and pick just what you want, then we suggest that you

ATTEND THIS SALE WITHOUT FAIL AUGUST 30!

PARTICULARS NOW READY! In the catalog every lot is pictured. There are about 20 cows with calves at foot—cows that are tried and proved producers of the highest quality Herefords and whose calves will develop into as great Herefords as the young **Bonnie Braes** we will disperse on this date, Aug. 30. Ask now for full particulars. Don't buy Herefords before you attend this sale! Come here Aug. 30 and see this unexcelled breeding and show herd of famous **BONNIE BRAES** dispersed. **Cancel** all other dates for this day and event.



Bonnie Brae 101st included in dispersion

Auctioneers: Reppert, Magness, Miller and Casey

WM. ANDREWS & SONS, Morse, Iowa

Home of the Bonnie Braes

JERSEY CATTLE.

TESSORO PLACE

OWL INTEREST FINANCE JERSEYS (REGISTER OF MERIT)

Buy a bull from a R. of M. cow and be more certain in your herd building. Every cow in milk in our herd has a year's test or one now on. Our two-year-olds will average 400 pounds of butter. Write for prices and other information.

R. A. Gilliland, Mayetta, Kansas

ANGUS CATTLE

Edgewood Farm Angus

I have for sale

40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.

D. J. WHITE, Clements, Kan.

FARM AND HERD.

The Doyle Park Stock Farm, at Peabody, Kansas, will exhibit a flock of Shropshire sheep at the Kansas State Fair at Hutchinson, September 14 to 21, 1918. This firm owns one of the good herds of the state and has been the leading winner of the premiums for several years.

Fred B. Caldwell, of Howard, Kansas, sold at his farm on August 8 thirty head of bred sows and gilts, all bred for fall litters to the world's champion Poland China boar, Caldwell's Big Bob, for an average of $270. No. 1 in catalog topped the sale at $800. She was sired by The Big Orphan and safe for a September litter. This sow went to the good herd of Ezra F. Warren, of Clearwater, Kansas. The entire offering was in splendid breeding condition and Mr. Caldwell was well pleased with the returns from the sale. He will hold his annual fall sale October 19. On this date he will sell twenty-five spring gilts. A number of them will be sired by the champion Caldwell's Big Bob.

D. M. Henderson, sales manager, of Hudson, Ohio, has announced a public sale of Ayrshire cattle to be held at the Topeka Free Fair Grounds September 14. Fifty head of Ayrshires will be catalogued. The offering will consist of cows, bred heifers, yearling heifers, and a few choice bulls. The consignment will be shown at the fair before the sale and will be selected from Ayrshire herds that are among the best in the country.

R. E. Hailey, of Wilsey, Kansas, owner of Elmwood Farm and one of the high class herds of Shorthorn cattle in Kansas, reports his herd doing well. A feature of the herd at this time is the choice lot of young stock, including a select bunch of females sired by Mr. Hailey's fine herd bull, Bonny Lad 482727. This fine Roan Lad bull has proven a great sire and Mr. Hailey has decided to keep quite a number of heifers sired by this bull in his herd, although to do so makes it necessary to dispose of him.

F. B. Cornell, of the Golden Hoof Farm, Nickerson, Kansas, reports his flocks of pure-bred Shropshire, Hampshire and Southdown sheep now assembled. Mr. Cornell is one of the consistent workers for more sheep on Kansas farms. He has been breeding sheep for many years and long ago found good sheep the most profitable stock on a farm. His flocks are not only the oldest but the largest in Kansas.

L. E. Pendleton, of Dodge City, Kansas, owner of one of the good herds of pure-bred Jerseys in this state, reports his herd doing well. A feature of the herd at this time is the fine lot of cows and heifers of Eminent and Raleigh breeding.

W. F. Phelps, of Phelps Stock Farm, Aurora, Mo., and owner of one of Missouri's famous herd of Holsteins, announces a public sale of Holsteins to be held at Joplin, Mo., September 18. He will catalog seventy-five head of choice pure-bred Holsteins for this sale. Most of them will be heifers one to three years of age. The offering will include the great bull, Sir Sadie Cornucopia 187302 and two sons of King Korndyke Sadie Vale 24th.

W. T. McBride, of Parker, Kansas, has changed the date of his Duroc sale from September 4 to October 8. On that date Mr. McBride will hold a sale of Red Polled cattle and Durog hogs. His entire herd of Red Polled cattle will be sold, also a choice lot of Durocs, including sows with litters.

F. E. Jonson, of Coffeyville, who bought Holstein cows of H. B. Cowles, of Topeka, some years ago, was up the other day to get a bull calf. With him came F. J. Decker, of Cahill & Decker, a prominent dairy firm of that city, and picked four choice springer heifers from the same herd. Mr. Cowles says he likes to ship to forecost Holstein counties like Montgomery. He takes it as a compliment to his Braeburn herd; a recognition of the fact that he is ten to twenty years ahead of most breeders in these parts, and makes it his business to hold his lead. He likes, too, to have former customers on the watch for the annual fall cut to make the herd fit the stables again, which is about the only chance to buy females from this herd.

JERSEY CATTLE.

Longview Jerseys

(Register of Merit Herd)

Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.

Longview Farm

LEE'S SUMMIT - - MISSOURI

100 GOOD JERSEYS FOR SALE

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.

J. W. BERRY & SON, Jewell City, Kansas.

FINE YOUNG JERSEY BULLS

From Register of Merit and tested cows; Register of Merit sire.

Dornwood Farm, Topeka, Kan.

IDYLWILD STOCK FARM

Place your order for a Sophie Tormentor, Jacoba Irene, spring bull calf to increase your production.

C. F. Blake - Glasco, Kansas

J. B. PORTER & SON

MAYETTA, KANSAS

Breeders of High-class Jerseys. Stock for sale at all times.
Write Us Your Wants.

BROOKSIDE JERSEYS

Registered Jersey Bulls, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.

THOS. D. MARSHALL, SYLVIA, KANSAS

REGISTERED JERSEY BULLS

Butter-Bred, from High-Producing Cows.
Photo furnished.

MAXWELL'S JERSEY DAIRY

Route 2 Topeka, Kansas

Allen Center Stock Farm

Registered bull calves — some ready for service. Sale or exchange for bull or heifers.

TREDWAY & SON, LA HARPE, KANSAS

FOR SALE—20 Registered Jersey cows and heifers, Eminent and Raleigh breeding.

L. E. PENDLETON, DODGE CITY, KAN.

HAMPSHIRE HOGS

REGISTERED HAMPSHIRE HOGS. Thirty spring boars, immuned. Am booking orders for fall pigs. **Geo. W. Ela, Valley Falls, Kans.**

SHEEP

SHEEP REGISTERED { Shropshires / Hampshires / Southdowns

Best of breeding.
The oldest and largest flocks in Kansas.
One or a carload.

F. B. Cornell, Nickerson, Kan.

Be a pioneer and store home-grown food as if no freight trains were running or grocery stores open.

BROWN'S
Big Bone Poland China Sale
At PERRY, KANSAS
AUGUST 28, 1918

ELEVEN TRIED BROOD SOWS

Sired by King Kansas, Smooth Columbus, Colossal, Big Hadley Jr., Erhart's Big Chief. Two granddaughters of old A Wonder, also two granddaughters of King of Wonders.

NINE FALL YEARLINGS

Granddaughters of Big Bob on sire's side and Smooth Columbus on dam's side and bred to a grandson of Gerstdale Jones.

20 Choice Out of 95 Head Spring Pigs

TEN BOARS AND TEN GILTS

Sired by Chief Miami and Gerstdale Jones Again. This offering is extraordinary and affords an unusual opportunity to replenish your herd or for foundation herd. I am selling some of the best in my herd. The brood sows and fall yearlings are bred for September farrow to Chief Miami and Gerstdale Big Bone.

Send for catalog and come to my sale if you want real hogs. ALL IMMUNED.

WALTER B. BROWN,
PERRY, KANSAS

Auctioneer, Col. J. C. Price, Unionville, Iowa

AYRSHIRE SALE
SEPTEMBER 14, 1918
AT THE KANSAS FREE FAIR, TOPEKA, KANSAS
Sale Begins at 11 A. M.

Fifty head will be sold, consisting of cows, bred heifers, yearling heifers, and a few choice bulls. This will be strictly a sale of good foundation stock. The consignment will be shown at the fair before the sale.

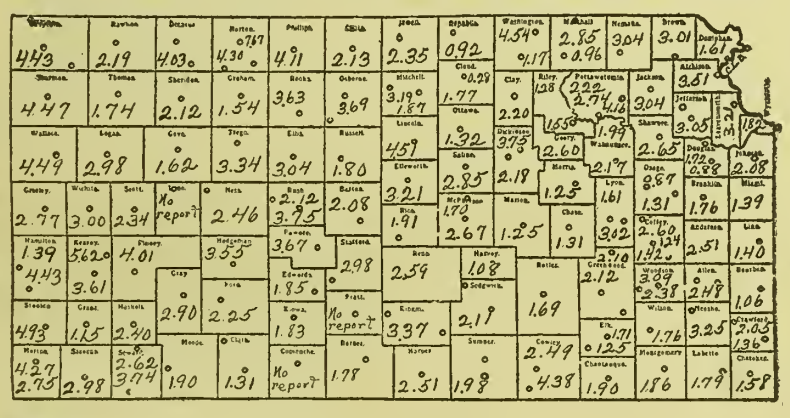
Consignors: Aldebaran Farm, Racine, Wisconsin; James Van Etta, Lima Center, Wisconsin; and Henderson Ayrshire Farm, Hudson, Ohio.

For catalog, write

D. M. HENDERSON, SALES MANAGER, HUDSON, OHIO

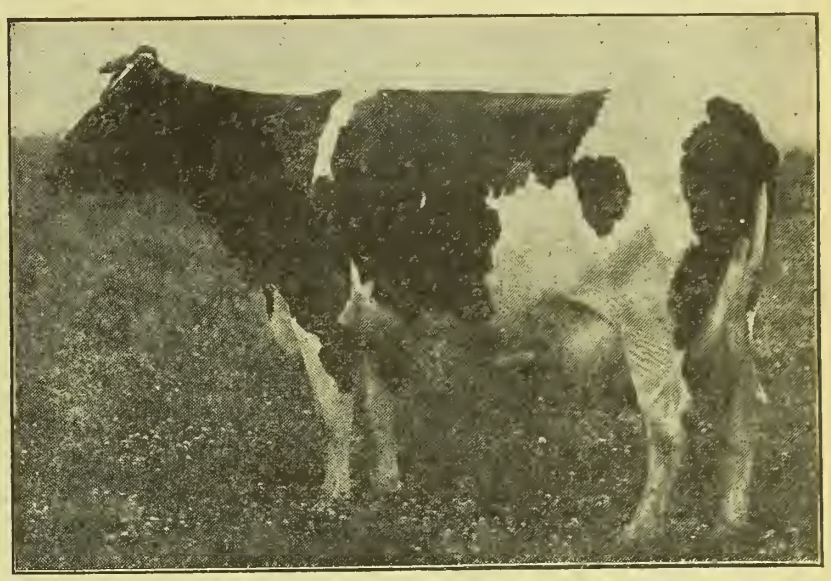
Rainfall of July, 1918

Reports Furnished by S. D. Flora, Meteorologist, Weather Bureau, Topeka



THE rainfall of July just passed was deficient over the eastern two-thirds of Kansas, though there was almost twice as much as fell during July of last year. It was well distributed in crop-reviving showers that kept corn growing nicely in most places, but was inclined to be spotted. By the close of the month corn was in a critical condition. It had reached the roasting ear stage in the eastern part of the state and was silking and tasseling in the western part and was just at the point where rain or the lack of it would have the greatest effect. Pastures were generally burned bare. The ground was in such condition that a great deal of fall plowing was done.

Pondview Herd Registered Holstein Cattle
DISPERSION SALE 100 HEAD
at Farm 9 Miles Northeast of Hutchinson, Kan.
One and One-Half Miles South of Medora, Kan., on Rock Island and Frisco Railways
SEPTEMBER 4, 1918



I am dispersing my entire herd of 100 head registered Holstein cows and heifers, also selling two herd bulls whose seven nearest dams averaged 24 pounds butter in seven days—**King Segis Pontiac Raymond 186663,** a three-year-old bull just in his prime, and **Pondview King Segis Pontiac,** 18 months old. I am selling a number of high class bull calves by King Segis Pontiac Raymond; twenty-five coming two-year-old heifers bred to Pondview King Segis Pontiac; twelve heifer calves; five coming three-year-old heifers bred to freshen this fall; two two-year-old heifers out of A. R. O. dams; forty-two cows in milk or bred to freshen soon. Four of these cows have A. R. O. records from 14 to 17 pounds butter in seven days.

My herd is clean and free from any abortion. Every cow is a regular producer. Every animal over six months old will be tested and sold subject to retest in ninety days. I have spent twelve years building this herd, starting with the best cows I could buy, and have always used high class bulls with records back of them.

Every animal will be sold, nothing reserved. I have not gone to a large expense feeding them up for sale, but selling right off the pastures in every-day working condition. If you want profitable cattle that will make money, send for catalog and arrange to come to sale.

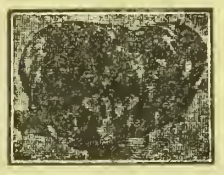
S. E. STOUGHTON & SON, Hutchinson, Kansas

AUCTIONEERS

Col. John D. Snyder, Hutchinson, Kansas; Col. R. E. Colbert, Medora, Kansas

Free conveyance from Midland Hotel to farm day of sale to parties from a distance

POLAND CHINAS.



Faulkner's Famous Spotted Polands
THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.

POLAND CHINA BOAR PIGS

For Sale—Twenty choice boar pigs, sired by Model Wonder, he by Big Bob Wonder; The Giant by Hercules by Big Ben; King Ben by Giant Ben; Captain Gerstdale Jones, Big Bob Jumbo, and A Big Wonder. Several herd boar prospects.

Ross & Vincent, Sterling, Kan.

TOWNVIEW HERD

Boars ready for service, sired by King Wonders Giant 77326. A few choice gilts of popular breeding for sale. Everything immune and strictly high-class and priced reasonable. **Chas. E. Greene, Peabody, Kan.**

Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.

J. EDW. PLILEY - GILMAN CITY, MO.

LANGFORD'S SPOTTED POLANDS
Last call for spring boars, $40 to $50.
T. T. LANGFORD & SONS, Jamesport, Mo.

Breeders' Directory

RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
Hereford Cattle.
F. S. Jackson, Topeka, Kan.

HAMPSHIRE SHEEP.

HAMPSHIRE SHEEP

A few extra good ram lambs for sale.
L. M. SHIVES, R. F. D. 1, IUKA, KANSAS

POLAND CHINAS

Erhart's Big Polands

A few fall boars ready for hard service. Can spare two tried herd boars. Have the greatest showing of spring boars we have ever raised. Some by the 1,250-pound A Big Wonder. Will make prices on pairs and trios. Write me your wants. All immune.
A. J. ERHART & SONS, NESS CITY, KAN.

Morton's Poland Chinas

For Sale—Twenty-five choice boar pigs, sired by Morton's Giant by Discher's Giant and Girstdale Jumbo by Girstdale Jones, out of my best herd sows. Priced reasonable. Write or come and see my herd.

GEORGE MORTON
Oxford : Sumner County : Kansas

Oxford Herd Poland Chinas

Herd boar, Giant Lunker by Discher's Giant out of Lady Lunker. I have 57 early spring pigs. A few choice boars. Priced to sell. Come and see me; I can please you.

Howard R. Wenrich
Oxford - - - - Kansas

SHROPSHIRE SHEEP



FOR SALE

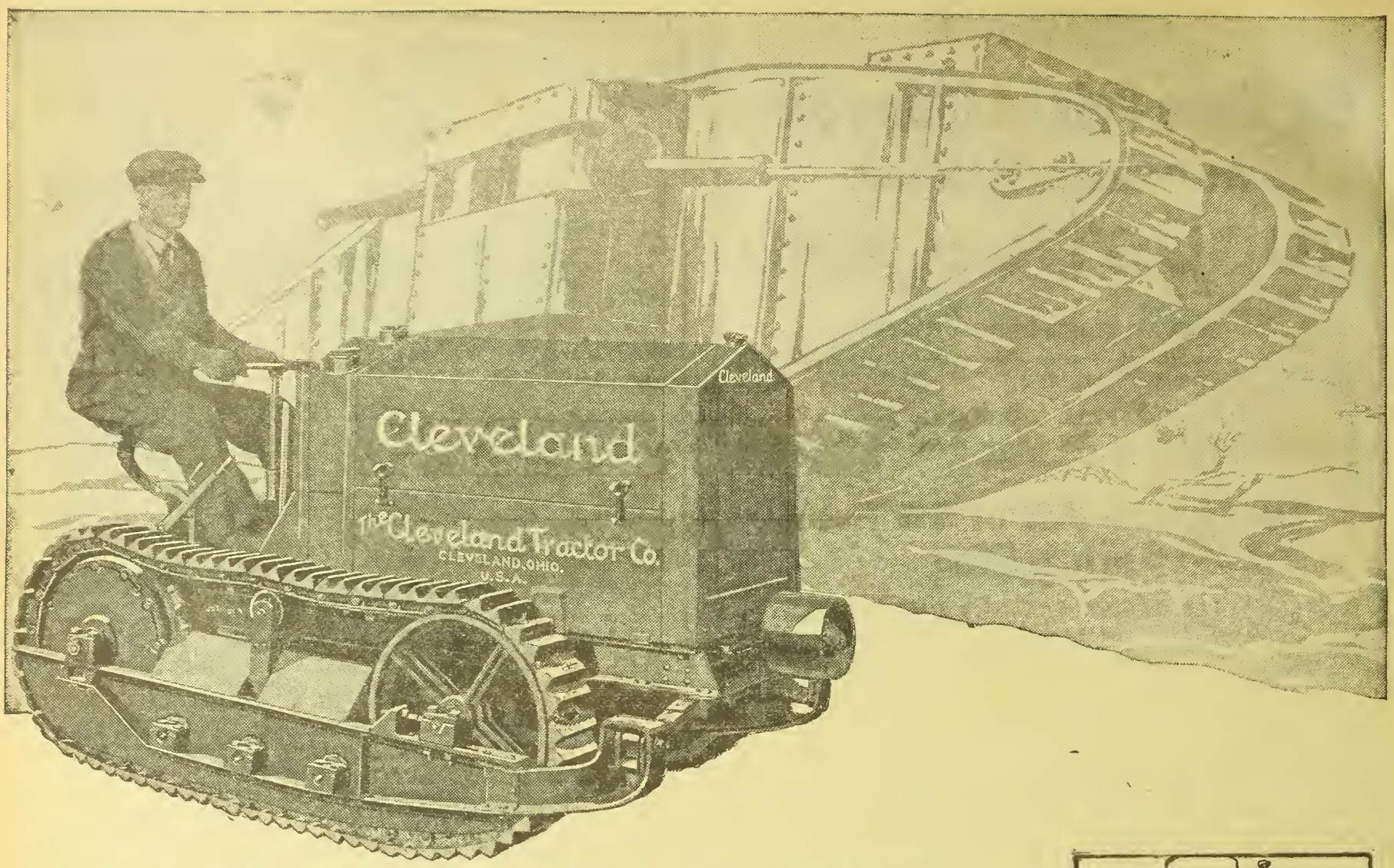
A bunch of good big **Registered Shropshire Bucks,** not high in price. Also registered ewes.
Howard Chandler, Charlton, Ia.

SITUATION WANTED.

WANTED—WORK ON FARM BY EXperienced farm hand; also experienced in handling live stock, machinery. Exempt from war service. Harvey M. Harpoter, Halfway, Mo.

TURNER & SON SHROPSHIRES

Fifty good big registered rams, $50 each, crated and express paid here. Also about 100 head of Lincoln and grade Shropshire ewes, ranging in age from one to six years, $22.50 per head. Sheep three miles north of town. Send check or draft with order. Pedigrees furnished for pure-breds. Always return crate. Reference, Harveyville State Bank.
J. R. TURNER & SON - - - - - - - HARVEYVILLE, KANSAS



A Little "Tank"—for Farm Work

The Cleveland Tractor is built on the same principle as the wonderful European battle "tanks."

It travels on its own tracks, laying them down and picking them up as it goes along.

This efficient type of construction makes the Cleveland *specially* valuable to farmers, as it enables them to work practically *anywhere*—over almost *any kind* of farm land.

They are being operated over gullies, ruts and ditches, through soft soil, wet clay, sand and gumbo—without sinking or floundering. *They do not pack the soil.*

They are working under and among small trees, close up to fence corners, on hillsides and over rough ground with much better results than can be obtained with horses or with any other type of tractor.

And they are working much *faster.*

Thousands of Cleveland Tractors are helping to increase the production of food demanded by war conditions.

The Cleveland, pulling two 14 inch bottoms—which it will do under average conditions—plows 3½ miles an hour—eight to ten acres a day. This is equal to the work of *three* men and *three* good three-horse teams.

The Cleveland steers by the power of its own engine; it requires but slight effort on the part of the driver. Only one man is required to operate it. 12 horsepower is developed at the drawbar and 20 horsepower at the pulley. It is a constant source of tractive and stationary power for twelve months in the year.

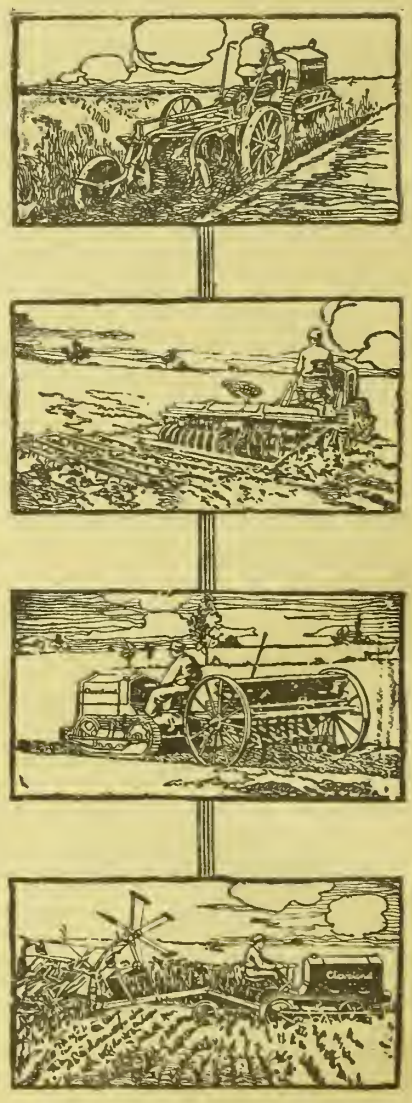
It plows, harrows, plants, reaps, cuts ensilage, runs saws and pumps, drags logs, pulls road machinery, hauls manure spreaders and does practically all the work formerly done with horses or stationary engines.

The Cleveland Tractor produces food but consumes none of it. It conserves man power, horse power, time, energy, and effort—and produces greater returns.

The Cleveland Tractor was designed by Rollin H. White, the well-known engineer. It is manufactured under his supervision. Gears and tracks are protected from dust and dirt. Materials throughout are of the best. The whole machine weighs only about 3200 pounds. It can be housed in less space than is needed for a horse.

Take advantage of present produce prices. Raise *more* food *now*. Help the nation and incidentally make more money yourself by using one or more Cleveland Tractors.

Write for complete information and the name of the nearest Cleveland dealer.



The Cleveland Tractor Co.

The largest producer of Crawler-type Tractors in the World

19097 Euclid Avenue **Cleveland, Ohio, U. S. A.**

Cleveland Tractor

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OCT 25 1918

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 34. TOPEKA, KANSAS, AUGUST 24, 1918. Established 1863. $1 a Year

Organizing Farm Loan Associations

Merging Two or More Associations Often Desirable in Interest of Economy and Efficiency

ANY farmer desiring to become a borrower from the Federal Land Bank should address a letter of inquiry to the land bank of his district, which for Kansas, Colorado, Oklahoma, and New Mexico, is Wichita, asking for the name of the farm loan association nearest to him or for papers to enable him to organize an association if none has been organized in his community.

It is pointed out in the Borrowers' Bulletin, issued by the Federal Loan Bureau, that for various reasons it is often desirable that two national farm loan associations be consolidated or merged. This is most frequently true at that stage when the associations or one of two associations does not possess a charter.

It frequently happens that two groups of farmers living in the same general neighborhood make independent efforts to form national farm loan associations. Perhaps both fail to secure the minimum requirements of ten members and $20,000 in loans. Perhaps one of them fails. Perhaps there are three or more groups forming, all of which fail, or success is attained by only one. Is it, therefore, necessary that all, or all but a few, be disappointed? Not at all. The thing to do in such a case, or in any case in which it is advantageous to join forces, is to merge the formed or forming associations by consolidation. The plans for doing this have been worked out and are rather simple.

Where neither association has been chartered it is necessary to call a meeting of the farmers composing the two organizing groups and by action of the meeting do the following things:

1. Agree upon a name for the single association to be formed.
2. Adopt articles of association according to established form.
3. Elect a board of directors.
4. Pass a resolution accepting the members of both or the several associations as members of the merged one, mentioning them individually.
5. Ratify the acts of the respective loan committees of the two or more associations and approve the loans recommended.

All these proceedings should be recorded by the secretary, and a copy of the record of proceedings should be attached to the articles of association and forwarded to the Federal land bank with the application for a charter.

The territory in which the new association is to be authorized to do business should be definitely described so that its outlines can be found on maps—by county lines, townships and ranges, named watercourses, or other territorial designations which can be located on maps commonly obtainable. Do not use the names of civil townships.

Amending Charter

When a group of farmers find themselves unable for any reason to obtain a charter they are often able to merge with an association which has already received a charter. It may be necessary for the charter association to enlarge its territory to take them in; and this may ordinarily be done, and always can be done unless there is some good reason for not doing it.

In these cases the chartered association should hold a meeting, preferably attended by representatives of the unchartered one, and should take the following action:

1. Adopt an amendment to its articles of association if necessary, adjusting its territorial jurisdiction to the needs of the new members.
2. Pass a resolution accepting by name the members of the unchartered association as members of the chartered one.
3. Ratify the acts of the loan committee if satisfied with such acts, of the unchartered associations, and approve the loans applied for.
4. Attach a copy of the record of these proceedings to the application for the amendment to the charter and send the papers to the Federal land bank.

The application for amendment of charter in the latter case, and the application for a charter in the former one, will go forward to the Farm Loan Board in Washington for approval, if approved by the bank. If disapproved by the bank the disapproval will be reported to the Federal Farm Loan Board, with the reasons for disapproval. All charters and amendments are ordered by the Federal Farm Loan Board.

The charters of national farm loan associations may be amended so as to alter the name or change the boundaries of the territory in the manner above described at any time. This right does not depend upon the desire to merge with another association. At any meeting of any association properly called resolutions may be passed asking for amendment. The proper blank forms for such resolutions have been prepared by the Federal Farm Loan Board and may be obtained by any association from its Federal land bank. The bank will also give instructions for filling out the blanks and making application for amendments.

Most of the amendments hitherto granted have been required in order that new applicants may be taken in, to enlarge territory, and to make possible the merging of groups of farmers who have been trying to organize and have failed. There are, no doubt, associations which were organized to cover too much territory, and which should amend by cutting it down. Such associations, however, may confine their operations by taking in no members outside certain limits. In other words, there is no law requiring the admission of members all over the territory if it be too large.

Purpose of Loan Act

The fundamental purpose of the farm loan act is to encourage agricultural development; this development could only be brought about by providing capital for those engaged in agricultural pursuits, at a reasonable rate of interest and repayable in small amounts.

In the organization and operation of the Federal land banks the principle usually underlying banking institutions is reversed: The lender is ordinarily the beneficiary; in the case of the Federal land banks the beneficiary is the borrower; that is, banks are usually regarded as lenders of money, are organized for the benefit of the lender, the benefit to be measured by the profit derived, while Federal land banks have been organized for the benefit of the borrower, the benefit to be measured hy the lowest rate of interest obtainable, the very low cost of procuring a loan, and the long time allowed for repayment.

Federal land banks are borrowers' banks. They, like other borrowers, can not procure capital—which they obtain through the sale of bonds—unless they have the confidence of the lenders, both as to the security offered for the return of the capital and as to promptness in the payment of interest.

The security for the ultimate return of the capital is fixed by law at double the amount borrowed in agricultural land values, and is beyond question.

But the promptness in the payment of interest finally depends upon the customers of the Federal land banks, the borrowers from them, the members of National farm loan associations, the farmers for whom these banks have borrowed this capital, in order that they may lend it again at a low rate of interest and thus carry out the purpose of their being—the encouragement of agricultural development.

It is necessary, therefore, in order to retain the confidence of the lenders, which means a constant and ready market for farm loan bonds, that the borrowers' banks must meet the payment of interest promptly at maturity. They can not do this indefinitely unless their customers—the farmer borrowers—meet the interest payments on their mortgages with equal promptness.

Any borrower who can do so but fails to live up to his contract in the matter of promptness is a slacker. He does injury to himself, to his neighbor borrower, and to the whole system. The law provides a remedy for such, and the Federal land banks must enforce the law, in justice to all, and for the preservation of the system itself.

ADVANTAGES OF MEMBERSHIP IN FARM LOAN ASSOCIATION

THERE are over three thousand national farm loan associations organized and doing business in the United States. The Wichita Federal Land Bank leads with a total of 398 under its jurisdiction, ninety-seven of these being in Kansas. In spite of the publicity given to the Federal loan system, it is really surprising that there are still so many who do not know of it.

Members of national farm loan associations can borrow money on their land and buildings, for a term of thirty-five years, interest 5½ per cent, payable under amortization plan, or $65 per $1,000 borrowed per year. No more than this sum need be paid at any time during period of loan; as much more as desired may be paid after fifth year of mortgage.

BASIS OF CREDIT: Fifty per cent of reasonable land value and 20 per cent of building value.

PURPOSE OF LOAN: Farmer may use money for purchase of farm land; to pay off existing mortgage; purchase farm equipment, namely, fertilizers, live stock, machinery, etc.; to erect or improve farm buildings; to pay existing debts.

AMOUNT TO ONE INDIVIDUAL: From $100 to $10,000, according to need and credit shown.

The Federal farm loan system aims to provide all farmers with adequate finances with which to operate their farms. It provides the long term, low interest which farmers have urgently required for years. It is a farmers' banking system, operated by and for farmers.

Those who desire to replace existing mortgages of higher interest and principal rate, or who desire to purchase farm lands, or improve their buildings, or purchase farm equipment or live stock, should immediately file their application for loan.

Bring deed of farm upon which loan is desired; know amount of insurance carried on buildings; if mortgage exists, know date of its making, rate of interest, who holds same, and date of last payment. Where joint deed exists, both parties must appear and sign application.

The distribution of sugar is just a little matter of arrangement among friends.

PURE BRED
Tauranian Turkey Seed

WHEAT

In 1914 Geo. Ripke, of Salina, Kansas, made a trip to the Black Sea District of Russia and at very great expense brought to Kansas a very small quantity of "Thoroughbred Wheat." This he planted and cultivated carefully, increasing his acreage annually until now he has a limited quantity for sale.

Analysis has shown this wheat to be richer in gluten, stronger in straw to resist wind and storms than ordinary kinds. Actual growing tests have proven it to yield very heavy and more productive than domestic varieties. It is now thoroughly acclimated and grows and yields exceedingly well in this section of the country. It requires no more care in cultivation than other kinds.

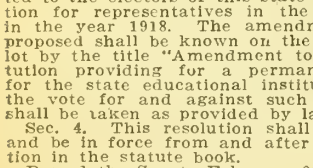
It is very highly recommended by the Kansas State Agricultural College of Manhattan, Kansas. It has been grown for two years at the College, where the tests have been very satisfactory.

A limited quantity is offered for sale in 5, 10 15 and 20-bushel lots at $5.00 per bushel, delivered in sacks, f. o. b. Salina to railroad specified. Checks or Postal Money Orders should accompany each order.

Send orders to, and for further information address

The Western Star Mill Co.
SALINA, KANSAS

GREEN CORN CUTTER



Cuts and gathers **corn, cane, kafir corn** or anything planted in rows.

Runs easy. Long lasting. Thousands in use. Fully protected by patents. Send for free circulars. Price $15.00 f. o. b. Topeka.

J. A. COLE, Mfr., TOPEKA, KANSAS

SENATE CONCURRENT RESOLUTION No. 18.

A proposition to amend section 1 of article 5 of the constitution of the state of Kansas relative to the right of suffrage.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members elected to each house thereof concurring therein:

Section 1. The following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their approval or rejection: That section 1 of article 5 of the constitution of the state of Kansas be amended to read as follows:

Section 1. Every citizen of the United States of the age of twenty-one years and upwards—who shall have resided in Kansas six months next preceding any election, and in the township or ward in which he or she offers to vote, at least thirty days next preceding such election—shall be deemed a qualified elector.

Sec. 2. That this proposition shall be submitted to the electors of the state at the general election in the year 1918 for their approval or rejection. The amendment hereby proposed shall be designated on the ballot by the following title: "The suffrage amendment to the constitution," and shall be voted for or against as provided by law under such title.

Sec. 3. That this resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 8, 1917.
Approved March 12, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 18, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

SENATE CONCURRENT RESOLUTION No. 15.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members of each house concurring therein:

Section 1. That the following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their rejection or approval:

Sec. 2. The Legislature may levy a permanent tax for the use and benefit of the state educational institutions and apportion among and appropriate the same to the several institutions, which levy, apportionment and appropriation shall continue until changed by statute. Nothing herein contained shall prevent such further appropriation by the Legislature as may be deemed necessary from time to time for the needs of said state educational institutions.

Sec. 3. This proposition shall be submitted to the electors of this state at the election for representatives in the Legislature in the year 1918. The amendment hereby proposed shall be known on the official ballot by the title "Amendment to the constitution providing for a permanent income for the state educational institutions," and the vote for and against such amendment shall be taken as provided by law.

Sec. 4. This resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 7, 1917.
Approved March 10, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 15, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

If the men in our Army and Navy can do without luxuries, we at home certainly can.

MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Cleaning or Replacing Piston Rings

THIS is not a difficult operation, but, as in anything else, there are certain things which should be understood that will make the operation easy. To begin with, remove the crank case cover, take out the cotters, and remove the nuts from the connecting rod bolts. Remove the bearing cap, and take the bearing liners out very carefully. Be sure that you do not lose any of these liners nor get them mixed up so that you can put them back exactly as you took them off.

The next step is to remove the cylinder head and mixer, after disconnecting the governor rod. Now the piston may be taken out by pushing back the connecting rod. If the rings are found to be stuck in the grooves, clean them by washing in kerosene. Work them up and down in the groove until they move freely. Now remove the first ring with the aid of three thin steel strips. Insert these strips under the ring at the joint, leaving two of them close to the joint. Work the other one to a position opposite the joint. The ring is now out of the groove and can easily be removed. Remove the others in like manner. Clean the rings and ring grooves in the piston, using a knife to scrape them if necessary.

When replacing the rings, put the center ones in first, using the metal strips as before so as to slide the ring over the groove. After the rings are in position, wash piston in kerosene to remove all dirt and grit. Then oil the piston and rings thoroughly and push the piston in the cylinder. It is easier to do this with the piston upside down, and joints in the rings and the ring pins can be more easily watched. Be sure the rings are down in their grooves, with the piston ring pins in the joints.

If piston is put in upside down, place a bar between the connecting rod bolts and turn piston over to its proper position. Now oil the crank pin, connect up, be sure that all liners are replaced, draw nuts tight, replace cotter pins and spread them.

Replace cylinder head and mixer. See that flywheel turns over freely, but that the bearings are not too loose. Replace top cover.—Tractor Farming.

Farm Water System

Many farms could be supplied with a water system of maximum efficiency and at a minimum expense if the owners would only take advantage of the natural means at their command.

On the farm of Martin Capper, in Cloud County, Kansas, is such a system. The farm home of Mr. Capper lies in a draw and in the bank on one side of the draw above the barn and barn lot he made a large concrete reservoir. This reservoir is pear-shaped and is almost entirely under ground. It has a rounded bottom and draws in at the top providing an opening large enough for a good-sized manhole.

A single pipe connects the well, tank and house. The pump forces the water through the same pipe that supplies the house and other tanks. An average sized steel tank provides water for the cattle and horses. Barrels sunk into the ground supply water for the hogs. No water is wasted, as the level of the water in all the tanks is controlled by floats, thus requiring practically no attention. Either faucets or floats, however, may be used.

The water is supplied from a well by a windmill. One does not have to be watching continually for fear that the tank will run over. This system has been in use more than ten years and Mr. Capper has never yet been out of water.

Three hundred and fifty feet of 1¼-inch pipe were used for the main line and forty feet of one-inch pipe for the barrels and tanks.

The main line should not be less than 1¼-inch pipe. When this system was installed, the one-inch pipe cost 10 cents a foot and the 1¼-inch pipe cost 12½ cents a foot. One float costing $1.25 and another costing 50 cents was used together with one check costing 75 cents, one stop-cock at $1.25, eight lock nuts at 5 cents each, 350 brick at 80 cents a hundred, and twelve sacks of cement

The labor on the reservoir represents eight days work for one man—the ditch digging, pipe laying and filling, fifteen days. All this work was done by unskilled labor except the plastering of the reservoir, which cost $6. The ditch was three and a half feet deep.

Not a single cent has been spent for repairs since this system was first installed. Plenty of water is supplied for house use, for twelve head of horses, forty head of cattle, and seventy-five head of hogs.

Such a system can be installed on any farm where there is some higher ground near the farmstead. It requires practically no care and provides a sure supply of water for all purposes.—FERRU RAY.

Repairing Electric Light

The new types of electric light bulbs can often be repaired when the tungsten filament has been broken. To do this, the lamp should be in a socket attached to a cord so it can be turned in various positions, and the current should be on. Move the lamp quickly sideways so as to throw the longer portion of the broken filament over against its neighbor. When such a contact is made the lamp will light, and due to the intense heating at the point of contact, the filament will be so softened that it will weld to the filament with which it is in contact. Occasionally a lamp may be repaired several times in this way before it fails entirely. This cannot be done with the old style carbon lamp.

A most valuable book for the tractor operator is the new treatise on internal combustion engines and tractors which has just been published by the International Harvester Company. This book takes up the development, design, construction, function, and maintenance of engines and tractors. It contains 160 pages, and is chock full of information that we know will make every man who reads it a much better tractor operator. A copy may be had by addressing the International Harvester Company of America, Chicago, Illinois. If you haven't your copy, write for it today. Distribution is free.

War Tax on Automobiles

The Ways and Means Committee of the Treasury Department is favoring a war tax of 10 per cent on all passenger automobiles. The Treasury Department's suggestions for the retail sales taxation of cars were as follows:

Twenty per cent on passenger cars.
Twenty per cent on trailers.
Twenty per cent on truck units.
Twenty per cent on motorcycles.
Twenty per cent on tires for automobiles, motorcycles and bicycles.

Its recommendations for a license tax were: Twenty-three horsepower or less, $15; twenty-four to thirty horsepower, $25; thirty-one to forty horsepower, $40; over forty horsepower, $50.

Much difference of opinion exists over the proposed 10 cents a gallon tax on gasoline, but the majority seem of the opinion that such an action would seriously hamper food production, transportation, and other lines in which gasoline is used for utilitarian purposes, and it is felt that a plan for taxing gasoline used for pleasure purposes only would be practically impossible.

Licutenant Mittaine and M. Chace, from Paris, representing the French Highway Commission, were in attendance at the Salina Tractor Demonstration last week. At the Fremont Demonstration last year the French Government bought three thousand tractors. It is estimated that from three to five thousand will be purchased this year, the total expenditure amounting to over five million dollars.

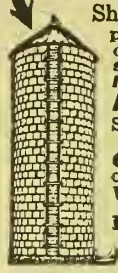
It is vain to ask how long the war will last, for such questioning tempts us to guess, and when we go to guessing our self-interest causes us to guess the best and so to take some chance in effort or sacrifice. All that we know is that we must win.—Clarence Ousley, Assistant Secretary of Agriculture.

AMERICAN TILE SILOS

Add 40-Acres Year 'Round June Pasture to Your Farm for Less Than 1-10 the Cost of the Land.

THE proof of durability is the test of years. Although the ***American Tile Silo*** is guaranteed against cyclones and thousands have been erected, every one is standing and in use today.

Iowa State Council of National Defense, says
As a means to the increased conservation of feed and labor and increased production of meat and milk products, the Government is now urging through its official representatives, the purchase and use of silos.



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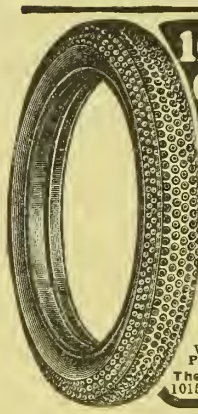

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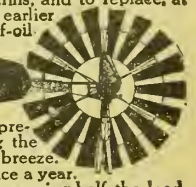
THE SELF-OILING WINDMILL

has become so popular in its first three years that thousands have been called for to replace, on their old towers, other makes of mills, and to replace, at small cost, the gearing of the earlier Aermotors, making them self-oiling. Its enclosed motor keeps in the oil and keeps out dust and rain. The Splash Oiling System constantly floods every bearing with oil preventing wear and enabling the mill to pump in the lightest breeze. The oil supply is renewed once a year. Double Gears are used, each carrying half the load.



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U. S. Food Administration.

Ol' Squire 'Tater 'low he goin' to be mighty nigh king er de roos' 'mong garden sass folks. We alls kin eat him as a 'tater boiled, baked, fried, stewed, cooked wid cheese en dey gettin' so dey make im inter flour; so's we kin "substi-tute" him fo' wheat flour. He's de "substitutenest" of all de vittles, he sez.

De udder garden sass folks lak inguns, tomatues, cabbage en turnips en squash don't need to git peeved, 'cause dey's goin' to be room in de pot fo' de whole tribe. Ev'y las' one on 'em can he'p save wheat en meat fer de boys dat's doin' de fightin' over yander.

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Established by First State Board of Agriculture, 1863

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Oldest Agricultural Publication in Kansas

A Silo on Every Farm

NEVER before in the history of our state has the silo been so important a factor in helping to solve the feed problem. Last year in carefully conducted tests silage returned a value of seven or eight dollars a ton. It will be worth more this year. Feed prices will be even higher than a year ago. The alfalfa crop is short and will sell for prohibitive prices. Straw and silage will of necessity be the mainstay on many a farm where live stock is kept.

Extreme heat and lack of moisture have prematurely harvested many a promising field of corn. Fortunate is the man equipped with a silo to save the partly-grown crop. It may seem to have little value, but left in the field it becomes a total loss. Stored in the silo its maximum value can be realized and a real profit obtained from the feed value that has been produced. In a year like the present one we cannot afford to waste an ounce of nutrient material. The more your crop is damaged, the more you need a silo.

The kafir and cane, our great drouth-resistant crops, are still green, although seriously retarded in growth and development. These crops have from six to eight weeks in which to grow and will furnish additional feed value for preserving in the silo. It has been conclusively proven over and over again that the silo increases the live stock capacity of a farm at least a third. With the prospect of a short forage crop, the silo offers the only means of stretching it to the utmost and saving the live stock farmer from serious disaster.

G. C. Wheeler.

CAN YOU BUY MILL FEED?

Some of the county agricultural agents in attendance at the conference in Manhattan last week reported that farmers in their home counties could not buy shorts at their local mills or feed stores. From what these men had to say, this seemed to constitute quite a serious problem. It would seem that Kansas with its large production of wheat should be able to get the first chance at the mill by-products. Prices on flour and mill feeds are now definitely fixed by the Grain Corporation so dealers cannot take advantage of the situation, as they did last year. The bulk price of shorts at the mills in car lots has been fixed at $24.26 a ton at Kansas City, and $21.45 at Wichita. Every mill now has its "fair price" schedule, and cannot sell at higher prices. Of course there are a number of items that must be allowed in the handling of feed, among them being a charge for sacking, which now amounts to from $5.50 to $6 a ton.

The point raised by the county agents seemed to be that mills simply refused to sell feeds because they did not have a sufficient surplus to supply the dealers to whom they sold flour and in addition sell feed to near-by stockmen who might wish to purchase. The Food Administration has urged that farmers buy and store mill feeds early, thus avoiding the difficulty which may arise later in the season of getting feeds. If the system mills have of shipping feed out with flour is debarring live-stock men right in the wheat-producing territory from getting mill feed, something should be done that will bring relief. It should not be possible to ship mill feed out of a locality to the extent of compelling the men having stock to feed to go without or be forced to sacrifice the stock.

We would like to hear from those of our readers who have had trouble in buying shorts or bran. Please give all the essential facts, including names of dealers or millers who have refused to sell feed and reasons for refusal if any have been given. Corn is likely to be scarce in Kansas this year and hogmen must depend upon shorts more largely than is necessary when there is plenty of corn. It would be poor policy to ship all the shorts out when it is needed for feed right at home.

SEED WHEAT MEETINGS

Meetings to discuss the details of the seed grain loans will be held as follows: At Santa Fe and Dighton, August 24; at Kinsley, Beloit, Hill City, and Gove, August 26; at Osborne, Stockton, Wakeeney and Meade, August 27, and at Minneapolis and Lincoln August 28. These meetings will all be attended by men thoroughly familiar with the plans for handling the federal loans to farmers whose credit is exhausted.

As announced last week, Leon M. Estabrook, chief of the Bureau of Statistics of the United States Department of Agriculture, has established headquarters in Wichita and will represent the Department in handling the seed wheat loans in the Southwest. At the county agent conference held in Manhattan last week Mr. Estabrook conferred with the men in attendance and it has been announced that a committee appointed by the county agricultural agent will inspect the applicant's farm and certify as to the veracity of the statements made. After being properly indorsed, the application will be forwarded to Mr. Estabrook at Wichita for his approval.

As we pointed out when the announcement was first made that the five million dollars had been set aside by the President from his special appropriation made for the National Security and Defense, planting time is so near that details of making the loans and getting the seed must be worked out as rapidly as possible. A certain amount of red tape is unavoidable. This would not be so serious a matter if the banks had any funds available to help out temporarily until the federal loans could be made. The re-deposit in local banks of the federal money has been urged upon the Washington authorities, and this would take care of the situation, but the fact that few of the Western Kansas banks are eligible to membership in the Federal Guarantee System complicates the problem. The funds of the small state banks are amply protected by the state guarantee system and it seems that a way should be found for letting them handle the federal money.

The meetings referred to above are for the purpose of explaining fully to the men desiring aid the details of the plan, and while no announcement has been made to that effect, we assume that something will be done along the line of getting the needed seed. We would urge that all interested parties make an effort to attend the meetings.

We are wondering how many candidates nominated at our primaries have pledged themselves, either directly or by inference, to do the bidding of the Non-Partisan League leaders. Exacting such pledges from candidates is one of the methods of this organization, its support being promised at the polls to those willing to agree to do its bidding. We would urge that every candidate for public office in Kansas be forced to go on record between now and election day as to his attitude on this League movement. We learned of one instance of a candidate for the State Legislature being smoked out in advance of the primary and being made to admit before a meeting of his constituents that he was a member of the League. The sentiment in this district seemed to be opposed to placing a pledged candidate of the League in power, for from a reasonable assurance of the nomination this candidate lost, the vote being 1,024 to 736. This particular county was not openly organized by the League, yet it had been able to get a candidate for the Legislature lined up, and but for the forced declaration he probably would have been nominated.

NEXT YEAR'S WHEAT PRICE

Since we are committed to a policy of having a fixed guaranteed price for wheat, there is every reason for insisting that a definite announcement be made at once covering the crop of 1919. It has been rumored that the President would soon issue a proclamation on wheat prices for next year and that it would be along the line of the 1918 guarantee.

A great many farmers, under the stimulus of patriotic motives and a guaranteed price, have attempted to grow wheat in regions where there is a great element of risk. Failure has resulted in a good many cases, but still there is need for maximum production. In all sections production costs have increased. A fair price in 1917 cannot be accepted as a fair price for the 1919 crop. During the crop season of 1917 farm labor cost $35 to $45 a month with board. Twine cost 14 to 22 cents a pound, and threshing from 6 to 12 cents a bushel, depending on the size of the crew furnished and the yields. Labor is now costing from $45 to $65 a month, twine 22 to 27 cents a pound, and threshing 9 to 16 cents a bushel. Due to labor shortage, sharpening of plow shares and other necessary repair work has practically doubled in cost.

The man who would produce wheat in 1919 cannot avoid the increased items in the cost of production. The farm advisory commission of twenty-five members appointed by the President to give advice on problems of agricultural production recommended that a price of $2.40 be established for the 1919 crop, and through the increases in freight rates this would be advanced to $2.46. The Kansas Council of Defense at its recent meeting in Topeka requested the President to declare a price on the 1919 crop as soon as possible and urged that it be made 10 per cent higher than the price on the present crop. It was the sentiment of the council that production costs had advanced more than 10 per cent.

We cannot avoid the conclusion that if the present price was fair when fixed it would not be fair for next year's crop. The acreage planted will be influenced by a knowledge of what the price is to be for the crop next year. The President should not delay in making public his decision on this point.

COST OF FARM MACHINERY

Machinery prices have greatly advanced during the past few years. These advances have been a considerable factor in the increased cost of producing farm crops. Organized producers have been insisting that some effort be made to determine the cost of producing and handling farm equipment. This point came up for consideration when our agricultural advisory committee was meeting in Washington for the purpose of making various recommendations to the Department of Agriculture.

After discussing the prevalent prices of farm machinery and the advances made during the past three years, the committee passed a resolution asking for an investigation at the earliest possible date into the cost of manufacturing farm implements and asked that the industry be required to operate on a basis of cost plus a reasonable profit.

This demand is a fair one to make. If advances have been justifiable, manufacturers have nothing to fear from such an investigation. In fact it is to their advantage to have purchasers of farm equipment know the exact conditions under which they are operating. If unwarrantable advantage has been taken of war conditions, users of farm machinery have a just claim and one which should by all means be investigated.

COUNTY AGENT MEETING

Last week we visited our Agricultural College and attended a session of the county agricultural agent conference. There are now forty-nine of these men at work in Kansas, twenty-nine being agents employed by counties having definitely organized farm bureaus, and the remainder emergency agents and district agents serving groups of counties.

Listening to the discussions of these men representing various sections of the state further impressed us with the value of the work they are doing. A conference such as they were having made each man more valuable to the community or county he is serving. Specialists along a number of important lines were present to help the men with their problems and enable them to take home the very latest information on the points farmers are asking questions about.

We trust no one will be so thoughtless or short-sighted as to intimate that these men are not doing an essential war work. General Crowder, upon whom falls the burden of planning for the raising of our army for overseas service, endorses the extension work of the Department of Agriculture, stating in a recent telegram to draft officials that it is difficult to secure the right kind of men for this service since institutions have not been training men long enough to permit the Department to man the force entirely by men over draft age.

HOLD FAST

The inspiring message of Lloyd George to the British people on the fourth anniversary of Britain's entry into the world war is a message to all who are fighting to rid the world of that for which Prussianism stands. "Hold fast," said England's premier. "Throwing aside the last mask of moderation, Germany partitioned Russia, enslaved Roumania, and attempted to seize supreme power by overthrowing the Allies in a final and desperate attack. Thanks to the invincible bravery of all the allied armies, it is now evident to all that this dream of universal conquest, for the sake of which they wantonly prolonged the war, can never be fulfilled. But the battle is not yet won. The great autocracy of Prussia will still endeavor, by violence or guile, to avoid defeat, and so give militarism a new lease of life. We cannot seek to escape the horrors of war for ourselves by laying them up for our children. Having set our hands to the task, we must see it through until a just and lasting settlement is achieved. In no other way can we insure a world set free from war. Hold fast!"

This is a good motto for us to adopt, both as a nation and as individuals, as we set ourselves sternly to the task of winning in this, the biggest fight in the world's history and for the greatest cause.

Every pound of sugar means cargo space, and cargo space is precious now.

FEEDING SHEEP IN CORNFIELDS

Large Amount of Forage Will Be Saved by Field Feeding.



WESTERN LAMBS CLEANING UP A CORNFIELD.—A MEANS OF CONVERTING A LARGE AMOUNT OF WASTE VEGETATION INTO MEAT

THE practice of "sheeping down" corn saves labor, but what is of most value, it furnishes a market for a large amount of green feed that would otherwise be wasted. Grass and weeds of all kinds are eaten by the sheep in cleaning up cornfields. In fact, lambs almost have to be taught to eat the corn. "Success in 'sheeping down' corn depends on the preparation that is made for feed and care, on discrimination in purchasing the sheep, and on the way in which they are managed," says W. C. Coffey, professor of sheep husbandry at the Illinois University. In what follows we draw on a pamphlet on this method of feeding sheep prepared by Professor Coffey.

Clean Up Farm

The sheep should be encouraged to consume all the green forage of the farm, weeds and grass included. Any palatable pasture or forage grown alongside or near by the corn not only constitutes feed with fattening power but also helps in keeping the sheep from over-feeding on corn by furnishing them more roughage and by drawing them out of the cornfield for a part of the time. By adding to the variety of available feed, it also stimulates the appetite. Bluegrass and timothy pastures are excellent supplements to cornfields and they are first class as places for sheep to rest and sleep. Of the forages which appropriately come in rotation systems involving corn, the clovers are the best, and for fall grazing mammoth is perhaps better than red clover. Sweet clover sown in oats will produce a considerable amount of feed by fall. Alfalfa is good forage, but its tendency to cause bloat makes its use questionable.

The aftermath of weeds and green plants from fallen grain in oats and barley stubble is fairly good feed.

Provision should be made for roughage to fall back on when there is not enough rough feed in the fields to keep the animals from eating too much corn. Legume hays, such as alfalfa, clover, and soybeans, are the best, but oat and wheat straw, corn stover, and corn silage can be used.

Sheep soaked by cold rains do not gain as fast as they should. They do better if they have a dry place in which to sleep, even though they have to be in the rain through the day. Occasionally the weather is so bad that they should not be forced to go to the fields, but should be fed under shelter or in nearby lots. Inexpensive open sheds, preferably facing the south, are quite satisfactory. In fact, they are better than inclosed barns, which as a rule are hard to ventilate properly.

Enough light, portable, flat-bottomed troughs to accommodate from one-half to two-thirds of the animals at one time are needed at the sheds in storm periods for grain and often in the fields for various supplements to the corn. Plain box-type, portable racks sufficient in number to permit at least half of the animals to feed from them at one time should be provided. The trough and rack space required by one sheep ranges from ten to fourteen inches.

Fencing of Fields

After most of the forage is eaten out of the corn, the sheep should not be allowed to run over the entire field; for they "muss" over and waste the corn when the range is too large. They can be confined to restricted areas with light, twenty-six inch woven wire tied to standing stalks in a row of corn. It is easier to set up the fence if a row of corn is cut off to make room for rolling out the wire, and the ears should be cut off the row to which the fence is tied in order to keep the sheep from "riding" the stalks down.

The feeder should provide a means for keeping clean, wholesome water easily accessible to the sheep at all times. When there is an abundance of succulent forage heavily covered with dew, sheep do not drink much water, but at other times they require it and it is fundamental to the fattening process.

Salt placed where the sheep may have it when they want it is also essential. The market shortage in 1917 caused some feeders to be without salt, a condition which should be guarded against in the future by providing for it in time.

Purchasing Feeders

The axiom, "well bought is half sold," holds good in buying sheep for feeding in corn. This applies to both the price paid and the kind of sheep secured.

Lambs greatly outnumber all other classes of feeders and hence they form the bulk of the feeders used in the cornfield. During the past two years ewes have been so much in demand for breeding that those sold as feeders have been too defective in teeth to eat ear-corn well. There are too few yearling wethers for one to count on being able to buy them; besides, some of them are likely to be checked in their consumption of corn by shedding their center pair of teeth. Old wethers are even scarcer than yearlings.

Because most of the feeders used in cornfields are lambs, the remainder of this discussion is made in connection with them, but with few exceptions what is said holds true also for other classes of feeder sheep.

For field feeding, thrift is the most important thing to secure in feeder lambs. It is not easy definitely to determine by a casual inspection in the stockyards whether or not a certain lot of lambs is unthrifty. Healthy lambs that have just passed through an unusually long, hard trip, may be tired and so weakened by hunger that they will seem very unthrifty. Barring such exceptions, thrifty lambs carry their heads well up and their ears alert. Their backs are almost level, and they are not tucked up at the rear flanks. Their eyes are bright and they walk with a deliberate, firm, measured step. Usually their skins are clean and pink and their wool slightly moist or oily to the touch.

Western Sheep Preferable

If the purchase is made on the open market, western lambs should be selected, for thin native lambs are so frequently unthrifty that they should not be used unless it is known that their thin condition is due solely to lack of feed.

In addition to being thrifty, a choice lamb for the cornfield should be smooth in pelt, rugged but not coarse in build, and covered with close, compact wool, similar to that of the Down mutton breeds. As between lambs having loose, shaggy wool and those having close, dense, Merino-like wool, the latter are better, as such fleeces more effectively protect the skin from rain.

No one breed or cross can be said to be superior to any other. Pure Merino lambs do not gain as fast and are heavier in pelt than lambs produced as most feeder lambs are, by crossing mutton rams on grade range Merino ewes.

In weight, fifty-five to sixty-pound lambs are the most satisfactory; and in condition they should be almost on the border line between muttons and feeders. Such lambs usually feed well and they finish at desirable weights; namely, seventy-five to eighty pounds.

After having decided to buy a certain lot of lambs, it is important to get a good sort or the privilege of rejecting all undesirables, such as unthrifty lambs, ram lambs, and cripples. As a rule, the larger the number bought, the greater the privilege given in sorting; hence it may be advisable for several farmers to co-operate in buying. It pays to throw out the undesirables even if more per hundredweight must be given for the purchase.

Dipping for Ticks

Before the lambs leave the yards, they should be dipped if ticks or lice can be found on them. Sheep having scab mites are taken in charge by the Bureau of Animal Industry. Lice seldom infect them, but ticks are of very common occurrence.

Unless the purchaser orders otherwise, his lambs are likely to be loaded on cars the same day they are dipped. This should not be done, for besides being soaking wet, they are more or less exhausted from having been passed through the dip. If they are placed in the cars at once and shipped, the cold night air fanning about them is almost sure to develop severe colds and pneumonia, which will result in losses by death. It is better to leave them in the yards over night, give them water and hay, and let them become rested and almost dry before shipping them.

In driving feeder lambs from the railway station to the farm, they should be allowed to scatter out and graze along the roadside. By getting a bite here and there they do not gorge themselves sufficiently to cause digestive disorders and perhaps death. Upon arriving at the farm they should be placed in a dry lot over night and fed good hay, such as clover or alfalfa. Their thirst should be satisfied gradually, and it is well not to give them water at all until they are partially filled with hay. Salt should not be given at first, but the amount should be gradually increased so that in a few days the lambs may have it whenever they want it.

Starting on Feed

In the morning following their first night at the farm, the lambs should be given all the hay they will eat. Then after the dew is off the grass they should be driven to the fields to graze. After they have been out two to four hours they should be driven back to the lots and given hay. The object in this kind of handling is to get the lambs to feeding on forage without causing scours or other digestive disturbances. After the second day some successful feeders would give the lambs a free run on the green feed, while others would take as much as ten days to get them accustomed to it.

Less time is required if sufficient pasture, such as bluegrass, timothy, or clover, is available alongside the corn to induce the lambs to stay on it most of the time during the first week. But if the feeder has little or no pasture and a large area of corn in which rape and soybeans are growing, the problem is different. In cases of this sort, a week to ten days must elapse before it is safe to let the lambs get all their feed in the cornfield, and so long as there is a heavy growth of rape and beans they should be kept out of the corn at night and in the morning until most of the dew has dried off. Feeding on the wet rape is especially likely to cause digestive troubles, such as scours and bloat. During early fall the lot used as night quarters is more convenient if located in the cornfield, for the manure is retained in the field and little driving is necessary to corral the lambs. The lot can be easily constructed with woven wire.

Various Considerations in Feeding

The length of the feeding period in sheeping down corn varies approximately from sixty to ninety days, and the amount of gain produced should be from fifteen to twenty-five pounds, based on market weights. The lambs each eat about a pound and a half of good corn daily after they have become accustomed to it, and the total amount required per head ranges from 1.75 to 2.25 bushels. The total amount that each will consume depends in part on the supplementary feed available. As already stated, this type of feeding requires that green feed be grown not only in the corn but also in the fields near by. There are feeders, however, who undertake to sheep down corn with very little supplementary feed. They use more corn than do those feeders who have plenty of forage and pasture, and their task is more difficult.

Feeders who have a considerable amount of forage and pasture prefer to get their lambs about the middle of September. So long as the supply of forage is abundant, the feeding process is comparatively simple after the lambs have become accustomed to the feed. But in all cases it pays to give them careful attention. A thousand or more lambs require the time of a good man through most of the feeding period. By saving a few lambs each month he earns his wages, and the additional gains resulting from his attention make his services a profitable investment.

Use Plenty of Roughage

Lambs feeding in corn should never be short on roughage. After most of the rape, soybeans, and the forage and pasture outside of the cornfield have been cleaned up, the lambs take to the corn for the bulk of their feed. As a result, they are likely to require more corn for a given amount of gain, but worse still, deaths are likely to occur from eating too much corn. It is at this time that the lambs should be confined to limited areas in the corn and given dry roughage. Clover and alfalfa hay are the best roughages, but oat and

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FOOD PROGRAM FOR NEXT YEAR

Farmers Must Be Recognized as Partners in Winning War

From Address by Gifford Pinchot, Published in Annals of the American Academy of Political and Social Science

"The amount of food available can be increased by producing more or by using less. Nine-tenths of our attention in the United States seems to have been given to saving what we had instead of to the vastly more fundamental question of producing more. * * *

"Increase of crop production is mainly a question of dealing with men. To secure a larger crop is a matter of getting the farmers to produce more, and in order to do that we must deal with them as they are, and take measures such as will fit their circumstances, meet with their approval, and therefore produce results."

ONE of the main difficulties in our food situation has been that the officials in control have not understood the farmer. We have had the city man's point of view in control of the food question, and not the point of view of the man who produces the food. But the farmer is the man who grows the crop, and to get him to increase his crop you must reach his heart and his mind. But he cannot be reached along the lines that appeal to the banker, or the merchant, or the bricklayer, or the hand in a factory, but only along lines that fit in with the ways of thinking and living of the man who actually walks in the furrow and milks the cow. And that has not been done.

I am not going into the question of the mistakes that have been made. We are at war, and the past is valuable mainly as a warning. The thing to be done now is to provide for the next crop, leaving the story of what has already happened to be written afterward. When that story is told, the facts concerning the relation of our Government to the farmers during our first year in the war will make the story of our blunders in aircraft production look small in comparison. If our farmers, in spite of the failure of the Government in organization and understanding, in spite of the lack of labor, credit, and supplies, still increase or maintain the crop production of last year, it will be an achievement far beyond all praise, and it will have saved the nation from losing the war.

The farmer is a member of a highly skilled profession. There is no other man who works for as small a wage who is as skilled a worker as the farmer, and there is no other man who requires as large a field of knowledge to be successful with the work he does. In talking recently to a body of farmers, I assumed that it takes about three years to make a skilled farm hand. Immediately a gray-haired man in the audience spoke up and said, "Ten." To make a farmer capable of directing the work of a farm of course takes very much longer. All this is not generally understood in town. I had occasion, the other day, to tell an energetic, robust, and intelligent city man that he could not earn his keep on a farm. He was inclined to be hurt, and was very much surprised. "Why," said he, "I supposed anybody could work on a farm." Said I, "A farmer wouldn't have you on his place," and it was true.

A farmer is not only a member of a highly specialized profession — we must remember that he is also a business man in a business which involves taking larger risks than almost any other business. In addition to all the ordinary chances of business, he is subject to the weather to a degree that is otherwise practically unknown. More than that, he has his own way of thinking, and having reached a decision he is slower to change than the city man. Our city people are inclined to look down on the farmer. They sometimes think of him as being different from them, and therefore inferior. But this is very far from true.

When all is said and done the man who owns the land from which he makes his living is the backbone of the country. Furthermore, with his family he makes up one-third of the population. Even from the point of view of organization he is not to be despised, for our organized farmers are more in number than the whole membership of the American Federation of Labor.

The demands which will be made upon us for food in 1919 and 1920 will be enormous, and they will be made absolutely irrespective of whether the war ends or not. When victory comes we shall have more, and not less, people to feed than before, for the demands of half-starved Germany and Austria will be added. The ending of the war will produce no more food and no more ships. It will not bring the wheat of India or Argentina or Australia a mile nearer to London or Berlin. The demand on us in 1919 will be colossal whether the war ends or not.

What then must be done to reach the farmer, supply his indispensable needs, and make it possible for him to produce in 1919, when he would like to produce what the nation and the world vitally needs that he should produce, but what the bungling of men in high places bids fair to keep him from being able to produce this year?

First, wipe out the distinction which has been held, and most harmfully held, between the production of food and the use of food. Our conservation measures have been directed upon the theory that the production of food was unchangeable, like the tides or the coming of day and night, and that nothing that was done with the food after it was grown could increase or decrease the growing of food. That theory is wholly mistaken. Very much to the contrary, everything that is done to conserve food, to regulate price, to restrict use, to promote saving, has its direct effect on production. Food is a commodity, and the law of supply and demand, when not repealed by monopoly, applies to food as it does to any other commodity. Conservation measures affect demand. Therefore they must influence supply, or production also. The farmer determines what he is going to grow next year, subject to the demands of his rotation, by the success he has had with the things he grew last year. He is in business to make money. Therefore, he will grow most of what pays best, and he cannot do otherwise.

Take the matter of milk, for example. Whatever reduces the consumption of milk tends to result in less milk for those who need it instead of more. The farmer must milk his cow daily. If, because of any "Save the Milk" campaign, the demand for his milk is cut off, in self defense he must cut off the supply. He cannot produce milk at a loss. He cannot turn a tap and hold his milk for a later market. So he reduces supply to the level of demand by selling the cow to the butcher. But if the demand increases at a living price, he will keep his cow and raise more. The more consumption of milk is stimulated, the greater will production be, and the more consumption is reduced, the less the supply of this best and cheapest of animal foods for all of us. A "Save the Milk" campaign is a blunder into which only a city mind could fall.

Chickens, potatoes, veal, lamb, and other produce might likewise be cited to show how the conservation of a farm product has an immediate and direct influence on the production of it, and how wise and skillful a hand is needed to deal successfully with the amazingly sensitive and pervasive relation between agricultural production and the conservation of agricultural products.

The first thing to be done in preparing for a crop in 1919 large enough to meet our foreknown needs is then to wipe out the artificial wall which has been created between food production, which has been assigned to the Department of Agriculture, and food conservation, which the Food Administration supervises and controls. If actual consideration is impracticable, then at least such co-operation should be enforced between them as will effectually prevent the taking of any conservation measure until farm experts have considered and approved it in relation to production.

The second thing is to see that the farmer has the means with which to produce. Of these, the most important is labor. Man power in agriculture has exactly the same value as man power in war. Since neither high school boys, nor failures from the slums, nor casuals from the streets, nor women on vacation can supply the year-long need of the American farmer for skilled labor, since even before the war began farm labor was probably 10 per cent short, since more than a quarter of our National Army is composed of skilled farm workers, and since it is not easy to grow more crops with less men, the labor situation is critical.

Normally, there is about one farm laborer to every two farms in the United States. We cannot feed our people and our Allies without the farmer's hired man, but farm help is hard to find and hard to hold. As a rule, the farm laborer has small pay, long hours, complicated tools, and, therefore, the necessity for very high skill in handling them. He does a great many different things, and he must do them with skill or not at all. Then he is often quite isolated; he suffers from exposure to heat and cold; he has no holidays and very few pleasures; and he can get better pay and easier hours elsewhere. It must be made worth while for farm hands to work on the farm.

The Government must give the farmer reasonable confidence that in 1919 he will have labor, that he will have seed, fertilizer, farm implements, and credit —all upon terms that will enable him to produce without loss. There is nothing so destructive of business enterprise as the lack of confidence, and the American farmer has not had confidence this year. It was his patriotism, and nothing else, which led him to plant forty-two million acres of winter wheat.

The farmer knows as well as any one that the price of $2.20 a bushel for wheat was not fixed in order to guarantee him a high price. It was fixed in order to guarantee the city consumer against a higher price. The $2.20 limit was not an effort to keep the price of wheat up, but a successful effort to keep the price of wheat down. Price fixing of that kind does two things—it discourages production, and it increases consumption—and these are just the two things that, in the face of a scarcity, we cannot afford to have done. I have no doubt that our acreage of winter wheat this year would have been as large as the Department of Agriculture asked for, if it had not been for the knowledge of the farmers that the price they were getting was being held down by artificial restriction when the prices they were paying were rising at pleasure. As it was, the area planted to winter wheat, while very slightly larger than for 1914, was no less than five million acres smaller than the Department of Agriculture indicated as being necessary to meet the needs of this country and of our Allies. That is the essential figure—five million acres less than the Department of Agriculture asked for. Comparisons with normal times are meaningless or misleading now. The true standard of judgment is what we need now to win the war, not what we used to need in peace.

The farmers raised a great crop last year, at the urging of the Government. Many of them lost by their patriotic effort because the marketing facilities were not properly organized. Men who even sent their wives and daughters into the fields found themselves at the end of the season very much out of pocket. The point is not so much that they lost money, but that they cannot lose money and go on farming. The average farmer in this country gets only about $400 cash a year. He cannot keep on farming if he loses many acres of potatoes, as many and many a farmer did in Pennsylvania and other states, when it costs him $90 an acre to put those potatoes in.

The farmer sees that nearly every other producer of the things essential for carrying on the war is assured of a profit. He reads that at Hog Island the Government is furnishing money, putting up houses, finding labor, and then guaranteeing a definite percentage of return to the men who undertake the work. He reads of the same thing in other war industries. He has heard that the Government is going to put billions of dollars into such industries at huge aggregate profits to their promoters. He does not want huge profits himself—well he knows he will not get them—but he does want reasonable business security, and it is fair and right that he should have it. At present it is denied to him, and to him almost alone.

Finally—and this, I think, is the most essential need in the whole situation—the farmer must be taken into partnership in the handling of the war. So far as I know there has not been a representative of organized farmers in any position of high responsibility in any organization in Washington charged with the conduct of the war. A third of the people of the United States, who have been producing food, the admitted first essential for the successful conduct of the war, have been denied a voice in dealing with the great questions, even the farm questions, which concern the war. It does not amount to representation for a third of the people of this country to occasionally call a few farmers to Washington for a few days, there to tell them what has been done and secure their approval.

The treatment of the organized farmers may well be contrasted with the proper recognition that has been given to organized labor. A special branch of the Council of National Defense was established to represent it, and organized labor has from the beginning been properly recognized and continuously called into consultation. All I ask is that the enormous body of organized farmers, representing the largest single element among our people, supplying a more essential ingredient for the success of the war than any other, should themselves have that proper organization, which is admittedly proper in the case of organized workers off the farm, and certainly is no less proper in the case of organized workers on the farm.

The farmer feels deeply that he has been left out. Again and again, through the Federal Board of Farm Organizations, he has offered his services; again and again he has asked for a working partnership in the war; urgently and repeatedly he has called attention to his lack of necessities without which it would be impossible for him to carry out as fully as he would like to do the duty which the war has imposed upon him. Grudging and merely ostensible recognition, and officially inspired reproof have been substantially the only results. Now is the time, well in advance of the crop of 1919, to call the producers of this country into consultation, to see to it that the farmer's point of view is fairly represented in dealing with farm questions, that matters which are within the knowledge and the competence of this highly trained class of men should no longer be dealt with as they have been dealt with hitherto—almost purely from the point of view of men who were ignorant of the farmer's mind, and apparently altogether out of touch with the conditions under which the farmer does his work.

The one thing most needful in order to secure for the world in 1919 a crop equal to the need we know is coming, is to make the farmers of the United States cease to feel that they are outsiders in the war, exhorted and preached at by men who do not understand them, and to take them into a really effective and equal working partnership, and to see that they are recognized as partners on that basis in the winning of this war for human liberty.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

THE world faces a live-stock famine of such magnitude that you and I simply cannot comprehend it," says the secretary of the Kansas State Fair to be held in Hutchinson September 14 to 21. "Where are the hundreds of millions in war-torn Europe and Asia to get meat to eat? Where are they to get horses and cattle to till the soil aud help harvest the crops?

"The duty of America is plain — we must all help plug that gap by getting into the live-stock business more deeply ourselves. That is why we are offering such big cash premiums for the best stock exhibited this year — it's merely our way of getting everyone more interested in live-stock raising."

Enormous Wheat Saving

Food products to a total value of $1,400,000,000 were supplied by our Food Administration to the allied countries during the fiscal year just closed. This includes all the shipments to allied countries for their armies as well as our own, the civilian population, the Belgian relief, and the Red Cross. These enormous figures measure the effort of the American people to supply the Allies the food they need. The total shipments to the allied countries from our last harvest of wheat would be about 141 million bushels, which with rye and the wheat of the 1917 crop now in ports en route to allied destinations, makes a total of 154,900,000 bushels of breadstuffs. In addition we have shipped ten million bushels to neutrals.

In his letter to the President, Mr. Hoover points out that it is interesting to note that since the urgent request of the allied food controllers early in the year for a further shipment of 75,000,000 bushels from our 1917 wheat than originally planned, we shall have shipped to Europe, or have en route, nearly 85,000,000 bushels. At the time of this request our surplus was already more than exhausted. This accomplishment of our people in this matter stands out even more clearly if we hear in mind that we had available in the fiscal year 1916-17 from net carry-over and as surplus over our normal consumption about 200,000,000 bushels of wheat which we were able to export that year without trenching on our home loaf. This last year, however, owing to the large failure of the 1917 wheat crop, we had available from net carry-over and production and imports, only just about our normal consumption. Therefore our wheat shipments to allied destinations represent approximately savings from our own wheat bread.

"These figures, however," says Mr. Hoover, "do not fully convey the volume of the effort and sacrifice made during the past year by the whole American people. Despite the magnificent effort of our agricultural population in planting a much increased acreage in 1917, not only was there a very large failure in wheat but also the corn failed to mature properly and our corn is our dominant crop. We calculate that the total nutritional production of the country for the fiscal year just closed was between 7 per cent and 9 per cent below the average of the three previous years, our nutritional surplus for export in those years heing about the same amount as the shrinkage last year. Therefore the consumption and waste in food have been greatly reduced in every direction during the year.

"I am sure that all the millions of our people, agricultural as well as urban, who have contributed to these results should feel a very definite satisfaction that in a year of universal food shortages in the northern hemisphere all of those people joined together against Germany have come through into sight of the coming harvest not only with health and strength fully maintained, but with only temporary periods of hardship. The European Allies have been compelled to sacrifice more than our own people, but we have not failed to load every steamer since the delays of the storm months last winter. Our contributions to this end could not have been accomplished without effort and sacrifice and it is a matter for further satisfaction that it has been accomplished voluntarily and individually. It is difficult to distinguish between various sections of our people —the homes, public eating places, food trades, urban or agricultural populations —in assessing credit for these results, but no one will deny the dominant part of the American women."

Cane or Corn Silage

A test of the relative feeding value of cane or corn silage was reported recently by I. N. Chapman, county agent of Leavenworth County. The report is in the form of a copy of the records made by Hans Freienmuth. For the ten-day period March 3 to 12 inclusive he fed ten cows alfalfa hay and cane silage. For the ten-day period immediately following he fed the same cows alfalfa and corn silage. The total milk production of the ten cows for the first period was 1,936.6 pounds; for the second period, 2,034.5 pounds, or an average increase per cow of 9.79 pounds. Mr. Chapman is urging the dairymen of that county to keep records of their milk production. It takes a little time each day to weigh the milk, but the keeping of milk and feed records is practically the only basis for cutting out the slacker cows. A KANSAS FARMER reader from Chase County visited us last week, and he tells us that in his herd they have finally settled on a system of weighing the milk every fifth day and calculating the production of the month from these weights. He formerly weighed the milk at every milking, but finds that this method of weighing only every fifth day gives very near the actual amount produced.

The deductions from the comparison made of cane and corn silage are most interesting. It has been thoroughly demonstrated in very carefully conducted experiments that cane silage is practically the equivalent of corn silage. It is necessary, however, to understand the principles underlying the making of good cane silage. The important point to observe is to let the cane get well matured. In tonnage yield it is ahead of corn almost anywhere in Kansas. Two weeks ago we visited a farm in Riley County where a field of cane gave indications at that time of yielding fully twice as much tonnage as corn on the same farm. In fact at that time the corn was badly fired and too far gone to be revived. The cane was green from the ground up, just coming into head, and seemed not to he affected in the least by the extremely dry hot weather.

Fired Corn for Silage

Many are asking about the matter of putting fired corn into the silo. The weather conditions have been such that a great deal of corn that looked very promising a week or two ago is now gone so far as producing grain is concerned. Nearly every year this question comes up.

We are told that corn for silage should be well along towards maturity in order to furnish the largest amount of feeding value. In the growth and development of the plant a large proportion of the nutrient value is stored after the crop to all appearances has made its full growth. Up to this time it has simply been getting ready to store feeding value in the form of grain largely, but in the leaves and other parts of the plant as well.

Under ideal weather conditions, following the advice to wait until the grain is well past the dough stage before cutting for silage is good, but we seldom have such conditions. Corn which is fired and burned beyond recovery before ears have developed quite often can elaborate more nutrient value, and it is usually well to let it go as long as possible, but if the dry, hot weather continues and the crop is drying up and losing its leaves, little is gained by further delay. Prompt harvesting and storing in a silo is the safe means of saving what nutrient value has been produced. If left to stand in the field it will dry up and blow away and the crop will he a total loss.

In making silage, a certain amount of moisture is essential, and if the crop has got so dry that there is not enough natural juice to make it pack in the silo, water must be added. If part of the crop is holding on and remaining green, leave it until the last in filling. Put the dryest and poorest at the bottom of the silo. It will have the weight of the greener and heavier material above to pack it and will make better silage than if left for the top. By all means plan to have a few carloads of heavy green material to finish filling with if possible. Good silage cannot be made of dry fluffy fodder. If such fodder must be used, put it at the bottom and weight it down with heavier silage on top. If the whole crop is burned and dried up before the silo is ready, use plenty of water and tramp it thoroughly.

Kafir and cane can be depended on to furnish heavy silage for the top. These crops hold the juice in the stem, and very good silage is often made of cane or kafir that has been cut and shocked when struck by the frost and then run into the silo later.



Silo for Next Summer

The conditions this season should cause the man milking cows to think most seriously of providing against such serious shortages of feed in the future. By investing in a silo now he can prevent loss of milk next summer through shortage of pastures such as has occurred all this season. It will pay on farms where milk cows are kept to put up an extra silo and fill it this fall, the silage to he saved for feeding next summer. In this way it will be possible to keep up the milk flow throughout the entire season. Without silage it is almost out of the question to do this without feeding heavily on grain.

Conditions such as prevail at the present time always cause a marked decrease in the milk flow of cows depending chiefly on pastures for cheap feed. This loss cannot be recovered by good feeding later in the season. The milk production for each remaining month of the lactation period will be smaller than if no decrease had occurred during the season of dry, short pastures. The only way to prevent this is to supplement the pasture by some succulent feed. About the only satisfactory means of doing this is hy planning to have silage for summer feeding. It is cheaper and requires less lahor than the feeding of soiling crops.

In planning for a summer silo, he sure to have it small enough so that from two to four inches of silage can be fed each day. Silage spoils much more quickly in warm weather. Look ahead and plan for next year's feed for the dairy herd.

Repair Parts for Machinery

Many parts for farm machines might just as well he standardized for the different makes. Both from the standpoint of efficiency in the factory and the convenience of the farm user of the different kinds of machinery, such standardization would he helpful.

In addition to passing on the proposal to eliminate many of the less essential types of machines, the agricultural advisory committee urged in its report that the Department of Agriculture insist on the standardization of parts of farm implements, such as cultivator teeth, mower and harvester guards, mower and harvester sections, threads on bolts, skeins on wagons, surface cultivator knives, and many other parts on which patents have expired. It was the opinion of the committee that this would result in very material economy in every way and increased convenience to the farmer in securing implement parts.

Farm Bureau and Progress

In huilding a substantial structure of agricultural betterment, the farm hureau, which at first the builders rejected, has become the head of the corner, and the county agent, no longer a mere advisor or dispenser of embalmed knowledge, is the recognized local leader of the educational forces, county, state, and national, for the uphuilding of a more prosperous farm business and a more wholesome and satisfactory home and community life.

Making Sorghum Syrup

With a sugar allowance of but four teaspoonfuls daily to each person, "long sweetening," as our forefathers called it, will increase in popularity. In those days granulated sugar was a luxury. Kansas cane or sweet sorghum formerly was used extensively for making syrup. A sorghum syrup mill was to be found in nearly every early-day Kansas community. The art may well be revived to help out our sugar shortage. To assist those who may not have access to

a syrup mill, H. H. Fenton, of the extension division of the Agricultural College, describes a home-made evaporator which anyone can build and use. Of course rollers for squeezing out the juice must be provided. This equipment might be a partnership affair owned by a number of families.

The evaporator is made of one by four-inch material. The box frame is made twenty inches by sixty. Nine partitions fourteen inches long of the same material are spaced five inches apart, these dividing the evaporator into ten compartments. The partitions are fastened alternately to opposite sides of the frame. As they are only fourteen inches long, they lack several inches of reaching across. After the wood part of the frame is nailed together a sheet of galvanized iron twenty-four by sixty-six inches is securely nailed to it, the ends and sides being bent up and firmly nailed in place. This makes a metal pan having the wooden framework as a stiffener. Two U-shaped strapirons are driven eight or ten inches into the ground three feet apart to act as supports. The top bar should be two feet across and the legs three feet long each. When the evaporator is in place upon these supports the fireplace should be provided underneath. This will be most satisfactory if it consists of a brick wall entirely surrounding the supports.

This evaporator will hold eight gallons with the juice two inches thick. It should not be more than two inches thick or the syrup will be dark colored and strong in taste. A hot fire under the whole evaporator is needed. It should be kept hot enough to do the necessary evaporating in about twenty minutes' time. Since it takes about ten gallons of juice to make a gallon of syrup, this means that nine gallons of water must be evaporated for each gallon of syrup drawn from the tenth compartment.

In using the evaporator, start by putting six gallons of water in the pan and then build the fire. When the water begins to boil, commence pouring juice into the first compartment and at the same time dipping water out of the last compartment. In the process of evaporation, the juice passes in a zigzag course from one compartment to the next until it finally reaches the end compartment, where if the fire has been kept up properly it should be sufficiently evaporated. It should be remembered that for every gallon dipped out as syrup at the finishing end, ten gallons of juice must be put in at the other end. When properly handled this will produce three gallons of syrup an hour. A scum will rise in the various compartments. This must be skimmed off clean or a sediment will form which will make the syrup appear dark and dirty.

It is possible to save some labor by placing a bucket with a spigot in its bottom over the front compartment and a spigot in the lower part of the last compartment, regulating the flow so that the proper amount of juice and syrup will pass through the spigots. This will relieve the attendant of all duties except firing, skimming, and tending the buckets at either end.

It is important to keep the fire hot, keep the scum off, and keep only a thin quantity of juice in the evaporator. To make a thicker syrup there must be more evaporation and a slower rate of flow from the syrup end.

More Silos Needed

The demands of the live stock for the coming winter need to be anticipated in many parts of the country. The silo provides safe storage for forage that can not be as effectively stored in any other way. In addition, the material stored in the silo is a more acceptable feed, especially for dairy animals, than the same feed prepared in any other way. Silage is an almost ideal substitute for the natural summer stock feeds, and is especially valuable in the fall and winter because of its succulence and consequent healthfulness.

As the type of animal necessary for production of large yields of milk is entirely different from that of the beef animals, it has been impossible to produce a breed which would combine these functions and be of superior merit for both purposes.

Standardizing Machinery

Among the many important subjects considered by the agricultural advisory committee at its recent session in Washington was that of eliminating many designs and types of farm machinery. Every man who has had experience in handling the numerous types of farm equipment will recognize the merit of this proposal to reduce in number the types and designs now manufactured. The committee's action on this point was embodied in the following resolution in its report to Secretary of Agriculture Houston:

Whereas the Department of Agriculture has submitted for our consideration a proposal for the elimination of certain less-essential types or designs of farm machinery and parts thereof, giving as a reason therefor that because of the war demands the allotment of steel for the manufacture of farm machinery must be limited to the amount strictly necessary to enable our farmers to maintain crop production, and that the multiplicity of types and designs now existing places an unnecessary burden upon steel mills in preparing steel and iron therefor, and whereas we believe the reasons given are just and valid, and that the demand upon us is in line with the demands made upon other industries, therefore,

Be it resolved, that we endorse the schedule of eliminations submitted by the Department of Agriculture with certain minor changes, with the understanding and with the assurance on the part of those who have prepared the schedule that no change in design of any implement has been made which will lessen its strength or efficiency, and no machine or implement has been eliminated which is essential for the efficient production of agricultural products in any extensive region and the work performed by which can not be as efficiently done by other machines, the manufacture of which shall be permitted. We recommend, however, that measures be taken to afford full protection to farmers owning machines of types eliminated by requiring that manufacturers make and place on the market repair parts for eliminated machines or eliminated parts of machines for a length of time equal to the average normal life of such machines or parts.

Feeding Sheep in Cornfields

(Continued from Page Four)

wheat straw are better than none. Corn silage can be used, but judging from the limited experience of sheep feeders who have used it in this way, the probability of losses from overfeeding are not lessened with it as with the dry roughages. A combination of one-eighth pound cottonseed or linseed meal per head per day and all the corn silage and oat straw the lambs want, will give better results than silage alone. The cottonseed or linseed meal should be fed with the silage.

Estimates indicate that lambs will eat more than one-half to two-thirds pound of clover or alfalfa hay per head per day in racks placed in the cornfield. They might eat more if driven to the dry lot at night and given free access to the hay. Little is known as to the amounts of straw and silage they will eat, but they probably will not consume more than one-fourth pound of straw and one pound of silage.

If there is a normal amount of pasture and forage in the fields, it should not be necessary to feed any other roughage for the first half to two-thirds of the feeding period. In case nothing but very succulent forage is available, however, it is advisable to put dry roughage in racks where the lambs can get to it whenever they want it. It will help in preventing scours, and for this purpose straw seems to be as good as hay.

It is best to move the lambs from an old to a new area in the cornfield before they have entirely consumed the corn on the old area. If this is not done, they will be forced to hunt for feed, and as it becomes scarce they will not get enough to produce the desirable rate of gain. In fact, it is advisable to use one pig to every ten lambs to clean up after them. It will do no harm to allow shoats and lambs to feed together on the same area. By using this combination of animals very little of the corn is wasted.

Using Lighter Beef

In spite of the enormous run of beef cattle in July, it was absorbed at high prices, indicating the great demand for beef. With the opening of August, however, the half-fat undesirable cattle were being forced on the market because of dried-up pastures and failing water supplies, and the market for this class of cattle was flooded. Appeals to the Food Administration for an outlet for this kind of beef brought relief through a withdrawal of restrictions on serving beef and the buying of lighter carcases for the army. The Food Administration, however, makes it clear that it is not urging increased consumption of beef, asking rather that the public accept the light weight beef so as to furnish an outlet for the kind of stock being forced on the market at the present time, saving the heavier beef for our soldiers and our Allies. "The desire of the Food Administration at present," the statement adds, "is not primarily to increase the consumption of beef as a whole, but to induce a preference in favor of the lighter weight cattle of which we have an abnormal surplus. This will bring about a conservation of the heavier cattle needed for our soldiers and for export to our Allies. At the same time it will afford a measure of protection through increased outlet for cattle raisers in the drouth-infected areas." Mr. Cotton is now accepting 435-pound carcasses for our army purchases, and is urging the navy and marine corps to use the lighter weight beef also. Mr. Cotton cabled from Europe that everything possible was being done to convince allied buyers of the necessity of using more light weight carcasses.

There seems to be no reason for becoming panicky on the live-stock situation. The demand for meat is certain to continue, and many feeders, by being able to utilize the forage grown to the best advantage possible, can carry cattle to heavier weights. There is still time for an immense growth of late feed as a result of late summer and early fall rains.

Those who dare all must share all.



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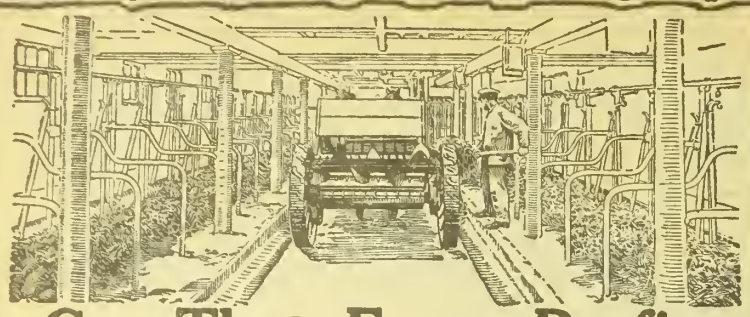

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United States Help Badly Needed Harvest Hands Wanted

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Meets with a request for all available assistance to go forward as soon as our own crop is secured.

The Allied Armies must be fed and therefore it is necessary to save every bit of the crop of the Continent—American and Canadian. Those who respond to this appeal will get a

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A card entitling the holder to a rate of one cent per mile from Canadian Boundary Points to destination and return will be given to all Harvest Applicants. Every facility will be afforded for admission into Canada and return to the United States. Information as to wages, railway rates and routes, may be had from the

UNITED STATES EMPLOYMENT SERVICE

Branches at Dodge City, Hays, Hutchinson, Kansas City, Parsons, Topeka or Wichita.



Must Count Dry Period

If your cow has a dry period during the record year, you cannot count that out. In regular dairy farming you would have to stand the expense of the dry period and it would not be fair to count it out of the club year. When a club member's cow has a dry period during the year, the feed record must be kept just the same as when she is being milked. Of course the record for that period will show a loss, since there will be no product to sell. You have to feed the cow through this period, however, and in the year's work the cost of the feed during this time is charged up against her. Of course some of the members were fortunate enough to have cows freshen at the beginning of the record year and thus can milk them for twelve months without having a dry period, providing they happen to be cows that will milk that long and they were not bred too quickly after being fresh.

A long lactation period is always desirable in a dairy cow. The reason some cows are so unprofitable is that they go dry for three or four months each year. The cows that milk almost the year round are nearly always profitable. A real dairy cow seldom goes dry more than six or eight weeks, and some dairy cows will hardly go dry at all.

KANSAS FARMER DAIRY CLUB

Dairy Farming in War Time

THE dairy farmer who performs his duty as such is doing his share in winning the war. Dairy products are now needed more than ever before to supply our European allies with one of their most popular foods and also to take care of the increasing demand here at home.

The dairy cow is excelled by no other farm animal in the economical production of human food. A good dairy cow will produce four times as much human food from the same amount of feeds as will the beef steer. She will convert rough forages, unfit for human food, into milk, a most nutritious and healthful food.

Milk is a complete food, absolutely necessary for the growth of children and an excellent food for grown people. Experiments have shown that growing animals cannot live without the growth-stimulating element found in but few foods but found abundantly in milk and milk products, particularly in butter. The fact that butter is richest of all foods in this element makes it indispensable as the so-called butter substitutes contain nothing at all or a very limited amount of this element.

Milk being high in protein, is a splendid substitute for meat, which we are again asked to conserve. One quart of average milk is equal in food value to three-fourths of a pound of meat. One pound of ordinary cheese is equal in food value to nearly two pounds of meat. A pound of cottage cheese is equal in food value to a pound of any kind of meat.

Fat is one of the valuable foodstuffs of war times which the cow produces. Because of its concentrated form, fat is used extensively by the Government both for export and domestic use. Because of its richness in the growth-stimulating element it is unexcelled for food by any other fat. A good cow will produce more fat in one year than a steer will in a lifetime.

The following table showing the increase in exports of dairy products during the war despite the scarcity of shipping facilities, illustrates the importance of dairy products during the war.

	Pounds in 1914	Pounds in 1917
Cheese	2,427,577	66,087,213
Butter	3,695,597	26,835,092
Condensed milk	10,209,082	259,102,213

Not only will the American farmer be called upon to supply the European nations with dairy products now and for years after the war is over; but he will also be called upon to furnish breeding stock to replenish the European herds of which millions have been killed for the lack of feed.—W. E. PETERSON, Extension Service, K. S. A. C.

Cow Off Feed

In handling dairy cows it is well to keep in mind that abrupt changes of feed sometimes cause trouble. Heavy milkers are more apt to get off feed than poor milkers. A good dairy cow must have a good appetite and eat a lot of feed. Glen Romig has had an experience just recently that has cost him quite a little milk because his cow got too much silage to eat. During the spring and early summer when the grass was good he stopped feeding her silage, but when the grass dried up he began the silage again and he thinks he fed too much at first for she was sick and off feed for several days. He has not yet got her back to what she was giving before the change of feed. When he make the change, which was about the middle of July, she was giving about twenty-two pounds of milk a day. He has now got her back to sixteen pounds and does not expect her to do any better.

Any sort of a change of feed should be made gradually. It is more important if it is a feed the cow likes especially well. Some cows seem particularly liable to digestive troubles.

Time to Weigh Milk

Gary Cook, of Leavenworth County, who made his last payment on his cow in June, told the county agent, Mr. Chapman, that it took on an average five minutes a day to weigh the milk. This is not much when the value of his records is considered. Just at present the question he is trying to decide is whether to sell this cow and buy a pure-bred Holstein or to keep her as a basis for his herd. The other cows on the place are Holsteins, and Gary feels that a grade is always a grade, while the pure-bred will produce pure-breds that will be of more value and cost no more to keep.

Beside the financial benefits received from his investment, Gary has been very materially helped in an educational way by keeping the records. His father says there has been a marked improvement in his ability to handle his school work, since he has taken up this project.

Good July Record

We have just been looking over the July record of Melvern Lee, of Emporia. In spite of the continued dry and hot weather, his cow gave more milk and produced considerably more butter fat in July than in June. His net profit for the month on the basis of butter fat and the uniform schedule of feed prices is twelve dollars. He writes that the grass is all dried up but his cow seems to be doing exceptionally well. She produced over forty-two pounds of butter fat in July, which is not bad for a two-year-old heifer that has been milking since last October. He is feeding her alfalfa hay, and shorts for grain.

July Honor Roll

Because the tests were sent out quite late this month we extended the time for sending in records several days beyond the tenth. However, we are sorry to say quite a number failed to get their records in on time. Some of the cows are dry now. Do not forget that your feed records should be sent in anyway, and if your cow is not giving milk, you do not have to wait for a test before sending in your feed record, so it can be sent promptly at the end of the month. Those who got their records in in good time were:

Harold Bentz
Claude Carter
Gary Cook
Floyd Gerardy
Marion M. Lee
Emma Lenhert
Theresa O'Mara
Glen Romig
Roland E. Roney
Hazel Shriver

Contest Almost Finished

Only one month more of the contest, and that will be gone before we know it! We hope every Dairy Club member will do his best to finish up the work in good shape, and we would be glad indeed if every one of those who kept records during the month of August and those who are keeping records in September would make a special effort to have their records for these two months in on time. Of course quite a number have already completed their year's record because they began earlier in the year, but let's try to have the full number of those left on our Honor Roll these last two months.

We got a letter that pleased us the other day. One of our boys who did good work up to the first of the year had not sent in a record since. We did not get any answer to our letters to him and finally stopped writing, supposing that he had dropped out of the club for some reason. But it seems that he has been turning in his records to his bank all this time, and they sent them to us all in one bunch. The only thing we regretted was that we did not get them in time so we could have placed his name on our Honor Roll. We wish some of the others that we have not heard from for some time would surprise us the same way. This is almost your last chance. Can't you send in your back records?

Out of the last harvest the American people, by abstinence, saved 140,000,000 bushels of wheat to feed the hungry allied nations; and these same people are going to stay right on the sugar job and see it through.

Restaurants and hotels are restricted to two pounds of sugar for every ninety meals served. This includes sugar for kitchen as well as table use.

Interesting War Items

Red Cross Men Not Slackers

IN response to queries from several of the Red Cross divisions regarding the policy of the national organization with respect to the employment of men within the draft age, the acting general manager of the American Red Cross has made the statement that such men are not accepted either for foreign service or for service in camps and cantonments in this country unless they have been placed in Class 5, Section G, because of physical disability, and, furthermore, unless the disability is visual. This removes all question as to whether the representatives of the Red Cross should be in the army, as at a glance it can be seen that they would not be qualified for such service.

"Our policy in respect to enrolling such men at Division Headquarters is as follows," said the acting general manager: "The Red Cross has never asked for the exemption of anyone and does not expect to do so. Therefore any man so enrolled at division headquarters is nevertheless in all respects subject to the draft."

Protection for War Pictures

To safeguard the valuable collection of photographic negatives and the thousands of feet of moving picture films of the present war, the War Department has authorized the building in Washington of fireproof storage vaults.

Under the direction of the historical division of the general staff thousands of still and moving pictures have been taken, both in this country and in Europe, for the purpose of historical record. These have been stored in various places in Washington. As thousands of dollars have already been spent in making the negatives and many more thousands of pictures are yet to be taken, the need for fire-proof storage became manifest.

The vaults will be located in one building, but between them will be built fireproof walls. The doors of the vault will also be fireproof. For the proper preservation of the negatives, the vaults will be so constructed that ventilation and a fairly even temperature will be maintained.

Negro Nurses for Negro Troops

Orders have been issued by the War Department to the office of the Surgeon General which will enable colored nurses who have been registered by the American Red Cross to serve their own race in the army. A total of about thirty-eight thousand colored troops are stationed at base hospitals in this country and colored nurses will be assigned to these hospitals. General Pershing has been asked by cable whether the services of colored nurses can be utilized to advantage among the American expeditionary forces.

Must Not Write to Strangers

Because of the danger of inadvertently communicating valuable military information to the enemy and the necessity of closing every possible gate against enemy propaganda, the strictest attention must be paid to the correspondence of both officers and enlisted men. For this reason all officers and men have been forbidden by the War Department to insert advertisements or letters in any publication inviting strangers to communicate with them, or to enter into correspondence with strangers in response to advertisements or other invitations. Officers in command of troops are directed not to furnish names of men to any persons who attempt to enter into correspondence with soldiers with whom they are not personally acquainted.

You Are Not Alone

One of the inspiring items in a column in Doctor Charles M. Sheldon's church calendar headed "Some Things Seen, Heard, and Read by the Minister Last Week," is that which follows:

"Have seen a good many people bearing the burdens of life bravely and quietly. They are beginning to understand that there are 'others.' Your lad is not the only one. You are touching elbows with a world grief. Misery does not 'love company,' but rightly borne it learns how to share the load with others. Selfish sorrow is as selfish as selfish pleasure."

Ointment for Gas Burns

A neutralizing ointment to protect our soldiers from the mustard gas is now being prepared in quantities greater than the demand for it. The first month's shipment of this ointment consisted of 800,000 tubes.

It is a new preparation made after a formula prepared by chemists connected with the Chemical Welfare Section. Rubbed on the body before a gas attack, it has the power to neutralize the poisonous effects of mustard gas.

For the protection of the special men whose duty is to clear trenches of all traces of the gases, special underwear is now being provided. These suits are chemically treated and neutralize poisonous gases.

Men are being thoroughly trained in gas defense, so that every soldier who enters the zone of fire thoroughly understands the measures of gas defense. Every man is drilled in the adjustment of his gas mask before he is subjected to a gas test, either here or overseas.

Gas Masks Protect Soldiers

Protection against any of the gases now in use by the Germans is given to American soldiers by the masks now being worn. Statements that American masks do not protect soldiers from the effects of mustard gas are not warranted.

The masks now worn will protect soldiers as long as they are required to remain in areas drenched by gas. The clothing worn by the soldiers will resist the effects of the gas for a normal period.

Age Limits in New Draft

Regarding age limits of the new draft, secretary Baker says in a press interview: "All the possible combinations of age limits were carefully studied, and it was found that in order to get the men into Class 1 for the program proposed, eighteen to forty-five was necessary. The bill when introduced, however, will contain a provision authorizing the President to call men out of Class 1 by classes, according to ages, so that if it is found possible the men between eighteen and nineteen will be called out later than the older men who are found eligible to Class 1."



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Scientific Refining

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En-ar-co workmen must pass the rigid tests of scientific instructors and efficiency engineers. Processing and purification standards have been set. Well defined grades of instruction have been provided. And every workman strives for perfection, for thus he attains his master degree.

These methods produce a lubricant of unvaried quality. It is always clean and pure, and will perform its function properly *every* day. Regardless of the motor you use, your investment demands that you lubricate with oil made by "men who know" — graduate workmen. *That* oil bears the En-ar-co label.

Tractors, Automobiles, Aeroplanes, Trucks and Motor Boats give better service and last longer when lubricated with En-ar-co National Motor Oil.

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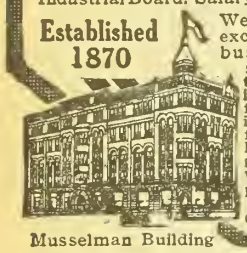

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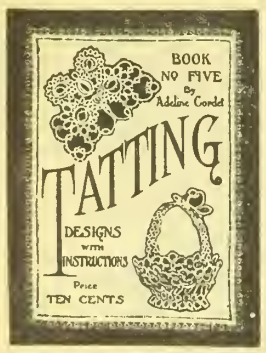

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There is no alibi provided against the penalties for violating Nature's physical laws.

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Electricity in Housework

HOW do you do your washing and your housecleaning? You do not, of course, depend on the washboard and the hand broom and scrub brush that your grandmother used. That would be as foolish and inefficient as for your husband to hoe his corn by hand and harvest his wheat with a scythe, as was done in his grandfather's time. But are you making a judicious use of the most up-to-date equipment? The farmer of today uses the disk harrow, the threshing machine, the mower, the binder, the tractor, and any number of modern devices. These implements cost more than those used a generation ago, but they accomplish more. He couldn't do the work Uncle Sam expects of him without them. Neither can you meet the heavy demands on your time and strength without the aid of modern labor-saving machinery.

Housekeeping is not the simple thing it used to be, and in these war times when so many of the women are taking the places of men it is even harder than usual to get help with the work of the household. The way out, for the housewife as well as for the farmer, is through the use of modern equipment which will lighten her labor and increase her efficiency.

Of the many inventions for this purpose probably none is more helpful than some way of lightening the drudgery of washday, "blue Monday" in so many homes. A most satisfactory means of doing this, from the standpoint of conserving time and strength and of increasing the durability of the clothes, is shown in the illustration. Both washer and wringer are operated by an electric motor which does the work quickly and well. The wringer is permanently attached to a movable framework which slides easily from the machine to either tub and back again. The clothes may be wrung from the washer into the rinsing tub, then into the bluing tub, and from there into the basket ready to be carried out to the line. The wringer can be used for the last two operations while the machine is washing another tubful of clothes.

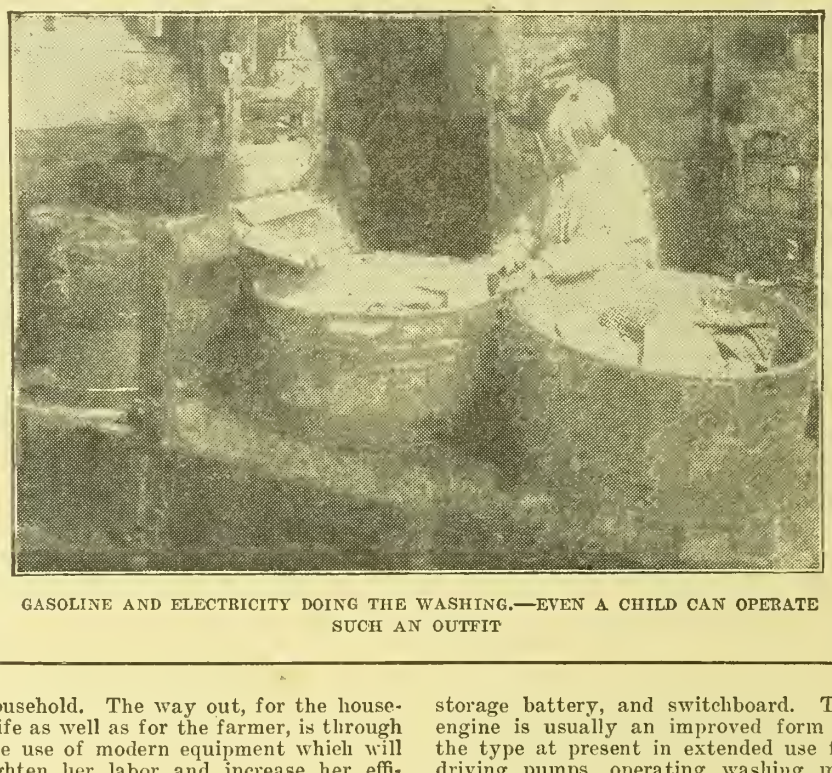
The fortunate farmer who has water power running to waste can install an electric plant of his own to furnish electricity for both home and farm use with practically no expense after the initial cost. This will light the home and the barn, furnish power for a vacuum cleaner which does the work more thoroughly than is possible with a broom as well as more quickly and easily, heat your iron on ironing day, and if you wish run your sewing machine and electric fan. At the same time it will turn the grindstone, the cream separator, and the feed cutter, pump water, and do a hundred helpful chores on the farm.

Most Kansas people, however, will have to manufacture their electricity with a gasoline engine, just as we are already doing for our automobiles. The majority of country home electric systems are very similar to the electric system employed on the modern gasoline-driven automobile. The gasoline engine used for the home electric system is larger than the automobile engine, but is more simple, because the necessity for economizing on space and weight and at the same time providing a ruggedness capable of withstanding extremely severe service conditions introduces complications into the construction of the automobile engine which do not exist in the home plant.

Like the automobile engine, the home electric plant can be used to furnish both light and power. Most country home electric outfits are supplied with gasoline or kerosene engine, generator, storage battery, and switchboard. The engine is usually an improved form of the type at present in extended use for driving pumps, operating washing machines, running churns, etc. Its operation is simple; it is rarely necessary to do more than supply fuel and oil as required.

The storage battery, as its name implies, is a reservoir for the storage of electricity supplied by the generator. When the engine is running, lamps, small motors, or other appliances receive their current direct from the generator and if more energy is generated than is required by the appliances, the surplus is stored in the battery for future use. When the engine is not running, the energy which has been stored in the battery is available, and there is no interruption of service.

In size, these outfits range from about 500 watts upward. For the usual country home consisting of seven or eight rooms with bathroom, attic, and basement, a plant with a generator capacity of 750 watts will provide ample energy for lighting the house and outbuildings, and will permit the use of an electric iron, small motors, or a toaster during the daytime when the lighting system is not in use or when not more than a few lights are used.



GASOLINE AND ELECTRICITY DOING THE WASHING.—EVEN A CHILD CAN OPERATE SUCH AN OUTFIT

If the voice of appetite is better understood than the voice of the soul, it is because it has received more attention.—Youth's Companion.

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All patterns, 10 cents.



No. 8899—Ladies' Waist: Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. The dainty lingerie waist has come into its own again this season. The waist is a very simple type of lingerie waist, for it is semi-tailored. The draped revers are attached to the small roll collar. **No. 8892—Ladies' Dress:** Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. Two kinds of voile or taffeta and organdie may be combined to make this delightful afternoon dress. The overblouse is cut in shallow pointed outline, and straight suspenders of the material are attached at the points. The three-gored skirt closes at center front and is softly gathered all around the slightly raised waistline. **No. 8926—Girls' Dress:** Cut in sizes 4, 6, 8 and 10 years. The odd draping of this distinctive little dress gives it an effect which is quite out of the ordinary. The neck is cut square at the front and high at the back. The dress may be made to slip on over the head or to button on the shoulders.



No. 8790—Ladies' Waist: Cut in sizes 36, 38, 40 and 42 inches bust measure. The waist has a graceful long collar. The sleeves may be made either long or short. The long ones are gathered into deep cuffs of the material. **No. 8769—Children's Dress:** Cut in sizes 2, 4, 6 and 8 years. The one-piece side-plaited skirt is attached to the plain waist. The sleeves may be made long or short. The separate overblouse is sleeveless and slips on over the head. **No. 8772—Ladies' One-Piece Bungalow Apron:** Cut in sizes 36, 40 and 44 inches bust measure. The apron is very easy to put on, for it slips over the head. A belt of the material gives the apron a trim appearance. It may be placed at either high or normal waistline.

Parental Responsibility

From year to year we find everywhere a constantly growing appreciation by parents of their responsibility. It is not the kind of a responsibility really that puts blue specs on life and blurs the distant road, but is the kind of responsibility that makes a father want the companionship of his son and the mother the companionship of her daughter. The parent knows it cannot have these things without getting and holding, truly earning, the child's respect.

A man of affairs, the father of three boys, told me just a few days ago of certain things he had to do that just then he did not feel that he could spare the time nor the money to do. But he said, "I've got to make good with my boys."

"Making good" with your children is about as good a thing as any parent can do. It means keeping a grip on your temper, discretion in your speech, and sunshine in your heart. And that is a scheme of life good for you both.—Woman's World.

Try Tomato Paste

The following method of making Italian tomato paste has been worked out by Miss A. L. Marlatt, of the home economics department of the University of Wisconsin, from a recipe given her by an old Italian cook. One small jar of the paste will last indefinitely, as a teaspoonful is enough to flavor a cupful of tomato sauce.

Cut ripe tomatoes in half, sprinkle them evenly with salt, place in a flat pan or on drying racks in a slow oven or over a range, or in the sun. Cover the tomatoes with cheesecloth to protect from insects, if dried out of doors, and allow them to dry slowly until about the consistency of peach butter. Pack in sterilized jars or wide-mouthed bottles, and seal with paraffin.

"The special advantage of this method of keeping tomatoes for winter use," says Miss Marlatt, "is that it takes so few cans to keep a great many tomatoes. This is an important matter when one considers the number of cans that will be needed to complete the canning season. Saving cans also saves space on the shelves, and the housewife with a well-stocked cellar will appreciate this point."

Two Dresses in One

A youthful and pleasing design is Ladies' Dress No. 8892, which may be developed in a variety of materials. A dark wool dress, with the straps and top of overblouse piped perhaps with silk, would be serviceable. For the woman who must make one dress take the place of two—and who of us would not be glad to do that in war time?—a tailored waist of wash silk in the same color as the skirt or any white shirtwaist may be worn with the skirt and overblouse, making a neat dress for ordinary wear, while a dainty blouse of crepe de chine, georgette crepe, or organdie, transforms it into a suitable costume for more formal affairs.

The New Sugar Ration

Divide two pounds of sugar by thirty and you have your new daily sugar ration—$1\frac{1}{15}$ ounces, or $6\frac{2}{5}$ level teaspoonfuls. By the end of the month the fractions will amount to twelve teaspoonfuls of sugar.

Do a little figuring on this new sugar ration of two pounds for ninety meals and, when you put your head to it, you will find the answer to the problem. There is a cafeteria in the U. S. Food Administration building that managed to make fifty pounds of sugar do for 6,000 meals. This ration covers the use of sugar for all purposes, including tea, coffee, desserts and in cooking. Most of the desserts contain such substitutes as honey, maple or other syrups; the use of white sugar is confined almost exclusively to tea and coffee.

The cafeteria has used sugar at the rate of one pound for 120 meals and the Food Administration has asked the housekeeper to cut to two pounds per person or one pound for forty-five meals. It can be done.

Ban on Beef Lifted

Housekeepers who have been limiting their beef consumption to one and one-half pounds weekly for each person are for the time being absolved from this restriction by the State Food Administration. Public eating houses are also allowed to serve meat at any meal, though both housewives and eating houses are requested to continue to save beef the same as they conserve other meats.

The request was originally made that the beef used be limited to the amount mentioned until the first of September, but this limitation has been removed a little earlier than was planned, for the reason that the drouth has made it necessary for many cattlemen to market their stock sooner than they would otherwise have done.

The amount of sugar now allowed for canning is twenty-five pounds for each family. If your canning needs justify more sugar, you can get additional supplies by obtaining a permit from the county food administrator or his authorized deputy.

Don't lie to get sugar. That is what it amounts to if you use a part of the extra supply allowed you for canning in some other way. Remember what happened to Ananias and Sapphira for keeping for their own use, in violation of their pledge, a part of what should have been common property.

Each of us must obey the rules of the game. If you wrongfully take what belongs to someone else, he will not get enough. If your neighbor uses more than his share, he is stealing from you as well as from the boys in France.

To Save Those Who Save Us

Of the work being done in Red Cross rooms by women all over the country, Amelia Josephine Burr writes the following stirring words:

"Interminable folds of gauze
For those whom we shall never see;
Remember, when your fingers pause,
That every drop of blood to stain
This whiteness falls for you and me.
Part of the price that keeps us free
To serve our own, that keeps us clean
From shame that other women know,
O saviours whom we have never seen,
Forgive us that we are so slow!
God! If that blood should cry in vain
And we have let our moments go."

Cucumber Pickles

Soak cucumbers in brine for twenty-four hours, then rinse and drain them. Cover with vinegar or vinegar mixture to which has been added one tablespoonful of brown sugar for each quart of vinegar. Bring them slowly to the boiling point. Pack the pickles in a jar and cover with the vinegar. Either of the spiced vinegar mixtures given below may be used instead of the vinegar and brown sugar if preferred:

RECIPE No. 1—
- 1 quart vinegar
- 1½ teaspoonfuls whole black peppers
- 1½ teaspoonfuls celery seed
- 1½ teaspoonfuls allspice
- 1 tablespoonful sugar
- ¾ teaspoonful whole cloves
- ¾ teaspoonful mustard seed
- 1½ teaspoonfuls cinnamon bark
- ¾ teaspoonful grated horseradish

RECIPE No. 2—
- 1 quart vinegar
- ½ ounce ginger
- 1 teaspoonful mace
- 1 ounce small onions
- ⅓ ounce mustard seed

If the pickles have not been soaked in brine, use two ounces of salt.

Quick Pickles

Put cucumbers in strong brine—one-half to three-fourths cupful of salt to each quart of water. Bring them slowly to the boiling point and simmer for five minutes. Drain off the brine and cover with cold water, changing the water as it becomes warm. Keep changing the water until the pickles are crisp and cold. Cover them with a vinegar mixture made by either of the two preceding recipes.

Sweet Cucumber Pickles

Soak cucumbers in brine for twenty-four hours. Rinse, drain, and wipe them dry. Place in a kettle, and cover with the following vinegar mixture:
- 1 quart vinegar
- 1 cupful sugar
- 8 whole cloves
- 6 allspice
- 6 blades mace
- 8 whole black peppers

Heat the pickles slowly to the boiling point, and pack at once.

I looked at my Brother with the microscope of criticism and I said, "How coarse my Brother is!" I looked at him with the telescope of scorn and I said, "How small my Brother is!" Then I looked in the mirror of truth and I said, "How like me my Brother is!"—BOLTON HALL.

Among the clothes that are "much worn" this year are last year's.—Eaton (Colo.) Herald.

Did you write us that letter you intended to?

Roses in Your Home

ALL YEAR

Beautiful climbing roses of brilliant colors, fragrant roses of upright growth, and trailing roses with delicate tints; all yielding most delicious perfume. Our New Collection of Native American and Japanese Roses is

GROWN FROM SEED



The seed germinates quickly, and the plants make rapid growth, bearing hundreds of beautiful roses. If grown in the house they will bloom all the year around. They can be grown outdoors during the summer, and if taken inside for the winter will continue to bloom. Nothing is prettier than the fragrant flowers and "berries" of these Native Roses.

You Can Have This Beautiful Window-Box of Roses in Your Home

We will send you a big packet of the seed of our new Rose Collection, together with full instructions for planting and for making a window box, as shown in the picture. If you take advantage *now* of our liberal offer, and plant the big packet of Native American and Japanese Rose Seeds, you will have hundreds of beautiful roses blooming in your home the year around. They require very little attention, except for an occasional watering.

Plant NOW! Roses in 8 Weeks!



Just do us the favor of sending us one NEW TRIAL subscription to KANSAS FARMER for three months at 25 cents, and we will send you the big packet of Rose Seed FREE and postpaid, with full instructions for planting. Send today to

KANSAS FARMER,
Topeka, Kansas

Gentlemen: Send me FREE and postpaid, your big packet of Native American and Japanese Rose Seeds, with instructions for planting and for making the Window Box.

Name.....R. F. D.....

Town..... State.....

I enclose 25 cents, for which you will please send KANSAS FARMER three months to the following address:

Name.....R. F. D.....

Town..... State.....

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For the breeder of pure-bred live stock, advertising space used at the right time is a profitable investment.

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and quick sales, when the offering is ready to go, means profitable sales. The demand for breeding stock is growing. It is the opportune time to advertise.

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Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

TEN HEAD OF REGISTERED JERSEY cows and heifers priced for quick sale. J. O. McCrone, Haddam, Kan.

FOR SALE—VERY CHOICE HOLSTEIN and Guernsey calves, either sex, six weeks old, 95 per cent pure-bred, at $25 each, delivered. Lewis Dutcher, Peary View Farm, Janesville, Wis.

REGISTERED HOLSTEIN BULL, READY for service. Five of his dams average 106 pounds milk in one day and 34 pounds butter in seven days officially. $125. Wisconsin Live Stock Association, Appleton, Wis.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

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FARMERS, ATTENTION. I CAN SAVE you money on good paints this fall. A special red barn paint, freight paid, at $1.20 per gallon in 25 and 50 gallon lots. An extra good black roof paint at 42 cents per gallon, freight paid. Order at once. John Nelson, Stamford, Nebraska.

REAL ESTATE.

NORTH ARKANSAS FARMS—COST YOU only a letter to get the particulars. Address O. O. Smith, Everton, Arkansas.

FARM FOR SALE—160 ACRES, HALF mile from town; good water, fair improvements. Address F. E. Weed, Athol, Kan.

MISCELLANEOUS.

CORN HARVESTER — ONE-MAN, ONE-horse, one-row, self-gathering. Equal to a corn binder. Sold to farmers for 23 years. Only $25, with fodder binder. Free catalog showing pictures of harvester. Process Corn Harvester Co., Salina, Kansas.

FOR SALE—ADVANCE CORN HUSKER, eight rolls with feeder and bagger complete; used to shred 100 bushels corn. Practically as good as new. Purchased in 1909. No use whatever here as do not raise corn. Price $300 f.o.b. here. Address Double U Company, Post, Texas.

DOGS.

CHEAP IF ORDERED IMMEDIATELY, all kinds hounds and dogs; sent to try. R. G. Mason, Kirksville, Mo.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

RABBIT HOUNDS, FOX HOUNDS, COON, opossum, skunk, squirrel dogs. Setters, pointers, ferrets, rabbits. Catalog 10c. Brown's Kennels, York, Pa.

KODAKS.

FREE—WITH FIRST ORDER AND FIVE names of kodak owner, a beautiful 5 x 7 enlargement from any film. Developing, 10c; prints, 3c up. Foto Art Company, Dept. H, Lincoln or Norfolk, Nebraska.

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TIRES — FORD, $6.50. LARGER SIZES equally low. "Lowest tube prices." Booklet free. Economy Tire Co., Kansas City, Mo.

POULTRY.

FOR SALE—ROSE COMB WHITE LEGhorn roosters. Wm. Chisholm, Hildreth, Neb.

PARTRIDGE PLYMOUTH ROCK COCKerels and pullets, also a few Buff Orpington cockerels. Ewing White, Saint Francis, Kan.

WHITE ROCKS, SIZE AND QUALITY.—Cockerels and pullets. Reduced prices for August and September. G. M. Kretz, Clifton, Kansas.

REMOVAL SALE—S. C. BUFF ORPINGtons. Breeding pens, $15 up. March and April chicks, bargain prices. Must sell at once. Ely Poultry Yards, Altus, Okla.

BRILLIANT BARRED ROCKS, ANNUAL state show winners. Eggs, fifteen, $2; forty-five, $5; exhibition pens, $5. C. D. Swaim, Geuda Springs, Kansas.

POULTRY WANTED.

IF DISSATISFIED WITH LOCAL POULtry and egg market, ship direct. We loan coops and cases free. The Copes, Topeka.

SHEEP.

FOR SALE — UNREGISTERED SHROPshire ram lambs. Price, $30 to $40 per head. Also black-faced ewes, age from one to five years. J. E. Regier, Whitewater, Kansas.

REGISTERED SHROPSHIRE RAMS, $40 up; ewes, $50 up. Circular and price list mailed on request. Will show at Topeka Free Fair. Clarence Lacey, Maple Hill Farm, Meriden, Kansas. Phone 260.

TEN VERY HIGH GRADE SHROPSHIRE rams at $40. These are yearlings that clipped last May 16¾ pounds of wool. References, Lee Bros. & Cook or Harveyville (Kan.) State Bank. H. C. Shaw & Son, breeders of Hampshire hogs and Shropshire sheep, Harveyville, Kansas.

BIG BARGAINS IN SHROPSHIRE SHEEP on account of room. Order your lambs now. Leading breeds cattle and pigs at farmers' prices. Farm poultry and baby chicks; 25,000 chicks this year sold here. Cheap farm and other dogs and all kinds hounds sent to try. Captain Richard Mason, Kirksville, Mo.

SITUATION WANTED.

WANTED—WORK ON FARM BY EXperienced farm hand; also experienced in handling live stock, machinery. Exempt from war service. Harvey M. Harpoter, Halfway, Mo.

HELP WANTED.

WANTED — BY SEPTEMBER 1, GOOD farm hand. Must be a good milker. Steady job for right party year around. J. P. Mast, Scranton, Kansas.

WANTED—TO BUY.

WANTED—SORGHUM SYRUP IN BARrels or cans. Quote f. o. b. your shipping point and state when you can make deliveries. J. Ralston Cargill, Americus, Ga.

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HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Fitting Poultry for Show

IN SHOWING poultry at fairs or poultry shows, lack of attention to details often results in failure to get the rank to which the exhibits are entitled. Preparing or conditioning poultry for the show room is of vital interest to every breeder who possesses some good specimens and aspires to become a successful exhibitor. Very often, because of lack of preparation, the best bird in a class is unplaced.

The first thing after selecting the birds nearest the standard requirements in shape, color, and size, is to look for disqualifications, the most common of which are side sprigs, stubs, wry tails, squirrel tails, crooked backs, etc. The birds should be placed in training cages or pens similar to those used at the poultry shows. The bottoms of the cages should be covered with a litter of shavings or cut straw which can be removed frequently.

Begin a few weeks before the show and take the birds from their roosts every evening and place them in the separate training pens for the night. At first leave them quiet for an hour or two and then, by lantern light, stroke each bird quietly over the back and from the throat to the thighs. After it is accustomed to the hand, use a small thin stick and teach it to pose in the desired position. With patience and kind treatment it is surprising how quickly birds learn to do what is expected of them. This training is really the most important part of conditioning, as nothing is more discouraging than to have a bird dash about the cage in a frightened manner and stick its head in a corner.

All white birds should be washed; in fact, washing improves any of the long-feathered varieties.

Feeding is also a very important point to consider. For the small-combed varieties a feed of oats, corn, and feed wheat, with a light feed of wet mash at midday, is very good. For some of the large-combed breeds, such as Leghorns and Orpingtons, do not use meat, as it forces the comb to grow too large and may cause it to turn over. A feed of bread, soaked in milk once a day, helps the plumage wonderfully. All birds should have plenty of grit and a little green feed. Chopped onions help to keep them in good condition.

Just before sending the birds to the show their combs, legs, and feet should be sponged with clean water and dried with a soft cloth. A little vaseline on the combs and faces greatly improves their appearance.

Another point that many breeders do not understand is the proper shipping and tagging of their birds in suitable carriers. Some use entirely too small crates or coops, and others use large, heavy boxes that can not be handled by one man. The express employes handle them rather roughly and the birds come to the show with feathers broken and in bad condition. Always be sure that the tags with your name and that of the poultry show and the destination are securely fastened on the crates. It is well also to have a number on the tag to correspond to the leg band on your fowl. In that way you will be reasonably sure to have your birds returned in the coops in which you ship them.

What Shank Color Shows

Poultrymen who keep yellow-shanked chickens have an excellent guide as to what the previous egg record of the hen has been. It is safe to state that the absence of shank color in yellow-shanked varieties indicates that the hen has been a good producer, while an abundance of yellow color in the legs indicates just the opposite. This is true except in localities where the soil is of such a nature as to bleach the shanks. The shank color is a good indication of previous production. This color is due to a yellow pigment in the fat known as xanthophyll. When a hen lays, there occurs a movement of this fat into the blood circulation and as a result the yellow pigment is taken up and deposited with the fat in the yolk of the egg. Consequently the shanks fade. The more eggs laid, the greater the fading. Of course, this does not occur all at once, but gradually. By August 1 a good laying hen will show pink shanks, says H. L. Kempster, of the Missouri Agricultural College, while the shanks of a poor layer will be yellow. After a few weeks in which the hen is not laying the color will return; but if a person wants to pick out good layers as breeders for next year he should select those with pink shanks.

Home demonstration agents are receiving the heartiest co-operation from school boards in all parts of the country. A large number of school kitchens have been turned into canning centers this summer and the home economics students of the high schools are helping the agents with the canning and drying work. Drying frames have been made by the boys in the manual training classes of some of the schools, and special instruction in both canning and drying has been given to the girls by the home demonstration agent or under her supervision.

How to Get More Eggs

Hens cannot produce eggs profitably on grain alone. The grain ration must be supplemented by protein concentrates. Recent investigations show that the source of protein also influences egg production. That is, protein concentrates of animal and vegetable origin differ in ability to stimulate laying. A series of tests have been conducted at the Missouri College of Agriculture to determine the relative efficiency of animal proteins, represented in experiments with meat scrap and sour milk, and vegetable proteins, represented by oil meal, gluten meal and cottonseed meal, in rations for egg production. Feeding tests have shown that—

1. Meat scrap and sour milk are the most economical sources of protein for laying hens.

2. It is poor economy not to furnish the laying hen a protein concentrate of animal origin.

3. Vegetable proteins alone cannot be fed economically.

4. Twenty-five per cent meat scrap is a sufficient amount of animal food in a dry mash.

5. There is no evidence that vegetable proteins, alone or in combinations with animal food, increase egg production.

6. One pound of eggs can be produced with every four pounds of feed if the proper ration is fed.

7. According to these tests, 100 pounds of sour milk is worth 5.4 pounds of meat scrap.

The Outlook Is Good

Nine per cent fewer eggs were on hand July 1, 1918, as compared to July 1, 1917, in the 462 cold storage plants which recently made reports to the Bureau of Markets. The movement of eggs from storage for consumption purposes began nearly a month earlier this year than usual. This condition, according to poultry specialists of the United States Department of Agriculture, should be a special incentive to every poultry producer to work faithfully for good production in the early winter.

Depluming Mite

The depluming mite causes more or less trouble to poultry, especially in the spring and summer. It does not appear to seriously affect the bird either in general health or in egg production. If this mite is present, there will be a loss of feathers as though the birds had begun to moult or as though the birds were feather-pulling, but on close examination it will be found that there are little bunches near the root of the feather and these are the mites. Rubbing the places where the mites are located with a ten to one solution of creolin will give relief.

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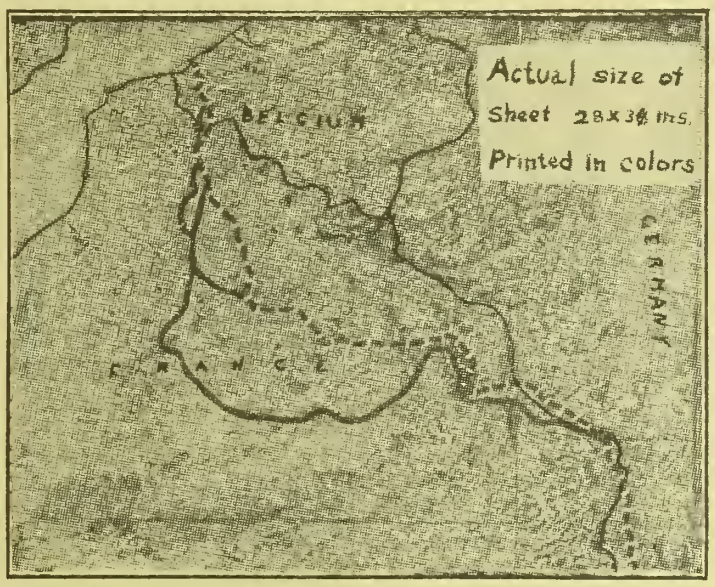

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YOU CAN TELL JUST WHERE THE BOYS ARE FIGHTING ON THIS ELEGANT MAP

MACHINERY TO CUT CORN

WITH the possibility that the returns from our corn crop will be largely a matter of fodder, the importance of saving every ounce of feeding value is daily becoming greater. When hay is selling at $22 to $26 a ton we cannot afford to waste such a valuable feed as corn fodder. In the silo any man of experience will say the crop is worth at least one-third as much a ton, green weight, as hay, and for feeding cattle well cured corn fodder properly handled is equal in value to prairie hay.

In these strenuous times when farm help is so limited it is out of the question to cut corn by hand in the old-fashioned way. A man with a corn knife can by working hard cut and shock perhaps one and one-half acres a day, but two men with a platform harvester can harvest four or five acres in the same time. And three men with a corn binder in a ten-hour day can cut and shock from seven to nine acres. Cutting corn by hand is a hard, disagreeable task and under prevailing conditions there is urgent need for the use of labor-saving machinery whenever possible in saving this valuable crop. The United States Department of Agriculture will soon publish a bulletin showing the many advantages of using machinery in cutting corn. This bulletin is the result of careful farm studies in the handling of corn fodder by various methods.

It is of course easily understood that the best work with the corn binder will be done when the corn is all standing upright. Usually a three-horse team can handle a binder, although sometimes four horses are necessary if the corn is heavy or the ground uneven or hilly. In harvesting an ordinary yield of corn, one man running the binder will keep two busy gathering the bundles and shocking. These three men cutting and shocking by hand could hardly cover more than four acres in a day and they would have to work a good deal harder than when a binder is used. The machine thus requires less laborious work and only takes from a half to two-thirds as long to cut the same acreage.

When the binder is used for cutting corn for silage the labor of at least two men will be saved as compared to cutting by hand. One binder will usually be able to cut the corn as fast as a 12- or 14-inch silage cutter can handle it. A great deal of time is saved in unloading at the cutter, because the corn is in bundles, which enables a further reduction in the size of the harvesting crew.

A bundle elevator attachment to the corn binder saves further labor. By this attachment the bundles of corn are delivered directly to a wagon driven by the side of the binder. This method eliminates another man in the crew. When the bundles are dropped from the binder to the ground, two men are generally required to hand them up as fast as one man can arrange them on the wagon. When an elevator attachment is used one man usually arranges the bundles on the wagon as they are delivered from the binder and another man or boy drives the team.

The platform harvester is the most satisfactory machine when the acreage in corn is not sufficiently large to justify a binder. This machine consists of an A-shaped platform on low wheels two sides of which are equipped with knives. It is drawn by one horse, operated by two men, and cuts two rows at a time. The men gather the stalks as they are cut, and when the shock is reached the horse is stopped and the men carry the cut corn to the shock. In cutting corn with a platform harvester, for silage, much time can be saved and efficient work done if a wagon is driven alongside the harvester and the corn placed on it directly as it is cut. By this method approximately five acres of corn yielding eight tons of silage per acre constitutes a fair day's work. Two men with a platform harvester and one horse will cut and shock at least as much corn in a day as three men cutting by hand. This machine thus taking the place of one hired helper will very nearly pay for itself in cutting forty acres.

Seed Wheat Loan Plans

L. M. Estabrook, chief of the Bureau of Statistics of the United States Department of Agriculture, has been sent to Kansas to take charge of the seed wheat loan fund for Western Kansas farmers. He met last week with the county agricultural agents and other extension representatives who were in conference at the Agricultural College. At this meeting definite plans were prepared for furnishing the loans, and the part the farm bureaus, county agents, and local communities are to take was carefully outlined.

Dairying in Cloud County

Dairy farming is on the increase in Cloud County. Three dairy demonstration meetings were held in the county recently under the direction of the farm bureau. Plans were made at Glasco to ship in a carload of Holstein heifers. When these heifers arrive the proposition of working out some plan of community co-operative breeding will be taken up. The cream buyer at this point reported to the county agent that three or four times as much cream is shipped from Glasco as two years ago.

Truck Delivery of Live Stock

A large commission firm reports that at South St. Joseph during the month of July they handled 543 head of sheep hauled in by truck and wagon from farms. These sheep were weighed up in 806 drafts, and 228 separate sales accounts were made out. The truck method of getting stock to market seems to be developing wonderfully. There is also a decided tendency toward co-operation among farmers in marketing stock. This same firm stated that they had recently handled a two-car shipment involving twenty-three owners. They are furnishing special blanks which they send out to shipping associations in order to help in this matter of co-operative consignment of live stock to central markets.

Sheep Have "Big Head"

J. O. H., Allen County, writes: "What is the trouble with these lambs? I noticed a large early lamb with ears drooping and off feed, also a smaller one. Supposing the trouble to be stomach worm, I caught it to give gasoline and found the side of its face and ears both swollen, ears stiff and breaking out, and waxy stuff on the inside. The smaller one is better; the larger one's eyes are swollen shut. Inside the mouths of both the lips are turning black."

We submitted this question to Dr. R. R. Dykstra, of the Agricultural College. He says: "In my opinion the sheep are affected with the condition known as 'big head.' We do not know the cause of this trouble, but it can be quite readily controlled if as soon as the first symptoms are observed the animal is picked up and carried or carted to a cool, dark place. If these steps are taken early enough, recovery is the usual result. In addition it is a good plan to anoint the swollen parts of the head once or twice daily with olive oil."

Students' Army Training Corps

In order to prevent premature enlistment in the army of young men who could, by attending college, increase their usefulness, the Government is urging students under the draft age to continue in school. To help develop such men, a new corps has been created in the army, called the Students' Army Training Corps. Those who enlist in this corps will receive, in addition to their school work, military training as a part of their course during the college year. In addition they will obtain the benefits of a six weeks' camp course, where intensive military training will be given. Members of the corps will be provided with uniform and other equipment. They will be members of the army, but will be on furlough status and will not receive pay, except while in camp. However, they will be subject to the call of the President for active service, or may be sent to an officers' training camp.

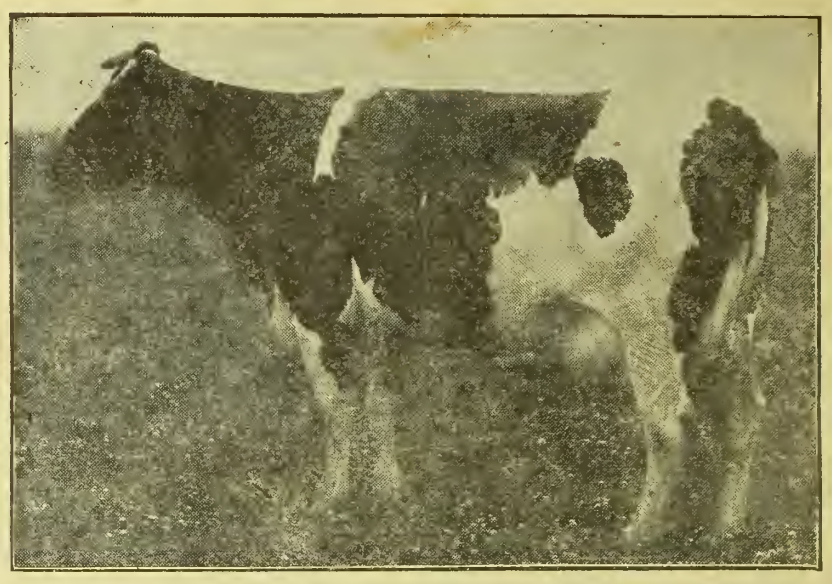
Silo to Conserve Live Stock

Lack of water and shortage of feed is sending thousands of cattle to market from the farms of Kansas and adjoining states. The demand for meat is increasing, and this demand will extend over into next year. It is to be regretted that there should be premature marketing of cattle of any kind and particularly a sacrificing of stock cattle. Feed for the future is the great need of the cattle business, and the silo is doing its part in providing the needed feed re-

Pondview Herd Registered Holstein Cattle

DISPERSION SALE 100 HEAD
at Farm 9 Miles Northeast of Hutchinson, Kan.
One and One-Half Miles South of Medora, Kan., on Rock Island and Frisco Railways

SEPTEMBER 4, 1918



I am dispersing my entire herd of 100 head registered Holstein cows and heifers, also selling two herd bulls whose seven nearest dams averaged 24 pounds butter in seven days—**King Segis Pontiac Raymond 186663**, a three-year-old bull just in his prime, and **Pondview King Segis Pontiac**, 18 months old. I am selling a number of high class bull calves by King Segis Pontiac Raymond; twenty-five coming two-year-old heifers bred to Pondview King Segis Pontiac; twelve heifer calves; five coming three-year-old heifers bred to freshen this fall; two two-year-old heifers out of A. R. O. dams; forty-two cows in milk or bred to freshen soon. Four of these cows have A. R. O. records from 14 to 17 pounds butter in seven days.

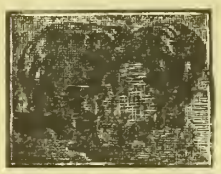
My herd is clean and free from any abortion. Every cow is a regular producer. Every animal over six months old will be tested and sold subject to retest in ninety days. I have spent twelve years building this herd, starting with the best cows I could buy, and have always used high class bulls with records back of them.

Every animal will be sold, nothing reserved. I have not gone to a large expense feeding them up for sale, but selling right off the pastures in every-day working condition. If you want profitable cattle that will make money, send for catalog and arrange to come to sale.

S. E. STOUGHTON & SON, Hutchinson, Kansas

AUCTIONEERS
Col. John D. Snyder, Hutchinson, Kansas; Col. R. E. Colbert, Medora, Kansas
Free conveyance from Midland Hotel to farm day of sale to parties from a distance

POLAND CHINAS. *POLAND CHINAS*



Faulkner's Famous Spotted Polands
THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.

ELKMORE FARM

Will exhibit a show herd of Poland China hogs at Topeka and Hutchinson fairs this fall. Call and see my herd. Annual fall sale October 17, 1918, at farm, the home of Caldwell's Big Bob.

FRED B. CALDWELL - - - HOWARD, KANSAS

POLAND CHINA BOAR PIGS

For Sale—Twenty choice boar pigs, sired by Model Wonder, he by Big Bob Wonder; The Giant by Hercules by Big Ben; King Ben by Giant Ben; Captain Gerstdale Jones, Big Bob Jumbo, and A Big Wonder. Several herd boar prospects.

Ross & Vincent, Sterling, Kan.

TOWNVIEW HERD POLAND CHINAS
For Sale—Choice lot spring boars. All gilts reserved for February bred sow sale. Herd boars, King Wonder's Giant, Walter's Expansive Sid, Big Timm Joe.
CHAS. E. GREEN - PEABODY, KANSAS

LANGFORD'S SPOTTED POLANDS
Last call for spring boars, $40 to $50.
T. T. LANGFORD & SONS, Jamesport, Mo.

Breeders' Directory

RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
Hereford Cattle.
F. S. Jackson, Topeka, Kan.

When Writing to Advertisers, Please Mention Kansas Farmer

Erhart's Big Polands

A few fall boars ready for hard service. Can spare two tried herd boars. Have the greatest showing of spring boars we have ever raised. Some by the 1,250-pound A Big Wonder. Will make prices on pairs and trios. Write me your wants. All immune.
A. J. ERHART & SONS, NESS CITY, KAN.

Morton's Poland Chinas

For Sale—Twenty-five choice boar pigs, sired by Morton's Giant by Discher's Giant and Girstdale Jumbo by Girstdale Jones, out of my best herd sows. Priced reasonable. Write or come and see my herd.
GEORGE MORTON
Oxford : Sumner County : Kansas

Oxford Herd Poland Chinas

Herd boar, Giant Lunker by Discher's Giant out of Lady Lunker. I have 57 early spring pigs. A few choice boars. Priced to sell. Come and see me; I can please you.

Howard R. Wenrich
Oxford - - - - Kansas

Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
J. EDW. PLILEY - GILMAN CITY, MO.

TURNER & SON SHROPSHIRES

Fifty good big registered rams, $50 each, crated and express paid here. Also about 100 head of Lincoln and grade Shropshire ewes, ranging in age from one to six years, $22.50 per head. Sheep three miles north of town. Send check or draft with order. Pedigrees furnished for pure-breds. Always return crate. Reference, Harveyville State Bank.
J. R. TURNER & SON - - - - - - HARVEYVILLE, KANSAS

HOLSTEIN CATTLE.

SAND SPRINGS FARM

REGISTERED HOLSTEINS—The Debt-Paying, Money-Making Kind



Our ten years experience in milking and raising Holsteins may be of value to you. Will sell or trade for young stock our junior herd sire, a fine 22-pound bull, individually right. His calves are a credit to him. Correspondence solicited and visitors welcome.

E. S. ENGLE & SON - - - - ABILENE, KANSAS

MAURER'S HOLSTEIN FARM

Offers special attractions in pure-bred females of all ages with high class breeding, and a number of choicely bred yearling bulls; also grade cows and heifers with size and quality. Don't fail to see this herd before you buy, as they are all bred RIGHT and priced RIGHT.

T. R. MAURER & CO - - - - EMPORIA, KANSAS

$15 Holstein or Guernsey CALVES

From Waukesha County heavy producing stock. Write us today, we guarantee to satisfy you.

RIVERDALE FARMS, Oconomowoc, Wis.

Holstein Calves

Choice, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write

W. C. Kenyon & Sons

Holstein Stock Farms Elgin, Illinois

CORYDALE FARM HERD

Senior herd sire, Jewel Paul Butter Boy 94245, followed by Dutchland Creamelle Sir Iuka 199300, a son of Dutchland Creamelle Korndyke Lad, the great Fields bull. For sale, two young bulls old enough for service out of A. R. O. dam. Call or address

L. F. Cory & Son, Belleville, Ks.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

REGISTERED HOLSTEINS

If you want big producers, males and females, write us. All our own breeding.

Lilac Dairy Farm

Route 2 Topeka, Kansas

HOLSTEIN CALVES

Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. **Clover Valley Holstein Farm, Whitewater, Wisconsin.**

CHOICE HEIFER CALVES

Twelve heifers and three bulls, 15-16ths pure, five to seven weeks old, beautifully marked and from heavy milkers, at $25 each, crated for shipment anywhere.

FERNWOOD FARMS, Wauwatosa, Wisconsin

REGIER'S HOSTEIN-FRIESIANS

For Sale—Young bulls, bred heifers and cows. All sired by the great bull, Sir Rag Apple Korndyke De Kol. Two cows will be fresh this month. Fourteen-thousand-pound milkers.

G. REGIER & SONS, Whitewater, Kansas.

BRAEBURN HOLSTEINS—Senior herd bull, Walker Copia Champion, dam and sire's dam held world's records. Service bulls, bull calves.

H. B. COWLES, 608 Kan. Av., Topeka, Kan.

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

MULEFOOT HOGS.

Knox Knoll Mulefoots

Bred sows and gilts. Open gilts, spring gilts and boars. Satisfaction guaranteed. Free catalog.

S. M. KNOX - HUMBOLDT, KANSAS

GALLOWAY CATTLE.

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

Registered Galloway Bulls

Ten Two-Year-Olds. Ten Long Yearlings.

These are in extra good condition. Ready for immediate service. Come and see them.

CALLAHAN & BECK, KINGMAN, KAN.

ANGUS CATTLE

Edgewood Farm Angus

I have for sale

40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.

D. J. WHITE, Clements, Kan.

SHORTHORN CATTLE.

Abbotsford Shorthorns



For Sale—Twenty-five cows and heifers, several with spring calves at foot; others bred to ROAN MODEL; also seven young bulls eight to eleven months old. All priced to sell. Come and see our herd.

D. BALLANTYNE & SON, Herington, Kan.

MARKS LODGE RED SHORTHORNS

For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

SHORTHORN HERD HEADER

Bonnie Lad 482727, cheap for quick sale.

R. E. HAILEY - WILSEY, KANSAS

DUROC JERSEYS.

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. **W. J. Harrison, Axtell, Kan.**

WOODDELL'S DUROCS

Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

CHESTER WHITE HOGS

RECKARD'S CHESTER WHITES

Have raised pure-blooded Chester White hogs for fifteen years. Breeding stock for sale from prize-winning strains. Large kind and smooth.

E. M. RECKARDS - OZAWKIE, KANSAS

Dornwood Chester Whites

For Sale—Several choice young brood sows.

DORNWOOD FARM - TOPEKA, KANSAS

RED POLLED CATTLE.

RED POLLED CATTLE

For Sale—Four-year-old herd bull. Some extra good cows to calve in winter and early spring. A few yearling heifers.

I. W. POULTON - MEDORA, KANSAS

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.

CHAS. L. JARBOE - QUINTER, KANSAS

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P. M. GROSS
Live Stock Auctioneer

Twelve years on the block.

Pure-bred sales a specialty. Sales made anywhere.

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FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. **VALLEY FALLS, KANSAS**

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri

HORSES AND MULES.



Percherons—Belgians—Shires

After harvest take the most enjoyable little trip of your life. Come see all my show and breeding horses and have a fine visit with me. Drop me a card now. **FRED CHANDLER, R. 7, Charitan, Iowa.** Above Kansas City.

HAMPSHIRE SHEEP.

HAMPSHIRE SHEEP

A few extra good ram lambs for sale.

L. M. SHIVES, R. F. D. 1, IUKA, KANSAS

serves. There are now at least ten thousand silos in Kansas. On the farms having silos the damage to the corn crop is by no means as serious a matter as it is to farmers who do not have silos in which to save the partially-grown crop. We met a man from Liberal last week and asked him about the farmer in that section whom we remembered as buying his first silo some seven or eight years ago. We were told that he not only had this first silo, but two additional ones above ground and four pit silos, and last year in addition to feeding his own stock sold four or five hundred dollars' worth of silage to his neighbors.

The importance of the silo was recognized by the State Council of Defense in its meeting held in Topeka August 10. A resolution introduced by Dean Edw. C. Johnson, pointing to the silo as a means of checking a serious reduction of the breeding herds of the state which have been built up through hard work and patriotic effort during the past three years, was unanimously passed. In this resolution it was stated that the liquidation of cattle from Kansas farms, if continued, would bring lasting injury to the live-stock industry of the state, and that it could be stopped only by an assurance of feed. There is feed enough produced in the state, even in a year like the present, to carry the breeding herds through, providing it is saved and used to the best advantage, and this can be done only through the use of the silo. The resolution urged that all silos now constructed be filled to capacity this year, and that others be built immediately on farms where there are breeding herds and a considerable acreage in feed crops. It was recommended that county councils of defense, farm bureaus, county agents, and farmers' organizations of all kinds continue the efforts now under way to increase the number of silos in Kansas this year.

This is a policy that might well be advocated in any year, but under present abnormal conditions it seems almost imperative that the widest use possible be made of silos to conserve the feed crops of the state. A corn crop which would be considered practically valueless can by being stored in a silo be made to yield a good feed value as roughage.

Forced Moult Unadvisable

We used to hear a good deal about putting hens through a starving and then a forced feeding process late in the summer, the purpose being to cause early moulting. In so far as helping out on egg production is concerned the practice is useless. It stops present egg production and does not increase future egg production. Forcing the moult may be all right for those who plan to exhibit hens at early shows, but as a means of increasing the egg production the practice is useless.

There are two good reasons why every bit of the straw in the state ought to be saved this year: Scarcity of roughness, and the demand for straw for army purposes. Straw for stock, especially oats straw, will be valuable. The Government is in the market for good baled straw for army purposes. All straw should be baled or stored inside. It will be too valuable to let go to waste this year.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

Address All Communications to Kansas Farmer, and Not to Individuals

Personal mail may have to be held for several days, or be delayed in forwarding, and Kansas Farmer cannot assume any responsibility for mistakes occurring thereby

CLAIM SALE DATES.

Holsteins.

Sept. 4—E. S. Stoughton, Hutchinson, Kan.
Sept. 18—W. F. Phelps, Aurora, Mo. Sale at Joplin, Mo.
Oct. 3—Galt & Spencer, Dixon, Illinois. Dispersion sale.

Jersey Cattle.

Oct. 9—B. R. Thompson, Garrison, Kan.

Herefords.

Aug. 30—Wm. Andrews & Sons, dispersion sale, Morse, Iowa.
Sept. 30—William Galloway, Waterloo, Ia.

Shorthorn Cattle.

Nov. 8—Shorthorn Breeders' Sale, Peabody, Kan. O. A. Homan, Peabody, Kan., sales manager.

JERSEY CATTLE.

100 GOOD JERSEYS FOR SALE

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.

J. W. BERRY & SON, Jewell City, Kansas.

REGISTERED JERSEYS

Must sell quick ten high class young bulls and some wonderful heifers and young cows at sacrifice price, on account scarcity of feed. Act at once if you want a bargain.

H. C. Young, 133 So. 33rd St., Lincoln, Neb.

FOR SALE—20 Registered Jersey cows and heifers, Eminent and Raleigh breeding.

L. E. PENDLETON, DODGE CITY, KAN.

HAMPSHIRE HOGS

REGISTERED HAMPSHIRE HOGS. Thirty spring boars, immuned. Am booking orders for fall pigs. **Geo. W. Ela, Valley Falls, Kans.**

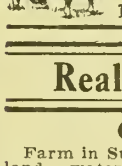
SHEEP

SHEEP REGISTERED **Shropshires Hampshires Southdowns**

Best of breeding.
The oldest and largest flocks in Kansas
One or a carload.

F. B. Cornell, Nickerson, Kan.

SHROPSHIRE SHEEP



FOR SALE

A bunch of good big Registered Shropshire Bucks, not high in price. Also registered ewes.

Howard Chandler, Chariton, Ia.

Real Estate For Sale

CALIFORNIA

Farm in Sunny California. Learn all about land, water, soil, crops, fruit, markets, schools, churches. Send 25c for six months' subscription to Farm and Irrigation Illustrated. **DEPT. 33, SAN FRANCISCO.**

BEST OFFER BUYS

Fine 320-Acre Farm, Eastern Kansas, 3 miles to Yates Center, Woodson County, on main road; 9-room house, two large barns and other outbuildings. All first class repair. 140 acres in cultivation, balance hay land and bluegrass pasture. Worth $100 per acre, will take $75. Investigate this and make an offer.

C. F. SMYTH
3221 Broadway - Kansas City, Mo.

A SNAP for a few days only—A splendid 160-acre wheat and alfalfa farm, with good buildings and fine location. Price only $12,000. Write me quick.

C. R. CANTRALL - FREDONIA, KANSAS

Red Polled Cattle.

Oct. 8—W. T. McBride, Parker, Kan.

Ayrshire Cattle.

Sept. 14—Consignment sale at Topeka Free Fair Grounds. D. M. Henderson, Hudson, Ohio, sales manager.

Spotted Poland Chinas.

Oct. 5—W. J. Honeymoon, Madison, Kan.
Oct. 19—C. A. Gooch, Orrick, Missouri.

Poland Chinas.

Aug. 24—Bert Harriman, Pilot Grove, Mo.
Aug. 25—Walter B. Brown, Perry, Kan.
Oct. 15—H. B. Walter & Son, Effingham, Kansas.
Oct. 16—Dr. J. H. Lomax, Leona, Kansas.
Oct. 17—Fred B. Caldwell, Howard, Kan.
Oct. 31—F. J. Dowe, Hiawatha, Kan.
Oct. 23—T. J. Miesner, Sabetha, Kan.
Oct. 29—Hill & King, Topeka, Kansas.
Oct. 31—Adams & Mason, Gypsum, Kansas.
Nov. 1—E. B. Myers, Hutchinson, Kansas.
Nov. 2—H. E. Myers, Gardner, Kan.
Nov. 5—Moore Bros., Gardner, Kan.
Nov. 6—Earl Bowers, McLouth, Kan.
Nov. 6—M. C. Pollard, Carbondale, Kan.
Nov. 7—Schmitz Bros., Seneca, Kan.
Nov. 8—Ketter Bros., Seneca, Kan.

Duroc Jerseys.

Oct. 8—W. T. McBride, Parker, Kan.
Oct. 17—L. G. Wreath, Manhattan, Kan.
Oct. 19—W. W. Zink, Turon, Kansas.
Jan. 28—W. R. Huston, Americus, Kan. Duroc dispersion and general farm sale.

Spotted Poland Chinas.

Oct. 3—Alfred Carlson, Cleburne, Kan.

Chester Whites.

Oct. 23—J. H. McAnaw, Cameron, Missouri.
Nov. 7—Arthur Mosse, Leavenworth, Kan.

The sale of Hereford cattle announced by William Galloway, Waterloo, Iowa, for September 30, will be one of the big sale events of the season in Hereford circles. A splendid offering of Hereford cattle representing the popular blood lines of the breed will be catalogued for this sale.

H. C. Young, of Lincoln, Nebraska, owner of one of the best Jersey herds in the West, reports his herd making a fine record again this year. This herd is famous for heavy production and the herd is made up entirely of individuals backed by high records.

Clarence Lacey, of Meriden, Kansas, owner of one of the prize winning flocks of Shropshire sheep, will be at the big fairs again this year with his show flock. The show sheep from Mr. Lacey's flock have always won a large share of ribbons at the big fairs and his show bunch this year is in the winning class.

The Government's Call for Income Tax Statements Makes it Certain that

YOU NEED THIS BOOK

GET STARTED RIGHT

There is no better time than right now to begin keeping Farm Records so that you will have the required information ready to make your income tax statement next year. No doubt you are already keeping your records. You want the most simplified and easiest way. Get this book. It's FREE.

PRACTICAL ACCOUNT BOOK

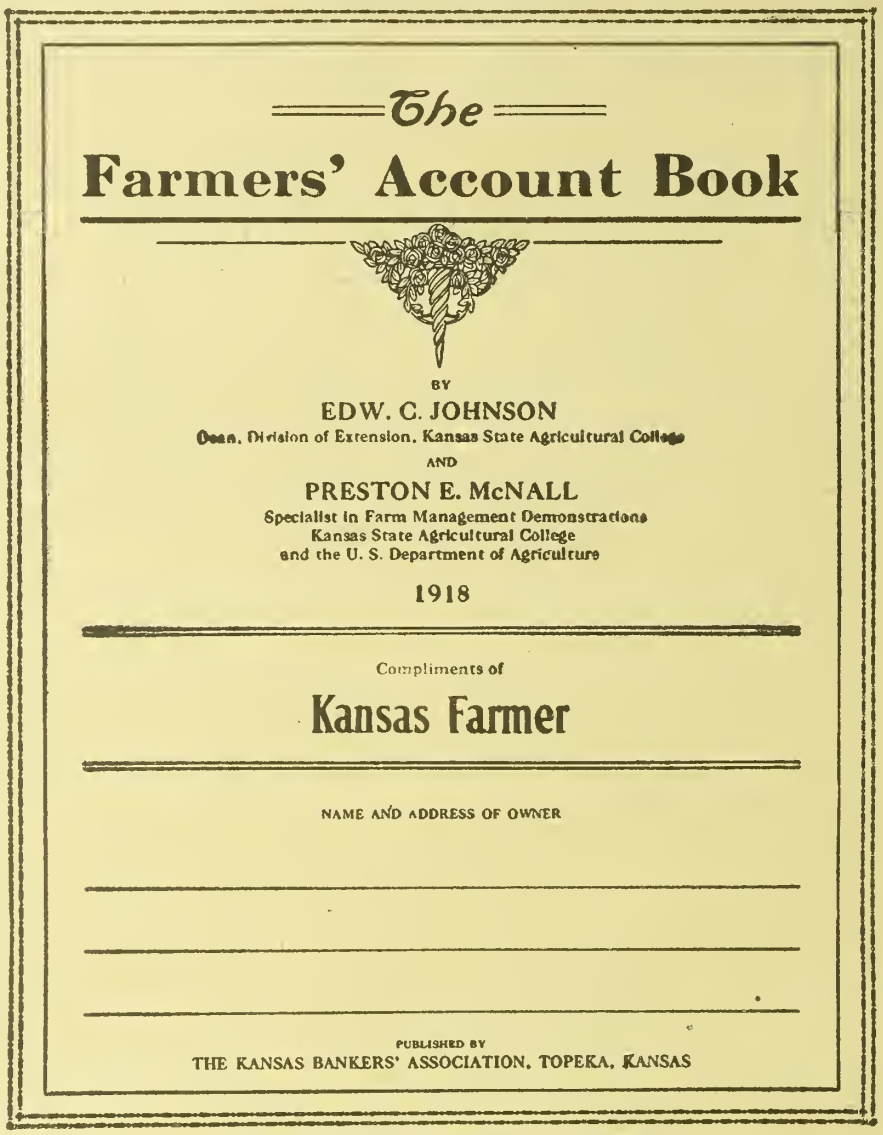
This book is a PRACTICAL Farm Account Book which has been developed under the direction of the United States Government men, working in co-operation with hundreds of farmers in Kansas. It is not merely theoretically correct, but has been prepared to fill the needs as shown by practical use on farms in this state.

THIS BOOK WILL MAKE YOUR WORK EASIER

Keeping accurate records of farm business is becoming more and more popular, not only because it is practically necessary for the income tax statement, but also for the value of the records to the farmer. The most important thing, however, is to secure and keep the information desired with the least amount of work and time; that is, in the simplest way.

The book which KANSAS FARMER is offering on this page, FREE to subscribers, is gotten up with the idea of keeping all the information necessary and valuable with the smallest amount of work. The book is a one-year record. It is small and convenient to keep. It contains full but simple instructions on how to keep the records required, with sufficient blanks for all entries.

ONE-HALF ACTUAL SIZE



ACTUAL SIZE OF BOOK, 8 x 11 INCHES

A PRACTICAL BOOK NOW IN USE BY FARMERS

The book is published by the KANSAS BANKERS' ASSOCIATION. It has been prepared by Dean Edwin C. Johnson and Preston E. McNall, both of the Extension Division of the Kansas Agricultural College, who have done their work on the book in co-operation with the United States Government.

This book has been used in Farm Management studies on hundreds of farms in Kansas where owners have heartily co-operated and offered many valuable suggestions for making it thoroughly practical and suited to actual farm conditions. These suggestions have been incorporated in this latest edition.

CONFORMS WITH REQUIREMENTS OF THE GOVERNMENT

It is the ultimate object of the Internal Revenue Office to adopt a uniform method of computing farmers' incomes. This includes farm inventories, farm receipts, and farm expenses, and follows very closely the book which is given by KANSAS FARMER to its subscribers. From year to year there may be a few slight changes made. For this reason it is best to buy a one-year book in order that each year your book will conform to the Internal Revenue rulings for that year.

FARMERS' ACCOUNT BOOK GIVEN FREE

HOW AND WHERE TO GET THIS BOOK

KANSAS FARMER desires to assist its readers in getting a book which will meet all their requirements at the least possible expense. The book described on this page is adapted to your needs and can be obtained FREE from many banks in Kansas, or KANSAS FARMER will give the book FREE with a subscription. Read our offer below and send today.

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We will mail you ABSOLUTELY FREE and postpaid one of these Account Books for your renewal subscription to KANSAS FARMER at $1.00. Send us your order today and get your accounts started in such a way as will be easy to keep and which you know will be correct.

SPECIAL

To subscribers whose subscriptions are already paid in advance we make the following offer: Send us one new subscription to KANSAS FARMER for six months at 50 cents and we will send you one of the books FREE AND POSTPAID. This offer is open only to subscribers whose subscriptions are paid in advance, and the subscription MUST be a NEW ONE; that is, for someone not taking KANSAS FARMER at the present time.

ORDER BLANK

KANSAS FARMER, TOPEKA, KANSAS.

GENTLEMEN: Inclosed please find $1.00, for which renew my subscription for one year and send me the Farmers' Account Book as per your offer.

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Town..... State.....

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OCT 25 1918

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 35. TOPEKA, KANSAS, AUGUST 31, 1918. Established 1863. $1 a Year

FERTILIZER FOR WINTER WHEAT

Tests Show Profit from Use of Phosphorus in Eastern Kansas

THE use of commercial fertilizer is being more and more considered in Eastern Kansas. It is impossible to produce big crops without plenty of available fertility. The bigger the crop grown, the more need for putting fertility back into the soil. We should not forget that a good crop is a product of the soil as well as a matter of luck or a good season. Heavy crops must be met by a correspondingly increased return of fertility to the soil.

In Eastern Kansas the use of commercial fertilizer is mainly in connection with growing wheat. In this section the great need for this bread cereal has resulted in increased acreages. It is likely that in the present season more than the usual amount of wheat will be planted in the eastern third of the state. A call has gone out for what the Department of Agriculture chooses to designate as Liberty Wheat Harvest in 1919. American farmers are asked to sow at least forty-five million acres, an increase of 7 per cent over last year's planting and an average of 47½ millions is suggested as desirable.

Kansas has done so well that we are not being asked to increase our acreage over that of last year, but to equal that acreage there will in all probability have to be increased planting in the section of the state where wheat has not been a large factor in the farming operations. Conditions in the West have not been favorable for proper preparation and where there have been two successive failures there will likely be a decrease in acreage this fall.

This increase in wheat production in the eastern part of the state where the farms have been cropped for a good many years makes the question of fertilizer of more than ordinary interest. A study of the results of the co-operative testing of commercial fertilizer which has been going on over Eastern Kansas under the direction of the agronomy department of our experiment station, will be most appropriate at this time. These tests show that fertilizers can be used profitably on winter wheat on most of the badly depleted soils in Eastern Kansas, especially those that have been derived from shale—white ash lands—or from sandstone. Fertilizers sometimes give a profit on black limestone and fertile creek and river bottom soils, but in other cases they do not.

Average Wheat Yields in Fertilizer Tests

Plot No.	Treatment and Amount per Acre	Elements of Fertility Supplied	Bushel Yield per Acre
1	Special grain fertilizer (2-10-2), 190 lbs...	Nitrogen, phosphorus, and potash.	26.14
2	No fertilizer	.....	19.8
3	Bone meal (1-29-0), 180 lbs; blood meal (16-0-0), 50 lbs.; potash 20 lbs.....	Nitrogen, phosphorus and potash.	26.4
4	Bone meal (1-29-0), 180 lbs, blood meal (16-0-0) 50 lbs.	Nitrogen and phosphorus	26.5
5	No fertilizer	.....	19.8
6	Bone meal (1-29-0), 180 lbs.....	Phosphorus.	25.4
7	Barnyard manure, 1 ton.....	.....	25.6

Formula 2-10-2 etc. indicates percentages respectively of nitrogen, phosphoric acid and potash contained in fertilizer.

The results indicate that fertilizers which contain a small amount of ammonia (nitrogen) and a large percentage of phosphoric acid (phosphorus) should be used. The percentage of the different kinds of plant food (nitrogen, phosphoric acid, and potash) are always stated on the sack or label. Very often the amount of plant food in a fertilizer is expressed by a formula, as for example, 2-10-2, 1-12-0, placed after the name or brand of the fertilizer. A 2-10-2 mixture contains 2 per cent nitrogen, 10 per cent phosphoric acid, and 2 per cent potash, while a 1-12-0 mixture contains 1 per cent nitrogen, 12 per cent phosphoric acid, and no potash. Bone meal, which contains from 1.5 to 3 per cent nitrogen and from 24 to 29 per cent phosphoric acid, has proved to be the most effective fertilizer to use on wheat. At present prices it is much the cheapest source of phosphorous. Many of the ready-mixed brands of fertilizers with such formulas as 2-10-2, 2-12-0, and 1-12-1, offered for sale, cost less per ton than the bone meal, but they only contain from one-half to one-third as much phosphorus as bone meal.

Unfortunately the supply of bone meal is limited and it will be necessary for farmers to use other kinds of fertilizers. When this is the case, brands containing a high percentage of phosphoric acid are usually the cheapest to use, though not always the lowest price per ton. For example, a 2-12-0 mixture is better than a 2-8-0 mixture, because it contains 50 per cent more phosphoric acid. One hundred pounds of raw bone meal montains three pounds of nitrogen and twenty-four pounds of phosphoric acid, while a standard brand such as a 2-10-0 mixture contains only two pounds of nitrogen and ten pounds of phosphoric acid.

Tests conducted in Southeastern Kansas show that under average conditions from 75 to 100 pounds of bone meal should be applied per acre to winter wheat and from 100 to 150 pounds of ready-mixed fertilizer. Very poor soils will require more fertilizer than those that are above the average in fertility.

The experiment station advises that the fertilizer should be applied at the time the wheat is seeded and, preferably, spread with a grain drill having a fertilizer attachment. Where a combined fertilizer and grain drill is not available, the fertilizer should be applied and worked into the ground before the wheat is planted.

The average yields for thirteen fertilizer tests of wheat conducted in Shawnee, Leavenworth, Franklin, Anderson, Neosho, Labette, Cherokee, Montgomery, Wilson, and Harvey counties this year are shown in the table on this page. These results agree with those secured in similar tests conducted since 1914. The data is presented to show the element of fertility responsible for increases in the yield of wheat on soils where fertilizers can be used to an advantage. Only those tests in which fertilizers gave profitable increases in yields and which were reliable from an experimental standpoint were included in compiling this data.

The results show that phosphorus was the only element of fertility that was profitably utilized as a fertilizer on wheat. Nitrogen increased the yield one bushel per acre, which was not sufficient to cover the cost of this fertilizer. Evidently, seasonal conditions determine whether or not nitrogen can be profitably applied. In 1917 nitrogen was used to a good advantage. Conditions for nitrification were not as favorable as normal for that season, while in 1918 they were more favorable than usual. This probably accounts for the conflicting results for the use of nitrogen for the two seasons.

Fertilizers failed to return a profit in a number of tests, especially those on black limestone and creek or river bottom lands. With the exception of one test in Harvey County, fertilizers were not profitably utilized in Central Kansas.



FIELD IN WHICH EXPERIMENTAL TESTS ARE BEING CONDUCTED.—KANSAS EXPERIMENT STATION IN CO-OPERATION WITH FARMERS IS SEEKING TO LEARN THE KINDS OF FERTILIZER TO USE IN DIFFERENT LOCALITIES

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It is very highly recommended by the Kansas State Agricultural College of Manhattan, Kansas. It has been grown for two years at the College, where the tests have been very satisfactory.

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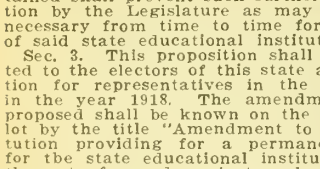

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SENATE CONCURRENT RESOLUTION
No. 18.

A proposition to amend section 1 of article 5 of the constitution of the state of Kansas relative to the right of suffrage.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members elected to each house thereof concurring therein:

Section 1. The following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their approval or rejection: That section 1 of article 5 of the constitution of the state of Kansas be amended to read as follows:

Section 1. Every citizen of the United States of the age of twenty-one years and upwards—who shall have resided in Kansas six months next preceding any election, and in the township or ward in which he or she offers to vote, at least thirty days next preceding such election—shall be deemed a qualified elector.

Sec. 2. That this proposition shall be submitted to the electors of the state at the general election in the year 1918 for their approval or rejection. The amendment hereby proposed shall be designated on the ballot by the following title: "The suffrage amendment to the constitution," and shall be voted for or against as provided by law under such title.

Sec. 3. That this resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 8, 1917.
Approved March 12, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 18, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

SENATE CONCURRENT RESOLUTION
No. 15.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members of each house concurring therein:

Section 1. That the following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their rejection or approval:

Sec. 2. The Legislature may levy a permanent tax for the use and benefit of the state educational institutions and apportion among and appropriate the same to the several institutions, which levy, apportionment and appropriation shall continue until changed by statute. Nothing herein contained shall prevent such further appropriation by the Legislature as may be deemed necessary from time to time for the needs of said state educational institutions.

Sec. 3. This proposition shall be submitted to the electors of this state at the election for representatives in the Legislature in the year 1918. The amendment hereby proposed shall be known on the official ballot by the title "Amendment to the constitution providing for a permanent income for the state educational institutions," and the vote for and against such amendment shall be taken as provided by law.

Sec. 4. This resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 7, 1917.
Approved March 10, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 15, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

The Great Ending

"Though the mills of God grind slowly,
Yet they grind exceeding small;
Though with patience He stands waiting,
With exactness grinds He all."

MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Gasoline Should Not be Taxed

THE Treasury Department is most assuredly in the wrong in proposing in the new Revenue Bill a tax of 10 cents a gallon on gasoline. The taxation of luxuries is absolutely correct, but to the farmer gasoline is not a luxury. It is not a conservation measure, for we have been assured by Mr. Requa of the Fuel Administration that there is plenty of gasoline and that the recent price advance is unwarranted. The Treasury Department is recommending this tax purely from a revenue standpoint.

According to John N. Willys there are five million motor vehicles in use in this country and the records of Mr. Willys' company show that 53 per cent of their sales are to farmers. At this rate 2,650,000 cars are used by farmers. There has been official recognition of the importance of encouraging motor travel and transportation because of the relief afforded to overburdened railroads. A tax on gasoline would restrict such travel and transportation.

Writing in Power Farming, W. B. Jones, of Illinois, says that this proposal of the Treasury Department is embodied in a scheme for the taxation of luxuries and it must be inferred that this department regards fuel for tractors, farm engines, motor trucks, and automobiles, as being in the same class with face paint, bay rum, tobacco, and gold gewgaws.

"Taking the particular case of passenger cars," says Mr. Jones, "the Washington idea seems to be that they are luxurious devices for indulging the indolence of persons who dislike the exertion of walking the block or so between the Capitol and the Senate office building, or of persons who are too proud to ride in street cars. With respect to many of the extravagant cars seen on Washington streets this may be so. But with the light, cheap, mud-fighting cars that we find necessary here, the case is quite different. The farmer's car is no more a luxury than is the street car in which the factory or office employe rides to his work. To be sure the farmer uses his car for pleasure trips as well as for business journeys, but so does the city man take his family by street car to the bathing beach or the circus, not to mention the ball game. If we tax gasoline or passenger cars as luxuries, then we must in fairness levy a tax on the nickle paid to the street car company. The two cases are identical.

"If it becomes necessary to tax the fundamental necessities of life and business, we shall gladly pay a tax on gasoline, provided, of course, other necessities are taxed at an equal rate. But there is little place for a gasoline tax in a schedule of duties on luxuries.

"I want to make it plain that I am not opposed to the raising of abundant revenue by all just and proper means. I do seriously question, however, the justice and propriety of this particular proposal."

Motor Transport Endorsed

The movement to utilize motor trucks on rural express lines has received the endorsement of a number of state food administrators. The Highways Transport Committee of the Council of National Defense has received a very general and prompt response to its suggestion that motor trucks be utilized to facilitate the movement of perishable food products to shipping and consuming centers. This will relieve producers of some of the task of hauling so that they may devote more time to actual crop production in the field during the period of labor shortage.

Reports received from many sections indicate that farmers have been inclined to decrease the production of perishable food stuffs, owing to the time required for hauling to markets. Small lots of fruits, vegetables and other produce which could ordinarily be marketed have been left on the farm because of labor shortage. Rural motor express gathers up such produce and delivers it to market promptly, thereby operating to increase the local food supply of perishables and to aid in the campaign to save staple food stuff.

An interesting plan has been developed in the vicinity of Washington, whereby motor truck loads of fruits and vegetables for canning will be delivered direct from the producers to canning club centers in the city and sold wholesale to members of these clubs for canning in the home. This more direct system of marketing will assure an increase in home canning and facilitate the movement of perishable soodf and vegetables.

Arrangements are being perfected in a number of important fruit growing sections to supplement the usual shipments of fruit by rail by using fleets of motor trucks during the rush period of fruit harvest. Surveys conducted by the Highways Transport Committee show that trucks can be made available for this work and all that is required is that steps be taken to mobilize them promptly when needed. It has also been found that a large number of trucks owned by farmers are now used only a few days a week, and in many instances arrangements can be made to have these trucks used to haul perishables in an emergency.

The establishment of permanent lines of rural motor express is being brought about by making local surveys of communities in which there is need of regular daily service for farmers to and from the market and shipping centers. In several states the federal food administrators are assisting in this work by discovering localities where such highways transport is needed.

How to Use Friction Clutch

The purpose of a clutch on a tractor is to provide a means by which the power can be applied to the drive wheels in such a manner as to start the tractor without any undue strain on the different parts. It is enabled to transmit power due to the fact that there is friction between the clutch band and the clutch drum. In starting a tractor, then, it is advisable to pull the clutch lever back slowly so as to cause a small amount of friction at first, just enough to start the tractor; then when it is under way, pull the clutch back so that the bands grip the clutch drum without slipping. When this is done, there is no undue strain on the tractor parts.

If the clutch is thrown in quickly, the entire power of the motor throws a terrific strain upon the crank shaft bearing, sprockets, chain, rear axle, rear axle bearings, and frame. By proper handling of the clutch, all undue strain will be avoided.—Tractor Farming.

About once in two weeks the cells of a storage battery should be filled to the proper level with distilled water. Do not use ordinary well water or hydrant water, as water from these sources contain dangerous minerals. Acid should never be added. In case some of the contents of the cells should be spilled, consult a battery expert.

Test the battery once a week with a hydrometer. A reading of 1,150 to 1175 shows the battery is discharged. This should not be permitted to occur. The battery should be kept at 1275 to 1300 at all times.

A storage battery can easily be ruined through neglect. You should keep a watchful eye on the ammeter and be sure that it shows "Charge" at all times while the engine is running at average speed, even though the lights are burning. If the ammeter fails to register "Charge" under such conditions, the system should be examined by an expert.

If you should find your battery discharged it does not follow that your system is at fault. Perhaps the lights have been used a great deal and the starter used improperly so that the battery is discharged faster than the generator can charge it. Frequently holding down the starter pedal too long causes the premature discharge of the battery. Hold the pedal down just long enough to spin the engine and then release it.

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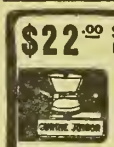

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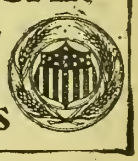

"World at War" in Fireworks

The evening feature of the Kansas Free Fair at Topeka, September 9 to 14, will be "The World at War." This is the largest scenic and spectacular affair ever contracted for in Kansas. It is endorsed by the Government and has been arranged as a patriotic pageant and display depicting the leading events in the world war and pointing the lesson of "Why We Are at War."

The big spectacle will be placed in the big area of the quarter stretch at the fair grounds where everyone can have an unusually good view of every detail. The company carries a large amount of scenery and an unusually large personnel to make more vivid the real events of the war and bring home to the people the spirit of America in the struggle.

Accompanying the spectacle there will be an exceedingly brilliant pyrotechnic display, sanctioned by the Government as a part of the lessons in patriotism which the spectacle is intended to convey. The Kansas Free Fair offered the Government its services in every possible way during the period of the war and much of the work in preparing for the fair has been handled under the supervision and sanction of the Government officials.

One feature which the Government has requested of all fairs is that the entertainment provided shall look toward the enlightenment of the people of each community in war work. "The World at War" spectacle does this to an unusual degree.

At the Kansas State Fair in Hutchinson the same display will be given five nights, beginning Monday, September 16.

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WHEAT ACREAGE IN KANSAS

An increased planting of wheat in Eastern Kansas on carefully prepared land can become quite a factor in meeting the call for the liberty wheat harvest of 1919. We should have no difficulty in maintaining the acreage of last year, and by increasing the seeding of wheat in the eastern third of the state where this crop is not ordinarily a large factor in the farm business, the wheat production of Kansas might be raised above the suggested quota. In discussing the subject of where to grow wheat, the authors of the recent bulletin on "Growing Wheat in Kansas" say:

"Wheat is not as extensively grown in Eastern Kansas as in Central Kansas because farming is more diversified. However, conditions for growing wheat in Eastern Kansas are usually quite favorable. The principal difficulties met with are rust, chinch bugs, and Hessian fly. Lodging occurs on rich soils in wet seasons. On thin uplands wheat is often more profitable than corn, especially if grown after oats and the ground is plowed early. Where this can be done, wheat could be profitably substituted for some of the corn that is usually grown."

It is the common report that more of the land is plowed now and ready for wheat than usual. The increased number of silos in use will result in more corn land being free for wheat seeding than usual. It does not require much preparation to make a good seed bed on corn land that has been well cultivated and is freed from weeds. The premature ripening or drying up of the corn has resulted in the early filling of silos so the fields are free for the necessary work of preparing for wheat.

The fact that in Eastern Kansas harvest labor is not so serious a problem, should be given consideration. The labor of the cities can easily help out at harvest time. It was done this year and a much larger effort along that line can be made.

The wheat farmers of Western and Central Kansas may well hesitate in the matter of greatly increasing their acreages. A normal acreage in these sections on well prepared land and an increased acreage in the regions of diversified farming where there is less risk will easily put us over the top in meeting the proposed quota of this state in the liberty wheat harvest of 1919.

KEEP ISSUES IN MIND

Now that the initiative on the battle line in France has definitely passed to the Allies, we naturally have a feeling of elation that America was not too late and that the results of our belated efforts are now becoming apparent. The German high command sacrificed their men by thousands in its summer offensive in the hope that they could destroy the Allied armies before we had become a factor in the fighting. "It was a race between Wilson and Hindenburg," said an English statesman, and in the light of recent events, Wilson wins.

While we are certain of victory, we should not lose our heads and become too much elated because of the success that has come to the Allied armies in the past few weeks. It is a time for steadiness of purpose and self-discipline on the part of the whole American people. The Allied armies are winning, but the German army is far from being whipped. Gains of a few miles of territory mean little. A crushing defeat of the military power of Germany is the price of the kind of peace for which we are contending.

A German peace offensive is to be expected in the near future. The rulers of Germany will strive by hook or crook to save themselves from the absolutely crushing defeat which they are facing. If we were dealing with a government having a conscience, we might be magnanimous, but we have evidence in abundance that no peace can be a lasting peace unless the terms are dictated and determined by the nations of the world standing for righteousness and fair dealing among nations as well as among individuals.

Many of our own citizens do not yet fully sense the mighty issues at stake. The future of modern civilization depends on the result of this great conflict of nations. Shall we go back a thousand years, or shall we make secure the progress the world has made through the centuries as a result of the sacrifices of the martyrs and crusaders of human liberty and prepare for a new world which shall guarantee to all peoples justice and fair dealing? America is the determining factor. In us lies the hope of the future.

To go from generalities to specific statements helps us to formulate our ideals regarding the issues for which we are contending. In the Senate last week Henry Cabot Lodge, of Massachusetts, speaking for the new Man-Power bill which will give the United States the weapons for winning a complete victory, outlined the peace terms of the Allies as follows:

Restoration of Belgium.

Return of Alsace-Lorraine to France, not from sentimental reasons alone, but to deprive Germany of the coal and iron of Lorraine.

Restoration of Italia Irredenta, including Trieste, to Italy.

Re-establishment of Servia and Roumania as independent states.

Security of Greece.

Establishment of the Jugo-Slavs and Czecho-Slavs as independent peoples.

Independence for Poland.

This statement from the Republican senator who is slated as the floor leader of his party is most significant because it puts the Republican party squarely on record to support the administration in the policy already so clearly outlined by President Wilson.

It will not be easy to adhere steadfastly to this policy of fighting until every issue is settled. We should be prepared to meet the peace offensive of Germany and steel ourselves to fighting it through until we have secured for the world the kind of a peace for which our boys are willingly making the supreme sacrifice if necessary. There is no evidence of weakness at the front. Let us at home as willingly sacrifice for this great cause. Nothing short of a complete victory, an unconditional surrender on the part of Germany, can justify the millions of lives already lost, the wrecking of homes, and the degradation forced upon the women and children of the nations of Europe.

Fairs and Community Progress

ATTENDANCE at a great exposition or fair broadens the mind and enlarges the vision. A visitor with a desire to learn finds valuable suggestions on every side. The open mind takes these in and makes the most of them on the return home. In recognition of this tendency towards progress inspired by fairs and expositions our Government, even in these times of conservation, not only encourages the holding of great agricultural fairs, but seizes this opportunity to make exhibits all over the land setting forth the part various branches of the Federal Government are taking in the great struggle to bring about a righteous and lasting peace.

Increased meat production is distinctly a war need. A careful study of the improved types of live stock seen at a big agricultural exposition shows most strikingly how the live stock at home is failing to fulfill the purposes for which the animals are kept. It pays in dollars and cents to get outside our daily round of toil occasionally. It is easy to get into a rut and the deeper it is worn, the more difficult it is to keep step with the forward march of progress.

A "stay-at-home" policy may confirm us in the practice of some inefficient method, the use of antiquated machinery, or the raising of inferior live stock. The good wife and partner in the farm business, whose hours are often longer than her husband's, may struggle along for years without labor-saving devices she should have had. Exhibits of modern labor-saving equipment create sharp comparisons. A man may be brought up with a sudden jolt as he realizes for the first time what he might have done for his faithful companion and partner in carrying on the work of the farm and home.

Well conducted fairs are community builders. They are worthy of our fullest support. After a vacation trip spent in visiting a big fair, things at home look different. If we have studied aright the best of its kind in animals and in farm equipment as shown at the fair, action along progressive lines is sure to follow. We have been led to fall in line and catch step with the forward ranks in the march of progress.

G. C. Wheeler.

DEMAND FOR FEED

The market reports from Kansas City state that no wheat feeds are available, that the products of Kansas mills are all sold in connection with mixed car orders of flour and feed. It is even intimated that in some instances flour is being purchased for the sake of acquiring a supply of feed. The reports further state that country mills are selling feed locally. As we stated on this page last week, we would like to hear from our readers relative to the mill feed situation in their respective localities. The indications are that the demand for mill feed will far exceed the supply. With a regulated price, one time is as good as another to buy. The fixed Government prices are lower in proportion than the prices being offered for other feeds. An evidence of the tremendous feed demand is shown by the fact that corn bran was quoted in Kansas City last week at $2.75 a hundredweight sack, or $1.25 to $1.33 higher than wheat bran, which is acknowledged to be of greater feeding value.

TREAT SEED WHEAT FOR SMUT

Stinking smut of wheat, or "bunt," is one of the most easily controlled of the grain smuts and yet it causes the loss of millions of bushels of wheat each year. In many counties of Kansas smut was abundant this season. Careful surveys were made in nearly all the wheat counties of the state before harvest by representatives of the extension service of our Agricultural College and the United States Department of Agriculture. While seasonal conditions may enter into the problem, smutty wheat follows the planting of seed carrying the smut spores. It is difficult to get smut-free seed in counties where much smut exists, because every threshing machine carries the spores from farm to farm.

The prevention of smut is simple. Unless absolutely sure your seed came from a smut-free field and was not subject to contamination through the threshing machine, it should be given the formaldehyde treatment before planting. County agricultural agents can give the instructions in detail. Bulletin 210 of our Agricultural Experiment Station at Manhattan describes the method and can be obtained for the asking.

In order that all may have a chance to learn by actual observation how to treat seed for smut, a series of demonstrations will be given covering thirty of the wheat-growing counties of the state. These will begin Monday, September 2, in the northern counties and will continue three weeks, extending southward until all sections are reached. Four meetings will be held in each county. Seed will actually be treated at these meetings so that all who attend can see with their own eyes how easily and inexpensively seed wheat can be treated for smut.

We are looking forward to a liberty harvest next season. Let us not overlook the little preventable leaks which in the aggregate cost us many bushels of grain. Watch for local announcements of the time and place for the holding of these demonstration meetings in your locality.

MANHATTAN GRANGE PICNIC

The Grangers of Riley County and vicinity will hold their annual all-day picnic on the lawn of the agronomy farm at Manhattan next Wednesday, September 4. For several years it has been the practice of the college and experiment station people to invite the grangers to spend a day in picnicking on the college farm. The National Grange lecturer, John C. Ketcham, will be present and speak at this year's meeting. B. Needham, the state master, will also be present. It is an event which no granger can afford to miss. All who come are expected to bring well-filled lunch baskets, as the picnic dinner under the broad-spreading trees on the lawn of the college farmhouse is one of the most enjoyable features of the gathering.

RAINS HELP SILAGE CROPS

The rains that have fallen over the state will be of untold value in growing out the late feed crop.

The sorghums have been hanging on in spite of the extreme heat and lack of moisture and where rain has fallen will immediately start a rapid growth. An immense amount of feed can be produced in the remaining five or six weeks of the growing season. These crops should more and more become the stand-bys for filling our silos. Last year L. E. Reiker, of Harvey County, reports making silage from cane and milo which cost him less than $3 a ton in the silo. With alfalfa hay worth $25 a ton, silage is worth at least $8 a ton. Silage and straw form a combination that will maintain stock cattle in good condition. The sorghums should be more generally depended upon as silage crops.

GROWING WHEAT IN KANSAS

"Growing Wheat in Kansas" is the title of Bulletin 219 issued by the Experiment Station at Manhattan. Several bulletins with this title have been issued during the past few years, but this one is the most complete and practical of them all. The Experiment Station has been systematically studying wheat growing in Kansas from every angle. The results of the work are given in easily readable form. It is not a compilation of theories in wheat production, but a record of practical experimental work. Every wheat grower in the state should have a copy. If you do not receive this bulletin, write and ask for it, addressing Kansas Experiment Station, Manhattan, Kansas.

VARIETY TESTS OF WHEAT

Local Testing Necessary to Establish Adaptability of New Varieties

THE local testing of varieties of farm crops is a most popular and valuable feature of experiment station work. "How will the new variety do under the conditions on my farm?" is the question continually being asked. As long as there exists an element of doubt on this point the introduction of new varieties in a community will be along most conservative lines. The co-operative variety tests made all over the state have for their purpose the answering of these queries which naturally arise as to the local adaptability of the various varieties of farm crops.

During the past season twenty-one variety tests of wheat were successfully completed in Central and Western Kansas, this being the hard wheat growing section of the state. In these tests the new strain of wheat known as Kanred averaged 21.08 bushels to the acre; P-706, another promising strain which is being tested out, 21.44 bushels; Turkey, 19.22 bushels, and Kharkov, 18.33 bushels to the acre.

C. C. Cunningham, who has direct charge of these co-operative tests, told us recently that the season of 1918 is the first one since the tests were under way in which the wheat was badly damaged by lack of moisture at filling time. In a number of tests where the wheat was injured by lack of moisture at this time, Kanred fired the worst. This was due to the Kanred having made a comparatively heavy and thick growth of foliage which required relatively more moisture to maintain it. If conditions for wheat had been more favorable preceding harvest, the Kanred would have made a better comparative yield. However, the Kanred outyielded Turkey and Kharkov.

It will be noted that the P-706 outyielded the Kanred. This occurred for the first time during the past four years. This variety matures earlier than the Kanred and because of its finer stems and leaves is, evidently, better adapted to withstand drouth than the Kanred. The indications are that this variety is a superior one for the western third of the state.

Two new varieties—Nebraska No. 28 and Tauranian (a strain of Turkey recently introduced from Russia)—were tried out in a few tests. Both varieties proved to be inferior to the Turkey wheat. Because of its early maturity the Nebraska No. 28 yielded well in a few tests in the western third of the state where the later varieties were badly damaged by hot winds.

Southeastern Kansas is distinctively a soft wheat growing section. In twelve co-operative tests of soft wheat varieties made in twelve counties south of and including Coffey, Anderson and Linn, Fulcaster made an average yield this year of 28.7 bushels to the acre; Harvest Queen, 28.5; Currell, 25.8, and Miracle, 26.6.

In Northeastern Kansas including Morris, Chase, Lyon, Franklin and Miami counties and all counties directly north of them, twenty tests were conducted. The average acre yields for the different varieties are as follows: Kanred, 33.49 bushels; Turkey, 31.48; Fulcaster, 28.07; Harvest Queen, 29.01; Currell, 26.65, and Miracle, 26.06.

In Southeastern Kansas conditions were more favorable for wheat than normal, in that they were not excessively wet at any time during the growing season. The Fulcaster yielded comparatively well for the fourth consecutive season. The Harvest Queen made a better comparative yield than for any preceding year, except 1917. The Currell and Miracle did not make as good an average yield as usual. These varieties are not as hardy as the others and may have been injured more by the cold dry weather during the winter.

In Northeastern Kansas the Harvest Queen outyielded the Fulcaster for the first time since the co-operative tests have been under way. Mr. Cunningham calls attention to the fact that the Harvest Queen is more winter hardy than the other soft wheats and this probably accounts for its superior yield. This variety was injured less than the other soft wheats by cold weather. The Currell and Miracle winter-killed badly. These varieties should not be recommended for Northern Kansas. The Harvest Queen is perhaps the best variety to grow throughout this section. It will not outyield Fulcaster on the average, but will prove more popular since the latter variety is bearded, while the Harvest Queen is beardless.

Kanred outyielded Turkey, while both of these varieties outyielded the soft wheats. These results should be expected in a season as dry as that of 1917-1918.

Notwithstanding the fact that many grain smuts are easily preventable, those most readily subject to control, according to reasonable conservative estimates, are annually destroying 20,000,000 bushels of wheat, upward of 50,000,000 bushels of oats, and 6,000,000 bushels of barley. Prevent smut by treating seed with formaldehyde.

Secretary of Agriculture to Farmers

YOU are asked to undertake another offensive—to go "over the top" this fall for a great harvest of wheat in 1919. I need give only a few figures and facts to impress you with the increasing and urgent need of our people, our armies, the allied peoples and their armies for large supplies of American wheat.

Our reserve supply or carry-on from the 1917 crop is practically exhausted and is the smallest on record. The need of building up reserves of wheat is evident. Although this country produced a small crop of this grain in 1917, the total exports of wheat in excess of imports, including flour in terms of wheat, amounted to approximately 100,000,000 bushels for the year ending June 30, 1918. This is in comparison with 178,000,000 bushels exported in 1917, 236,000,000 bushels in 1916, and 331,000,000 bushels in 1915. It was possible for the United States to export wheat in large quantities in 1915 and 1916 only because of the large wheat crops of 1912-13-14-15, which gave this country an accumulation of stocks of this grain. Both the 1916 and 1917 crops were smaller than any crops since 1911 and besides this there was a greater demand for seed wheat and an increased population to be fed.

Moreover, it must be borne in mind that the carry-over in all the ten importing countries in Europe was practically exhausted this year before the new harvest; that the normal requirements of the exporting countries are increasing instead of diminishing; that some losses in storage and transit may be expected to continue; and that it is highly desirable that a surplus should be accumulated as insurance against partial crop failure next year.

You have been asked to sow to winter wheat this fall not less than 45,000,000 acres—an increase of 7 per cent over last year's sowing—and the department has suggested that an even greater area, 47,500,000 acres, is desirable. The increased planting asked of each state has been carefully determined with regard to its local conditions and its reasonable capabilities. Your county agent can tell you the quota assigned to your state and you can apply the responsibility to your case.

You have occupied and do occupy the first line trenches of the food army. You have to fight difficulties, too. I am not unmindful of these. In the Department of Agriculture we consider them daily, and daily we give our best efforts to help you meet them. You know of the difficulties in your community, but I know of them in many communities of many states, and so seriously do they impress me that I might almost consider them insurmountable had not American farmers last year, and again this year, revealed the true American fighting spirit and ability to meet serious situations. They will not let the war fail because of deficient food production.

Let us sow liberally for a big harvest in 1919. It has been called the Liberty Wheat Harvest. We all hope it will be. But let us undertake the task with the determination that we will sweat our blood for many more if need be before we yield one measure of our freedom to a Prussian domination. Let us fight in the furrows.

D. F. HOUSTON, Secretary of Agriculture.

Authorized Farm Equipment

SWEEPING changes in the farm implement business will come as a result of the action of the War Industries Board in its elimination program. The following statement has been authorized by this board:

The Conservation Division of the War Industries Board has completed a comprehensive investigation of the general farm implement and farm operating equipment industry and, after numerous preparatory meetings, a detailed schedule of types and sizes of the principal class of farm implements and farm operating equipment to be manufactured during the war period, has been formally adopted by all the interests involved.

Under the elimination program approximately 3,000 surplus types of plows and tillage implements have been discontinued. For example, out of 303 types of plows only sixty-five will be manufactured after December 31, 1918. Of over 300 types of corn planters and drills only ten will be manufactured and 107 types of harrows have been reduced to forty-four.

Members of the industry prepared the initial program of conservation at the request of the War Industries Board. The final schedule was completed only after carefully taking into consideration the actual needs of the farmer, as well as various styles of farm equipment that might be termed "lesser essentials."

The eliminations made effective by this program will materially reduce the size of stocks carried and the capital invested, as well as volume of transportation necessary to carry the agricultural implements to the farmer. Production of the remaining types of implements will also be materially increased as a matter of course. A large amount of steel and iron will be released automatically for war purposes and other necessary industries by the reduction of stocks carried by factories, jobbers, and other distributors.

In addition to the reduction in styles and, consequently, of stocks carried, concentrating efforts on fewer types is expected to work toward stabilizing the cost to the farm without hardship on the producer.

Further elimination of unnecessary types and additional standardization is being worked out by various committees representing different branches of the industry in connection with the War Industries Board. This plan is similar to those that are being put into effect in numerous other industries by the Conservation Division. The savings in labor, capital, and material thus effected with the whole-hearted support of all parties interested will contribute largely to promoting the general war program.

The grain drill and seeding machine schedule is to become effective November 1, 1918, no eliminated machinery to be manufactured after this date, and no additional material for eliminated lines to be ordered after July 15, 1918, except such as may be necessary to even up stocks on hand for the 1918 fall trade. The schedule follows:

1. DRILLS.—Each manufacturer to restrict his output of the following drills to the sizes noted:
   (a) Plain 6-inch drills to 12-6, 16-6, 20-6, and 24-6.
   (b) Plain 7-inch drills to 10-7, 11-7, 12-7, 14-7, and 18-7.
   (c) Plain 8-inch drills to 8-8, 10-8, 12-8, and 16-8.
   (d) Low-down press drills in 6-inch to 20-6.
   (e) Low-down press drills in 7-inch to 12-7 and 16-7.
   (f) Low-down press drills in 8-inch, all sizes to be eliminated.
   (g) Fertilizer drills in 6-inch, all sizes to be eliminated.
   (h) Fertilizer drills in 7-inch to 9-7, 10-7, 11-7, and 12-7.
   (i) Fertilizer drills in 8-inch to 6-8, 8-8, and 10-8.

2. SEEDERS.—Each manufacturer to restrict his output of these seeders to three sizes, viz, 12-bar, 16-bar, and 24-bar.

3. SOWERS.—Each manufacturer to restrict his output of these sowers to two styles, viz, 11-foot wide track and 11-foot narrow track.

4. ONE-HORSE DRILLS.—Each manufacturer to restrict his output of these drills to 5-disk and 5-disk fertilizer types.

5. AGITATOR WHEEL SEEDERS. — The manufacture of agitator wheel seeders to be discontinued.

6. FIVE-INCH DRILLS. — The manufacture of 5-inch drills to be discontinued.

7. BROADCAST FERTILIZER DISTRIBUTORS.—Each manufacturer to restrict his output of these distributors to one size, viz, 8-foot.

8. LAND MEASURES. — Land measures to be eliminated from all sowers.

9. CONCAVITY OF DISKS.—The following description of disks to be recognized as standard and all disks manufactured after July 15, 1918, to conform to this standard, viz, size 13-inch, gauge No. 13, concavity three-fourths inch.

10. POLISHING CONCAVE DISKS. — The polishing of concave disks to be optional with each manufacturer.

"Uncle Si" Helps Win War

"Uncle Si" will help to win the war! "Uncle Si"—that's the Missouri nickname for the silo.

The silo is the Verdun of farm defense, the Marne of victory against being forced to sell the live stock from the farm, declares Secretary Jewell Mayes of the Missouri State Board of Agriculture, calling attention to the fact that this, of all seasons, is a "silo year."

The extremely dry period makes the silo practically a necessity on more than 25,000 farms not yet equipped with silos in this state. Corn put into a silo saves all the crop and, because of the shortage and high price of hay, silage is the logical solution of the problems of the average live stock farm today.

Buy or build a silo, and at once, if you own live stock, selecting the kind suited to your personal preference and your pocketbook, either a temporary or a permanent type—for any silo you select will make you money.

This international food sharing is just looking after "my folks," "your folks" and "our folks."

FARM BUREAU AND BETTER HOGS

Organization Promotes Better Breeding and Better Management

FARMERS who unite in the work of a farm bureau strive for progress along all lines of agricultural development. This principle underlies every project undertaken by a group of farmers so organized.

During Farm and Home Week I. N. Chapman, county agent of Leavenworth County, told of what was being done in that county to bring about better results in hog production. In giving some of the details of the development of the project for hog improvement he said:

"The beginning of the work of course is with the boys of the county and has been pushed harder this year than ever before because of the war needs. The sow and litter contests and the pig clubs are very popular with the boys, creating a great amount of interest and enthusiasm as the season goes on. In fact, last year the success of a number of the boys became so evident that some of the fathers began to talk about "our pig" and "our sow and litter," much to the amusement of the youngsters who were doing the work and carrying out the plans of the club leader. The pigs handled were all pure-bred registered animals and in at least two cases the selection made was for the purpose of raising a pure-bred boar to place at the head of a small herd owned by the boy. The best results obtained were with a pure-bred Duroc Jersey barrow which at eight months weighed 370 pounds and whose gain cost the owner 10 cents a pound. This was the work of a boy twelve years of age, and is an example that might well be followed by his older brothers.

Buying Pure-Bred Boars and Sows

"With the farmers the work of buying pure-bred boars and sows has been encouraged in every possible way. A list of pure-bred boars for sale in all parts of the county is always kept at the office and numerous herd boars too good for the block have been saved for breeding purposes in this way. A number of pure-bred gilts were purchased this winter. These will be used as a foundation for a better farm herd by the farmers who bought them.

"A number of feeding tests to demonstrate the value of the self feeder for fattening hogs will be carried on this spring. There are at present very few, if any, self feeders being used on the farms in the county. No trouble is anticipated in finding farm bureau members who will be willing to carry on the demonstrations, for the men are always interested in getting the best returns from their investments, and the results obtained by the use of the self feeder have always proven it to be the most economical way of fattening hogs.

Testing Value of Self-Feeder

"In this demonstration the hogs to be fattened will be divided into two lots, weighed and placed in separate pens. One lot will be fed in the way best suited to the farmer. The other pen will be supplied with feeds from which they may get a balanced ration. An estimated account of the time spent in feeding and caring for each pen will be kept and both lots will be weighed as often as practical during the fattening period. In this way a comparison of the cost of fattening each group may be obtained and the self-feeder will prove its value under the ordinary farm conditions.

"One other feeding demonstration planned is the use of soybeans and corn in comparison with corn alone for fattening hogs, by hogging down the crop. Last year cowpeas and corn were used but the cowpeas were left untouched in a great measure at least by the swine. However, they shucked the corn, wasted practically none of it, and made first class gains, the farmer having only to move his fence occasionally when fresh pasture was desired.

"If authorities are not wrong the soy beans will provide a greater amount of pasture and give better gains than the corn alone, and the land will be built up by the nitrogen stored in the roots of the beans and the fertilizer scattered by the hogs. By these means we hope to produce meat at a less cost, thus increasing the amount and meeting the great needs of the day.

Control of Hog Cholera

"The greatest project of the work for increasing the swine production is in the effort to control disease, especially hog cholera. Sanitary measures to protect against all diseases are urged and the farmers are assisted in every way in carrying such measures out, but the most important of all is the protection against and the checking of hog cholera.

"The first step for this purpose was township organization. One township was used as an experiment in 1916. Almost every farmer in that area signed a pledge to religiously observe certain rules, among the most important of which were:

"Vaccinating their hogs when cholera broke out.

"Notifying their neighbors at once in such a case.

"Tie up the dog to prevent carrying of disease in this way.

"The Agricultural College became a party in the contract by agreeing to furnish serum at one cent per cubic centimeter and virus free. The veterinarians of the county were asked to cooperate by signing an agreement to charge only one-half cent per cubic centimeter for their work and no mileage charge. All cleaning and disinfecting of the premises was left for the farmer to do.

"This plan was followed for two years, during which time one other township was organized under the same plan. It seemed almost impossible to unite the whole county under this township system and in the spring of 1917 another plan was adopted.

"The Kansas Agricultural College, the Kansas State Live Stock Sanitary Commission, and the Bureau of Animal Industry were co-operating in an effort to unite all the counties of Northeast Kansas, from Marshall east and north of the Kaw, in a territory which should be given government and state aid in case of an outbreak of hog cholera. At the suggestion of E. C. Johnson, dean of extension in the Agricultural College, the matter was taken up by the executive board of the Leavenworth County farm bureau, who at once instructed the county agent to proceed to secure the needed signatures for the petition to the live stock sanitary commission for the organization of the county into a hog cholera control district. These minor details were soon carried out and an organization completed, which, while separate from the farm bureau, was really a part of it, as the officers of the hog cholera control association held exactly the same offices in the farm bureau. This fact makes the two organizations one for all co-operative purposes and each becomes a source of strength to the other. During the outbreak of cholera which occurred early last fall, the best results were obtained where the co-operation was the closest. The educational campaign by the college, together with the united efforts of the expert government veterinarians, county sanitary deputy, and the county agent were all brought into full play before the spread of the disease was checked. Since then the most important work of disinfecting the buildings and pens on the infected farms has been carried on by the county deputy live stock sanitary commissioner. His work has been of great importance and benefit to the farmers because it has been done in a careful painstaking way.

Serum Depots in County

"The question may have arisen in your mind as to how this is meeting the war need by producing more swine. The answer is the application of the purpose underlying these organizations, the protection of the swine-grower through associations for the prevention of damage from hog cholera.

"The establishment of two serum depots in the county where a supply of serum is constantly kept on hand, the co-operation of local banks at each place to handle the financial end of the game, the perfectly harmonious co-operation of the veterinarians, both government and local, have enabled the farm bureau to place this means of prevention and protection from the most dreaded hog disease within the easy reach of every farmer in the county. The sanitary follow-up work gives assurance of safety for the next crop of pigs raised on the place and guards against another outbreak. In short, it becomes a safer investment for the farmer and the results are more hogs.

"In answer to a questionnaire sent out recently it was found that 55 per cent of the farmers answering will keep more brood sows next year than last. Many are starting new herds with pure-bred gilts as a basis, and if present indications can be depended upon as a criterion of future events, Leavenworth County will produce more hogs this year than ever before and will be doing 'her bit' toward helping to care for the boys in khaki across the pond."



NECESSITY IS THE MOTHER OF INVENTION.—THIS BOY HAS DEVISED A PLAN FOR WEIGHING HIS PIG REGULARLY IN SPITE OF DIFFICULTIES

Return Straw to Soil

Why their land was getting harder and baking worse every year was the inquiry made by more than 300 farmers during my recent three months' Chautauqua and lecture trip through the West and Middle West. Scores of Kansas and Middle West farmers say they know their land is gradually decreasing in fertility, that it bakes more after every rain than it did years ago and the tilth is not so good and it does not work so easily. Yet, in spite of all these observations that the Kansas, as well as other Middle West farmers are making, they go right on burning straw piles and destroying other organic matter.

It was a great and inspiring sight as I rode through the western wheat fields to see hundreds and thousands of straw piles representing millions of dollars in golden grain stretching away to the horizon as far as the eye could see—yet, to one who knew the amount of plant food in those straw piles and what they would do for the tilth of the land it was appalling to see the horizon lit up with signal fires of burning straw piles. While the farmers are not wantonly burning the straw as they did years ago, still thousands and thousands of dollars go skyward in the smoke of burning straw piles every year.

Many farmers look upon straw as a waste or by-product of the wheat crop and something to be gotten rid of in the quickest way possible, hence the free use of matches by the western farmer. The stockman and eastern farmer has learned to work the straw through his stable, thus absorbing the liquid manure which is the most valuable part of the manure. While straw is a by-product, it is a valuable one, and when properly handled it often means the difference between the profit and loss on the farm. Certainly it is needed to help maintain the proper tilth of the soil. The packers and other manufacturers have learned that their profits usually lie in the proper handling of their by-products and the farmers must come to the same realization, and that soon.

In a ton of average farm manure there are about ten pounds of ammonia, five pounds of phosphoric acid and about eight to ten pounds of potash. Wheat straw, contrary to public opinion, will contain as much ammonia and phosphoric acid and from one and a half to two times as much potash (and about three times as much organic matter or humus-making material) as farm manure, since the latter is very high in water content. At normal prices for fertilizer a man who burns a ton of straw is sending skyward three dollars. At present war prices it would be nearer five dollars, to say nothing of the humus that is lost. All this great loss can be prevented and must be if our present yields of crops and the fertility of our soils are to be maintained, to say nothing about increasing them.

At the present time there are various types of straw spreaders on the market that are giving good satisfaction. One farm superintendent in Illinois has five straw spreaders and applies the straw as a top dressing for the wheat and young grass at the rate of one and one-half to two tons to the acre. The straw settles down around the wheat roots, provides a fine mulch for the wheat, a good seed bed for the clover, besides decaying rather rapidly and furnishing some plant food for the wheat and young grass. Clover and grass failures have not been so frequent since the straw has been used as a top dressing. This has also proven to be true by farmers farther west. William Knop, of Kansas, used a straw spreader and covered 100 out of 160 acres of his wheat field and harvested five bushels more to the acre on the 100 strawed acres than he did on the sixty acres not covered. This meant 500 bushels more wheat, which at market prices prevalent the last three years netted him more than $500, and the end is not yet.

Organic matter will hold from eight to ten times its own weight of water. Two tons of wheat straw worked into the wheat seed bed will hold from sixteen to twenty tons of water for the wheat crop. Often this amount of extra water would practically insure a wheat crop.

Moisture, humus and available plant food are the limiting factors of production on most farms. Legumes, stock manure and fertilizers will supply available plant food and when the straw is carefully saved and applied to the land in connection with these sources of plant food it means crop insurance.

Straw spreaders are cheaper than matches, as they enable the farmer to build up his soil and crop yields. They mean bigger grain checks and a fertile, live soil.—J. W. Henceroth.

Bull Associations Grow

Farmers are taking advantage of the opportunity to use pure-bred bulls afforded them by membership in a co-operative bull association. Eight is the net increase of co-operative bull associations for the year ended June 30, 1918, and eight others are now in process of organization, according to the Dairy Division of the United States Department of Agriculture. On July 1 this year forty-three associations were in operation, as compared to thirty-six on July 1, 1917, one association in operation last year being disorganized. Fieldmen, county agents, and others working in co-operation with the department have had a part in establishing these associations. There is an average of five pure-bred bulls in each organization and an average of 225 dairy cows.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

IT TAKES as long to load a manure spreader as it does a wagon box, but the spreader will unload and spread the manure in a third of the time. Hauling manure in a wagon box and spreading it on the field with a hand fork is hard and disagreeable work. It can be done much easier with a spreader and the material is more evenly distributed. The spreader is a useful implement to have at any time when manure is to be spread, but particularly so now when labor is scarce and the need for increased crops demands that not a pound of fertility be wasted. Save time and avoid waste—buy a spreader. If the amount of hauling is not sufficient to justify the investment, it may be worth while to rent or borrow your neighbor's.

Phosphate Rock as Fertilizer

Acid phosphate, which is used extensively as a commercial fertilizer, has doubled in price during the last few years. Farmers of this country, according to the United States Department of Agriculture, are now facing serious shortage of this material, because the munitions industry is consuming much sulphuric acid which would ordinarily be used in the manufacture of acid phosphate.

This situation has led users of fertilizers to give greater consideration to the use of ground raw rock phosphate. That this source of phosphorus is being used as fertilizer more extensively is shown by the fact that during 1916-17 at least six large companies entered the raw ground phosphate business and the annual consumption of this material has increased during the last decade to over 91,000 tons, involving an expenditure to the farmer of at least $750,000.

Ground raw rock phosphate is far less soluble than acid phosphate. Its effectiveness appears to be due largely to its thorough distribution in the soil, say specialists of the Department of Agriculture. This is brought about by liberal applications of very finely ground rock together with good tillage. When all these conditions are not fulfilled, it may take several years to obtain the distribution giving the maximum effect. The beneficial effects of a comparatively heavy application of finely ground rock phosphate extend over several years, as a portion of the phosphate becomes soluble each year. These increases in yields are greater, as a rule, in subsequent years.

To be most effective ground phosphate rock should be applied to soil that is well supplied with organic matter. Such soils are always richer in carbonic acid than those of low organic content, and this acid is important in effecting the solubility of the phosphate rock. Bacterial activity, which is more noticeable in soils high in organic matter, is also valuable in adding the solubility of rock phosphate.

Pack Silage Thoroughly

Too much stress can not be laid upon the necessity of thoroughly packing the fodder in the silo so as to exclude the air as much as possible. It is upon this one thing that the keeping of silage largely depends. A device consisting of a jointed pipe, or some variation of it, attached to the top of the blower pipe is at present in use for distributing the cut corn evenly and at the same time to tramp it. Without the use of this device it is necessary to have at least one extra man in the silo to fork the material over so that it is evenly packed. Besides the saving of one man's labor, the distributor does away with the nuisance of having the loose material flying around, thus annoying the man in the silo, and also lessens the danger of being struck by some foreign object that may have passed through the blower.

The finer the fodder is cut, the more compactly it can be packed and the better the silage. Cutter knives should be kept sharp and it is not as a rule best to cut the fodder longer than three-fourths of an inch.

Oftentimes the corn fodder is so dry when it is cut that it is necessary to add water to make up for the deficiency in moisture and provide for the proper packing of the silo. This water is most easily added to the blower when the corn is being cut, and it is also more thoroughly mixed with the cut material in this way.

For the top layer of the silo it is good practice to use heavy green stalks from which the ears have been removed. This forms a heavy layer that packs well and at the same time contains a smaller amount of food material so that the minimum loss is sustained if it spoils. Various methods and materials have been used for covering the top of the silage to prevent its spoiling. None has given complete satisfaction, but the one mentioned above has given as good results as any, especially wet down and packed firmly by tramping. The best practice is to commence feeding as soon as the silo is filled, in which case there will be no loss of silage through decay.

Illustrated War Lectures

Five up-to-the-minute lectures and slides published by the National Committee on Public Information have been purchased by the speakers' bureau of the Kansas State Council of Defense and the Federal Food Administration for Kansas, according to Walter Burr, secretary of the bureau.

These lectures and slides will be circulated over the state during the coming fall and winter. The subjects covered are: "To Berlin via the Air Route"; "Building a Bridge of Ships to Pershing"; "Making the American Army"; "Ruined Churches of France," and "Our Boys in France."

Use Good Seed Wheat

Home-grown wheat should be used for seed wherever possible. The best seed to get is that of an adapted variety which has been grown continuously in the locality for some time, provided it is pure. The idea that varieties "run out" if grown long in one section is only an expression for the fact that they are allowed to become mixed and weedy and disease-infected. Changing the kind of wheat grown should be done only for the purpose of getting a proved better variety. It is often desirable to do this, provided it is demonstrated beyond question that the new variety is better for that locality.

So-called "new" varieties, extravagantly advertised at fancy prices, should be disregarded completely. The varieties recommended by the state experiment stations or other authorities for the several districts within a state or region are the ones which should be grown. In Kansas, for example, the Kanred, an improved strain of Crimean wheat, is commonly grown in place of the Turkey and Kharkov.

The variety tests being conducted over Kansas by the experiment station help to solve the question of variety best adapted to a locality.

Feed the Young Wheat Plant

Stable or barnyard manure is of great benefit when added to soil sown to wheat. It supplies humus by the decay of the organic matter, and contains nitrogen and potassium, sometimes in considerable amounts. It usually does not contain a sufficient proportion of phosphorus. If forty or fifty pounds of acid phosphate, rock phosphate, or basic slag are added to each ton of manure as it is being made in the stable or before hauling to the field, this deficiency of phosphorus is overcome, and a better form of fertilizer can scarcely be found. At least eight tons per acre of this treated manure should be applied at least once in four years.

When barnyard or other rotted manure is not available and plant refuse, such as straw and stubble, is not returned to the soil, the growing of suitable green-manure crops is imperative in order to maintain soil fertility and the supply of humus. On comparatively few farms is there enough rotted manure to take the place of green manures altogether, although by returning the plant refuse to the soil less of the green manure will need to be grown than where no returns are made. By the proper care of plant residues and the use of green-manure crops, principally the legumes, fertility can be maintained as cheaply and as effectively as with the use of large amounts of rotted manures only.

No Strikes on Farms

Under the title, "No Farm Strikes," the Ohio State Grange Monthly declares editorially, "Yes, sometimes farmers kick, but we claim to at least set this example to capital and labor: We are producing to the limit of our ability all the time and will continue to do so to the end of the war.

"No American soldier can ever say, 'I was shot from behind because the farmers quit their work and failed to produce the needed food supply.'"

Pending the determination of the amount of malt required for next winter's operations, the Food Administration has issued a ruling prohibiting all maltsters buying for malting purposes any grain before October 1, 1918.

Farmer to War Board

The War Industries Board has announced the appointment of ex-Governor Henry C. Stuart, of Virginia, as a member of the price-fixing committee of that board. Governor Stuart brings to the committee a broad knowledge of matters pertaining to agriculture. He is chairman of the agricultural advisory committee appointed by the Secretary of Agriculture and the Food Administrator.



A PARADE OF PRIZE-WINNING LIVE STOCK AT ONE OF THE BIG KANSAS FAIRS

Overhead Expense of Farm

THE more or less vague subject of overhead expenses in producing farm crops is discussed in an article by John C. Ketcham, National Grange Lecturer, in the Kansas Grange Monthly. "Cost of production plus a reasonable profit," says Mr. Ketcham, "has been given the sanction of the highest Government officials as the only sure guarantee of continued industrial prosperity, and this basic principle is now used in awarding the huge contracts which the government is making in every direction to supply its vast war requirements.

"Having read of the adoption of this principle in Government contract work, the farmers of the country have become greatly interested in the study of production costs of their various crops, particularly since the matter of "price fixing" has become so widely known and so generally applied to the things the farmer produces.

"As the ordinary farmer reads over the schedule of costs, in producing various articles in the manufacturing line he comes across a term that fills him with mystery. 'Overhead' is a puzzler to him. Dean Davenport in a recent article has said with reference to this very term that the average farmer knows little and cares less about it. It is time this mysterious stranger, Mr. Overhead, was introduced, and his real relation to the business of farming brought to light. As the ordinary person thinks of production costs he readily grasps the notion of the cost of raw materials, the labor cost and the profit that should come from the operation, but when you speak to him of the 'overhead' involved you give his mental processes a knockout.

" 'Farm overhead' is bound to be one of the most widely discussed angles of production cost in the immediate future and no better place can be imagined than the lecture hour of a subordinate Grange to present this question.

"With the thought of promoting the study of this mysterious 'overhead' and with the purpose of insisting upon its consideration in any fair price determination, the following table of general overhead expenses that ought to be charged against a farm is presented and it must balance by a compensating return in price for farm product, if American agriculture is to endure and is to compete for the best brains of the country.

"This study is based upon an eighty-acre farm under average conditions in one of the leading counties of Southern Michigan, and will serve as a fair type of Central West conditions. Lecturers are urged to make a large chart of these figures and place it in your Grange hall where frequent reference can be made to it for the purpose of comparison.

"For this fine practical study of farm overhead the National Lecturer is indebted to Brother A. E. Illenden, of Lenawee County, Michigan. He presented it at nearly twenty-five farmers' institutes this season and it stood the fire of the hundreds of practical farmers of that rich agricultural county. It is here presented with the hope and expectation that it will provoke wide discussion under the guidance of subordinate and Pomona lecturers.

Overhead Expense on Eighty-Acre Farm

Eighty acres, $125 per acre, $10,000.

Interest on investment, 6 per cent.	$ 600.00
Interest on investment in farm equipment, $1,200	72.00
Depreciation equipment, 10 per cent.	120.00
Depreciation and insurance on buildings and fences, $3,500 at 5 per cent	175.00
Management of farm calculated on same basis of any other business employing similar capital.	1,000.00
Cost of horse maintenance, three horses, during idle periods...	105.00
Taxes on farm and equipment at 1 per cent	112.00
Interest on working capital, $500, at 6 per cent	30.00
Total.	$2,214.00
Per acre cost	27.67

"From this study it is plainly evident that an 'overhead' charge of $27.67 per acre goes against every acre of land before a furrow is plowed. In most schedules of crop costs this 'overhead' is either wholly or partially neglected. The fifth item will be challenged by everyone who is unfriendly to agriculture. It contains the real meat of the whole farming proposition. Until agriculture is paid a compensatory price for the head power as well as the horse power involved in it, the present trend to the cities will increase.

"It is the highest patriotism to stress the consideration of overhead in farming as in all other industries. When this cost is added to the actual 'horsepower' cost of raising a bushel of wheat we shall have marked a distinct step in farm progress. It is in the interest of democracy, it is in the interest of an adequate food supply, it is at the very foundation of a satisfying and advancing rural life.

"We are pleased to meet you, Mr. Overhead."

Uncle Sam at Big Fairs

For the first time in all his long and eventful history, Uncle Sam is in the show business. After months of consideration by the executive departments at Washington, a general Committee of Exhibits was organized. The members of that committee represent various executive departments of the United States Government. This committee has secured from the various departments of agriculture, war, navy, commerce, interior, and various administrations, a large number of exhibits they propose to show at the big fairs and expositions of America. They secured orders from Director General McAdoo for sufficient large baggage cars to be attached to freight or passenger trains, or travel special. It required months of work to secure this co-operation.

It was instantly acknowledged by several cabinet officers and others in executive employ, and even President Wilson himself, that the big fairs and expositions are important factors in the business, commercial and social life of the nation. After due consideration it was determined to make the show for the benefit of the people of the United States. The Kansas State Fair will be held in Hutchinson, September 14-21, and will have this exhibit, which will cover 10,000 square feet of space, to say nothing of auxiliary shows, such as moving pictures, mine rescue and various other exceedingly interesting features. These exhibits will not only show progressive agriculture, but the most interesting features from the war, navy, and other departments, which every visitor to Washington makes it a part of his business to go and see. Now, the Government is bringing hundreds of these articles to the people to add to the already splendid educational and entertaining features of the big fairs. It is one of the most valuable adjuncts to state fairs ever secured, and the most powerful endorsement ever obtained of the usefulness of good fairs.

The same Government exhibit will be made at the Kansas Free Fair in Topeka September 9-14.

Missouri State Fair a Success

The eighteenth annual state fair of Missouri, which was held at Sedalia August 10 to 18, made its usual contribution to the advancement of agriculture in the state. Owing to the early date the corn and grain exhibits were not up to the usual standard. The live stock department was well filled with the exception of the Shorthorn cattle classes. In numbers exhibited, Herefords led all the breeds. Some of the noted herds of the West were represented, among them being the well known Kansas herd of Hobert H. Hazlett, El Dorado. This herd carried off a goodly number of the premiums offered.

The swine and sheep departments were well filled. In the Poland China and Duroc Jersey breeds of hogs some exceptionally strong classes were shown. Seven Poland China herds were represented in the aged boar class. Among the Poland China contestants was the Moore herd of Gardner, Kansas.

One of the strong features of the fair this year was the educational exhibit. Almost every county in the state was represented, and Missouri University had one of the most complete exhibits of its kind ever made.

Walnut Log Prices

Walnut log prices that the Government considers fair will be published soon, and owners of trees or logs should wait for these prices, unless they are satisfied with what they are offered. Representation that the Government is buying walnut is false. Neither is there any move by the Government to commandeer walnut. Walnut trees or logs are being bought by private concerns having contracts with the Government for gunstocks or airplane propellers. It is patriotic duty to sell walnut trees or logs, but owners should be reasonably satisfied they are getting fair prices. The Government has announced that it will publish a list of fair prices, both for logs f. o. b. cars and on the stump.

BURN THIS IN YOUR MEMORY.

THE GATES STAND OPEN
THE KANSAS FREE FAIR
TOPEKA-SEPT. 9 TO 14-1918

GREATEST FAIR IN KANSAS HISTORY

Come to Topeka

MONDAY TO SATURDAY, SEPT. 9, 10, 11, 12, 13, 14

U. S. GOVERNMENT WAR EXHIBIT
Direct from Washington, showing all the latest implements of war on land and sea. New building especially built for this great exhibit of the War and Navy Departments.

MILLION DOLLAR LIVE STOCK SHOW
Horses, Cattle, Hogs, Sheep, Poultry. Big array of prize winners of leading Western breeders.

FARM POWER DEMONSTRATIONS
Fifteen acres of machinery, tractors, power plants, lighting plants, implements and labor saving short-cuts to larger production.

$30,000 IN PREMIUMS
Will be given under the usual competitive conditions.

THE MIDWAY
Parker's Greatest Shows, "Chinatown," Ferris Wheel, The Whip, Submarine Chaser, Merry Widow Swings, Honeymoon Trail, Over the Top, and hundred other clean, educating and amusing attractions.

THE WORLD AT WAR
A stupendous war spectacle every night. The biggest sensation Kansas has ever seen, featuring the latest battles on the Western front; 300 people, al fresco stage containing 12,000 square feet.

HORSE RACING AND AUTOMOBILE RACING
Four days of harness and running races and two days of daredevil motor championships on the fastest dirt track in the West.

MUSIC
Three full concert bands, afternoon and evening concerts. The Modocs, great favorites of the concert stage.

PEOPLE'S PAVILION
Educational and patriotic features every day. Home economic demonstrations, Department of Agriculture, Food Administration, Council of Defense, Red Cross and other patriotic organizations and activities will be represented.

L. M. PENWELL, President PHIL EASTMAN, Secretary

6 BIG DAYS A GREAT WAR-FAIR 6 BIG NIGHTS

Men, Women, Boys and Girls

Read the following list of valuable articles. Is there anything in the list that you want? They are all or any of them given FREE in exchange for Kansas Farmer Coupons.

FREE--COUPON ARTICLES--FREE

A PARTIAL LIST ONLY

Lace Curtains	Carving Sets	Set Dishes
Butcher Sets	Knife Sharpeners	Pocket Knives
Maps	Pictures	Music
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Do you know about Kansas Farmer FREE COUPONS? If not, write us today. It means money to you. Every coupon is exchangeable for either goods or money. THE COUPONS ARE FREE TO YOU.

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"Slipping" not "Saving"

"I kept slipping back two feet every time I went ahead one." That's what the small boy gave as an excuse to his teacher for being late for school one winter day.

And that's just what is happening to the cow owner who is trying to get along without a cream separator or with an inferior or half-worn-out machine. Like the small boy he is "slipping." He thinks he is thrifty, but for every dollar he saves by not buying a De Laval he loses two through not having one.

It *isn't* economy to do without labor saving and money saving and food saving machines. It *isn't* economy to feed 40-cent butter to the calves and hogs.

It *is* economy to buy and use only the best cream separator made—and that's the De Laval.

Viewed from every standpoint—clean skimming, ample capacity, ease of operation, freedom from repairs, durability—there is no other cream separator that can compare with the De Laval.

It's real thrift and genuine economy to buy a De Laval Separator NOW.

Why not see the nearest De Laval agent at once! See a new 1918 De Laval machine for yourself. Try it to prove every claim made for it. If you don't know a De Laval agent write direct to one of the addresses below.

THE DE LAVAL SEPARATOR CO.

165 Broadway, New York **29 E. Madison St., Chicago**

Help Save the Canadian Crops

When Our Own Harvest Requirements are Completed

United States Help Badly Needed Harvest Hands Wanted

Military demands from a limited population have made such a scarcity of farm help in Canada that the appeal of the Canadian Government to the United States Government for

Help to Harvest the Canadian Grain Crop of 1918

Meets with a request for all available assistance to go forward as soon as our own crop is secured.

The Allied Armies must be fed and therefore it is necessary to save every bit of the crop of the Continent—American and Canadian. Those who respond to this appeal will get a

Warm Welcome, Good Wages, Good Board and Find Comfortable Homes

A card entitling the holder to a rate of one cent per mile from Canadian Boundary Points to destination and return will be given to all Harvest Applicants. Every facility will be afforded for admission into Canada and return to the United States. Information as to wages, railway rates and routes, may be had from the

UNITED STATES EMPLOYMENT SERVICE

Branches at Dodge City, Hays, Hutchinson, Kansas City, Parsons, Topeka or Wichita.

The True Dairy Patriot

"Jones, over at Hill Crest Dairy, is my idea of a patriot."

"Has he been buying more Liberty bonds?"

"That was only a starter. He sent his three sons to the front, his wife is knitting a hundred sweaters, his daughter is a Red Cross nurse, his wife's brother is building ships and now he is feeding his herd on beets and laundry bluing in the hope that they'll give Red, White and Blue milk."—Hoard's Dairyman.

Silo as an Investment

Professor Grout, formerly of the Minnesota Agricultural College, figures that the producing value of a silo on $50 land would be equal to that of twenty acres added to the 160-acre farm, or $1,000; on $100 land it would be $2,000. This is a low estimate, for the stock-carrying capacity of the farm will often be increased fully 25 per cent by the adding of a silo. As compared with its producing value, the cost of constructing a silo is small.

KANSAS FARMER DAIRY CLUB

Contentment a Factor of Success

IT IS most difficult to achieve any great success in doing things which we do not like to do. Work under such circumstances becomes mere drudgery. The more we can put our minds into the task, the less apt we are to look upon our daily work as a disagreeable job which we do only as necessity drives.

The keeping of records and the studying of the things that make for progress in dairying tend to keep us from regarding the work as drudgery. We feel sure that the milking of cows as it has been done by our Dairy Club members has not been a dreaded task. There has been enough exercise of the mental powers to keep club members interested in the results and the disagreeable or confining features of the work have been matters of small concern.

A farm woman writing in the Holstein-Friesian World says people often ask her if she really likes to live on a farm, and why. Her answer is always an emphatic "Yes."

"Although the persons who ask such questions seldom really expect to have the detailed reasons given," she goes on to say, "I often sort them all over in my mind and then neatly 'card index' them there just for the pleasure it gives me. I imagine that most of you will agree with my reasons, for if a woman isn't honestly enthusiastic about her 'job' as farm helper, that farm must lack just that much of being a success.

"I love the great, big feel of the country, and the only place, I am satisfied, where one would be really lonesome is in a big city apartment house where you know none of your adjoining neighbors. I can't imagine being lonesome on a farm where there are cattle, horses, pigs, hens, sheep, cats and dogs, even if that farm were situated in the middle of a desert.

"I am fond of animals, particularly cows, and every day of my life I go out and visit the herd in barn or pasture. And each Bossy knows me, including the head of the herd, and I am sure they watch for my coming, as I try to make my visit at the same hour each day.

"It is interesting and peculiar to note the attitude of new animals which are brought into the herd from time to time. Many of them appear positively panic-stricken when I step up to pat them. It is quite apparent that decent treatment plus a woman have been unknown quantities in their lives. And then ensues the 'taming' period, which to me is well worth the time it takes. There are two full-aged cows in our herd which are recent newcomers and which were certainly 'some wild' when they came to live under our roof. One nearly had a fit when I gently drew near her, but I am glad to say that she was completely domesticated in a surprisingly short time. She was in evident terror of man or woman and bade fair to turn out a poor buy. She would jump a foot at the slightest noise and shake with fear when milked. I flatter myself that the credit is mine for changing all that, as most men lack the patience such a cow requires. She gradually gave in to my blandishments and now is a real pet. Her nervous fear has all vanished and this pure-bred is going to be a credit to our herd. She has at last given us her trust and it means dollars and cents in our pockets.

"But I have digressed. The life of a farm woman who does most of her work is hard, but to me the environment pays for it all. If one is in understanding touch with Nature; if we have the gift of appreciating her wonderful secrets, then nothing more is necessary. I believe that one can be truest to oneself on the farm. Some way the white lights, the tawdry amusements of the city pale into insignificance beside the greater wonders of the country. I believe in all the conveniences for the farm house and barns. It is good to be able to go cityward in ease and quickness; but best of all is to return to the wide free stretches and abide there forevermore. I like the birds and the beasts, the sweet smells, the fresh, home-grown things to eat and the wholesomeness and well-being of it all. I like to watch the Holsteins at dusk down on the river bank and hear the horses neigh out in the lot. When the big fireplace blazes and the work is done and we sit together to read and talk, I have a feeling which I wouldn't trade for an oil well. It is called 'contentment in the country.'"

Select Dairy Sire Carefully

The dairy sire is at least one-half of the herd, says W. E. Peterson, dairy specialist of the Agricultural College. If he is a poor one he is more. Yet often very little attention is given to the selection of the herd sire.

To increase the production of the herd is every dairyman's aim. It means more profit and real accomplishment. The purchase of a good dairy sire will bring this more cheaply than any other method. A good dairy cow costs considerably more than a poor one if you want to buy, because of the demand for her. However, it costs no more to raise a good one than a poor one.

The capacity for milk production is inherited. It is inherited from the sire as well as from the dam. The dam produces but one offspring a year, while the sire may have influence over many. This makes him the most important animal in the herd.

In Iowa, Professor Gilette bought a number of grade cows which averaged 3,255 pounds of milk and 161 pounds fat per year. He mated them to a good pure-bred bull and this is what happened:

	Lbs. milk per year	Lbs. fat per year
Dams averaged	3,255	161
Daughters averaged	6,313	261
Granddaughters averaged	11,195	431

An Indiana farmer purchased a good bull calf for $100 while he could have bought a grade for much less, yet this is what he accomplished:

The daughters of the pure-bred sire brought 102 pounds more butter fat per year than their dams; 1,828 pounds more milk per year than their dams.

Ten of his daughters yielded a net profit of $300 per year more than their dams.

In selecting a dairy sire Mr. Peterson points out that the most careful consideration should be given to the following requirements:

Whether he is to be used on a grade or pure-bred herd, he should be pure-bred. A grade sire, although he may be from high producing parents, carries some foreign blood which is likely to be transmitted to the offspring. One cannot afford to take this chance.

He must be out of high producing parents. The fact that he has a pedigree does not make him a good producer, but if his dam and granddam are high producers and his sire is out of a high producer, he stands a good chance of transmitting these qualities.

His parents should conform to the standards of the breed. This will more nearly insure that he will transmit "type."

He should be a good individual himself. He should conform to the standards of his breed and give promise of being prepotent.

Better Can Service

Dairymen who ship milk to the cities will be interested to know of efforts by the U. S. Food Administration to secure for them more prompt returns of milk and cream cans. At Topeka, two additional cars have been added for handling empty cans and the service has been greatly improved.

At the suggestion of the Food Administration, the express companies are sending out circulars calling attention to the need for quick service in returning cans to shippers.

Getting Started in Pure-Breds

It will not pay any man to invest in pure-bred cattle unless he maintains them as befits their character. A man addicted to abusive language, or to keeping his cattle in a dirty, dark, ill-ventilated stable, or to wintering them on straw and corn stover, had better not make the attempt.

For him a scrub cow will answer every purpose. But the man with fair business ability, disposed to treat his animals intelligently, will undoubtedly succeed with pure-breds.

A pure-bred sire of high-producing ancestry and fairly certain prepotency will increase herd production. The average

production of the Pennsylvania State College herd the first five years was 225 pounds of butter fat per cow; the second five-year period, 240 pounds, and the third, 265 pounds. This increase is attributed to the pure-bred sires kept. Culling would have increased the production, but it was the desire to discover just what improvement might be expected from the use of a pure-bred sire.

To start a pure-bred herd at least one pure-bred female that is a good producer should be acquired as shown by cow testing association records or advanced registry records. This cow, mated with a sire of high-producing daughters or of high-producing ancestry, will gradually develop a very profitable herd without the expenditure of a large sum.

Save Man at Milking Time

Instead of having an extra man at milking time to tend to the separator and feed the calves, Bernard Gonzenbach, a Wisconsin dairyman, operates the separator with an electric motor. The separator is located in a room adjoining the calf pen, and a rubber hose runs from the separator through the partition into the calf pen.

When milking is started, a pail is set to catch the milk from this hose, and each man, as he finishes milking a cow, pours the milk into the separator, which runs without any attention. After he has emptied his pail of fresh milk, he goes into the calf pen and places the pail of skimmed milk where the calf that is to have it can drink. The calves, of course, are kept in stanchions, so that they cannot interfere with each other.

This simple plan saves a great deal of time and also makes it possible for the calves to have the milk within a few minutes after it comes from the cow. This, of course, is a big advantage.—System on the Farm.

Cow Economical Producer

Two facts stand out prominently as reasons for the increased production and use of milk. The first is that milk as purchased on the market usually supplies food material together with the growth-producing elements more economically than either meat or eggs. The second reason is that the dairy cow is the most economical producer of animal food. One great law of food conservation is to turn inedible feeds into edible foods in the cheapest possible manner. The dairy cow will utilize coarse materials, inedible to humans—such as grass, cornstalks, hay, etc.—and will turn them into milk. Other farm animals also are converters of coarse roughage into edible foods, but are not so efficient as the dairy cow.

An average dairy cow will eat thirty-five pounds of silage per day, or 10,500 pounds in ten months; forty cows will eat 420,000 pounds, or 210 tons. For this amount of silage it would be better to build two 120-ton silos rather than one 220-ton silo. A silo sixteen feet in diameter by forty-five feet high may be built, and it will hold about 220 tons of silage.

Horse and Mule Business

THERE is still a demand for good draft horses and mules, judging from the observations made by Wayne Dinsmore, who recently returned from a business trip through the Canadian Northwest and down the Pacific Coast. Mr. Dinsmore finds that Northwest Canada still believes in draft horses, especially Percherons, as is shown by the fact that farmers in that section bought more than a thousand head during the nineteen months ending July 1, 1918. They want more good draft horses there, but have been hard hit this year by the extreme dry weather and, because of lack of feed, grain, and money, will not be in as good a position to buy breeding stock the coming winter as in the past two years. Mr. Dinsmore looks for considerable trade, however, in spite of the partial failure mentioned.

On the Pacific Coast he reports the demand for horses in excess of the supply, but there is a surplus of smaller stock. Fred H. Bixby, of Long Beach, California, who has large ranches at seven different points on the coast, and who is one of the best informed horsemen, says:

"In regard to the horse conditions in the State of California, I am of the opinion that a great deal of the former horse breeding companies have gone out of the business, but this last spring the horse business seems to have begun to look up, and a good many people are breeding again, and I think within a year or two the business will be in a flourishing condition.

"The mule market is improving in rapid strides. I am quite positive that within the next two or three years, regardless of the tractors and motor trucks, the horse and mule business will be back to its normal state.

"We find no trouble in disposing of our big horses and big mules, but the horses weighing from 1,200 to 1,400 pounds and the mules under 1,000 pounds are poor sellers.

"I am of the opinion that the owners of Percheron, Shire, Belgian, or Clydesdale stallions could sell them now quite easily on the Pacific Coast, provided they put a reasonable price on their animals.

"I think the day of the $3,000 to $5,000 draft stallion for use on grade mares is over for at least the next ten years. The stallion men will have to get down to earth if they want to do any business, and if they do, they can make a whole bunch of sales."

Mr. Dinsmore states that Miller & Lux, who own 10,000 horses in California alone, believe that heavy draft horses will be in strong demand within a few years, and at high prices. Anticipating this they are breeding every available mare, 1,800 to stallions and 700 to jacks, and intend to be prepared to reap the benefit of the probable demand.

In Utah and Colorado the best informed horsemen are of the same opinion. In every district visited there was a decided shortage of real drafters, and of foals, yearlings, or two-year-olds that promise to develop into draft proportions. Many men reported that they were even now in the market for more big farm teams and knew not where to get them.

"The inclination to swing all attention to grain and meat production has unquestionably cut the breeding of heavy work horses and mules to a dangerously low level," says Mr. Dinsmore. "We must not permit our reserves to fall away to a point where agricultural production will be impaired. It is up to each farmer of the corn belt to raise the horses and mules he will need for replacement purposes three years from now, and to rear enough surplus to provide for at least two other farms that raise none; for there are thousands of farmers in the East, South, and West, who do not produce their own work animals, and who must buy."

Selecting Breeding Ewes

Now is the time to select ewes for breeding, well before the mating season and after this year's lambs have been weaned, to produce next year's lamb crop. In culling ewes from the flock two types should be carefully noted; those that are extremely fat and those that are very thin.

The fat ones, especially those carrying an excessive bunch of fat about the rump, may be barren, their high condition being due to the fact that they have not been under the strain of bearing and nursing a lamb.

On the other hand, it must not be supposed, according to the United States Department of Agriculture, that all thin ewes should be bred. If they have dull eyes, harsh fleeces, pale, dry skins, a general run-down and unthrifty condition, and poor teeth, due to old age, they should be disposed of at once. If there is a contrary good condition, the thinness may be safely attributed to the fact that the ewes have been heavy milkers and have raised pairs of strong, thrifty lambs. Such ewes should be retained, and if of approved type their ewe lambs should be selected in maintaining the flock.

As a final point in selection, a careful examination of the udders may result in further culling those likely to be unable to raise their lambs because of defective udders.

More than ever, says the department, farm flocks are being called on to contribute their full share to the food and clothing of the country. It is for this reason that the performance of each ewe in lamb and wool production must be known. All ewes must pay their way. If the flock owner will cull his stock annually, as here suggested, he will have good individuals plus regular performance. Not only will this mean greater profits, but it will be an assurance of increased supplies of mutton and wool to meet the insistent demands of war-time consumption and will help toward victory.

Government Loans to Stockmen

As the result of conferences between the Secretary of Agriculture, Assistant Secretary of the Treasury Leffingwell, and the chairman of the War Finance Corporation, W. P. Harding, at the suggestion of the Secretary of the Treasury, the War Finance Corporation has notified banks and trust companies, through the Federal Reserve banks, of its willingness to make advances to banks and trust companies which have made loans to farmers and cattlemen. The following statement, issued by the corporation, explains this action more fully:

The board of directors of the War Finance Corporation has announced that at the suggestion of Secretary McAdoo it had wired the Federal Reserve banks of Dallas, Kansas City, and Minneapolis, requesting them to notify the banks and trust companies in their respective districts, non-members as well as members of the Federal Reserve system, of the willingness of the War Finance Corporation to make advances under Section VII of the War Finance Corporation act to banks and trust companies which had made loans to farmers and cattlemen.

It is hoped that this measure will enable these institutions to extend credit freely both to farmers and cattlemen whenever necessary to insure the preservation of these essential industries in localities where drouths have seriously impaired their productivity.

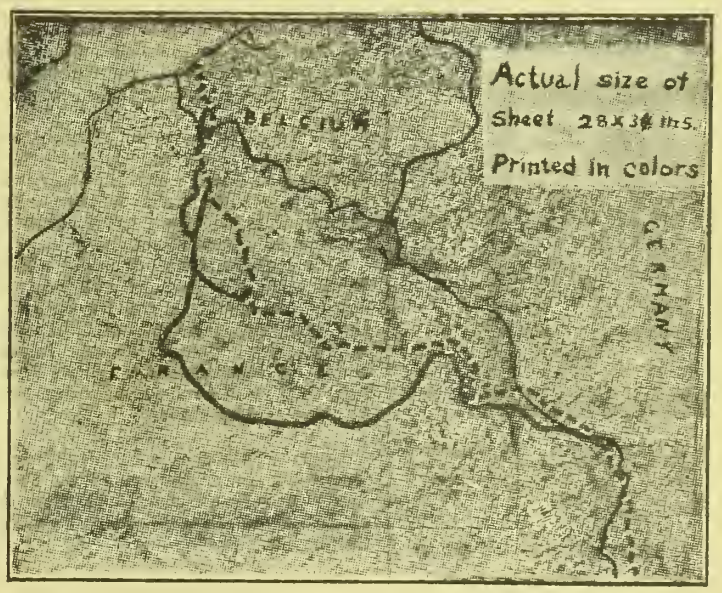
Under the terms of the War Finance Corporation act these advances are limited to 75 per cent of the amount of the loans made by the borrowing institution, or to 100 per cent in case the borrowing institution itself furnishes additional collateral to the extent of 33 per cent of the advance. Such advances will be made by the War Finance Corporation upon written application through the several Federal Reserve banks, acting as its fiscal agents, but only after consideration of their recommendations upon the promissory note of the borrowing institution secured by the obligations of the farmers and cattlemen to which loans have been made by the borrowing institutions, together with any security taken for such obligations.

The following is quoted from Secretary McAdoo's telegram to Governor Harding:

"Drouths in Montana, parts of North Dakota, Kansas, and Texas, are creating a serious situation for the farmers there, involving possible abandonment of farms and sacrifice of live stock. I think that effective assistance can be rendered by the War Finance Corporation. This corporation was created to help finance industries essential to the war, and I know of no industry more vital to the war than that of raising wheat, corn, live stock and other food products. Aid should be extended by the War Finance Corporation to the farm industry and to every other industry which is vital to the prosecution of the war. I think the War Finance Corporation should make loans to national and state banks to extend loans to deserving farmers with full knowledge of the fact that such paper can and will under the terms of the act be taken by the War Finance Corporation. I am sure that the Department of Agriculture will be glad to co-operate in the same direction through the agents and agencies of that department."

Iceland, too far north to raise wheat, is preparing to make herself independent of grain ships by converting part of her potato crop into flour.

Battle Front Map



This miniature of the War Map is too small to show the names of towns. The map you will receive shows plainly the names of all towns and even the smallest villages.

GREATEST OFFER EVER MADE

The Kansas Farmer War Front Map is now ready for distribution. It contains the utmost information possible, showing the whole field of operations, the Western front, the Italian front and the Russian front.

It shows just what territory has been taken by the Germans during recent drives. The cities, rivers, railroads, canals and even the smallest towns and villages are shown. An index of places is printed on the back. Without doubt it is the best War Map printed.

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The maps are printed on special heavy map paper and provided with metal tops and hangers so that they can be easily hung in a prominent place on the wall. They are of the greatest present day interest as well as of immense historic value. Send today and get yours through our most liberal offer ever made.

SPECIAL OFFER

This beautiful, instructive War Map given FREE with one trial subscription to Kansas Farmer for six months at 50 cents.

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Big Free Catalog of the Sweeney Auto and Tractor School—the greatest in the world. You learn everything there is to know about driving and repairing every kind of machine by actual experience. You do all this work yourself under best instruction. You are practical and qualified to fill any high salaried position. Thousands of my graduates now making big money. Write now for catalog—a postal card will bring it. E. J. SWEENEY, Pres.,
SWEENEY AUTO AND TRACTOR SCHOOL,
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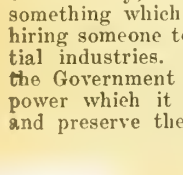
KANSAS CITY, MO.



LEARN TELEGRAPHY

Young men and women attend on credit. A practical school with railroad wires. Owned and operated by the A. T. & S. F. Ry. EARN FROM $75 TO $165 PER MONTH. Write for catalog.
SANTA FE TELEGRAPH SCHOOL
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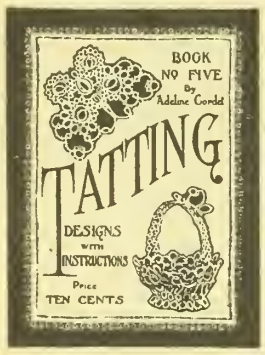
NEW TATTING BOOK



A collection of sixty pretty tatting designs with instructions, by Adeline Cordet. Price, postpaid, 10 cents. Ask for Book No. 5 when ordering. Address Fancy Work Dept., Kansas Farmer, Topeka, Kansas.

A New Crochet Book—Yokes

Crocheted camisole, gown, and corset cover yokes. A collection of pretty patterns with illustrations and complete instructions. In ordering be sure to ask for Book No. 7. Price, postpaid, 10 cents.
FANCY WORK DEPT., KANSAS FARMER, Topeka, Kansas.

Prof. T. N. Carver, of Harvard University, says: "Anyone who, in these days of impending doom, buys anything which he does not need for his health, strength, or efficiency, is hiring someone to do something which is unnecessary. He is hiring someone to stay out of the essential industries. He is competing with the Government for materials and man power which it needs to win the war and preserve the liberties of mankind."

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Children s Summer Clothing

MOTHERS are asked to do many sorts of necessary saving because of the war. Some sorts of war saving require special watchfulness on the mother's part to guard the children from possible harm. For instance, food substitutions must be made with great care in order that the children's food may still contain all the elements necessary to growth.

But with clothes in summer it is different. In hot summer weather it is a distinct advantage to the child's health to be dressed lightly. And the saving of textiles and leather is an important consideration now. Wool must be saved because it is needed for the blankets, underwear, and uniforms of our fighting forces. Cotton is needed for hospitals and many other uses. The need to supply leather for the army's use is of course imperative.

In selecting fabrics for clothing it is not entirely a matter of finding a cheaper and less needed substitute. Old goods must be brought again into service, turned, cleaned, washed, dyed and made over. When an old garment is returned to usefulness actual saving of wool or cotton is effected, and in addition manufacturers will be able to concentrate their output on goods for army uses because of the decreased demand for unnecessary materials.

The purchasing of novelties, fancy fabrics, and elaborate garments tends to withdraw from war uses not only needed materials but labor, especially skilled laborers needed for other branches of production.

Now in summer large savings of woolen materials of every sort including fancy and light colored wools used for knitting can be accomplished. Children can be clothed practically entirely in cotton for several months. Wise mothers will make children's summer clothing as simply as possible, thus reducing the work required for washing and ironing, and increasing the child's comfort.

Children like to wear barefoot sandals in summer. Their use saves leather, and stockings. Half soling and mending makes shoes go much farther. Further saving of leather can be effected by using canvas shoes in summer.

The publications of the Children's Bureau on the care of children will be helpful to mothers in the solution of the puzzling problem of clothing children in summer. The Children's Bureau of the U. S. Department of Labor, Washington, D. C., will send these pamphlets free of charge upon request.

NOTE.—This article by Mrs. Max West is one of the series issued by the Children's Bureau of the U. S. Department of Labor on "How Mothers Can Help in Children's Year."

Diet in Rheumatism

If you have rheumatism, eat less meat and more potatoes. Meat, especially such articles as liver and sweetbreads, yields a large amount of uric acid, too much of which causes rheumatism or gout. If you have either of these disorders, it is an indication that you are eating more meat than your system can take care of.

Meat soups, tea, coffee, and cocoa should also be avoided by those suffering from rheumatism. The diet should be composed of vegetables, eggs, and milk. Potatoes are particularly valuable, as they yield an alkaline ash, or mineral, which has a highly solvent power over uric acid.

Girls Find Friend in Y. W. C. A.

For the young woman away from home, and especially for the stranger in town, the Young Woman's Christian Association affords a safe, quiet haven of refuge among the right sort of people. A branch of the Association is to be found in most of the larger towns and in most colleges. The young woman who is traveling or who is alone in a strange town will always find trustworthy friends and home comforts at its headquarters.

Some of the things which the Y. W. C. A. offers to all young women are: A place to meet a friend, to use the telephone, to write a letter, to leave parcels, to get a room by night or week or month, to read or rest in the library or rest room, to get a refreshing bath—a place to get a wholesome meal at moderate cost or to entertain a dinner party or a social, literary, or church club, a place to meet and entertain gentleman friends, a place to study the Bible, to form strong friendships, to find employment, to receive wise counsel in life problems—a place for wholesome fun, frolic, and laughter, a place for fuller development of body, mind, and soul.

Honeyed Fruits

Honey imparts a particularly delicate flavor to canned fruits. In recipes for preserving and canning substitute honey for sugar pound for pound, or two cupfuls or honey for three cupfuls of sugar.

HONEY APPLE MARMALADE.—Cook tart apples until smooth. Add one pound of honey to two pounds of fruit. Cook until about like cake batter. Then put into jars without sealing. In a few weeks it can be cut out.

HONEYED PLUMS OR PEARS.—Make a syrup of one cupful of honey to two cupfuls of water, boil five minutes and have it ready to pour over the fruit.

Wash plums in cold water, dry and prick in four or five places with a needle. Place a layer of plums in boiling syrup and boil gently for five minutes. Pack fruit into hot sterilized jars, fill with honey syrup, adjust covers, sterilize under boiling water ten minutes, tighten covers and test for leaks.

Pare, quarter and remove cores of Bartlett pears. Drop in slightly salted water, blanch one and one-half minutes in boiling water, then dip instantly in very cold water. Drain and pack in hot sterilized jars, fill with boiling honey syrup. Adjust covers and sterilize under boiling water twenty minutes for quart jars. Seal and test for leaks.

HONEYED WHITE GRAPES.—Select grapes carefully, remove stems and wipe dry. Make a slight incision with embroidery scissors and remove seeds. Make a

Do You Help or Hinder?

WHAT kind of letters do you write to your son? Cheerful, sustaining letters full of home news, or whimpering cries that weaken his nerve and make him an easy target for the devil's guns. How do you talk with your neighbor? Do you keep up your courage—and hers—or do you weep and wail at your personal loss, forgetting the loss to millions of others?

This is no time for personal feelings. We dare not have any. Personality is sunk in the great melting pot of patriotism, and it is no hour to talk of you or me—but, of Them who are already Over There.—American Motherhood.

FASHION DEPARTMENT

All patterns, 10 cents.



No. 8925—Ladies' Shirtwaist: Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. Shaped like a man's tailored collar is the notched one which adds an exclusive touch to this smart shirtwaist. The front closing of the waist is double-breasted, and the closing is low at the left side. The long sleeves are gathered into deep cuffs. **No. 8894—Ladies' Dress:** Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. For summer wear the average woman wants a simple and cool dress for mornings. The shirtwaist buttons at center front and the V-neck is finished with a becoming white collar. The skirt is three-gored. **No. 8923—Girls' One-Piece Dress:** Cut in sizes 6, 8, 10 and 12 years. Quite out of the ordinary is this exclusive design. The dress slips on over the head, and the front and back of the waist are cut in one with the pieces which form the sides of the skirt. The V-neck is finished with a small sailor collar.



No. 8819—Girls' Dress: Cut in sizes 6, 8, 10, 12 and 14 years. The waist buttons at the back and the neck is cut in a slight V-shape. The long sleeves are gathered into turned-back cuffs, but the three-quarter length may be used. The one-piece skirt is gathered at the high waist line at front and back. **No. 8808—Ladies' House Dress:** Cut in sizes 34, 36, 38, 40, 42 and 44 inches bust measure. The waist is in plain shirtwaist style with closing at center front. The sleeves may be made either long or three-quarter length. The neat shawl collar is scalloped on the edges. The skirt has three gores. **No. 8810—Ladies' Two-Gored Gathered Skirt:** Cut in sizes 24, 26, 28, 30 and 43 inches waist measure. The graduated tunic section starts at the right side seam and slants to a point at the left side front. A wide girdle may be worn with the skirt.



No. 8924—Girls' Dress: Cut in sizes 6, 8, 10, 12 and 14 years. This unique little frock for the growing girl shows several new style features. The panel effect at the front of the skirt is cut in one with the fronts of the waist. **No. 8917—Ladies' Dress:** Cut sizes 36, 38, 40, 42 and 44 inches bust measure. This youthful-looking dress very economically combines two materials in a most attractive manner. The waist consists of a panel at back and front of the plaid material. The skirt is in two sections and is gathered at the waistline. **No. 8922—Ladies' Three-Gored Gathered Skirt:** Cut in sizes 24, 26, 28, 30, 32 and 34 inches waist measure. The simpler a skirt is in design, the easier it is to take care of. The skirt has three gores, the right front being very much wider than the left, so that the closing is at the side front.



No. 8937—Ladies' Shirtwaist: Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. An interesting and quite new line is shown in the odd closing of this semi-tailored shirtwaist. The right front edge is cut in a square tab, and the remainder of the closing slants sharply toward the underarm seam. The V-neck is finished with a rather narrow roll collar of white. The shoulder edges of the back extend over and the fronts are gathered. **No. 8939—Girls' One-Piece Dress:** Cut in sizes 6, 8, 10, 12 and 14 years. Truly American is the style of this girlish frock. It slips on over the head, and the only fastening is the lacing where the dress is slashed at center front. The V-neck is finished with an oddly-shaped collar of contrasting material. The back of the dress extends over the shoulders in yoke effect, and the front is becomingly gathered. The sleeves may be long or short. **No. 8962—Ladies' One-Piece House Dress:** Cut in sizes 36, 40 and 44 inches bust measure. This neat gingham house dress is loose and very comfortable to wear when one is doing strenuous work. The dress buttons from neck to hem, so that it can be easily opened out flat and ironed. The sleeves may be long or short.

syrup of one cupful of honey to one cupful of water, bring to a boil, add grapes and let it simmer a few minutes. Pack fruit into hot sterilized jars, fill with syrup, adjust covers and sterilize under boiling water twelve minutes for pint jars. Tighten covers and test for leaks.

PICKLED GRAPES IN HONEY.—

3½ pounds grapes, wine grapes if possible
2 pounds honey
½ pint vinegar
Spices to taste

Separate grapes into small clusters and pack in a jar without bruising any of them. Make a syrup of the honey and vinegar with spices. Then boil the syrup, carefully skimming it, for twenty minutes. While boiling hot, pour over the grapes and seal.

Sauer Kraut

Sauer kraut may be made from cabbage maturing at any season of the year. The cabbage must be mature, sound, and scrupulously clean. In making sauer kraut, remove the outer leaves and any unsound portion. Shred the cabbage with a hand-shredding machine, slaw cutter, or large knife. Pack immediately into the container. As it is packed, add salt in the proportion of one pound of salt to forty pounds of cabbage, distributing it evenly throughout the cabbage. Experiments have shown that approximately two and one-half pounds of salt to each hundred pounds of shredded cabbage give the best flavor to the kraut. Pack the cabbage by pressing gently with a wooden mallet after the addition of each layer of cabbage. When the container is full, cover with cheesecloth and board, add the weight, and set aside until fermentation is complete. Remove any scum that has formed and cover over with hot paraffin.

If the sauer kraut is made during the fall and stored in a cool place, there is no absolute neeessity of a layer of paraffin, since the low temperature will prevent the growth of the organism which destroys lactic acid and causes decomposition. No doubt the popular idea that sauer kraut made from early cabbage will not keep is based upon the fact that the fermentation of sauer kraut made from such cabbage occurs in warm weather and the rapid growth of scum soon destroys both brine and kraut if the surface is not properly protected. —Bulletin Ohio State University.

Smothered Chicken

Split chicken along back bone; place flat in dripping pan, breast up; dredge with flour, salt and pepper; place pieces of fat—chicken fat preferred—on chicken; add two cupfuls of water, cover and cook slowly for one hour or more, depending upon age of chicken. One-half hour before chicken is to be served, remove cover and brown.

Cabbage Salad

Did you know that raw cabbage is more easily digested than cooked cabbage? A delicious and wholesome salad is made by pouring over finely-chopped cabbage an uncooked dressing made of sour cream seasoned with a little cider vinegar, sugar, celery seed, and a tiny pinch of salt. Chopped English walnuts add both to the food value and to the taste.

Hooveresque Delicacies

"Neurasthenia," said Mrs. Biggums to her cook, "I think we will have some chicken croquettes today out of that left-over pork and calves' liver."

"Yes'm," said Neurasthenia, called Teeney for short. "An' we got a little bread dressin' what went wid de pork, mum. Shall I make some apple sauce out'n hit, mum?"—Richmond Times-Dispatch.

When darning stockings, it is a help to tack a piece of net of corresponding color over the hole and darn back and forth through this.

A Mother's Gift

If I might only think he bears
A shining armor of my prayers
To ward the shadow of a shell
From his beloved breast,
And, like the wings of angels, keep
Away the nameless things that creep—
Pleasure masked videttes of hell—
To prey on his rare hours of rest!
But all my prayers and tears are vain
To shield him from a single pain.
One gift is mine, and one alone,
To my own flesh, which is no more my own:
His parting look into his mother's eyes
Shall find so calm and absolute a trust
In the high cause that claims the sacrifice
That when the moment comes—as come it must—
When he asks himself, "Is it worth while,
This dream I fight for?" then he can recall
His mother's faith, who gave that dream her all
And gave it with a smile.
—Amelia Josephine Burr in Chicago News.

Interesting War Items

Larned Boy at Chateau Thierry

A SLIGHT wound from a shell fragment and burns received during the campaign at Chateau Thierry early in June sent Tom Stewart, of Larned, to an American base hospital in Southern France and gave him time to write home some very interesting letters which are printed in the Larned Chronoscope. In one of these he says:

"We got a chance to see what war is this time. The road we came on was simply lined with civilians going to the rear. It is certainly pitiful to see them—mostly old people with all their possessions on wagons, carts, even wheelbarrows and on their backs; and all tired out with traveling perhaps a couple of days. It was enough to make a man want to fight.

"We entered a town and cleaned it up with twenty-four men and found out to our own satisfaction that Heine will run every time and if in a tight place its 'Kamerad.' But it's hard to hear them when they've been cutting you to pieces with machine guns. They had a machine gun company and two battalions in reserve at this town, so you see what fighters(?) they are. They have a splendid machine gun, but are poor marksmen.

"In reserve I helped carry back some wounded from the front lines. The boche would snipe you even at that. But they are not all like that, some dressed wounds of our men and let them return to their lines. We were up against some of their crack troops, some of the Crown Prince's Imperial Guards, so I've decided I can whip the biggest Hun in the imperial army. We haven't been in the line as long as some Americans, but our division was the first to put on a drive and hold the ground gained. The Americans don't savvy this retire stuff. We've got plenty of formations for attack but not one for retreat. The Marines have never been on the run yet and I know darn well the Fritzies can't make them do it.

"We had some hot fighting up there, but I wouldn't have missed it for the world, and it's sure given everyone of us a lot of confidence in ourselves. The only thing we can't beat them at is the six-inch stuff, and we have to leave that to the artillery, and they are sure doing it. A fellow can't fight back at a high explosive shell, and it's the hardest thing to endure continually.

"A fellow has got to have something to hang onto or he goes to pieces, as some of them do. I am thankful that my parents have taught me what that something is to be. When you lie in your little dugout and shells burst so close during a bombardment that they push you about in it, you wonder what is saving you from a direct hit, and you've simply a Divine Providence to thank for it."

Address Letters Carefully

In order to insure prompt delivery of letters or packages addressed to soldiers in the American Expeditionary Forces, the company as well as the regimental designation should be given.

Mail for companies and other units is made up in this country and delivered in bundles to the French authorities to be forwarded to the railroad point nearest the organization and delivered to the mail orderlies of the particular units. These orderlies deliver to the individual addressee. If an insufficient address is given and the addressee is not known in the regiment, the mail must go to general headquarters, where attempts are made to locate him. It may take weeks to secure the necessary information.

Explosives Still Obtainable

The following statement has been issued by the United States Department of Agriculture:

"It appears that considerable difficulty has been encountered by farmers in securing explosives under federal licensing regulations. This office has been in conference with the Bureau of Mines and they have been kind enough to make this suggestion:

"'That in each locality where there is not a sufficient number of federal explosives licensing agents for the convenience of farmers who use or require explosives, that your state and county representatives recommend to F. S. Peabody, Assistant to the Director in Charge of Explosives, Bureau of Mines, Washington, D. C., reputable notaries public or justices of the peace who are loyal American citizens to be appointed as local federal licensing agents under the Explosives act for the issuance of license in each locality.'"

Post Office Clerks Kept Busy

The Post Office Department announces that more than seven million letters from soldiers in France were received in the United States during the two weeks following July 29. One ship arriving August 2 brought in 2,823,000 letters, and on the same day a transport brought 300,000 to another port. On August 5, 2,031,000 letters arrived on another ship.

This entire mail was immediately dispatched, the last of it leaving before the expiration of twenty-four hours after the arrival of the ships in port. Railway mail clerks at ports in France had sorted and distributed in mail sacks, according to its destination in this country, 80 per cent of this mail. The other 20 per cent arrived at the ports in France too late to be "worked up," and was shipped to save time and worked at the New York post office.

The German Beatitudes

It is not known whether the following creed was composed by a German or by a foreign student of Germanism. It has the ring of genuineness; it is not far-fetched or overdrawn. The military masters of Germany have acted upon this creed, and the German army, their disciples, has lived up to it:

"Ye have heard how in olden times it was said, 'Blessed are the meek, for they shall inherit the earth'; but I say unto you, 'Blessed are the valiant, for they shall make the earth their throne.' And ye have heard men say, 'Blessed are the poor in spirit'; but I say unto you, 'Blessed are the great in soul and the free in spirit, for they shall enter into Valhalla.' And ye have heard men say, 'Blessed are the peacemakers'; but I say unto you, 'Blessed are the war makers, for they shall be called, if not the children of Jehovah, the children of Odin, who is greater than Jehovah.'"

Allotments to Dependents

Allotments by United States soldiers of a portion of their pay to dependents have increased in number from 10,000 at the beginning of the war to 800,000. For the month of May these allotments total $5,000,000. Thirty thousand commissioned officers are alloting $1,000,000 a month to their families; noncommissioned officers and privates, $4,000,000.

In addition nearly $50,000,000 of Liberty Loan bonds of the second Liberty Loan will have been paid for by members of the army and will be turned over to the purchasers during August, the payments having been made out of allotments made for the purpose.

How Far Behind the Boys?

One of Pershing's men, returned from France, was speaking:

"When I left for home," he said, "the boys over there were feeling pretty blue, because they thought that you here in America were not backing them up as you ought. We had a pretty bitter winter over there. The weather was the coldest France has known in years. Many of us were without proper food and clothing. Some were even without shoes. None of us were complaining, though, but the feeling that when we were doing so much for you, you were not doing everything in your power to back us up sometimes bit in pretty hard.

"We felt like the little Irishman felt in a Y. M. C. A. hut one evening. A bunch of us had gathered there to listen to a speaker from America. During the course of his lecture he said:

"'We in America are behind you boys to a man.'

"Then my little Irish friend got up. 'Yes,' he said, 'you're all behind us, all right, a long way behind—4,000 miles.'"

Are you that far behind "the boys"? If you are, move up closer. Make the boys in France realize that while the mileage may be great, it is easily spanned by your willingness to help.

Not Sorry He Enlisted

"Never once have I regretted that I enlisted when I did, and money could not purchase the experience I have secured. The life is hard and trying—there are few comforts and conveniences—but I really like it," writes Private L. A. Payne, a Kansas boy, from France, as quoted in the Hutchinson News. "My health is the finest in the world; my condition almost perfect. I have withstood the hikes and training like a veteran. I am determined that I'll go as long as the company holds together.

"Honestly, folks, you have no cause to worry. I have never felt as good in all my life as I feel now. The training has removed all superfluous flesh and is making me as hard as iron."

A PROFITABLE INVESTMENT

For the breeder of pure-bred live stock, advertising space used at the right time is a profitable investment.

Advertising Means Quick Sales

and quick sales, when the offering is ready to go, means profitable sales. The demand for breeding stock is growing. It is the opportune time to advertise.

Let prospective buyers know that you have pure-bred stock for sale and they will quickly take your surplus.

KANSAS FARMER reaches the live stock buyers in this field and space used in the live stock advertising columns of KANSAS FARMER will sell your offering quick and at a small cost. Write for our special live stock advertising rate.

If your offering is ready, advertise now. It will result in quick sales at profitable prices.

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE—VERY CHOICE HOLSTEIN and Guernsey calves, either sex, six weeks old, 95 per cent pure-bred, at $25 each, delivered. Lewis Dutcher, Peary View Farm, Janesville, Wis.

REGISTERED HOLSTEIN BULL, READY for service. Five of his dams average 106 pounds milk in one day and 34 pounds butter in seven days officially. $125. Wisconsin Live Stock Association, Appleton, Wis.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

PAINT.

FARMERS, ATTENTION. I CAN SAVE you money on good paints this fall. A special red barn paint, freight paid, at $1.20 per gallon in 25 and 50 gallon lots. An extra good black roof paint at 42 cents per gallon, freight paid. Order at once. John Nelson, Stamford, Nebraska.

FARMS WANTED.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 56th St., Chippewa Falls, Wisconsin.

REAL ESTATE.

FARM FOR SALE—160 ACRES, HALF mile from town; good water, fair improvements. Address F. E. Weed, Athol, Kan.

SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price $10 to $15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address E. T. Cartlidge, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kan.

DOGS.

CHEAP IF ORDERED IMMEDIATELY, all kinds hounds and dogs; sent to try. R. G. Mason, Kirksville, Mo.

FOR SALE—FOUR HIGH CLASS COON dogs. A. F. Sampey, 317 E. Mt. Vernon Street, Springfield, Missouri.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

RABBIT HOUNDS, FOX HOUNDS, COON, opossum, skunk, squirrel dogs. Setters, pointers, ferrets, rabbits. Catalog 10c. Brown's Kennels, York, Pa.

KODAKS.

FREE—WITH FIRST ORDER AND FIVE names of kodak owner, a beautiful 5 x 7 enlargement from any film. Developing, 10c; prints, 3c up. Foto Art Company, Dept. H, Lincoln or Norfolk, Nebraska.

AUTO TIRES.

TIRES — FORD, $6.50. LARGER SIZES equally low. "Lowest tube prices." Booklet free. Economy Tire Co., Kansas City, Mo.

POULTRY.

FOR SALE—ROSE COMB WHITE LEGhorn roosters. Wm. Chisholm, Hildreth, Neb.

POULTRY WANTED.

IF DISSATISFIED WITH LOCAL POULtry and egg market, ship direct. We loan coops and cases free. The Copes, Topeka.

SHEEP.

REGISTERED SHROPSHIRE HUSKY March rams. Little Valley Stock Farm, Phillipsburg, Kansas.

FOR SALE — UNREGISTERED SHROPshire ram lambs. Price, $30 to $40 per head. Also black-faced ewes, age from one to five years. J. E. Regier, Whitewater, Kansas.

TWO CHOICE HIGH GRADE SHROPshire ram lambs, $25 each; two-year-old flock header weighing 380 pounds at $40. Earl Scott, Belvidere, Kansas.

REGISTERED SHROPSHIRE RAMS, $40 up; ewes, $50 up. Circular and price list mailed on request. Will show at Topeka Free Fair. Clarence Lacey, Maple Hill Farm, Meriden, Kansas. Phone 260.

TEN VERY HIGH GRADE SHROPSHIRE rams at $40. These are yearlings that clipped last May 16¾ pounds of wool. References, Lee Bros. & Cook or Harveyville (Kan.) State Bank. H. C. Shaw & Son, breeders of Hampshire hogs and Shropshire sheep, Harveyville, Kansas.

BIG BARGAINS IN SHROPSHIRE SHEEP on account of room. Order your lambs now. Leading breeds cattle and pigs at farmers' prices. Farm poultry and baby chicks; 25,000 chicks this year sold here. Cheap farm and other dogs and all kinds hounds sent to try. Captain Richard Mason, Kirksville, Mo.

WANTED—TO BUY.

WANTED—SORGHUM SYRUP IN BARrels or cans. Quote f. o. b. your shipping point and state when you can make deliveries. J. Ralston Cargill, Americus, Ga.

THE STRAY LIST.

TAKEN UP—BY G. W. ANDERSON, OF Liberal, Center Township, Stevens County, Kansas, on or about the 8th day of August, 1918, one brown mare mule about five years old, weight about 950 pounds, no marks or brands; appraised at $100. C. F. Bell, County Clerk.

WANTED

WANTED—HOUSEWORK ON FARM, BY girl; old couple preferred; small wages for good home. Permanent place desired. Address Box 31 Mentor, Kansas.

The International Sugar Commission took stock of the sugar on hand, subtracted Allied requirements, and allotted America her share, then the Food Administration counted noses and announced two pounds per for our folks. Has anybody a better plan?

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Prospects For Fall and Winter

IT HAS been truly said, "There is money in poultry if you know how." However, it matters not what knowledge one possesses if that knowledge is not put into practice.

These are times of unusual conditions. Feed, lumber, fencing and labor are all high. But remember, the prices paid for commercial eggs this summer have held the highest summer average in the history of this country. The leading breeders of standard practical fowls, with rare exceptions, report a highly satisfactory hatching egg and baby chick business the past spring. The large baby chick hatcheries finished their season with the largest increase in business in their history. Summer sales of breeding stock and exhibition fowls do not seem to have shown any increase, but leading breeders report business about normal.

Present indications point to the highest prices for eating eggs this fall and winter we have ever dreamed of and with the present work which is being undertaken to insure the holding of more local poultry exhibitions this coming winter, I feel very confident that the breeder of standard quality will have a demand for all surplus fowls of quality and at good money-making prices. Thus it would seem that it is up to each poultryman whether or not money is to be made. Conditions of the world in general and of feed prices demand of the poultryman 100 per cent efficiency. He who has built best in the past, who has properly arranged houses and yards, who has culled and bred for better poultry with a certain standard in mind, is now sailing safely in the harbor. Success or failure is up to the poultryman. We must learn in these war times to adjust our methods to fit the war-time prices of feed and of our products. Better layers and efficient methods mean success under present conditions.

Wise indeed is the poultryman who does his work well during the first fall month—September. Both the adult and young stock having passed through the two hot dry months of June and July are in the need of care and changed conditions outside the run of regular routine treatment.

Breeders of standard exhibition stock and the strictly egg farmer alike must make certain his fowls are free of vermin. Roost poles should be painted, nests, dropping boards and other exposed parts of the house should be thoroughly sprayed with a good liquid mite killer. Every fowl should be handled on the roosts after dark so as not to excite them and a small amount of some good louse ointment should be rubbed well into the skin about one inch below the vent. Also a small amount applied the same way to each thigh will quickly rid all fowls of body lice.

Many hens are very likely to have become too fat during the past two months. Any with such a tendency should be sorted out and kept where they can be fed and cared for in a manner best suited to their condition.

The very best layers are not as likely to show any great amount of surplus fat; on the contrary many will be altogether too thin and worn down. These should also be separated from their mates and given special feed and care.

Exhibition birds will not moult properly—will not produce a coat of feathers with the right shades of color and markings if at this time of the year the hens are forced to lay in nests or roost in quarters infested with mites, or that are preyed upon both day and night by blood-sucking body lice, or that are now either worn down in strength and flesh, or that are overburdened with superfluous fat or that are forced to remain under any one of these conditions. Neither will hens under any of these conditions produce a profitable number of eggs next winter or be in fit condition to furnish fertile eggs that will hatch chicks that will live and grow.

What is true of the fowls bred for exhibition and breeding is true of those bred and kept strictly to produce commercial eggs.

Feed, care and cleanliness this month and next are all important. If any important item is overlooked now, that neglect will show in our results this winter, also next spring and summer. You can depend upon your results during those seasons being materially affected by your work now, assuming, of course, that your fowls and chicks are properly cared for later on.

All young stock should now be sorted and culled. Besides those showing very undesirable color and shape defects and serious disqualifications, it is very important that any and all slow-growing and slow-feathering chicks be culled and sent to market. Never breed or attempt to get eggs from such stock, and, above all things, never sell such to any customer. Youngsters showing leg weakness, twisted wing feathers or any inclination whatsoever to lack of vitality should be sorted out and sent to market as soon as possible.

Standard size and shape, which can only be obtained through the medium of strength, vigor, proper housing, feed and care, are necessary if you are to succeed. Even if you are not breeding poultry to exhibit or sell as breeders and, on the contrary, are numbered among the huge army of strictly egg farmers, you must select and breed to a "standard" for size and shape if success is to crown your efforts.

One may breed a "pure-bred" variety but unless he selects and culls with a certain fixed standard for size and shape in mind, his fowls are then not "standard" bred in any sense of the word. On the contrary they will degenerate into a class of fowls which to the expert eye will show many different sizes, shapes, dispositions and general characteristics. Such a class of fowls are difficult to handle in large pens or flocks as it is next to impossible to feed and house them to insure uniform conditions, health and productiveness. These and many other important facts are reasons why the young stock should now be culled, thus permitting more house and range room for the more desirable during the remaining fall months.

Green food in some form as well as sour milk or buttermilk should be supplied to both the old and young stock if possible. A good grade of meat meal, beef or fish scraps should also be supplied. These foods will develop better youngsters, and will insure the adult stock being in far better condition this winter.—RUSSELL F. PALMER, American Poultry School, Leavenworth.

American Laying Contest

In spite of the extremely hot weather, the hens entered in the egg-laying contest being conducted at Leavenworth by the American Poultry School made good July records. The standard-bred two-year-old White Plymouth Rock hen from Illinois is still the leading egg producer in all three contests, having produced 238 eggs up to August 1 since November 1. She is a fine hen with great size, and possesses extra good head points and excellent shape. For a two-year-old hen her record is already remarkable, even should she produce no more eggs throughout the contest.

A fine exhibition White Leghorn pullet bred by Hillview Farm is in the lead in the contest of exhibition birds, with a record of 206 eggs. However, several have passed the 200 mark in the nine months time. The leading pen in the contest is a pen of Light Sussex with 842 eggs to their credit. In the Leghorn contest we find Pen No. 110, from Pennsylvania, with 940 eggs, in the lead, with Pen No. 70, from Washington, following close with 914 eggs. The leading pullet among the Leghorns is in Pen No. 110, from Pennsylvania. She produced 232 eggs in the nine months.

Willie, a city-bred boy, had been visiting an uncle's place on Long Island. "See what I've got!" he exclaimed one day as he came running in from a chicken coop, holding in his hand a china egg. "Oh, put it back right away!" rejoined his little sister. "Thats the egg the hen measures by!"

Watch for Registration Day

The President of the United States will soon announce by proclamation, a Registration Day to be held as early in September as possible.

More than 2,000,000 men are needed to put our army on a 5,000,000 men basis. 13,000,000 are expected to register.

Class one is nearly exhausted. This class must be replenished from new registrants not later than October 1.

Who Must Register:

All men from 18 to 20 years of age, inclusive, and
All men from 32 to 45 years of age, inclusive, should watch closely for the President's Proclamation, definitely designating who must register.

Where You Will Register:

In the customary voting precincts in the jurisdiction of your Local Selective Service or at other points to be designated.

Sick and Non-Resident Registrants:

These will be furnished cards by their Local Boards. The sick will be registered by persons deputized to do so. Non-residents may register by mail through the County or City Clerk of the place at which they are stopping. Special provision will be made for felons, persons awaiting trial and others confined in jails or institutions.

The Government of the United States asks your hearty co-operation with your Local Board in making the registration a complete 100% catalogue of every man of the ages to be announced in the President's Proclamation. Selection will take place later by the usual classification method.

The penalty for failure to register is one year imprisonment and NO man can exonerate himself by the payment of a fine.

WATCH FOR REGISTRATION DAY!

Approved by
NEWTON D. BAKER
Secretary of War

E. H. CROWDER
Provost Marshal General
United States War Department

THIS SPACE CONTRIBUTED FOR THE WINNING OF THE WAR BY
THE KANSAS FARMER COMPANY, TOPEKA

JERSEY CATTLE.

TESSORO PLACE
OWL INTEREST FINANCE JERSEYS (REGISTER OF MERIT)

Buy a bull from a R. of M. cow and be more certain in your herd building. Every cow in milk in our herd has a year's test or one now on. Our two-year-olds will average 400 pounds of butter. Write for prices and other information.

R. A. Gilliland, Mayetta, Kansas

Longview Jerseys
(Register of Merit Herd)

Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.

Longview Farm

LEE'S SUMMIT - - MISSOURI

FINE YOUNG JERSEY BULLS
From Register of Merit and tested cows; Register of Merit sire.

Dornwood Farm, Topeka, Kan.

IDYLWILD STOCK FARM
Place your order for a Sophie Tormentor, Jacoba Irene, spring bull calf to increase your production.

C. F. Blake - Glasco, Kansas

J. B. PORTER & SON
MAYETTA, KANSAS

Breeders of High-class Jerseys. Stock for sale at all times.
Write Us Your Wants.

BROOKSIDE JERSEYS
Registered Jersey Bulls, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.
THOS. D. MARSHALL, SYLVIA, KANSAS

REGISTERED JERSEY BULLS
Butter-Bred, from High-Producing Cows. Photo furnished.
MAXWELL'S JERSEY DAIRY
Route 2 Topeka, Kansas

REGISTERED JERSEYS
Must sell quick ten high class young bulls and some wonderful heifers and young cows at sacrifice price, on account scarcity of feed. Act at once if you want a bargain.
H. C. Young, 133 So. 33rd St., Lincoln, Neb.

100 GOOD JERSEYS FOR SALE
We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.
J. W. BERRY & SON, Jewell City, Kansas.

JERSEY CATTLE.

Redhurst Jerseys
FOR SALE—Noble's Jolly Actor No. 155-761. Solid color, born October 14, 1916. Sire (the imported son of Golden Jolly), Golden Jolly's Masterpiece No. 86295, with six tested daughters, out of Noble's Eminent Jess, a R. of M. cow whose dam is also in the R. of M. and whose sire, Noble's Oxford Sultan No. 106403, with six tested daughters, seven of Noble of Oakland's with 65 tested daughters and whose dam is in the R. of M. and since by Sultan's Oxford Lad, his great dam also in R. of M.

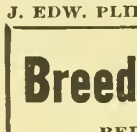
ALSO — Jolley's Chief No. 14948. Solid color, born September 3, 1917. Sire, the above imported son of Golden Jolly. Dam, Eminent's Lad Jess No. 255151, dam of one in R. of M. She by Em. Brown Lad with two or three tested cows, a grandson of Eminent with 80 tested daughters and whose dam is a tested cow.

REDMON & SON - TIPTON, MISSOURI

FOR SALE—20 Registered Jersey cows and heifers. Eminent and Raleigh breeding.
L. E. PENDLETON, DODGE CITY, KAN.

Allen Center Stock Farm
Registered bull calves — some ready for service. Sale or exchange for bull or heifers.
TREDWAY & SON, LA HARPE, KANSAS

HORSES AND MULES.



Percherons—Belgians—Shires
After harvest take the most enjoyable little trip of your life. Come see all my show and breeding horses and have a fine visit with me. Drop me a card now. FRED CHANDLER, R. 7, Charitan, Iowa. Above Kansas City.

RED POLLED CATTLE.

RED POLLED CATTLE
For Sale—Four-year-old herd bull. Some extra good cows to calve in winter and early spring. A few yearling heifers.
I. W. POULTON - MEDORA, KANSAS

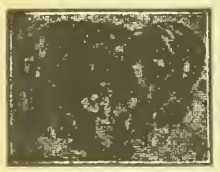
ADVANCED REGISTRY RED POLLS
Choice young bulls from heavy milking dams. Inspection of herd invited.
CHAS. L. JARBOE - QUINTER, KANSAS

PLEASE MENTION KANSAS FARMER WHEN WRITING TO ADVERTISERS

TURNER & SON SHROPSHIRES
Fifty good big registered rams, $50 each, crated and express paid here. Also about 100 head of Lincoln and grade Shropshire ewes, ranging in age from one to six years, $22.50 per head. Sheep three miles north of town. Send check or draft with order. Pedigrees furnished for pure-breds. Always return crate. Reference, Harveyville State Bank.
J. R. TURNER & SON - - - - - - HARVEYVILLE, KANSAS

POLAND CHINAS.

POLAND CHINAS



Faulkner's Famous Spotted Polands
THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.

ELKMORE FARM
Will exhibit a show herd of Poland China hogs at Topeka and Hutchinson fairs this fall. Call and see my herd. Annual fall sale October 17, 1918, at farm, the home of Caldwell's Big Bob.

FRED B. CALDWELL - - - HOWARD, KANSAS

POLAND CHINA BOAR PIGS
For Sale—Twenty choice boar pigs, sired by Model Wonder, he by Big Bob Wonder; The Giant by Hercules by Big Ben; King Ben by Giant Ben; Captain Gerstdale Jones, Big Bob Jumbo, and A Big Wonder. Several herd boar prospects.

Ross & Vincent, Sterling, Kan.

Erhart's Big Polands
A few fall boars ready for hard service. Can spare two tried herd boars. Have the greatest showing of spring boars we have ever raised. Some by the 1,250-pound A Big Wonder. Will make prices on pairs and trios. Write me your wants. All immune.
A. J. ERHART & SONS, NESS CITY, KAN.

Morton's Poland Chinas
For Sale—Twenty-five choice boar pigs, sired by Morton's Giant by Discher's Giant and Girstdale Jumbo by Girstdale Jones, out of my best herd sows. Priced reasonable. Write or come and see my herd.
GEORGE MORTON
Oxford : Sumner County : Kansas

Oxford Herd Poland Chinas
Herd boar, Giant Lunker by Discher's Giant out of Lady Lunker. I have 57 early spring pigs. A few choice boars. Priced to sell. Come and see me; I can please you.

Howard R. Wenrich

Oxford - - - - - Kansas

TOWNVIEW HERD POLAND CHINAS
For Sale—Choice lot spring boars. All gilts reserved for February bred sow sale. Herd boars, King Wonder's Giant, Walter's Expansive Sid, Big Timm Joe.
CHAS. E. GREEN - PEABODY, KANSAS

LANGFORD'S SPOTTED POLANDS
Last call for spring boars, $40 to $50.
T. T. LANGFORD & SONS, Jamesport, Mo.

Pliley's Spotted Polands
All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
J. EDW. PLILEY - GILMAN CITY, MO.

Breeders' Directory
RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
Hereford Cattle.
F. S. Jackson, Topeka, Kan.

AUCTIONEERS.

FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. VALLEY FALLS, KANSAS

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri

Speeding Up Production

WE HAVE not yet reached the limit in the drafts on farm labor. Although confronted with a greater demand than ever for big crops, the probability is that the new draft law will take a certain proportion of what labor we have left and only by using the best of improved tools can we hope to meet the food requirements.

The shortage of labor has directed our attention more than ever to the use of farm tractors and there is perhaps danger that we overlook the importance of other farm tools.

Consider, for example, the manure spreader. The crop averages of this country could be greatly increased without the addition of another acre, another horse power, or another man, if we would utilize properly barnyard waste. Perhaps the increase would amount to 15 or 20 per cent, which would be quite enough in many instances to pay for the spreaders, on about fifteen acres of land. Experiments right along these lines have been conducted with such results.

As it is, barnyard manure, the fertilizer produced on the farm, is in many cases either being entirely wasted or is dumped on the fields in such a way that it might almost as well be left to perment away its ammonia and other valuable plans foods in the barnyard or feed lot. Drive around through the country and you will see this for yourself.

This isn't a matter of telling someone else how to run his business, but at this time when economy along all lines is so necessary, such things must be discussed.

Dean Davenport, of the University of Illinois, recently pointed out that the annual loss of plant food equals the value of a tract of 500 square miles, equal to 4,000 eighty-acre farms, sufficient to support 30,000 people. Then, too, Carl Vrooman, Assistant Secretary of Agriculture, recently stated that more than a billion dollars' worth of barnyard refuse is wasted in the United States annually. What arguments those are for good manure spreaders on every farm!

This isn't a matter merely of helping out in increasing the food supply, but it's a matter of personal profit, too. A spreader pays for itself by its increased production over hand spreading on only a few acres—say ten to fifteen—in one season. It not only does the work better but encourages frequent spreading by saving labor. This means that the manure is gotten out on the fields where it can dry and stop fermenting or else allow the plant food to be leached into the soil where is belongs.

The use of a manure spreader on a live-stock farm speeds up production without requiring the use of more land, more power, or more men. It is simply a matter of using the right tools.

Destroy the Grasshoppers

Grasshoppers are doing much damage to farm crops in all sections of Kansas. This information comes from reports of farmers and from the investigations of field workers of the Agricultural College. The hoppers are now nearly full grown and can consume large quantities of growing crops and are also depositing innumerable eggs. Unless effective methods of control are at once used, they will destroy much alfalfa and wheat this fall.

The poisoned bran mash, flavored with orange or lemon juice, as worked out and tested by our experiment station, will destroy the hoppers if rightly used. We have printed the instructions many times, but because of the presence of grasshoppers in sections not usually troubled with these pests we again use space to give in detail the control measures that have been found so effective.

The bran mash is made of the following materials: Bran, 20 pounds; paris green or white arsenic, 1 pound; syrup, 2 quarts; oranges or lemons, 3; water, 3½ gallons.

A good wash tub will hold twenty pounds of bran. If more is to be mixed use a large tight box. Mix the paris green and bran thoroughly before adding the water. Squeeze the juice of the oranges or lemons into the water, dissolve the syrup in the water, and wet the poison and bran with the mixture.

The poison bran mash made in this manner is now ready to be scattered broadcast in the infested fields. It should be scattered early in the morning, about the time the hoppers are beginning to move about, or it may be scattered just before sundown in sections where dew is sufficient to keep it moist. During the night it is liable to lose its effectiveness by becoming dry. It should be scattered very thinly over the ground. The tub full (20 pounds) is enough to cover four or five acres.

Considerable saving of material and labor can be effected by leaving a strip twenty to thirty feet wide between each strip of mash. It is fully as effective as if the entire ground was covered, because the hoppers will crawl many feet to get to it. Sowing it thinly also makes it impossible for birds or barnyard fowls to secure enough of the poison to kill them.

In order to get best results in alfalfa the bran mash should be applied soon after the crop has been removed. It is better still to apply the bran mash to a narrow strip in the center of each land left uncut for the purpose. In cutting around and around the land the hoppers are driven to the center. Then they are in close quarters, and less bran will be required with much less labor.

Often the smaller species breed in wheat fields and soon after harvest they move out to corn and other crops. If they are moving into corn, alfalfa, or other crops, a strip of poison bran should be scattered early in the morning along the edge of the crop into which they are moving. Inasmuch as the hoppers may continue to move into crops from adjacent stubble or grass fields, it will be necessary to make a second or even a third application at intervals of three or four days.

The hoppers in apple orchards should be killed, for they will do a permanent injury to the trees by defoliating them in summer. They will also eat into the fruit.

The grasshoppers will live all summer on alfalfa, corn, grasses, and weeds, congregating in numbers on the latter along fence rows for depositing eggs. They never stop feeding, so if wheat is sown adjacent to a wide fence row that is overgrown with weeds or adjacent to weedy fields, they will get into the edges for considerable damage. A strip of poison bran mash strewn along the edge of the wheat will be very effective in keeping the wheat free of them.

To make a successful fight against grasshoppers, too much emphasis cannot be placed upon the necessity of getting after them now. Neighborhoods and communities should co-operate in watching for their first appearance in any crop and in combating them. These measures are given as recommended by E. G. Kelly, extension entomologist of the Agricultural College. We would suggest that the poison formula and instructions for using be clipped and saved for future reference.

Self-Feeders Need Attention

As a result of the shortage of farm labor, the use of the self-feeder for hogs has been widely advocated this season. Some of these devices do not "feed down" properly and the feed is sometimes withheld from one or more compartments. Even when the feeder is working properly the feed is likely to become exhausted in one compartment before it does in the others. If any part of the ration is lacking, the hogs are sure to eat more heavily of the remaining feeds, sometimes of the most expensive ones. This wastes feed, has a detrimental effect on the digestion of the hogs, and is likely to result in a loss of profit. The self-feeder is, therefore, to be carefully watched.

Automatic Hog Waterer

If you are not provided with a spring or running water, an automatic waterer for hogs is almost indispensable in hot weather. Clean water is essential. A clean wallow should also be provided. Concrete wallows are inexpensive to construct and aside from serving the purpose of keeping hogs cool, they will keep the herd absolutely free from lice if a coal tar dip is used in the water.

Hauling Hogs in Motor Trucks

An example of how motor trucks are relieving railroad transportation in many sections of the country is shown in the receipts of hogs delivered to the Omaha market by this method of conveyance. According to a report recently compiled

Palmer's Poland China Sale

AT MARION, KANSAS, SEPTEMBER 15

In connection with a general farm sale, I will sell at auction

FIFTEEN HEAD OF JERSEY CATTLE AND FIFTY HEAD OF POLAND CHINA HOGS

Including Sir Dudley 74901, the junior champion at Hutchinson 1915, and Exile, a great breeding son of Caldwell's Big Bob; five fall boars by Big Bob Wonder, Sir Dudley, and Exile; six brood sows, some by Caldwell's Big Bob; four fall gilts, sisters to fall boars; 37 spring pigs by Sir Dudley, Exile and Walter's Jumbo Timm. Catalog now ready.

C. B. PALMER - - - - - MARION, KANSAS

AUCTIONEERS

J. D. Snyder, Hutchinson, Kansas J. J. McLinden, Marion, Kansas

AYRSHIRE SALE

TOPEKA, KANSAS, SEPTEMBER 13, 1918

(NOT THE 14TH, AS FIRST ADVERTISED)

At the Kansas Free Fair, Beginning at 12 o'Clock Noon

Fifty-three head will be sold, consisting of cows, bred heifers, yearling heifers, and a few choice bulls. The offering has great A. R. Record breeding and strong type. A rare opportunity to secure foundation stock.

The consignors are James Van Etta, Lima Center, Wisconsin; South Farm, Willoughby, Ohio; and Henderson Ayrshire Farm, Hudson, Ohio. For catalog write

D. M. HENDERSON, SALES MANAGER, HUDSON, OHIO

by the Bureau of Markets there was an increase of 180 per cent in the number of hogs transported to that market by motor trucks during the first six months in 1918 as compared to the corresponding period in 1917. The number carried in this way amounted to 92,780 for the period in 1918 as compared to 33,084 for the corresponding period last year. Estimating seventy hogs as an average carload in railroad shipments, the number delivered by motor trucks on the Omaha market during the first six months of 1918 aggregated more than 1,300 carloads, or an average of more than eight carloads for every market day during the period. The motor-truck business is becoming so important that commercial organizations of Omaha are taking active measures to utilize the trucks on return trips to country points for hauling various kinds of freight. Experience has shown that motor-truck marketing is as feasible in winter as in other seasons, as more than 26,000 hogs were delivered directly from farms to the Omaha market during January and February.

Large Receipts of Light Cattle

Following a recent conference between packers and the Food Administration, attended by officers of the army, navy and marine corps, maximum prices are announced at which beef will be allotted for September delivery—excepting on the Pacific Coast—for the army, navy and the Allies.

The following bases are f. o. b. Chicago, per 100 pounds, for steers of quality and grade satisfactory to the authorized inspectors, chilled and unwrapped. These prices average substantially the same as for the month of August:

475 to 575 pounds	$21.90
575 to 700 pounds	22.65
700 to 850 pounds	23.55

The average weight of cattle marketed this year, it was brought out, is thirty pounds lighter than last, forty pounds lighter than in 1916, and sixty pounds below the 1915 average. This is due in part to excessive marketing of immature cattle owing to drouth conditions.

To utilize cattle below 475 pounds in weight, the minimum now being supplied on army specifications, housewives and proprietors of public eating places are asked by the Food Administration to buy cuts from lighter weight stock.

FARM AND HERD.

The date of the sale of Ayrshire cattle announced for September 14 at the Topeka Free Fair grounds has been changed to September 13. Fifty-three head of choice Ayrshires will be sold in this sale and the consignments will come from the best Ayrshire herds in the country.

Gust Olanssen, of Russell, Kansas, reports his herd of pure-bred Chester Whites doing well. This year he raised a choice lot of spring pigs that have grown out fine. The lot includes a number of good boar prospects.

Homan & Sons, of Doyle Park Stock Farm, Peabody, Kansas, owners of one of the best flocks of Shropshire sheep in Kansas, report their flock doing well. This year they raised a very fine lot of lambs all sired by their great show ram. Show sheep from the Homan flock have always been consistent winners. At the last stock shows at Wichita and Fort Worth they won twenty-three ribbons, including three championships.

Henderson Long & Son, of Haddam, Kansas, are building up one of the heavy producing herds of pure-bred Holsteins in Kansas. Their herd was founded in 1912 with foundation stock backed by records and only record-bred bulls have been used in the herd. They now have a herd of nineteen cows and heifers, headed by Segis Moxie Lincoln, whose six nearest dams averaged 23.52 pounds butter in seven days. Practically all the cows in the herd at this time were raised on the farm. A feature of the herd is the fine lot of young stock, including some choice young bulls.

We have just received Volume 56 of the National Duroc Record. This volume is now ready for distribution. It contains the pedigrees of males from No. 236001 to 246299 and the pedigrees of females from No. 592000 to 612898, and other information of value to anyone interested in Duroc Jersey swine.

Moore Farnms, of Gardner, Kansas, won the senior and grand championship at the Missouri State Fair on their Poland China sow, Buster's Best. The senior boar pig shown by Moore was junior champion boar and this firm also won first on get of sire and aged herd, junior boar pig, and senior yearling sow.

"Progressive Sheep Raising" is the title of a pamphlet just published by Armour & Company. It describes and illustrates the different breeds of sheep and gives in detail the best methods of handling these animals. The book is provided with appropriate illustrations. Those interested in sheep will find this sixty-page pamphlet very helpful. Copies will be sent free on request by Armour's Farm Bureau, Chicago.

The Osborne line of harvesting machinery, including grain and corn binders, reapers and mowers, and repair parts, has been purchased by the Emerson-Brantingham Company. This completes the E.-B. line. They have long felt the need of grain and corn binders. They have been particularly fortunate in being able to complete their line of farm implements by the purchase of the well known Osborne machines, which have been favorably known by farmers for a good many years.

Redmon & Son, of Topton, Missouri, owners of one of Missouri's best herds of pure-bred Jersey cattle, report their herd doing well and making a fine record again this year. This herd is famous for its large number of heavy producing cows. A feature of the herd at this time is the extra fine lot of record bred young stock.

The Poland China sale of Bert Harriman, Pilot Grove, Missouri, held at the farm Saturday, August 24, resulted in the disposal of thirty-four head of bred sows and bred gilts at an average of $148.53. The top was $240 paid for No. 3 in catalog, going to the herd of Joseph Thompson, Boonville, Missouri.

C. B. Palmer, the well known Poland China breeder of Marion, Kansas, has sold his farm and on September 5 will disperse his fine herds of Jersey cattle and Poland China hogs. The offering will include fifteen head of Jersey cattle and fifty head of big-type Poland Chinas. The Poland China offering will include the great boar, Sir Dudley, the junior champion at Hutchinson, 1915.

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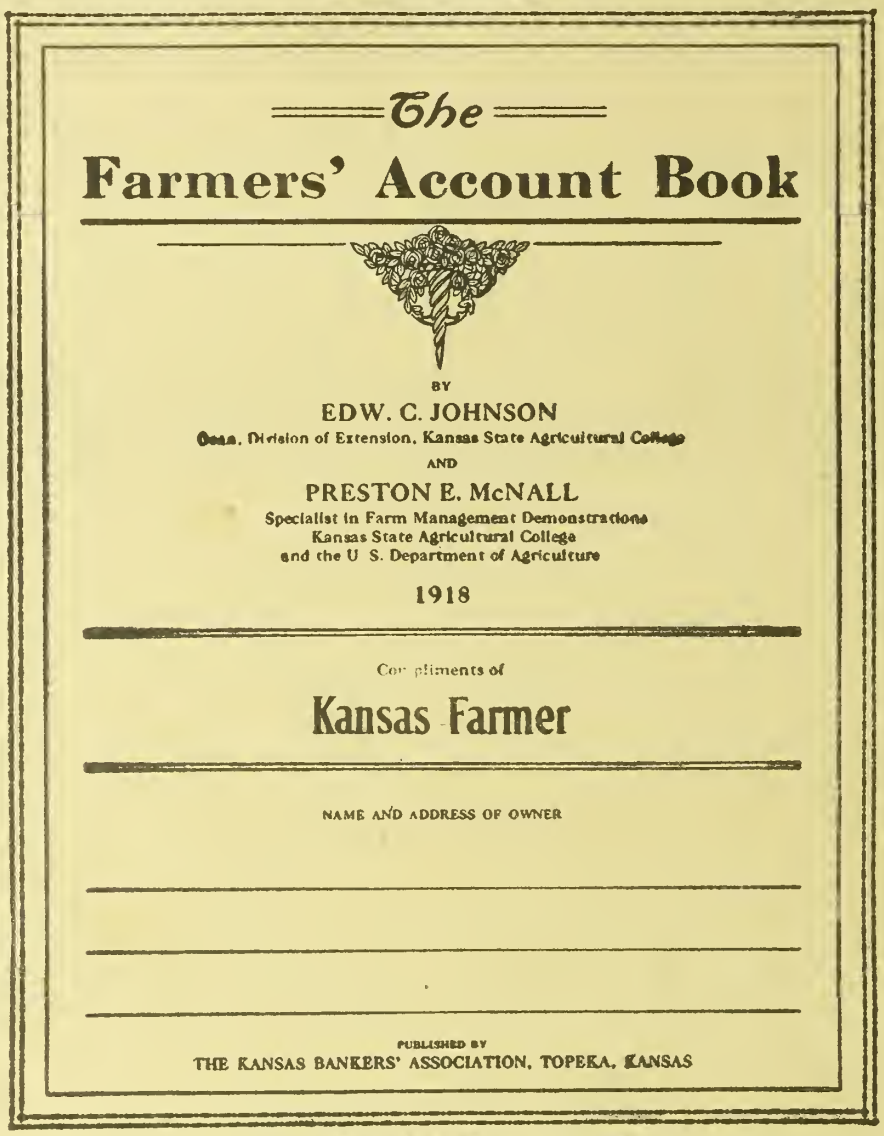

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TIME TO SEED WHEAT

Prepare Ground and Seed Early---Sow When Conditions are Most Favorable

WHAT is the best time to seed wheat in Kansas? The Hays Experiment Station is pointing out that it is much safer to follow the experiences of five years than to go by the results of a single year. The five-year experience on the station farm indicates that the best time to seed wheat in that section of the state is from September 15 to October 15. The average yields from September 15, October 1, and October 15 seedings are practically equal and from 10 to 20 per cent greater than from sowing the first week in September.

In the bulletin, "Growing Wheat in Western Kansas," just issued by the Kansas Experiment Station, it is stated that Western Kansas differs markedly from the rest of the state with respect to the best time to seed. In the first place, say the authors of this bulletin, Hessian fly is seldom found west of the eastern border of Norton, Graham, Trego, Ness, Hodgeman, Ford, and Clark counties—hence the question of damage from fly need not be considered in the average season. In the second place, the farmer has less choice with respect to time of seeding because of dry falls. It is usually not advisable to seed in dry ground, expecting a rain later to germinate the wheat. There may be just enough moisture in the ground to germinate the wheat, but not enough to keep it growing. It may then start to grow and die for lack of moisture. There may be enough moisture to allow fungi to grow on the wheat kernels and destroy them and yet not enough to cause germination. In either case the seed is lost.

On the other hand, there is less danger of late seeding being the cause of winter killing in Western Kansas than in the eastern part of the state. It quite frequently happens that grain sown as late as November makes a fair yield. While it is not ordinarily advisable to seed so late, such late seeding with favorable conditions is usually better than early seeding with poor conditions and better than seeding spring wheat.

The best thing to do in this area is to prepare the ground early, clean the seed, treat it for smut if this is necessary, and be ready to seed when conditions are most favorable. The grain should then be sown as rapidly as possible.

The common practice of delaying the preparation of the ground until sufficient rain comes to germinate the seed should be discouraged. By the time the ground is prepared, the moisture may all have evaporated, and the grain must be sown in dry ground or seeding delayed until another rain comes.

Probably the best date for seeding in Western Kansas, when all conditions are favorable, is about the middle of September. Extremely early seeding should be avoided even if conditions for germination are favorable, since a heavy growth takes moisture from the ground, leaving the wheat entirely dependent on seasonal rains to complete its growth. Wheat sown too early sometimes makes so thick a growth in the spring that it is more likely to be injured by hot winds and drouth than if sown somewhat later.

In Eastern Kansas where Hessian fly is often a serious menace, the experience of the station leads it to advise that wheat should not be sown before about September 25 to September 28 in Northeastern Kansas or before October 3 to 5 in Southeastern Kansas. Even when sown this late some damage from fly may be expected. It is suggested that where the fields to be sown are small and the wheat can be seeded rapidly it is often advisable where the fly is unusually bad to delay seeding until October 1 to 5 in Northeastern Kansas and until October 10 to 15 in Southeastern Kansas. In the absence of Hessian fly infestation, much earlier seeding may be practiced, although it is stated that it is seldom advisable to seed before September 20 in Northeastern Kansas or September 25 in Southeastern Kansas except when sowing mainly for pasture.

In South Central Kansas it is pointed out in this bulletin that Hessian fly often causes the most serious damage, sometimes entirely destroying wheat that is sown early. If the fly is present in damaging numbers in this section, seeding should not begin before October 1 on soil lacking in fertility or on poorly prepared land, nor before October 6 to 7 on fertile soil or well prepared land. If fly is not present, the seeding may begin safely as early as September 15 if conditions generally are favorable for seeding at that time.

Somewhat earlier seeding is advised for North Central Kansas than for points east or south. This is because the elevation and latitude shorten the season and grain must be sown earlier to get the same start before winter. The Hessian fly seldom causes serious damage and disappears earlier in the fall so there is not much danger from this source.

Experiments conducted in this part of the state show that the best yields are usually secured from seeding about September 20 to 25. As elsewhere, the best time to seed will depend not only on the prevalence of fly but also on other local conditions, especially the condition of the land and the acreage to be seeded. If a large acreage is to be seeded, it is advisable to begin seeding reasonably early, even as early as September 10 to 15, since unfavorable weather may delay seeding until too late for good results. If, on the other hand, a small acreage only is to be sown and flies are present in abundance, seeding should be delayed until near the end of September.

Fortunately there is very little Hessian fly infestation in Kansas this year. In sections where it is definitely known that there is no fly the necessity for guarding against danger from this source need not be considered.

The following is a partial summary in very brief form of this valuable bulletin from which we have taken the above suggestions on the time of seeding wheat in various sections of the state:

Wheat is grown in every county in the state, but most extensively in the central part. It is seldom a profitable crop in Southwestern Kansas.

Nearly all wheat grown in Kansas is sown in the fall. Less than one-tenth of 1 per cent is spring wheat. In Northwestern Kansas only is spring wheat grown. In all sections of the state it is less productive than winter wheat when the latter germinates well in the fall and comes through the winter in good condition.

In general, oats or barley are more productive than spring wheat in Kansas. Where winter wheat fails to germinate or survive the winter, one or the other of these crops will give higher yields and, with the possible exception of Northwestern Kansas, will prove more profitable.

Hard wheats are best adapted to Central and Western Kansas. Soft wheats are better for the eastern part of the state.

Soft wheats are usually less able than hard wheats to endure drouth, hot winds, and severe winters. On the other hand they are not so likely to lodge on rich soils in wet seasons and, hence, give larger yields where these conditions prevail.

As far as is known, there are no varieties of wheat suitable for growing in Kansas that are immune or markedly resistant to Hessian fly.

A new variety of hard winter wheat, known as Kanred, has been produced by the Agricultural Experiment Station at Manhattan. This variety has given an average yield of 4.5 bushels per acre more than Turkey and 4.7 bushels per acre more than Kharkov, the two varieties most generally grown in the state. It has also proved decidedly better than Turkey or Kharkov at the branch experiment stations and in co-operative tests with farmers.

A strain of Fulcaster, a soft wheat secured from the Missouri Experiment Station, has given the best yield of all varieties tested in Southeastern Kansas. In Northeastern Kansas, Harvest Queen, a soft wheat, has given practically as good yields as Fulcaster. Harvest Queen is a beardless wheat and is preferred to Fulcaster by many farmers because of this fact.

There is no evidence to show that wheat "runs out." If one has wheat of good quality, free from smut and mixtures, a change of seed should not be made unless it is reasonably certain that a variety better adapted to the soil and climate where it is grown can be obtained.

Pure wheat should be grown. Mixtures usually yield less and sell at a discount, as compared with pure wheat. Mixtures of hard and soft wheat or of rye and wheat are particularly objectionable.

Experiments show that wheat sown in furrows somewhat deeper than those made with the common disk drill winterkills less and is less likely to be injured by the blowing of the soil. Good germination is also more certain. It is thought that seeding in deep furrows ten to twelve inches apart will prove practical and profitable in the northern and western parts of the state where winterkilling, blowing of the soil, and dry falls often cause serious damage.

In Central Kansas, four to five pecks per acre of seed gives good results if sown reasonably early on well prepared ground. If sown late, seven or eight pecks per acre will give better yields than a smaller amount. About six pecks per acre should be sown in Eastern Kansas.

There is no experimental evidence to show that wheat is benefited by pasturing. Usually a loss in yield occurs. Where wheat makes a good growth and is pastured judiciously, the value of the pasture overbalances the loss in the yield of grain.

The preparation of the ground is one of the most expensive and one of the most important items in growing wheat. The best method depends on the character of the soil and the section of the state where one is farming.

Probably the most important point in preparing the ground for wheat is to work it early. At Manhattan, July or August plowing has given an average yield of six bushels per acre more than plowing September 15. Early plowing has given four bushels per acre more than late plowing at Hays, and nearly six bushels per acre more at Colby. Listing and summer fallow have given higher yields than any other method of preparation in the experiments at Hays.

In experiments conducted at Manhattan, disking immediately after harvest, followed by plowing in September, has given nearly as large yields as early plowing. Disking immediately after harvest has increased the yield 4.4 bushels per acre. Disking benefits the following crop by preventing the growth of weeds, by getting the soil in good condition to absorb water, and probably destroys some of the Hessian flies when these pests are numerous. It also aids in keeping the soil in condition to plow.

Damaged wheat and wheat mixed with rye or other kinds of wheat brings less on the market than pure wheat of quality. Because of difficulty in determining accurately the effect of damaged kernels and mixtures on the quality of flour, growers usually receive less for damaged and mixed wheat than it is actually worth.

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WHEAT MINIMUM $2.20

A guaranteed minimum of $2.20 a bushel has been fixed for the 1919 wheat crop. This was made public in a proclamation issued by President Wilson on Monday, September 2. The President states that a disinterested commission will be appointed next spring to investigate the claim that increases in the cost of farm labor and other items call for an increase in price over that established for the 1918 crop. The $2.20 a bushel is the guaranteed minimum, and such a commission as will be appointed might recommend that a higher price be paid.

The President also points out the possibility of peace before the middle of 1920 as a factor in announcing this minimum, intimating that it involves a considerable national risk and might mean that the Government would have to stand a loss of five hundred million dollars in maintaining the guarantee.

This announcement of a minimum price guaranteed by the Government of course comes too late to have any appreciable effect on the planting of winter wheat, but those who have planned to put out wheat can be assured of receiving not less than $2.20 a bushel. We feel certain Kansas farmers are prepared to go the limit on wheat production. Many have even reorganized their farm routine in order to answer the call for more wheat. Some undoubtedly are taking risks they would not take in normal times. It is no more than right for the Government to guarantee a minimum that will protect those who have gone heavily into wheat from a possibility of loss.

BEWARE OF NEW VARIETIES

KANSAS FARMER has frequently warned its readers against taking up new and untried varieties of farm crops about which extravagant claims are made, as for example, the Miracle Wheat, the real facts concerning which were exposed in our columns several years ago. Another is the advertising by a well known plant breeder of California of a new variety of wheat as "suited to all climates wherever wheat can be grown," incidentally offering this remarkable variety at the rate of $2.75 for a half pound. No thinking farmer would expect a variety suitable to the mild climate of California to do equally well under the climatic conditions of Kansas. Then there are the varieties claimed to have been the result of planting a single head. This method of developing a variety is scientifically correct, but when we recall how many hundreds—yes, thousands—of such single heads had to be tested out by our Experiment Station before an improved wheat such as the Kanred is found and developed, we may well be exceedingly cautious in buying at an exorbitant price seed of some unknown new variety said to have originated in this way.

New importations from foreign countries as this is ordinarily done is not by any means a sure way of getting an improved variety. A good deal of publicity was given a few years ago to the importation by some Kansas bankers of some kafir seed direct from Africa. This was distributed to a good many farmers, but it turned out to be decidedly inferior to the kafir varieties that had been systematically improved and developed in our own state during a period of years. We have an experiment station for trying out these new varieties, and usually those of merit can get station reports as to their probable value. It is not a safe plan to pay big prices for seed of any new variety without first getting all the information possible about it from disinterested parties.

TOPEKA FAIR NEXT WEEK

The latest reports we have from the office of the Topeka Free Fair secretary indicate that the Free Fair this year will be a big, well-rounded-out exposition of agricultural progress in every department. The entries to date indicate the biggest hog exhibit ever made at Topeka. The draft horse entries are already far ahead of last year, and the cattle barns will be filled, many famous herds having been entered.

Perhaps the center of interest will be the United States Government war exhibit, which will occupy an entire building specially constructed to house this exhibit. One of the features of the fair will be the active part that the Red Cross, Liberty Loan, four-minute men, war savings, Y. M. C. A., Y. W. C. A., and other organizations will take.

SEED GRAIN LOANS

Hundreds of farmers of Western Kansas are qualifying to receive loans from the special seed loan fund of which $1,250,000 has been apportioned to Kansas. The rules require that the Government must have a first lien on the crop, so land owners or others who may have rights in a possible crop are required to sign waivers.

The guarantee provision is an important feature, for it protects the man who may fail to produce a crop next year. A yield of five bushels or less constitutes a failure, according to the Government ruling. The fund to which all must contribute who produce over seven bushels to the acre will be used in paying off the obligations of those who fail. The terms of this guarantee feature are explained on another page of this issue.

After a conference with Land Bank officials and Doctor Estabrook of the Department of Agriculture in Wichita last Saturday, George E. Piper, assistant state leader of county agents, called a meeting at Dodge City of the county agents of Southwest Kansas. The farmers of that section are enthusiastically taking up with the Government proposition as soon as they understand its provisions. Many who made early applications have already received their certificates of approval from the Federal Land Bank and are now in position to get the money for buying seed wheat. Bankers' associations and clearing house associations of the larger cities have agreed to assist local banks in extending temporary credit by discounting the notes taken by local banks supported by the attached statements from the Federal Land Bank to the effect that the loan application has been approved. This is necessary because the federal funds cannot be advanced until the seed is in the ground.

It is estimated that nearly one-third of the farmers in Ford County will take advantage of Government loans. In Hodgeman, Gray and Meade counties about one-fourth will make application. Pawnee County will have about 100 applications, Rush about 125, Ness about fifty, and other counties in proportion as their wheat crops have failed during the last two years. It is estimated that Clark County will have about 150 applications and there will be a small number in Seward, Edwards, Kiowa, Stevens, and Scott counties. In Northwestern Kansas, Sheridan County is likely to lead in the number of applications, followed by Thomas, Graham, Rooks Lincoln, and Cloud. There will also be a number of applications from Trego and Gove counties. More than 600 applications had been received by Doctor Estabrook up to noon last Saturday.

County agents have been appointed in counties not already supplied, so the work of handling the field end of the proposition is progressing rapidly. Seed wheat committees have been appointed in all the counties to assist in making the necessary inspection. In all probability most of the loan applications will have been passed on by the end of this week.

Conservation of Man Power a Necessity

THE gasoline engine has revolutionized the work of the farm. Mechanical power is increasing in importance as we find it more and more necessary to give up our man power to the task of winning this great war as quickly as possible. We must feed our boys in France, and our Allies, while they fight to win a victory that will make this war the last. For one man to produce the food formerly requiring the labor of two, more mechanical power and greater use of machinery to save human energy seems the only answer.

There are countless jobs about the house and farm buildings that call for the expenditure of tedious, back-breaking human labor. Not only this, but they require a great deal of time in proportion to the results. The turning of the grindstone to grind the sections of the sickle seems almost an endless job to the boy who turns the crank. With the same grindstone hooked up to a gasoline engine, the sickle is ground in almost no time and the job is better done than when the power was furnished by hand. The pumping of water is another back-breaking job, and where this has been done by hand many an animal has not received as much water as it wanted because the human engine got tired before it was satisfied. Then there is the shelling of corn, the turning of the separator, the working of the washing machine—all of these requiring but a small amount of power, but when furnished by hand it is more exhausting and seems endless.

It is now practical to perform every one of these operations with a gasoline engine. An almost endless amount of human energy is saved, and a great deal of time as well. In addition to performing such operations, the house may be equipped with electric lights operated by gasoline engine. The men can saw wood with the same engine, and power can be furnished to operate a vacuum cleaning outfit. The more jobs you can hitch up to the gasoline engine, the more profitable it becomes. On some farms even the cows are milked by gasoline power, and any one who has milked ten or twelve cows twice a day will appreciate what it means to be able to do the same work by power in half the time.

Gasoline engines are not to be considered as luxuries. An increasingly large number of farmers use them each year because they are real money-makers. In fact, on many farms they are being considered as absolute necessities. If you will take time to study your farm needs and look about for ways in which you can help the women to do their work with greater convenience and less drudgery, you will find so many ways for profitably using such power that you can hardly afford to do otherwise than invest the necessary money in the equipment needed to accomplish these purposes. There is a limit to human energy and this wonderful labor-saver, the gasoline or oil engine, will not only lighten the drudgery of the farm but will make it possible to do many things that have previously been left undone.

The gasoline engine is truly a conserver of time and energy, and no other piece of farm equipment will return a greater income on the investment.

G. C. Wheeler.

TRAINING CAMPS AT COLLEGES

There has never been a time when it was more important than now for every young man ready for college to enroll in some higher institution of learning. Last spring the colleges were depleted of higher class men, for college men quickly saw the greatness of the issue at stake and got into the game.

The new man-power bill which has just become a law will probably result in the mobilization of all physically fit registrants eighteen to twenty-one years of age within the next ten months. Practically all young men over eighteen will be in the field by next June with possibly the exception of such technical students as may be deferred for special additional training.

The young man with this prospect before him is apt to feel that he should not give a second thought to continuing his education. His immediate job is to fight, and therefore he simply waits for the call and makes no plans for going to school. A member of the War Department Committee on Education and Special Training called at the KANSAS FARMER office recently and we were wonderfully impressed with what he told us of the manner in which our Government is training men for greater efficiency in the war. Practically every college in the land is now giving special training to soldiers, and has been for the past three or four months. Over 500 have been at Manhattan since July 15. A group is at Hays Normal, others at the Kansas University and other institutions qualified to give the kind of training called for by the War Department. This War Department man most forcefully impressed upon us that it is the duty of the boy ready for college to go ahead with his plans, for every week of college work faithfully performed will make him better prepared to serve his country when the time comes.

Now that the plans for forcing the war to an early conclusion have resulted in greatly enlarging our army program, the War Department has definitely announced its policy as relates to the college student. They want the young man to carry out his plans for college. President Jardine of the Kansas Agricultural College, President Womer of Washburn College, and we presume other college presidents all over the land have received telegrams to that effect. Those who have reached eighteen will register with the local boards September 12. They will be inducted into the Students' Army Training Corps at the various colleges about October 1. The members of these training corps will be soldiers subject to discipline and with the pay of a private, including housing, subsistence, and instruction. These student soldiers will be kept under observation to determine their qualifications as officers or technical experts along various lines. Transfers may follow to officers' schools or to other colleges for future study or to cantonments for duty with the United States Army in the capacity of a private.

This practically means that the Government will finance the training of the younger men in the draft army during the coming college year. The colleges where the students' army training corps will be established must comply with certain requirements of the War Department. This will undoubtedly call for some modifications of the courses of study given.

With this announcement from the Department of War it would seem that instead of a smaller attendance of male students the colleges will be filled to overflowing this fall.

PRICE FIXING OF FARM PRODUCTS

Much Difficulty in Applying Cost of Production Principle to Problem

From Wisconsin Experiment Station Bulletin, By H. C. Taylor

MANY who in the past have been satisfied to leave the fixing of prices of farm products entirely to competitive forces operating under the law of supply and demand now see the need of commissioners to adjust prices. The price commission, to be successful, cannot represent a class, but must stand for economic justice to all classes. The condition and needs of the producer, the distributor, and the consumer must be considered with equal care. The biggest problem in price-fixing is to get the facts needed as the basis of action.

For many years the idea of price control has received the attention of farmers who have been hard pressed to make both ends meet. Dollar wheat sounds cheap now, but at one time it looked like a cure-all for the ills of the Dakota farmers. The control of cotton prices has often been talked about in times of low prices, and the price of burley tobacco was more than doubled by the concerted action of farmers in holding their product and refraining from growing a crop in 1908. In all this agitation it was argued that the price should be enough to pay the cost of production and a reasonable profit. This point of view stimulated interest in farm cost accounting as a basis for price-fixing.

The United States Department of Agriculture and many state experiment stations have co-operated with farmers in keeping detailed records of man and horse labor, the use of equipment, and other elements of costs, as well as the yield, in quantity and value, of each kind of product. Occasionally a farmer has undertaken detailed records on his own initiative and without official aid, but the amount of clerical work in keeping a complete system of cost accounts is more than most farmers have time to do.

In the official promotion of farm cost accounting, the purpose has not always been well defined; but there have been at least two points of view. A position taken by many who are interested in the marketing problem is that costs should be known in order that they may be used as a basis of price-fixing. A view held by men interested in the problems of farm management is that cost accounts show the relative profitableness of competing crops and live stock enterprises, and hence give the starting point for scientific farm management.

It would seem that the Federal Food Administration in fixing the price of wheat, and the Chicago Federal Milk Commission in its work of the past winter, assumed the cost of production as the foundation of price-fixing, yet when these officials have approached the final problem of price-fixing, they have found themselves confronted with unexpected difficulties.

Why all this difficulty in the use of cost accounts as a basis of price-fixing? There are doubtless many reasons, but there are three of unusual importance: First, variation in costs; second, joint costs; and third, disagreement in the elements of costs. But in spite of these difficulties, accounting may be used in price control.

Variation in Costs

There is a very wide range in the cost figures which have been secured by careful methods of accounting and there are wide ranges in the estimates of costs of different producers. On the basis of a farm management survey made on fifty-one farms in one dairy district in Wisconsin, the return per dollar of annual outlay ranged from 77 cents to $3.05. The results of the Wisconsin Dairy Cow Competition carried on in 1909-11 illustrated this point. The return per dollar's worth of feed consumed by the 398 cows in this contest varied from 92 cents to $2.71; the average of the best ten was $2.38 worth of product per dollar's worth of feed and the average of the poorest ten was $1.11.

With wide ranges in the costs of production, which cost shall be accepted as the basis of price-fixing? The average has been seriously suggested but abandoned in disgust when it has been realized that a price fixed on the basis of average costs would probably result in a loss on half the farms.

The marginal or greatest costs have also been suggested. Economists have a theory that prices tend to equal marginal costs; this is thought to be true because it is assumed that the man who is producing at a loss will drop out; or, if the supply is short, the price will rise to the point attracting others less favorably situated to enter the same line of production and thus keep the price and the greatest cost tending to equal, though at any given time they might be far apart. There seems to be some relation, therefore, between the highest cost necessary to produce a given supply and the price which in the long run will have to be paid in order to get the supply.

Price of Supplies

The price at which to charge the supplies which have been produced upon the farm presents further difficulties in the efforts to determine costs. Shall feeds be charged at cost of production or at market price? In calculating the cost of a 1918 corn crop, should the seed corn be charged at the cost of production or at the market price? A similar question arises with respect to seed potatoes. In figuring the cost of milk the question rises: Should the hay, the oats, and the corn produced on the farm be charged on the basis of cost of production or at the market price? There seems to be an accepted rule of accounting which gives definite directions to charge all the produced supplies at cost and not at market price. On the other hand, farm cost accountants connected with the United States Department of Agriculture and the various experiment stations have quite generally charged these produced supplies at market price minus the cost of delivering them to the market.

A few years ago when the point of view was that of proving that dairying was profitable and an industry which should be stimulated by the press in every way possible, one agricultural paper held tenaciously to the old accounting rule of charging feed to the cows at cost of production because this magnified the profits of dairying by throwing the field profits into the dairy account. Now that the point of view has changed and the price of milk is looked upon as the objective point in cow accounting, this same paper is definitely of the opinion that produced feeds should be charged to the cows on the basis of market price. It is not difficult, therefore, to understand why there should have been two opinions on this point before the Chicago Milk Commission. Each party accepts the rule of accounting which best serves his interest.

If there were two methods of testing the amount of butter fat in milk, one of which favored the farmer and the other the purchaser, this same alignment of the interests would doubtless be formed. Fortunately there is one accurate fat test accepted by all, hence this occasion of trouble is avoided. What is needed to settle this question in accounting is one correct rule based upon the economic principles underlying the case. Obviously both of the opposed rules cannot be based upon a sound foundation; hence arises the question, is either rule correct? If not, how can the correct principle be discovered? It is believed that the true solution of this problem lies in the substitution of total farm profits for specific costs as a basis of price regulation.

Joint Costs in Production

The typical farm provides a much more difficult accounting problem than a saw mill, a flour mill, a cotton mill, or a steel mill. The problem is more nearly comparable to that in railway accounting, where one expenditure affects a great number of sources of income. The farmer who produces but one crop is rare. On the typical dairy farm, corn, small grain, clover hay, and pasture, cattle, horses, and hogs, are all produced. The same plows, harrows, and horses are used for the various crops which require attention at different seasons and the same laborers are used for crops and live stock. When the corn is being cultivated the corn is not only benefited but the land is being put into condition for the small grain crop which will be grown the next year. When the land is prepared for small grain the seed bed for the clover is being prepared, and oats or barley serves as a nurse crop for the clover plant which in turn is able to draw upon the nitrogen of the air and provide plant food needed for its own growth and for the corn crop which is to follow. Hence the costs of these crops are said to be joint costs.

Under these circumstances, suppose it is found that the oat crop costs more than the market price, that the cost of oats is 10 cents greater than the price. What can the farmer do about it? He can do a little figuring to see whether or not another crop which requires his attention at the same periods and which serves equally well as a nurse crop, barley for example, can be substituted with a profit or with a smaller loss. If not, should the farmer cut out the small grain crop? Usually not. The total cost of man and horse labor would be reduced little by omitting the oat crop because oats and corn require labor at different seasons and are supplementary to each other. If this crop were not grown the hours of productive labor would probably be reduced and the average charge per hour for labor supplied to the corn would be greater.

But this is not all. Oats are used as a nurse crop for clover and while it may be possible to grow clover without a nurse crop, this would cost nearly as much as putting in the oats. Hence the growing of small grain is usually the cheapest way to get a seeding of clover and where clover thrives this is the best way to secure nitrogen for the corn crop. Thus it is the joint results of the joint costs which are important.

Having adopted the system of farming, the parts of it should be adhered to so long as the system as a whole continues to be attractive, and so long as each part of the system continues to pay better than the substitute which is competing for a place in the system.

The corn, oats, and clover combination is not a complete system of farming in itself. It is usually combined with one or more live-stock enterprises. Beef cattle and hogs, dairy cattle and hogs, or straight dairying may be combined with this cropping system. In each of these systems there are many instances of joint costs. The joint cost of fattening steers and hogs is commonly understood among feeders. Where butter fat and pigs and veal calves are the products sold, these three products have elements of joint cost. Where pure-bred cattle and milk are sold the costs are joint and inseparable; the important question relates to the profit of the system as a whole.

Where grade cows are purchased and used for the production of city milk we approach more nearly to a specific cost of a specific product as far as the live stock industry is concerned, with only a small by-product in the form of a veal calf. And yet this type of dairying has its costs intermixed with the system of cropping, notably in the use of labor, the use of crops, and the provision of fertilizer. Hence, in mixed farming, joint costs are present to block the effort to arrive at the cost of producing any specific farm product.

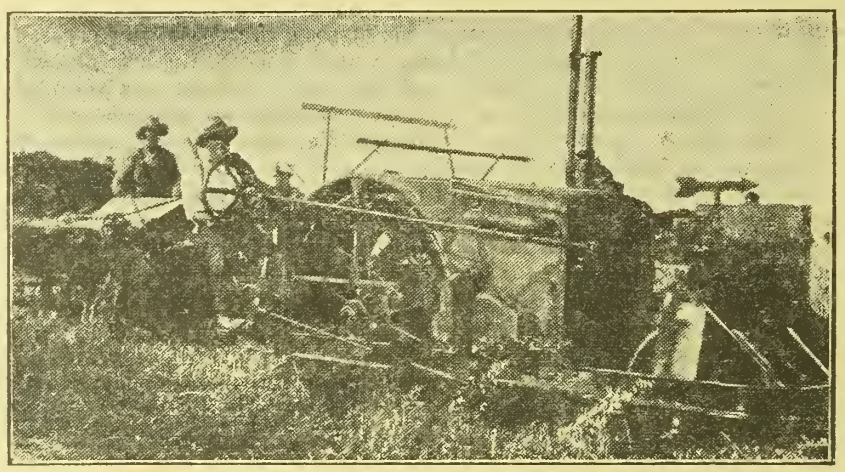
Where two articles are produced as a result of the same work the combined prices of the two tend to equal the greatest necessary cost of producing them, but the price of each article is determined separately on the basis of supply and demand.

Consumers want a variety of things produced by the farmer. How much a consumer will pay for a given article depends upon the intensity of his desire for it. The intensity of his desire depends upon how abundantly he has been supplied. The more he takes, the less he will pay for any given unit of the goods. Unfortunately, under conditions of joint costs there are certain physical facts which determine the ratios in which goods are produced, without much regard to the ratios of the intensity of the desire for them. As a result the supply-demand price of one product may be higher and that of another lower than the cost, but the combination of crops may prove profitable. The case is similar to the situation in the oil business. Gasoline and kerosene have a joint cost; and it is the condition of the market and the relative proportion in which they are obtainable at a common cost which makes the price of gasoline nearly twice as high as that of kerosene at the present time.

Profits and Price Regulation

When the point of view of total farm profits is accepted by the price commissioner, the problem becomes that of so regulating prices that the farmer in one line of production may reap as large a reward as he could earn producing some other product, or else of helping him in getting into some other line of production. By looking to total farm profits he avoids many of the difficulties arising out of differences in the cost of producing a given article by different men. Even if it costs one man two cents a quart to produce milk, another three cents, another four cents, and still another five cents a quart in a given city milk belt, yet each of these men may be doing the type of farming which pays him best and the industry may be stable so long as relative prices remain the same. Likewise the question of joint costs is avoided, for it is no longer a question of the cost of a special product, but of comparing the total farm profits resulting from the various types of farming and from the different competing elements in each kind of farming. Furthermore, the question of charging

(Continued on Page Seven)



NO, Dr. O. O. Wolf, of Franklin County, didn't get on the tractor just to have his picture taken, for he has proven just as able a helmsman with his tractor as with the Franklin County Farm Bureau of which he is president. He is also a member of the State Board of Agriculture.

This is the third tractor which Doctor Wolf has owned, each tractor having been a larger unit than the previous one. He has found the present one—a 12-25—a profitable investment. He uses it for plowing, cutting wheat and threshing. He is also known as the first Kansan to use the self-shocker with grain.

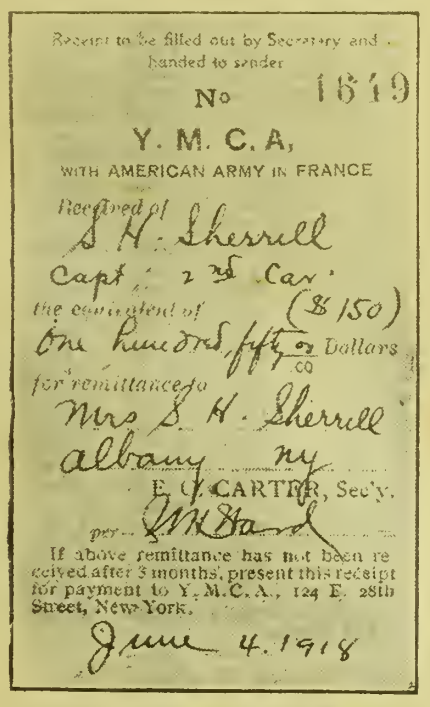
BANKING BUSINESS of the Y. M. C. A.

The "Y" Bank Safely Transmits Money to Home Folks Without Charge

By WILLIAM H. CRAWFORD

THE "Y" is continually increasing its field of usefulness. It has no hard and fast rules concerning its scope, its keynote is to do whatever it can for the soldier's betterment or advantage. In keeping with this policy it has just undertaken another and very personal service. It has gone into the banking business, at least that portion of it which deals with exchange. There is this difference, however, between commercial banks and the "Y"—they handle exchange for profit, the "Y" makes no charge for its service.

Soon after the war began it became evident that many of the soldiers had to send money to America. Perhaps they had not settled their business affairs before leaving or maybe money was needed by their families. These obligations had to be met, and financial support of the home folks furnished. They were badly handicapped in forwarding these sums because of the lack of banking facilities, for the banking system is almost completely upset in the war area. The few banks that are attempting to run are not accepting foreign exchange and it is not convenient for the men to go to the large cities to purchase exchange. Due to conditions at the front, it is not safe to send money by post. The sending of coin or currency is attended with great risk and some of it is never received. Besides, post offices are not always near by and money order offices still less so. The "Y" saw the importance of furnishing them a safe medium of exchange. Recognizing the need, the "Y" immediately met it. It organized a branch for soldiers' remittances in Paris and appointed financial secretaries as its fiscal agents to accept money from the boys to be forwarded to America. It had official receipts printed and furnished to these secretaries. Now the soldier can go to the "Y," deposit the money that he desires transported, together with the name and address of the consignee. From that moment the "Y" is responsible for its safe delivery in America.


Receipt to be filled out by Secretary and handed to sender

No 1619

Y. M. C. A.,

WITH AMERICAN ARMY IN FRANCE

Received of S. H. Sherrill

Capt. 2 25 Cav.

the consigned of ($150)

One hundred fifty 00 Dollars

for remittance to

Mrs S. H. Sherrill

albany ny

E. J. CARTER, Sec'y.

per ...

If above remittance has not been received after 3 months, present this receipt for payment to Y. M. C. A., 124 E. 28th Street, New York.

June 4. 1918

SAMPLE RECEIPT FOR MONEY

There can be no loss to the soldier. Even if the money is given to the secretary on the field and he should be killed before he could forward it to the Paris office (by the way the records show that "Y" secretaries are no more immune to danger than are the soldiers in the line), would the soldier lose his money? Not a bit, for the receipt given to him will be redeemed if the money has not been paid within three months. Neither is there danger of loss in transit, because nothing is sent to America but an "order to pay" and copies of this order are kept in Paris. The "Y" assumes all responsibility for the safe delivery and proper expenditure of money entrusted to its hands. No U-boats can sink it, no enemy bullets can stop it from reaching its destination.

Signs were placed in the huts reading, "Send Some Money Home—We Do It For You Without Charge." The idea appealed to the men to such an extent that from March 15 until July 15, 21,444 remittances were forwarded, the value of which totaled $1,302,682.06—an average of $60.75 each. The checks varied from 30 cents to $3,500. The method of transfer is dead easy. When the doughboy desires to send some money to America he goes to the "Y," deposits his money and gets a receipt. The secretary sends the stub bearing both the name of the soldier and the payee, the date of the deposit and the amount to be paid, to the Paris office. This office makes out a weekly list of these amounts and sends them to the War Work Council in New York, who formerly immediately purchased American Express money orders and forwarded them to the consignees. The number became so large, however, that the executives of the "Y" determined to eliminate this expense. They went into the exchange business themselves, and established a financial bureau called "Division of Soldiers' Remittances," placed an experienced financier in charge and beginning July 15, are sending their own drafts.

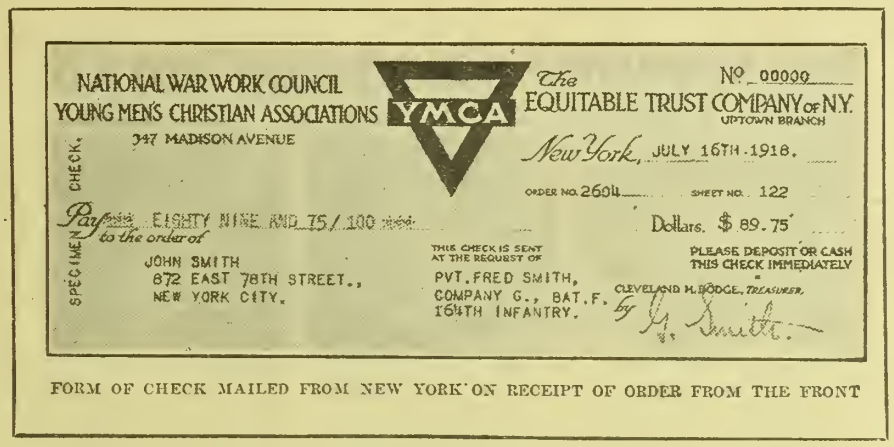
The treasury department of the "Y" has been greatly assisted in organizing their exchange system by twenty New York banks, each of which voluntarily and gratuitously furnished a man from their exchange department to assist in this organization.

Men of all ranks in the service utilize the "Y" money orders. You will see at the "Y" desk some grizzled old colonel making out his exchange slip for hundreds of dollars to be sent to his wife, and behind him Tony Motello waiting to send his small pittance to Rosie.

The "Y" has gone one step farther than the bank. It is not only forwarding this money for the American soldier but is acting as his fiscal agent as far as these special remittances are concerned. The soldier sends money to America for almost every purpose and the "Y" sees that his wishes as to its disbursement are properly carried out. Tom left home hurriedly, for his call to the front was sudden. He had mortgaged his home for a few hundred dollars. When his services were needed for the protection of America he didn't wait to settle his indebtedness and mortgages have a habit of falling due whether the maker is patriotically serving his country or not. They must be paid. All right, the "Y" will attend to the payment for him. Its American representative will take the mortgage, see that it is cancelled and forward it to him abroad or to his home folks. If he has insurance it is now doubly important that it should be continued. Premiums must be paid regardless of war. All he needs to do is to go to a "Y," say "My insurance will be due next month; here is the money. Will you pay it for me?" and it is handled without costing him an extra penny. They are doing it every day, as is evidenced by this letter from the Prudential Insurance Company:

"Beg to acknowledge receipt of your favor of the 11th instant and wish to advise you that we have already received remittance sent through the Y. M. C. A. by Lieut. M. B. Butler, Co. D, 21st Engineers, American Expeditionary Forces, and wish to thank the Y. M. C. A. for the services rendered in this case."

Or he may owe some bills that it was impossible for him to pay before he left America. The "Y" will settle them for him. These bills are of all kinds, grocer bills, doctor bills, gas bills, even the pawn broker comes in for his share, as the following incident will show. A soldier had pawned his watch with his "uncle" on Third Avenue. Later, he wanted his watch, he needed it in the trenches, so he went to a "Y" secretary and asked him to get it. The secretary forwarded the money with a statement of the facts. The soldier had miscalculated the amount of interest due and had not sent enough money. The "Y" took the matter up with the pawn broker and he patriotically agreed to waive a portion of his indebtedness and gave the watch to the "Y," who forwarded it to the boy by a secretary who was going to France, and now the soldier is sporting his family heirloom on the fields of honor.


NATIONAL WAR WORK COUNCIL
YOUNG MENS CHRISTIAN ASSOCIATIONS
347 MADISON AVENUE
YMCA
The EQUITABLE TRUST COMPANY of N.Y.
UPTOWN BRANCH
No. 00009
New York, JULY 16TH 1918.
ORDER NO. 2604 SHEET NO. 122
Pay EIGHTY NINE AND 75/100 Dollars. $ 89.75
to the order of
JOHN SMITH
872 EAST 78TH STREET.,
NEW YORK CITY.
SPECIMEN CHECK.
THIS CHECK IS SENT AT THE REQUEST OF
PVT. FRED SMITH,
COMPANY G., BAT. F.
16¼TH INFANTRY.
PLEASE DEPOSIT OR CASH THIS CHECK IMMEDIATELY
CLEVELAND H. DODGE, TREASURER,
by G. Smith.

FORM OF CHECK MAILED FROM NEW YORK ON RECEIPT OF ORDER FROM THE FRONT

Or, more important still, he may have to support his family, a dependent mother who sorely needs his aid, a wife and little ones who would suffer privation. Government allotments are sometimes slow and the loved ones at home suffer enough in mental anguish without being annoyed by pecuniary difficulties. They must have money to live. The "Y" will forward it to them. That is just what they are doing—see what a mother writes: "The check has arrived all right and I want to thank you for your trouble and want to assure you that we will do all we can to help the Y. M. C. A. that is such a help to our boys 'over there.'"

And, it is helping the boys to save—thousands of dollars are being sent by them to be deposited in banks, and other thousands to purchase Liberty bonds. Sure, the "Y" is glad to do either service for them. See this letter from the Union Trust Company:

"We acknowledge receipt of express money order through your agency for $100 to apply on Liberty bond account of Mr. David Terry Martin, who is now in France.

"We are mailing receipt to Mr. Martin's Paris address."

Charles H. Burr, assistant deputy treasurer, in commenting upon this new department of the "Y," said:

"One of the notable things of this work is that it encourages thrift among the soldier boys. Instead of spending their money abroad they are sending it home. A large number of the orders that we receive are for deposit in home banks and for the buying of Liberty bonds and thrift stamps and for investing in American securities. It is surprising how they save so much when you remember the allotments most of them made before leaving and the soldier's insurance that must be paid.

"It has involved an immense amount of work to establish this exchange system, but we have been more than repaid by the letters of gratitude from the men and their families that we have received. You would be surprised at the number of letters we receive thanking us for the money which came in the time of need. We are running the only bank in America doing a very extensive exchange business purely without profit. Our bank is growing by leaps and bounds. We figure that it will more than double its business this year.

"We receive letters every day asking when the money that has been sent will be received. 'Please publish a statemnt that will answer all inquiries.' You will get your money as soon as the War Work Council gets the order to pay it. I desire to emphasize that the receipt of this money by you is attended with some unavoidable delay. Probably from six to eight weeks will elapse after the money is sent before it reaches you. Do not think that it has been lost if you don't receive it as soon as you expected. Your boy may have given the money to a 'Y' secretary out on the field. The secretary may not have been near a post office for several days, from whence he must forward the slip to the Paris 'Y.' Mail transportation in France is very poor. It may be possible that a week or ten days will elapse before the Government forwards the mail to Paris and delivers it to the 'Y' headquarters in that city. It may stay around there for several days, because a list of remittances is sent to New York only once a week. This list contains the names of the senders, the consignees and their addresses, and is forwarded to the New York office by mail. The cables are too congested to be used for this purpose. Transatlantic mail service is much demoralized and it is quite probable that two or three weeks will elapse before the mail will be delivered in New York. Then, you may live some distance from New York and it may take several days to reach you. Taking it all together, it is possible that money will not be delivered to you in less than six to eight weeks. You may be sure, however, that it is coming.

"There is one thing that I wish particularly to call to your attention, and that is the local 'Y' in your home town has absolutely nothing to do with this exchange. Your home secretary can neither hurry or retard its delivery."

Those who are benefited by this special work of the "Y" greatly appreciate its efforts, as is shown by the following letter:

"I received yesterday your communication of April 11 with enclosed check for $200 from my son, Lieut. Joseph Atwood, who is with the American Expeditionary Forces, and I sincerely thank you and the noble organization with which you are connected for your good services in this matter.

"The Y. M. C. A. (of which I am proud to be a local member) is doing a grand work in connection with the present war and every loyal American is proud of it.

"Every letter which I receive from my son makes some mention of the great benefit and service which our 'huts' are to the boys across the sea, and the Association is the close tie which ties them to their distant homes and for so many 'havens of rest' they are profoundly grateful.

"Again thanking you for your favors, and with assurance of my highest regard, believe me, very sincerely yours—LUTHER ATWOOD."



SHRAPNEL SCARRED POSTER ON Y HUT

The "Y" bank is a success. It has been a success from the beginning and is growing more popular every day. Why should it not be? It is dedicated to the sole purpose of being of genuine personal service to the United States Army and Navy. It is a bank of ideals, is non-commercial, not operated for profit and yet with all the business acumen that the keen-sighted American business men who are directing it can put into it. It will play an important part in helping to win the war by keeping the home folks in closer touch with the boys at the front.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

HERE is how a South Dakota farmer reasoned out the application of the statement, "Ignorance of cost leads to extravagance and wastefulness": "When I read that the first time," said this man, "it didn't mean a thing to me, but this noon as I was feeding the hogs and they were tramping good corn into the mud, it came back to me. What was each ear of corn there worth? It takes about 120 ears to a bushel, worth $1.50, a cent and a third apiece, that's money. I counted eighteen ears out of sight and probably there were more. That was 25 cents gone—wasted.

"The first thing that came to my mind was, how soon could I pay for a feeding floor at that rate? The second thought was, isn't it my patriotic duty to build that floor and save the feed? The good wife is saving with a teaspoon, why should I in the feed lot waste with a shovel? The old proverb is turned about.

"I came in and read that line again, 'Ignorance of cost leads to extravagance and wastefulness.' I am going to think of my hay, oats and all feed in terms of dollars and cents and the nation's feed and need."

Board of Agriculture Report

On the basis of August 17 conditions the report of the correspondents of the State Board of Agriculture indicate a prospective yield of 57,540,000 bushels of corn for Kansas. This is 48,626,000 bushels less than last year and the fourth smallest crop in the history of the state.

Continued dry weather throughout the principal corn-growing territory, high temperatures, and hot winds, caused the very marked decline in the corn prospect in the past month, from a condition of 75.6 per cent July 18, last, to about 30 per cent now. In most of the state's 105 counties the prospective average yields per acre reported are so low as to warrant the general statement that the crop as a whole is practically a failure.

Of the counties important in corn acreage planted, seven in the northeastern corner of the state promise the best acre yields, or twenty bushels or more, Atchison and Brown reporting the highest, twenty-five bushels. Twelve counties have prospects for a crop of a million bushels or more each, aggregating 21,943,375 bushels, or 38 per cent of the state's total prospective production. These counties are as follows: Smith, Jewell, Nemeha, Brown, Phillips, Jackson, Reno, Jefferson, Doniphan, Atchison and Pottawatomie, in the order of their total production.

The foregoing counties are all in the northeastern part of the state, except Phillips, Smith and Jewell, central counties in the northern tier, and Reno, a south-central county. Respectable acre yields are promised in a number of the extreme western counties, as Wallace, twenty-two bushels, and Finney, twenty-one bushels, but in this region the acreage planted is, of course, small, and its crop relatively unimportant in the state's annual production.

The ability of the sorghums to withstand hot, dry weather is again apparent. The average condition of the different kinds ranges 23.4 to 32.5 points higher than the percentage condition of corn, which was reported at about 30, all based on 100 as representing a satisfactory growth and development.

The acreage planted to kafir this year amounts to 1,317,433, or 160,000 acres less than in 1917. The condition of the growing crop is given as 53.4 per cent.

The acreage of milo is 401,819, or 8,000 acres more than in 1917, and its general average condition is reported at 61.7 per cent. More than half the acreage reported is in thirteen of the southwestern counties.

Less feterita was planted by 29,000 acres, and the total this year amounts to 204,189 acres. Forty per cent of this is found in nine counties, all but two—Ottawa and Rooks—being in the southwestern part of the state. The condition of the crop is given as 57.3 per cent.

There were 869,166 acres planted to cane in Kansas this year, or 75,000 more than in 1917. Its average condition is 62.5 per cent.

Of broom corn there were 58,487 acres planted this year, or 3,000 acres less than in 1917. Its average condition is 66.4 per cent. Eighty-eight per cent of the broom corn acreage is in fourteen counties, all in the southwest, except Allen, in the second tier from the east.

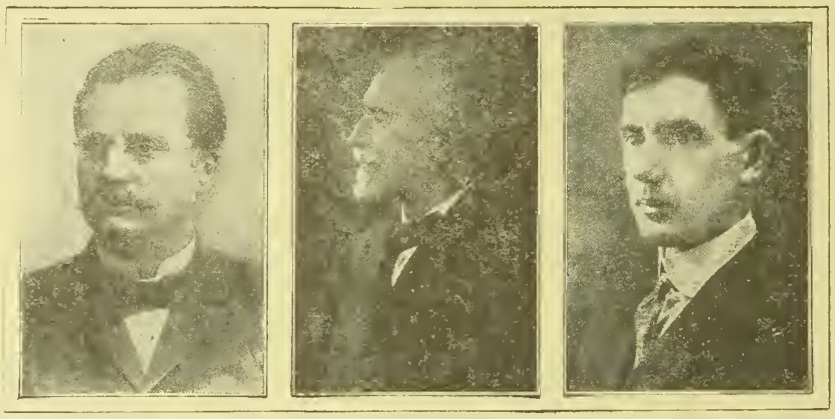
The third cutting of alfalfa was light, aggregating 506,060 tons, or about two-fifths of a ton per acre.

The hot dry weather reduced the anticipated yield of prairie hay and the state's total production will amount to only 573,572 tons, or an average of .558 tons to the acre. The aggregate output this year is less by 458,414 tons than in 1917.

Considerably more than half the plowing for fall crops is done, according to correspondents. Reports indicate that in the eastern half of the state an increased wheat acreage will be sown this fall, while in a majority of the counties of the western half reporters are about as unanimously of the opinion that a smaller acreage will be planted. Much of the well-cultivated land where corn failed, providing in effect a summer-fallowed seed-bed, will be sown to wheat.

Pastures are generally reported as poor, except in the extreme western counties, and in the eastern portions of the state the shortage of stock water remains unrelieved.

MEN WHOM DAIRYMEN HONOR



DR. DE LAVAL DR. BABCOCK DR. McCOLLUM

FOR many years the world's dairy interests have paid homage to two men who did more than all others toward the development of dairying on the farm—Dr. Carl Gustaf Patrik De Laval, inventor of the centrifugal cream separator, and Dr. S. M. Babcock, who discovered the Babcock test. Now a third illustrious name has been added—that of Dr. E. V. McCollum, professor of biological chemistry in the Johns Hopkins University, School of Hygiene and Public Health, who has proved beyond dispute that there is some unknown substance contained in butter-fat which is absolutely necessary in the human diet if the race is to survive and progress.

Dr. De Laval's invention revolutionized farm dairying, in that it enabled the cow owner to do away with the slow, wasteful, inconvenient methods of milk separation, and to recover quickly, easily and economically all the butter-fat from milk.

Dr. Babcock's discovery was of equal importance, inasmuch as it not only established a new standard for appraising the market value of milk, but supplied the means of gauging the worth of the individual breed and the individual cow as a producer.

Dr. McCollum's discovery, coming at a time when the dairy business was facing a crisis, has dealt butter substitutes a crushing blow and at the same time laid bare the folly of a decreased consumption of milk. His writings and lectures have won for him the appellation of "the saviour of the dairy industry."

It has been well said that in every time of stress a man to save the day has been raised up.

Stubbling In Wheat

A Western Kansas man finds fault with the constant emphasis being placed on deep plowing in preparation for wheat. He states that he has often observed fields given the best of preparation that fared worse than wheat stubbled in with the minimum of preparation.

We have no reason to question this observation. A deep loose seed bed in Western Kansas in a dry fall is a poor seed bed for wheat. Unless there is enough rain to settle deep plowing, the results are not satisfactory. The element of time enters into the making of a satisfactory seed bed for wheat. One who has carefully followed the experimental work being done notes that the time of plowing is a most important factor. In the bulleting, "Growing Wheat in Kansas," the following statement is made with reference to tests at Manhattan where there is more rain to settle the soil than in the western section:

"As a whole, these experiments seem to show that deep plowing—six inches or deeper—is advisabl eonly when the ground is plowed reasonably early."

It is most assuredly too late now to think about plowing deep for wheat anywhere in Kansas. Prof. L. E. Call, of our experiment station, one of the authors of the bulletin quoted, points out that it is not too late to prepare stubble ground for fall wheat sowing, but every day's delay reduces the chance for a good yield.

"In Eastern and Central Kansas," says Professor Call, "the ground should be plowed. Even though the ground plows hard and lumpy, the plows should be kept going. This kills the weeds, and any moisture remaining in the ground is saved. Loosely plowed ground absorbs moisture more rapidly than unplowed ground, and will catch and hold a larger proportion of any heavy rain that falls.

"After this time, wheat land should not be plowed deep. It is not possible thoroughly to compact and settle deep plowed ground. Therefore, it is the best practice, when plowing this late, to plow just deep enough to cover stubble and the growing vegetation. Usually a depth of four inches is sufficient.

"Late plowed ground should be worked sufficiently to pack thoroughly before seeding. If it plows hard and dry, it should be left as turned by the plow until a rain falls. After a rain it should be worked down as quickly as possible. A disk set fairly straight and, if necessary, weighted, is a good implement with which to pack loosely plowed ground.

"In Western Kansas it is too late to plow for wheat this fall. There is not sufficient time and there probably will not be sufficient rain to compact plowed ground in time for seeding. Ground that has been well plowed in the past, and is loose and mellow and free of weeds, can be prepared for wheat with a disk or may even be sown in the stubble without any preparation. The standing stubble protects the young growing wheat, catches and holds snow, prevents blowing, and frequently produces a crop when crops fail on late plowed ground.

"This method of seeding is satisfactory only when ground is clean and when it has been well prepared in preceding years. For this reason it should not be followed many years in succession or on ground that is hard and weedy. Because of the ease and cheapness with which wheat can be seeded by this method and because good crops are frequently produced by it, there is a tendency to follow the practice continuously, which gives unsatisfactory results.

"Some of the best land available for wheat this fall is corn ground on which the corn ripened prematurely because of dry weather. The corn crop should be removed from such land and placed in a silo where it can best be saved, or cut and shocked in the field and then stacked as soon as thoroughly cured. If left in the field this immature fodder is quickly injured by rain. As soon as the crop is harvested the ground should be thoroughly disked, in order to stop the growth of weeds and to put it in condition to absorb rain rapidly. Corn ground handled in this way will be in excellent condition for wheat this fall."

Fourth Liberty Loan Bonds

Bonds of the Fourth Liberty Loan are now being turned out by the thousands daily by the Treasury's Bureau of Engraving and Printing. The bonds are similar in form and design to those of the third loan, and space has been left on each bond for the insertion of the exact terms of the bonds.

It is believed that a sufficient number of the bonds will be ready to make possible immediate delivery of all bonds of the fourth loan as they are purchased.

Fanning Seed Wheat

A reader asks if it is necessary to run seed wheat that is to be treated for smut, through a fanning mill.

It is always a desirable practice to fan seed wheat. It is difficult to destroy all the smut spores in wheat unless the fanning mill is used to blow out all the smut balls. These balls will resist the action of the formalin and when the seed is sown will result in a crop of smutty wheat. In the absence of a fanning mill the smut balls can be skimmed from the top of the solution in which the wheat is being treated. In using the sprinkling method the smut balls must be blown out with a fanning mill. In all probability one of the reasons for the failure of the treatment to be successful in some cases is because the smut balls were not removed and the solution did not penetrate sufficiently to destroy all the spores.

Walnut Timber Prices

The government has now announced prices for walnut timber. The concerns having government contracts to furnish walnut for gunstocks and airplane propeller blades will be required to pay for walnut logs on the basis of the government prices.

The schedule ranges from $45 to $55 a thousand feet for logs at least 8 feet long and 12-14 inches in diameter, to $135 to $150 a thousand for logs 31 or more inches in diameter, on board cars.

Anyone wanting more detailed information about the selling of walnut logs should write to the State Forester at the Agricultural College, Manhattan.

"Bringing Back" French Acres

America is helping France to rehabilitate her agriculture, according to reports received by the U. S. Food Administration, with a view to economizing tonnage from this country. France does not produce today anywhere near enough food for her army and civilian population, to say nothing of the large foreign armies fighting on her territory. For instance, more than 330,000,000 bushels

of wheat annually were required to satisfy the needs of the French people before the war. At present France produces scarcely more than 146,000,000 bushels. But by restoring to cultivation most of the lands abandoned owing to labor scarcity, and by intensifying agricultural production, France's acres are being brought back to normal again.

The American Red Cross, the American Committee for Devastated France, and the Civilian Committee, are all co-operating in this task. During 1917, 7,500 acres were thus reclaimed and the yield of an acre averaged fifty-two bushels of grain. Thirty mechanical tractors were employed. To replace orchards wantonly destroyed by Germany, 7,900 trees were planted.

Not only will ocean tonnage be economized by this cultivation of abandoned French fields, but the French farmers are becoming acquainted with American agricultural methods, a distinct benefit which will endure long after the war is over.

Silos Help Keep More Stock

Wherever a test has been made, it has shown that a silo increases the carrying capacity of the farm by one-third, due to the increased feed value of silage. This means that the same acreage may feed more stock or else that the same number of animals may be fed on less acreage. The acres thus released from raising feed for stock can be devoted to the raising of crops for human consumption. Silos will thus help to win the war by increasing the supply of human food.

Silage from Dry Fodder

A reader asks if he can shock his corn and make silage out of it later when the silo he has purchased is ready.

This is not the ideal way to make silage but in years when every ounce of feed must be used to the best advantage we believe this practice can be profitably followed. Put the corn in the shock before the leaves dry up and blow away. An immature, dried up crop will make feed, although not equal to well developed corn. To store such fodder successfully in a silo it is absolutely necessary to have plenty of water available at filling time. Practically never has silage made in this way been spoiled by too much water, while large quantities have made poor silage because too dry to pack solidly.

Fodder in the right condition for silage contains 70 to 75 per cent of moisture. The fodder in question may not contain more than 20 or 25 per cent. It will usually require a ton of water to a ton of fodder to make dry fodder silage keep, and this water must be so applied as to wet the material as it goes in. Turning a stream of water into the silo after it is filled, letting it run for hours, does not wet the material uniformly. It will find channels through the silo and run to the bottom, leaving much of the fodder still dry.

Hogging Down Corn

It is more expensive to husk a poor crop of corn than a good one because more time is required to get a nubbin into the wagon than a good ear. Where the whole crop ean be saved in a silo there is no problem of gleaning a field for the nubbins. If the crop cannot be harvested and fed as silage it may be the next best plan to use hogs to gather it. As a result of a series of experiments in hoging down corn at the Ohio Experiment station it has been found that as much as $86 an acre gross returns have come from following this practiee, figuring pork at $14 a hundred. This was seeured when the yield of corn was 50 bushels to the acre.

Pigs when turned into standing corn need some kind of a nitrogenous supplement such as tankage as shown by the experiments. A comparison of two lots of hogs shows an increase of $20 more to the acre when from two to three-tenths of a pound of tankage was fed to each hog daily. Clover, alfalfa or rape pasture may be used to reduce the amount of tankage needed.

As found through experiment, twenty 100-pound pigs may be expected to clean up an acre of corn yielding 50 bushels in about 20 days; or eight or nine shotes weighing 125 pounds will harvest an acre of corn in as many days as the corn yields in bushels.

Gains per day when hogs are allowed to harvest corn are higher generally than with any other method of feeding, as much as two pounds per day being recorded. Hogs weighing from 90 to 130 pounds and not previously heavily fed are to be preferred for hogging down corn.

Price-Fixing of Farm Products

(Continued from Page Four)

feed at market price or cost of production would seem to pass with the effort to find specific costs.

However, something akin to the latter remains. The farmer may compare the profits he would make if he sold his corn, oats, and hay at present market prices instead of feeding them to cows and selling milk. In this he should not assume that if the community turned from milk selling to crop selling that the prices of all these crops would be what they were before the change; neither should he assume that his crops would yield the same if he changed to grain growing for the market. Oats and corn are used directly for human food and have many other uses and are so easily shipped that there would continue to be a market for them, if not used as cow feed; but clover hay is a stock food and it is not so easily marketed. The important alternative uses for clover if not used for cows are (1) to feed to beef cattle, (2) to sheep, or (3) to plow under as a fertilizer, any of which conserves its value as a land builder as a basis for grain growing. Where clover has entered into commerce it has usually been as a feed for dairy cows. When disearded for this use, therefore, the marketing of clover hay could not be counted upon. A farmer in the Chicago milk district insists at this moment that it pays better to sell grains and plow the clover under than to make clover hay and feed it to live stock. He is practicing this system now and is satisfied. In this and similar cases it is the alternative use value rather than cost or present market price which becomes the basis of comparing the profits of types of farming, and hence the basis of choice.

This means that formerly assigned specific costs are of little use in the diseussion of price fixing. It does not mean, however, that cost accounting is of no use in the study of this problem; in fact, accounts are very necessary, but in a different way from what has been supposed. Accounts are useful to the farmer in making choice of crops and live stock enterprises and his methods of production. Accounts are useful to the price commissioner in estimating the price necessary to call out continuously the desired supply of produce of a given kind and of suitable quality. For these purposes specific costs may not be needed. What are needed are figures comparing the profitableness of the different things to which the producer can turn his attention. The alert farmer is ever figuring on the combination of crop and live stock production which will pay him best with a given price schedule and with given costs for land, labor, and equipments.

(To be continued)

Why the cost of producing cattle does not determine their selling price

To produce a steer for meat purposes requires, as you know, a period of from one to three years.

The prices the producer has to pay for feed, labor and other items during this period, together with weather conditions, determine what it costs to produce the steer.

But the price the producer receives for the steer depends on conditions existing at the time it is sent to market.

If the supply of cattle coming on the market at this time is greater than the consumer demand for dressed meat, the prices of meat and live stock go down.

On the other hand, if the number of cattle coming to market is less than enough to supply the consumer demand for meat, the prices of meat and live stock go up.

Not only do the receipts of animals vary from week to week but the consumer demand for meat also fluctuates.

The rise and fall of prices results from an economic law that operates in every business. It is the packer's task to turn live stock into dressed meat and by-products, and distribute them to the consumer under control of this law.

Market conditions and competition establish the prices the producer gets for his cattle. When meat prices go up or down, so do cattle prices.

The packer can't pay out more money for animals than he takes in from the sale of meat and by-products.

Swift & Company will gladly co-operate in the carrying out of any national policy that will tend to steady the prices of live stock and meat.

Swift & Company, U. S. A.

A nation-wide organization with more than 20.000 stockholders

Cushman

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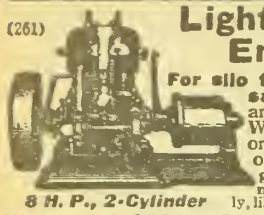

Light Weight Engines

For silo filling, grinding, sawing, shelling and all farm work. Weigh only about one-fifth as much as ordinary farm engines, but run much more steadily and quietly, like automobile engines.

8 H. P., 2-Cylinder

Weighs only 320 lbs. Besides doing all regular jobs, it may be mounted on Corn Pickers, Hay Balers, etc. 15 H. P. only 780 lbs. and 20 H. P. only 1200 lbs.—for heavier work. 4 H. P. weighs only 190 lbs. Besides being the original all-purpose engine, it may be mounted on potato diggers, binders and other machines. Makes ideal power for farm lighting plants, as well as all other farm work.

Ask for Book on Light Weight Engines

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Runs easy. Long lasting. Thousands in use. Fully protected by patents. Send for free circulars. Price $15.00 f. o. b. Topeka.

J. A. COLE, Mfr., TOPEKA, KANSAS

SENATE CONCURRENT RESOLUTION No. 18.

A proposition to amend section 1 of article 5 of the constitution of the state of Kansas relative to the right of suffrage.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members elected to each house thereof concurring therein:

Section 1. The following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their approval or rejection: That section 1 of article 5 of the constitution of the state of Kansas be amended to read as follows:

Section 1. Every citizen of the United States of the age of twenty-one years and upwards—who shall have resided in Kansas six months next preceding any election, and in the township or ward in which he or she offers to vote, at least thirty days next preceding such election—shall be deemed a qualified elector.

Sec. 2. That this proposition shall be submitted to the electors of the state at the general election in the year 1918 for their approval or rejection. The amendment hereby proposed shall be designated on the ballot by the following title: "The suffrage amendment to the constitution," and shall be voted for or against as provided by law under such title.

Sec. 3. That this resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 8, 1917.
Approved March 12, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 18, now on file in my office.

J. T. BOTKIN,
(Seal) Secretary of State.

SENATE CONCURRENT RESOLUTION No. 15.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members of each house concurring therein:

Section 1. That the following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their rejection or approval:

Sec. 2. The Legislature may levy a permanent tax for the use and benefit of the state educational institutions and apportion among and appropriate the same to the several institutions, which levy, apportionment and appropriation shall continue until changed by statute. Nothing herein contained shall prevent such further appropriation by the Legislature as may be deemed necessary from time to time for the needs of said state educational institutions.

Sec. 3. This proposition shall be submitted to the electors of this state at the election for representatives in the Legislature in the year 1918. The amendment hereby proposed shall be known on the official ballot by the title "Amendment to the constitution providing for a permanent income for the state educational institutions," and the vote for and against such amendment shall be taken as provided by law.

Sec. 4. This resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 7, 1917.
Approved March 10, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 15, now on file in my office.

J. T. BOTKIN,
(Seal) Secretary of State.

PATENTED

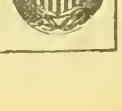
HAIR CUTTER 35c

If you can comb your hair you can cut it with our Hair Cutter; shave yourself and cut the children's hair just like any barber. Sample 35c.

WONDER MFG. CO., Dept. 86, WINSTON-SALEM, N.C.

A NATION'S STRENGTH IS IN ITS FOOD SUPPLY

Eat Less—Waste nothing
Create a Reserve



AMERICA MUST FEED 120,000,000 ALLIES

MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

To Cut Auto Output

AUTOMOBILE plants are to get on a war basis by December 31 of this year. It is evident that we cannot successfully prosecute the war without modifying quite materially the business of the country. Manufacturers of pleasure automobiles and repair parts have voluntarily agreed with the War Industries Board to limit production during the remaining months of 1918 to 25 per cent of the total production of 1917.

The board gave notice that it will extend preferential treatment for the obtaining of materials necessary to "match up" the stock on hand, to permit this production.

According to terms of the agreement, plants that have an excess supply of steel on hand after completing the permitted construction will be required to turn over supply to other plants.

This agreement means the cutting of automobile production during the last half of the present year at least 50 per cent.

The board refused to make any announcements concerning the production of automobiles after December 31, 1918, but repeated its request that all plants get on a war work basis before the end of the year. The announcement says:

"The conclusion has been reached that it is in the public interest, as well as in the interest of your industry, that it be assisted, as far as practicable without interfering with the war program, in the liquidation of its stocks now on hand; and to that end the priorities division of the war industries board will accord a degree of preference designed to accomplish this result to all manufacturers of passenger automobiles who will subscribe to a pledge to be prescribed by the priorities commissioner embodying in substance the following:

"That the manufacturer will limit the purchase of materials, equipment and supplies to such as are absolutely necessary to match up the stocks now on hand.

"That the production of passenger automobiles and all repair parts therefor, shall not for the six months ending with December 31, 1918, exceed 25 per cent of the production for the calendar year 1917.

"That it will conserve and economize in every possible way its stocks of iron and steel and their products now in its hands or that may come into its possession and will release on request of the war industries board to such other manufacturer of passenger automobiles as may be designated by the said board, such of its stocks as can be utilized by such other manufacturer, and which are not required by it for either the limited production above specified or for war work.

"That it will from time to time render such reports of its activities under oath or otherwise as may be called for by the war industries board."

From statistics gathered by one of the big rubber companies it would appear that the most extensive users of commercial vehicles are not the merchants and manufacturers, but the farmers. The figures show that in number the trucks used for hauling grain, produce, garden truck, and live stock, head the list with 79,789 during 1917. Manufacturers come next with 65,928, and then retailers with 64,486. According to the figures given, there are 238 commercial vehicle manufacturers in the United States. In 1917 90,000 trucks were made and it has been estimated that this year's production will be in excess of 200,000.

Creeping Tires

Some automobile users have trouble with creeping tires, this resulting in the valve seats being torn loose from the inner tube. It is probably a more common trouble in older cars. It is simply a slow moving on the wheel of the demountable rim which carries the tire. One of the reasons for this movement is that the driving power being applied at the rims tends to make the wheel travel faster than the tire. Then the force being applied at the rim is opposite to that exerted by the friction of the tire on the ground. These two forces combined tend to make the tire and rim travel around the wheel in the opposite direction to that in which it is turning. If it is not held rigidly and slowly moves or creeps, the valve stem which is held securely in place by passing through a hole in the wheel is torn loose at its connection to the inner tube.

The only thing which prevents the tire from creeping is its friction on the wheel and rims. It is therefore necessary to tighten the lugs very tightly and securely. Sometimes the shoulders which hold the rims become badly worn, making it more difficult to tighten the lugs so they will stick. It is not a good plan to tighten the lugs one after another around the wheel, as this may result in there being too much space on one side and not enough on another. The better plan is to tighten one lug and then tighten one on the opposite side, and so continue on around the wheel.

Keeping Engines Cool

When engines, which normally keep cool even in hot weather or heavy climbing, begin to heat up, suspect the conditions of the rubber hose which connects the radiator with the water jacket. There are two such pieces of hose, but it is the top one which usually "goes bad," because it carries the hot water from the top of the engine into the radiator. The bottom hose carries the cooled water either to the pump, if there is a pump, or directly back to the water jacket if the engine uses the thermo-syphon cooling system.

Cars which use pumps for water circulation have smaller pipes and consequently smaller rubber hose connections than those which use thermo-syphon cooling systems. Hot water gradually disintegrates the rubber and cotton of the hose, and when the inner lining of the hose breaks down into a mush, it frequently stops up the hose connection to an extent sufficient to prevent proper water circulation. Replacing such a hose connection can be done in a few minutes by any one who can use a wrench or screwdriver, and is an operation which does not need the skilled and expensive services of a repair man.

Sometimes engines which cool properly in winter heat up when the first warm days come. In engines of the pump circulation type this is often caused by a hitherto unsuspected freezing of the pump, which has resulted in broken pump wheel blades. Dismounting the pump and taking it to pieces is the only way to make sure of this trouble. The remedy is a new impeller in the pump.—Motor Life.

Starting Kerosene Tractor

It is common knowledge among users of kerosene tractors that it is necessary, when starting, to use gasoline, says a writer in Tractor Farming. This is because kerosene is heavier and less volatile and for these reasons has a tendency to condense when drawn into a cold cylinder. Under such conditions it is a hard matter to obtain anything like perfect combustion.

To eliminate this trouble, gasoline is used at the start until the compression chamber of the cylinder is warmed to a degree where kerosene will remain in a vaporous state. While this is necessary in starting a kerosene tractor or engine when cold, it is not necessary where a tractor is still hot from a previous run.

With the cylinder still warm, kerosene can be used in the place of gasoline for starting purposes. As a matter of fact, a kerosene engine of standard make will quite often start more readily on kerosene than gasoline when it is warm, because cylinder conditions are adapted for handling kerosene vapor. On account of the high cost of gasoline, an additional economy can be made by observing this rule—use kerosene for starting your tractor when it is still warm from a previous run.

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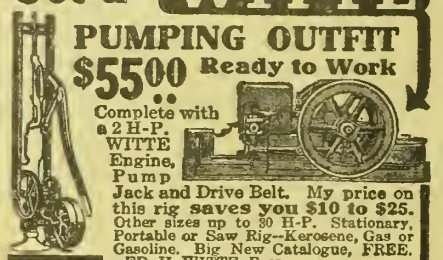

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KANSAS FARMER DAIRY CLUB

Getting Started With Pure-Breds

IF YOU are doing well with a herd of good grade dairy cows, you are probably looking forward to having only pure-breds some time in the future. First making a success with grade dairy cows is the best possible way to get started in pure-breds. The details of the business can be learned in handling the grade cows simply from a production standpoint. There will be less danger of making mistakes when you start with cattle costing more money. A bulletin from the Maine Department of Agriculture contains an interesting statement by a successful dairy farmer who is telling of his experience in getting started in pure-breds. This information came as the result of his practical experience in building up a profitable herd of pure-bred cattle. He said:

"I met with disappointment from one of the bulls which I bought, not from a production point of view, as the production was increased immensely, but there were misplaced udders in his offspring. The teats were not put on where they ought to be; the bag was not the right shape. There were not many hard milkers, but the shape of the udders was not improved. I saw my mistake and in making my second selection I saw the dam and the granddam of the sire of the calf I bought, and also I knew by reputation the sire's sire and the sire's dam. I do not think I ever saw as great an improvement in one generation as there was in the shape of the udders of the heifers sired by him, and the placing of the teats, as well as in the production.

"It was production that I was after when I bought my first pure-breds, and that was the point I had in view. I did not have the courage, with the obligations I had on me, to go into high-priced fancy-bred stock. I might say that I bought the breed I did, not because it was at that time greatly my preference, but because I could get pure-breds in that breed for a little less money than in any other breed, as an intimate friend of mine, who I knew would not do me a wrong, had a herd from which I could get selections at a reasonable price. I paid $975 for pure-bred stock. I also bought a set of milk scales, and it was the best investment I ever made in my life. Any dairyman who is not using them regularly is making a mistake. I do not mean that you should use the milk scales and never add up the sheet. You should use the scales, weigh the milk, put it down, add up the sheet, and follow its lessons. It is of no use to weigh the milk unless you are willing to abide by the scales. When you have resolved to do that, and stick to it, then you can improve your condition. Nine hundred and eighty-three dollars was the total extra outlay in my herd to bring about an increased average production of 54 per cent in milk and 73 per cent in butter, in ten years' time. This is within reach of any farmer. Perhaps you are in a cow testing association. If you are not, you ought to be. I had to do this work independently, because at that time there were no such associations. Since the organization of our farm bureau, three years ago, we have a cow testing association in our immediate vicinity, and I am now doing the work through that. It allows me more time to myself if I have a tester do the work, and I think he can do it cheaper than I can. But if you are not in a position to join a cow testing association you should do the work yourself, as you cannot afford to keep dairy cows unless you conduct your dairy work on a business basis, and you are not conducting it on such a basis unless you open an account with each individual cow and know what she is doing."

We feel sure that our Dairy Club members have all learned to recognize the importance of the points emphasized by this practical dairyman. They most assuredly have learned that the keeping of records is an absolutely sure way of finding out the production capacity of a cow.

Paying for a Piano

Lucile Radcliffe, one of our Dairy Club members, called at the KANSAS FARMER office last week. Lucile and her brother Clarence were the first members of this year's club to start their records. Their year ended the first of April. All the Dairy Club members will be interested in knowing that Lucile is now paying for a piano with the profits from her cow. She paid off her note some months ago, and has already made quite substantial payments on the piano. We will not say more now, for we know she will tell all about it when she writes the story of her year's work as a member of the Dairy Club.

Raise Your Own Feed

One of the factors in profitable dairying is to grow the feed needed by your cows on your own farm as far as practical. If you have plenty of silage capacity, grow enough corn, cane or kafir to fill the silos, and enough alfalfa, clover or other legume hay to balance the silage, you are in a fair way to make dairying pay. The cows will furnish a profitable market for these home-grown feeds. Of course it is necessary to have good machines for converting these feeds into milk. Do not waste good feed on a poor cow.

Dairy farms increase in their fertility if the manure produced is carefully spread over the fields. This makes it possible to increase the production of feed and perhaps enlarge the business without increasing the acres farmed. It is hard to make a profit if you have to buy too much feed. Seldom is it possible to handle dairy cows profitably unless the roughage necessary is grown on the farm, and much of the grain required should also be grown.

If you would improve your dairy herd, buy a good pure-bred sire and breed your best milkers to him, raising all heifer calves. Do not keep any more cows than you can handle conveniently with the labor available. Weigh the milk and test for butter fat so as to get rid of unprofitable cows. Dairying in this way can become a profitable feature of the farming business.

Cows are creatures of habit. They will do best if milked and fed regularly. They even become attached to certain milkers and are restless if changes are made and fall off in milk. Abrupt changes in feed also have a detrimental effect on milk production.

Keep the Cow

In the poor crop years milking of cows increases. This is because the cow is an income producer. She brings a return every day. The money comes in regularly and can be used to pay grocery bills and other items of daily expense. At times it may seem hard to scrape up enough feed, but it can usually be done. In addition to the milk and calf, the cow returns most of the plant food in her feed in the manure. This means that the cow will keep up the land, thus making the land more productive through manuring. The pasture continually becomes more fertile and growing such crops as alfalfa, grasses and corn puts the land in better shape for growing crops. Even if the cow does not make much profit she makes the acres that support her more productive, which usually means more profit. It is worth something to have a regular job which brings in a money return every day.

Give Dairy Cow a Rest

It is always best to have the dairy cow dry at least six weeks before she freshens. A cow will produce more milk after she is dry for six weeks than if she is milked continuously. The dairy cow is a hard-worked animal and needs time for recuperation. Experienced dairy cow owners never milk their cows continuously.

Help Avoid Burlap Shortage

Continued and increasing war demand on the jute industry of India for burlap makes necessary the utmost conservation of this product which we have been accustomed to use freely, even wastefully. India is the great jute center of the world. There the jute is grown, made into fiber and manufactured into jute cloth which is commercially known as burlap or gunnysacking.

Imports of burlap cloth by the United States normally average about 700,000,000 yards annually. After reaching this country most of the burlap cloth is sewed into bags, most of which are used as containers for food and feed. Investigations by the Food Administration show that somewhat more than three-fourths of all burlap imported is used by farmers in shipping agricultural products or in buying necessary supplies.

Familiar products shipped principally in burlap include cereal grains, mill feeds, mixed feeds, seeds, fertilizer, potatoes, onions, binder twine, and nursery stock. In peace times burlap bags were worth about 6 or 7 cents apiece, and at this value dealers found it impractical to advertise for, gather and re-use second-hand bags. But the present price, which is about four times these figures, and the decreased imports owing to such enormous prices, warrant the most careful conservation and re-use of bags.

The U. S. Food Administration is without authority to control either the supply or price of burlap from India at the moment, but the importance of this product as a food and feed container makes a full understanding of the situation by farmers desirable. Here are the Food Administration's requests:

Burlap is valuable. Save the present supply, reserving enough on farms for probable future needs.

There is a good demand for second-hand bags at fair prices. Put surplus bags back into the channels of trade.

Even fertilizer bags can be saved unless acid fertilizers are allowed to remain in them too long. Empty the bags at once, wash and dry them. Sugar bags, after emptying, should also be washed and dried.

You need not mend torn bags that are to be sold. Bag manufacturers have special facilities for doing this work and they prefer to do it.

Allow no burlap or bags to mildew or to be damaged by storing in a damp place. Keep them clean and dry.

Any waste of burlap adds to the national demand, which in turn causes an economic pressure for shipping from India. Saving burlap helps to save shipping to supply the American armed forces abroad.

In addition to the international and military sides of the question, which are the most important, a personal consideration may also be mentioned. New burlap imported by the United States now costs about $150,000,000 annually, of which at least $100,000,000 is ultimately paid by American farmers. The Food Administration believes that this figure can be materially reduced if conservation is actively practiced and the re-use of second-hand bags encouraged.

In two years the production of dry edible beans in this country will have almost doubled, if the forecast of the Bureau of Crop Estimates of the United States Department of Agriculture for this year is verified in the harvest. The expected crop of this year is 19,791,000 bushels, one-half of which will come from California and nearly one-fifth from Michigan.



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The dealer will show you all about feeds, furrow openers, bearings, attachments, the regulation of quantities, and all the other things you will want to know. Talk this over with him or write to us, and we will send you complete information about the **Empire Jr., Hoosier,** or **Kentucky** drill that is best for you to buy.

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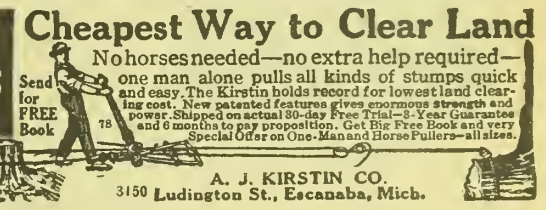

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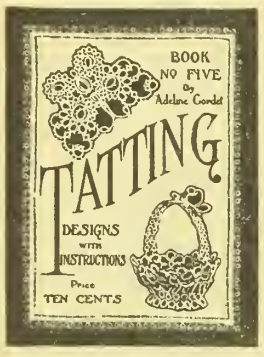

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When you look into a face that seems expressionless and dull, it doesn't necessarily follow that there is "no one at home," as we say. Perhaps the door is simply closed and you haven't found the right key to unlock it.

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Sorghum For Sweetening

SORGHUM was introduced into this country from China and Africa a little more than fifty years ago and the culture spread rapidly. Many a little home learned to depend on sorghum syrup to replace sugar both on the table and in preserving. When the Civil War cut off Louisiana cane sugar, the North developed a liking for sorghum syrup. The present world sugar shortage has again raised sorghum from the ranks.

Sorghum is not like molasses, a sugar-house by-product, but an unmixed syrup made directly from sorghum cane by crushing and boiling. The grade and color of the syrup will depend on the making. If the syrup is allowed to caramel or burn on the side of the pan, a dark strong syrup will result. Lime is used by some makers to overcome the acidity of the raw juice. Where this has not been done in the making, housekeepers frequently heat the syrup with a pinch of soda before using it.

When a well-made light syrup has been produced, the next point is to prevent fermentation, for after all the tank of sorghum syrup is mostly due to fermentation. Syrup that has been thoroughly sterilized by boiling will not ferment if poured hot into sterilized containers and sealed immediately. The tin quart can is the most convenient container for family use. Store in a cool place and you have a good all-winter table syrup and a fair substitute for sugar in desserts and jam making. When recipes call for sugar, use half and half sorghum and corn syrup or sorghum and sugar, or use sorghum alone.

Sorghum for Jam

Canned fruit pulp or stewed dried fruit may be converted into jams or butters whenever the sorghum syrup is available. Allow one cupful of sorghum to four cupfuls of fruit pulp. Season with spices, ginger or lemon, cook to a jam, refill sterilized jars, process and seal. Crushed peach kernel will add flavor to peach butter.

Sweet Pickled Beets

½ gallon baby beets
3 cupfuls vinegar
½ teaspoonful salt
3 cupfuls sorghum
3 tablespoonfuls mixed pickle spices

Boil together for three minutes vinegar, sorghum, salt and spices. Cook beets until tender, skin and pack in half-gallon jars. Pour boiling liquid over them, filling jars. Fasten covers on tightly and store in dark place to cool. Canned beets may be used for this recipe. Pears and peaches may be pickled with sorghum syrup and it is especially good with spiced grapes.

Sorghum Lemon Sauce

2 cupfuls sorghum
1 cupful boiling water
2 teaspoonfuls cornstarch
2 lemons, juice of
1 lemon, grated rind of
2 tablespoonfuls butter (added before removing from fire)

Sorghum Cake

½ cupful fat
1½ cupfuls sorghum
1 cupful boiling water
½ teaspoonful salt
1 teaspoonful ginger
1 cupful flour
1 cupful substitute flour
2 eggs
1 teaspoonful soda

Cream the fat and add the sorghum, and the boiling water. Add the sifted dry ingredients to the first mixture. Add the eggs last. Bake the cake in a loaf or in a shallow pan in a moderate oven.

Apple Sauce Variation

To two cupfuls of apple sauce, cooked until very thick, add one tablespoonful of butter, three tablespoonfuls of syrup, and cinnamon as desired. Spread the apple sauce one-half inch thick over the bottom of the pan. Pour the cake batter over the sauce, and bake it in a moderate oven. When the cake is done, turn it out of the pan so that the apple sauce is on top. Cut it in squares and serve warm.

War Cake

⅔ cupful shortening
1½ cupfuls sorghum
1½ cupfuls water
1 cupful dates, raisins or prunes
1 teaspoonful salt
2 teaspoonfuls cinnamon
1 teaspoonful cloves
4 cupfuls flour
2 teaspoonfuls baking powder
¾ cupful nut meats (if desired)
1 teaspoonful soda dissolved in
2 tablespoonfuls hot water
½ teaspoonful nutmeg

Mix shortening, water, syrup, spices and raisins, and boil for about three minutes. Pour into mixing bowl and allow to cool. Sift flour and baking powder, add all at one time to the liquid mixture, beat well, add nuts if desired, and, just before pouring into oiled and floured pans, dissolve the soda in the hot water and beat into the batter. Bake in loaf pan in moderate oven about an hour.

Sorghum Pie

2 cupfuls sorghum
1 tablespoonful butter
4 eggs
Pinch of salt

Boil syrup and butter together, pour over eggs beaten with salt, stirring briskly. Have pie pans ready lined with crust. Pour in and bake. Chopped nuts sprinkled over the pie after baking add the finishing touch to this pie. This quantity will make two pies.

Keeping Household Accounts

Two methods of keeping simple household farm accounts are described in a new publication from the United States Department of Agriculture entitled "Farm Household Accounts," Farmers' Bulletin 964. The suggestions contained in it should be very helpful to women who are endeavoring to keep some record of the varying income and outgo of food supplies and especially to those who wish to keep track of household expenses as related to farm business.

One method given is to record the purchases or money paid out without classifying the expenditures, and the other is to classify when the record is made. Both ways are practical and are intended to suggest how household accounts may be kept rather than to outline any hard and fast system for all families to follow.

You will find this bulletin a help in keeping track of household expenses. Write for it to the Division of Publications, United States Department of Agriculture, Washington, D. C.

Poison the Black Crickets

When you see a cricket in the house, kill it. If you hear one chirping in a closet, look for it until you find it. It is waiting to cut up your curtains, clothing, carpets, or rugs, in the night whi' you sleep. A single black cricket ha been known to ruin a valuable suit in one night, seemingly from pure wantonness.

During the day they conceal themselves under heavy pieces of furniture, under carpets or rugs, in closets, and behind the baseboard. They are frequently found in large numbers in the basement where there are suitable dark hiding places.

If they are numerous, as they are likely to be at this time of the year, Prof. George A. Dean, entomologist at the Kansas Agricultural College, says that the most practical and effective method of destroying them is by distributing the same poisoned bait that is used for grasshoppers. A small quantity may be prepared in the following manner: Mix one pound of bran and one ounce of paris green thoroughly in a pan, squeeze the juice from one-quarter of an orange into one and one-half pints of water, chop the remaining pulp and peel from which the juice has been squeezed to fine bits and add them to the water. Dissolve three ounces of syrup in the water and wet the bran and poison with the mixture, stirring at the same time so as to dampen the mash thoroughly.

The orange flavor makes the bait more attractive and more appetizing and so more likely to be eaten by the crickets. Small amounts of the damp mash should be put in shallow pans or dishes and placed in closets or any place likely to be frequented by crickets. In the base-

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No. 8942—Children's Dress: Cut in sizes 2, 4, 6 and 8 years. A very important milestone in the life of every small girl is the day she enters kindergarten, so she must be fittingly dressed for the occasion. The dress is made in the popular high-waisted style, with neck section buttoning at center front. The V-neck is finished with a becoming cape collar which ripples all around. The one-piece skirt is gathered slightly to the short waist. **No. 8930—Ladies' House Dress:** Cut in sizes 36, 38, 40, 42, 44 and 46 inches bust measure. Several distinctive features make this trim dress a very practical one for the efficient housewife. The dress can be quickly put on, for it fastens like a coat, in double-breasted style. The three-gored skirt is gathered all around at the regulation waistline. **No. 8967—Ladies' Two-Gored Gathered Skirt:** Cut in sizes 24, 26, 28, 30, 32 and 34 inches waist measure. The slender, hipless effect is maintained in this smart skirt. The back gore is cut much wider and fuller than the front, and it is shaped in square extensions which come well over the hips toward the front. The back gore is gathered across the slightly raised waist line.



No. 8462—Ladies' Waist: Cut in sizes 36 to 42 inches bust measure. Long sleeves are gathered to bands. **No. 8460—Girls' Dress:** Cut in sizes 6 to 14 years. Sleeves may be long or short and the skirt is cut in one piece. **No. 8473—Ladies' Kimono:** Cut in sizes 32, 36, 40 and 44 inches bust measure. The kimono may be made in either of two lengths.

ment it can be placed in teaspoonful lots in corners, behind boxes, and in other hiding places. The crickets do not eat this bran mash so readily when it is dry, and for this reason it should always be distributed in the evening, because the crickets work mostly at night. The bran mash in the dishes can be freshened by adding a little water and stirring, but it should not be made sloppy.

Another bait recommended by Professor Dean is made of uncooked vegetables such as chopped carrots or potatoes, strongly poisoned with arsenic or paris green. This is used in the same way as the bran mash.

Great care should be exercised in the use of poisoned baits in dwelling houses, especially if there are children in the home. Cats and dogs will also eat this poisoned bait. If it is put out in the house at night and collected the first thing in the morning there should be little danger, however.

Preserving the Best

A peep at your cellar shelves I am sure would show that you have kept only the best of the products of your orchard and garden for winter. During the summer you found some undesirable fruit—sour, bitter, or wormy. But you wouldn't think of keeping that. It was not worth the room it would take up. You preserved for future use only the best and put that up in the most attractive form so that you and your friends can enjoy it almost more than when it was fresh.

Are you exercising as much care in choosing what is to be stored away in your thought and memory as in stocking your cellar and pantry? As you go along through life many different experiences come to you—some sweet, some bitter—and the richness or the poverty of your after years will depend on what is being retained from these varying experiences. If like the bee we could learn to extract only the sweetness, leaving the rest, we should not only enrich our own lives but should perhaps also be able to contribute something worth while to the lives of others.

Save Sugar by Drying Fruit

Use good material for drying or canning. Food selected for drying should be in the same condition as that selected for immediate table use.

Food should be stirred frequently during the drying process to insure even drying. This prevents overheating and the growth of molds.

Keep foods free from dirt and insects while drying. Mosquito netting stretched on frames will protect the food from insects.

Do not allow food to become damp during the drying process. It is better to bring indoors at night food which is being sun-dried.

Send to the Division of Publications, U. S. Department of Agriculture, Washington, D. C., for Farmers' Bulletin 984, "Farm and Home Drying of Fruits and Vegetables," which tells how to dry many products not commonly preserved in this way.

Potato Drop Cookies

1 cupful mashed potato
1 cupful corn syrup
¼ cupful fat
¾ cupful buckwheat flour
2 teaspoonfuls baking powder
½ teaspoonful cinnamon
¼ teaspoonful cloves
½ teaspoonful nutmeg
½ cupful raisins
1 teaspoonful salt
Grated rind of one lemon
1 teaspoonful lemon juice

Mix the ingredients in the order given and drop the mixture by spoonfuls on a slightly greased tin. Bake the cookies in a moderate oven.

Fat Saving

Use butter as sparingly as possible on the table, except for children.

Do not use it in cooking.

Use little pastry. When you do make pies, use one crust instead of two.

Unless you have your own lard, use vegetable fats instead of animal fats in making the pastry. If the vegetable oils are used, the quantity of fat may be reduced by one-third; that is, two and three-fourths tablespoonfuls of oil to one cupful of flour is sufficient. The oil itself helps to moisten the flour so that very little water is necessary. The dough should be made as dry as possible to make a tender pastry.

Do not fry in deep fat.

Bake croquettes in the oven.

Make meat loaf instead of meat croquettes.

Either do not use recipes calling for a large quantity of fat, or try reducing the amount.

The total amount of fat used should not be more than three-fourths pound to a person each week, and six ounces for children under ten.

To Friend Husband

I've beamed when you hollered, "Oh Girlie!"
I've hopped when you bellowed, "Oh, say!"
I've fallen for "Dearie" and "Missus"
And everything else till today;
But there's one thing that's got to be different:
From now till the Great War is done—
Unless you're prepared for a riot—
You've got to quit calling me "Hun!"
—Boston Herald.

Interesting War Items

RELATIVES should not write to the Bureau of Communication on the slightest rumor that their man is wounded, killed, or missing. In most instances such rumors are false, and frequently they have been circulated as enemy propaganda. Except in rare instances, if the man is wounded, killed, or missing, official notification from the War Department will have been promptly sent to the emergency address which he gave. However, if the statement that the man is wounded, killed, or missing, comes from an apparently reliable source, a letter should be addressed to the Bureau of Communication, American Red Cross, Washington, giving his full name, age, and the time when he entered the service.

Particulars as to Death

If the relatives of an enlisted man are notified of his death, they may obtain further particulars as to his death by writing as follows to the Bureau of Communication, American Red Cross:

Pvt. John Howard Smith, Serial No. 85634, Co. L, 125th Infantry, American Expeditionary Force. Age 26 years. Entered service July 30, 1917.

Bureau of Communication, American Red Cross, Washington, D. C.

Gentlemen: I have received official notification from the War Department (or I have been informed from a creditable source) of the death of my son named above. Can you give me further particulars?

Very truly yours,
MARY HUNTER SMITH
(Mrs. Joseph Walter Smith)
Box 25, R. F. D. 2, McPherson, Kansas.

Red Cross Home Service

If the relatives of a soldier or sailor serving abroad have received no word from him for an unreasonable length of time and desire to inquire as to his welfare, they should write directly to the Bureau of Communication, American Red Cross, as follows:

Pvt. John Howard Smith, Serial No. 85634, Co. L, 125th Infantry, American Expeditionary Force. Age 26 years. Entered service July 30, 1917.

Bureau of Communication, American Red Cross, Washington, D. C.

Gentlemen: I have received no letter from my son named above, who has been abroad since last May. Can you secure any word for me as to his welfare?

Very truly yours,
MARY HUNTER SMITH
(Mrs. Joseph Walter Smith)
Box 25, R. F. D. 2, McPherson, Kansas.

Germans Tired of Fighting

"The Americans have very little tendency to take prisoners," a soldier at the front confesses in a letter printed in the Larned Chronoscope. "But those they do take say lots more would come over if we weren't so quick on the trigger.

"The Germans are so treacherous, though, you never can tell. They'll send out a few and as you go to take them and are a bit off guard their comrades open up on you with a machine gun. Other times an innocent party of them may try to give up and you shoot them down. But you can see they're sick of it or they wouldn't care to surrender so easily. They'll earn all their American prisoners."

Cleanliness in War

"Every army in Europe is fighting two enemies: the men on the other side of the trenches and the disease in its own," says Rupert Blue, surgeon-general of the United States Public Health Service, in a very readable as well as a very instructive article on "Fighting Dirt" in the Youth's Companion. One weapon described by Mr. Blue in telling of the campaign against dirt and disease during the war in Europe is the antiseptic uniform. Military surgeons noticed some time ago that a man wounded by a rifle bullet rarely suffered from any complications of his wound, because the bullet drilled a clean hole. The wounds caused by pieces of shrapnel, however, were almost always infected, because the shrapnel forced particles of the dirty uniform into the wound. On that account a large number of the troops abroad have been equipped with uniforms saturated with an antiseptic.

"During the Russo-Japanese War," the surgeon-general says, "the Japanese set an excellent example to the world of what cleanliness means to the modern fighting man. For example, it is the rule of the Japanese navy that every sailor, before going into action, shall, if possible, take a thorough bath and put on a clean uniform. Virtually all the fighting units in the war in Europe have taken advantage of these modern ideas concerning sanitation and hygiene, with the result that this conflict, the greatest in history, is also undoubtedly the cleanest."

Care of Wounded

One of the principal reasons for the recovery of so much larger a percentage of the wounded in this war than in former wars is the care surgeons have learned to take to avoid infection. All instruments and wrappings are thoroughly sterilized and the hands of the surgeon are covered with sterilized rubber gloves so that they will not carry into the open wound microbes that might cause blood poisoning or gangrene, perhaps making it necessary to amputate an arm or a leg even if the patient's life was not forfeited. When the wound has been treated it is covered with sterile gauze and sterile bandages which keep out the deadly germs and give the wound a chance to heal.

Vocational War Training

The committee on education and special training of the War Department reports that nearly 50,000 soldiers in the United States Army training detachments are being given vocational training for overseas service. The training is being conducted in two-month courses. Of this number 17,000 are being taught auto mechanics, 5,000 auto driving, 2,000 blacksmithing, and 4,500 carpentry; nearly 3,000 are electricians, 1,000 gas engine operators, 1,000 general mechanics, 2,000 machinists, a little less than 4,000 radio operators, and nearly a thousand sheet metal workers. The other work varies from that of wheelwrights to cobblers and locomotive engineers.

Granite Washboards Best

"The old granite stones that have been used for washboards for ages don't seem to have worn much and they still beat the modern washboards mighty bad," comments an Oklahoma soldier boy in a letter written from France to his home folks, according to the Manhattan Mercury.

Wants to Fight Germans

"I tell you I'm rarin' to go," Ralph J. Mears, a nineteen-year-old Beloit boy, told army recruiting officers in the Salina station where he had gone to enlist. "Those Germans make me itch to get at them."

"You see," Mears explained, "I was hangin' 'round the drug store there one day at home, when the graphophone began playin' the song 'Don't bite the hand that's feedin' you,' and I says to myself, 'That's right.' If those old suckers don't like it over here, send 'em back home.' And right then I made up my mind to go along and help put a few of them out of the way. So hurry up and get me fixed with Uncle Sam."

"What do you want, a non com part of the service?" the officer in charge wanted to know.

"Aw, shucks, no! I want to fight. Right into the thick of the thing for mine. Put me where I can make my work show up in the Teuton casualty list."

The officer listed him as coast artillery.

Loans to Our Allies

The United States has now loaned to our Allies $6,091,590,000. The advances average about $400,000,000 a month.

These loans to our Allies are analogous to lending weapons to friends who are aiding you in the defense of your own home. The money is being used to defeat our enemy, to maintain armies fighting side by side with our soldiers, and fleets patrolling the same oceans with our sailors.



ALL ROADS LEAD TO TOPEKA SEPT. 9-14

MORE THAN A QUARTER MILLION PEOPLE WILL PASS THROUGH THE WIDE-OPEN GATES OF THIS

Great War-Time Exposition

Agricultural, Live Stock, Industrial, Educational and Patriotic exhibits are greater than any previous year. With war activities and United States Government exhibits added, the KANSAS FREE FAIR will be a gigantic celebration of Kansas production

THE GATES STAND OPEN
THE KANSAS FREE FAIR
TOPEKA-SEPT. 9 TO 14-1918

6 BIG DAYS 6 BIG NIGHTS

L. M. PENWELL, President PHIL EASTMAN, Secretary

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE—VERY CHOICE HOLSTEIN and Guernsey calves, either sex, six weeks old, 95 per cent pure-bred, at $25 each, delivered. Lewis Dutcher, Peary View Farm, Janesville, Wis.

FOR SALE — FIFTEEN HIGH GRADE Holstein cows and heifers; registered bull; good stock. No feed or water and will sell at a sacrifice if taken immediately. Ernest Holmes, Garnett, Kansas.

REGISTERED HOLSTEIN BULL, READY for service. Five of his dams average 106 pounds milk in one day and 34 pounds butter in seven days officially. $125. Wisconsin Live Stock Association, Appleton, Wis.

FOR SALE — TWENTY-FIVE HEAD OF pure-bred unregistered Shropshire ram lambs; 150 blackfaced ewes, one and two-year-olds; a few registered yearlings and two year-old Shropshire rams. K. Hague, Route 6, Newton, Kan. Phone 5742 Elbing.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

REAL ESTATE.

WANTED—TO HEAR FROM OWNER OF good farm for sale. State cash price, full particulars. D. F. Bush, Minneapolis, Minn.

SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price $10 to $15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address E. T. Cartlidge, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kan.

DOGS.

FOR SALE—FOUR HIGH CLASS COON dogs. A. F. Sampey, 317 E. Mt. Vernon Street, Springfield, Missouri.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

RABBIT HOUNDS, FOX HOUNDS, COON, opossum, skunk, squirrel dogs. Setters, pointers, ferrets, rabbits. Catalog 10c. Brown's Kennels, York, Pa.

RABBIT, FOX, COON, SKUNK AND opossum hounds, setters, pointers, pet and farm dogs, all varieties; pigeons, rabbits, mice, rats, guinea pigs, swine, etc. Big list for stamp. Violet Hill Kennels, Route 2, York, Pennsylvania.

KODAKS.

FREE—WITH FIRST ORDER AND FIVE names of kodak owner, a beautiful 5 x 7 enlargement from any film. Developing, 10c; prints, 3c up. Foto Art Company, Dept. H, Lincoln or Norfolk, Nebraska.

POULTRY.

FOR SALE—ROSE COMB WHITE LEGhorn roosters. Wm. Chisholm, Hildreth, Neb.

A FEW ROSE COMB WHITE LEGHORN cockerels, 50 cents. Mrs. John Hill, Vinland, Kansas.

COLUMBIAN WYANDOTTE COCKERELS and pullets. All kinds of fancy and large squab breeding pigeons. J. J. Pauls, Hillsboro, Kansas.

POULTRY WANTED.

IF DISSATISFIED WITH LOCAL POULtry and egg market, ship direct. We loan coops and cases free. The Copes, Topeka.

SHEEP.

REGISTERED SHROPSHIRE HUSKY March rams. Little Valley Stock Farm, Phillipsburg, Kansas.

FOR SALE — UNREGISTERED SHROPshire ram lambs. Price, $30 to $40 per head. Also black-faced ewes, age from one to five years. J. E. Regler, Whitewater, Kansas.

FOR SALE, REGISTERED SHORTHORNS, reds and roans, both sexes. Twenty miles from Hutchinson fair grounds. W. E. Currie, Sterling, Kansas.

TEN VERY HIGH GRADE SHROPSHIRE rams at $40. These are yearlings that clipped last May 16¾ pounds of wool. References, Lee Bros. & Cook or Harveyville (Kan.) State Bank. H. C. Shaw & Son, breeders of Hampshire hogs and Shropshire sheep, Harveyville, Kansas.

WANTED—TO BUY.

WANTED—SORGHUM SYRUP IN BARrels or cans. Quote f. o. b. your shipping point and state when you can make deliveries. J. Ralston Cargill, Americus, Ga.

THE STRAY LIST.

TAKEN UP—BY H. N. HOLDEMAN OF Meade, Kansas, April 30, 1918, one red white-face yearling heifer, weight about 400 pounds, value $25. W. W. Pressly, County Clerk(Meade County, Kansas.

TAKEN UP—BY G. W. ANDERSON, OF Liberal, Center Township, Stevens County, Kansas, on or about the 8th day of August, 1918, one brown mare mule about five years old, weight about 950 pounds, no marks or brands; appraised at $100. C. F. Bell, County Clerk.

WANTED

WANTED—HOUSEWORK ON FARM, BY girl; old couple preferred; small wages for good home. Permanent place desired. Address Box 31, Mentor, Kansas.

Real Estate For Sale

40 ACRES, well improved. Price $3,400, $1,000 cash.
80 ACRES, $4,400, $800 cash.
80 ACRES, $3,600, $500 cash.
160 ACRES, $10,400, $1,000 cash.

These farms are all fairly well improved, well located, good lands, very cheap in price. Will give purchaser from one to twenty years' time on deferred payments at low interest. They are bargains that will go soon. Send for descriptions. Address

Allen County Investment Co.
IOLA, KANSAS

FARM AND HERD.

The annual meeting of the Chester White Breeders' Association of Kansas will be held at 2 o'clock p. m. September 11, at the white hog barn, Topeka State Fair.

R. E. Stuewe, of Mill Creek Stock Farm, reports his Holstein herds doing well. Mr. Stuewe owns good herds of both pure-bred and high grade Holsteins. A feature of his herd at this time is the good lot of young stock.

Volume 94 of the American Shorthorn herd book is now ready for distribution. This volume contains pedigrees received before July 17, 1917, numbered from 547001 to 577000.

J. R. Florea, of Rosalia, Kansas, owner of one of the high class flocks of pure-bred Shropshire sheep, reports his flock doing fine. A feature of Mr. Florea's flock at this time is the extra fine lot of yearling rams by an imported sire that has proven to be a very fine breeder.

W. D. Brigham, manager of the Adams Farm, Gashland, Mo., reports their fine herd of Guernsey cattle doing well. This is one of the great herds of Guernseys in the West. The best blood lines of the breed are represented in this herd and it is noted for heavy production. The Adams farm is also the home of a good herd of Duroc Jersey swine and a fine flock of Shropshire sheep.

Catalogs are out for the big Holstein sale to be held by W. F. Phelps, of Aurora, Mo. The sale will be held at Joplin, Mo., September 18, and seventy-five head of pure-bred Holsteins will be catalogued. A large percentage of the offering will be bred heifers of very high quality. The offering will also include Sir Sadie Cornucopia 18th.

P. J. Murta, of Mountain Home Stock Farm, Cuba, Missouri, reports their herds of Red Polled cattle and Duroc Jersey hogs doing well. This farm is the some of herds of Red Polled cattle and Duroc hogs that are among the best in Missouri. This year they raised a very fine lot of spring pigs, March and April farrow, that have grown out fine.

Alfred Carlson, Cleburne, Kansas, is the owner of one of the good herds of big bone Spotted Poland Chinas in Kansas. He owns three great herd boars. Spotted Tom by Spotted Columbia is a two-year-old hog. He is big and smooth and in breeding condition will weigh about 700 pounds. Spotted Chief by Kansas Chief has proven a splendid breeder. American Pride is a boar that has been used with great success in the herd. Mr. Carlson has sixteen head of fine brood sows and raised 130 spring pigs. He has announced October 3 for his fall sale. On this date he will offer to the public twenty spring boars and thirty spring gilts, the pick from 130 head. The sale will be held on the farm near Cleburne, Kansas.

C. W. Taylor, owner of the Pearl herd of registered Shorthorn cattle, Abilene, Kansas, has raised a splendid lot of young calves this year. This herd is one of the oldest in the West and is widely known for Scotch and Scotch-topped reds, whites and roans. Mr. Taylor owns one of the best equipped stock farms in Kansas. That this farm has been ideal is shown by the results attained. Here are now maintained a hundred head of the best Shorthorns to be found in the country, with pastures suitable to furnish them with plenty of grass and water. Mr. Taylor operates a large farm of 1,800 acres and is demonstrating in a practical way the advantages of the combination of diversified farming and stock raising. This year he had a large acreage of wheat that yielded from twenty-five to forty bushels per acre, three cuttings of alfalfa averaging two to two and a half tons per acre. The corn on the bottom land will yield from thirty to fifty bushels and will furnish a lot of feed. A large portion of the corn will be cut and put in the silos and will be fed to the herd of good Shorthorns.

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Save The Pullets

WITH the hot dry winds drying the corn and kafir, comes the thought of disposing of the chickens. This should not be done. It is true the yield of corn and kafir will be cut short, but there was an abundance of wheat and oats. Now I don't mean we should feed wheat, but an abundance of wheat means a lot of bran, and this mixed with alfalfa meal and a little oil meal makes fine chicken feed for two meals a day and in the winter if one feed of scalded oats be given you have a fine egg-producing ration.

If chickens are running at large they will need very little feed at this season of the year. But be sure they have all the pure fresh water they can drink.

Keep all the pullets and help win the war. Don't get scared too soon. We can have the rains yet that will bring out the kafir. If you are short on feed now, dispose of your frying-size cockerels. If you want to keep them for your own use, can them. You can fry them and can them and thus save a lot of feed for the pullets, and what would be nicer than to get a can of fried chicken from the cellar and not have to go to the trouble of dressing and frying it. There are more ways than one to conserve food and economize as well.

If we are not very careful with this year's crop of pullets we will next year find ourselves facing very nearly a chicken famine. Did you ever stop to think that our boys get very few chicken dinners "over there"? They will all be egg and chicken hungry when the war is over and they come home. They will all expect lots of chicken dinners, and it behooves us now to bear this in mind so that when they do come the chickens will not be so scarce and high that we cannot get them or cannot spare one to kill.

Study the food situation and help Biddy to obey the food conservation laws. It will not be hard on her if she can't get corn and kafir. She will be thankful if you substitute, just so you remember the water.—MRS. LIZZIE B. GRIFFITH, Lyon County.

Increased Egg Consumption

Reports on the nation's egg supplies lately received by the U. S. Food Administration show that the number of eggs in storage in the United States on July 1 was practically the same as on July 1, 1917. With this condition it is interesting to note that consumption had increased about 17 per cent, indicating that production must also have increased in about the same degree. Imports and exports are a negligible factor compared with the enormous size of the egg trade within the United States.

Prices received by producers for eggs have been gratifying, according to reports from the country egg markets, and poultry markets are still short of birds, due, it is believed, to the high level of egg prices.

Hot Weather Feeding

Watch the feed of growing chicks in hot weather. Feed clean, mixed cracked corn and small grains. Whole oats of good quality, soaked or boiled, are very good. Feed sparingly and often rather than in large quantities. Keep them hungry and active, but always aim to have them filled up at roosting time.

Young stock should be encouraged to roost as soon as their inclination leads them. It often prevents their piling up and suffocating on hot nights.

Vegetable Protein for Poultry

The scarcity of beef scrap, together with its high price, has led poultry specialists of the United States Department of Agriculture to conduct feeding tests with laying hens in which cheaper and more plentiful kinds of protein feed are tried. In these tests feeds rich in vegetable protein have been used in connection with beef scrap to make up the laying ration. One pen of hens fed a mash containing 20 per cent beef scrap produced the greatest number of eggs, but a second pen fed a mash consisting of 10 per cent peanut meal and 10 per cent beef scrap produced an average of only ten eggs less during the test period of five and one-half winter months. Mashes made with soy-bean meal, cottonseed meal, and velvet-bean meal, in combination with beef scrap, have been fed with fairly satisfactory results.

Summer Chicks Need Shade

Late-hatched chicks often fail to make satisfactory growth because proper shade is not within their range. Somewhere there are fruit trees, berry bushes, asparagus plants, wild growth, that can be utilized, while such crops as corn and velvet beans can be quickly and easily grown for shade. There is no objection to growing good chicks and good corn on the same lot of land, each crop helping the success of the other. Help save needed funds by giving better summer conditions to your chicks.

Market Slacker Hens Early

On account of the high prices of feed, it will not pay poultry raisers to keep non-productive hens a day longer than necessary. Slacker hens molt early. They have bright colored legs at this season. Their combs are small, dry, hard, and rough to the touch. The productive hens have combs that are good sized, soft, and pliable. The shanks are pale, due to the fact that the pigment is drawn out during egg production. No signs of molting are shown up to September 15.

Poultry Will Be Profitable

"There is less poultry in cold storage than for years," says a government poultryman. "There are less eggs in cold storage than last year and they were put in at higher prices than ever before.

"Eggs and poultry will undoubtedly sell much higher the coming year than ever before.

"Good work with poultry will pay in the future as it has never paid in the past.

"Breed right, feed right, house correctly, practice good sanitation, keep hens free from lice and mites, take proper care of the eggs, market fresh, and in good condition. Good poultry culture faithfully practiced will be rewarded by liberal returns."

Silos are going to help offset the ravages of hot winds. In much of Kansas the corn was far enough along to make valuable feed as silage, and silos will mean that the crop is nowhere a total failure. Much interest is being displayed in silos. Many pit silos, especially in the central and western parts of the state, have been or are being made. They cost less, are more quickly constructed and easier to fill than the silo above the ground. Ask your county agent for bulletins or other information concerning silos and silage.

The country's greatest danger—a premature peace.—GORDON.

FARM AND HERD.

C. H. Black, of Marion, Kansas, has built up a valuable herd of Duroc Jersey swine. At the head of this herd is the great Giant Crimson, a line bred Crimson Wonder hog that has a long string of ancestors that have made good both in the show ring and in breeding herds. Giant Crimson is assisted by Red Cross Pathfinder. This pig was the choice boar pig of the W. T. McBride sale last spring and sold for $245. The herd sows now in the herd are Miss Parker by Parker Wonder, Ladore Wonder, dam Parker Crimson by Tattler, Wonder Lady by Parker Wonder, Keep On Lady by Wonder Model, Superba by Golden Model, and other high class breeding. The herd now numbers 100 head, and a feature of the herd at this time is seventy well grown spring pigs.

F. C. Crocker, of Filley, Nebraska, owner of one of Nebraska's greatest herds of pure-bred Duroc hogs, reports his herd doing well. This is one of the famous herds of the Duroc breed. Probably more famous Duroc sires have been used in this herd than in any herd in the West. This year Mr. Crocker has raised a large number of spring pigs that have grown out fine. They were sired by such boars as Big Lincoln Valley Chief 158495; Freiday's Jumbo Critic 165025; Valley Chief Col. 120339; Bader's Golden Model 2d 159533, and Gano's Masterpiece 179103.

The Government's Call for Income Tax Statements Makes it Certain that

YOU NEED THIS BOOK

GET STARTED RIGHT

There is no better time than right now to begin keeping Farm Records so that you will have the required information ready to make your income tax statement next year. No doubt you are already keeping your records. You want the most simplified and easiest way. Get this book. It's FREE.

PRACTICAL ACCOUNT BOOK

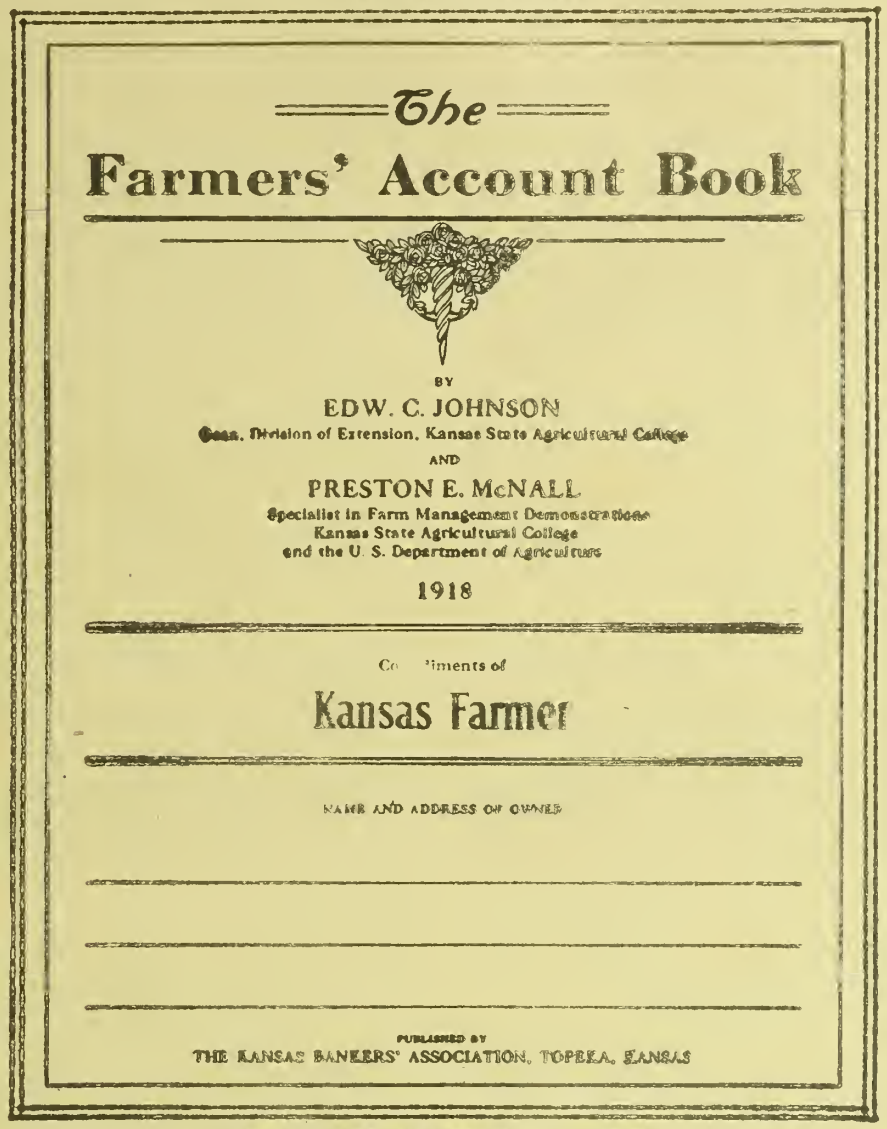
This book is a PRACTICAL Farm Account Book which has been developed under the direction of the United States Government men, working in co-operation with hundreds of farmers in Kansas. It is not merely theoretically correct, but has been prepared to fill the needs as shown by practical use on farms in this state.

THIS BOOK WILL MAKE YOUR WORK EASIER

Keeping accurate records of farm business is becoming more and more popular, not only because it is practically necessary for the income tax statement, but also for the value of the records to the farmer. The most important thing, however, is to secure and keep the information desired with the least amount of work and time; that is, in the simplest way.

The book which KANSAS FARMER is offering on this page, FREE to subscribers, is gotten up with the idea of keeping all the information necessary and valuable with the smallest amount of work. The book is a one-year record. It is small and convenient to keep. It contains full but simple instructions on how to keep the records required, with sufficient blanks for all entries.

ONE-HALF ACTUAL SIZE



ACTUAL SIZE OF BOOK, 8 x 11 INCHES

A PRACTICAL BOOK NOW IN USE BY FARMERS

The book is published by the KANSAS BANKERS' ASSOCIATION. It has been prepared by Dean Edwin C. Johnson and Preston E. McNall, both of the Extension Division of the Kansas Agricultural College, who have done their work on the book in co-operation with the United States Government.

This book has been used in Farm Management studies on hundreds of farms in Kansas where owners have heartily co-operated and offered many valuable suggestions for making it thoroughly practical and suited to actual farm conditions. These suggestions have been incorporated in this latest edition.

CONFORMS WITH REQUIREMENTS OF THE GOVERNMENT

It is the ultimate object of the Internal Revenue Office to adopt a uniform method of computing farmers' incomes. This includes farm inventories, farm receipts, and farm expenses, and follows very closely the book which is given by KANSAS FARMER to its subscribers. From year to year there may be a few slight changes made. For this reason it is best to buy a one-year book in order that each year your book will conform to the Internal Revenue rulings for that year.

FARMERS' ACCOUNT BOOK GIVEN FREE

HOW AND WHERE TO GET THIS BOOK

KANSAS FARMER desires to assist its readers in getting a book which will meet all their requirements at the least possible expense. The book described on this page is adapted to your needs and can be obtained FREE from many banks in Kansas, or KANSAS FARMER will give the book FREE with a subscription. Read our offer below and send today.

OUR OFFER

We will mail you ABSOLUTELY FREE and postpaid one of these Account Books for your renewal subscription to KANSAS FARMER at $1.00. Send us your order today and get your accounts started in such a way as will be easy to keep and which you know will be correct.

SPECIAL

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75 HEAD

Purebred Holsteins

to be held at

JOPLIN, MISSOURI, WEDNESDAY, SEPTEMBER 18TH

NEARLY ALL ARE BRED HEIFERS OF QUALITY



This will be the best and greatest opportunity yet offered dairymen, farmers and breeders of the Southwest to attend an auction sale of real QUALITY Holsteins.

Nearly all these are one to three years old, those old enough bred to males of outstanding quality. The buyer gets these young beautios at just the time when he can realize quickest profitable results—just the time when the are coming INTO money. A sale of this kind ought to attract every man interested in Holsteins within a day's travel of Joplin.

A Prominent Feature Will Be the Sale of

SIR SADIE CORNUCOPIA 18TH, 187302

Born November 23, 1915, from 30-pound dam. His sire has forty-five A. R. O. daughters, four from thirty-one to thirty-four pounds butter in seven days. There is too much in his favor to say in this space—see it in the catalog.

There are many top-notch heifers in the list—true and straight, a number of them bred to our 30-pound bull, a son of the $50,000 bull; he has a half-sister who sold at Milwaukee sale for $13,000; another at $4.200—all denoting QUALITY.

Catalogs ready September 5. Get one and come. Address

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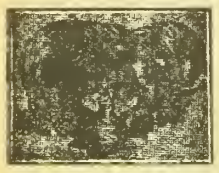
Fifty good big registered rams, $50 each, crated and express paid here. Also about 100 head of Lincoln and grade Shropshire ewes, ranging in age from one to six years, $22.50 per head. Sheep three miles north of town. Send check or draft with order. Pedigrees furnished for pure-breds. Always return crate. Reference, Harveyville State Bank.
J. R. TURNER & SON - - - - - - HARVEYVILLE, KANSAS

POLAND CHINAS. POLAND CHINAS



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ELKMORE FARM

Will exhibit a show herd of Poland China hogs at Topeka and Hutchinson fairs this fall. Call and see my herd. Annual fall sale October 17, 1918, at farm, the home of Caldwell's Big Bob.

FRED B. CALDWELL - - - HOWARD, KANSAS

POLAND CHINA BOAR PIGS

For Sale—Twenty choice boar pigs, sired by Model Wonder, he by Big Bob Wonder; The Giant by Hercules by Big Ben; King Ben by Giant Ben; Captain Gerstdale Jones, Big Bob Jumbo, and A Big Wonder. Several herd boar prospects.

Ross & Vincent, Sterling, Kan.

Erhart's Big Polands

A few fall boars ready for hard service. Can spare two tried herd boars. Have the greatest showing of spring boars we have ever raised. Some by the 1,250-pound A Big Wonder. Will make prices on pairs and trios. Write me your wants. All immune.
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Morton's Poland Chinas

For Sale—Twenty-five choice boar pigs, sired by Morton's Giant by Discher's Giant and Girstdale Jumbo by Girstdale Jones, out of my best herd sows. Priced reasonable. Write or come and see my herd.
GEORGE MORTON
Oxford : Sumner County : Kansas

Oxford Herd Poland Chinas

Herd boar, Giant Lunker by Discher's Giant out of Lady Lunker. I have 57 early spring pigs. A few choice boars. Priced to sell. Come and see me; I can please you.

Howard R. Wenrich
Oxford - - - - Kansas

HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that weigh and win. S. C. Brown Leghorn Chickens that lay. See or write

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Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
E. EDW. PLILEY - GILMAN CITY, MO.

TOWNVIEW HERD POLAND CHINAS

For Sale—Choice lot spring boars. All gilts reserved for February bred sow sale. Herd boars, King Wonder's Giant, Walter's Expansive Sid, Big Timm Joe.
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LANGFORD'S SPOTTED POLANDS

Last call for spring boars, $40 to $50.
T. T. LANGFORD & SONS, Jamesport, Mo.

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Be sure to see the Aberdeen-Angus cattle. There you will have an opportunity at more than 25 loading live stock shows to inspect the choicest representatives of the grand champion beef breed. These show animals are samples of the best American herds. Their produce has won at the world's greatest live stock show, the International Exposition, at Chicago. 15 out of 16 fat carcass grand championships **over all breeds**, as well as 13 out of 16 fat carlot grand championships, 11 out of 14 steer herd grand championships, and 10 out of 16 single steer grand championships. Calves of the breed have been demonstrating their baby beef making superiority at shows and markets from Canada to Texas. The bulls of the breed have been getting market-topping steers at all leading markets, demonstrating their place in the winning of the war.

"Ask the man who owns some!"
AMERICAN ABERDEEN-ANGUS BREEDERS' ASSOCIATION,
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WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

Financing Live-Stock Business

THE inability to get money for more than six months is a serious hindrance to the live-stock business. Feeders can get along with the short-period loan, but the men that need help most are those who are being compelled to cut down breeding herds because of adverse conditions. Unless some means can be devised to finance adequately the business of breeding and producing cattle, there will be a material decrease in breeding herds. In our issue of August 31 appeared an article on the proposed plan of making federal money available to the stock farmer. The War Finance Corporation has definitely signified its willingness to place funds in the hands of the Federal Reserve banks to be used in financing live-stock farmers who are now being pinched by stress of circumstances.

The War Finance Corporation was created to help finance industries essential to the war, and it is of the utmost importance that we keep up the production of meat. Enormous quantities of beef and pork are being required by our army and our Allies. Since the article mentioned was prepared, Clifford M. Leonard and Angus McLean, members of the War Finance Corporation, and S. W. Fordyce, general counsel for the corporation, have been in conference in Kansas City with the board of governors of the Federal Reserve Bank at Kansas City. This conference was also attended by representatives of the Dallas, Texas, reserve bank, bankers from St. Louis, Wichita, Oklahoma City, St. Joseph, Topeka, Omaha, Cheyenne, Denver, and cattle loan company representatives from all over the country.

Following this conference it has been announced that the Kansas City Cattle Loan Agency will have as its secretary and manager W. H. Moore, of the Evans-Snider-Buell Commission Company. The board of directors of the Kansas City District consists of A. C. E. Ramsey of the Kansas City Federal Reserve Bank, chairman; J. Z. Miller, governor of the same bank; W. H. Moore of the Evans-Snider-Buell Commission Company; M. L. McClure, vice-president of the Drumm Commission Company, and ex-Governor W. J. Bailey of Atchison, Kansas, who is a member of the board of the Kansas City Federal Reserve Bank.

The loans are to be made through the agencies already existing, such as the cattle loan companies, banks, commission houses and the like at the rate of 8 per cent for a maximum period of two years. The indorsement of the paper by the bank, loan company or commission house through which the loan is made is required in all cases.

By act of Congress the Government may not lend to exceed 80 per cent of the market value of the stock. This includes cows, calves, yearlings and two-year-olds of both sexes, and includes breeding sheep and goats.

This extending of credit to live-stock farmers will be of great benefit to those in sections effected by the hot dry weather of the past season.

With this recognition of the fundamental nature of the movement to supply the breeders and producers of live stock with money on more favorable terms, there should be no difficulty in working out suitable plans for handling the federal money.

Wheat Guarantee Fund

A guarantee fund is provided for in the loaning of the Federal money to wheat growers who have exhausted their credit because of two successive crop failures. A great many inquiries have been received by the State Board of Agriculture as to just how this guarantee fund would operate. The fund will be created by each farmer accepting a loan agreeing to pay fifteen cents a bushel over a six-bushel yield and up to an eleven-bushel yield, or not to exceed a maximum contribution to this fund of over seventy-five cents an acre.

In response to a letter of inquiry from J. C. Mohler, Secretary of the State Board of Agriculture, Dr. Leon M. Estabrook, representative of the U. S. Department, who is looking after the seed wheat applications in Kansas, plainly states the purposes and uses of the guarantee fund as follows:

"Your suggestion with respect to the guarantee fund cancelling the mortgage and note has already been taken care of in a new set of joint regulations issued by the Secretary and Treasurer of Agriculture, copies of which are in transmit to this office and I will send copies to you as soon as received. They provide that the guarantee fund shall be credited pro rata to the promissory notes of farmers who harvest a yield of less than five bushels per acre, and any balance left from the guarantee fund after satisfying all failures, will be refunded pro rata to those who contributed to the fund. Copies will be sent to the county agents and inspection committees and wide publicity will be given to this feature of the plan."

The Normal Condition

There is some haziness of mind as to the exact meaning of the term "normal" as used by the United States Department of Agriculture in giving crop conditions and estimates.

The Bureau of Crop Estimates estimates the condition of crops on the basis of 100 representing a normal condition; a condition 10 per cent better than normal is 110; a condition 10 per cent below normal is 90 per cent; 20 below normal, 80 per cent, etc.

What is meant by a normal condition? A normal condition, as explained by the Bureau, is such condition as gives promise of a normal yield per acre.

But what is a normal yield per acre? Most farmers know from experience approximately what their fields ought to produce with the usual modes of farming, with normal weather conditions, and without unusual loss from disease, insects, and other influences. The yield per acre under such favorable, though not extraordinary conditions, would be a normal yield, which is more than an average yield, but less than a maximum possible yield. A condition which gives promise of a normal yield, as thus described, is a normal or 100 per cent condition. A normal yield for one farm or section may vary widely from that for another. On one field a normal yield for an acre of corn may be 80 bushels, and on another field 20 bushels.

Rye for Pasture

Rye sown as soon as possible will help out wonderfully in solving the feed problem this fall. This crop with profit be used much more extensively. A patch of rye will furnish grazing for hogs, give the hens green feed when everything else is dead and even furnish pasture for milk cows, stock cattle or horses.

It will produce more fall and winter pasture than wheat. In the spring it can be pastured again and plowed under for corn in the eastern sections, or allowed to ripen grain. The use of rye might be extended with profit on live stock farms. It not only furnishes feed but on hilly or rolling land helps to protect from soil washing.

Save Waste in Cornfields

The practice of fattening lambs on the undergrowth in the cornfields has become popular in many sections. The low cost of producing the feed, as a rule, makes this method profitable. For best results in fattening the lambs, soybeans, cowpeas or rape should be sown as a cover crop between the rows of corn. A fair growth of either of these crops should be sufficient for four or five lambs per acre, or forty acres for a single-deck carload of lambs. The gains per head will vary from twelve to twenty pounds, depending upon the weather, feed and care, says Howard Hackedorn, of the Missouri College of Agriculture.

The lambs used should be good to choice western feeding lambs which weigh from fifty-three to sixty pounds each. Thinner lambs will have to be kept from eighty to ninety days, or usually from the first part of September to the first part of December. The man who feeds several carloads of lambs can usually pick out a load or two at the end of six or eight weeks which are fat enough for market. Too often lambs go to market about the first of December just half fat. According to Mr. Hackedorn, a lamb never gets fat on half rations. As the season advances the feed in the cornfields gets scarce and some hay, grain and additional pasture should be supplied after the first of November.

Rye sown in the fall makes good pasture for hogs. As soon as it is three or four inches high the hogs can be turned in and left until snow covers it. Rye also provides food pasture in early spring.

AYRSHIRE SALE

TOPEKA, KANSAS, SEPTEMBER 13, 1918

(NOT THE 14TH, AS FIRST ADVERTISED)

At the Kansas Free Fair, Beginning at 12 o'Clock Noon

Fifty-three head will be sold, consisting of cows, bred heifers, yearling heifers, and a few choice bulls. The offering has great A. R. Record breeding and strong type. A rare opportunity to secure foundation stock.

The consignors are James Van Etta, Lima Center, Wisconsin; South Farm, Willoughby, Ohio; and Henderson Ayrshire Farm, Hudson, Ohio. For catalog write

D. M. HENDERSON, SALES MANAGER, HUDSON, OHIO

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THE AMERICAN JERSEY CATTLE CLUB
375 West 23rd St. New York City

REDHURST JERSEYS

FOR SALE—Noble's Jolly Actor No. 155761. Solid color, born October 14, 1916. Sire (the imported son of Golden Jolly). Golden Jolly's Masterpiece No. 86295, with six tested daughters out of Noble's Eminent Jess, a R. of M. cow whose dam is also in the R. of M. and whose sire, Noble's Oxford Sultan No. 106403, with six tested daughters, seven of Noble of Oakland's with 65 tested daughters and whose dam is in the R. of M. and since by Sultan's Oxford Lad, his great dam also in R. of M.

ALSO—Jolley's Chief No. 14948. Solid color, born September 3, 1917, the above imported son of Golden Jolly. Dam, Eminent's Lad Jess No. 255151, dam of one in R. of M. She by Em. Brown Lad with two or three tested cows, a grandson of Eminent with 80 tested daughters and whose dam is a tested cow.

REDMON & SON, TIPTON, MISSOURI

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OWL INTEREST FINANCE JERSEYS
(Register of Merit)

Buy a bull from a R. of M. cow and be more certain in your herd building. Every cow in milk in our herd has a year's test or one now on. Our two-year-olds will average 400 pounds of butter. Write for prices and other information.

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Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.

Longview Farm

LEE'S SUMMIT - - MISSOURI

100 Good Jerseys for Sale

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.

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Fine Young Jersey Bulls

From Register of Merit and tested cows; Register of Merit sire.

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MAYETTA, KANSAS
Breeders of High-class Jerseys. Stock for sale at all times.
Write Us Your Wants.

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REGISTERED JERSEY BULLS, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.

THOS. D. MARSHALL, SYLVIA, KAN.

Registered Jersey Bulls

Butter-Bred, from High-Producing Cows.
Photo furnished.
MAXWELL'S JERSEY DAIRY
Route 2 Topeka, Kansas

Allen Center Stock Farm

Registered Bull Calves—Some ready for service. Sale or exchange for bull or heifers.

TREDWAY & SON, LA HARPE, KAN.

FOR SALE — Twenty registered Jersey cows and heifers. Eminent and Raleigh breeding.

L. E. PENDLETON, DODGE CITY, KANSAS

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Percherons—Belgians—Shires
After harvest take the most enjoyable little trip of your life. Come see all my show and breeding horses and have a fine visit with me. Drop me a card now. **FRED CHANDLER, R. 7, Charlton, Iowa. Above Kansas City.**

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RED POLLED CATTLE

For Sale—Four-year-old herd bull. Some extra good cows to calve in winter and early spring. A few yearling heifers.

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Choice young bulls from heavy milking dams. Inspection of herd invited.

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40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.

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REGISTERED HAMPSHIRE HOGS. Thirty spring boars, immuned. Am booking orders for fall pigs. **Geo. W. Ela, Valley Falls, Kans.**

HAMPSHIRE SHEEP.

HAMPSHIRE SHEEP

A few extra good ram lambs for sale.

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Wreath's Durocs Always Please

All spring boars and gilts must be sold to make room for fall litters. Critic Chief No. 241231 at head of herd. No fall sale.

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Route 8

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C. H. Black, Marion, Kansas

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FOR SALE—Ten fall yearling Duroc gilts bred to September 15 litters. Graduate and B. & C.'s Col. breeding, priced to sell.

H. D. Plummer, Longton, Kan.

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. **W. J. Harrison, Axtell, Kan.**

WOODDELL'S DUROCS

Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

FOR SALE — Duroc Jersey Hogs, March and April farrow; cholera immune; either sex. **P. J. MURTA, CUBA, MISSOURI.**

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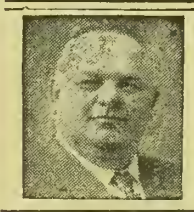

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150 Head of Choice Two-Year-Old Grade Heifers bred to King Segis bulls, to freshen in September and October.

Fifty Cows in Milk, good ages.

Fifteen Registered Bulls, some are from King Segis Pontiac breeding and good enough to head herds.

Twenty-five Registered Cows and Heifers, several A. R. O. breeding.

Will price a few grade heifer calves at $30, express paid. Your money back if not satisfied. Can ship by Missouri Pacific, Santa Fe, or Rock Island. Come and see me.

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Offers special attractions in pure-bred females of all ages with high class breeding, and a number of choicely bred yearling bulls; also grade cows and heifers with size and quality. Don't fail to see this herd before you buy, as they are all bred RIGHT and priced RIGHT.

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Choice, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write

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Consisting of cows, two-year-olds and calves. Very choice herd. Also some very nice registered bull calves.

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For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

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Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

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If you want big producers, males and females, write us. All our own breeding.

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Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

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Twelve heifers and three bulls, 15-16ths pure, five to seven weeks old, beautifully marked and from heavy milkers, at $25 each, crated for shipment anywhere.

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For Sale—Young bulls, bred heifers and cows. All sired by the great bull, Sir Rag Apple Korndyke De Kol. Two cows will be fresh this month. Fourteen-thousand-pound milkers.

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Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

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Bred sows and gilts. Open gilts, spring gilts and boars. Satisfaction guaranteed. Free catalog.

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80 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

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Registered Galloway Bulls

Ten Two-Year-Olds. Ten Long Yearlings.
These are in extra good condition.
Ready for immediate service.
Come and see them.

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Herd headed by Segis Moxie Lincoln. Six nearest dams averaged 23.52 pounds butter seven days. A few young bulls for sale.

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Visitors at the big Topeka Fair interested in Holsteins will find a little fair at the west end of Fifteenth Street.

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One of the oldest and strongest herds in the West, Scotch and Scotch-topped reds and roans. Twenty head young bulls ready for service. Fifteen last spring bull calves by Orange Lovel 420052, a Victor Orange bred bull; Village Heir 492857 by Imported Villager and Marengo Pearl 391962. All these calves are out of good useful cows.

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Bonnie Lad 482727, cheap for quick sale.

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A bunch of good big Registered **Shropshire Bucks,** not high in price. Also registered ewes.

Howard Chandler, Charlton, Ia.

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Forty Head—Twenty ewes and twenty ram lambs. Ram lambs sired by our show ram, a son of Senator Bibby.

HOMAN & SONS - PEABODY, KANSAS

Reg. Yearling Shropshire Rams

By imported sire. The right type and prices right. Farm near Pontiac, Butler County; P. O. address, **Rosalia, Kansas, Route 1.**

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RECKARD'S CHESTER WHITES

Have raised pure-blooded Chester White hogs for fifteen years. Breeding stock for sale from prize-winning strains. Large kind and smooth.

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Pure-Bred Chester Whites.—One yearling boar and spring boars at reasonable prices.

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Dornwood Chester Whites

For Sale—Several choice young brood sows.

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GUERNSEY BULLS

Good individuals of serviceable age, of May Royal, May Rose, Masher Sequel, Raymond of the Preel breeding. Write or come and see them.

ADAMS FARM, GASHLAND, MISSOURI
Twelve miles from Kansas City.

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Best of breeding.
The oldest and largest flocks in Kansas.
One or a carload.

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You Pay Nothing Down
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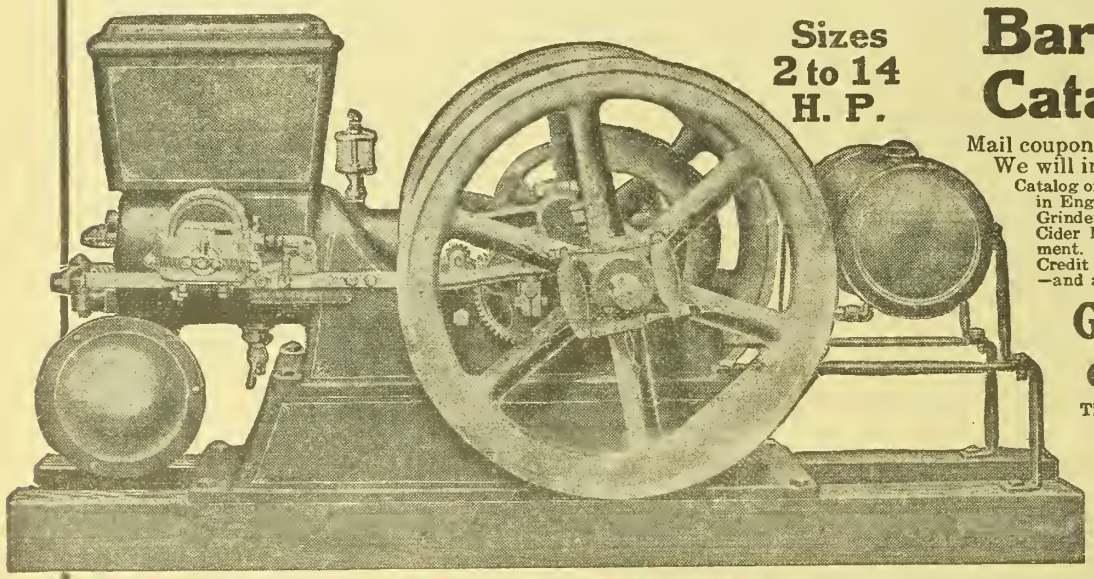

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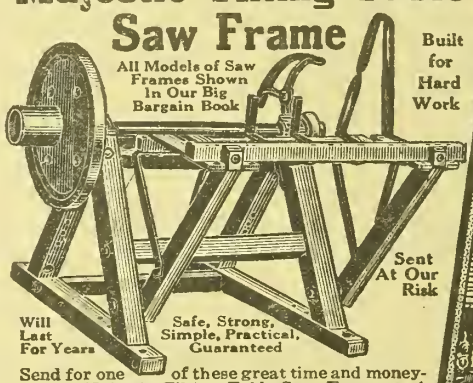

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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 37. TOPEKA, KANSAS, SEPTEMBER 14, 1918. Established 1863. $1 a Year

HANDLING THE 1918 HARVEST

Difficult Situation Handled With Unusual Skill and Efficiency

THIS year's crop is harvested and threshed and much of it has already passed into the channels of trade. The accomplishments of the agencies employed in handling the labor question are worth reviewing for next year we will face a situation calling for even greater effort if we are to save the crop which will have been produced.

Approximately seven million acres of wheat was harvested in Kansas this year without material loss in spite of the fact that very unusual and difficult conditions confronted wheat growers in securing sufficient man power for the harvest. The shortage of men created hy the war demands of the nation was aggravated hy the increase in railroad fares to three cents plus the war tax. This high rate for transportation tended to discourage a large portion of the usual supply of men who normally follow the harvest, and who were not already engaged in war work, from coming into the state or from following the harvest about the state. In addition to this, an abnormally hot wave in June ripened the wheat ten days earlier than usual, particularly in the north, making the harvest season at least ten days shorter than normal.

The necessary harvest labor, however, was supplied. The state farm help specialist, E. E. Frizell, representing the extension division of the Agricultural College and the United States Department of Agriculture, the Federal Department of Lahor under the leadership of A. L. Barkman, and the county agent force of sixty men made unusual efforts and handled the lahor satisfactorily with a minimum of lost motion or wastage of lahor.

Early in the year Mr. Frizell, on the hasis of a lahor survey made hy the county agent force in co-operation with the schools, estimated that the state would he short from 90,000 to 100,000 men during the harvest. It was evident that a high wage must be offered in order to attract men to the Kansas harvest hoth from towns and cities within the state and from outside the state in sufficient numhers. It was also evident that there should he some uniformity of wages in the state so that competitive hidding by farmers and communities would be eliminated in order to hring ahout an equal distrihution of labor and its maximum employment. With this end in view Mr. Frizell visited some 85 out of the 105 counties of Kansas and held county meetings at which farmers and townspeople discussed the labor problem. These meetings were followed by eight district meetings, which were held at the following points: Topeka, Minneapolis, Hays, Colhy, Kinsley, Garden City, Wichita and Yates Center. At these district meetings delegates of the farm hureaus and other farmers' organizations from every county in the state met and recommended the wage scales for the districts. They also recommended that labor be paid hy the hour instead of by the day as had been the custom in the past. At the first district meeting the delegates assembled suggested that when the eight district meetings had been held a state-wide meeting be called at which definite action could be taken to establish a state-wide wage scale for the harvest. After all district meetings were held, the state meeting was called at Salina. The 200 or more delegates represented every section of the state. Forty-five cents an hour was decided on as a fair and liheral wage. The hour method of computing working time as recommended by the district conferences was accepted. The state and county councils of defense were called on in a conference resolution to assist in making the action of the conference a state regulation with reference to wages in order that destructive competitive bidding for labor might he avoided.

This feature of the labor work alone, in that it limited the hit and miss blind travel of harvest labor, always looking for a higher wage, not only saved farmers and lahorers in Kansas thousands of dollars, hut furnished a maximum degree of employment of all lahor in the state in that such labor knew that wherever work was waiting in the wheat helt it paid a standard fair and liheral wage. In addition it saved tens of thousands of bushels of wheat from going to waste.

The county agent force and the central extension offices at Manhattan rendered Mr. Frizell every possible assistance in this feature of the work and were largely responsihle for calling these meetings, advertising, securing the delegates, and the actual conduct of the meetings. The daily and weekly press of the state gave most hearty co-operation and the publicity thus given made every meeting a success.

While Mr. Frizell felt that there would be some floating harvest labor availahle, he did not place dependence on this source of supply, hut decided to call on the towns and cities of Kansas to furnish every possihle help. Therefore, late in May a definite method of recruiting town and city dwellers was developed in the county agent leader's office at the Agricultural College in co-operation with Mr. Frizell, and recruiting work was started under the authority of a proclamation hy the Governor in all the larger towns and cities of the state, as well as Kansas City and St. Joseph, Missouri. Definite records were obtained of approximately thirty thousand men from overr 500 towns and cities who signified their willingness to go into the harvest if called. It is estimated that many more agreed to go into the harvest, hut records were not obtained of these. This work of recruiting was largely carried on by the county and emergency agents with the chambers of commerce and retailers' associations in co-operation. In Kansas City the Chamber of Commerce under the leadership and inspiration of H. J. Waters, chairman of its agricultural committee and chairman of the Kansas State Council of Defense, did especially notahle work.

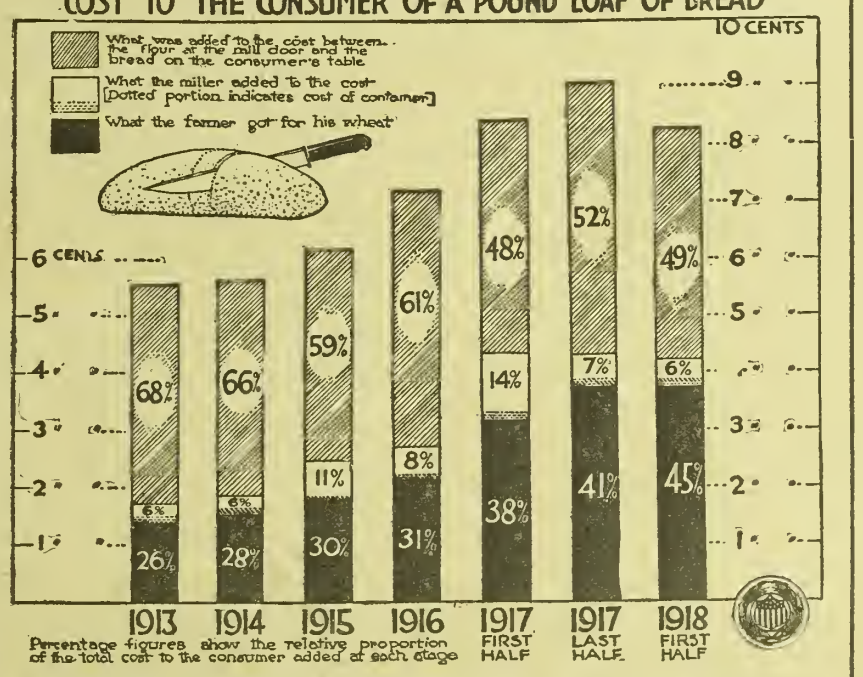
Just prior to the harvest rush the United States Department of Labor opened headquarters at Wichita and estahlished twenty local lahor offices in the state. These offices did excellent work in recruiting labor from outside the state, and undertook the active distribution of it in the state.

All county agents in the state devoted their entire time for some months where necessary to the lahor problem. In farm bureau counties the agents, in nearly every case, accepted the entire responsihility of reporting the lahor needs of the county to the federal lahor offices, and of distrihuting the harvest hands after they arrived in the county. This was accomplished with great difficulty in many counties; in Cheyenne and Rawlins counties, for instance, the agents were forced to organize a transport system that brought the harvest hands in from the main line railroads by automobile, au average distance of about thirty miles. In other counties, however, this distrihution was not so difficult and was accomplished hy the county agent offices through a system of volunteer local labor offices in each well defined community which reported to the central county agent's office in each county.

While the unexpected early rush of the harvest caught a comparatively few communities short of lahor for a few days as harvest started, these needs were quickly filled and no part of the state reported any wheat wasted for want of lahor. In the general work of distributing the lahor the agricultural agents of the Santa Fe, the Frisco, and the "Katy" railway systems, gave material assistance. H. M. Bainer of the Santa Fe, who was drafted for this work by the Agricultural College and the United States Department of Agriculture, gave particularly valuable assistance in enrolling town men in Kansas City and St. Joseph and later in the distribution work. Many secretaries of commercial cluhs, as well as other citizens of the state, gave a large amount of time to this work.

Complete data as to the total number of harvest hands used in the present harvest are not available from all counties. The county agents, however, kept records and gave careful estimates of sixty-nine counties. By adding to these the records of the twenty local labor offices of the Federal Department of Labor and of the federal office at Enid, Oklahoma, a fair estimate may be obtained. Mr. Bainer reports that there

(Continued on Page Seven)

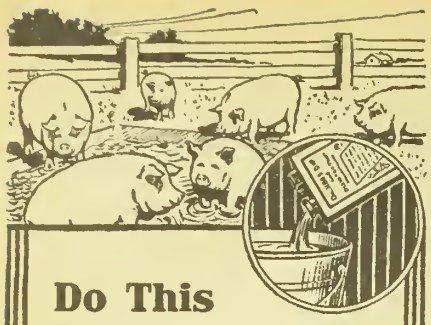


SINCE 1913 farmers have hecn recciving for their wheat a gradually increasing proportion of the price paid by the consumer for bread. The amount received hy the wheat grower for his contribution to the average pound has increased from less than 1½ cents per loaf in 1913 to more than 3½ cents early this year. The proportion to the whole price is shown by the relative length of the black columns of the chart.

The middle portion of each column shows what the miller received for his milling costs and profit. This has hecn a somewhat variable factor, but is now at the minimum (6 per cent). In this 6 per cent, however, is included the cost of the containers (hags, sacks, etc.), shown as dotted are which has increased very nearly in proportion to the price of bread itself. Bags now cost about 50 per cent more than in 1913 and 1914.

The shaded portion of the column represents the expense of distributing the flour, making it into bread and getting the loaf to the consumer.

The chart shows that the farmer is now receiving a much larger share of the final price for his product than in the past, and that a considerable amount of "spread" has been taken out of other expenses.—U. S. Food Administration.



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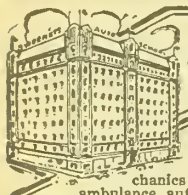

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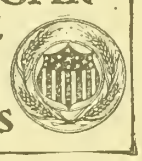

The cow is a machine to convert, cheaply, feed into milk. Like other machines, a large capacity is usually accompanied by economy in production. The first consideration in selecting a dairy cow to make money is to get one with a large stomach capacity. A light feeder never makes a good profit. The ability to handle a large amount of food is indicated by great depth and width just in front of the hips. The cow should have long ribs well sprung. The round, short-ribbed, pony-built cow soon dries up. The long, flat-ribbed cow has ample depth of body, but lacks the necessary width to be a profitable feeder. The ribs must be both long and well sprung. A broad jaw furnishes grinding surface for a large quantity of feed. The narrow-jawed cow is not profitable.

KANSAS FARMER DAIRY CLUB

Winter Shelter for Dairy Cows

IT IS time to begin thinking about how the cows are to be handled when cold weather comes. Dairy cows cannot stand cold weather like beef cattle. Well-fed beef cattle store a layer of fat under their skins and this acts as a cover or blanket and keeps them warm. Fattening steers prefer lying down in the open yard except in stormy weather. Good dairy cows put all the fat of their feed into the milk and never store any under their hides except during a dry period. On a farm where dairy cattle are handled it is necessary to have good shelter or the cows will not do well during the winter period.

We do not need to house dairy cattle as closely here in Kansas as they do in such states as Minnesota or Wisconsin, and for that reason we have some decided advantages over those states in following dairy farming. It is not necessary to build such expensive barns and the cows can have more freedom and therefore be more comfortable. Our winters are shorter and it does not get as cold, or at least for short periods only.

To make a success of winter dairying it is necessary to have barns and sheds in which the cows can be comfortable in cold, stormy weather. A windbreak may do for beef cattle, but it is not sufficient for dairy cattle. Barns should always be so planned as to provide plenty of light and fresh air. Dark, poorly ventilated barns tend to reduce milk production and may lead to disease.

It is not necessary to have a high temperature in a dairy barn, but it must keep out the wind and be warm enough to maintain a temperature of 40 or 50 degrees even in the coldest weather. To make the cows thoroughly comfortable the stalls must be of proper size and kept well bedded. A proper system of ventilation should be installed in all dairy barns so as to insure plenty of pure, fresh air at all times.

It is not best to keep dairy cows too closely confined. In the Northern States it is often necessary to keep them in the stalls almost continually throughout the winter. In our Kansas climate they can be out in the open a considerable portion of the time. Probably the ideal arrangement is to have an open shed, tight on the north and with both ends tightly closed, where the cows can run during the day. Such a shed is sometimes spoken of as a covered or inclosed barnyard. One of the best dairy barns we know of in the state has such an open shed as a part of the structure. In this barn the cows spend most of the time in this covered barnyard. The manure from the stalls is run out into this same yard, which is always kept heavily bedded with straw. The owner figures that it paid for itself the first year in the increased value of the manure produced.

On most farms there are stalk fields or other fields in which there is waste feed to be saved, but it is not a good plan to use milk cows to save this waste feed. It is far better to run the stock cattle or dry heifers or cows in the stalk fields. A stalk field in winter is a poor place for a milk cow. Of course with ideal equipment practically all the stalks will be stored as silage and none of the stock need range over the farm to gather up stalks which have comparatively little feed value after standing and weathering for weeks. The feed so obtained is barely a maintenance ration and the dairy cow is likely to be cold and uncomfortable while gathering what little feed value there may be. Such treatment of milk cows is sure to result in low production.

Story of a Pure-Bred Herd

We have made the statement more than once in KANSAS FARMER that a very few animals wisely selected may easily become the foundation of a whole herd of profitable cattle. We have known of instances where one or two cows have become the foundation of a herd. We are more and more convinced of the truth of this statement as we study the history of outstanding pure-bred herds. An instance of this just came to our attention through reading a catalog announcement of the dispersion of an Illinois herd of Holsteins. We do not know why this herd was being closed out. The tone of the announcement gave one the feeling that the writer was driven to it by events over which he had no control and that he was giving up with a genuine heart wrench the results of his work.

This breeder had given up fifteen of the best years of his life to developing the herd to its present high standard. It was founded by the purchase in 1903 of five females and a bull. One of the cows was lost before she had produced a calf. One more foundation heifer was purchased in 1913 from a famous herd. She was in calf to one of the most noted sires of the breed. The whole herd—seventy individuals—is the produce of these five cows. No other animals have been purchased with the exception of the present herd bull. Every single animal has been dropped on the farm.

The significant thing about this herd and that which showed the skill of the breeder in selecting and developing it is that every cow and heifer in milk—twenty-seven head—has an A. R. O. record, and all the young stock with one exception have A. R. O. dams. The milk from the cows has been weighed night and morning every day since the herd was established in 1903. For the past four years the yearly milk records of the herd have averaged over ten thousand pounds to the cow, every milker included. They have been given only ordinarily good care and milked but twice a day with the exception of the period when seven-day A. R. O. tests were being made, when they were milked four times daily.

There is a wide difference between such a herd as the one described above and a herd developed or gathered together by hit or miss methods. A breeder who has the ability or genius and the determination to stick to the task of herd improvement until such results have been attained is a public benefactor. We should have more of this kind of breeders.

Variations in Test

We should never forget that the test or butter fat percentage varies. Usually right after freshening cows give somewhat richer milk than later. The milk will get poorer for a month or two and then begin to gradually increase in richness until the cow dries up. During the first few weeks after a cow freshens she gives more milk in proportion to the feed she eats than later. The further a cow becomes advanced in lactation, the more feed it takes to produce a given quantity of milk. When a cow is fresh she draws on her own body for a part of the material necessary for milk production. That explains why a cow gives somewhat richer milk for a time after freshening and also a larger quantity in proportion to the feed than later. A cow that is in very poor condition at freshening time will not do this. It pays to feed the cow well during the dry period, even though she does seem to be storing fat in her own body. If she is a real dairy cow she will pay it back with interest when she freshens.

What Makes Cream Yellow

The common belief is that the yellow color of milk or cream indicates its richness. It is a mistake, however, to assume that the richest milk or cream is always that which shows the deepest yellow color. Nearly everyone has noticed that cows give milk of a deeper yellow color in the spring or early summer than in winter. We have learned to associate yellow butter with cream from cows on green grass or wheat pasture, and white butter from cows on dry hay or fodder. Many have observed that Guernseys and Jerseys yield a yellower product than other breeds.

It was not until quite extensive experiments had been conducted at the Missouri Experiment Station that we learned just what it was that produced the yellow color in butter fat. There is a substance found in nearly all green plants called carotin. It gets this name because it is the coloring matter which gives the carrot its deep yellow color. In ordinary green plants the yellow is obscured by the green coloring matter. In making these tests the experimenters found that when cows were given feeds poor in carotin for a long time they began to produce white cream or butter fat. It did not matter what breed the cows were, the result was the same. That proved that Guernseys or Jerseys did not produce yellower butter fat because they had the ability to make the necessary coloring matter. They simply seemed to be able to transfer more of it from the feed to the milk than cows of other breeds. Hay of a bright green color like third or fourth cutting alfalfa and new silage contain plenty of carotin so cows fed fresh silage or green alfalfa hay continue to give rich yellow milk.

The yellow color of the skin of Jerseys and Guernseys and other dairy cattle is due to this coloring matter, carotin, which is secreted or stored in the skin. Cows of the two breeds mentioned seem to store a large amount of this coloring matter in their body fat and continue to give yellow milk long after they are on dry winter feed. The coloring matter in yellow corn is a different substance and does not pass into the milk as does carotin, therefore has no influence in giving it its yellow color.

It is evident from what has been said that we cannot gauge the richness of a cow's product by its color. The only sure test is the Babcock test for butter fat. By applying this systematically it is possible to learn the cow's capacity for producing butter fat. This test combined with the quantity of milk produced constitutes the only means of determining exactly what a cow is worth as a producer.

Dairy Cattle Congress

"The dairy cow on the warpath," or how the cow with her products so vital to humanity is essential to rebuilding devastated Europe, will be featured at the Dairy Cattle Congress and Industrial Exposition, September 30 to October 6, at Waterloo, Iowa. In addition to the many educational features which characterize this show each year will be held an interstate meeting of the dairy councils of the Mississippi Valley. These organizations which represent every branch of the industry in the various states will meet at the show to consider plans for joint action on an extensive advertising campaign to place dairy products before the consumers in the proper light. The announcement of the date of this meeting will be made in the near future.

The Dairy Cattle Congress will be particularly fortunate this year in having many of the smaller breeders out. The premium list has been arranged to encourage the small breeder without in any way diminishing the attractiveness to the large exhibitor.

The exhibition buildings and grounds are being reserved by manufacturers of milking machines, barn equipment, farm lighting systems, tractors, silos, farm machinery and many other necessities and conveniences for the progressive farmer. The new motor vehicle building will house a most complete exhibition of motor trucks and automobiles.

The Dairy Cattle Congress is popular because it has a real mission. It was started for a definite purpose nine years ago and has become a greater factor in the dairy world each year. It is planned to make September 30 to October 6 a week of practical assistance to every dairyman and farmer.

Cow Test Report

The following table gives the records of the cows in the Arkansas Valley Cow Testing Association which have produced more than forty pounds of butter fat during the thirty-one days ending August 31:

Owner—	Pounds Milk	Per Cent Fat	Pounds Butter Fat
W. M. Spurlock, H.	1,370	3.2	43.840
P. W. Enns, H.	1,659	2.8	46.452
P. W. Enns, H.	1,528	3.5	53.480
P. W. Enns, H.	1,228	3.3	40.524
Fred Harvey, H.	1,355	4.8	65.040
Fred Harvey, H.	1,742	3.2	55.744
Fred Harvey, H.	1,538	2.8	43.064
Fred Harvey, H.	1,187	3.4	40.358
Stubbs Farm, H.	1,333	3.2	42.656
Stubbs Farm, H.	1,460	3.0	43.800
Stubbs Farm, H.	1,256	3.5	43.960
Walter Craven, G.	1,001	4.2	42.042

H stands for Holstein and G for Guernsey.

The best way for a beginner to learn to select cows is to take a course in stock judging at an agricultural college. When he cannot do this he should inspect as many high yielding dairy cows as he can find and if he will study their points thoroughly he will soon be able to do fairly good work in selecting cows that will pay at the pail. A dairyman should keep up this study as long as he lives

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THE GREAT CONDITION

We are hearing a great deal of talk from Germany just at present to the effect that they are now simply fighting for the preservation of the Fatherland and will consider that they have won a victory if Germany can be protected from invading armies. This is undoubtedly pointing to a peace by discussion or compromise that will stop the war and the bloodshed and perhaps satisfy certain groups of people among the Allies. Such a peace would be absolutely futile and foolish. At no time since the war began has Germany been more fully committed to a policy of aggression and conquest than now. There is not the slightest indication in the statements given out by the Crown Prince and other leaders that Germany's militarism is defeated. Our acceptance without a protest of the extension of the selective draft indicates that we as a people are meeting Germany's challenge and will fight to the last ditch, or until Germany's military autocracy has suffered a crushing defeat.

President Wilson spoke words that should be the sentiment of every true American when he said: "There can be but one issue; the settlement must be final; there can be no compromise." Germany in her various statements of tentative peace terms has not as yet given the slightest intimation that her aggressions on her neighbors for her own benefit are wrong and must not be repeated. David Kinsley of the Illinois University in discussing peace terms says that we can classify people desiring peace roughly into three groups: "peace-at-any-price" people, "peace-by-discussion" people, and "peace-by-principle" people. In speaking of this third group he says:

"This group of our own people, comprising without doubt a vast majority of those who desire to see peace reestablished, are those who take the ground that the primary condition of the restoration of peace is the establishment of a certain fundamental principle of political morality which Germany has violated. Variously phrased, this principle is that might does not make right in international dealings any more than in individual affairs; that no nation may now commit with impunity acts of aggression upon its neighbors; that civilization may not again be trampled on in war by outrages that break down centuries of progress of law and order; that war, even if it must be waged, shall not be carried on under a policy of frightfulness, an attempt to terrorize the world by murder, outrage, and destruction. To establish the principle thus variously expressed is the GREAT CONDITION of peace. . . . . .

"The position which some people take that if Germany will retire from the countries she has conquered and will provide for the economic restoration of devastated territory, we might well make peace, is fundamentally wrong unless that restoration is made in the spirit of repentance for her evil deeds and as evidence of her full acceptance of the principle here described as the GREAT CONDITION. For, be it repeated, whatever indemnities may be paid; whatever restoration of territory may be made;—nay, even if she were able to recall the dead to life and restore the population she has murdered; if she were able to collect the ashes and gases into which by her destruction she has dissipated the accumulated wealth of ages; even if she were able to restore all the conditions that prevailed before the war, both within her own boundaries and elsewhere;—we shall have failed to win the war unless in addition Germany freely accepts or is compelled to submit to this GREAT CONDITION. Well would it be if by some miracle the people of Germany could have a change of heart that would lead them to accept this principle and give evidence of their repentance by such restoration as I have just described. But there is no evidence of such a spirit of repentance or even of regret."

We occasionally hear people speculating as to the probable duration of the war. Such speculation is useless, in fact unpatriotic and tending to lower the morale of our own people. No one is wise enough to do more than make a wild guess as to the exact time when we can look for peace. The high idealism which is uniting this nation in the prosecution of the war points to but one ending, and that end will come when the great principles for which the free nations of the world are fighting are recognized by Germany. This is the end to which we are committed and we can hasten the day and lessen the bloodshed and suffering by bravely and efficiently meeting every necessary demand of those whom we have placed in positions of authority and leadership.

NUMBERING OUR MAN POWER

This week an event of momentous importance in our war program took place. We now have in France 1,600,000 men, and eight or nine hundred thousand more in training in this country. Germany's challenge has been met by the determination to make possible an army with no limit as to numbers. It is now proposed to have an army of four million men by next spring and to have in France 3,200,000 by May. The numbering of our resources in men has been widened to include every man eighteen to forty-five years of age, inclusive, not already registered or in military service.

On Thursday, September 12, fully thirteen million men were added to the number already pledged for service. Practically twenty-five million men are now registered. From this great multitude our War Department will sift out those needed for combatant service according to their fitness and freedom for that kind of service. This does not mean that the remainder are excused. We are making war as a nation. Universal liability for service to the country is the fundamental principle of the selective draft. While the act as it passed Congress does not contain the "work or fight" amendment, the War Department already has that principle in operation and will continue to enforce it. The twenty-five million registered men are definitely pledged to that policy. We can no longer do this, that, or the other because it pleases us so to do as individuals. Our conduct must be guaged by what its effect will be on the common welfare. It is a great co-operative principle which must be applied in this supreme crisis but will be no less effective in the rebuilding of this old world after the monster of Prussian militarism has been crushed to earth never to rise again.

BAN ON BEER

At last President Wilson has through the Food Administration issued an order prohibiting the use of grain for the making of beer to take effect December 1. The purchase of grain for beer making purposes is to stop at once. Buildings and equipment used for the manufacture and distribution of beer will be put to Government uses as far as possible. It is intimated that many soft drinks are in line for restrictive regulations. This action is reported to be in the interests of conserving grain for live stock. This is but one of the many reasons why we should have cast aside this impediment long ago. The positively silly claim that our workmen in the shipyards thought more of their beer than of doing their part in winning the war has been proven absolutely false by the workmen themselves. The passage of the wartime prohibition act now before Congress is assured. Kansas people will rejoice that our nation has by this act of the President thrown off the greedy domination of our conscienceless liquor interests. The United States as a dry nation will furnish an example to the whole world.

THE FREE FAIR OPENS

The big Free Fair at Topeka has just thrown its gates open to the public as this is being written. Weather conditions are ideal. Not since the free gate has been established have conditions generally been more propitious. The agricultural building is full to overflowing in spite of the dry, hot summer. The boys' and girls' clubs and mother-daughter canning clubs have sent in exhibits greatly in excess of the allotted space.

Two new hog barns have been added, making eight in all, each having capacity for about 150 hogs, and all are full, and a big tent has been built to handle the boys' pig club entries, which are over eighty. A tent also houses the sheep, of which there are probably 150 head on exhibition.

In the cattle barn is found a well-balanced exhibition of the beef breeds. Some of the outstanding herds from other states are showing, as well as some of the leading breeds from our own. There are over ninety Shorthorns, about eighty Herefords, sixty-five Angus and twenty Polled Durhams. The dairy cattle show is much larger than a year ago, although a number of Kansas herds are not on hand this year. The United States Disciplinary Barracks of Leavenworth is showing a strong herd of Holsteins in a special tent. Two prominent Iowa herds of Holsteins are represented. Over sixty Jerseys are on exhibition and one good herd of Guernseys from Iowa. Ayrshires are represented by two large herds, one from Iowa and one from Ohio. The cattle barn is full and part of the horse barn is being used for cattle as well as some tents.

The horse show is larger than last year. It is being made almost entirely by small farm exhibits. The Kansas Free Fair specials for Percherons have brought out a fine lot of weanlings.

The Government building is a center of attraction. War activities are in evidence all over the grounds. Duplicates of front line "Y" huts, Salvation Army huts, Y. W. C. A. buildings and kindred organizations are objects of unusual interest. The people's pavilion, which is comfortably seated and equipped with a stage for speaking and showing pictures, occupies a quiet and convenient location between the Government building and the industrial arts building. A comprehensive educational program is being put on in this big tent.

With continued favorable weather the Free Fair this year will break all previous records in attendance and interest.

HOLDING MILL FEED IN STATE

The fixed price for wheat has created an unusual situation in Kansas this year. There has been no incentive whatever to hold wheat on the farms. Apparently the crop has moved direct from thresher to the elevator to a greater extent than ever before. Ordinarily considerable wheat is held back for various reasons, among them being the possibility of a higher price later in the season. Secretary Mohler of the State Board of Agriculture finds through a careful canvass of his correspondents that only a little over 34 per cent of the 1918 crop is still on the farms. Fully ten million bushels of this will be needed for this fall's seeding. Kansas, in spite of the fact that it produces approximately 10 per cent of all the hard wheat in the country, is now facing a mill feed famine, and many of our mills are confronted with the possibility of being unable to get wheat to keep running through the season. After deducting the seed requirements, Mr. Mohler's figures would indicate that there will not be to exceed twenty-five million bushels of this year's crop available for milling purposes within the state if no more is shipped.

It is a bad situation economically to have so much of our wheat milled out of the state. It increases the burden of our transportation systems. Kansas is a live-stock state as well as a wheat state, and live-stock producers need the mill by-products to supplement farm-grown feeds. It is poor economics to be compelled to ship in such feeds from the outside when such large quantities of milling by-products might be made available within the borders of the state.

The Government has stabilized the prices of mill feeds at a fair level in proportion to the price of wheat, but shipping such large quantities of the crop out of the state leaves us short of wheat to keep the mills going through the season and also short on mill feeds. It is now practically impossible for live-stock farmers to purchase these feeds. Walter P. Innes, federal food administrator for Kansas, was in Washington last week with other food administrators conferring with Mr. Hoover on this feed problem. Mr. Innes is urging that the wheat which is still left be saved for milling within the state. Before going to Washington he wired this recommendation to the Federal Food Administration and also suggested that the Government could help out by placing large flour contracts with Kansas mills so the feed could remain in the state where it is so much needed by our live-stock men. Mr. Mohler, in behalf of the State Board of Agriculture, has also wired to Washington, setting forth the situation and pointing out the serious live-stock needs of the state. It is certainly to be hoped that some means may be found that will enable Kansas live-stock men to get the feed needed to properly handle their stock.

CALLS FOR MORE LABOR

The National Council of Defense is calling for a quota of 10,200 of unskilled laborers from Kansas. A shortage of a million unskilled laborers in essential war industries is reported with a prospect of a still greater shortage when the new draft law begins to operate. This is not very cheering news to the people of the farms who have already suffered great drafts on the labor formerly available for the work of food production. According to the Government rules, these unskilled laborers now being called for cannot be taken from farms, railroads, or mines. This combing of the country for labor, however, will make it increasingly difficult to get help on the farm even if theoretically labor is not to be taken direct from agricultural work.

Every day is bringing us nearer to a realization that as a nation we must strip for the fight. We cannot carry any handicaps if we are to make the supreme and united effort necessary to win the war quickly and decisively. President Wilson in his Labor Day speech made it clear that we now fully realize that we are all enlisted men, members of a single army of many parts and many tasks but commanded by a single obligation, our faces set toward a single object. We know now that every tool in every essential industry is a weapon and a weapon wielded for the same purpose that an army rifle is wielded—a weapon which if we were to lay down no rifle would be of any use.

SUGAR EXHIBIT AT HUTCHINSON

One of the interesting features of the State Fair at Hutchinson this year will be the special exhibit of the sugar-producing section of Kansas. The beet sugar plant at Garden City is one of the largest in the country. It has been a success from the start. The great problem is to get the beets raised. The whole Arkansas Valley is well adapted to beet production. The sugar mills of France are demolished, and much of the land devoted to the production of sugar beets is devastated. It is up to some country to increase sugar production. In view of these facts this exhibit of the sugar industry as it has been developed in the Garden City district will be of unusual interest this year. The Kansas State Fair has been organized this year in all its departments with a view to helping win the war by inspiring greater production and greater conservation of our resources.

PRICE FIXING OF FARM PRODUCTS

Law of Supply and Demand Does Not Always Work Perfectly

From Wisconsin Experiment Station Bulletin, By H. C. Taylor
Continued from Issue of September 7

WHEN the point of view in farm cost accounting is shifted from specific costs to comparison of profits, the whole problem is much simplified. In the attempt to secure specific costs, accounts had to be kept in minute detail comprehending every activity and economic relation of the farm. As soon as one shifts to the point of view of comparing the profits of competing enterprises, no record need be kept unless the farmer really has a choice and then only such records as are essential to answering the question, Does this pay better than that? For example, the farmer in Southern Wisconsin has a choice between growing oats and barley. In order to make a wise choice on this point it is not necessary to know the specific cost of growing either oats or barley. All that is necessary is to know differences in costs and differences in the value of the crops. In this case the same tools, machinery, horses and men are used at essentially the same time of year whether the farmer grows the one crop or the other. These common items of cost may be omitted for they cancel each other in the calculation. When put in this form the question is so simple that almost any farmer can figure it out on the basis of such facts as are easily available by keeping a production record and by studying price quotations.

The milk producer has a number of ways of disposing of his product. He may sell whole milk to a city, or a condensery. He may take his milk to a cheese factory and carry home the whey or he may separate the cream and sell it for city use or to a butter factory. If the milk is marketed through the cheese factory, hog production is introduced as a supplementary industry using the whey. If he sells cream, calf raising and pork production may be combined with dairying as a means of using the skim milk. All of these different types of dairying can be based upon the corn, oats, hay, cropping system. The combination a given farmer should choose depends upon which pays best under his particular conditions of production and marketing.

Changing Type of Farming

The dairy farmer has, of course, other alternatives. He can change from dairying to beef and pork production, based upon the same field crops. Again, he can abandon cattle and hogs entirely, grow grain to sell and raise horses as a side line to use up much of the unsalable roughage, but in figuring the merits of this last system, influence upon fertility and production of grain per acre should not be ignored. He has the further alternative of trying his fortune in the city, and this horn of the dilemma has frequently been the choice.

With all these opportunities before him, the farmers are slow to shift from one thing to another in normal times because, for a given community, the question of what pays best becomes fairly well settled. Near the cities, whole milk of high quality is produced under sanitary conditions of a higher standard than in other dairy regions. Outside of the milk zone there are scattering cream shippers selected mainly with respect to the characters of the farmers producing for the creameries and cheese factories. The city milk zone becomes more or less well defined with the boundary line moving out a little farther in winter and contracting in summer, with a gradual expansion of the milk zone about a growing city.

But in abnormal times when radical changes are taking place in the prices of all these competing lines of production, farmers with their eyes upon the market become uneasy and unsettled in their convictions as to what to produce. The fact that the producer of city milk is getting more than he ever got before is not a sufficient consolation if he might be making more profits selling grain, hogs, and butter fat, in spite of the fact that he has gone to greater expense to equip his farm for meeting the requirements of the city ordinances. It is this unsettled condition which has given rise to the recent efforts to regulate prices.

In deciding upon a fair price to the farmer on the part of a commission, the alternative choices of the farmer become the basis for a rational decision. The industry should be made attractive to the farmer if he is expected to remain in it. But what is essential to make a given system of farming attractive? Must it pay some definite labor income to each farmer engaged in it? Apparently not, for as a matter of fact men are remaining in each type of farming who are making small incomes while others are making very large incomes.

Whether or not a man should continue to carry on a given type of farming depends upon his opportunities in other lines of farming or other lines than farming. If there is no better outlook, if he is doing better than he could do any place else, he will probably continue to produce the supply for the price he can get and look to methods of reducing costs as a means of increasing profits. If there is an alternative which will pay him much better, which should he do, ask that his price be lifted to the point where his present activities will pay as well as the alternative or quietly choose the better paying activity? The answer is not so obvious as it might at first appear. Shifting is often expensive and there is usually hope that conditions will change and the old line will again pay better. It often takes a generation to build up a type of farming, and when the system becomes unprofitable a serious loss is suffered before readjustment can be made. Yet where permanent changes in market conditions have come about, changes in farming are necessary. Where readjustments should be made it is believed that public expenditures to aid in the readjustment, especially by means of educational campaigns, may often be more desirable than price lifting as a means of making the industry profitable.

Here is work for price commissioners well trained in agricultural economics, who will ascertain the true cause of price changes, make a study of the conditions of production, and advise the farmers in making readjustments in their farm management or in standing by their old lines of production as the case may warrant. In this work the price commissioner should not forget that the well-being of the farmer is just as important as that of the consumer, and that in the long run prices should be such as will make farm work and country life attractive.

In carrying out this policy, price lifting may at times prove desirable. This is most likely to happen in case of articles like milk for which the price is more or less influenced by custom and which is often sold at the same price for long periods and which for this reason does not adjust itself quickly enough in times of radical changes in the general price level; but wherever isolated farmers in great numbers are acting individually in selling their produce to great corporations, need may often arise for price regulation by public authority to maintain the public interest.

Take Long-Time Look

In deciding upon prices both the farmer and the price commissioner should keep the long-time as well as the immediate effect in mind. It takes decades to build up the dairy industry in a community. Equipments require time for construction. Years are required to build up good herds, and decades are required to train a whole community in the fine art of producing high-class milk. When such a community is diverted from dairying to another line of production, the farmers suffer a great loss while making the change and while adjusting themselves to new lines of production, after which they may again prosper. But if the farmers are needed to produce the supply of milk essential to the welfare of the people of the city, the loss of skilled dairymen will result in a heavy loss to the consumers, who will have to pay higher prices for milk, and probably find it necessary to lower their standards with respect to quality in order to get the necessary supply.

Hence it is the long-time averages which must be considered. The records of one year may indicate that the profits would have been greater had the farmer been in another line of production, similar to that practiced outside of the city milk belt. In contemplating these figures, the farmer should look for the unusual conditions which have made this true. If the conditions are temporary he should hold fast to his present line and recall the years when his profits were much the greater because he was in the dairy business.

If, however, it becomes apparent that permanent changes in market conditions have taken place which account for the change in profits, a move should be initiated to bring about a readjustment of the farming to suit the new market conditions; possibly some dairymen should change to other lines of production. But this is not a matter for hasty action, especially in the case of the dairy industry where public welfare is at stake and where a change has far reaching effects through a series of years.

Changes which the farmer may make in grain production or hog production may be quickly readjusted, but not so with milk production. One's ill feelings towards other people should not enter his decision. One should not get angry and sell his herd of cows. Cold reason should form the basis of judgment. It is easy to disperse a good dairy herd, but it takes years to rebuild it. A much safer plan is to cut down a little on the number of cows by cutting out he least profitable ones and plan to sell some grain or hogs in addition to milk rather than to make a radical change in type of farming.

If the profits of milk production are temporarily low on a large share of the farms in a given city milk belt, due to short crops of grain and hay, which for this reason must be shipped in at heavy cost, the farmer should not only look to the long-time average, and to the maintenance of his market, but he should recognize the occasion of his loss, namely, the short crop, and should lay this loss to the land or to the way he has handled his land, and not ask that that the consumer should pay the rent on the land which did not produce the feed and also pay for the purchased feed.

The farmer should not be too insistent upon the consumer's price varying exactly with his costs from season to season and from year to year. Custom is a big item in determining what people will eat. So long as prices are the same the customer is not likely to change, but every time the consumers' price changes, consumption customs are shaken; and the more violent the change the more likely the custom is to be upset. It is not only the industry, then, but the market which may be damaged by impassioned actions in times like these.

Just as it is by comparing profits that the farmer makes choice of types of farming, so it is by comparing prices in the market that the consumer makes choice. If it is done in the right way, the price of one commodity may be raised as rapidly as that of its substitute. So long as relative prices are the same the choices may be expected to be the same. If, however, much publicity of an antagonistic sort accompanies the change in the price of one article while the change in another is accompanied by shrewd advertising which wins the sympathy of the consumer, there may be a falling off in the demand of the former and an increase in the consumption of the latter.

In connection with the Chicago milk hearings the idea of comparing the profitableness of the different types of dairying was suggested, with especial reference to ratios between milk prices and butter prices, but apparently the commissioners did not see anything they thought usable in the suggestion. So far as has been noted, relative prices to consumers were not considered as a basis of price-fixing.

Prices and Specific Costs

The farmers took the lead in the first instance, and were set upon having a price based upon specific costs. It was a very natural thing therefore when the commissioners despaired of ascertaining

(Continued on Page Seven)

Fair Prices for Wheat

IN ISSUING the Government's guarantee of the same price for the 1919 wheat crop that was guaranteed for the 1918 crop, I wish it to be understood that in the spring of 1919 I will appoint a disinterested commission which will obtain for me the facts by that time disclosed as to the increased cost of farm labor and supplies, using the three-year pre-war average prices of wheat, of labor and of supply costs as a basis, and that from this information I shall determine whether there should be an increase in price above the present level, and, if so, what advance, in order to maintain for the farmer a good return. Should it then appear that an increase is deserved over the present guarantee, however, it will be applied only to those who have by next harvest already marketed their 1918 wheat.

It is the desire and intention of all departments of the administration to give to the wheat grower a fair and stimulative return in order that the present acreage in wheat may be maintained.

I find a great conflict of opinion among various sections of the country as to the price that should be named as a minimum guarantee. It must be obvious to all, however, that the factors which will make for increased or decreased cost of production of next year's harvest cannot be determined until the near approach of the harvest.

In giving a guaranteed price for wheat one year in advance (the only industry guaranteed by the Government), there is involved a considerable national risk. If there shall have been peace or increased shipping available before the middle of 1920, Europe will naturally supply itself from the large stores of much cheaper wheat now in the southern hemisphere; and, therefore, the Government is undertaking a risk which might in such an event result in a national loss of as much as $500,000,000 through an unsalable surplus; or, in any event, in maintaining a high level or prices to our own people for a long period subsequent to freedom in the world's markets.

Despite this, the desirability of assuring a supply to the world of prime breadstuffs by insuring the farmer against the fluctuations in prices that would result from the uncertainties of the present situation and from the speculation those uncertainties entail, seems to me to make the continuation of the guarantee for another year desirable. On the other hand, it is clear that before increasing this liability by large sums with the risks set forth above and before increasing the burden of the consumer, the matter should be subjected to searching inquiry at the appropriate time—the time when the pertinent facts will be known.

I feel confident that with this preliminary fixed guarantee and with the assurance that justice will in any event be done to the grower, he will continue the fine patriotic effort by which he has served the country hitherto; that the government will have acted prudently, and that the consumer will be satisfied that his interests are not unduly sacrificed, but just and exhaustive consideration given to every element of the matter at the proper time.—WOODROW WILSON.

COTTON AND WHEAT PRICES

Are Southern Farmers Profiteering Because Cotton Price is Unregulated?

WE have been led to believe here in the North that the cotton farmer of the South was profiteering. Perhaps we have been mistaken through lack of reliable information as to the facts. The position of the farmers of the whole country would be weakened if those of two distinct sections should have interests so opposed as to prevent their standing together. F. A. Calvin, the Washington representative of the Cotton States Official Advisory Board, says that the charge that cotton has advanced in price since the outbreak of the war, until it is out of line with the price of wheat, has been made so often and so persistently, especially by those who seek to array one section of the country against the other, and play cheap politics, that there are many good people who believe that the present price of cotton is wholly unjustified and that some action should be taken by the government to check the rapaciousness and greed of the cotton producers, and compel them to stop robbing the balance of the country.

"A portion of the Northern press, and a few Northern politicians," continues Mr. Calvin, "have been making capital out of the fact that a price has been fixed on wheat while no price has been fixed on cotton, intimating that the failure of the administration to fix a price on cotton might result in changing the political complexion of the next House and Senate. The papers and the politicians that have been making this threat, are now, and have been doing everything in their power to change the political complexion of the next Congress, and if the administration should fix the price of cotton low enough to please them, these papers and politicians would not be satisfied and would find some other excuse just as unfair and untenable as this one upon which they base their partisan fight.

The northern papers that have been so strenously advocating a fixed price on cotton seem to share the opinion, along with the other advocates of this policy, that the price of cotton should be fixed at about 20 cents a pound or even lower. This opinion must be born of an inherent prejudice against cotton or the cotton producers of the South, as the facts do not justify any such conclusion.

"I take it that all honest people will concede that it is nothing but fair and reasonable that wheat and cotton should advance in about the same proportion, as both are of international importance and together constitute an asset greater in value than our gold reserve. If the Government should decide to fix a price on cotton, the price would have to be materially advanced over that for which the 1917 crop sold, in order that the fixed price might be comparable to the fixed price of wheat, the cotton price fixing advocates would throw a fit and instantly develop a genuine case of political hydrophobia.

"Four crops have been grown and marketed since the war began in 1914. It would seem fair and reasonable to compare the average price received for these four crops with the four crops grown and marketed just prior to the war, that is, from 1910 to 1913, both inclusive. It would also seem fair and reasonable that the relative value of cotton and wheat for the pre-war period should continue for the war period, but this has not been the case. Wheat has advanced more rapidly than cotton, and under the increase in the price of wheat by virtue of the proclamation of the President, wheat is now considerably higher than cotton.

"The average price received by farmers for wheat during the four year period just prior to the war, i.e., from 1910 to 1913, both inclusive, was 87 cents per bushel. The average price received by them during the year 1917 was $2.008 per bushel, or $1.138 per bushel more than the four-year average prior to the war. This is an increase of 130.8 per cent in the price of wheat over the four-year pre-war average.

"The average price received by cotton farmers during the same period was 12.2 cents per pound. The price received by them during 1917 was 23.2 cents per pound, or 11 cents per pound more than the four year pre-war average. This is an increase of 90.17 per cent in the price of cotton over the four year average. From these figures it will be seen that while cotton has increased 90.17 per cent over the four year pre-war prices, wheat has increased 130.8 per cent over the four year pre-war prices, a difference of 40.63 per cent in favor of wheat.

"The average price of wheat during the period of the war i.e., from 1914 to 1917, both inclusive, has been $1.288 per bushel, which is 41.8 cents per bushel more than the average four year pre-war prices, an increase of 48.04 per cent.

"The average price of cotton during the period of the war i.e., from 1914 to 1917, both inclusive, has been 14.175 cents per pound, which is 1.975 cents per pound more than the average four year pre-war prices, or an increase of 16.18 per cent.

"From these figures it will be seen that while the average price of cotton for the four year period since the war began has advanced 16.18 per cent over pre-war prices, the average price of wheat for the same period has advanced 48.04 per cent, or a difference of 31.86 per cent increase in price in favor of wheat.

"The average price received by farmers for the 1917 crop of wheat was $2.048 per bushel, or $1.178 more per bushel than the four year average prior to the war. This is an increase of 135.4 per cent for the 1917 crop of wheat over the four year pre-war average.

"The average price received by farmers for the 1917 crop of cotton was 27.6 cents per pound, or 15.4 cents per pound more than the four year pre-war average. This is an increase of 134.44 per cent for the 1917 crop of cotton over the four year pre-war average.

"From these figures it will be seen that while the average price received by the farmers for the 1917 crop of cotton increased 134.44 per cent over the four year pre-war average, the average price received by farmers for the 1917 crop of wheat increased 135.4 per cent over the four year pre-war average, or a difference of one per cent in favor of wheat.

"These figures are compiled from the Monthly Crop Report, issued by the Department of Agriculture for December, 1917, and July, 1918, pages 128 and 82 respectively.

"It should be distinctly borne in mind that these are prices received by farmers for wheat and cotton at their local markets and do not cover, in any sense, prices paid or received by middlemen after the farmers had sold. The relative increase in the price of wheat and cotton, marketed from the 1917 crop, is almost the same, while the average relative increase has been overwhelmingly in favor of wheat.

"Among the northern and eastern papers that are constantly bewailing the fact that cotton farmers are receiving fairly remunerative prices for cotton, the New York Journal of Commerce is the most conspicuous. Hardly a day passes that it does not contain misstatements and misleading editorials, which are calculated to do the South a great deal of harm without doing the balance of the country any good. In a recent issue, this paper published a vicious attack on the cotton producers, charging them with profiteering and disloyalty, and in the same issue it published the mill prices of sixteen articles of standard cotton goods, the average of which was more than 94 per cent above the prices on the same date in 1917. In other words, it showed that cotton was 17 per cent higher in New York on the day the article was published than it was on the same day in 1917, while cotton goods were 94.47 per cent higher on that day than on the same day in 1917. The Journal evidently thought that it was alright as it uttered no word of complaint. It seems that the Journal should be satisfied to let the cotton farmers have a chance to make a fairly good living for a while, more especially, in view of the fact, that the prices they are receiving for cotton do not in any way encroach upon the profits of the mills or merchants which it so faithfully represents. From a standpoint of public service, the Journal might devote a little space in getting mills, manufacturers and merchants to split their profits with the consumers."

The facts may be taken as the official statement of the organized farmers of the South. We give space to them because we feel that farmers of the different sections should understand each other's problems.

We are giving our work, our time and our money, but "they" are giving their lives.

Grass Mixtures for Kansas

THE past season has been disastrous to many of our tame grass pastures. Tame grass pastures are of uncertain value over much of Kansas. Many who have lost stands of tame grass because of the extreme heat and lack of rain during the past season will be planning for renewing their pasture area. Ralph Kenney, of the extension division of the Agricultural College, who has made a special study of the grass situation in Kansas, points out that tame grasses can be grown with success only as far west as an irregular line north and south through Manhattan. In the creek and river bottoms successful seeding can be done a little farther west, but even in the bottoms many failures accompany a few successes in the eastern part of the area mentioned.

"Although many are successful with spring seeding in the eastern counties," says Mr. Kenney, "fall seeding is more advisable anywhere west of Topeka. If the seed is not sown until a rain falls sufficiently heavy to soak the seed bed and keep the sprouted seeds alive for some two weeks, the plants will live through the winter and start ahead of the weeds next spring. If the fall is dry and no such rain falls, then the grass is best not sown. On the other hand, spring-seeded grass usually burns out in midsummer in the same localities because the moisture is all used by tall growing weeds that develop faster.

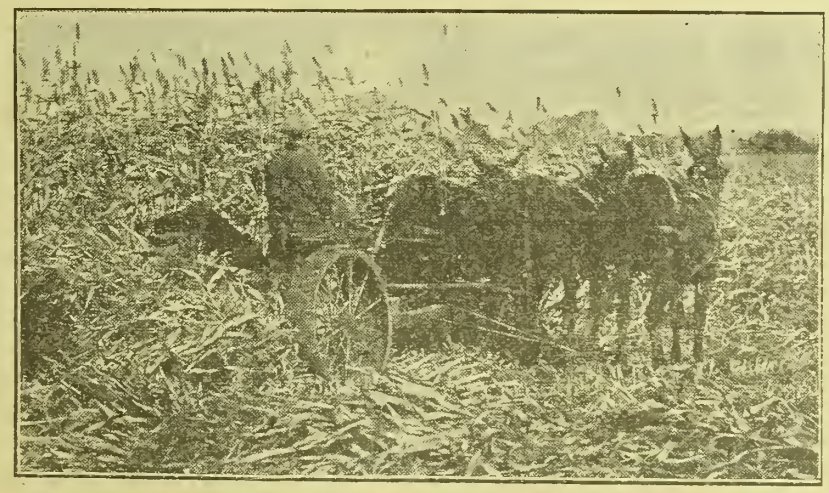
"September 5 to October 5 is a good time to sow grass seed in Kansas provided the moisture has just fallen and you know it is sufficient. Where spring seeding is successful, the earlier seedings, March 15 to April 15, are best.

"In Northeast Kansas most permanent tame pastures are the result of seeding Kentucky bluegrass five pounds, red clover eight pounds, and timothy five pounds, per acre; or Awnless brome grass five pounds, orchard grass five pounds, and alfalfa five pounds, per acre. The first mixture is used in the eastern counties from North to South Kansas, but the red clover and timothy do not grow so well in Southeast Kansas. The second mixture for Northeast Kansas is more drouth-resistant and will succeed as far west as any tame grasses will grow.

"For Central Eastern Kansas, meadow fescue, or English bluegrass, as it is sometimes called, is frequently seeded alone at fifteen to twenty pounds per acre. This section is the center for English bluegrass seed production in America, hence there is usually no other grass mixed with it here. The Kentucky bluegrass-red clover mixtnre mentioned above is excellent here for permanent pasture. Brome grass does well sometimes and sometimes not. These counties are just enough warmer to prevent brome grass doing its best.

"Red top five pounds, orchard grass five pounds, and sweet clover five pounds per acre make a good mixture, especially for poorer soils where other grasses do not grow well.

"For Southeast Kansas a mixture of English bluegrass five pounds, red top five pounds, and Kentucky bluegrass five pounds is very good. Sweet clover is more advisable here than either red clover or alfalfa in pasture mixtures, owing to its ability to make a fair growth, even on soils that will not produce the latter. Seeded alone, fifteen to twenty pounds per acre is best even though lighter seeding is sometimes very successful. When seeded in mixtures, five pounds of sweet clover may replace five pounds of any other grass purchased. There are many other grasses whose seed can be purchased, but they will yield no more than those mentioned under the most favorable conditions. They are practically all killed out more quickly under Kansas conditions than the ones recommended above."



TYPICAL SCENE ON KANSAS LIVE-STOCK FARM.—CANE AND OTHER SORGHUMS ARE AGAIN DEMONSTRATING THEIR VALUE AS DEPENDABLE FEED CROPS

Plan to Pasture Wheat

In some sections farmers increasing acreages of wheat have in view the pasture value as well as the return from the crop. Such is the case in a county like Lyon where live stock is an important feature of farming. In other counties of the state wheat growers are looking forward to the possibility of getting considerable value from the crop this fall in the way of feed. Feed is so scarce and high that many will try to pasture the crop if it makes sufficient growth this fall and weather conditions permit. Pasturing wheat may injure the crop, particularly if stock is allowed on it in muddy weather. Those who pasture should keep in mind that as a rule the yield will be decreased as a result of running stock on the crop.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

IN RESPONSE to our request that our readers who have had trouble buying mill feed report to us the circumstances, we are getting letters which indicate that feed is in heavy demand and that millers are selling bran and shorts in connection with flour sales only. For example, a Kingman County reader states that he cannot buy bran, shorts, or cottonseed meal at all in Zenda, that one of the leading grain dealers of Kingman reported to him that he could not buy shorts without taking part flour, and another grain and supply company stated that they had tried seven different concerns and had been refused shorts by all of them unless purchased in connection with flour and this firm was not in a position to handle flour trade at all.

It is evident that fixing a definite and a fair price on milling by-products does not help very much when a man cannot buy feed at all. The facts are that the general demand for feed exceeds the supply and it would seem that millers propose to handle what feed they have in the manner that fits in most conveniently with their flour trade. We hope others will write us of their experiences in connection with the purchase of mill feed.

Grasshoppers Cut Twine

W. C. R., Wallace County, reports that in binding his feed crops he finds many of the twine bands are being chewed off by some kind of insects. He thinks grasshoppers or crickets are doing the damage and asks if there is anything he can do to prevent it.

As he was evidently in need of the information at once, we replied by return mail, suggesting that he try dipping the balls of twine in some one of the commercial hog dips before putting them in the binder box. The balls will swell a little, but this will not prevent the twine from working through the binding machinery of the harvester. Kerosene is also used to prevent insects from chewing the twine bands. It is probably not so lasting in its effect as the dip. We have not had personal experience with either of these methods of preventing grasshoppers from gnawing binder twine used in tying cane, kafir, or other feed, but have been told that the remedies suggested are most effective.

Others are probably having the same trouble as our Wallace County reader, as grasshoppers are unusually numerous all over Kansas this season. We suggest that all twine used in binding feed crops be treated as suggested in order to prevent the annoyance and inconvenience resulting from having the bands cut.

Formalin Treatment of Seed

In our issue of August 31 we commented editorially on the treating of seed wheat for smut and told of the series of demonstrations to be given over the state beginning September 2 and continuing for three weeks. If you can attend one of these demonstrations which will be given at four points in each of the thirty counties to be covered, you will learn how to treat seed for smut in a way that will fix the details in your mind until you will not readily forget them.

We have described the formalin treatment in KANSAS FARMER a great many times, but will repeat it for the benefit of new subscribers and those who may have forgotten. Prepare a solution of formaldehyde, which is ordinarily purchased under the trade name of formalin, diluted at the rate of one pint of the formalin to forty gallons of water. The seed should be cleaned with a fanning mill first to remove the balls of smut and the light, chaffy grains. Where this can be done the seed can be treated with the solution by sprinkling, spreading the grain four or five inches deep on a clean floor or a canvas. With a sprinkling can apply the solution at the rate of about one gallon to one and one-third bushels of seed. Shovel over the grain until every seed is thoroughly moistened, then shovel into a pile and cover with sacks or canvas previously treated with the solution, leaving it covered from two to five hours. The seed should then be spread out in thin layers and dried immediately. To get the best germination results the grain should be sown as soon as treated if possible. If it must be kept for a time, store in clean, dry sacks that have previously been disinfected with the formaldehyde. It is well to make a germination test before planting, and if it is found that germination has been somewhat reduced, increase the rate of planting sufficiently to overcome it.

If the seed cannot be fanned, the safer method of treating is to put it into a tank or barrel of the solution, skimming off the smut balls and light grains which will float on the surface. In using this method keep the wheat in the solution from ten to twenty minutes. It should be dried and otherwise handled as in treating by the sprinkling method.

Veterinarians to Army Service

The Government is making heavy demands on the trained veterinarians of the country. A great many veterinarians are required to do the inspection work at packing houses and other points where inspections for disease must be made.

Sixteen of the seventeen men graduated in veterinary science from the Agricultural College in 1918 are now in Government service, most of them in the army. The seventeenth man is of German birth and has not yet been able to complete his naturalization, though he is anxious to enlist in the war against Germany.

Loan Association Inquiry

E. E. P., Meade County, after reading the article in KANSAS FARMER telling of the formation of farm loan associations, wrote to ask whether there was such an organization in his part of the state, as he wished to get some money cheaper than 8 per cent on five years' time. This man owns 220 acres and wants to buy 160 acres more, but it will take $4,000 to pay his mortgage off, put down a well, and build the necessary fence. He has a house and barn and some live stock. He states that at the present time he is paying 8 per cent interest on $3,700, which makes an annual interest payment of $296.

We referred this inquiry to the Federal Land Bank at Wichita. In order to take advantage of the favorable terms under which the Federal Land Bank is loaning money, it is necessary to become a member of a local farm loan association which must have at least ten members. Farmers wishing to borrow money through the Federal Land Bank should write to the bank at Wichita asking for full details on how to go about to organize a loan association where one is not already organized. Large sums of money have been loaned to farmers on very favorable terms, but a great many still are not familiar with the opportunities afforded by the Land Bank Act.

Farmers Gain Recognition

The United States Department of Labor recently announced that the National Grange, the National Farmers' Union, and the National Dairy Union will henceforth be jointly represented in the farm service of the United States Employment Service of the Department of Labor by a representative who will be permanently stationed at the national headquarters of the Federal Employment Service in Washington.

This will give the millions of members of these organizations a voice in the campaign which the Government is conducting in behalf of an adequate and capable farm labor supply. The shortage of labor is the most serious situation confronting the farmer at the present time. As a result of the conference between the heads of these national farm organizations and the chief of the farm service section of the Labor Department, Howard E. Williams, of Trout, West Virginia, has been chosen as this special representative on the executive staff of the employment service division.

Mr. Williams has been for many years a prominent member of the National Grange and has successfully filled the offices of commissioner of agriculture, state highway inspector, and director of farmers' institutes in West Virginia. He is a man of practical farming, stock raising, and dairy experience, and leaves a large agricultural property in West Virginia to come to the Employment Service. He went to the Department of Labor the latter part of August. The Employment Service will have the benefit of his counsel and advice in all matters directly affecting the farm labor situation.

The appointment of Mr. Williams supplements the co-operation already existing between the Employment Service and the National Grange, whereby local granges throughout the country are arranging to each have a member acting as a farm labor agent of the Employment Service, his principal duty being to serve as the point of contact between all the members of his grange in need of farm help and the nearest branch office of the United States Employment Service.

Stabilize Cottonseed Prices

The feed situation is such that a highly speculative market is developing on cottonseed meal and cake. Owing to the great shortage of feed which exists, it is highly important that there be no profiteering in the handling of this product. The matter has been taken up with the Food Administration by representatives of the organized cottonseed producers of the Southern States. They have pointed out the extreme desirability of stabilizing the prices of cottonseed and its by-products during the next twelve months as a protection not only to the seed producers but to the cattle feeders of the country.

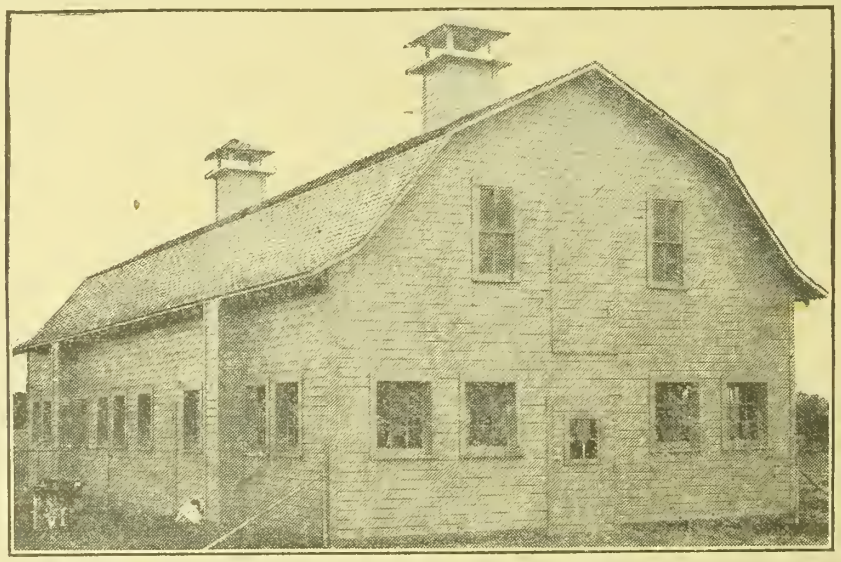
They have stated that in consideration of the necessities of the cattle feeders they are prepared to agree that the price of cotton seed shall be stabilized at the same average price as last year despite the increased cost of seed production. The figure they recommend is $70 for seed f. o. b. cars, based on the yield of forty-one gallons per ton of oil, with a $3 reduction for seed delivered in wagon-load lots.

The effect of this would be to make the price of seed vary from $64 to $72 in carload lots, f. o. b. cars, depending upon the yield in oil. As the yield varies from zone to zone, they recommend that it is possible for the Food Administration to determine the price of seed in the different zones based on the yield. The zone yielding the lowest price for cotton seed would be that of some sections in Texas, and the highest points would be some sections of Louisiana and Mississippi. There will be some necessary increase in the costs of manufacturing and crushing during the coming year, owing to the rise in materials and labor.

The Food Administration is now considering this proposal, and has called a meeting of cattlemen to consult in the matter. The greatest difficulty arises from the fact that foreign vegetable oils are selling from three to four cents a gallon in the market less than cottonseed oil, and that unless some device can be found for stabilizing the price of cottonseed oil it is likely to fall, and in consequence the price of feeding stuffs is likely to rise accordingly. If the oil can not be held to the average price of last year, the price of feeding stuffs is likely to rise to $70 or $80 a ton.

Under the plan presented the price of meal would range from $57 per ton in Texas for 43 per cent protein meal, with a variation of $1 for each unit in protein, to $53 for 36 per cent protein meal in the eastern section.

The representatives of the producers include the commissioners of agriculture and directors of markets for Georgia, Texas, Alabama, Arkansas, Louisiana, North Carolina, and Florida, together with representatives of the farmers' unions from the various southern states.



WELL-PLANNED and substantial barns are necessary in handling dairy cattle. They require better shelter than beef cattle. It is possible to get along with quite meager equipment, but as the business warrants the dairyman should plan for better and more adequate housing of his stock. The barn here shown is the calf barn which has been in use at the Kansas Agricultural College for the past five years. A Kansas breeder who has been building up a high-producing herd of Holsteins asked us recently to suggest a plan for properly housing his pure-bred calves, and we could not think of a better type of building for the purpose than this college barn. It is 28½ x 65 feet and has twenty-eight windows, which insures plenty of light and ventilation. It is twelve feet from foundation to plate, and the ceiling is eight feet in height. The rafters are all nine feet in length. The extensions on the side walls are intakes to the ventilation system.

This type of barn could be arranged to house eighteen to twenty cows with several box stalls and a feed room in addition to the stanchions. If used for cows it should be three and a half feet wider in order to give plenty of alley room. This barn is arranged for calves, there being stanchions on one side of a central alley for twenty-seven calves and small pens for fourteen on the other side. Across one end are three box stalls. The floor, gutters, and feed troughs are of concrete. It is equipped with steel stanchions and partitions throughout. They could be made of wood at considerably less expense. There is considerable hay storage space above.

A Pratt County farmer hauled a wagon load of wheat to town recently that brought $284.40. There were no hills and the roads were good, so he was able to haul 140 bushels. This man said he could recall when such a load of wheat would have brought only about $60.

Iron and Steel in Farming

Following the receipt of letters from hardware dealers indicating a serious shortage in the kinds of iron and steel used by country blacksmiths and in farming operations, the Bureau of Markets made a survey of stocks held by wholesale hardware dealers and of their estimated needs for six months. A questionnaire was sent to dealers who furnish supplies directly or through retail dealers to country blacksmiths and farming communities. Replies from some 250 dealers indicate that in most instances supplies on hand to June 1, 1918, were much less than those of a year ago. Many dealers reported a shortage below actual requirements for the next six months, particularly in the case of barbed wire, nails, and other fencing materials, sheets for roofing and for silos, and steel bars of a size suitable for wagon tires and farm repair work.

Because of the need for iron and steel in war industries the priorities committee of the War Industries Board requires dealers in need of supplies to file a statement, on blanks provided for that purpose, showing the uses for which the materials are desired. The committee then gives the dealer a rating, determined by the essential character of the supplies required, and the higher ratings receive the first attention in distributing the available iron and steel.

Almost 70 per cent of all the sugar consumed in this country is used in the households. So it is up to the women to make the sugar go around.

Handling the 1918 Harvest

(Continued from Page One)

is a record of 18,511 men handled by these local labor offices of the Department of Labor.

Sixty-nine counties in the state that are served by county agents, including four which were reported by chamber of commerce secretaries, have reported that they cleared through their offices a total of 18,696 harvest hands which came from outside their counties. These same counties report that a total of 7,802 men from local towns and cities were used, the majority of whom apparently were "twilight shockers," who went out in squads and worked for about three hours each night for several nights. Many of these men worked but a single night, a few as many as ten nights, while some went into the fields for full days. As a direct result of the state-wide campaign for harvest labor, a very large number of retired farmers and other townspeople went back into the harvest this year, but were not enumerated in the reports as they did not register or clear through the county agent offices or federal labor offices. The reports indicate that less than 5 per cent of women were used in the harvest this year. This might be a low estimate.

A large number of young boys also were used and it is probable that the original estimate of Mr. Frizell for 90,000 extra harvest hands was more than met when all sources of labor are considered. The greater efficiency among farmers in the use of labor, due to increased cost, was also marked.

It was reported that a total of 3,462 town men from those recruited in Kansas City and St. Joseph, Missouri, and Kansas City, Atchison and Leavenworth, Kansas, went out into the harvest through the federal labor offices of those cities. This was out of a total of 15,376 men in these towns who pledged themselves to go if needed. Many other towns in Kansas report that only a few of the hundreds of city men signing the enrollment cards went out. This was due to some extent to the reluctance of the city man to leave his home county, and to the fact that the majority of the counties in which the larger towns existed had almost no labor problem. It is altogether certain, however, that had the harvest situation been such that it could not have been handled in any other way, the majority of the men who enlisted would have gladly fulfilled their pledge.

For the next harvest there will be need for every one of these volnteers and more, and when the demand comes there is no question but the city man will do his utmost to help Uncle Sam in the harvest field as well as on the battle line. The town and city men who helped this year will help again. They will bring others. More women will help as needed and the Kansas farmer, with renewed courage, faith and hope, will "carry on" and plant a record acreage to wheat this fall, supremely confident that if the Lord brings a good harvest, harvesters will not be wanting.

Price-Fixing of Farm Products

(Continued from Page Four)

specific costs, for them to turn to a ratio between the price of feeds and the price of milk as a basis of price regulation. This resulted in the acceptance of what has been known as the Pearson formula.

One weakness of the Pearson formula arises out of the fact that the price of milk is the major factor in determining the prices of many of the articles of cow feed. The price of bran, prepared dairy feeds, or clover hay, are determined largely by the price of milk. For example, a high price of milk stimulates milk production, which stimulates the demand for feed, resulting in an increased feed price, which, according to the formula, provides for a still higher milk price. Thus started on its upward course nothing would stop the upward trend of prices excepting the lack of buyers for the milk at the ever rising price. So far as has been learned, the commission has not arranged to take all the milk which is offered at the price. On the other hand, suppose the price ratio is narrow, resulting in a milk price too low for profit. How would this affect the producers? The farmers would lose money and would produce less milk. The demand for dairy feed would fall off, and the price of feeds would fall. This, according to the Pearson formula, would call for a lowering of the price of milk which would further depress milk production and the price of feeds, and in turn the price of milk, even though the demand for milk might justify a higher price. Thus it is that the Pearson formula possesses elements of danger and will in all probability fail to serve the purpose intended.

The commission has yet the problem of price-fixing to solve. It is believed that after the excitement of the present conflict is past the commissioners will turn to a careful study of the amount and character of the milk demanded at various prices and the character and amount of milk which can be secured at these prices, and will adjust the milk price on the basis of maintaining an equilibrium between demand and supply through a long period. In doing this they will need to take into account the substitutes to which the consumer may turn, as well as profits in other types of farming to which the milk producer may later change if the milk price is fixed too low compared with other prices.

Possibilities of Price Commission

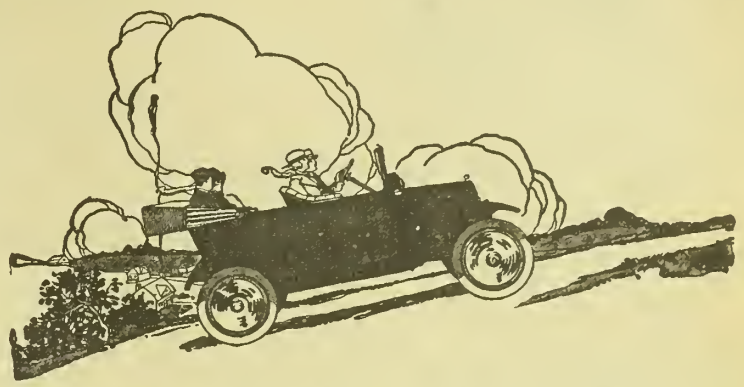
The much talked of law of supply and demand is too little understood. It does not always work perfectly. It might be made to work much better under the guidance of a commission than when left to the free and unequal bargaining power of great distributing corporations on the one hand and the isolated producers on the other.

A properly constituted, permanent price commission might inaugurate an educational program which would improve the mutual attitude of mind of the producer and consumer toward each other, which would make each more considerate of the rights of the other that are in the long run fundamental to the interests of all concerned.

Furthermore, such a commission, well informed with regard to the facts of prorduction, distribution, and consumption, would form a desirable medium for collective bargaining between the organized prorducers on the one hand and the organized distributors on the other, which appears to be the logical outcome of present tendencies and which would appear to be desirable wherever large numbers of isolated farmers are selling to large corporations such as the milk distributors in the large cities, the packers and the grain dealers, and possibly in many other instances. Even where the more specific functions of price-fixing are unnecessary, there is an important work for price commissioners in studying market conditions and the conditions of supply and in educating both producer and consumer to rational action.

In passing judgment upon the merits of commission prices in comparison with unregulated prices too much weight should not be given to the results of commissions which of necessity have been organized hastily under the stress of war-time conditions. It will take time to develop good price commissions; but what is so much worth while is worth striving for.

FORD EFFICIENCY.



Four heat conditions scientifically met by Gargoyle Mobiloil "E" in Ford engines

If you have driven your Ford very long, you have no doubt met with a problem, more or less common to all cars.

That is—a tendency of the engine to overheat. This is generally most noticeable after continued running on low gear.

True, your thermo-syphon cooling system absorbs much of the excess heat of the combustion chambers.

But your water cooling system should not be called upon to absorb and radiate the heat of friction. Most of that task belongs to the lubricating oil.

But of even greater importance is the ability of the lubricating oil to perform its function of minimizing friction and thus reducing friction heat.

Four common forms of overheating are described below. Each one traces back directly to your oil supply.

(1) **Friction Heat on Cylinder Walls.** This is caused by oil too light or too heavy in body for the Ford engine If too light, it fails to thoroughly separate friction surfaces. If too heavy, it is not distributed properly, leaving cylinder walls and bearings partly exposed. In either case excess friction follows. Heat mounts up.

The body and character of Gargoyle Mobiloil "E" are such that it will feed readily, distribute thoroughly and form a protecting film between cylinder walls, pistons and piston rings.

(2) **Excessive Crank-Case Heat.** Normal crank-case heat is about 140° F. But if the oil does not tightly seal the Ford piston rings, part of the heat of each explosion shoots down past the piston to further heat the oil in the crank-case. Crank-case heat may then rise 40° to 50° higher.

Gargoyle Mobiloil "E" will thoroughly seal the Ford piston rings. The heat of the explosion on the power stroke is kept above the piston, where it belongs.

(3) **Hot Bearings.** Bearing surfaces, when seen through the microscope, show tiny hills and valleys of metal. The oil must thoroughly fill in these valleys and cushion the peaks or excess friction will result. If not, hot or burned-out bearings follow.

Gargoyle Mobiloil "E" is of the correct body to lubricate the Ford bearing surfaces, thus preventing them from rubbing against each other.

(4) **Heat Absorption and Radiation.** On warm days you will sometimes see Fords running under overheated conditions due to the use of an oil of low quality or poor heat radiating ability.

Ford owners who use Gargoyle Mobiloil "E" are free from this trouble, owing to the ability of the oil to minimize friction and to absorb and radiate heat.

The following test will show you the importance of scientific lubrication in the efficient operation of your Ford engine:

An Economical Demonstration

It will cost you little to fill your reservoir with Gargoyle Mobiloil "E." The garage or dealer you trade with has it, or can promptly secure it for you.

Ask him to empty your reservoir of its present oil and fill it with Gargoyle Mobiloil "E." You can then judge for yourself the results in cooler operation, gasoline economy and reduced oil consumption, to say nothing of reduced carbon deposit and greater power.

GARGOYLE

Mobiloils

A grade for each type of motor

In buying Gargoyle Mobiloil "E" from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If the dealer has not Gargoyle Mobiloil "E," he can easily secure it for you.

YOUR TRACTOR

also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

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Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world.

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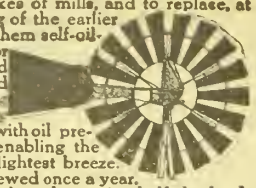
THE SELF-OILING WINDMILL

has become so popular in its first three years that thousands have been called for to replace, on their old towers, other makes of mills, and to replace, at small cost, the gearing of the earlier Aermotors, making them self-oiling. Its enclosed motor keeps in the oil and keeps out dust and rain. The Splash Oiling System constantly floods every bearing with oil preventing wear and enabling the mill to pump in the lightest breeze. The oil supply is renewed once a year. Double Gears are used, each carrying half the load



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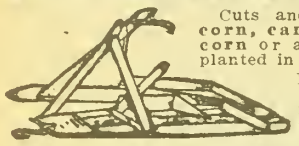

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J. A. COLE, Mfr., TOPEKA, KANSAS

SENATE CONCURRENT RESOLUTION
No. 18.

A proposition to amend section 1 of article 5 of the constitution of the state of Kansas relative to the right of suffrage.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members elected to each house thereof concurring therein:

Section 1. The following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their approval or rejection: That section 1 of article 5 of the constitution of the state of Kansas be amended to read as follows:

Section 1. Every citizen of the United States of the age of twenty-one years and upwards—who shall have resided in Kansas six months next preceding any eleetion, and in the township or ward in which he or she offers to vote, at least thirty days next preceding such election—shall be deemed a qualified elector.

Sec. 2. That this proposition shall be submitted to the electors of the state at the general election in the year 1918 for their approval or rejection. The amendment hereby proposed shall be designated on the ballot by the following title: "The suffrage amendment to the constitution," and shall be voted for or against as provided by law under such title.

Sec. 3. That this resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 8, 1917.
Approved March 12, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 18, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

SENATE CONCURRENT RESOLUTION
No. 15.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members of each house concurring therein:

Section 1. That the following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their rejection or approval:

Sec. 2. The Legislature may levy a permanent tax for the use and benefit of the state educational institutions and apportion among and appropriate the same to the several institutions, which levy, apportionment and appropriation shall continue until changed by statute. Nothing herein contained shall prevent such further appropriation by the Legislature as may be deemed necessary from time to time for the needs of said state educational institutions.

Sec. 3. This proposition shall be submitted to the electors of this state at the election for representatives in the Legislature in the year 1918. The amendment hereby proposed shall be known on the official ballot by the title "Amendment to the constitution providing for a permanent income for the state educational institutions," and the vote for and against such amendment shall be taken as provided by law.

Sec. 4. This resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 7, 1917.
Approved March 10, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 15, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

A NATION'S STRENGTH IS IN ITS FOOD SUPPLY

Eat Less — Waste nothing
Create a Reserve



AMERICA MUST FEED 120,000,000 ALLIES

The present household sugar ration—with little chance of increase—is two pounds a month in America, two pounds in England, one and one-half pounds in France, and one pound in Italy.

You can make emergency repairs of a fuel line on a car by wrapping it with tire tape, varnishing the job when done. A more permanent repair can be made by wrapping the line with fine copper wire which can then be soldered over.

MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Ban on Sunday Riding

THE Fuel Administration is appealing to the people east of the Mississippi River to exercise tbe most rigid economy in tbe use of gasoline during the next few weeks as a necessary and practical act of patriotism. It was the thought of the men in tbe Fuel Administration who had been laboring with the problem of meeting fully the war needs for gasoline that the greatest measure of economy could be effected with the least interference with the business of the country through the discontinuance of the use of all classes of motor vehicles, motor boats, and motorcycles on Sundays. It was stated that vehicles operated for hire were included. The following exceptions are made:

1. Tractors and motor trucks employed in actual transportation of freight.

2. Vehicles of physicians used in performanee of professional duties.

3. Ambulances, fire apparatus, police patrol wagons, undertakers' wagons, and conveyances used for funerals.

4. Railway equipment using gasoline.

5. Repair outfits employed by telephone and public-service companies.

6. Motor vehicles on errands of necessity in rural communities where transportation by steam or electricity is not available.

In addition to the discontinuance of Sunday pleasure riding, the appeal was made to the patriotic men and women of the country east of the Mississippi to undertake voluntarily additional conservation in the operation of their automobiles wherever possible. The appeal was made with the belief that all consumers of gasoline will observe the spirit of the request, and if this result follows, no mandatory order governing the use of gasoline will be necessary.

News reports indicate that on tbe first Sunday following this appeal the rule was very generally observed. A few pleasure automobiles were seen, but the people who had fallen in line with the plan of the Fuel Administration were not at all backward in letting the few slackers know what they thought of them.

In making this appeal it is recognized tbat on the farms the use of motor vehicles is largely a matter of utility and efficiency. The farm automobile is used to a very limited extent for "joy riding" in the commonly accepted meaning of that term. While the present appeal has been made directly to people of the eastern section of our country, the suggestion that it is necessary to use gasoline as prudently as possible might well be taken to include all who use this essential war product for any purpose.

Expansion of Tractor Business

Tbat the tractor business is expanding as rapidly as is good for tbe industry is the inference drawn from comments of Arnold P. Yerkes, tractor specialist of the United States Department of Agriculture, in a recent issue of the Implement and Tractor Trade Journal. Mr. Yerkes said that the Department of Agriculture feels that the tractor industry is growing about as fast as its good healtb will permit. Last year the tractor business doubled in volume over the year before. "That is fast enough for any industry to grow," said Mr. Yerkes, "especially one that is so elose to agriculture as the tractor business.

"It is exeedingly important that the right men should be the ones to operate tractors on their farms. The tractor in wrong hands can do great damage to botb agrieulture and the tractor industry. County agents throughout the country are trying to see that the farmers who buy tractors are the farmers who can get the most out of them.

"So it is that the tractor industry does not need a boom. That would be bad for it. Steady, healthy growth is the main tbing to be desired. This event at Salina was probably the most remarkable tractor demonstration ever held. After 'looking them over' one can no longer entertain doubt as to the gradual mechanical refinement of most of tbe tractors offered on tbe market. Especially does one see plenty of pressure in the direction of better motors."

Care of Clutch Band

Where the clutch of the tractor is of the contracting band type, there is sometimes difficulty in making the band grip the drum tight enough to hold. This is not always due to the band being set too loosely when tbe clutch lever is pulled in. It may be due to the accumulation of oil or other substances collecting on the drum beneath the band.

Where the tractor operator has difficulty in getting efficient service from his clutch, it is an easy matter to clean these bands by using kerosene. This can be poured on the drum of tbe transmission without any danger and will serve as an excellent method of washing out all foreign substances between the two surfaces.

Absolute check upon efficiency of the clutch bands can be made as follows: If the bands are slipping on the drum, this slippage will produce heat by friction, so that if the drum and the band are warm, tbis indicates that the bands are not holding fast. This can be determined by holding one's hand on tbese parts for test.

When heat is present under the above described test, the tractor operator should first try to eliminate this slippage by washing the drum and bands free from oil and dirt. If heat is still generated after this has been done, it will be necessary to make some adjustment upon the bands themselves.—Tractor Farming.

Gasoline for Pleasure Riding

Cutting off joy riders east of the Mississippi River from the use of gasoline on Sundays resulted in a good many protests against the Fuel Administration. The order was given to permit the accumulation of a safe reserve of gasoline for war uses. The issuing of such an order with the limitation of automobile production which has just been agreed to leads us to realize that pleasure as well as business in this country must be organized on a war basis. We cannot successfully prosecute the war to a speedy and victorious conclusion if we insist on living just as we did in prewar times. Every act and every business operation must be considered from the standpoint of its influence on our war program.

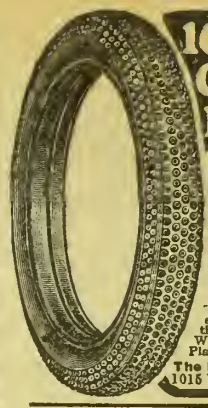
We do not know how necessary it may be to conserve our gasoline supply, but everyone knows that immense quantities of this power-developing fuel are being used in war work, not only on the battle line but in the essential war industries. If the Fuel Administration says, "Cut out joy riding in order that tbere may be plenty of gasoline for war purposes," we should willingly and uncomplainingly fall into line. The next order may touch the joy rider west of the Mississippi.

Hauls Tractor in Truck

On one of the roads leading out of Salina a rather novel sight was observed during the recent tractor demonstration. An auto truck was hauling home a small tractor which had been loaded in the body of the car. The truck was moving along at a fairly rapid speed.

To correct an erroneous impression that has been given circulation, the War Industries Board and the United States Fuel Administration join in the announeement that no regulations have been issued with respect to the sale of oil and gasoline. The Fuel Administration has urged that wasteful practices in the use of oil and gasoline be stopped and all reasonable and proper measures of conservation be observed. No limitation, however, has thus far been placed on the sale of these products.

We must learn from this war that a man's soul cannot grow fat while a neighbor's body grows lean.—ESTEY.



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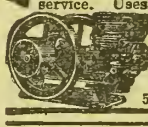

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U. S. Food Administration.

Br'er Tater ain't skeerin' up a ghos' wen he say we alls mus' eat less wheat en less meat en save all de fat en sugar we kin. We has jist got ter feed dat big army er fightin' sojer boys, en we kin do hit by eatin' right smart mo' taters en garden sass en eatin' mo' fish en game 'stid er pork and beef. Ef we alls don't gin ter feed dem sojers right now we'll be feedin' somebody 'fo' long en it won't be us.

Kafir grains are increasing in production in this country with astonishing speed. The crop of 53,858,000 bushels in 1916 increased to 75,866,000 bushels in 1917 and the prospect for 1918, based on the conditions of July 1, is a crop of 110,005,000 bushels, or more than twice the crop of two years ago.

United Action by Farmers

AT A nation-wide meeting of farmers held in Washington August 29 at the call of the Federal Board of Farm Organizations, Gifford Pinchot of Pennsylvania made a strong appeal for unity of action on the part of farmers in demanding justice and recognition and a proportionate part in the national life. The speaker maintained that agriculture has not and is not now being given a proper voice as a partner in directing the great task of winning the war. He pointed out that the country people of America are facing the greatest moment in the history of American country life. Three great tasks lie before them. The first is that in which all our resources and all our man and woman power must be employed — the winning of the great war as speedily and as completely as human strength and will can win it. "Other men start wars," said Mr. Pinchot, "but farmers finish them. No negotiated settlement, half victory and half defeat, will satisfy the country men and women who have sent their sons to war and least of all the men and women whose sons will not come back. A draw means another fight. This war must be the last.

"The second great task of the farmers of America is to grow such a crop in 1919 as the world has never seen before. We must have not only enough to feed our boys in France and ourselves at home, not only enough to sustain and keep high the strength and fighting spirit of our Allies, but we must fill up the depleted granaries of our land, and guarantee our country against the scarcity (or worse) which a single short crop would bring upon us. There was never a greater duty laid upon any body of men and women than the duty of growing the food without which we cannot win this war.

"No matter how completely the farmer has been barred from partnership in the great task of winning the war; no matter how he has suffered, or is to suffer, from the exactions of the middleman, the packer, and the miller; no matter what justice has been or will be denied him in the matter of farm machinery, fertilizers, and supplies; no matter whether the Government has done or has failed to do its duty by the farmers—there is no question that the farmers will do their duty by the nation and the war to the limit of their power. No neglect of the farmers will make them neglect our boys in France. The greatest crop ever grown is ahead of us, and its growing will be due to the high patriotism and hard work of the American farmer, and nothing else.

"The world war is remaking the world. In the new order which is being roughcast on the anvil of war and is to be shaped and finished on the anvil of peace, the country people of America must rise to a new position or sink back into the old. It is for them to say which.

"For nearly half a century after the war between the states the Government of America was dominated, and its laws were drawn and passed, in the interest of the manufacturer and the business man. The farmer, except just before election, was left out. More recently the domination of business has begun to be disputed by the organized wage earners who, representing but a small fraction of our people as compared with the farmer, draw their power from their admirable organization. Organized labor began to ask for and to get what it wanted, but still the farmer was left out.

"When the great war came on, it was the manufacturer and business man and the organized wage earner that loomed large in the eyes of the Government, and to whom the management of the war was given in charge. The farmer continued to be left out. Although, according to the census of the United States, one out of every two Americans live in the country; although every signboard in America has carried the slogan that "Food will win the war," although Government officials, metropolitan newspapers, and a swarm of lesser fry have wasted tons of paper and millions of words in advice and exhortations to the farmer, assuring him that without his help the war was lost, still in all matters which had to do with its conduct and direction, no partnership was offered, and none was allowed when it was asked for by the fifty million country people of America. The farmer was left out, and he is left out yet.

"Is the most honorable and necessary of human industries to be left out in the reconstruction after the war? The farmers themselves must decide. If they elect to remain divided into little separate groups, if they prefer to perpetuate the disorganization and disunion which in the past has brought them nothing but weakness and neglect, it is within their power and their right. If they choose to see policies adopted, laws made, and great decisions imposed upon them by minorities, they have but to remain weak and divided and these things will be repeated in abundant measure.

"But if weakness and neglect are not good enough for the farmers of America, if in the new civilization which is dawning they want power in proportion to their numbers, a fairer share in the wealth they create, and the just recognition which indispensable services should properly command, then there is work to be done and to be done now.

"This is the third great task. There is no time to lose. We know that we shall win the war and we hope that victory will come soon. But if by ill fortune it should be postponed two years, or three, or four, still the time is all too short for the farmers of America, while doing all they can to win the war, to prepare to put an end to the present complete control of our country and our Government by the city man and the city mind. I hope that this body of American farmers, the most representative ever assembled, will authorize the appointment of a great committee, which shall include all kinds of farming and every state, to examine what the position of the American farmer is now, what it ought to be after the war, and how best to bring it about, all in the broadest spirit of enlightened patriotism, without class, sectional, or selfish bias of any kind. The farmers should have their say as to what should be done in America.

"The farmers have not had justice. For the last half century they have been content to sit in the background and hold their peace. They have not had justice because they were not organized to get it. They have not stood united—divided they have fallen. If the old divisions and weakness are allowed to continue there will be as little justice in the future as the past. But if we get together, if we demand with one voice, as the wage earners do, what our position and our services rightly entitle us to, and no more, then no man and no combination of men in America is strong enough to keep it from us.

"We do not ask for more than is properly ours. We raise no issue of class against class. But we do demand that the men and women who feed and clothe this nation shall have a voice in its affairs in reasonable proportion to their numbers and their power.

"In your lifetime and mine no such opportunity has come to the country people of America. Not in our lifetime or the lifetime of our children will it come again. If we throw this chance away, for another half century we shall see the continued domination of our vital interests by men who neither rightly understand nor justly estimate the position and the services of the American farmer. Will the farmers of America act together for justice and recognition and a proportionate part in the national life? Unless we say 'yes' before the war is over, the final answer will be 'no.'"

Naval officers and their families who buy at commissary stores have gone on the honor system of sugar purchase established by the Food Administration for civilians.

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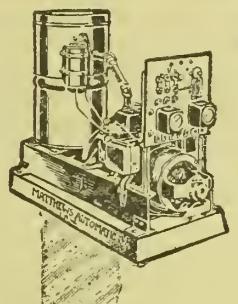

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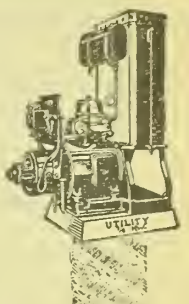

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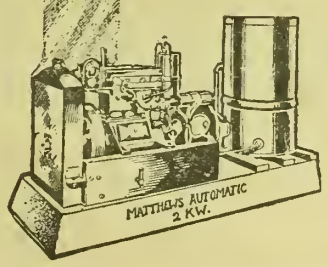
Write today for illustrated literature, full details, and our splendid proposition to "live wire" dealers.



Write for descriptive booklet, "Information for Practical Men."

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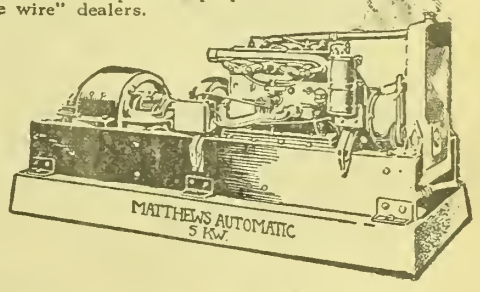

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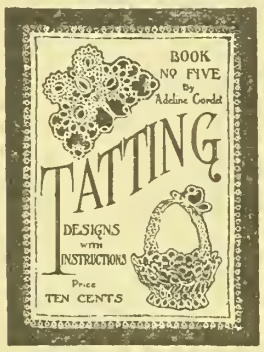

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A New Crochet Book—Yokes



Crocheted camisole, gown, and corset cover yokes. A collection of pretty patterns with illustrations and complete instructions. In ordering be sure to ask for Book No. 7. Price, postpaid, 10 cents.
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The Span of Life

"He died in harness, poor chap."

"Yes, and, by the way, did you ever notice how much like a harness life is? There are the traces of care, lines of trouble, bits of good fortune, and breaches of faith. Also tongues must be bridled, passions curbed, and everybody has to tug to pull through."—Boston Transcript.

Serve very ripe sweet peaches, pears and figs without the addition of sugar, or with cream whipped up with a little white corn syrup or honey.

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

The Child's Food

THE child's digestive organs are no more capable of dealing with all foods that grown people eat than are the bones, muscles, and brain capable of doing the work of grown people," says Mrs. Max West of the Children's Bureau of the U. S. Department of Labor in her new bulletin entitled "Child Care." "The stomach and intestines, like other organs of the body, must be gradually trained to harder work until by slow degrees they become accustomed to dealing with foods eaten by adults. An important part of the feeding of children lies in the selection of certain foods for this training.

"It is a serious error to assume that a child's special dietary needs can always be adequately supplied by the foods appearing on the family table and that the methods of preparing and cooking them are always suitable for children, for many articles which may be digested by adults, such as baked beans, boiled cabbage, pastry, fritters, and fried food, and certain methods of cooking for grown persons are distinctly bad for children."

For the child under school age, the bulletin referred to suggests certain foods which are simple, easy to prepare, of sufficient variety, and when well prepared taste good. For breakfast the following are recommended: Orange—juice only for the youngest children, farina with milk, bread and butter; apple sauce, oatmeal with milk, toast and butter; stewed prunes—pulp only for the youngest children, cornmeal mush and milk, toast and butter; baked pears—pulp only for the youngest children, milk toast with grated yolk of hard-boiled egg, and cocoa; or, apple—scraped for very little children, toast, and hot milk.

These breakfasts might well be enlarged by the addition of soft-boiled or coddled eggs. Coddled eggs are prepared as follows: Allow a cupful of water to each egg, bring the water to the boiling point, remove it from the fire, put in the eggs, cover the dish closely, and leave the eggs in the water for about seven minutes. Good results can also be obtained by pouring hot water over the eggs, if the same dish with the same amount of water is always used, but each cook must make her own rules, for eggs differ in weight and also in temperature at the time the cooking begins. Whites of hard-cooked eggs are not suitable for a young child nor for any child unless they are finely chopped or unless the child can be made to chew them well.

For dinner some good combinations are: Meat soup, egg on toast, string beans, and rice pudding; roast beef, baked potatoes, asparagus, bread and jelly; creamed potatoes, green peas, stewed plums with thin cereal-milk pudding; or, boiled meat cakes, grits, creamed carrots, bread, butter, and sugar sandwiches. Boiled potatoes may also be given, and boiled rice with honey or syrup makes a good dessert.

For supper the following may be served: Baked potatoes with cream and salt or with milk gravy, cookies; bread and milk, apple sauce, and sponge cake; potato-milk soup, bread and butter, marmalade sandwiches; graham crackers and milk, baked custard; milk toast, stewed peaches, cup cake; or celery-milk soup, toast, floating island.

In each day's meals enough milk should be given in some form to make up the required daily amount, which is about a quart for each child. If it is necessary to have the evening meal very late during the strenuous work of spring and summer, it would be well to give the children a simple supper by themselves and not require them to wait until the men have come from the fields and the evening chores are all done. Even if they want a piece when the family eat, it will be better than eating a hearty meal just at bedtime.

Well made cane syrup can be used to take the place of sugar even in coffee or cocoa.

To Our Girls

Our country gives the sons that she has treasured
To suffer—and to die, perhaps—for you.
By God's own standards let your gifts be measured
And, to their highest, hold your champions true.
To keep our country free, our children fearless,
Our women clean, they face the hell of war.
Arm them with memories pure to courage peerless!
Give them a womanhood worth dying for!
—Amelia Josephine Burr of The Vigilantes.

How to Use Syrup and Honey

Most of the failures in using corn syrup or honey in recipes that call for sugar, according to Miss A. L. Marlatt of the home economics department of the University of Wisconsin, have been because allowance was not made for the liquid substitute. In a recipe calling for sugar, Miss Marlatt says that one cupful of honey or one and two-thirds cupfuls of corn syrup should be used for each cupful of sugar. The liquid called for in the recipe should be reduced one-fourth cupful for every cupful of honey or syrup substituted.

Honey is acid. For that reason one-half teaspoonful of soda should be added to the recipe for each cupful of honey. If the recipe calls for baking powder, the amount of baking powder should be reduced one-half teaspoonful for each one-half teaspoonful of soda used.

The Silverfish Moth

The silverfish, or "slicker," is that small, wingless, glistening, silver or pearl gray insect with three long tail-like appendages, that one finds when books, papers, clothing, etc., are suddenly moved. Because the silverfish always shuns the light and has the ability to run very rapidly to places of concealment, it is not often seen and may become very abundant and cause considerable injury before its presence is noted. It often causes serious damage to books, clothing, and other stored and household objects while attempting to get at the starch or glue in them.

Frequently it gnaws off the white label slips glued on the backs of books or eats the paste which holds the bindings in place. The silverfish also will eat any starched clothing, linens, or lace or muslin curtains, and has been known to do very serious damage to silks which had probably been stiffened with sizing. Sometimes it eats the paste from the back of wall paper and causes the wall paper to scale off. The pest has been reported feeding upon carpets and plush coverings of furniture. It does little injury, however, to objects in daily use or to those kept in a dry, light place.

The United States Department of Agriculture, in Farmers' Bulletin 902, recommends frequent airing of clothing, sprinkling pyrethrum insect powder on book shelves or about objects to be protected, and placing pieces of cardboard covered with a thin boiled starch paste poisoned with white arsenic where these insects congregate, as the best measures for controlling them. In making the paste the following formula should be used: Flour, one pint; powdered white arsenic, one-half to three-fourths ounce; water. The arsenic should be added to the flour and sufficient water used to make a thin paste by boiling. Complete relief has been secured by this measure. Great care should be taken to keep the arsenic, the poison paste, and the poisoned bits of cardboard where young children will not get hold of them.

Let the Mirror Answer

The matter of dress is one of the minor problems of life, but it is an ever-present one and in the course of a lifetime demands much attention. Since the clothing is an expression of the wearer's individuality, we are in some measure judged by the garments we wear. The following questions from a card which is being distributed by the Young Woman's Christian Association to

FASHION DEPARTMENT

All patterns, 10 cents.



No. 8941—Girls' Dress: Cut in sizes 6, 8, 10 and 12 years. The first days of school in the fall are usually quite warm and continue to be so almost until the holidays, so it is quite practical to dress the children in tub clothes which are easy to keep in order. The dress buttons from V-neck to hem at center front, and a slightly rolled collar adds the relieving touch of white. The long sleeves are gathered into turned-back cuffs of the same. The skirt has three gores and is gathered all around. **No. 8934—Ladies' Skirt:** Cut in sizes 24, 26 and 28 inches waist measure. Designers are using all their ingenuity in devising new ways to comply with the Government requests for the saving of material. The new skirts are very narrow but not too much so for comfort. The lower edge of the skirt is straight, and the closing is at the left side front under a tuck. There is a fancy pocket at the other side to balance. The wide belt is cut a trifle deeper at the front and is trimmed with buttons. **No. 8945—Ladies' and Misses' Dress:** Cut in sizes 16 and 18 years and 36, 38, 40 and 42 inches bust measure. The chic new pointed tunic is the feature of this early fall dress. The front tunic section is cleverly cut in one with the right side of the waist. The pointed back section is joined to the front section at the seam over the hip, and is gathered at the waistline to the back of the waist. The one-piece skirt is straight at the lower edge and is gathered all around at the slightly raised waistline.



No. 8503—Ladies' Waist: Cut in sizes 36 to 42 inches bust measure. Shoulder edges of front extend over front in yoke effect. **No. 8518—Ladies' Dress:** Cut in sizes 34 to 42 inches bust measure. Long sleeves may be made with or without the deep cuffs. **No. 8497—Girls' Dress:** Cut in sizes 6, 8, 10, 12 and 14 years. The dress is in one piece, with box-plait closing.

girls all over the country, are worthy of thoughtful consideration:

DO MY CLOTHES—

Dress me for my job?

Tell everybody what time I got up this morning?

Emphasize my good points, in color, line, and material?

Display good judgment—or the price I paid for them?

Show a feeling for true simplicity—or slavery to fashion?

IN SHORT—

Do my clothes fit my standards of life?

Did the girl who made or sold them have a square deal?

Fruit Leather

Now is the time to revive such old-fashioned delights as fruit "leather" and fruit paste. "Leather" may be made from berries, cherries, figs, apricots, peaches, and blue plums. Over-ripe peaches and apricots are best for leather and all fruits should be thoroughly ripe. Mash to a pulp, spread on lightly oiled platters and dry in the sun or the dryer. When dry, sprinkle with sugar, roll up like a jelly roll, cut in slices, sprinkle with sugar and pack away in jars or very tight boxes lined with wax paper.

Peaches or half-and-half peaches and figs make delicious leather and need only a sprinkling of sugar.

Serve this leather in winter instead of candy or with cream cheese and nuts for dessert. Fruit leather may be soaked in water and used for pies, shortcake, puddings and sauces. When intended for this purpose omit the sugar.

Christmas Buying

The Council of National Defense and Advisory Commission have received inquiries as to the attitude of the Government toward Christmas buying. Manufacturers and merchants are anxious to know at this time the recommendations the Government will make, in order to be able to plan intelligently for their Christmas stocks.

The Council and the Advisory Commission have announced that it is their belief that Christmas giving which involves the purchase of gifts should be discouraged as relieving to that extent the present heavy burden placed upon labor, transportation, and other resources of the nation and also as being in harmony with the policy of thrift and economy previously urged upon the country.

Saving Sugar in Canning

"Keep canning, sugar or no sugar," is the slogan for the next sixty days. Undoubtedly the best practice will be to can fruits by the cold pack method, without sugar. Apples, berries, peaches, pears, pineapple and plums are the fall fruits which are recommended for cold pack canning.

Another way of saving sugar in canning is to use corn syrups. Home economics workers recommend for mildly acid fruits one cupful white corn syrup, one-half cupful sugar, one and one-half cupfuls water; for acid fruits, one-fourth cupful sugar, one-fourth cupful white corn syrup, three-fourths cupful water; for sour fruits, one-half cupful sugar, one cupful white corn syrup, three cupfuls water. For a thin syrup boil one minute; for a medium syrup boil five minutes; for a thick syrup, boil eight to ten minutes.

Five Canning Quirks

Cracked fruit jars and old sealer tops are the right combination for keeping cereals and dried fruits free from insects and dampness. Did you ever try them for storing garden seeds? Don't throw away the old jars.

Vegetables that are too old for the table are much too old for canning. Apply the cold pack method in time if you want to save your garden until next winter.

If you make jam instead of jelly this year you will save sugar, use all the fruit instead of just the juice, and have more sweet stuff to spread on bread next winter. The jam will still be jam with much less sugar than you usually put in it, but jelly demands a certain amount of sugar or it isn't jelly.

The thick ribs of Swiss chards make an excellent imitation of creamed asparagus. Can the leaves of the chard separately for greens.

Bottles thoroughly sterilized are better economy than fruit jars when you are canning fruit juices. If the juice has been well boiled down, bottles will hold enough juice to flavor a large quantity of drink or dessert. Seal the bottles with paraffin.

One of Two Things

"When a man has a rip in his coat and only three buttons on his vest," wrote a western sage, "he should do one of two things—either get married or get divorced."—Everybody's.

Wisconsin Corn Bread

3 cupfuls corn meal mush
¾ cupful water
1 tablespoonful sugar
1 tablespoonful fat
1 teaspoonful salt
1 cake yeast
Flour

Mix yeast in lukewarm water. Add sugar, fat, and salt. Stir in mush and one cupful flour. Allow this mixture to rise over night. In the morning add enough flour to knead, let rise until mixture is double its original size, knead down, form into loaves, and when these have doubled in size, bake. This mixture may also be used for rolls. White corn meal is particularly desirable for this bread. The mush is prepared by cooking one part corn meal in two parts boiling water for several hours in a double boiler.

Scalloped Potatoes and Cheese

Arrange a layer of sliced raw or boiled potatoes in a greased baking dish and sprinkle with grated cheese. Repeat until the dish is nearly full. Pour milk over the whole, about one-half cupful to every three potatoes. Skim milk may be used. Bake in a moderate oven until done. The length of time required depends upon whether the potatoes are raw or boiled and whether the baking dish used is deep or shallow. Boiled potatoes baked in a shallow dish will take only twenty minutes. Raw potatoes in a deep dish may take as much as an hour and a half.

Don't you prefer short sleeves for kitchen wear? Personally we always feel an almost irresistible desire to shove long sleeves back out of the way, and if we do refrain from wrinkling a freshly-ironed dress in this way the sleeves are the first part of the dress to get soiled. Even in winter there is not much danger of getting cold in the average kitchen.

Remember when selecting your wheat flour substitutes that corn meal does not keep well in summer, and for that reason it is wiser to buy it in small amounts. Corn flour, because it contains less moisture, can be kept for a longer time.

Drying fruit concentrates the sugar, the amount of sugar in some fruits is over 50 per cent. Dried fruits make excellent jam, pickles, salads and ice cream, and when eaten as stewed fruit need less sugar than fresh fruit. Select the sweetest fruits for drying.

Watermelon preserves require so much sugar that it is better not to make that particular brand this year.

Young Man, Uncle Sam Wants to Educate You at The Kansas University of Commerce

He will pay your board, room, tuition, and $30.00 a month.

Four Schools—

School of Commerce, Finance and Business Administration
Kansas Wesleyan Business College
Auto, Tractor and Aero School
Morse and Radio School

Greatest Business and Vocational University of the West

Write for full information.

KANSAS UNIVERSITY OF COMMERCE
(A PART OF KANSAS WESLEYAN UNIVERSITY)
Salina, Kansas

Interesting War Items

ONLY persons in the military service who are an integral part of the organization flying a service flag should be represented on this flag. Persons who have no personal connection with the organization should not be represented merely because of some relationship to other persons who are members. This is the rule with regard to representation on the service flag of any organization, whether it be a church, club, lodge, society, community, or business concern, as given by Lieut. Col. Nathan William MacChesney, judge advocate of the Central Department of the National Army, in answer to an inquiry from the Rev. Joseph B. Cherry, pastor of the Presbyterian Church at Hubbell, Nebraska.

Since the stars on the flag indicate to the world how many persons have gone forth from that home, or that family, or that organization, into the country's military or naval service in this war, Mr. MacChesney says it is manifest that the organization ought not to claim credit for a greater contribution than it has actually made to the nation's cause by placing stars on its flag for persons who have no direct connection with it.

Learning to Dodge Shrapnel

"When we came across I supposed a fellow over here was just the same as dead," writes a Kansas boy from France, according to the Hutchinson News. "But we've been here several weeks and a good many of us are still able to eat three—or four—'squares' a day and never make a kick, and most of the boys know enough about shrapnel and machine guns to rat-hole as soon as they hear them begin to hum. You are usually able to count ten from the time you hear the report of the gun until the shrapnel bursts. Our sergeant has gotten so he can be under cover in five counts. However, he holds the record by only a small margin, as several of the other boys stepped on his heels as he went into the dugout. I am not as much experienced along this line yet, but I believe I can pick it up in a very short time."

Eager to Return to Front

A letter from Corporal John E. Clinton of the U. S. Aero Squadron, published in the Beverly Tribune, says:

"We are moved back in an American camp with barracks and real beds after a few months of real active service right up behind the lines, as far as that goes in my part of the air service. This is a real luxury compared to the hard boards and soft dirt we have been sleeping on, and I am willing to stay a while, but I sure want to get back on the job as soon as I can.

"We have both a Y. M. C. A. and a Red Cross canteen and the recreation rooms in this camp sure are swell and the real thing. We also get American tobacco and rations. The best fed soldiers in the world are the Americans.

"I have increased my French vocabulary to seven words now.

"Here's hoping we get back on the old job of dodging bombs and swinging monkey wrenches."

Address Mail Carefully

The chief cause of the nondelivery of mail intended for soldiers in the military camps in the United States, according to the First Assistant Postmaster General, is insufficiency of address. Unless letters and packages are addressed to the company and regiment or other distinctive organization, they may be delayed or may never reach the person for whom they are intended. When writing your soldier, be sure to give his correct and complete address, and your own return address. This is particularly important at this time when so many new men are being taken into the service and the old units are being transferred to different camps.

Lunch Between Shots

A special reserve ration for use in the trenches and under first-line conditions in France has been worked out, after careful study, by the subsistence division of the Quartermaster Corps. This ration is being packed in camouflaged galvanized iron tins, each container holding twenty-five rations and weighing about 107 pounds. It consists of hard bread, corned beef, corned beef hash, roast beef, salmon, sardines, soluble coffee, sugar, salt, and the necessary can openers. The package is hermetically sealed, each container being subjected to water and air pressure before being accepted. This rigid precaution is taken to safeguard the food against poisoning in gas attacks.

The reserve ration, as the name implies, is used only in emergencies, as every effort is made to give the men in the trenches hot, freshly cooked food. When this is not possible, the reserve ration will guarantee palatable food, at least. Special care is taken in the manufacture of this ration to see that only food of the highest quality enters into its composition.

The Hellishness of the Hun

That there is nothing too low for Germany to stoop to in order to gain a military advantage has been repeatedly demonstrated in this war. It is a fact well established both by newspaper correspondents and by official warnings issued to American soldiers that in their recent retreat from the Marne the Germans tried to kill American soldiers, whom they could not face in battle, by poisoning food and water.

"Not only did the Germans leave their infernal machines behind, but poisoned food and water also marked their backward trail," writes Edwin L. James, special correspondent for the New York Times, with the American army.

"The Germans, characteristically, have taken time before retreating to poison the water," says Walter S. Ball, staff correspondent for the Providence Journal.

In the official warning to American soldiers under the heading "Poisoned Food," U. S. army officers caution their men thus: "Abandoned food should be carefully inspected and investigated."

Laundries at Army Camps

The War Department announces that laundries are to be provided in all of the principal camps and cantonments. The average cost of each will be $150,000. The expenditure of $5,754,990 for this purpose has been authorized. The work will be done by the construction division of the army.

Power to operate the laundries will be supplied by special power houses, which will be erected at the same time. The buildings in each of the larger camps will cost $176,000, while $130,688 is provided for each of the smaller camps.

Instructions have been issued to proceed with the work at the following camps: Johnston, Sevier, MacArthur, Las Casas, Devens, Gordon, Dodge, Grant, Pike, Taylor, Greene, Hancock, Shelby, Sheridan, Beauregard, Wadsworth, McClellan, Meigs, Mills, and Forts Wright and Terry.

Read Bulletins at Post Office

In order that reliable information regarding the conduct of the war may be easily obtainable, the Committee on Public Information, appointed by the President for the dissemination of official news, publishes every week day, with the exception of legal holidays, a little paper called The Official U. S. Bulletin. This is sent to every post office in the United States to be posted daily in a conspicuous place in the post office building where the public can read it.

The Bulletin contains interesting items concerning the work of the War Department and the war work of other departments of the Government and is the only publication available to all sections of the country that prints daily the complete and correct casualty lists from our armies overseas exactly as they are issued by the War Department, although many newspapers give the lists having local interest in their own territory. If you do not see the Official U. S. Bulletin at your post office, ask for it.

Every report that comes to us from the camps and remount stations of the United States leads to the belief that never before in the history of warfare has so much care been given to the horses and mules of an army as is being given to those of our army today.—Our Dumb Animals.

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE, REGISTERED SHORTHORNS, reds and roans, both sexes. Twenty miles from Hutchinson fair grounds. W. E. Currie, Sterling, Kansas.

FOR SALE—VERY CHOICE HOLSTEIN and Guernsey calves, either sex, six weeks old, 95 per cent pure-bred, at $25 each, delivered. Lewis Dutcher, Peary View Farm, Janesville, Wis.

FOR SALE — FIFTEEN HIGH GRADE Holstein cows and heifers; registered bull; good stock. No feed or water and will sell at a sacrifice if taken immediately. Ernest Holmes, Garnett, Kansas.

REGISTERED HOLSTEIN BULL, READY for service. Five of his dams average 106 pounds milk in one day and 34 pounds butter in seven days officially. $125. Wisconsin Live Stock Association, Appleton, Wis.

FOR SALE—TEN HIGH GRADE GUERNsey cows, all under six years old, bred to registered bull of Masher's Sequel breeding. Also registered yearling bull and bred registered heifer. R. C. Krueger, Burlington, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

DOGS.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

RABBIT HOUNDS, FOX HOUNDS, COON, opossum, skunk, squirrel dogs. Setters, pointers, ferrets, rabbits. Catalog 10c. Brown's Kennels, York, Pa.

KODAKS.

FREE—WITH FIRST ORDER AND FIVE names of kodak owner, a beautiful 5 x 7 enlargement from any film. Developing, 10c; prints, 3c up. Foto Art Company, Dept. H, Lincoln or Norfolk, Nebraska.

POULTRY.

FOR SALE—ROSE COMB WHITE LEGhorn roosters. Wm. Chisholm, Hildreth, Neb.

A FEW ROSE COMB WHITE LEGHORN cockerels, 50 cents. Mrs. John Hill, Vinland, Kansas.

COLUMBIAN WYANDOTTE COCKERELS and pullets. All kinds of fancy and large squab breeding pigeons. J. J. Pauls, Hillsboro, Kansas.

POULTRY WANTED.

IF DISSATISFIED WITH LOCAL POULtry and egg market, ship direct. We loan coops and cases free. The Copes, Topeka.

SHEEP.

FOR SALE — TWENTY-FIVE HEAD OF pure-bred unregistered Shropshire ram lambs; 150 blackfaced ewes, one and two-year-olds; a few registered yearlings and two year-old Shropshire rams. K. Hague, Route 6, Newton, Kan. Phone 5742 Elbing.

TEN VERY HIGH GRADE SHROPSHIRE rams at $40. These are yearlings that clipped last May 16¾ pounds of wool. References, Lee Bros. & Cook or Harveyville (Kan.) State Bank. H. C. Shaw & Son, breeders of Hampshire hogs and Shropshire sheep, Harveyville, Kansas.

WANTED—TO BUY.

WANTED—SORGHUM SYRUP IN BARrels or cans. Quote f. o. b. your shipping point and state when you can make deliveries. J. Ralston Cargill, Americus, Ga.

FARM LANDS

YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

SEEDS

SEED POTATOES, EARLY WISCONSIN grown. Buy now. Write for prices. Strohschein Bros., Turtle Lake, Wisconsin.

MISCELLANEOUS.

FOR SALE — THREE CARS POTATOES, No. 1 grade, $1.25 per bushel. Wickham Berry Farm, Salem, Nebraska. Food Administration license No. G59382.

WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

FEATHER BEDS.

NEW 36-POUND FEATHER BEDS, $13.95. A pair 6-pound pillows to match, $2.45. New, live, clean, sanitary feathers. Best ticking. Sold on money back guarantee. Write for free catalog. Agents wanted. American Feather & Pillow Co., Desk 400, Nashville, Tennessee.

AUTO TIRES.

TIRES — FORD, $6.50. LARGER SIZES, equally low. "Lowest tube prices." Booklet free. Economy Tire Co., Kansas City, Mo.

THE STRAY LIST.

TAKEN UP—BY H. N. HOLDEMAN OF Meade, Kansas, April 30, 1918, one red white-face yearling heifer, weight about 400 pounds, value $25. W. W. Pressly, County Clerk(Meade County, Kansas.

TAKEN UP—BY G. W. ANDERSON, OF Liberal, Center Township, Stevens County, Kansas, on or about the 8th day of August, 1918, one brown mare mule about five years old, weight about 950 pounds, no marks or brands; appraised at $100. C. F. Bell, County Clerk.

SITUATION WANTED.

WANTED—POSITION AS TESTER FOR cow testing association. Exempt. T. J. Richardson, Kingman, Kansas.

Real Estate For Sale

RANCH FOR SALE

540 acres fee; 500 acres long term Government leases at 50 cents per acre annually; 110 acres cultivated lands; remainder hay meadow. Timber for protection. Incumbrance $7,500 at 5 per cent, five years. Location near Kansas line, eight miles from Nowata, county seat, three miles from Watova Station; Ozark trails adjoin. Price, $40. Leases included.

Gid Graham, Claremore, Okla.

Whitewash Formula

For use in the henhouse, Ross M. Sherwood, poultry specialist of the extension division of the Agricultural College, suggests the following whitewash formula:

First Mixture—1 bushel lime, 12 gallons water.

Second Mixture—2 gallons water, 2 pounds salt, 1 pound sulphate of zinc.

After the second mixture is dissolved it is stirred into the first mixture and two gallons of sweet skimmed milk is added. Apply with a spray pump when possible. If not possible, use brush or broom.

The importance of cereal grains and sugar in the diet of warring nations is reflected by an Austrian food order in effect last April. Every farmer is permitted to buy two kilos (4.4 pounds) of sugar for every four bushels of grain delivered.

Control of Lice

Hens cannot do their best when badly infested with lice. The louse spends all its life on the body of the fowl. For that reason each fowl must be treated individually. One method of treatment is to dust with a good louse powder. A more satisfactory method is to use blue ointment or sodium fluorid. These are poisonous and should be used with care. A good formula for home-made louse powder is:

Three parts gasoline, one part cresol or 95 per cent crude carbolic acid.

Mix together and add as much Portland cement as these liquids will moisten. Allow to dry and apply thoroughly. Repeat in a week to ten days. This powder is too severe for little chicks.

Formula for louse ointment:

One part blue ointment, one part vaseline.

Rub a piece about the size of a pea on the skin close to the vent. Repeat in a week to ten days.

Australian Wheat Price

The state government of Australia has guaranteed 83 cents per bushel for wheat, and the commonwealth government has allowed an additional 12 cents per bushel for the 1918-1919 harvest, making a total of 95 cents per bushel.

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

How About the Chicken House?

IF THE early pullets which have been properly cared for are to lay during the winter, they must have a home where they will be protected from bad weather. The best homes are dry and ventilated, without drafts blowing on the fowls. They should provide a place for the fowls to scratch during the day. There may be times when they can be out, but there are other times when the weather is bad and a scratching floor is necessary if eggs are to be secured.

It is not necessary to supply a costly building in order to get results. Often an expenditure of only a few dollars on an old building will make it as useful as a new house.

The building should be closed on the east, west, and north during the winter months; thus the ventilation comes from the south. Openings should be provided about two and one-half feet above the floor to allow fresh air to enter. These may be covered at night with burlap or muslin curtains. It is found, however, that if these are the only means of ventilation, the house may be too damp. For this reason openings are often left on the south side above the plate and between the rafters. These openings allow the damp air to get out and the fresh air to come in through the curtains. During the summer months it will be advisable to have an opening along the back of the house to make it cooler. The arrangement of the roosts is important because their location has to do with the scratching floor. It is cheapest to allow the fowls to use the entire floor for scratching. In order to do this a platform should be built about two and one-half or three feet above the floor, the roosts placed about six or eight inches above it. It is generally preferable to build this platform or dropping board, as it is called, along the back wall. Here it is more protected from drafts. For heavy fowls it may be necessary to place a runway or ladder up to the roosts so the fowls will not bruise their feet in getting down from the perches.

It is advisable to have the perches on the same level and not to have the back ones much higher than the front ones. There is no best place to put the nests, but if possible they should be dark and as much out of the way as possible.

If a new building is built it may be made of lumber, building tile, or some similar material. The roof may be covered with shingles or prepared roofing. The latter is preferable, because the roof does not need to be so steep. Dirt, tile, or cement may be used for floors. The last two are preferred. When cement is used it is sometimes necessary to put a layer of rock under the cement to make the floor dry.—R. M. Sherwood, Kansas Agricultural College.

Those Poor German Hens

It would go mighty hard on a lot of American farmers if they lived in Germany right now. There are 'steen thousand Iowa farmers who would be in jail because of their hens. These farmers, you know, are the ones who keep the poor layers on the farm and never make any attempt to cull over their laying flock in the fall.

Now, it takes eighty eggs to pay for the feed of a hen. In addition, it takes another fifteen to pay the other expenses. So Biddy must lay at least ninety-six eggs before she begins to make any profit. Then just think! In Bavaria—which is a state in Germany—every poultry keeper must turn forty eggs over to the government each year.

In other words, a Bavarian biddy would have to lay 135 eggs before it begins to make any profit to speak of for its owner. How many Iowa hens would be good enough to be kept on a Bavarian farm? Better take a good look at your flock and find out.—Iowa Agriculturalist.

Culling Flock Pays

Poultry culling demonstrations are being given in Indiana by poultry specialists of the extension division of Purdue University. A most interesting feature of these demonstrations is the reports on results.

Three reports from a single county show the practical value of properly culling the farm flock. Mrs. Allen Lewis gathered 137 eggs from her flock of 107 hens the week before culling. The following week, with only fifty-six left in her flock, she gathered ninety-seven eggs, showing that the fifty-one birds discarded did not even pay their board, as they produced less than one egg a week per bird.

Mrs. G. T. McIntosh, Crawfordsville, received 117 eggs from her sixty-nine hens the week before culling and from the thirty-seven hens kept after culling she got 101 eggs the following week. Mrs. Glen E. Saidla reported even better results. She got 161 eggs the week before culling twelve birds from her flock of eighty-two, and the week after culling the seventy remaining hens laid 166 eggs.

In another county sixty-six hens taken from a flock of 400 were kept forty-eight hours in a separate house, and they did not lay an egg. All were sent to market.

If you do not know the rules to observe in culling out unprofitable stock, call on your county agent. If he does not have the information in his office, he can get it for you.

Poultry Hints

Here are some points to keep in mind if you would have your poultry return a profit:

Clean houses often, once or twice a week. Daily is better. Begin now.

Disinfect with a 2 per cent solution of one of the coal-tar disinfectants to kill germs. Begin now.

Watch the roosts closely for mites. Eliminate all chance of having them by painting roosts, roost supports and adjacent wood work with crude oil or one of the coal-tar disinfectants. Do a thoroughly good job filling all cracks and see that no spot fails to be well covered. Do it now.

Feed the growing pullets well and keep them coming. It pays. The sooner we can get them developed and laying, the sooner an income from them is realized. The earlier they start to lay the more high-priced eggs they will lay and they will also lay many more during the year.

Plan to keep all thrifty pullets and vigorous, healthy year-old hens for egg production this winter and next year. Sell all hens two years old or over, as they stop laying and start moulting. Do not sell before moulting starts.

Early Molters Are Slackers

A hen which selects a new coat of plumage before October 1 is unpatriotic and a slacker. She should be condemned and executed. The early molter is a loafer, while the later molter is a heavy layer. Hens rarely molt and lay at the same time and an early molter has gone on a strike before she should. The poultryman will do well to rid his flock of this kind, says H. L. Kempster, of the Missouri College of Agriculture. Many people have the idea that an early molter will be a layer next winter. Studies at the Missouri Experiment Station indicate this is the exception rather than the rule. A late molting hen will lay just as many winter eggs, if not more than the early molter; so the poultryman will make no mistake in selling the early-molting hen.

Give your neighbor a lift—this war is a single front under a single command—what is anybody's trouble is everybody's trouble.

Why Hens Won't Lay

P. J. Kelly, the Minnesota Poultry Expert, 90 Kelly Bldg., Minneapolis, Minn., has published a book, "The Tale of a Lazy Hen." It tells why the hens won't lay and how to make them lay every day. Mr. Kelly will mail the book free to anyone who will write him.

Selecting Calves For Showing

IN THE "Boys' Baby Beef Book," a pamphlet published by the American Aberdeen-Angus Breeders' Association of Chicago, Ed P. Hall, who fed the 1917 grand champion carlot at the International which sold at the record price of $42.50 a hundredweight, tells how he selects his calves. The rules for selecting a bunch of show calves are equally applicable in picking feeders, particularly feeders for baby beef production. Here is what Mr. Hall says of his methods of picking calves for showing:

"I want them well bred, and to get that kind I go where well bred ones are raised. About half of the seven loads I entered at the 1917 International Show were pure-breds, though a few of them were from herds that had not kept up the pedigrees. I buy them right from the cow's side.

"I want to see the sire and dam if possible, as well as the calf, or if not the sire and dam, as many near relatives as possible. Shape, type, and finish all appeal to me in picking out the calves then. I want a calf full of quality and style. I want the head up like a bird, a bright countenance. I want a leg under each corner of the calf, with nice quality in the bone; coarse bone means coarse meat on that bone when the animal is finished.

"The top and bottom lines of a grand champion steer prospect should be parallel with a deep body between these lines. The rib must be well sprung and broken off neat and square at the tailhead. I look for a short neck, well-set shoulders, with good style and cut up neat around the throatlatch, so that the finished steer cuts meat to the jawbone.

"A short head, wide between the eyes and carrying a heavy jaw, is a characteristic of a good feeder that I never overlook. Neat, small ears, well set up to give a keen, bright appearance, go with an eye like a bird. I look for an oily coat of hair on a loose hide with plenty of stretch. A low flank, with a straight hind leg below, brushed by a short tail, about completes the picture of my grand champion prospect.

"Although enjoying a reputation for early maturity, they can be carried along and ripened at any age. They will stand a longer feed than any other cattle without getting lumpy. This is a decided advantage where market conditions do not happen to be favorable.

"Given the breeding and the mating up so that all look like peas, all that is necessary to make the grand champions is to get them home and feed and fit them for the big days when the judges hand the ribbons."

Boys interested in baby beef, particularly if interested in Angus cattle, should write to Charles Gray, secretary of the American Aberdeen-Angus Breeders' Association, 817 Exchange Avenue, Chicago, for a copy of the little pamphlet from which the above is taken.

Fertilizer Increases Returns

Experiments with various fertilizers on Northeast Missouri prairie land have just been completed by the Missouri Experiment Station. The results emphasize the importance of fertilizing wheat on this land. Of the various fertilizers used none failed to give a net return. Furthermore, the increase in the price of wheat during the war has greatly increased the net return to be obtained, in spite of the fact that fertilizers have also advanced in price. When the present prices of wheat and fertilizer are considered, an average net return from 150-pound application of fertilizer will be from $6 to $10.

The kinds of fertilizer to use, according to M. F. Miller, of the soils department of the Missouri station, are acid phosphate, bone meal or one of the highly phosphatic mixed fertilizers which contains only a small percentage of potash. The present high price of potash makes its use as a fertilizer in any quantity impracticable. Acid phosphate applied at the rate of 150 pounds with wheat is almost certain to bring excellent net returns. The same may be said of 125 to 150 pounds of steamed bone meal or of a mixed fertilizer which contains from one to two per cent ammonia, ten to twelve per cent available phosphoric acid and not more than two per cent potash. Where these cannot be obtained, a fertilizer containing somewhat less phosphoric acid, that is one as low as eight per cent in this material, about two per cent of ammonia and one to two per cent of potash will give fairly good returns. When fertilizer is scarce, applications may be limited to 100 pounds per acre and fairly good results obtained.

War Profits and Excess Profits

We have been asked the difference between a war-profits tax and an excess-profits tax.

By a war-profits tax we mean a tax upon profits in excess of those realized before the war.

By an excess-profits tax we mean a tax upon profits in excess of a given return upon capital.

The theory of a war-profits tax is to tax profits due to the war.

The theory of an excess-profits tax is to tax profits over and above a given return on capital. The excess-profits tax falls less heavily on big business than on small business, because big business is generally overcapitalized and small businesses are often undercapitalized.

The war-profits tax would tax all war profits at one high rate; the excess-profits tax does and for safety must tax all excess profits at lower and graduated rates.

The above facts are taken from Secretary of the Treasury McAdoo's testimony before the House Ways and Means Committee and give his differentiation between war-profits and excess-profits taxes and explains his position in urging upon Congress an excess-profits tax with an alternative war-profits tax in the forthcoming revenue legislation.

To the average citizen Secretary McAdoo's position seems well taken. Most small and local corporations are capitalized at an actual valuation. Many of the very large corporations are greatly overcapitalized; the stock of some of them has been repeatedly watered. With only an excess-profits tax a corporation earning 10 per cent on grossly watered capital will pay the same tax as another corporation not overcapitalized earning 10 per cent on the real, actual valuation of the money and property invested in its business. The profits of the first corporation might be 30 per cent on its actual valuation, and it is to cover such cases that a war-profits tax is urged.

As many of these large corporations are engaged in Government work and drawing huge sums from the United States, it seems particularly just that they should pay taxes on the same actual basis as corporations not overcapitalized. A tax that taxes equally a 10 per cent profit on watered capitalization and a 10 per cent profit on unwatered capital is not equal and uniform and scarcely just.

Fourth Liberty Loan

The campaign for the Fourth Liberty Loan begins September 28 and closes October 19. While the amount has not yet been announced, it is generally conceded it will be for a larger amount than any of the preceding loans. The American people, therefore, are called upon to raise a larger sum of money in a shorter length of time than ever before. There is need, therefore, for prompt action — prompt and efficient work and prompt and liberal subscriptions.

We have a great inspiration for a great effort. The news from the battle front inspires every American heart, not only with pride and patriotism but with a great incentive to do his or her part. There is no shirking, no shifting of the individual burden, no selfishness by American soldiers in France; there should be none here. We are both supporting the same country and the same cause—our army in one way, ourselves in another. Theirs is the harder part, but at least we can do our part as promptly and loyally and efficiently as they do theirs.

When you subscribe to a Liberty Loan you subscribe to the sentiment that the world must be made safe for democracy and subscribe to the fund that is to make the world safe for democracy.

You subscribe to the belief that innocent women and children on unarmed ships shall not be sent to the bottom of the sea; that women and children and old men shall not be ravished and tortured and murdered under the plea of military necessity; that nurses shall not be shot for deeds of mercy, nor hospital ships be sunk without warning, or hospitals and unfortified cities be bombed

Dispersion Sale of Eshelman's Holsteins

To be held at the Grand View Farm, located at the northeast corner of Abilene, Kansas, September 20, 1918.

Sale starts at 1:30.

I expect to continue to breed and develop pure-bred and high-grade Holstein Cattle, but because of the labor conditions at present and because I have more cattle than my barns will accommodate this winter, I have decided to sell

FIFTY HEAD COWS, HEIFERS AND BULLS

Wishing to furnish just what the people want and to satisfy every prospective buyer at the sale, I am offering in this number some of nearly all ages up to developed cows and bulls, including some of the best cows I have ever owned. The reason I am offering them is because I believe there are people that appreciate a chance to buy that kind.

Twenty Cows, Some Recently Fresh, Others Will Freshen Soon

Some of them have produced nearly $40 worth of product per month. Butter fat test will be furnished with every cow or heifer in milk.

Five Springing Heifers, large and well marked.
Seven Large Heifers, some bred, others open.
Twelve Spring Heifer Calves, growthy and well marked

Just right for the beginner.

One Pure-Bred Heifer six months old
Three Pure-Bred Bulls, six months old
One A. R. O. Bull, seven months old

With a twenty-five pound record by his two nearest dams.

One Senior Herd Bull, Unahanna Pontiac Korndyke Double

Will be offered. He is a grandson of the great bull of the breed, Pontiac Korndyke. This bull is a good individual and has a nice disposition. He is a five-year-old.

I will also offer my young 30-pound bull, Butter King De Kol Colantha Fifth. He is the best bull I could find in the dairy states of the East, that had both individuality and breeding combined. Several of the cows and heifers in this offering are bred to him.

Tabulated pedigrees of the pure-breds will be at hand sale day. Herd tested and free from tuberculosis. Write for catalog of the sale.

At the close of the cattle sale, some pure-bred Duroc Jersey pigs will be offered.

A. L. ESHELMAN - - - - ABILENE, KANSAS

Auctioneers—Col. James T. McCullough, E. L. Hoffman, J. G. Engle

HEREFORDS and Percherons



Fifteen Registered Hereford Cows

With early spring calves at foot and bred again. Ten two-year-old Heifers in good flesh, all bred to Paul Perfection bull.

Three Registered Percheron Mares with Colts

(One imported); two 2-year-old Percheron stallions; one registered saddle stallion, and one registered saddle mare.

Twenty-five Head Registered Poland China Hogs

Including four brood sows by Caldwell's Big Bob and one by Superba. Ten spring boars and ten spring gilts.

Everything guaranteed in good condition and will price reasonable. Come and see us. Farm seven miles from Madison, five miles from Hamilton.

J. S. WILSON & SON - - - HAMILTON, KANSAS

REGIER'S Holstein Friesians

On account of short help we have to sell fifteen head of our cows and heifers, all registered, bred to Sir Rag Apple Korndyke De Kol. His sire is a three-quarters brother to Rag Apple 8th, the $25,000 bull. Will freshen by September 15 and until spring. Prices from $200 up to $600. Young bulls ready for service. Bull calves four months old and older, $80 and up.

G. REGIER & SONS - - - WHITEWATER, KANSAS

Holstein Breeders' Complete Dispersion Sale, October 3, 1918

Of entire herd. Seventy-four head, all registered, all A. R. O. but one heifer. All born on the farm but herd sire and one foundation cow. In the sale sixty head, either daughters of Maplecrest Sir De Kol No. 138077, our 31-pound herd sire, or they are bred to him. Also twelve head with records of 23 pounds to 29.48 pounds butter in seven days. Only three of them full aged. Also thirty of their daughters, also four 2-year-olds with butter records of 20 to 22.46 pounds with first calf. Milk weighed the year round since establishment of herd in 1903. A high class sale. Send for catalog.

PRAIRIEDALE FARM :: GALT & SPENCER :: DIXON, ILLINOIS

(Railroad station either Sterling or Dixon. Prairiedale Farm is situated midway between the two, which have electric connections.)

READ KANSAS FARMER'S CLASSIFIED ADVERTISING PAGE FOR READY BARGAINS

TURNER & SON SHROPSHIRES

Fifty good big registered rams, $50 each, crated and express paid here. Also about 100 head of Lincoln and grade Shropshire ewes, ranging in age from one to six years, $22.50 per head. Sheep three miles north of town. Send check or draft with order. Pedigrees furnished for pure-breds. Always return crate. Reference, Harveyville State Bank.
J. R. TURNER & SON - - - - - - - HARVEYVILLE, KANSAS

POLAND CHINAS.

POLAND CHINAS



Faulkner's Famous Spotted Polands

THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.

ELKMORE FARM

Will exhibit a show herd of Poland China hogs at Topeka and Hutchinson fairs this fall. Call and see my herd. Annual fall sale October 17, 1918, at farm, the home of Caldwell's Big Bob.

FRED B. CALDWELL - - - HOWARD, KANSAS

POLAND CHINA BOAR PIGS

For Sale—Twenty choice boar pigs, sired by Model Wonder, he by Big Bob Wonder; The Giant by Hercules by Big Ben; King Ben by Giant Ben; Captain Gerstdale Jones, Big Bob Jumbo, and A Big Wonder. Several herd boar prospects.

Ross & Vincent, Sterling, Kan.

Erhart's Big Polands

A few fall boars ready for hard service. Can spare two tried herd boars. Have the greatest showing of spring boars we have ever raised. Some by the 1,250-pound A Big Wonder. Will make prices on pairs and trios. Write me your wants. All immune.
A. J. ERHART & SONS, NESS CITY, KAN.

Morton's Poland Chinas

For Sale—Twenty-five choice boar pigs, sired by Morton's Giant by Discher's Giant and Girstdale Jumbo by Girstdale Jones, out of my best herd sows. Priced reasonable. Write or come and see my herd.
GEORGE MORTON
Oxford : Sumner County : Kansas

Oxford Herd Poland Chinas

Herd boar, Giant Lunker by Discher's Giant out of Lady Lunker. I have 57 early spring pigs. A few choice boars. Priced to sell. Come and see me; I can please you.

Howard R. Wenrich
Oxford - - - - - Kansas

"The Fellow That Plays Second Violin Never Leads the Band"

Buy your POLAND CHINAS of the LEADER in the WORLD'S GREATEST prizes for the OLDEST FIRM doing business. One hundred pigs, both sexes, for sale.

B. F. Dorsey & Son
Girard, Kansas Jacksonville, Illinois

HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that weigh and win. S. C. Brown Leghorn Chickens that lay. See or write
S. Y. BURKS, BOLIVAR, MO.

Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.
J. EDW. PLILEY - GILMAN CITY, MO.

TOWNVIEW HERD POLAND CHINAS
For Sale—Choice lot spring boars. All gilts reserved for February bred sow sale. Herd boars, King Wonder's Giant, Walter's Expansive Sid, Big Timm Joe.
CHAS. E. GREEN - PEABODY, KANSAS

LANGFORD'S SPOTTED POLANDS
Last call for spring boars, $40 to $50.
T. T. LANGFORD & SONS, Jamesport, Mo.

Breeders' Directory

RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
Hereford Cattle.
F. S. Jackson, Topeka, Kan.

HAMPSHIRE SHEEP.

HAMPSHIRE SHEEP

A few extra good ram lambs for sale.
L. M. SHIVES, R. F. D. 1, IUKA, KANSAS

HORSES AND MULES.

PERCHERON-BELGIAN-SHIRES
Registered mares with colts at side and bred again; registered fillies, stallions one to five years old; grown ourselves the ancestors for five generations on dam side. Sires imported.
Fred Chandler, R. 7, Chariton, Iowa
(Above Kansas City)



DUROC JERSEYS.

Wreath's Durocs Always Please

All spring boars and gilts must be sold to make room for fall litters. Critic Chief No. 241231 at head of herd. No fall sale.

L. G. Wreath, Manhattan, Kan.
Route 8

IMMUNE DUROC BOARS

Duroc Boars, immune and guaranteed breeders, shipped to you before you pay for them. The big Southeast Nebraska herd bred for size, bone and length. "Eventually" you will breed the "Crocker Type." "Why not now?"

F. C. Crocker, Filley, Nebraska
Box K

C. H. BLACK'S DUROCS

Herd headed by Giant Crimson by G. M.'s Crimson assisted by Red Cross Pathfinder. My herd sows are the big growthy kind and have all raised good litters. I have for sale bred gilts and spring pigs in pairs and trios, priced reasonably. Come and see my herd.

C. H. Black, Marion, Kansas

Duroc Bred Gilts

FOR SALE—Ten fall yearling Duroc gilts bred to September 15 litters. Graduate and B. & C.'s Col. breeding, priced to sell.

H. D. Plummer, Longton, Kan.

CONYERS HERD DUROCS
Herd boar, King Conyers by King the Col. Sows in herd by Golden Model, Graduate Chief, Cherry Chief and other good breeding. For sale, one extra good spring boar sired by Pathfinder and one by Great Wonder. Fifteen spring gilts by Royal Critic. Come and see me.
B. W. CONYERS - MARION, KANSAS

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. W. J. Harrison, Axtell, Kan.

WOODDELL'S DUROCS
Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.
G. B. WOODDELL, WINFIELD, KANSAS

FOR SALE—Duroc Jersey Hogs, March and April farrow; cholera immune; either sex. P. J. MURTA, CUBA, MISSOURI.

ANGUS CATTLE

Edgewood Farm Angus

I have for sale

40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.

D. J. WHITE, Clements, Kan.

RED POLLED CATTLE.

RED POLLED CATTLE
For Sale—Four-year-old herd bull. Some extra good cows to calve in winter and early spring. A few yearling heifers.
I. W. POULTON - MEDORA, KANSAS

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.
CHAS. L. JARBOE - QUINTER, KANSAS

Give our boys in the army and navy every fighting chance. Pledge yourself to save to the utmost of your ability and to buy war savings stamps.

or cannonaded with long-range guns.

You subscribe to the doctrine that small nations have the same rights as great and powerful ones; that might is not right, and that Germany shall not force upon the world the dominion of her military masters.

You subscribe, when you subscribe to a Liberty Loan, to the belief that America entered this war for a just and noble cause; that our soldiers in France and our sailors on the sea are fighting for right and justice.

And you subscribe to the American sentiment that they must and shall be powerful, efficient, and victorious.

Packing Vegetables in Salt

Cucumbers, string beans, peas, and corn, may be preserved for winter use by packing with enough salt to prevent fermentation or the growth of yeasts or molds. Owing to the ease of canning, this method of preserving, which was used by our forefathers and which is still used in Europe to a considerable extent, is now little used in this country except for cucumber pickles and in some regions "salted beans." The following directions are taken from a bulletin on "Preservation of Food" issued by the extension service of the Ohio State University:

Wash the vegetables, drain off the water, and then weigh them. For each hundred pounds of vegetables, weigh out twenty-five pounds of salt. For smaller quantities use the same proportion of salt—one-fourth the weight of the vegetables. Spread a layer of the vegetables about one inch deep on the bottom of a clean container and sprinkle heavily with some of the salt. Continue until the container is nearly full, then cover with cheesecloth and a board or plate, placing a weight on the cover to keep the vegetables below the brine. If the salt and the pressure of the weight have not extracted sufficient brine to cover the vegetables after twenty-four hours, prepare a strong brine by dissolving one pound of salt to two quarts of water and pour enough of this over the vegetables to come up to the cover. When the material is well covered with brine, the surface of the liquid may be skimmed, to remove any skum that has formed, and covered over with hot paraffin.

To prepare for the table, soak cucumbers to remove salt and add spiced vinegar. Remove salt from string beans, peas and corn by soaking, and prepare in any of the ways in which the fresh product is prepared.

Increasing Wheat Acreage

The results of growing wheat in many sections of Eastern Kansas were so satisfactory the past year that there will undoubtedly be even larger acreages planted this fall. The great need for more wheat will also lead Eastern Kansas farmers to increase acreages. "We seem to be drifting to wheat raising," N. L. Palmer, of Linn County, is quoted as saying in the Daily Drovers' Telegram. Wheat has not until recent years been given much attention in this section of the state, but the crop this year shows its adaptation to wheat production. In Mr. Palmer's neighborhood the yields were heavy and the quality good. His own yield was thirty-four bushels to the acre and it sold for $2.08 a bushel.

Saving Cane Seed from Silage Crop

R. F., Morris County, writes that he and his brother are raising Orange cane for their silos and wish to save the seed. He says:

"At the price at which cane seed has sold for several years—three to five dollars a bushel—we feel that if this cane matures seed before frost we can scarcely afford to put the seed into the silo. Would it be possible to save the seed if the cane were topped at the time of filling the silo? Our idea was to either use a wagon box topper in front of the binder, or bind and top with a knife, piling the heads in small piles or windrows to dry out. Our fear was that there might be enough moisture in the seed to cause it to mold."

We believe this plan is feasible. It means extra work at filling time, but at the prevailing prices for cane seed it will pay.

Even in sections where a great deal of cane seed is produced and marketed, very little is grown exclusively for seed. A great deal of the commercial cane seed comes from cane grown for syrup. Even when grown primarily for seed the stalk is saved for fodder. If headed when the crop is being harvested for silage as when used for syrup, great care is necessary to prevent heating in the piles. Of course cane to make good silage must be allowed to get well matured. The seed will be plenty ripe enough to save for seed purposes, but must be piled in small piles and then if the weather happens to be damp, watched to see that it is given every chance possible to cure out. Cane seed is stronger in vitality than kafir seed.

We would be glad to hear from any of our readers who have had experience in saving cane seed from a crop used for silage.

Sorghum Feed Crops

From Osage County come reports that in sections where corn is practically a failure the sorghum forage crops are coming on in fine shape and will make considerable feed. A good supply of kafir and cane forage will look good to the man who would otherwise have to buy a lot of feed or else sell his stock. We might well learn a lesson from such seasons as the present and plan to always plant plenty of these crops which have demonstrated their ability to produce feed, even in the abnormally dry seasons. The first step in planning for such crorps next year is to look out for the seed supply. The only satisfactory means of saving seed of the grain and forage sorghums is to select it early in the fall, as soon as the seed is mature, and store it in the head in such a manner that mice and insects cannot get at it.

Points in Wheat Growing

The following brief paragraphs summarize some of the facts given in the recent Kansas Experiment Station bulletin, "Growing Wheat in Kansas":

Plowed ground should be worked enough to keep down the weeds and get it in condition for seeding. More work than is needed to accomplish these results is not necessary. However, ground is not usually worked enough to secure the best yields. In Western Kansas too much working may actually be detrimental because of working the soil too fine and causing it to blow.

The best time to seed wheat depends on the prevalence of Hessian fly, the location in the state, the preparation of the ground, and local and seasonal conditions. No general rule can be given that will apply to all cases.

Where injury from heaving occurs, as is sometimes the case in Eastern Kansas, rolling or harrowing in the spring is beneficial. Usually it is of little value and may cause injury by increasing the danger of blowing of the soil. Rolling is usually better than harrowing.

Barnyard manure is the most satisfactory fertilizer for wheat. In experiments at Manhattan a top dressing of manure applied to wheat grown continuously on the same land has increased the average yield more than seven bushels per acre. An application of five tons per acre once in three years has increased the average about three bushels per acre.

Commercial fertilizers never pay in Central and Western Kansas. On shale, sandstone, and thin glacial soils in Southeastern Kansas, applications of phosphorus in the form of steamed bone meal, acid phosphate, or raw bone meal usually pay well. Steamed bone meal and acid phosphate are usually the cheapest source of supply. For the most profitable results apply steamed bone meal at the rate of 100 to 125 pounds per acre or acid phosphate at the rate of 125 to 175 pounds per acre.

Sugar from Kansas Sorghum

It may not be generally well known that by exercising some care, good light brown sugar can be made on the farms from the sweet sorghums. There is a long list of varieties which contain much sugar but there are comparatively few which contain a high percentage of sucrose chrystaline or granulating sugar. Chief among these are Folger's Early, Coleman, Coliers and Red X. These varieties were tested by Government experts who were located at Garden City and carried on work with sugar plants for several years. They showed varying amounts of this sugar in their juice ranging from nine or ten per cent up to as high as sixteen or seventeen per cent, along with from one to three per cent of glucose, sugar, starch and gums. Many tests proved that the highest per centage of sucrose was contained within about three of the middle joints of the stalk,

JERSEY CATTLE.

REDHURST JERSEYS

FOR SALE—Noble's Jolly Actor No. 155761. Solid color, born October 14, 1916. Sire (the imported son of Golden Jolly), Golden Jolly's Masterpiece No. 86295, with six tested daughters out of Noble's Eminent Jess, a R. of M. cow whose dam is also in the R. of M. and whose sire, Noble's Oxford Sultan No. 106403, with six tested daughters, seven of Noble of Oakland's with 65 tested daughters and whose dam is in the R. of M. and since by Sultan's Oxford Lad, his great dam also in R. of M.

ALSO—Jolley's Chief No. 14948. Solid color, born September 3, 1917, the above imported son of Golden Jolly. Dam, Eminent's Lad Jess No. 255151, dam of one in R. of M. She by Em. Brown Lad with two or three tested cows, a grandson of Eminent with 80 tested daughters and whose dam is a tested cow.

REDMON & SON, TIPTON, MISSOURI

100 Good Jerseys for Sale

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.

J. W. BERRY & SON, Jewell City, Kan.

REGISTERED JERSEYS

Must sell quick ten high class young bulls and some wonderful heifers and young cows at sacrifice price, on account of scarcity of feed. Act at once if you want a bargain.

H. C. YOUNG, 133 So. 33rd St., Lincoln, Neb.

while the upper and lower joints were lower in suerose eontent and higher in glucose, stareh, gums, with nitrogenious matter and other impurities, varying in proportion to the position of the joints, always showing a higher degree of purity near the middle of the stalk.

It was found that this sugar eommences to invert (turn to glueose, a nonchrystaline sugar) almost immediately after the stalks are cut. In order to preserve the eharaeter of the sugar it is necessary to grind and eook immediately after the stalks are eut. If the heads are removed from the plants just after they bloom, the stalks will store much more sugar in this juice whieh otherwise is supposed to go to make up the starchy eontent of the seeds.

If the sugar is to be produced at home it is best to eut the stalks above the second joint and below the upper joint. The sheathing and leaves which contain much of impurity should be removed a day or two before the corn is eut. This allows the sun to dry up the foul moisture beneath the sheathing and to kill or drive away the plant liee which inhabit the sheathing. A filter should be made by putting some sand or hail screen on the bottom of a frame made of 1x6 or 2x6 boards. A piece of muslin should be spread over this wire. Some clean sand should be proeured and thoroughly washed to rid it of muddy particles and then spread two or three inches deep over the muslin, then another sheet of muslin should be spread over the sand to prevent the juiee from washing the sand away in plaees as it is poured into the filter. The sheets should be thoroughly washed and scalded daily. The sand should be thoroughly washed in weak lye or limewater and then well rinsed through two or three waters, otherwise ferments will develop in the filter whieh will injure the quality of the juice. The filtered juiee will be very clear if allowed to settle for just a few minutes. The juice should then be boiled and skimmed in the usual manner as in syrup making, great care being taken not to allow it to scorch. It should be redueed about 75 per cent in volume and then finished to a very heavy syrup in a pan whieh is not in direct contact to the fire, but where the smoke and heat of the fire can pass under it. Syrup made very heavy in this manner, espeeially if made from the best varieties of cane, will chrystalize or form a considerable amount of sugar in a few weeks. This sugar should be placed on racks eovered with screen wire and allowed to drip. The eooking pans are good to eateh the syrup which drips from the sugar. If a finer quality of sugar is desired, re-melt the well drained sugar by adding suffieient water to dissolve all of it and cook it again to a very heavy syrup, by a slow heat, not allowing the fire to eome in eontact with the pan, then allow it to ehrystalize and drain as before. If the syrup is thoroughly stirred onee or twice a day for about five minutes while the sugar is forming, the sugar will not form in large, hard lumps. The drippings are excellent for gingerbread, eookies and johnny-cake.

It is quite possible that the world is facing a period of two or three years of sugar shortage, so it would be well for farmers interested in the subject to look aronnd this fall and seeure their seed from the best heads of the best varieties of saccharine sorghums in their vicinity. These heads should be selected from the tall plants with thick stalks which are true to the type of the variety desired. Folger's Early has shown the highest tests ever made so far as we have been able to learn from the U. S. Department of Agrieulture. The juiee of this variety was eorrespondingly free from impurity. The other varieties mentioned were elose eompetitors.

H. WILLIS SMITH, Finney County.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

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CLAIM SALE DATES.

Holsteins.

Oct. 3—Holstein Breeders' Dispersion Sale, Dixon, Ill. F. W. Spencer, Sales Manager.
Oct. 3—Galt & Spencer, Dixon, Illinois. Dispersion sale.
Nov. 1—Kansas Holstein Breeders' Sale, Independence, Kansas.

Jersey Cattle.

Oct. 9—B. R. Thompson, Garrison, Kan.

Herefords.

Sept. 30—William Galloway, Waterloo, Ia.

Shorthorn Cattle.

Nov. 8—Shorthorn Breeders' Sale, Peabody, Kan. O. A. Homan, Peabody, Kan., sales manager.

Red Polled Cattle.

Oct. 8—W. T. McBride, Parker, Kan.

Ayrshire Cattle.

Sept. 13—Consignment sale at Topeka Free Fair Grounds. D. M. Henderson, Hudson, Ohio, sales manager.

Spotted Poland Chinas.

Oct. 5—W. J. Honeymoon, Madison, Kan.
Oct. 19—C. A. Gooch, Orrick, Missouri.

Poland Chinas.

Oct. 15—H. B. Walter & Son, Effingham, Kansas.
Oct. 16—Dr. J. H. Lomax, Leona, Kansas.
Oct. 17—Fred B. Caldwell, Howard, Kan.
Oct. 31—F. J. Dowe, Hiawatha, Kan.
Oct. 23—T. J. Miesner, Sabetha, Kan.
Oct. 29—Hill & King, Topeka, Kansas.
Oct. 31—Adams & Mason, Gypsum, Kansas.
Nov. 1—E. B. Myers, Hutchinson, Kansas.
Nov. 2—H. E. Myers, Gardner, Kan.
Nov. 5—Moore Bros., Gardner, Kan.
Nov. 6—Earl Bowers, McLouth, Kan.
Nov. 6—M. C. Pollard, Carbondale, Kan.
Nov. 7—Schmitz Bros., Seneca, Kan.
Nov. 8—Ketter Bros., Seneca, Kan.

Duroc Jerseys.

Oct. 8—W. T. McBride, Parker, Kan.
Oct. 14 — John W. Petford, Saffordsville, Kansas. Sale at Emporia.
Oct. 17—L. G. Wreath, Manhattan, Kan.
Oct. 19—W. W. Zink, Turon, Kansas.
Oct. 21 — Kansas Breeders' Sale, W. W. Jones, secretary, Clay Center, Kan.
Oct. 23—Laptad Stock Farm, Lawrence, Kan.
Oct. 28—Geo. M. Klusmire, Holton, Kan.
Jan. 28—W. R. Huston, Americus, Kan. Duroc dispersion and general farm sale.

Spotted Poland Chinas. Spotted Polands.

Oct. 3—Alfred Carlson, Cleburne, Kan.
Oct. 14—D. W. DeVoe, Onaga, Kan.
Dec. 17—Geo. Akens-Failer & Miller, Rossville, Kan.

Chester Whites.

Oct. 23—J. H. McAnaw, Cameron, Missouri.
Feb. 11—Arthur Mosse, Leavenworth, Kan.

G. Regier & Sons, of Whitewater, Kansas, owners of one of the heavy producing herds of Holsteins in Kansas, report their herd making a good record. A feature of their herd at this time is the choice lot of record bred cows and heifers. They are all bred to the great bull, Sir Rag Apple Korndyke De Kol. The sire of this bull is a three-quarters brother to Rag Apple 8th, the $25,000 Holstein bull.

Owing to the heavy downpour of rain the entire night and early morning of August 30, sale day claimed by William Andrews & Sons, breeders of Bonnie Brae Herefords, and also owing to the fact that Col. Reppert and V. E. Miller were detained by train wreck in Missouri and not able to arrive until the day following, the Bonnie Brae dispersion was called off. This firm is now trying to secure a mid-winter date to dispose of their Herefords and announcement will be made after date is secured.

F. W. Spencer, of Prairiedale Farm, Dixon, Illinois, announces a dispersion sale of Holsteins to be held October 3. The entire Prairiedale Farm herd of seventy-four head of Holsteins will be sold in this sale. All are registered and all A. R. O. This entire offering except one heifer, one foundation cow and the herd sire, was born on Prairiedale Farm. The offering will include sixty head that are either daughters of Maple Crest Sir De Kol 138077, their 31-pound herd sire, or are bred to him. It will also include twelve head with seven-day butter records ranging from 23 pounds to 29.48 pounds, also two-year-olds with 20 to 22.46-pound records.

S. E. Stoughton & Son, of Hutchinson, Kansas, held a sale of Holstein cattle at the farm on Wednesday, September 4, which was very satisfactory. Thirty-three head of cows and heifers were dispersed for the total of $5,635, an average of $171 per head. This included several yearlings and a few cows were eight and ten years old. Three bulls including one herd bull sold for an average of $245.80.

HOLSTEIN CATTLE.

Great Southwest Holstein Sale

Be sure to attend the sale of 75 head of pure-bred Holstein Cattle to be held by the **Phelps Stock Farm of Aurora, Missouri, at**

Joplin, Missouri, Wednesday, September 18

There are many strong attractions in bred heifers and young cows. Most of the heifers are from 1 to 3 years old, straight and true. It is a great opportunity for you.

HOLSTEIN CATTLE

150 Head of Choice Two-Year-Old Grade Heifers bred to King Segis bulls, to freshen in September and October.

Fifty Cows in Milk, good ages.

Fifteen Registered Bulls, some are from King Segis Pontiac breeding and good enough to head herds.

Twenty-five Registered Cows and Heifers, several A. R. O. breeding.

Will price a few grade heifer calves at $30, express paid. Your money back if not satisfied. Can ship by Missouri Pacific, Santa Fe, or Rock Island. Come and see me.

M. A. ANDERSON, HOPE, KANSAS; DICKINSON COUNTY



SAND SPRINGS FARM

Registered Holsteins—The Long Distance Kind

Watch for our consignment to the State Breeders' Sale, November 1.

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MAURER'S HOLSTEIN FARM

Offers special attractions in pure-bred females of all ages with high class breeding, and a number of choicely bred yearling bulls; also grade cows and heifers with size and quality. Don't fail to see this herd before you buy, as they are all bred RIGHT and priced RIGHT.

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$15 Holstein or Guernsey CALVES

From Waukesha County heavy producing stock. Write us today, we guarantee to satisfy you.

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Holstein Calves

Choice, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write

W. C. Kenyon & Sons

Holstein Stock Farms Elgin, Illinois

GRADE HOLSTEIN HERD

Consisting of cows, two-year-olds and calves. Very choice herd. Also some very nice registered bull calves.

R. E. STUEWE - - ALMA, KANSAS

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For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

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GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

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Route 2 Topeka, Kansas

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Knox Knoll Mulefoots

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GALLOWAY CATTLE

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Registered Galloway Bulls

Ten Two-Year-Olds. Ten Long Yearlings.

These are in extra good condition. Ready for immediate service. Come and see them.

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Pure-Bred Chester Whites.—One yearling boar and spring boars at reasonable prices.

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For Sale—Several choice young brood sows.

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Good individuals of serviceable age, of May Royal, May Rose, Masher Sequel, Raymond of the Preel breeding. Write or come and see them.

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Forty Head—Twenty ewes and twenty ram lambs. Ram lambs sired by our show ram, a son of Senator Bibby.

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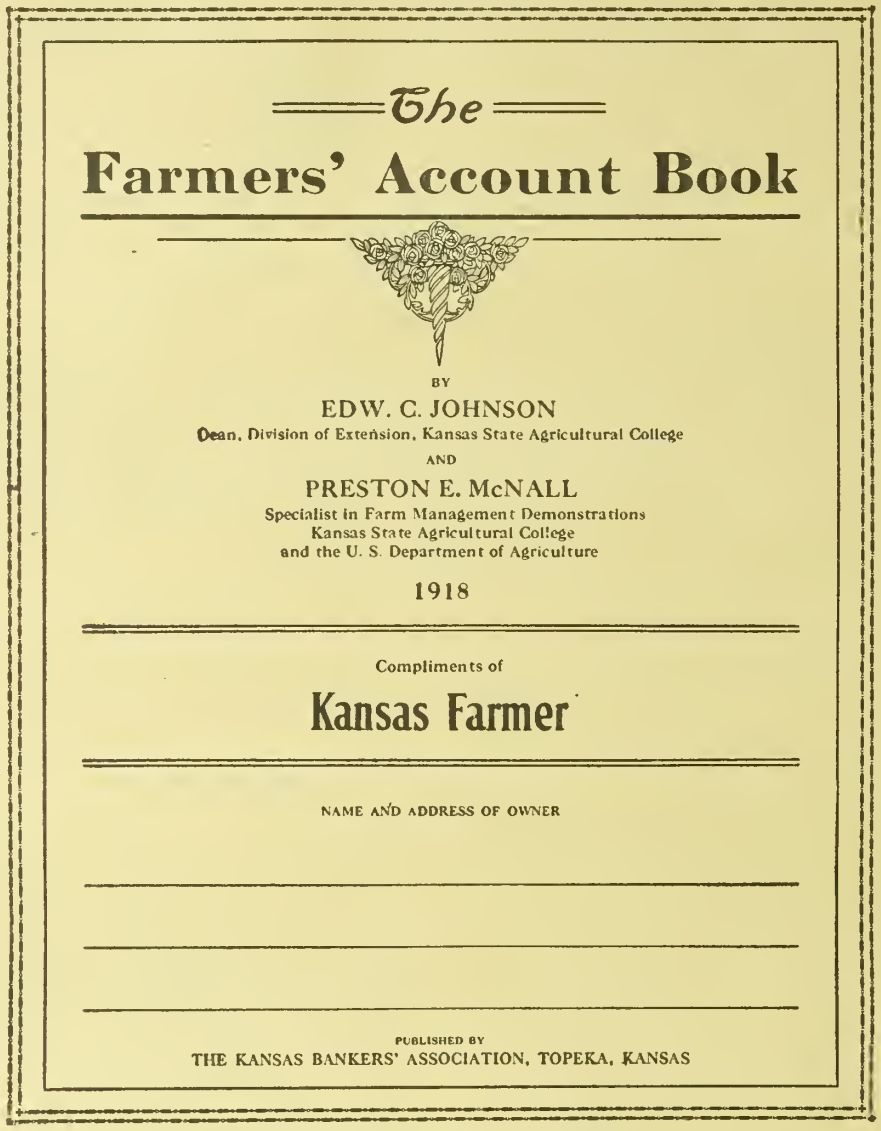

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OCT 25 1918

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 38. TOPEKA, KANSAS, SEPTEMBER 21, 1918. Established 1863. $1 a Year

Draft Horses at the Kansas Free Fair

A Strong, Well Balanced Exhibit of High Class Horses Made by Farm Breeders

THE day of the big spectacular exhibition of draft horses such as has in times past been made by a comparatively small number of importers and dealers is past. Unthinking people were heard to remark as they passed through tbe horse barn at the Kansas Free Fair last week, "This is a poor horse sbow. This barn used to be filled to overflowing with handsome horses." It is true the barn especially designed for horses was not filled, altbougb more animals were shown tbis year than at the Kansas Free Fair last year. In point of numbers and flashiness this year's showing of draft horses could hardly be compared to the exhibits of before tbe war times when long strings of horses were exhibited by the large establishments making a specialty of handling and importing pure-bred draft horses.

One wbo made a study of tbe exbibit made this year, interviewing the men in cbarge and watching the animals of the different classes as they were led out to be passed on by the judge, gradually came to a realization that from the standpoint of developing the business of growing better horses on the farms of tbe state this year's exhibit was tbe best ever made. The men making the show were farmers of Kansas and adjoining states, Kansas breeders predominating. They are using tbe high class pure-bred horses in their farm work and the surplus is being sold at a good profit. For example, C. E. Dustin and W. S. Dustin—fatber and son—of Shawnee County, have made the practice of working all their mares ever since they have been handling pure-bred horses. Tbey have made the business of growing draft horses in this way pay a profit.

A. P. Loomis, of Diamond Springs, Kansas, had perhaps the most striking Percberon exhibit in the show. A single pure-bred mare, Jugale, with five colts to her credit in five years, was the foundation animal. She and her offspring constituted the whole exhibit with the exception of a young stallion whicb had recently been purchased. One stallion colt had been sold. Plenty of good alfalfa and a limited ration of oats had brought the young animals shown by Mr. Loomis to the show ring carrying plenty of flesb for breeding purposes. Across the alley from Loomis was a string of five animals shown by C. C. Towne, of Valencia, also a farmer breeder who made a start a few years ago with some carefully selected bred mares. J. T. Schwalm & Son, of Baldwin, had tbree, one of them—the stallion foal, Brilliant—winning first in the open class and first in the Kansas specials. Mahlon Groenmiller, of Pomona, had one—a young stallion bred on his live-stock farm. O. N. Wilson, of Silver Lake, showed six; Adam Becker, of Meriden, six; C. S. Soward & Son, of Baldwin, two; J. A. Howell & Son, of Paris, Missouri, six; and E. Tomlinson, of Emporia, one. J. J. Moxley, of Osage City, showed a yearling filly that went to the bead of her class in a strong ring. This young man, barely past twenty-one, had purchased this filly only a few months ago as a foundation mare. She is sired by Hector, the fine young stallion owned by William Branson, of Overbrook, the grand champion Percheron stallion of last year at Topeka. He had no intention of sbowing this filly, but was urged to do so by Doctor McCampbell and others wbo knew be had a good one. He was a proud boy when he walked out of the ring carrying tbe blue ribbon. D. F. McAlister, of Shawnee County, showed eleven head. William Carls, of Wakarusa, bad a two-year-old stallion which he had purchased from Mr. Dustin, the offspring of a twelve-year-old mare which was Mr. Dustin's foundation animal. He had received $1,100 for the last two colts from this mare.

Mr. Dustin in a reminiscent mood, as we stood looking at this twelve-year-old mare in the stall, told of how he brought her to tbe fair at Topeka as a two-year-old filly ten years ago. This filly and a mare which Adam Becker rode in from Valley Falls, witb her colt following, constituted the whole draft horse show that year. "There were no pure-bred draft horses raised on tbe farms of Kansas," said Mr. Dustin, "and now just look at this fine display of horses all made by farmers who are doing general farm work and using these good horses and raising colts." He named man after man of bis wide acquaintance who now are classed as draft borse breeders. We asked Mr. Dustin if he worked all his horses and he replied by saying that he couldn't afford to breed such horses witbout working them. "You can't make breeding pure-bred draft horses pay witb present high prices for feed if you bave to keep two sets of horses on the farm, one to work and the other to produce colts. It might be done in sections wbere cheap pasture is available, but we can't do it here in Eastern Kansas." Mr. Becker gave a similar reply to a question as to whether there was any money in breeding pure-bred draft horses. In his opinion the business was not as good as a few years ago unless the man was able to work practically all his animals old enough to work. He said that he had too many and couldn't make them pay tbeir way. He pointed to a great big fully-developed animal in his exbibit that had never had a harness on. He i finding that it is necessary to reduce the number kept in order to lessen the cost of growing them up to marketable condition by making them pay for their keep as soon as they are old enough.

The Gossard Breeding Farm, of Turon, Kansas, bad the largest exbibit of Percberons. This establisbment is making a specialty of this breed of draft horses. Tbeir horses were all sbown in tbe pink of condition. Their dapple-gray stallion, Kapitaine, a most sbowy horse in action and conformation, was made the grand cbampion stallion of the show. The tbree-year-old stallion, Rocule, an iron-gray horse massive in build and conformation, shown by Howell, of Missouri, contended with Kapitaine for the senior championsbip.

A new classification that created a keen rivalry and brought in a large number of entries, was tbe Kansas Free Fair Specials, the entries for which closed August 1, the requirement being that at least ten must be entered. Cash prizes ranging from $50 for first and on down to $20 for sixtb place were offered in three classes: yearling stallion owned by Kansas exhibitor, stallion colt foaled since January 1, 1918, and filly foaled since January 1, 1918. Tbis liberal offer of prize money bad tbe desired effect and brought in strong classes. It was perhaps as interesting and exciting a class as was shown. Every breeder realized that the fair association bad been extremely liberal and felt in duty bound to fill the class. D. F. McAlister won first in tbe yearlings witb Linn. Scbwalm & Son had tbe blue ribbon stallion colt, and Dustin won first in tbe filly class on Gracie Warner.

The feature of the Belgian show was the string of horses exhibited by C. J. Good & Son, of Ogden, Iowa. In it were animals that had won blue ribbons and championships at the International and other big sbows of the country. It was the finest lot of Belgian horses ever shown in Kansas. Mr. Good, wbo accompanied the horses himself, is a man witb definite ideals as to what a draft horse sbould be and has bred and selected constantly witb his ideal in mind. Not a bad foot or faulty leg or pastern conformation could be found in the whole string. Mr. Good owns the undefeated imported stallion, Farceur, probably tbe most famous borse of the breed. He was not shown in the exhibit. Jubiter, a four-year-old stallion of Mr. Good's own breeding, was the champion Belgian stallion of tbe show. The Belgians, as tbey were first known in Kansas tbrougb the purchase of public service stallions from importers, were far too often lacking in feet and leg conformation. It seemed as though importers bought the kind tbe Belgian breeders were most willing to sell and as a result we came to look upon the breed as inclined to be poor in underpinning, although of massive, drafty conformation in body. Mr. Good has as bis ideal a more upstanding type with cleaner legs and with the kind of feet tbat will stand up under the hardest kind of service. The animals shown were almost without exception of tbis type. In other words, they are much more like tbe commercial high class drafters such as are in demand for heavy trucking work in the cities, than were the first Belgians that came to Kansas.

Mr. Good told us he thought our Kansas draft horse breeders should be warned of the importance of paying more attention to the feet of their horses. He said: "Good sound feet are absolutely essential. Poor feet are the result of carelessness, the use of a stallion lacking in foot and pastern and the lack of care in keeping tbe hoofs of tbe colts trimmed and properly leveled as they are developing, or a combination of these two. A good foot by inberitance can be ruined by letting a colt run without ever giving its feet the slightest attention." We bave had occasion to speak tbis same word of warning to breeders of draft horses tbrough the columns of KANSAS FARMER and in our conversation witb breeders at the horse shows. We pass on tbis suggestion coming with such force from a man who has made the matter of feet a bobby and knows what he is talking about.

Tbe usual strong showing of Belgian horses was made by Cooper & Sons, of Freeport, Kansas. This firm probably raises more Belgian horses than any otber in Kansas. The Agricultural College showed their herd stallion and his first colt, a 1918 foal, the mare, Mirza DeBou, ber five-year-old daughter, her two-year-old stallion colt, and this year's colt. It made a very creditable exhibit of Belgians. Two of the college Belgian mares are now at Mr. Good's farm to be bred to Farceur.

In closing, we would call attention to the number of exbibitors of draft horses who have the name of "Son" or "Sons" in the firm name. Several of the Kansas exhibitors—the senior members of the firms—asked us to be sure not to forget the "son" part of the name in reporting tbe show. These men told us of the interest the boys and young men were taking in the business of raising and using high-class pure-bred horses. Some of the boys were present, and it was easy to see that they had that real love for the work of improving live stock which is so essential to success in building up and improving the different kinds of farm animals.



IMPORTED BELGIAN STALLION, COLLART, AND HIS FIRST COLT ON COLLEGE FARM. —SHOWN AT KANSAS FREE FAIR BY K. S. A. C.

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WANTED

On account of the establishing of a Borden Condensery at Fort Scott, dairymen with herds are wanted; also dairymen are wanted to operate farms on shares, the landlord furnishing herds.

Secretary of
Ft. Scott Chamber of Commerce
Fort Scott, Kansas

SENATE CONCURRENT RESOLUTION
No. 18.

A proposition to amend section 1 of article 5 of the constitution of the state of Kansas relative to the right of suffrage.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members elected to each house thereof concurring therein:

Section 1. The following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their approval or rejection: That section 1 of article 5 of the constitution of the state of Kansas be amended to read as follows:

Section 1. Every citizen of the United States of the age of twenty-one years and upwards—who shall have resided in Kansas six months next preceding any election, and in the township or ward in which he or she offers to vote, at least thirty days next preceding such election—shall be deemed a qualified elector.

Sec. 2. That this proposition shall be submitted to the electors of the state at the general election in the year 1918 for their approval or rejection. The amendment hereby proposed shall be designated on the ballot by the following title: "The suffrage amendment to the constitution," and shall be voted for or against as provided by law under such title.

Sec. 3. That this resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 8, 1917.
Approved March 12, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 18, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

SENATE CONCURRENT RESOLUTION
No. 15.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members of each house concurring therein:

Section 1. That the following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their rejection or approval:

Sec. 2. The Legislature may levy a permanent tax for the use and benefit of the state educational institutions and apportion among and appropriate the same to the several institutions, which levy, apportionment and appropriation shall continue until changed by statute. Nothing herein contained shall prevent such further appropriation by the Legislature as may be deemed necessary from time to time for the needs of said state educational institutions.

Sec. 3. This proposition shall be submitted to the electors of this state at the election for representatives in the Legislature in the year 1918. The amendment hereby proposed shall be known on the official ballot by the title "Amendment to the constitution providing for a permanent income for the state educational institutions," and the vote for and against such amendment shall be taken as provided by law.

Sec. 4. This resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 7, 1917.
Approved March 10, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 15, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

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Let's remember in this sugar fight that the motto of Foch is "Attack," and the method of our boys, "Fight as long as the fighting is good—and then some more." So "Up and at 'em!"

"Keep a bee and produce your own sweetening."

MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Electricity in the Farm Home

LIGHT or power at the turn of a switch is a convenience that has become so familiar in the town or city residence that we do not realize what it means except as an occasional accident may put the transmission lever out of business and leave us in darkness. "Can we have electricity to brighten the hours of farm home life?" asks George M. Shook in a recent issue of the Jewell County Farm Bureau News. "On our farm it has proved a necessity. The cost of upkeep is so low, it is hardly considered at all.

"All members of the family enjoy the lights, and around the reading lamp there are no shadows to mar the pleasure of reading. There is no danger from fire. Safety is one of the most important things to consider. Lights in every room, on the porch, in the cave, the garage, the fuel house, over the cows at milking time, in the hay mow at feeding time, and in the barn when harnessing the work teams, make work much easier. The frogs in the near-by lake seem to derive pleasure from having the lights. Even the old hens seem to enjoy the lights, particularly in the winter time. They can begin to scratch around earlier in the morning and of course will lay more eggs.

"Then in the home we find the electric iron, the floor sweeper, the motor for running the cream separator, washing machine, and if you choose, the electric fan and other conveniences, the electric pump with the automatic pressure tank, which furnishes hot and cold water at the faucet in the home and water in the tank for the stock. Can we afford to be without this much needed improvement? We cannot on this farm. It is cherished more than our auto. We men should provide this necessity in our homes. Our wives and daughters are worthy of these conveniences. Everything that brightens the home surroundings is an added help toward refinement, better intellect, and the firmer binding of home ties. Some say, 'I cannot afford this.' Better economize along some other lines and figure from the standpoint of safety and an added asset, one sure to be most loyally appreciated by the 'Mrs.'"

For Tractor Gears

Leading the exhaust gases of a tractor through suitable piping so that they are blown against the faces of the gears is an expedient that has been tried with some success. The idea is to replace the usual grease applied to open gears. The exhaust blows the grit off the gear teeth and at the same time a slight amount of soft soot is deposited, which is claimed to have some value as a dry lubricant.

Motor Trucks to the Relief

Figures given out by one of the large rubber companies of Akron, Ohio, and published in an issue of the New York Times last month, show tonnage carried by railroads and trucks during the nine months up to July 1, over the forty-mile route between Akron and Cleveland, Ohio. These figures show that the growing and large use of motor trucks has relieved railroad traffic between those cities by 1,170 per cent over the nine preceding months, which means that the forty-mile highway released 885 freight cars a week to other communities for more vital tonnage. If only an average of 600 car releases a week is maintained for twelve months, the record being established between Akron and Cleveland will save 31,200 freight cars for other uses.

Keep Tractor at Work

A tractor cannot return its full value unless used for belt work as well as field work. The more jobs you do with your tractor, the more profitable it will be. This applies more to the small tractor than to the large one, but the owner of a large tractor will find that it is not good business to let it stand idle any more than necessary. While in some cases the tractor is kept so busy in the field that there is little time to put it to any other kind of work, there are sure to be days during the summer and weeks during the winter when it cannot be used for field work and it should be kept busy at something else.

As a general thing the tractor owner is not making as full use of his tractor for belt power work as is possible. There are many kinds of stationary work that the tractor will perform profitably.

When Oil Becomes Unfit

There are several reasons why crankcase oil becomes unfit for further use, says Power Farming. It is often said that the oil "wears out," thereby losing its lubricating properties. It does not really wear out, but it does lose its lubricating qualities and acquires some objectional ones. The most obvious property of the discarded oil is its inky blackness, due to particles of carbon like lampblack. It cannot be said how much this carbon affects the lubricating quality of the oil, but it probably does not improve it any. The carbon is likely to gather in the piston-ring grooves and burn to a hard deposit that makes the rings stick, thus making them practically of a piece with the piston. When this has taken place the burning gases blow past the piston causing a loss of power, waste of fuel, and further fouling of the oil. At the same time the dirty oil works up past the practically useless rings into the combustion space, where the carbon in the oil bakes onto the cylinder walls and piston head, reducing the compression space and inviting pre-ignition, pounding, and overheating.

Use of Spark Lever

Proper use of the spark lever is essential to the smooth driving of a car. The expert driver always keeps his finger on the spark lever ready to advance or retard the spark instantly.

Using the spark according to the speed of the car gives a smooth slow-down on crowded or rough roads as well as an easy pick-up on high gear with no sign of motor labor.

When the engine is at work, the advance spark is necessary, but when coasting or idling the motor will run more smoothly if the spark is retarded. The pick-up of the engine is much improved by gradually advancing the spark, as the car gains speed bringing the spark up half way at the first touch of the accelerator and advancing about a half inch for each five miles per hour the car gains in momentum. While this applies particularly to picking up from a low rate of speed—say ten miles per hour—it is true in a lesser degree at greater speeds, since the car has greater momentum and the motor less to do.

Hold Wheat in Kansas

Reserve wheat purchased by the grain corporation will be stored in the state. Elevators with modern storage facilities will be used for this purpose. This will be of some advantage, for it means that more wheat will be milled here. Not only will it be of benefit to the millers, but will help the farmers by providing them with mill feeds later in the year. The Government will require elevators to give bond when wheat is stored in the elevators. The Government will then buy the warehouse receipts. Full information can be obtained from Federal Food Administrator Innes at Wichita or from D. F. Piazzek of the grain corporation, New England Building, Kansas City, Missouri.

Elevators at basic points are filled with wheat and it is now necessary to use interior elevators.

While the storing of grain in Kansas will help the mill feed situation somewhat, the Food Administration says there will continue to be a mill feed shortage. This is a national condition. Mill feeds are short everywhere. This is largely due to the fact that ships for the Allies are being loaded with wheat this year instead of with flour. It takes seven days longer to load a big ship with sacks of flour than with wheat which can be poured into the hold by machinery. In the present shipping shortage the seven days are too precious to be lost.



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FAIRS AND THE WAR PROGRAM

After witnessing the skillful manner in which a great fair program can be so directed as to fit in with the big job to which this nation is now devoting its whole resources, no one could for a moment think of such a fair as in any way hindering the prosecution of the war. The big fairs over the country will serve as perhaps no other agencies could the purpose of building up the morale of the people and particularly those interested in the great industry of agriculture which means so much to the winning of an early and decisive victory.

At the big fair just closed in Topeka war activities were in evidence on every side. The greatest of enthusiasm was manifested in the entertainment features of the program, nearly all of which centered around the thing uppermost in the minds of all. The military drills, the playing of the military bands, and the singing of the Modoc Club all served as an inspiration to a higher and more fervid patriotism and love of country. The big fairs and expositions are proving themselves most potent factors in promoting our war program.

AUTOMOBILES ON THE FARM

After seeing the thousands of automobiles at the big Free Fair, one might well conclude that we can easily stand a heavy cut in automobile production while we are devoting our energies to closing in on the Huns and pushing forward to a final victory. Never in its history has the Topeka fair ground been crowded so full as on the occasion of the fair just closed. Every foot of available space on the ground was occupied and for several blocks on every side automobiles were parked in the streets. It would almost seem that every farmer within a hundred miles or so of Topeka has an automobile and had loaded in the whole family and driven to the fair.

People of the open country are coming more and more to depend upon the automobile as a means of getting over the roads quickly, and it is far from being a matter of mere joy riding. Incidentally the automobile is a great source of pleasure to the whole family, but the pleasure riding of the farm is so inseparably linked with the utility purposes of the car that no regulation restricting the use of automobiles in the country should for a moment be considered.

THE AGRICULTURAL EXHIBIT

From the thousands of visitors who surged through the agricultural building at the Free Fair last week came expressions of surprise at the exhibits of corn, wheat, oats, vegetables, and the many other products of the soil. Following the extreme heat of the past season with the short rainfall, it seemed almost incredible that so many fine exhibits could be made. Viewing such a showing of agricultural products serves to encourage those who had been depressed because of the unfavorable conditions of the past season. Things are almost never quite so bad as they seem. A Texan who revealed unmistakeably in his accent his native state, after gazing in astonishment at the array of exhibits in agricultural hall, asked the superintendent if all that stuff was raised in Kansas. When answered in the affirmative, he said: "I thought you-all had a drouth last summer. What would you raise in a good year? You-all don't know what a drouth is." This was a fair sample of the expressions of surprise from visitors at this building.

There were five counties making collective county exhibits, this having been a special feature for a number of years. Large cash prizes are offered and the men in charge have practically become specialists in collecting and arranging the products of their respective counties so as to show in a striking manner their agricultural possibilities. Of the five county exhibits, all were from the eastern section of the state except that from Jewell County. A characteristic feature of all the collections was the number and high quality of the small grain exhibits, and particularly wheat. Wheat in the sheaf or small bundle lends itself admirably to the making of attractive exhibits from the decorative standpoint, and then the great need for wheat as a staple food for transport across the ocean to sustain our armies and civilians of the allied countries adds to the interest in displays of this crop. Eastern Kansas has made a great record the past year in wheat production, and from present indications will make an even greater effort for next year.

Douglas County was awarded first place in the county contest of collective exhibits. The showing of wheat made in this exhibit was most striking. Jewell County came second. Here also the small grains stood out prominently. Potatoes and various root crops were also a very strong feature of this exhibit. Franklin County stood third and probably made the best showing of corn. Only in a few sections of the state can corn be considered to have produced even a fair crop this year. Jefferson County was fourth, and Chase fifth. Chase County is a new entrant in the county contests at the Free Fair. The exhibit was collected and handled by Preston O. Hale, the county agricultural agent, and was a most creditable display of the agricultural products of that county.

We cannot take the space to enumerate all the awards in the agricultural section of the fair. The sweepstakes corn was a ten-ear sample of Reid's Yellow Dent, shown by J. A. Ostrand, of Shawnee County. Mr. Ostrand won second on a ten-ear sample of white corn, the white corn being his standard variety. The blue ribbon white corn was a ten-ear sample of Boone County White shown by Herman Gronniger, of Doniphan County. Preston Hale, for Chase County, took first prize in both hard and soft wheat, and G. R. Wheeler, of Franklin County, second in each class.

The most noticeable effect of the dry weather of the past season was in the showing of fruit. T. P. Van Orsdal, superintendent of the department, largely through his personal efforts had gotten out a representative collection of apples, but this crop and in fact practically all fruit in Kansas is short this year. It is noticeable that the apple exhibits were made by men who have studied the business and given their orchards real orchard care. In a poor year the results of the right kind of care are more noticeable than in a good year. Fruit cannot be grown in Kansas as in the pioneer days.

In the five-box collection of apples, Harry Fisher, of Topeka, won first; H. G. Nash, of Grantville, second; and Paul Lytle, of Dover, third. Mr. Fisher showed a fine box of Jonathans in the single box entries and won first, second going to Charles Wells, of Tecumseh, and third to Mr. Nash. Mr. Wells had the best box of Grimes Golden apples, Fisher winning second, and Nash third. There were some good exhibits in the thirty-variety plate collections of apples, G. B. Harper, of Silver Lake, carrying off the blue ribbon, with Nash second and Mrs. Enderly, of Topeka, third.

HOME CONVENIENCES

We do not believe home labor-saving conveniences have ever been more strongly presented at the Free Fair than this year. We cannot longer look upon such conveniences as luxuries or non-essentials. People of the farms must have every possible convenience and comfort or rural life cannot compete with the city in its call to those who toil with their hands. Electric light plants and gasoline engines with the many devices to which these forms of power can be connected, all having for their purpose the lightening of the tasks of the housewife, have a distinct economic bearing on the farm business. They are just as much an essential part of the productive equipment of the farm as the manure or straw spreader, the improved grain drill, or the tractor. On the farms far more than in the city the tasks of the house where live the workers have a direct bearing on the production of the business as a whole. Women even more than men are compelled to get along without outside help. They must of necessity economize their own energy and time.

In spite of the fact that large manufacturing concerns have to a considerable extent discontinued making large fair exhibits, the machinery section at Topeka was filled with machinery of various kinds, exhibits being made mostly by local dealers and distributors. We watched the crowds who studied these exhibits and were particularly impressed with the keen interest being taken in labor-saving equipment of all kinds. It was not idle curiosity. In many instances wife and husband together were studying in detail the exhibits and asking all manner of questions of the men in charge. Sales were being made, as was evidenced by tags we noted tied on some of the equipment being used in demonstrating. One farm electric lighting outfit has during the last year put sixty-five plants in the two counties assigned to a single distributor.

SALINA GIRLS' TRACTOR CLUB

Very few tractors were shown at the Free Fair. This was to be expected, as the National Tractor Demonstration at Salina had given ample opportunity to show the many developments of the modern tractor as a practical farm power plant. The most striking feature of the tractor end of the show was the arrival the latter part of the week of the Girls' Tractor Club of Salina. A group of these girls who are seriously taking up the business of tractor operation drove a Cleveland tractor from Salina to Topeka, trailing three canvas-covered wagons in which they lived during the trip, the girls taking turns at driving the tractor. They wore overall suits and the dust and grease which had accumulated during the trip was sufficient evidence that it had not been a dress parade affair. Farmers may laugh at these girls, but they are serious, and have proved by making this long, tiresome trip that they are not afraid of the hardships and other disagreeable features of tractor operation. Like their sisters in England, they are preparing themselves to do a man's work if necessary and thus release a soldier for the firing line. They hope to arouse enough interest to start a similar club in Topeka. We perhaps will hear more of these girls next year when the need of experienced tractor operators becomes even more imperative than it is at the present time.

LOCAL PRICE COMMITTEES

In local communities it has oftentimes been hard to find out what prices are fair for a good many of the things we have to buy. The addition of a government tax on some article, for example, is taken as an excuse for raising the price, frequently the increase being double the amount of the tax. These and other questions are constantly coming up in these war times.

In over forty cities of Kansas last winter price interpretations were formed and they were fairly successful in curbing unfair prices on some of the food articles in common use. The Food Administration now proposes to extend this idea by having such price interpretation committees in each county. A state price advisory committee has been appointed by Walter Innes, the state food administrator. It consists of the following members: John B. House and Charles Knorr, wholesalers; Mike Courtney, a retired retailer; Ben F. Logan and Max Billinger, merchandise brokers; O. T. Hamilton, a produce broker; and J. H. Stewart, food administrator for Sedgwick County.

The county committees will be made up of one retailer, one producer, one consumer, one representative of women's organizations, and where there are wholesalers and labor organizations they, too, are to have a member. This seems to be a fair representation. In some instances the committees acting last winter did not have a wide enough representation. A group of wholesalers and retailers, for example, in a city does not constitute a satisfactory committee to the consumer. The people concerned should insist that the personnel of the local committee be truly representative. If that is done, it is a good move to have such committees appointed. If they are one-sided committees, they will not be satisfactory. There might be some criticism of the state committee from that standpoint.

The plan is for these committees to arrange schedules of fair prices on the staple commodities and publish these prices in the local papers.

These boards are organized to stabilize prices and prevent profiteering. They have the backing of the United States Food Administration, and the laws of Congress will uphold the work they are doing. Dealers in counties where they are organized are not allowed to sell above prices named unless it can be shown that they are unreasonably low. In order to be sure that prices are fair they are checked up weekly by the State Food Administration and rechecked by the price experts of the United States Food Administration at Washington. Many counties in the state have already organized representative price-fixing boards and the work is progressing rapidly over the state.

FOREIGN-BORN YANK SOLDIERS

The introduction of a company of sixteen men selected from those in Uncle Sam's service at Camp Funston, all of foreign birth and each from a different country, was an impressive feature of the program given under the auspices of the Kansas Council of Defense in the People's Pavilion during the Kansas Free Fair. The countries represented were: Mexico, Bulgaria, Poland, Belgium, Serbia, Switzerland, Greece, Sweden, Italy, Turkey, Norway, Montenegro, Russia, Austria, Ireland, and Germany.

These foreign-born Yanks are as thoroughly committed to the cause as any native-born citizen of the United States. Several of them have relatives fighting for the Allies under the flags of their native lands, and one young man stated that his father and several brothers were in the kaiser's army. The Pole assured the audience that his country had "one head and one heart with the American people to win this war for democracy."

William Biby, of Topeka, who presented the men to the audience, assured them that each of them was fighting for his own country as truly as for the United States, and expressed the hope that the war should not end until the independence of Bulgaria, Poland, Greece, and Serbia, was fully regained, and Belgium restored.

In spite of the fact that some people thought of the horse show at Topeka as poor in comparison with those of recent years, this year's exhibit was the most educational ever made. We feel sure the breeders have been well repaid for their efforts in making the show, and we trust that the spectators interested in good horses spent enough time to get the real lessons taught.

"In addition to all the evil things that have been said of the kaiser," the Pacific Dairy Review declares, "he ranks as the world's greatest cattle thief in history. According to Herbert Hoover, his haul in Belgium alone exceeded a million head in the first three months of the war. Dairymen and other live stock owners should not overlook the fact that the champion cattle and horse thief is still at large."

"Right and liberty have obliterated space and the ocean to bring France and America together." — PRESIDENT POINCARE.

STORAGE ON THE FARM

Build Cave or Outside Cellar for Keeping Vegetables or Apples

ECONOMY and conservation demand that we provide suitable storage for food products. Production without conservation is waste. Storage for vegetables and fruits is now more necessary than ever. A farm without a cave or storage cellar is lacking in a most necessary equipment.

Storage Principles

To store vegetables and fruit successfully we must understand certain fundamental principles. For most products the temperature must be kept low and uniform, but above freezing at all times. Such vegetables and fruits as apples, potatoes, beets, cabbage, carrots, and turnips, require a moist cool air; sweet potatoes, pumpkins, squashes, and tomatoes, a warm dry atmosphere. Onions require a cool, dry air. Moisture and temperature must be under control to make storage fully successful.

The most commonly used storage places on farms are the house cellar, pits outdoors, and outside cellars or caves. A pamphlet prepared by H. M. Bainer, agricultural commissioner of the Santa Fe Railway Company, has the following suggestions on these types of farm storage for fruit and vegetables:

The House Cellar

For home requirements the house cellar, if it is cool and moist and has good ventilation, provides satisfactory storage for most fruits and vegetables; however, when large quantities are to be stored, outside cellars are better. The house cellar is now commonly used for storage, yet the losses from wilt, rot and mold are enormous because of improper construction. Generally it has so many other uses that it is out of the question to secure the proper conditions for storage of fruits and vegetables. The fact that the cellar is under the living rooms and that the odors given off are detrimental to the health of the family, is another disadvantage. Regardless of what rearrangement can be made in the average house cellar, it will not provide as satisfactory storage as the specially constructed outside cellar or cave.

No storage room in a house cellar is complete without at least one window for ventilation and light. This window should naturally be placed near the top, preferably on the south side. While the weather is warm, this entire window may be opened for ventilation. Later, when the outside temperature becomes cool, a smaller opening is required. As less fresh air is needed, a satisfactory ventilation system can be easily made in connection with a four-pane window. Remove two pieces of glass and in one of these openings fit a piece of board with a round hole cut in the center the size of a six-inch stove pipe. In this hole fit a stove pipe elbow, turn it down and add two joints of pipe, one with a damper. This will make it possible to regulate the air and will cause it to enter the cellar near the floor. Where the other pane of glass has been removed, fit a small hinged door. When this is open the warm foul air can escape. Both the inlet and the outlet should be opened and closed at the same time. Both must be closed in severe cold weather. In the fall when the days are warm, open the ventilators at night and close them during the day.

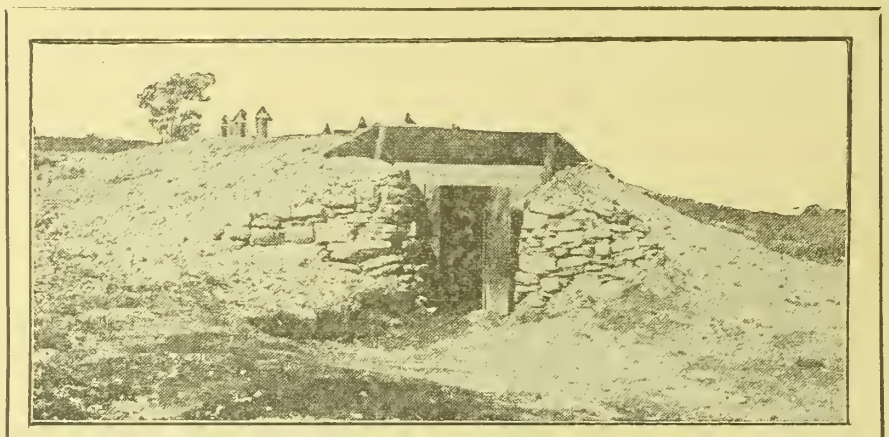
The Storage Pit

The pit should be located in a well drained place, usually in the garden or orchard. Generally it is not a good plan to make the bottom of the pit much below the surface of the ground; however, a few inches below the level is all right and should be done, if there is no danger of water. Better protection is provided against freezing, however, if the bottom is below the level.

Make a shallow excavation from three to five feet wide and as long as is desired. Usually, however, a conical pile is made in preference to a long one. Better results will be secured through small pits rather than large ones. Too much produce in one pile will not be properly ventilated and is likely to heat and spoil. In opening a large pit, care must be exercised not to expose or damage that part of the products that is not removed. With the small pit all of the contents are taken out and nothing remains to be damaged. For convenience, when vegetables are stored in small pits for family use, it will be found desirable to place several kinds together in one pile, thus making it unnecessary to open more than one pit at one time.

Cover the bottom of the excavation with eight to ten inches of dry straw on which the vegetables or fruits should be placed in a conical pile. Cover the pile with five or six inches of straw and over this place two or three inches of earth. This amount of covering will be sufficient until the products have become well cooled. Later, before there is danger of severe cold, place another layer of eight to ten inches of straw over the pile and cover with three or four inches of earth, this earth covering to be finally doubled in thickness as winter temperatures are reached. Very much better results will be secured through double layers of straw and earth covering than from one layer of each. The winter severity and climatic conditions will control thickness of coverings. After the pit has been covered, provision should be made to carry away all drainage water so none of it can get to the stored products.

Storage pits must have ventilation, especially until winter sets in. Small pits will get enough circulation of air if there is a continuous connection of straw between the vegetables or fruits and the air at the apex of the pile. This point of the pile must be covered with something to keep rain from entering and later when cold weather comes on, a dirt covering will be necessary to prevent freezing. Instead of depending on ventilation through a straw connection, good results are often secured by using a small board flue, three to four inches square, with both ends open extending from the center of the pile to the surface at the apex. The upper end of the flue must be capped to keep out rain or snow and when cold weather begins should be plugged with straw or rags and in addition should be covered with earth.



STORAGE CELLAR SUCCESSFULLY USED AT KANSAS AGRICULTURAL COLLEGE FOR SEVERAL YEARS

When storing only small quantities of vegetables or fruits, it is sometimes found more convenient to use a barrel instead of a pit. The barrel is filled and laid on its side in a shallow well-drained trench. This is covered first with a layer of straw and then earth as described above for pits. The second layer of straw and earth being added later as the weather becomes cold. The filling end of the barrel should be covered with a board lid, against which manure and earth should be piled, thus making it easy to remove the contents at any time.

The Outside Cellar or Cave

Specially constructed outside cellars or caves are usually needed if for nothing more than family use. In considering his needs, the producer must decide whether to build a cheap temporary cellar or a good permanent one. He should remember that what is cheapest in the beginning may not be so in the end. The cost of a good permanent cellar may be more than made up in one season from the saving realized from the storage of one crop like apples or potatoes. Some years the cellar may be needed only a few weeks, while in other years its use may be required for the greater part of the season. Often during harvesting time, especially for early crops, when the weather is dry and hot and when the rush of work is on, a good cool place to store, temporarily, will often pay many times for the cost. Then as late crops mature, all surplus, for which there is not a satisfactory and ready market, can be stored until desired, whether for a month or for the entire winter.

In deciding the location for a storage cellar, not only its access should be considered but drainage and natural advantages as well. An available sidehill that can be easily drained offers one of the best locations. If other conditions do not interfere, a protected location, out of the path of cold winds, is to be preferred. Where exposure to cold winds cannot be avoided, it is considered best to build the cellar parallel to their prevailing direction, and in this case the doorway should be on the end away from the wind.

A cellar six feet wide, eight feet long and seven feet high, inside measurements, will provide storage for a small home garden. One that is ten feet wide, twelve feet long and eight feet high, inside measurements, will take care of the ordinary products from an acre of garden. A cellar ten feet wide, eighteen feet long and seven feet high, inside measurements, will store 500 bushels of vegetables. Many potato cellars are made large enough to hold several thousand bushels each.

Details of Construction

The materials used should be those available that are most plentiful and will serve the purpose. Generally a wood construction that must be covered with earth is not satisfactory, although potato cellars, especially in dry climates, are made of wood framework almost altogether. In more or less humid sections, permanent constructions should be made of concrete, stone, brick or tile. Just how these materials are put together or who does the work; how cheap or how expensive makes no difference, just so the storage cellar is permanent and combines good control of temperature, humidity, ventilation and proper drainage. Whether constructed in a side hill or on level ground, the storage cellar must be covered with earth, deep enough to prevent freezing. If constructed on level ground, excavation should be made deep enough so that from one-third to one-half of the cellar is below the surface.

Double inside walls with air space or with packing between are better than single walls. Single walls, however, will answer the purpose, especially if the ventilation is good. Thick single walls are better than thin ones. Air space can be easily made in connection with heavy single walls by placing furring strips two inches thick against the inside of the wall to which metal lath can be nailed, this being covered with two or three coats of rich cement plaster. Instead of lath and plaster, good results will come by tacking building paper to the furring strips and covering this with close fitting sheathing or shiplap. Hollow tile furnishes one of the best cellar wall materials known. All masonry walls should be plastered on the outside or weather side with waterproof cement.

It is fully as important that the top of the storage cellar he made right as the sides, in fact, the good effects of one without the other will be counteracted. Heavy masonry or concrete ceiling must necessarily be supported with center posts and reinforcement, especially in wide underground cellars. Hollow tile or specially constructed double ceiling like that described for walls is better than the single ceiling. For underground cellars, the ceiling ventilator boxes, best made of concrete or brick, should be placed before covering cellar with earth. These should be made high enough so the top will extend slightly above the surface of the earth after the cellar has been covered. The earth covering should be from three to four feet deep, when settled, and should be banked up against the side and end walls, thus making a mound type of covering which should be sodded over later. Wing walls may be necessary at both sides of the cellar entrance to hold back the earth banking at the end.

Instead of covering entire cellar with earth, as has just been described, some are constructed of masonry under the ground and the remainder of wood frame above the ground. The wood walls above the ground are made from ten to twelve inches thick, being sheathed with matched boards, inside and outside, and filled between with insulating material such as sawdust or shavings. The rafters are ceiled on the under side with the same material as the walls and the space between the rafters is filled with the insulation material. One layer of building paper in connection with the roof and walls will be of material help.

Ordinarily the natural earth or clay floor is better than specially made floors. In many cases a concrete passageway works to excellent advantage.

The effects of a well constructed cellar must not be lost because of a poor entrance. If a single door is used, it should be made of double thickness boards with building paper between. Best results come through what is known as a "vestibule" entrance. This vestibule is made long enough to let two doors work freely, one at each end. With this arrangement there is no direct opening, one door is closed while the other is being opened. In small outside cellars the two vestibule doors need not necessarily be on the same level. In this case the outside door might be a sloping one, covering the slope or steps, and the second door an upright one, at the foot of the steps.

Outside ventilators must be provided in outside cellars through the ceiling or through the side or end walls, near the top. These openings should be from twelve to twenty-four inches square, depending on the size of the cellar, and should be placed from ten to fifteen feet apart. The last ventilator should be located at the far end of the ceiling or in the end wall near the ceiling. These ventilator flues must be capped to keep out rain or snow, and must also be provided with dampers or slides to regulate the air. Fresh air may enter the cellar through open doors when the outside temperature will permit. When special "humidifier" has been provided, as described in the next paragraph, sufficient air can enter through it for ordinary weather. If a humidifier has not been made, then special air inlets should be provided, with damper control, which will let air in through flues entering the cellar near the floor at either side of the entrance.

A special, but simple, device, known as a "humidifier," is now being successfully used in some of the best storage cellars. This is made about as follows: In the diameter of the cellar, a cement basin is constructed from 30 to 36 inches in diameter and from four to five feet deep. This basin may be used as a catch basin for drainage water tiled into it. The basin is connected to a drainage outlet by a vitrified tile from 12 to 16 inches in diameter, attached to the basin from 12 to 15 inches from the bottom, thus providing for a constant water supply for the cellar. This tile outlet, besides providing for drainage, acts as an air flue for the cellar. The air brought in passes over the body of water and out into the cellar, carrying moisture with it which is distributed through the atmosphere by the ventilation system. As severe winter weather sets in, the outside end of this drain must be covered to keep out the cold. It must be protected with screen or grating at all times to prevent vermin from entering.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

WE have just received a very interesting letter from Ray Felton, of Morris County, in which he tells of a plan he and his brother have for saving the seed of the orange cane which they will use to fill their silos. We refer to this in another article in this issue. He also speaks of the increased interest in dairy cows in his locality. He says that a great many cows are now being milked there and he hopes to see continued improvement in the quality of the cows kept. In the spring they sent their county agent with a representative of the farmers to Ohio and purchased a carload of Ayrshire cattle. There are now six men in that county interested in this breed.

Walnut Log Question

J. T. G., Pattawatomie County, writes that a walnut log buyer in that section is giving farmers the impression that the Government is commandeering all walnut logs not voluntarily sold to the concerns having Government contracts. We made a statement in reference to this matter a few weeks ago in KANSAS FARMER to the effect that the Government had not commandeered walnut timber, and this reader asks if he can depend on what we said.

Prof. Albert Dickens, of Manhattan, informs us that so far as he has been able to find out, the Government has not made the slightest movement toward taking over walnut logs. A good many concerns are operating and the country is being cleaned of its walnut, but these concerns have Government contracts and are buying direct from those having logs to sell. We have been unable to find out what the Government is paying for the material when it is delivered in shape for gun stocks and aeroplane propellor blades. These concerns are paying high prices for logs, but those having walnut can do as they please about selling.

In view of the fact that the walnut timber is being cleaned up so closely, it would be a good plan to make some provision for starting a lot of new trees in places where the soil and climatic conditions are favorable for their growth. We expect to have something more to say about this in the near future.

Save Barnyard Manure

Assistant Secretary Vrooman, of the United States Department of Agriculture, recently startled the country with the statement that "our billion-dollar manure waste is the world's greatest economic leak."

"This is not a mere wild guess," he continues, "but a very shrewd and conservative estimate based upon reliable statistics. It has been found that each horse or mule produces annually $27 worth of manure (based upon commercial fertilizer values); each head of cattle $20 worth; each hog $8 worth. Recent investigations indicate that at least one-half of this great wealth of fertilizing material is lost."

Here, then, is a big problem in war thrift for every farmer in this country. Some of this loss in unavoidable but the greater part can be saved.

On the dairy farm the best and cheapest way is to draw the manure directly to the field and spread it as fast as it is made. If plenty of good absorbent bedding is used, the most valuable or liquid portion of the manure can be saved. Rain, after the manure is spread upon the land, only helps to carry the fertilizing materials where they can do the most good—provided, of course, that the land is reasonably level.

There are few farms, however, where all the manure can be handled in this way. Very often heaps of manure accumulate beside the barns from which the most valuable constituents leach away. Of such manure, Professor Van Slyke, of the New York Agricultural Experiment Station, said: "Taking into consideration both the amount and the availability of the plant food leached from stable manure, it is not an exaggeration to say that two-thirds of the plant food value is leached away from much of the stable manure used on American farms."

The best method of storage is in a manure pit. A pit three feet deep, twelve feet long and six feet wide will enable the average farmer to properly preserve the extra barnyard manure until he can find time to haul it to the field. Such a pit may be readily constructed with farm labor of cement, or of hollow tile with a thin coat of cement to prevent seepage. The cost will be trifling in proportion to the saving effected.

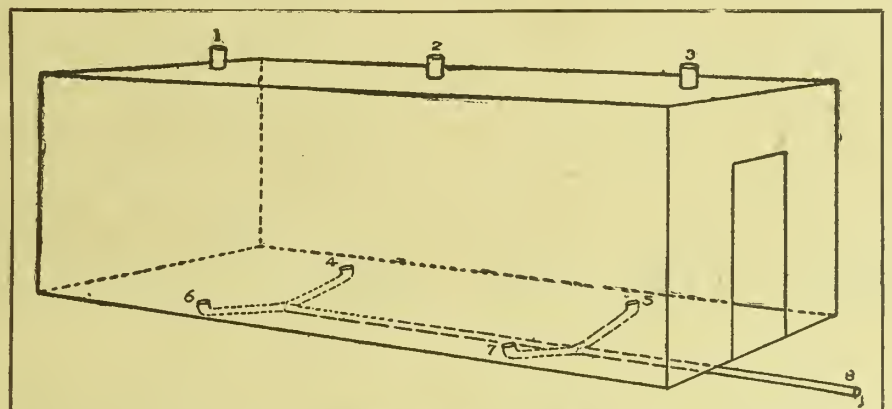
The manure pit should be so located that the liquid portion of the manure can be drained from the stable to the pit. Since "about one-half of the value of the nitrogen and two-thirds that of the potassium are in the urine," according to Van Slyke's "Fertilizers and Crops," a big saving can be effected in this way.

Barnyard manure, considered as plant food, is decidedly an unbalanced ration. It is high in nitrogen (ammonia) and low in phosphorus. If used freely, it is apt to force a rank growth of foliage without a corresponding increase in the grain yield. So it is a good plan to sprinkle acid phosphate over the manure pit at the rate of forty to fifty pounds per ton of manure. This will help keep the flies from breeding in the pit. The acid phosphate will absorb some of the liquid manure. The free ammonia, instead of escaping, will be changed into ammonium phosphate and ammonium sulphate—both valuable fertilizers. Manure so treated is not apt to heat and will make a much better balanced fertilizer than will clear manure.

Another good plan is to build an open feeding shed with a concrete floor for young stock not kept in the stanchions. If this shed is kept bedded, the tramping of the stock will prevent fire-fanging and the manure can be preserved with the least possible loss.

Farm manure adds organic matter which is needed by most of our upland soils. It also favorably affects the bacterial life of the soil. The benefits from even a light dressing of manure are noticeable for several years. Indeed, a given amount of manure will accomplish much more when spread thinly than when concentrated on a smaller area.

Every bit of manure saved this fall and winter will surely tell in next season's harvest.—H. H. CHARLES.



PLAN OF CELLAR SHOWN ON OPPOSITE PAGE.—NOTE DRAINAGE AND VENTILATION

Storage Preparations

We have raised and are yet to raise, in the aggregate, vast quantities of perishable foodstuffs, which we must eat to save wheat for the Yanks over there. Raising the crop is the first phase of the battle. The critical phase is conserving it. Canning and drying are doing yeoman service in the fight, but they need the reinforcements of good storage to put the victory across.

Good storage! All the difference between saving and wasting. Everyone is familiar with the big losses on stored products that occur in our ordinary storage rooms and cellars. Can't we do something to minimize this loss? Where is the trouble, is it our cellars or is it the stuff we try to store, or both?

Let's see what we can do to put our present cellar in the best condition. This applies equally to the outside storage cellars and the basement room under the house. A thorough cleaning up makes a good start. Get out the old paper, wood and other refuse. Personally, I like to take a swipe at the cobwebs. If the floor is of dirt, clean out the corners and level up the depressions. Now, how good carpenters are we? There are the shelves, bins, flooring, ventilators, roof, and steps to be put in A-1 condition. It is a good time to rearrange things or to add to them, if last year's equipment was found unsatisfactory or insufficient. When all this renovating is done, yo ho, my lads, for the whitewash bucket. If you can spray the whitewash on, give the whole works a good covering; if you must use a brush, cover anything you can reach. Now the storage room can be given a clean bill of health, and any vegetable ought to be proud of its fine surroundings.

When fruit and vegetables to be stored are harvested it is very important that the greatest care be used. Get the stuff quickly into storage. An hour in the sun means a week less in storage. Take pains that it is not bruised and otherwise maltreated. Injured plant tissue is a standing invitation to fungous attack. Sort out the sound, uninfected specimens from the others. Store them in separate receptacles. If you have something very choice, like a lot of fine apples, wrap each in paper. The damaged and diseased stuff can be consumed first while there is yet salvage to it. The point here is, that the best storage house ever made can only prolong the good qualities it finds, and cannot remedy defects and their consequences.

This talk is a preparedness talk. Storage is such a big subject. Someone may have in mind to build a new concrete storage house. Send to this department for plans, and if we haven't them, we can tell you where you may get them. Perhaps some have always done their storing in pits. Some crops must be handled by special methods. There is the big subject of storage conditions, temperature, moisture, ventilation and drainage. In this issue of KANSAS FARMER is an excellent article covering many of these points that it would profit you to read. To keep the apples, cabbages, carrots, squashes, and onions in edible condition throughout the winter and spring is a strong finish to the War Garden campaigu, and means wheat and victory across the Atlantic in 1919.—HAROLD SIMONDS, K. S. A. C. Extension Service.

Mill Feed in Meade County

The following letter has been received from W. G. Howard, proprietor of Spring Valley Stock Farm in Meade County. "I note that you would like to hear from subscribers as to the mill feed supply and would say that I am president of a co-operative elevator company here, so know the condition from both the farmer's and the dealer's standpoint. We of course were out of mill feed most of the time since the middle of last winter until after harvest. We then got one car of straight mill feed which lasted about three days and can now buy thirty thousand pounds of mill feed only with the same amount of flour and in this car can get only fifty sacks of shorts.

"At this time with us the demand for bran is not great, but as shorts is by far the cheapest hog feed that can be had, we could sell fifty sacks a day if we could get them.

"In last week's issue of the KANSAS FARMER I note a very timely article on the food situation by Gifford Pinchot. He has stated facts that most farmers know but very few town people know, and I wish there was some way that the town people might have the information.

"Many farmers here have become discouraged and are selling out and will go into other lines of work, so that if this county gets out two-thirds of a normal acreage they will do well.

Mr. Hoover has replied to Mr. Mohler's telegram relative to the need of placing an embargo on shipping any more wheat out of Kansas by saying that millers are unduly alarmed and are not in danger of running out of wheat. Kansas farmers are not worrying so much about the miller as they are about feed. If Kansas mills must shut down for lack of wheat later in the season, it means no more mill feed. As a matter of fact, mill feed is so much in demand at the fixed prices that the whole country is clamoring for it and the Kansas farmer who produced the wheat is now unable to buy back the offal for feeding his live stock.

Object Lesson in Breeding

The results of using high-class purebred bulls will be most strikingly demonstrated in a meeting to be held at Sni A Bar Farm, Grain Valley, Missouri, twenty-six miles east of Kansas City, Thursday, October 10, 1918.

A special train will run from Kansas City to the farm in the morning and return in the afternoon. Excellent automobile roads also connect the city and the farm.

Six years ago Sni A Bar Farm, which is owned by the Kansas City Star, purchased 200 cows on the Kansas City market, and shipped them to the farm, where they were bred to purebred bulls. Their heifers were in turn also bred to purebred bulls. Each individual has been ear marked and hoof branded so that identification is complete.

The stock yards cows with their daughters and granddaughters by purebred bulls, tied side by side in open sheds, and properly labeled to explain their breeding, will be shown.

There will also be exhibited the daughters of the cows which were purchased in dam at the stock yards, sired by the average bulls used in the locality from which they were secured. Two carloads of one and two year old steers of first and second cross individuals will also be exhibited. The first and second cross of each age will be grouped separately. Twenty-five of the best calves on the farm with their dams will be shown in one lot. In an adjoining lot 25 of the poorest calves and their dams will be shown, giving an opportunity to study useful types of breeding females.

Lots of 25 calves sired by each of several different bulls which have been used, and their sires and dams will be exhibited in other pens, so that the influence of various sires may be studied.

Representative men from the Kansas City Star, the Food Administration, the U. S. Department of Agriculture, and various breeders' associations will speak in the forenoon in a large tent.

In the afternoon a demonstration in the selection of herd bulls and breeding cattle will be given by representatives of the Missouri, Kansas and Oklahoma Agricultural Colleges. Individuals selected from the purebred herds on the farm will be used for these demonstrations.

This meeting is especially important as a demonstration of the greatest factor entering into success in the cattle raising business—good sires. Come, and bring with you a neighbor who should be using purebred bulls on his grade herd. An attendance of 2000 is being provided for.

Fortunately, from the farmer's standpoint under existing conditions greater and more widely distributed acreage of wheat than of any intensively cultivated crop can be grown with a given labor supply.

As an emergency measure it is important that as much seed as possible should be saved on our farms and in our market gardens. It has been done widely in the past and can be done readily again.

CONTROL OF HOG DISEASES

Ignorance of Cholera Control Measures No Longer Excuse For Losses

HOGS are in the greatest danger from cholera in the early fall. In a leaflet of the extension division of our Agricultural College, Dr. George M. Potter points out that this disease gains virulence and momentum during the early part of the season in sections where a systematic effort is not made to control it. It is likely to break out in a perfect storm at a time when the farmer is especially busy with his crops and about the time of feeding new corn. The eating of new corn is not of itself the cause of the disease. The change of feed and its loosening effect on the bowels seem to render hogs more susceptible to cholera infection. Many times, in the fall, feeder hogs contract cholera during transportation and disseminate it over the country.

Cholera is the most frequent as well as most destructive of all hog diseases and should be suspected whenever sickness appears in the herd. When hogs become thoroughly sick they seldom recover. However, we do have very effective preventives in vaccination, accompanied by sanitation and proper methods of herd management.

Much is being done to help the hog raiser in controlling hog diseases. The Federal Bureau of Animal Industry, the State Live Stock Sanitary Commissioner, and the extension division of the State Agricultural College, are co-operating in an educational campaign. Furthermore, the State Agricultural College is producing anti-hog cholera serum at its own serum plant and selling it at a moderate price to the hog raiser.

Hog cholera control associations have been formed in hog raising counties, and educational meetings have been or will soon be held in those counties in connection with their activities. Federal veterinarians have been assigned to various districts and their services are available, without charge, to the farmers of their several districts for diagnosis and advise in controlling outbreaks. Sanitary officers have been appointed for the various counties whose duties are to clean and disinfect premises, following outbreaks of cholera, thus rendering it safe to resume hog raising without the danger of a recurrence of the disease. Finally, the county agent is in touch with all these agencies and he has access to all sources of information. He can most quickly secure whatever help is available in time of emergency and should be consulted on these occasions.

Farmers often reply, when urged to employ preventive measures, "I am so busy with my crops that I haven't time to attend to the hogs." But let them consider their hogs in terms of acres of wheat. A 300-pound hog, at 17 cents, is worth $51, which is the equivalent of the profits derived from three to five acres of wheat. Could any farmer justify himself, should five acres of his wheat be destroyed when he might have prevented it? And if he should allow cholera to wipe out his entire herd, he might lose more than the value of his wheat crop. Let him take advantage of these procautionary measures at a time when he is not too busy, and he will not then have to stop during planting, or harvest, to combat disease among his hogs.

Ignorance is no longer excusable in these matters, where so much information and assistance can be had for the asking.

Preventive Measures

Vaccination is very effective in preventing cholera where properly applied. Its success depends upon the use of uncontaminated, potent serum and virulent virus. Dosage and administration require careful attention. Time of administration is of very great importance. Vaccination is in no sense a cure, and he who waits until his entire herd is sick and then depends on vaccination to cure them will be seriously disappointed. It must be used promptly, at the very beginning of an outbreak, to obtain favorable results. Of equal importance is accurate diagnosis. If hogs that are dying from worms are vaccinated for cholera, they continue to die, and vaccination is discredited. Likewise, if cholera is complicated with other diseases, they continue to die from these, after vaccination has overcome the cholera, and vaccination is then said to be valueless.

Because of these and many other details, which limited space prevents discussing here, it is advised that a graduate veterinarian be employed, whenever possible, to treat the herd.

Vaccination alone will not eradicate cholera. The germs may persist for months on the infected premises and a reeurrence of the disease is possible. Vaccination must, therefore, be supplemented by sanitation.

The carcass, dead of cholera, is the most dangerous factor in the spread of the disease. It should invariably be burned completely. Following outbreaks the quarters used by the sick hogs must be thoroughly cleaned of all manure and litter and disinfected by spraying with a reliable disinfectant. The effectiveness of disinfection is greatly enhanced by whitewashing. Sunshine has great value in destroying disease germs, and houses should be so constructed as to admit as much light as possible. This work is done under the direction of the sanitary officer and with his assistance.

We should not wait until disease breaks out to apply sanitary measures. Hogs that live in clean, well-lighted, and comfortable quarters, and have proper food and clean water, are better able to ward off disease than those that are compelled to live in filth. Sanitation thus has considerable value as a preventive measure.

These two, vaccination and sanitation, must be aided by a third measure, herd management. Rotation of pastures is valuable in eliminating disease and parasites. A lot that has been used continuously for hogs, for many years, is loaded with germs and eggs of parasites, and a pig born into such surroundings has to fight for his life from the very beginning. Plow up the hog lot each year and seed it to some forage crop. This not only gives a double use of the ground but cleanses it at the same time. The introduction of disease might often be prevented by quarantining newly purchased stock until health is assured; or by protecting the herd from infection carried by streams, dogs, pigeons, etc.

All of this information and more may be had in greater detail from the workers in the various districts, and the wise hog raiser will avail himself of the opportunity to obtain it.

The success of this effort to eradicate hog cholera depends upon the hearty co-operation of all, and each farmer should consider it his patriotic duty to assist with all his might this great movement for the conservation of the nation's food supply.

Live Stock at Free Fair

REMARKABLY well balanced was the display of live stock made at the Topeka Free Fair last week. It is evident live stock exhibitors like to show at Topeka. Liberal premiums are offered and with half-way decent weather a crowd of interested spectators is assured. From the opening day until the stock was released at five o'clock Friday, a continuous stream poured through the barns. In fact at times the live stock barns were so crowded that it was difficult to see the stock. This year for the first time since the free gate was established, the weather was ideal for the whole week. Previous fairs have been rained out on the best days, and there is nothing more discouraging at a fair than a downpour of rain. Even the people who brave the mud and the wet are in bad humor and do not enjoy or appreciate the exhibits as they should.

A record has been set at the Kansas Free Fair this year that will be difficult to excel either in attendance or in quality and number of exhibits made. The only rain that fell during the week was a drizzle on Tuesday and Tuesday evening which served to cool the atmosphere and lay the dust. It did not even prevent the giving of the remarkable pageant with fireworks, the musical program and the military evolutions in front of the grandstand. This program was given every night of the week, including Saturday, and to a crowded and overflowing grandstand each night. As usual a parade of prize-winning live stock was a feature of the evening program, and never in the history of the Topeka Fair has a better and more evenly balanced exhibit of beef cattle been paraded before the multitudes gathered for the evening attractions.

In the cattle barn every stall was filled and cattle occupied a part of the horse barn and several tents outside. The judging began Wednesday morning, and owing to the unusually fine weather a great many more people were present at the ringside all through the judging program than is usual. A seated judging pavilion is a serious need of the Topeka fair grounds. It is not so essential in good weather, but spectators could get a great deal more out of the showing of stock in an educational way if they could be comfortably seated in such a pavilion. Such a building will perhaps be the next permanent structure on the Topeka fair grounds. The fair closed in good shape financially last year, and it is to be hoped that there will be a good surplus this year to be used for needed improvements. The fact that so many are willing to stand in the sun for hours and watch the judges place the ribbons is evidence that the public would appreciate an opportunity to study the live stock in more comfort.

All four of the strictly beef breeds were strongly represented with the exception of the Galloways. Only one herd of this breed was shown; namely, the H. E. Croft herd. Those who have watched the Croft herd in other shows of previous years know that it is one of the leading Galloway herds of the country. Mr. Croft is now located at Medicine Lodge, Kansas.

Almost a hundred Shorthorn beef cattle were on exhibition and there were no tail-enders in the lot. All were good and well fitted in spite of the high prices of feed and scarcity of labor. Live stock men realize that there has never been a time when good blood in beef cattle meant more than now.

Iowa, Kansas and Missouri contended for the prizes in the Shorthorn classes. The massive white bull, Cumberland Standard, shown by William Herkleman of Elwood, Iowa, was made the senior champion bull of the show, defeating T. J. Dawe's Diamond Emblem in the aged bull class. The junior and grand champion bull was Cumberland's Choice, the junior yearling bull shown by Miller & Son of Granger, Missouri. Miller & Son also owned Choice Mayflower, the senior champion female of the show, a two-year-old heifer. Lady Susan, a beautiful heifer shown by W. L. Pritchard, of Walnut, Iowa, was the junior and grand champion female. Crystal Maid, a Kansas cow in the aged class now owned by A. L. Harris, of Osage City, added another blue ribbon to her collection. This cow has been shown at previous fairs by H. H. Holmes, of Topeka. Mr. Holmes won first in the senior heifer class on the handsome roan heifer, Lady Supreme. In the Kansas specials for junior calves Thompson Bros., of Carbondale, Kansas, won first in the bulls on Royal Marshall. In the heifers, Sweet Blossom 2d, shown by Holmes, won the blue.

There were not quite so many Herefords shown as Shorthorns, but it was probably the strongest show of this breed ever made at Topeka. In placing the awards it was a fight from beginning to end. Some of the classes were so close that the judge, Mr. Makin, found it a difficult matter to select the animal for the head of the class. The Kansas herds furnished plenty of competition for those from outside the state. The Walter L. Yost aged bull, Braemore, had no competition in class, but he was carried through to the senior and grand championship, having to meet plenty of sharp competition on the way. The Hazlett junior yearling, Bocaldo 11th, won the junior championship. Mr. Yost's two-year-old heifer, Bonnie Doris, was the senior and grand champion female. Bloss 16th, shown by Mr. Hazlett, was the junior champion female. The Kansas Free Fair specials made a stronger show in this breed than in the Shorthorns, there being four strong Kansas herds in the competition. Carl Miller, of Belvue, had first and second in the bull calves, and Hazlett had first and second in the heifer calves.

In the Polled Durhams it was a game of see-saw between Achenbach Brothers of Kansas and Hultine of Nebraska. These two herds are quite evenly matched and some close decisions were necessary on the part of the judge in making awards. Achenbach's aged cow, Sultana, added another senior and grand championship ribbon to her large collection. Achenbach Brothers also showed the winning senior champion bull, Sunny Sultan. Hultine's Royal Count was made the junior and grand champion bull of the show.

Iowa and Oklahoma furnished the competition in the Angus classes. The only Kansas entry was the two-year-old bull shown by Emil Hedstrom, of Lost Springs. Mr. Hedstrom decided to show this bull only forty days before the fair. He put him on a heavier ration to which he responded wonderfully and was good enough to stand second in his class, defeating the two-year-old shown by J. C. Simpson of Oklahoma. Plowman, the two-year-old bull shown by the Kershaw Stock Farm, won the senior and grand championship. Carl A. Rosenfield, of Iowa, won the junior championship on his junior yearling bull, Faultless Post. Hillsdale Pride, the aged cow shown by F. J. Roberts, of Iowa, was the senior and grand champion cow, and Kershaw's senior yearling heifer, Muskogee May 6th, was the junior champion female. The showing made by the Angus breeders certainly made many friends for the breed. It is to be regretted that these breeders from outside the state did not meet with strong competition on the part of Kansas breeders.

The fat cattle show was rather small, but it was a good, classy show from start to finish. All breeds compete together at this fair. The Agricultural College of Kansas had entries in most of the classes and had the only herd entries consisting of three steers each. The champion steer of the show was the junior yearling Angus shown by Carl A. Rosenfield, of Kelly, Iowa. There is such a demand for breeding animals that breeders of pure-bred cattle are not showing very many steers.

A good classy show of breeding sheep was made, these being housed in a tent erected for the purpose. The Agricultural College of Kansas made the strongest showing in the sheep classes, having some forty head entered in four different breeds. The Cotswold show was made by C. E. Wood, Shawnee County, who has developed a high class flock, and Waltmire & Son, of Peculiar, Missouri, well known breeders of Cotswolds. The J. R. Turner flock of Harveyville, Kansas, is a new entrant into the sheep business in Kansas. Mr. Turner breeds Shropshires and had the first aged ram of the show. Clarence Lacey, of Meriden, Kansas, is developing a fine flock of Shropshires, and took a goodly portion of the ribbons.

The hog show at the Kansas Free Fair was the biggest and best ever made. In some of the classes there were as many as thirty animals driven into the ring. Both the Poland China and the Duroc Jersey state futurities were a feature of the show. These futurity shows are a big boost for the breed. They are held

under the auspices of the national breed associations. The hogs shown were remarkably well fitted, considering the fact that feed has been so extremely high in price during the past year.

In addition to the regular hog show was the show made by the State Boys' and Girls' Pig Club. These pigs were shown in a tent erected for the purpose. These clubs have been organized by the extension division of the Agricultural College. Over 800 members are enrolled over the state. In a good many of the counties public-spirited citizens have been enlisted to act as county club leaders. Paul Imel, the state club leader, traveled over the state extensively and got the work well under way before resigning to enter the army. Liberal prizes were offered by the Kansas Free Fair Association to be competed for by the boys and girls of these pig clubs. Sixty-three pigs were entered by members of the state clubs. In addition there were about eighteen pigs entered in the junior classification which admitted boys or girls who were not members of any of the Kansas state pig clubs organized under the auspices of the extension division of the Agricultural College. Some eight or nine of these eighteen were entered by members of other clubs than officially organized state pig clubs.

Following are the live stock awards:

HORSE AWARDS.

PERCHERONS.

Exhibitors—Adam Becker & Son, Meriden, Kan.; W. E. & C. S. Dustin, Topeka, Kan.; Gossard Breeding Farms, Turon, Kan.; J. T. Schwalm & Son, Baldwin, Kan.; J. A. Howell & Sons, Paris, Mo.; A. P. Loomis, Diamond Springs, Kan.; O. N. Wilson, Silver Lake, Kan.; William Carl, Wakarusa, Kan.; D. F. McAllster, Topeka, Kan.; Mahlon Groenmiller, Pomona, Kan.; E. Tomlinson, Emporia, Kan.; C. C. Towne, Valencie, Kan.; J. J. Moxley, Osage City, Kan.; C. R. Soward & Son, Baldwin, Kan.

Judge—George B. Ross, Kansas City, Kan.

Aged Stallion—1, Gossard on Kapitaine; 2, Dustin; 3, 4 and 6, Gossard; 5, Becker.

Three-year-old Stallion—1, Howell on Rocule; 2, Schwalm.

Two-year-old Stallion — 1, Wilson; 2, Carl; 3, Loomis.

Yearling Stallion — 1, McAlister; 2, Loomis; 3, Groenmiller; 4, Gossard; 5, McAlister.

Stallion Foals—1, Schwalm on Brilliant; 2, Howell; 3, Soward; 4, Tomlinson; 5, Gossard.

Aged Mares—1, Loomis on Jugale; 2 and 4, Towne; 3, Gossard.

Three-year-old Mare—1, Loomis on Francine; 2, Becker; 3, Gossard; 4, Wilson.

Two-year-old Mares—1 and 4, Howell; 2, Loomis; 3, McAlister.

Yearling Mare — Moxley on Nemesis; 2 and 4, Becker; 3, McAlister.

Filly Foal—1, Dustin; 2 and 3, McAlister; 4, Howell; 5, Gossard; 6, Loomis.

Senior and Grand Champion Stallion—Gossard on Kapitaine.

Junior Champion Stallion—Wilson on Kantonel II.

Senior and Grand Champion Mare—Loomis on Francine.

Junior Champion Mare—Howell on Molly.

Four Animals Get of One Sire—1, Loomis; 2, McAlister; 3, Wilson.

Two Animals Produce of One Mare—1, Loomis; 2, Dustin; 3, Howell.

Stallion and Four Mares, Any Age, Owned by Exhibitor—1, Loomis; 2, McAlister; 3, Gossard.

Five Stallions, Any Age, Owned by Exhibitor—1, Gossard; one entry only.

PUBLIC SERVICE SPECIALS.

Kansas-owned Service Stallion, four years old and over—1, 3, 4 and 6, Gossard; 2, Dustin; 5, Becker.

Kansas-owned Service Stallion Three and Under—1, Schwalm.

Kansas Free Fair Specials: Yearling Stallion Owned by Kansas Exhibitor—1 and 5, McAlister on Linn and Daylo; 2, Loomis on Darko; 3, Groenmiller on Erlhart; 4, Gossard on Gaudet.

Stallion Foaled Since January 1, 1918, owned by Kansas Exhibitor (seven shown)—1, Schwalm on Brilliant; 2, Soward; 3, Tomlinson; 4, Gossard; 5, Wilson; 6, McAlister.

Yearling Mare owned by Kansas exhibitor—1, Moxley on Nemesis; 2 and 4, Becker; 3, McAlister; 5 and 6, Gossard.

Filley Foaled Since January 1, 1918, owned by Kansas exhibitor—1, Dustin; 2 and 3, McAlister; 4, Gossard; 5, Loomis; 6, Towne.

BELGIANS.

Exhibitors—C. G. Good & Son, Ogden, Iowa; D. Cooper & Sons, Freeport, Kan.; Kansss Agricultural College, Manhattan.

Judge—George B. Ross, Kansas City, Kan.

Aged Stallions (three shown)—1, Good on Jupiter; 2, Kansas Agricultural College on Collart; 3, D. Cooper & Sons on Lucas.

Two-year-old Stallions (four shown)—1, Good on Ruban; 2, Kansas College on Murdock d'Or; 3, Cooper on Paul; 4, Cooper on Joffre.

Yearling Stallions (two shown)—1 and 2, Good on Farceur 2d and LeFleur.

Stallion Foal (two shown)—1, Kansas College on Garcon Heureux; 2, Cooper on General Foch.

Aged Mares (four shown)—1, Good on Margot; 2, Kansas College on Bernadine; 3, Good on Ruchesse de Celles.

Three-year-old Mares (one shown) — Cooper on Silvey.

Two-year-old Mares (four shown)—1, 2, 3, Good on Paramount Lula, Oakdale Girl and Princess B.

Yearling Mare (four shown)—1 and 2, Good on Hazel and Mabel; 3, Cooper on Pioneer Princess.

Filly Foals (two shown)—1, Cooper on Goldie.

Champion Stallion—Good on Jupiter.

Champion Mare—Good on Margot.

Get of Sire—1 and 2, Good; 3, Cooper.

Produce of Dam—1, Good; 2, Kansas College; 3, Cooper.

Herd—1, Good; 2, Cooper.

Special prize for stallion standing for public service in Kansas—1, Kansas College; 2, Cooper.

BEEF CATTLE AWARDS.

SHORTHORNS.

Exhibitors—T. J. Dawe & Sons, Troy, Kan.; Joaeph Miller & Sons, Granger, Mo.; H. H. Holmes, Topeka, Kan.; A. L. Harris, Osage City, Kan.; W. L. Pritchard, Walnut, Iowa; Tomson Bros., Carhondale, Kan.; A. A. Tennyson, Chapman, Kan.; John Regier, Whitewater, Kan.; William Herkelmann, Elwood, Iowa; E. P. Flannagan, Chapman, Kan.

Judge—John Garden, Wapello, Iowa.

Aged Bulls—1, Herkelmann on Cumberland Standard; 2, Dawe on Diamond Emblem; 3, Holmes on Viscount Stamp; 4, Tennyson on Crown Prince.

Two-year-old Bulls—1, Miller & Son on Dale Cumberland; 2, Flannagan on Sultan's Pride.

Senior Yearlings—1, Herkelmann on Sultan's Model; 2, Holmes on Superior Cumberland; 3, Miller on Count Valentine.

Junior Yearling Bulls—1, Miller on Cumberland's Choice; 2, Regier on A. L. Cumberland; 3, Dawe on Emblem Model; 4, Holmes on Red Gauntlet.

Senior Bull Calves—1 and 2, Pritchard; 3, Miller; 4, Herkelmann; 5, 6 and 8, Tomson; 7, Holmes.

Junior Calves—1, Herkelmann; 2, Miller; 3, Pritchard; 4, Tomson; 5, Regier; 6, Holmes; 7, Tennyson; 8, Harris.

Senior Champion Bull—Herkelmann on Cumberland Standard.

Junior and Grand Champion Bull—Miller on Cumberland's Choice.

Aged Cows—1, Harris on Crystal Maid; 2 and 3, Dawe on Maxwalton Lavender and Autumn Queen Star; 4, Tennyson on Sweet Reva; 5, Holmes on Empress.

Two-year-old Heifers—1, Miller; 2 and 3, Dawe; 4, Holmes; 5 and 6, Tennyson.

Senior Yearling Heifers — 1, Pritchard on Lady Susan; 2, Miller; 3, 4 and 5, Tennyson.

Junior Yearling Heifers—1 and 3, Pritc Miller; 4, Herkelmann; 5 and 6, Tomson; 7, ; 8, Harris.

Senior Heifer Calves—1, Holmes on Lady Supreme; 2 and 8, Tomson on Simplicity 6th and Mayflower 8th; 3 and 4, Pritchard; 5, Tomson; 6, Herkelmann; 7, Regier.

Junior Heifer Calves—1, Herkelmann on Village Beauty 4th; 2 and 6, Miller; 3 and 7, Holmes; 4, Tomson; 5, Pritchard; 8, Regier.

Senior Champion Cow—Miller on Choice Mayflower.

Junior and Grand Champion Cow—Pritchard on Lady Susan.

Aged Herd—1, Miller; 2, Holmes; 3, Tennyson.

Young Herd—1, Pritchard; 2, Miller; 3, Tomson; 4, Holmes.

Calf Herd—1, Pritchard; 2, Herkelmann; 3, Tomson; 4, Miller.

Get of Sire—1, Pritchard on Dale Clarion; 2, Miller on Choice Cumberland; 3, Herkelmann on True Cumberland 3d; 4, Tomson on Village Marsball.

Produce of Cow—1, Pritchard; 2, Miller; 3, Herkelmann; 4, Tomson.

Free Fair Special for Kansas Breeders: Junior Bull Calves—1, Tomson on Royal Marshall; 2, Regier on Lavarious; 3, Holmes on Valentine Stamp; 4 and 6, Tennyson on Red Diamond and Violet Duke.

Junior Heifer Calves—1, Holmes on Sweet Blossom 2d; 2, Tomson on Lady Violet 2d; 3, Holmes on Lady Empress; 4, Regier on Calla 12th; 5, Dawe on Maxie Emblem; 6, Tennyson on Roan Daisy.

HEREFORDS.

Exhibitors—Walter L. Yost, Kansas City, Mo.; L. C. Turner & Son, Kansas City, Mo.; Klaus Bros., Bendena, Kan.; C. M. Largent, Merkle, Texas; Carl Miller, Belvue, Kan.; R. H. Hazlett, El Dorado, Kan.; W. J. Brown, Fall River, Kan.; Wallace & Good, Kansas City, Mo.

Judge—Claude Makin, Bolton, Mo.

Aged Rulls—1, Yost on Braemore.

Two-year-old Bulls—1, Yost; 2, Largent; 3, Miller; 4, Klaus.

Senior Yearling Bulls—1, Good; 2, Largent; 3, Hazlett; 4, Brown; 5, Largent.

Junior Yearling—1, Hazlett on Bocaldo 11th; 2, Largent; 3, Hazlett; 4 and 5, Turner; 6, Largent; 7, Yost; 8, Brown.

Senior Bull Calf—1 and 3, Largent; 2, Yost; 4, Hazlett; 5, Good; 6 and 7, Turner; 8, Miller.

Junior Bull Calf—1, Yost; 2, Largent; 3 and 5, Miller; 4, Good; 6, Brown; 7, Klaus.

Senior and Grand Champion Bull—Yost on Braemore.

Junior Champion Bull—Hazlett on Bocaldo 11th.

Aged Cow—1, Yost on Lena Rivers; 2, Klaus Bros.; 3 and 4, Largent.

Two-year-old Heifer—1, Yost on Bonnie Doris; 2, Hazlett; 3, Largent; 4, Yost; 5, Good; 6, Klaus.

Senior Yearling Heifer—1, Hazlett; 2 and 3, Yost; 4, Hazlett; 5, Largent; 6, Klaus.

Senior Heifer Calf—1, 5 and 7, Largent; 2 and 3, Yost; 4 and 6, Hazlett.

Junior Heifer Calf—1, Yost; 2, Turner; 3, Largent; 4, Hazlett; 5 and 7, Miller; 6, Brown; 8, Klaus.

Senior and Grand Champion Cow—Yost on Bonnie Doris.

Junior Champion Cow—Hazlett on Bloss 16th.

Aged Herd—1, Yost; 2, Largent; 3, Klaus.

Young Herd—1, Yost; 2, Hazlett; 3, Largent; 4, Brown; 5, Klaus.

Calf Herd—1, Largent; 2, Yost; 3, Turner; 4, Hazlett; 5, Miller; 6, Brown.

Get of Sire—1, Yost; 2 and 3, Largent; 4, Good; 5, Turner; 6, Miller.

Produce of Cow—1, Yost; 2, Hazlett; 3, Largent; 4 and 6, Turner; 5, Hazlett.

Kansas Free Fair Specials: Junior Bull Calf—1 and 2, Miller; 3, Brown; 4, Klaus.

Junior Heifer Calf—1, Hazlett; 2 and 4, Miller; 3, Brown; 5, Klaus.

POLLED DURHAMS.

Exhibitors—Achenbach Bros., Washington, Kan.; Albert Hultine, Saronville, Neb.

Judge—John Garden, Wapello, Iowa.

Two-year-old Bull (one entry only)—Achenbach.

Senior Yearling Bull (one entry only)—Achenbach.

Junior Yearling Bull (one entry only)—Achenbach.

Senior Bull Calf—1, 3 and 4, Hultine; 2 and 5, Achenbach.

Junior Bull Calf (one entry only)—Hultine.

Senior Champion Bull—Achenbach on Sunny Sultan.

Junior and Grand Champion Bull — Hultine on Royal Count.

Aged Cow (one entry only)—Achenbach on Sultana.

Two-year-old Heifer (one entry only)—Achenbach.

Senior Yearling Heifer (one entry only)—Hultine.

Junior Yearling Heifer—1, Hultine; 2, Achenbach.

Senior Heifer Calf—1 and 3, Achenbach; 2, Hultine.

Junior Heifer Calf—1, Achenbach; 2, Hultine.

Senior and Grand Champion Cow—Achenbach on Sultana.

Junior Champion Female—Hultine on Gloster Countess, senior yearling heifer.

Aged Herd (one entry only)—Achenbach.

Young Herd (one entry only)—Hultine.

Calf Herd—1, Achenbach; 2, Hultine.

Get of Sire—1, Hultine; 2, Achenbach.

Produce of Cow—1 and 3, Achenbach; 2, Hultine.

GALLOWAYS.

H. Croft, Medicine Lodge, Kan., was the only exhibitor and took all awards.

Judge—W. H. Pew, Ravenna, Ohio.

ANGUS.

Exhibitors—F. J. Roberts, Atlantic, Iowa; L. R. Kershaw Stock Farm, Muskogee, Okla.; Carl A. Rosenfield, Kelly, Iowa; J. C. Simpson, Eufala, Okla.; Emil Hedstrom, Lost Springs, Kan.

Judge—W. H. Pew, Ravenna, Ohio.

Aged Bull—1, Simpson; 2, Kershaw.

Two-year-old Bull—1, Kershaw; 2, Hedstrom; 3, Simpson.

Senior Yearling Bull—1, Kershaw; 2, Simpson.

Junior Yearling Bull—1, Rosenfield; 2, Kershaw.

Senior Bull Calf—1 and 2, Simpson; 3, Roberts; 4, Kershaw.

Junior Bull Calf—1 and 6, Roberts; 2 and 4, Rosenfield; 3 and 5, Kershaw; 7, Simpson.

Aged Cow—1, Roberts; 2, Simpson; 3, Kershaw.

Two-year-old Heifer—1 and 3, Roberts; 2, Simpson; 4, Kershaw.

Senior Yearling Heifer—1, Kershaw; 2 and 4, Roberts; 3, Simpson.

Junior Yearling Heifer—1 and 4, Roberts; 2 and 6, Simpson; 3, Rosenfield; 5, Kershaw.

Senior Heifer Calf—1 and 3, Kershaw; 2 and 4, Rosenfield; 5, Simpson; 6, Roberts.

Junior Heifer Calf—1 and 6, Kershaw; 2, Roberts; 3 and 4, Simpson; 5 and 7, Rosenfield.

Senior and Grand Champion Bull—Kershaw on Plowman, two-year-old.

Junior Champion Bull — Rosenfield on Faultless Post, junior yearling.

Senior and Grand Champion Cow — Roberts on Hillsdale Pride, aged cow.

Junior Champion Female—Kershaw on Muskogee May 6th senior yearling.

Aged Herd—1, Roberts; 2, Kershaw; 3, Simpson.

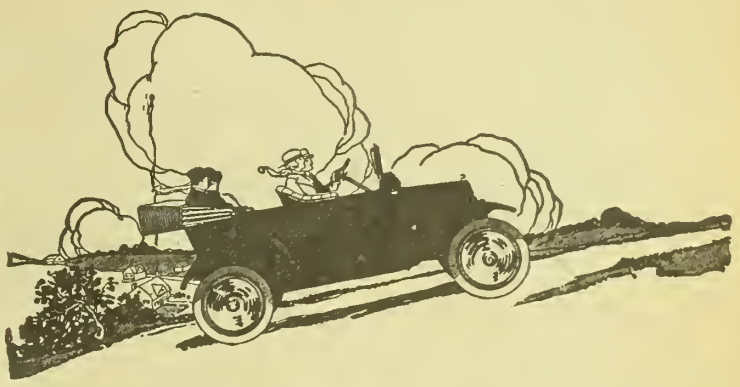
Young Herd—1, Kershaw; 2, Roberts; 3, Rosenfield.

Calf Herd—1, Kershaw; 2, Roberts; 3 and 4, Rosenfield.

Get of Sire—1, Kershaw; 2, Roberts; 3, Simpson;

(Continued on Page Nine)

FORD EFFICIENCY



Four heat conditions scientifically met by Gargoyle Mobiloil "E" in Ford engines

If you have driven your Ford very long, you have no doubt met with a problem, more or less common to all cars.

That is—a tendency of the engine to overheat. This is generally most noticeable after continued running on low gear.

True, your thermo-syphon cooling system absorbs much of the excess heat of the combustion chambers.

But your water cooling system should not be called upon to absorb and radiate the heat of friction. Most of that task belongs to the lubricating oil.

But of even greater importance is the ability of the lubricating oil to perform its function of minimizing friction and thus reducing friction heat.

Four common forms of overheating are described below. Each one traces back directly to your oil supply.

(1) **Friction Heat on Cylinder Walls.** This is caused by oil too light or too heavy in body for the Ford engine If too light, it fails to thoroughly separate friction surfaces. If too heavy, it is not distributed properly, leaving cylinder walls and bearings partly exposed. In either case excess friction follows. Heat mounts up.

The body and character of Gargoyle Mobiloil "E" are such that it will feed readily, distribute thoroughly and form a protecting film between cylinder walls, pistons and piston rings.

(2) **Excessive Crank-Case Heat.** Normal crank-case heat is about 140° F. But if the oil does not tightly seal the Ford piston rings, part of the heat of each explosion shoots down past the piston to further heat the oil in the crank-case. Crank-case heat may then rise 40° to 50° higher.

Gargoyle Mobiloil "E" will thoroughly seal the Ford piston rings. The heat of the explosion on the power stroke is kept above the piston, where it belongs.

(3) **Hot Bearings.** Bearing surfaces, when seen through the microscope, show tiny hills and valleys of metal. The oil must thoroughly fill in these valleys and cushion the peaks or excess friction will result. If not, hot or burned-out bearings follow.

Gargoyle Mobiloil "E" is of the correct body to lubricate the Ford bearing surfaces, thus preventing them from rubbing against each other.

(4) **Heat Absorption and Radiation.** On warm days you will sometimes see Fords running under overheated conditions due to the use of an oil of low quality or poor heat radiating ability.

Ford owners who use Gargoyle Mobiloil "E" are free from this trouble, owing to the ability of the oil to minimize friction and to absorb and radiate heat.

The following test will show you the importance of scientific lubrication in the efficient operation of your Ford engine:

An Economical Demonstration

It will cost you little to fill your reservoir with Gargoyle Mobiloil "E." The garage or dealer you trade with has it, or can promptly secure it for you.

Ask him to empty your reservoir of its present oil and fill it with Gargoyle Mobiloil "E." You can then judge for yourself the results in cooler operation, gasoline economy and reduced oil consumption, to say nothing of reduced carbon deposit and greater power.

GARGOYLE

Mobiloils

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In buying Gargoyle Mobiloil "E" from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If the dealer has not Gargoyle Mobiloil "E," he can easily secure it for you.

YOUR TRACTOR

also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

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KANSAS FARMER DAIRY CLUB

Some Advantages of Dairying

IF YOU should be asked to give in detail the reasons for following dairying as a feature of the farm business, you could enumerate the following points:

1. The sale of dairy products furnishes a steady income throughout the year. The farmer who depends upon crop sales for his income usually makes the bulk of his sales during one or two months of the year, while during the rest of the year he has no cash income. Such a system requires long credits in the community.

2. The market for dairy products fluctuates very little year by year as compared with other farm products.

3. Through the return of manure to the land the fertility and physical condition of the soil may be maintained at a high level and crops increased. Even after many years a properly maintained dairy farm has constantly increasing crop yields instead of decreasing ones.

4. In dairying, labor may be utilized at a more uniform rate throughout the year than in nearly any other farm business. The grain grower, for example, may have to employ much additional labor at harvest time, but so far as the dairy is concerned the dairyman has about the same duties to perform every month of the year. Thus, less help is required seasonally and permanent employees may be kept.

5. Through the dairy cow many unsalable roughages may be transformed into products from which cash may be realized. Grass, hay, corn fodder, and other roughage which may not have a ready sale are economically utilized by the dairy cow. Land which is not suitable for cultivation can be utilized for pasturage for dairy cows.

Fall Feeding of Dairy Cows

The wise dairyman will feed liberally during the fall months. Cows which are not well fed at this time will go into the winter thin in flesh and with reduced milk flow. It will be expensive and largely in vain to attempt to bring them back to normal after they go on winter rations.

It will pay to begin feeding silage and hay early. The extra feed given at this time will not only bring good, immediate returns, but affect the milk flow for the whole year by putting the cow in good condition to go through the winter months. Cows which go into the winter in good vitality and with undiminished milk flow are the ones which will make most economical use of the high priced feeds given them during that period. Keep up the milk flow.

Cold Rains Reduce Milk Flow

Cold uncomfortable cows will not make economical use of feed. Their highly developed nervous systems are very susceptible to sudden changes in temperature. This should be borne in mind in the fall when the first cold rains and cold winds come. Protection from these will prevent the reduction in milk flow which they always cause. Do not waste feed by letting your cows stand out in the cold winds and rain.

Two Heifer Calves

The following letter has been received from Claude Carter, of Meriden, who purchased Bonnie Belle, the grade Holstein cow with which Glen Romig made such a good record last year:

"My cow was fresh the twenty-eighth of August and she has a fine heifer calf. Now that makes me two fine heifers and I am going to have a picture taken of them and send it in before the close of the year. I sure am proud of my cow and two calves.

"My cow does not care for much grain at this time; all she wants is hay, but I feed her a little grain. She is not giving quite as much milk this time as she did before, but I think she will come up on her milk."

Dairy Cattle at Topeka

A much stronger showing of dairy cattle was made at the Topeka Free Fair this year than last. All the strictly dairy breeds were represented, although the only Guernseys were those shown by Albert Hyzer, of Storm Lake, Iowa, owner of the Dairyland Farm. Lack of competition made the judging rather tame in the Guernsey classes, but the animals led into the ring were high-class individuals of the breed.

In the Jersey breed, Longview Farm monopolized the showing, having several entries in practically all the classes. R. A. Gilliland, of Mayetta, Kansas, who furnished the competition in Jerseys, has a profitable working herd with plenty of good breeding back of them. He has built from the ground up in the years he has been developing the Jersey herd on his farm, which he calls Tessoro Place. His herd is rapidly becoming a Register of Merit herd, and the fact that he took no blue ribbons in showing against such a herd as that of Longview Farm should not be taken to mean that he led inferior animals into the ring.

The Holstein show was made by three strong herds. The United States Disciplinary Barracks at Leavenworth has been gathering for the past year or so some of the high class animals of this breed. Their exhibit, consisting of over twenty head, was in direct charge of Sergeant Ellis. Captain Fisk, who was a dairyman of wide experience and training before he became a captain in the United States Army, is in charge of the dairy work at the barracks where there are now about 2,600 men who have been sent there for discipline or punishment. The milk from the 170 cows of the dairy is all used by the inmates. Captain Fisk was present and assisted in showing the animals. The exhibit was housed in a tent.

Chestnut & Sons, of Denison, Kansas, have done remarkably well in building up a pure-bred Holstein herd. They were highly pleased to see their herd bull, Johanna Bonheur Champion 2d, again made grand champion bull of the show. The Cass Farm herd, of Waterloo, Iowa, had a well balanced exhibit getting a goodly share of the blue ribbons. This herd had the grand champion female in their aged cow, Almeda Luecke Hengerveld. J. H. Cleverly, a young breeder from Iowa with only two entries, had the junior champion bull, Sir Pietertje Watson Hengerveld, an animal of the most approved Holstein dairy type.

The Ayrshire exhibit was a large one, four herds being entered, all from outside the state. This breed is becoming better known in Kansas, and a good many Ayrshires are coming into the state. C. H. Peverill, of Waterloo, Iowa, had rather the best of the showing, winning all the championships and first in most of the group awards.

Prof. J. B. Fitch, head of the dairy department at the Kansas Agricultural College, did a very satisfactory job of judging the Holsteins and Jerseys. James Linn, of Manhattan, who passed on the Ayrshires and Guernseys, also did most acceptable work. The awards appear in full on another page of this issue.

National Dairy Show Features

At the National Dairy Show, to be held October 10 to 19, at Columbus, Ohio, representatives of the U. S. Food Administration and Department of Agriculture will co-operate with representatives of the Ohio State University, presenting to the public the latest results of science and practice in the preparation of milk and cheese as substitutes for meat; in the uses of these same products in the dinner pail of the hardy worker; the lunch box of the school child and the office worker.

The European armies are using cheese because of its high nutritive value, its ease of transportation, and the lack of any preparation required in the trenches. These, and many other aspects of the uses of milk, butter and many varieties of cheese, will be staged in attractive stories at the forthcoming dairy show.

It is expected that there will be something coming from the recently organized Labor Board to show what has been accomplished in helping to solve the labor problem for the dairyman.

Dean Van Norman, of the University of California, and president of the National Dairy Show, recently spent two weeks in Washington and Columbus, developing the war story of the dairy industry, and if present plans mature, the buildings devoted to the Government's war stories will not be the least interesting points to visitors at the forthcoming show.

On account of the present emergency it is particularly important that good dairy bulls should be utilized to the fullest advantage, for more can be accomplished in increasing milk production and making it more economical in this way than in any other.

If it was the old cow's owner that a million flies were eating, he would think up a remedy pretty quick.—Jewell Republican.

One of the most striking agricultural transformations in Kansas is the creation of a dairy center in the territory tributary to Mulvane. Two-hundred-dollar dairy cows have long ceased to be a seven-day wonder. The whole country is full of black and white cows. The milk condensery at Mulvane pays over $2,000 a day to farmers for milk.

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In addition to an excellent showing of winter millinery, comfortable underwear, splendid footwear and dependable household needs, there is rich choosing from the most stylish women's and children's Winter Coats, Suits and Dresses.

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KRESS MAIL ORDER STORES

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Send for Your FREE Copy TO-DAY

LIVE STOCK AT KANSAS FREE FAIR

(Continued from Page Seven)

4, Rosenfield.
Produce of Cow—1 and 3, Kersbaw; 2 and 4, Simpson.

FAT CATTLE AWARDS.

Exhibitors—Kansas Agricultural College, Manhattan; Kershaw Stock Farm, Muskogee, Okla.; J. C. Simpson, Eufala. Okla.; Carl A. Rosenfield, Kelly, Iowa.
Senior Yearling—1, K. S. A. C. Hereford; 2 and 3, Kershaw, Angus; 4, K. S. A. C., Shorthorn.
Junior Yearling—1, Rosenfield, Angus; 2, K. S. A. C., Galloway; 3, K. S. A. C., Shorthorn; 4, Rosenfield, Angus.
Senior Calves—1, K. S. A. C., Angus; 2, Simpson, Angus; 3, K. S. A. C., Shorthorn; 4, Rosenfield, Angus.
Herds—1, K. S. A. C., Angus; 2, K. S. A. C., Shorthorn.
Champion Steer—Rosenfield, on junior yearling.

DAIRY CATTLE AWARDS.

HOLSTEINS.

Exhibitors—J. M. Chestnut & Sons, Denison, Kan.; Cass Farm Company, Sumner, Iowa; J. H. Cleverly, Maxwell, Iowa; United States Disciplinary Barracks, Leavenworth, Kan.; J. S. Artman, Denison, Kan.
Judge—J. B. Fitch, Manhattan, Kan.
Aged Bull—1, Chestnut ou Johanna Bonheur Champion 2d; 2, Cass Farm; 3, U. S. Dis. Barracks.
Two-year-old Bull—1, Cass Farm. Only one entry.
Senior Yearling—1, Cleverly; 2, U. S. Dis. Bar.
Junior Yearling Bull—1, Chestnut. One entry only.
Senior Bull Calf—1, 3, 4 and 5, U. S. Dis. Bar.; 2, Cleverly.
Junior Bull Calf—1 and 2, Cass Farm; 3, Chestnut.
Senior and Grand Champion Bull—Chestnut on Johanna Bonheur Champion 2d.
Junior Champion Bull—Cleverly on Sir Pietertje Watson Homestead.
Aged Cows (eight entries)—1, Cass; 2, 4 and 5, U. S. Dis. Bar.; 3, 6, Chestnut.
Two-year-old Heifer (six entries)—1, 4 and 5, U. S. Dis. Bar.; 2, Cass; 3, Chestnut.
Senior Yearling Heifer—1, Cass; 2 and 3, Chestnut; 4, U. S. Dis. Bar.
Junior Yearling Heifer—1, Cass; 2, Chestnut.
Senior Heifer Calf—1, 2 and 4, Cass; 3, Chestnut; 5, Artman.
Junior Heifer Calf—1 and 2, Cass; 3, U. S. Dis. Bar.; 4, Chestnut.
Senior and Grand Champion Cow—Cass on Almeda Luecke Hengerveld.
Junior Champion Cow—Cass on Aggie Hengerveld Carlotta.
Aged Herd—1, Cass; 2, Chestnut; 3, U. S. Dis. Bar.
Young Herd (one entry only)—Cass.
Calf Herd—1, Cass; 2, U. S. Dis. Bar.
Get of Sire—1, Cass; 2, U. S. Dis. Bar.; 3, Chestnut.
Produce of Cow—1 and 2, Chestnut.

GUERNSEYS.

Judge—James Lind, Manhattan, Kan.
Albert Hyzer, proprietor of Dairyland Farm Guernseys, Storm Lake, Iowa, was the only exhibitor and took all awards.

JERSEYS.

Exhibitors — R. A. Gilliland, Mayetta, Kansas; Longview Farm, Lees Summit, Missouri; White City Jersey Farm, Tulsa, Okla.
Judge—J. B. Fitch, professor of dairy husbandry, K. S. A. C.
Aged Bull—1 and 3, Longview; 2, White City Farm.
Two-year-old Bull—1 and 2, Longview; 3, Gilliland.
Senior Yearling Bull—1, White City Farm; 2, Longview.
Junior Yearling Bull—1, Longview (one entry only).
Senior Bull Calf—1 and 2, Longview; 3, White City Farm; 4 and 5, Gilliland.
Junior Bull Calf—1 and 2, Longview; 3, White City Farm.
Aged Cow—1, 2 and 3, Longview; 4, White City Farm.
Two-year-old Heifer—1 and 2, Longview; 3, White City Farm; 4, Gilliland.
Senior Yearling—1 and 4, Longview; 2, White City; 3, Gilliland.
Junior Yearling—1, 2 and 4, Longview; 3, White City; 5 and 6, Gilliland.
Senior Heifer Calf—1, 2, 4, Longview; 3, 5, White City.
Junior Heifer Calf—1 and 3, Longview; 2 and 4, White City.
Senior Grand Champion Bull—Longview on Viola's Majesty's White Sox.
Junior Champion Bull—Longview on Norma's Perfect Raleigh.
Senior and Grand Champion Cow—Longview on Fairy Glen's Flora.
Junior Champion Cow—Longview on Raleigb's Oxtivity.
Aged Herd—1 and 2, Longview; 3, White City.
Young Herd—1 and 2, Longview; 3, Gilliland.
Calf Herd—1, Longview (one entry only).
Get of Sire—1 and 2, Longview; 3, Gilliland.
Produce of Cow—1, 2, 3 and 4, Longview; 5, Gilliland.

AYRSHIRES.

Exhibitors—C. H. Peverill, Waterloo, Iowa; Cloverdale Farm, Lima Center, Wisconsin; Henderson Ayrshire Farm, Hudson, Ohio; South Farm, Willoughby, Ohio.
Judge—James Linn, Manhattan.
Aged Bull—1, Peverill (one entry only).
Two-year-old Bull—No entry.
Senior Yearling Bull—1, Peverill (one entry only).
Junior Yearling Bull—Henderson (one entry only).
Senior Calf—Peverill (one entry only).
Junior Calf—1 and 2, Peverill; 3, Henderson.
Aged Cow—1, 2 and 3, Peverill; 4, Cloverdale.
Two-year-old Heifer—1, Peverill; 2 and 3, Henderson; 4, Cloverdale.
Senior Yearling Heifer—1, Cloverdale; 2 and 3, Henderson.
Junior Yearling Heifer—1 and 2, Peverill; 3 and 4, Henderson.
Senior Heifer Calf—1, Peverill; 2, Cloverdale; 3, Henderson.
Junior Heifer Calf—1, Peverill; 2 and 3, Henderson.
Senior Champion Bull—Peverill on Willowmoor Robinhood 19th.
Junior and Grand Champion Bull—Peverill on Rosebud's Pride.
Senior, Junior and Grand Champion Cow—Peverill on Enid's Lessnessock.
Junior Champion Heifer—Peverill.
Aged Herd—Peverill.
Young Herd—1, Peverill; 2, Henderson; 3, Cloverdale.
Calf Herd—Cloverdale.
Get of Sire—1, Peverill; 2, Cloverdale; 3, Henderson.
Produce of Cow—1 and 2, Peverill; 3, Cloverdale; 4, Henderson.

HOG AWARDS.

DUROC JERSEYS.

Exhibitors—F. J. Moser, Goffs, Kan.; Searle & Cottle, Topeka, Kan.; George M. Klusmire, Holton, Kan.; W. R. Crow, Hutchinson, Kan.; Howell Bros., Herkimer, Kan.; G. M. Shepherd, Lyons, Kan.; R. W. Murphy, Dearborn, Mo.; Brooks & Son, Eagleville, Mo.; W. J. Harrison, Axtell, Kan.; T. P. Teagarden, Manhattan, Kan.; W. W. Zink, Turon, Kan.
Judge—W. A. Williams, Marlow, Okla.
Aged Boars—1, Crow on Potentate; 2 and 3, Murphy; 4, Howell; 5, Brooks; 6, W. J. Harrison.
Senior Yearling Boar—1, Murphy; 2, Searle; 3, Crow; 4, Harrison.
Junior Yearling Boar (eight shown)—1, Shepherd; 2, Kink; 3, Crow; 4 and 5, Murphy.
Senior Boar Pig (eight shown)—1, Crow; 2, Zink; 3, Murphy; 4 and 5, Searle.
Junior Boar Pig (25 shown)—1, Zink; 2, 3 and 4, Moser.
Aged Sow—1 and 4, Crow; 2, Murphy; 3, Howell; 5, Moser.
Senior Yearling Sow—1, 3 and 4, Crow; 2, Howell; 5, Searle.
Junior Yearling Sow (ten shown)—1 and 3, Murphy; 2, Crow; 5, Howell.
Senior Sow Pig (20 shown)—1, Brooks; 2 and 3, Crow; 4, Zink; 5, Crow.
Junior Sow Pig—1, Zink; 2, Crow; 3, Murphy; 4, Klusmire; 5, Teagarden.
Senior and Grand Champion Boar—Murphy on Model Ali.
Junior Champion Boar—Crow on Nat C. King.
Senior and Grand Champion Sow—Crow on Gano Lady.
Junior Champion Sow—Murphy on Pathfinder Lady.
Aged Herd—1, Murphy; 2, Crow.
Young Herd—1, Crow; 2, Zink.
Herd Bred by Exhibitor—1 and 2, Zink.
Get of Sire—1, Crow; 2, Murphy; 3, Zink.
Produce of Sow—1, Murphy; 2, Crow; 3, Zink.

CHESTER WHITES.

Exhibitors — Coleman & Crum, Danville, Kan.; Arthur Mosse, Leavenworth, Kan.; Waltmire & Son, Peculiar, Mo.; J. H. McAnow, Cameron, Mo.; Edward Krause, Hillsboro, Kan.; E. E. Smiley, Perth, Kan.; Henry Murr.
Judge—W. A. Williams, Marlow, Okla.
Aged Boar—1, Coleman & Crum; 2, Mosse; 3, McAnow.
Senior Yearling—1, Coleman & Crum; 3, Waltmire; 3, Mosse.
Junior Yearling—1, Murr; 2, McAnow; 3, Waltmire; 4, Coleman & Crum.
Senior Boar Pig (ten shown)—1, Coleman & Crum; 2, Waltmire; 3, Mosse.
Junior Boar Pig—1 and 2, McAnow; 3, Krause; 4, Mosse.
Aged Sow (eight shown)—1, McAnow; 2, 3 and 4, Coleman & Crum.
Senior Yearling Sow—1 and 3, McAnow; 2, Smiley; 4, Mosse.
Junior Yearling Sow (seven shown)—1, 2 and 3, McAnow; 4, Waltmire.
Senior Sow Pig (nine shown)—1, 2, 3 and 4, McAnow.
Senior and Grand Champion Boar—Coleman & Crum on Smiley's Kind.
Junior Champion Boar—McAnow on Joe Wing 2d.
Senior and Grand Champion Sow — McAnow on Charlotta May.
Junior Champion Sow—McAnow on Frankie Wing 2d.
Aged Herd—1, Coleman & Crum; 2 and 3, McAnow.
Herd Bred by Exhibitor—1, McAnow; 2, Waltmire.
Young Herd—1 and 3, McAnow; 2, Mosse.
Young Herd Bred by Exhibitor—1 and 2, McAnow; 3, Mosse.
Get of Sire—1 and 3, McAnow; 2, Coleman & Crum.
Produce of Sow—1, Coleman & Crum; 2, McAnow.

POLAND CHINAS.

Exhibitors—A. J. Erhart & Son, Ness City, Kan.; H. B. Walter & Son, Effingham, Kan.; Deming Ranch, Oswego, Kan.; Olivier & Son, Danville, Kan.; Fred B. Caldwell, Howard, Kan.; Robert J. Barnes; Schmitz Bros., Seneca, Kan.; F. E. Moore & Sons, Gardner, Kan.; Arkell & Son, Junction City, Kan.; H. H. Meyers & Son, Fontanelle, Neb.; Hill & King, Topeka, Kan.
Judge—J. P. Bennet, Lees Summit, Mo.
Aged Boar—1, Erhart; 2, Meyers; 3, Arkell.
Senior Yearling Boar—1, Walter; 2, Erbart.
Junior Yearling—1, Meyers; 2 and 3, Deming Ranch; 4, Olivier; 5, Erhart.
Senior Boar Pig—1, Walter; 2, Caldwell; 3 and 4, Moore; 5, Schmitz.
Junior Boar Pig—1, Walter; 2 and 5, Moore; 3, Caldwell; 4, Barnes; 6, Hill & King.
Junior Sow Pig—1, Barnes; 2, Olivier; 3 and 5, Deming Ranch; 4, Walter; 6, Moore.

HAMPSHIRES.

Exhibitors—Scudder Bros., Doniphan, Neb.; Robert Wempe, Seneca, Kan.; George W. Ela, Valley Falls, Kan.; Larkin Farrel, Denison, Kan.
Judge—W. H. Pew, Ravenna, Ohio.
Aged Boar—1, Scudder Bros.
Senior Yearling Boar—1, Scudder Bros.; 2, Ela.
Junior Yearling Boar—1, Scudder; 2, Wempe.
Senior Boar Pig—1, Scudder Bros.; 2, Wempe;; 3, Wempe; 4, Ela.
Junior Boar Pig—1, 2 and 3, Wempe; 4, Ela.
Aged Sow—1 and 2, Scudder; 3, Wempe.
Senior Yearling Sow—1, 2, 3 and 4, Scudder Bros.
Junior Yearling Sow—1, 2 and 3, Wempe.
Senior Sow Pig—1 and 2, Scudder; 3 and 4, Wempe.
Junior Sow Pig—1 and 3, Wempe; 2, Scudder; 4, Ela.
Senior and Grand Champion Boar—Scudder Bros. on Tipton's Lad.
Junior Champion Boar—Scudder Bros. on Buster.
Senior and Grand Champion Sow—Scudder Bros. on Susie's Pride.
Junior Champion Sow—Scudder Bros. on Ellen.
Aged Herd—1 and 2, Scudder Bros.; 3, Wempe.
Aged Herd Bred by Exhibitor—1, Scudder Bros.; 2, Wempe.
Young Herd—1 and 2, Scudder Bros.; 3 and 4, Wempe.
Young Herd Bred by Exhibitor—1 and 3, Scudder Bros.; 2 and 4, Wempe.
Get of Sire—1 and 2, Scudder Bros.; 3 and 4, Wempe.
Produce of Sow—1 and 4, Scudder Bros.; 2 and 3, Wempe.

SHEEP AWARDS.

Exhibitors—Clarence Lacey, Meriden, Kan.; Kansas Agricultural College, Manhattan; Waltmire & Son, Peculiar, Mo.; J. R. Turner, Harveyville, Kan.; C. E. Wood, Topeka, Kan.
Judge—W. L. Blizzard, Stillwater, Okla.

SHROPSHIRES.

Aged Ram—1, Turner; 2, Lacey.
Yearling Ram—1 and 2, K. S. A. C.; 3, Lacey.
Ram Lamb—1, K. S. A. C.; 2 and 3, Lacey.
Aged Ewe—1, K. S. A. C.; 2 and 3, Lacey.
Yearling Ewe—1 and 2, K. S. A. C.; 3, Turner.
Ewe Lamb—1, K. S. A. C.; 2 and 3, Lacey.
Champion Ram—K. S. A. C.
Champion Ewe—K. S. A. C.
Get of Sire—1 and 3, Lacey; 2, K. S. A. C.
Flocks—1, K. S. A. C.; 2 and 3, Lacey.
Kansas Flock—1, K. S. A. C.; 2 and 3, Lacey.
Lamb Flock—Lacey.
Shropshire Specials on Flocks—1, K. S. A. C.; 2 and 3, Lacey.
Special, Pen, Four Lambs—1 and 3, Lacey; 2, K. S. A. C.

HAMPSHIRES.

Aged Ram—1 and 2, Waltmire.
Yearling Ram—1 and 2, K. S. A. C.; 3, Waltmire.
Ram Lamb—1 and 2, K. S. A. C.; 3, Waltmire.
Aged Ewe—1, K. S. A. C.; 2 and 3, Waltmire.
Yearling Ewe—1, K. S. A. C.; 2 and 3, Waltmire.
Ewe Lamb—1 and 2, K. S. A. C.; 3, Waltmire.
Champion Ram—Waltmire.
Champion Ewe—K. S. A. C.
Get of Sire—1, K. S. A. C.; 2, Waltmire.
Flocks—1, K. S. A. C.; 2 and 3, Waltmire.
Kansas-bred Flocks—K. S. A. C.
Lamb Flock—Waltmire.

DORSETS.

Aged Ram—1, K. S. A. C.
Yearling Ram—1, K. S. A. C.; 2, Waltmire.
Ram Lamb—1 and 2, K. S. A. C.
Aged Ewe—1, Waltmire; 2, K. S. A. C.
Yearling Ewe—1 and 2, K. S. A. C.; 3, Waltmire.
Ewe Lamb—1 and 2, K. S. A. C.; 3, Waltmire.
Champion Ram—K. S. A. C.
Champion Ewe—Waltmire.
Get of Sire—K. S. A. C.
Flock—1, K. S. A. C.; 2, Waltmire.
Kansas-bred Flock—K. S. A. C.

SOUTHDOWNS.

Aged Ram—1 and 2, K. S. A. C.; 3, Waltmire.
Senior Yearling Ram—1, K. S. A. C.
Ram Lamb—1 and 2, K. S. A. C.
Aged Ewe—1 and 2, K. S. A. C.; 3, Waltmire.
Yearling Ewe—1 and 2, K. S. A. C.; 3, Waltmire.
Ewe Lamb—1 and 3, K. S. A. C.; 2, Waltmire.
Champion Ram—K. S. A. C.
Champion Ewe—K. S. A. C.
Get of Sire—K. S. A. C.
Flock—1, K. S. A. C.; 2, Waltmire.
Kansas-bred Flock—K. S. A. C.

COTSWOLDS.

Aged Rams—None shown.
Yearling Ram—1, Waltmire; 2, Wood.
Ram Lamb—1, 2 and 3, Wood.
Aged Ewe—1, Waltmire; 2 and 3, Wood.
Yearling Ewe—1 and 3, Wood; 2, Waltmire.
Ewe Lamb—1 and 2, Wood; 3, Waltmire.
Champion Ram—Waltmire.
Champion Ewe—Waltmire.
Get of Sire—1 and 2, Wood.
Flocks—1, Wood; 2, Waltmire.
Kansas-bred Flocks—Wood.
Cotswold Specials—1 and 2, Wood.



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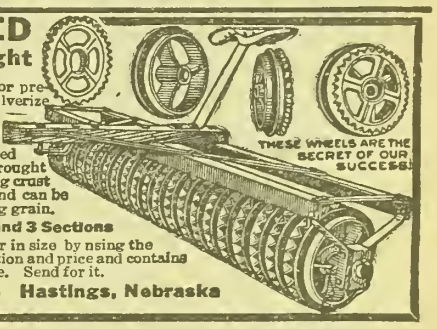

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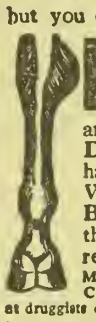

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Feed Young Wheat Plant

Wheat planted in soil that is provided with the right kinds of plant food in proper proportions will produce the best yields, just as young live stock fed a balanced ration will make the best gains in weight. In some sections it is most profitable to supply the elements of plant food which are not already available in sufficient quantity in the soil. This is highly important in planning for the liberty wheat harvest of 1919, for which the Department of Agriculture is asking Kansas to plant as much as last year, or almost ten million acres, and the whole United States forty-five million acres. While this acreage, which is an increase of 7 per cent over last year's sowing for the whole country, is desirable, it is also of utmost importance that every means be taken to increase the yield per acre.

Stable or barnyard manure is of great benefit when added to soil sown to wheat. It supplies humus by the decay of the organic matter and contains nitrogen and potassium, sometimes in considerable amounts. It usually does not contain a sufficient proportion of phosphorus. If forty or fifty pounds of acid phosphate, rock phosphate, or basic slag are added to each ton of manure as it is being made in the stable or before hauling to the field, this deficiency of phosphorus is overcome, and a better form of fertilizer can scarcely be found.

When barnyard or other rotted manure is not available and plant refuse, such as straw and stubble, is not returned to the soil, the growing of suitable green manure crops is imperative in order to maintain soil fertility and the supply of humus. On comparatively few farms is there enough rotted manure to take the place of green manures altogether, although by returning the plant refuse to the soil, less of the green manure will need to be grown than where no returns are made.

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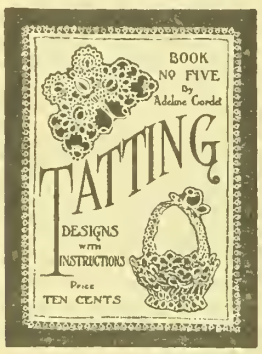

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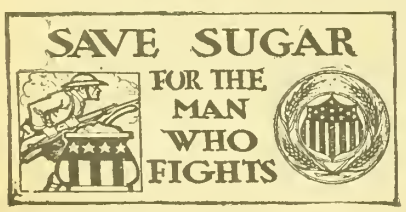

The Mid-West Horticultural Exposition to be held at Des Moines in November offers prizes for canned fruits, preserves and jellies made without sugar.

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

When Little Sugar is Used

IT IS to be regretted that a sugar shortage exists. That is, however, not one of the tragedies of war, but merely one of those inconveniences which a little consideration and resourcefulness will quickly help to lessen.

Sugar is desirable in preserving fruit, but it is not necessary to its success. It has been used because it gives the very sweet taste so highly prized in the American dietary and because it adds to the attractiveness of texture and flavor of fruits preserved with it.

If moderate amounts of sugar are obtainable and no individual uses more than a reasonable share of the present supply, part of the fruit may be preserved with some sugar. There are three things which the average American housekeeper, accustomed to preserving a quantity of fruit in her own home, should do to help in a sugar conservation program: Preserve a part of the supply by methods requiring no sugar; preserve a part of the supply with a greatly reduced amount of sugar; and, preserve a part of the supply by replacing some sugar ordinarily used with other sweeteners.

Fruit may be canned with one-half or one-fourth the usual amount of sugar. The sweetness of the syrup in which fruits are canned may be reduced. Frequently this improves the quality and real palatability of the product by bringing out the real flavor of the fruit.

In making jams, marmalades, and butters, reduce the volume of fruit pulp one-third to one-half by boiling, then measure and add only one-half sugar by weight instead of the customary three-fourths.

The Nation's Eyes

What of our children's eyes? Recent investigations into the condition of American school children reveal that about one-fifth—20 per cent—are handicapped by defective vision, and in a considerable number of cases these defects are serious. How gravely this affects the Nation's welfare is demonstrated by the findings in the recent examination of recruits for the new army. More than 730,000 men called in the first draft were rejected for physical disqualifications. Of the 10,000 cases which were analyzed in detail, more than one-fifth had been rejected for defects of the eye. This single cause was responsible for more than twice as many rejections as the next highest cause, namely, defects of the teeth, and for three or four times as many as most of the other defects. It is, therefore, plain that American parents should take much more anxious thought as to the condition of their children's eyes during the years when the harm is most likely to be done and when trouble can most readily be prevented or cured.

The first essential is to insure the soundest possible health at birth. This depends in a certain measure upon the health and diet of the mother before the baby is born. Proper food and care for the baby throughout infancy and childhood when the structures of the body are growing at the most rapid rate are necessary. Improper or insufficient food, neglect, and illness are among the causes which interfere with growth and healthy development of the body in every part and no doubt affect the growing eyes in the same way.

But even when the fundamental laws of good health have been observed and when the eyes are strong and healthy to begin with, they should have very special care from the moment of birth. Directions for this are found in two bulletins of the Children's Year, entitled "Prenatal Care" and "Infant Care." Both of these bulletins will be sent free in response to all requests. Send your name and full address clearly written to the Chief of the Children's Bureau, U. S. Department of Labor, Washington, D. C.

Babies are often allowed to lie in their carriages with the sun shining directly into their eyes, or are permitted to look straight into a bright artificial light, thus working harm to the delicate nerves of the eye. As children grow they often strain their eyes by reading or doing other close work in a poor light, or too soon after illness, when the eyes are particularly subject to injury. It is necessary, therefore, that parents know what the care of the eye involves and so safeguard this precious sense in their children that the inefficiency and unhappiness resulting from defective vision shall be steadily reduced.

NOTE: This article by Mrs. Max West is one of the series issued by the Children's Bureau of the U. S. Department of Labor on "How Mothers Can Help in Children's Year."

Food Show at Wichita

A patriotic food show under the personal direction of Federal Food Administrator Innes will be held at Wichita September 30 to October 12 in connection with the International Wheat Show. This will consist of a series of officially approved war food demonstrations, put on by recognized home economics instructors.

Dishes will be cooked in the presence of visitors, from official recipes, and housewives may hold the recipes in their hands while the mixing and cooking are being done. They may then taste the food for approval or disapproval. The object of the exhibition is to demonstrate that palatable foods can be made by substitution of wheat, meats, fats, and sugar.

A similar show held in Chicago last January brought forth the approval of Herbert Hoover, who expressed the hope that other sections would take up similar projects. Food Administrator Innes of Kansas attended the Chicago show.

W. M. G. Howse is chairman of the committee in charge of the food show.

A Guide in Using Sugar

"The only way I can see to use any sugar for baking is to be as economical as you can with it all through the month and then at the end see if you have any left," said a housewife. "I don't miss it, myself, as I don't eat much pie or cake anyway, but sometimes I would like to have them for the men if I could be sure that I was not using sugar too fast."

It is very easy to determine whether you are keeping within the daily allowance for your family. The sugar ration for the month—thirty to thirty-one days—is two pounds. A pound of sugar represents ninety-six level teaspoonfuls, measured by the average household teaspoon, or forty-eight rounded teaspoonfuls or thirty-two to forty heaping teaspoonfuls. The approximate daily ration for cooking and table use is one ounce. This means that the daily amount for each person is about two and one-half level teaspoonfuls or one rounded tablespoonful or six level teaspoonfuls, using the average spoon. If three level teaspoonfuls are used for beverages, that leaves the same amount to be used in cooked food. If lump sugar is used, the daily ration will be six half lumps—1 x 9-16 x 3-8 inches—or three half lumps a day in beverages and the equivalent of three half lumps as sweetening in food.

Syrup from Apple Cider

The following directions for making apple syrup are given by H. C. Gore of the U. S. Bureau of Chemistry in Farmers' Bulletin 839.

Add five ounces of powdered calcium carbonate to seven gallons of apple cider. Powdered calcium carbonate—carbonate of lime—or, to give it its common name, precipitated chalk, is low-priced and harmless. Boil the mixture in a kettle or vat vigorously for five minutes. Pour the liquid into vessels, preferably glass jars or pitchers and allow it to stand

FASHION DEPARTMENT

All patterns, 10 cents.



No. 8954—Girls' Dress: Cut in sizes 4, 6, 8 and 10 years. Challies, cotton foulard, or gingham will be appropriate for this little school frock. The waist shows the surpliice crossing which is so popular in the grown-ups' fashions. The skirt is in two pieces and it may be simply gathered to the waist. The long sleeves are gathered into deep cuffs. **No. 8940—Ladies' Two-Gored Skirt:** Cut in sizes 24, 26, 28, 30, 32 and 34 inches waist measure. No. 8940 makes a very practical two-gored skirt for woolen or wash materials. The back gore is cut so that it extends over the hips to the front gore, giving the effect of yoke sections. The back section is gathered from edge to edge at the slightly raised waistline. The belt has a tab-like piece which is the width of the gore at the front. **No. 8936—Misses' and Small Women's Dress:** Cut in sizes 14, 16, 18 and 20 years. A suggestion of the long-waisted effect is shown in this new fall style for a misses' dress. The upper part of the dress is straight from shoulder to hip line, where it joins the one-piece skirt of contrasting material. The dress is in double-breasted effect.



No. 8480—Ladies' or Misses' Envelope Chemise: Cut in sizes small, medium and large. The chemise is to be slipped on over the head. **No. 8484—Ladies' Waist:** Cut in sizes 36 to 42 inches bust measure. Long or short sleeves may be used. **No. 8492—Girls' Dress:** Cut in sizes 8, 10, 12 and 14 years. The dress is cut in one piece.

six to eight hours, or until perfectly clear. Pour the clear liquid into a preserving kettle. Do not allow the sediment at the bottom to enter. Add to the clear liquid one level teaspoonful of lime carbonate and stir thoroughly. The process is completed by boiling down rapidly to a clear liquid. Use a density gauge or a candy thermometer and bring the temperature up to 220 degrees Fahrenheit. If a thermometer is not available, boil until the bulk is reduced to one-seventh of the original volume. To determine whether the syrup is cooked enough, test as for candy—by pouring a little into cold water. If boiled enough it should have the consistency of maple syrup. It should not be cooked long enough to harden like candy when tested.

When the test shows that the syrup has been cooked enough, pour it into fruit jars, pitchers, etc., and allow it to cool slowly. Slow cooling is important, as otherwise the suspended matter will not settle properly and the syrup will be cloudy. A good way to insure slow cooling is to stand the vessels, full of syrup, in a bucket or a wash boiler of hot water or to place them in a fireless cooker. The white sediment which settles out during cooking is called "malate of lime" and is a harmless compound of lime with the natural acid of the apple.

When the syrup is cooled, it should be stored in fruit jars, bottles, or jugs. Place the rubber and cap or cotton stopper or cork in position and tighten. Place the container in boiling hot water and sterilize for fifteen minutes in a hot water bath outfit, for five minutes under ten pounds of steam pressure, or for eight minutes under five pounds steam pressure. Remove jars and tighten covers. Invert to cool and test the joints. Store for future use.

This recipe is for making syrup primarily for home use. If the product is to be sold, legal requirements as to labeling should be ascertained and complied with.

"If we could just raise the fruit I believe we could manage to get it canned some way," says a friend living in a part of Clay county where it has been too dry to raise fruit or vegetables for canning this summer. She has filled her jars with meat, having preserved a quarter of beef in this way and so made it possible to have fresh meat for her small family all through the hot weather. Some of her young chickens will also be canned for winter use.

Fireless Cooker Specialties

CEREALS—Prepare as for the stove, but use one-sixth less water. Boil for ten minutes, or longer with coarser cereals. Place in the cooker boiling hot and leave six or eight hours or over night.

MEATS—Buy cheaper cuts. The fireless cooker can make tough meat tender.

CREOLE STEW—

1 pound lean beef or one medium fowl
2 cupfuls tomatoes
1 cupful carrots or okra cut small
1 cupful chopped sweet peppers
½ cupful rice
¼ cupful chopped onion
1 teaspoonful salt
1 tablespoonful fat

Cut the meat in small pieces or cut the fowl into joints. Melt the fat, add the onions, peppers and meat or chicken. Brown for a few minutes. Put in cooking vessel with seasoning, rice, vegetables, and one cupful of boiling water. Simmer for one-half hour and put in fireless cooker for three hours without the disks or two hours with them. With chicken and okra this is the famous creole chicken of the South.

ROASTS—Sear the roast, season, place in the cooking vessel between two hot disks. Do not add water. Allow twenty-five minutes per pound.

SOUP STOCK—Cut up meat, crack bones, and cover with cold water. Let it reach the boiling point, then place in cooker for several hours.

DRIED FRUITS AND VEGETABLES—Peas, beans, corn, dried fruits—soak in water until restored to the original size. Boil a few minutes, then keep in the cooker six to twelve hours. Baked beans or peas are especially good cooked in the fireless.

For more recipes send to the United States Department of Agriculture, Washington, D. C., for Farmers' Bulletin 771, "Home-Made Fireless Cookers and Their Use."—U. S. Food Leaflet.

What's the Matter with Father

The editor of "American Motherhood" in the June number addresses herself to the fathers, and asks: "What kind of a father have you been? Have you provided a home and clothes for your son, and little else, or do you provide the best you can in material things, and give him riches in your companionship? Do you really 'father' him, or do you leave that to outside agencies?

"Turn this matter over two or three times and ask yourself, 'What's the matter with father? Is he all right?'"—American Motherhood.

Being Big Enough for Job

"I wouldn't say too much about the crowded program and not being able to finish your work in the time allowed," a superintendent of schools advised the teachers under her supervision. "It looks as if you were not quite big enough for your job."

If our task seems hard sometimes, let us not waste time and strength in complaining, but bend all our energies to making ourselves really "big enough for our job." And when we put the emphasis on that side of the question it is wonderful how much can be accomplished.

Conservation Cake Recipes

Here are two cake recipes from the division of home economics of the University of Minnesota. One of them requires no sugar at all, the other only half a cupful.

Corn Syrup Cake

1 cupful corn syrup
½ cupful sugar
½ cupful shortening
½ cupful liquid—milk or water
3 cupfuls flour
2 teaspoonfuls baking powder
3 eggs
1 teaspoonful flavoring

Cream fat and sugar together, add corn syrup and eggs, add alternately dry ingredients sifted together and liquid. Pour into oiled pans and bake.

Devil's Food Cake

¼ cupful vegetable fat
1 cupful molasses
¼ teaspoonful soda
3 tablespoonfuls milk
2 egg yolks
2 squares chocolate
½ cupful barley flour
2½ teaspoonfuls baking powder
¼ teaspoonful salt
2 egg whites
¾ teaspoonful vanilla
¾ cupful wheat flour

Melt the fat and add it to the molasses and soda. Add the milk, the well-beaten yolks, and the melted chocolate. Sift the flour, the baking powder, and the salt together, and add them gradually to the mixture. When thoroughly mixed, fold in the stiffly beaten whites and add the vanilla. Pour the cake into a well-oiled pan and bake.

There is no good reason why the average farm family cannot have many of the conveniences of the city in their country home instead of waiting longingly for the time when they shall have grown old enough and rich enough so that they will feel justified in leaving the farm and moving to town to enjoy what is left of life.

Give up your luxuries that the kaiser may be made to give up his ambitions.

Young Man, Uncle Sam Wants to Educate You at The Kansas University of Commerce

He will pay your board, room, tuition, and $30.00 a month.

Four Schools—

School of Commerce, Finance and Business Administration
Kansas Wesleyan Business College
Auto, Tractor and Aero School
Morse and Radio School

Greatest Business and Vocational University of the West

Write for full information.

KANSAS UNIVERSITY OF COMMERCE
(A PART OF KANSAS WESLEYAN UNIVERSITY)
Salina, Kansas

Interesting War Items

From The Firing Line

HOWARD SEIP, a Summerfield boy who has just finished his second siege in the trenches, prefers service at the front to the strenuous drilling between periods of actual fighting. He says of his first experience in the trenches: "Although this first sector was called a quiet one, at times we thought it was lively enough for a starter, especially when we could hear those big German artillery shells go whizzing over our heads, sometimes close enough to make it uncomfortable. At such times there was some scramble to see who would be the first one in the dugout.

"After our stay in the front line expired we were moved to the reserve for a few days, then taken down this big hill again to what they called a 'rest' camp, but we have another name for it. Most of the boys said they would rather have stayed in the front line trenches than to drill as we had to in this said 'rest' camp.

"This drilling did not last long, for we received orders to roll our packs and be ready to move, and most of us were glad, although we knew we were going to the trenches."

This unit is now evidently having a few days of real rest. He writes: "Our second siege in the trenches is over and we are enjoying a few days' rest in a little quiet village in the valley in France. Although this last siege was not a strenuous one, we were glad to get back behind the lines where we could not hear the roar of the big guns. I am well and enjoying life very much."

Glad to Be In It

A young soldier from Summerfield, Kansas, in a letter just published in the Sun, asks how the Fourth of July was observed at home. It has been three years since he took part in an Independence Day celebration in America, and he says: "Believe me, when I do get home I'm going to celebrate, but I would rather miss three more celebrations than miss the things I have experienced and seen since I have been in the army."

In the same spirit a man who is doing Y. M. C. A. work at one of the cantonments said recently: "I never enjoyed myself so much before. I go to bed with taps and get up with the reveille and I have never been so busy in my life, but I feel that I never lived before."

The feeling seems to be general among the men who enter these great acts of service, either in the trenches or ministering to those who are engaged in the actual work of fighting, that they are living with a fullness and an intensity that they never knew in the easier, idler, safer life at home.

Red Cross Always Helpful

The Lyons Republican publishes a letter from Corporal Floyd A. Bleger written from a hospital "Somewhere in France," in which he says: "General Pershing was here and inspected us the other day. . . . . The Kaiser probably knows by this time that he is up against a pretty tough bunch of 'kids,' as he calls them. When they are good enough to whip Prussian Guards then I guess they are pretty good fighters.

"Say, if you have any extra money that you want to give away, give it to the Red Cross, for they are right here on the spot. Always when you want something they are right there with chocolate, tobacco, and canned goods of all kinds, especially when you are coming out or going up. And the beauty of it is it doesn't cost a fellow a cent."

The Soldier's Chances

Great as the danger and large as the losses in the aggregate, the individual soldier has plenty of chances of coming out of the war unscathed, or at least not badly injured.

Based on the mortality statistics of the Allied armies, a soldier's chances are as follows:

Twenty-nine chances of coming home to one chance of being killed.

Forty-nine chances of recovering from wounds to one chance of dying from them.

One chance in 500 of losing a limb.

Will live five years longer because of physical training, is freer from disease in the army than in civil life, and has better medical care at the front than at home.

In other wars from ten to fifteen men died from disease to one from bullets; in this war one man does from disease to every ten from bullets.

For those of our fighting men who do not escape scatheless, the Government under the soldier and sailor insurance law gives protection to the wounded and their dependents and to the families and dependents of those who make the supreme sacrifice for their country.

He'll Get There

Senator Hitchcock was talking about a Nebraska soldier.

"He'll do," the senator chuckled. "He'll get there. Such forethought as his is hardly credible.

"On the pier, you know, somebody offered to send him a book—asked him to name the book he preferred. He thought a moment, then he said:

"'Send me a good guide to Berlin.'"

For Exchange of Prisoners

The invitation extended by the American Government to the German Government to convene a conference to arrange for the exchange of military and civilian prisoners has met with a favorable reply from Germany, according to a Berlin dispatch quoted in a dispatch from Amsterdam to the Exchange Telegraph.

The Only Thing to Do

George Washington Jones, late of Atlanta, was making his first trip frontward on a supply wagon—with not much farther to go—when from the side of the road a camouflaged American battery broke forth thunderously, sending a few 300-pound tokens over the line to Fritz. The ground trembled from the salvo, but not any more than George, as he jumped from the high seat to the road.

The American artillery officer in charge of the battery crossed over to the road. "Scared?" he demanded.

"Well," George said, "Ah was slightly agitated at fust. Ah suttinly was. But keep right on. Dat's de only way to win this wah—fiah dem guns."—Stars and Stripes, France.

Better Than No War

"This is a terrible war," said a sympathetic visitor to an Irishman covered with bandages in a military hospital.

"Yes, it is a terrible war," he agreed, and then added with the characteristic Celtic smile, "but it's better than no war at all."

War Work of Bible Society

Since the beginning of the war the American Bible Society has seen to the distribution, in round numbers, of one million copies of the scriptures—Bibles, Testaments, and portions—in European countries. Between 500,000 and 600,000 of these were sent with money furnished by nickel gifts from American Sunday School children. Over a million copies were circulated by the American Bible Society itself on the Mexican border. Since May 1, 1917, the society has printed and sent over 700,000 Bibles, Testaments, and portions for general use, and is now delivering as fast as they can be made one million Testaments to the Y. M. C. A., free of charge, to be distributed by them to the soldiers and sailors of the United States.

No Country and No Creed

The Red Cross knows no country; it serves all, and its rights are, theoretically, respected by all. It also knows no creed. In Turkey, where the people were suspicious of what the use of the cross might imply, it has adopted as its emblem the crescent of Mohammedanism. When the English troops entered Jerusalem, they found the hospitals marked with a red crescent.

A German paper makes the statement that Germany will "speak the last word in this war." Punch agrees, but adds, "the last word will be 'kamerad!'"

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted free of charge for two weeks, for bona fide seekers of employment on farms.

CATTLE.

FOR SALE, REGISTERED SHORTHORNS, reds and roans, both sexes. Twenty miles from Hutchinson fair grounds. W. E. Curle, Sterling, Kansas.

FOR SALE—TEN HIGH GRADE GUERNsey cows, all under six years old, bred to registered bull of Masher's Sequel breeding. Also registered yearling bull and bred registered heifer. R. C. Krueger, Burlington, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

DOGS.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

RABBIT HOUNDS, FOX HOUNDS, COON, opossum, skunk, squirrel dogs. Setters, pointers, ferrets, rabbits. Catalog 10c. Brown's Kennels, York, Pa.

WANTED

WANTED — FIFTY WHITE ESKIMO Spitz puppies, six to eight weeks old. Brockway Kennels, Baldwin, Kan.

HELP WANTED.

WANTED—DAIRY EXTENSION WORKers, men and women, Southeastern States. Must have college training, agriculture or domestic science. Ample farm and dairy experience, draft exempt. Work, travel, lectures, demonstrations, dairy development. Apply own handwriting, photograph, references. X, care Kansas Farmer.

POULTRY WANTED.

IF DISSATISFIED WITH LOCAL POULtry and egg market, ship direct. We loan coops and cases free. The Copes, Topeka.

SHEEP.

FOR SALE — TWENTY-FIVE HEAD OF pure-bred unregistered Shropshire ram lambs; 150 blackfaced ewes, one and two-year-olds; a few registered yearlings and two year-old Shropshire rams. K. Hague, Route 6, Newton, Kan. Phone 5742 Elbing.

TEN VERY HIGH GRADE SHROPSHIRE rams at $40. These are yearlings that clipped last May 16¾ pounds of wool. References, Lee Bros. & Cook or Harveyville (Kan.) State Bank. H. C. Shaw & Son, breeders of Hampshire hogs and Shropshire sheep, Harveyville, Kansas.

REAL ESTATE.

FOR SALE — GOOD COMBINATION farm, 240 acres, 9 miles from Ord, Valley County, Nebraska. On rural route and near school. 145 acres under cultivation, balance pasture; fair improvements. Price, $65 per acre; $4,000 cash, balance at 6 per cent. R. L. Dunham, Ord, Nebraska.

FOR SALE — TWENTY SECTIONS OF well watered ranch land in one body, including 1,200 head of cattle; about 800 acres in cultivation ready for wheat this fall. Six or more sections can be put in cultivation. Located only six miles from railroad station. Write Henry Schafer, care Schneider Hotel, Pampa, Texas.

SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price $10 to $15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address E. T. Cartlidge, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kan.

SITUATION WANTED.

SITUATION WANTED AS HOUSEkeeper in the country for widower's family. Lady past fifty, good cook, neat housekeeper, recent experience, first class in every respect. References. Address 2034 Lister Ave., Kansas City, Mo.

FEATHER BEDS.

NEW 36-POUND FEATHER BEDS, $13.95. A pair 6-pound pillows to match, $2.45. New, live, clean, sanitary feathers. Best ticking. Sold on money back guarantee. Write for free catalog. Agents wanted. American Feather & Pillow Co., Desk 400, Nashville, Tennessee.

THE STRAY LIST.

TAKEN UP—BY H. N. HOLDEMAN OF Meade, Kansas, April 30, 1918, one red white-face yearling heifer, weight about 400 pounds, value $25. W. W. Pressly, County Clerk(Meade County, Kansas.

TAKEN UP BY G. L. HENRY, OF JOHNson, Stanton Township, Stanton County, Kansas, on or about the 18th day of May, 1918, one red steer with white face, branded IK on right thigh; valued at $60. Elam Hilty, County Clerk, Johnson, Kan.

FARM AND HERD.

W. T. McBride, of Parker, Kansas, has announced October 8 for a dispersion sale of his fine herd of Red Polled cattle. This herd comprises one of the good herds of the breed and is a splendid lot for any farmer or breeder to select from. Mr. McBride will also offer fifty head of Duroc Jersey sows and gilts, several sows with fall litters at side by the great herd boars, Pathfinder and High Orion.

W. J. Honeyman & Son, of Madison, Kansas, have announced October 5 for their annual fall sale of Spotted Poland Chinas. This herd was started several years ago with one of the real big kind, Spotted Clara. She is one of the ideal specimens of this farmer pork producing hog and a large part of the offering is related to her. A feature of the sale offering is six spring gilts by Hillside King and out of Spotted Clara.

William Galloway, proprietor of the William Galloway Hereford Farms, Waterloo, Iowa, on Monday, September 30, 1918, will present another Prince Perfection offering for the approval of Hereford breeders. The sale coming on the above date occurs on the afternoon of the first day of the famous annual cattle congress. Prince Perfection 342054 is one of the greatest show and breeding sons of old Perfection, and is making the William Galloway Hereford Farms noted as a Hereford breeding establishment. This grand bull has all the qualifications of an unusual Hereford sire—the style, the breedy Hereford type, the bone, the scale, the head and horns—not surpassed by any contemporary bull. His breeding is exceptionally good and his ability as a producer today ranks him among the three or four well known Hereford sires by old Perfection. Prince Perfection is a half brother to Woodford, Perfection Fairfax, Perfection 2d and Perfection Junior, and has sired a number of well-known high-quality cattle, including Prince Perfections 5th, 6th, 9th, 10th and 11th, and Repeater 80th, as well as the prize winning Miss Perfection 18th brought out at the Iowa State Fair this year. In this sale there are twenty-seven cows and heifers either bred to or with calves at foot by Prince Perfection.

Poultry Boy to War Service

Uncle Sam is taking advantage of the poultry skill and experience of one of our Kansas boys and has called him into war service. In connection with the signal service, carrier pigeons have come to occupy a most important place, and Arthur Owen, eldest son of Thomas Owen, veteran poultryman and secretary of the Kansas State Poultry Association, has been assigned to Fort Leavenworth, where he will work in the carrier pigeon section. Soon he will be sent to France, where he will handle the carrier pigeons and receive messages from the American front line trenches. Mr. Owen is well known to many of the Kansas breeders, having served for a number of years as assistant secretary at the Kansas state shows. He has also been assistant to his father in superintending the poultry department of the Kansas Free Fair. Arthur is a natural poultry fancier and has been studying to become a poultry judge. His father, Thomas Owen, will be remembered by our readers through his connection with the poultry department of KANSAS FARMER for a good many years.

There are no better securities in the world than our Liberty bonds, but it has been reported on good authority, says the Rural New Yorker, that nearly $500,000,000 of fraudulent stocks and bonds have been exchanged for Liberty bonds during the past year. The "get-rich-quick" idea caused holders of absolutely safe and sound 4½ per cent Government bonds to swap them for these worthless securities because they promised a possible 12 to 15 per cent return on the investment. If tempted to make such exchanges you had better talk it over with your banker. It is his business to know the value and safety of investments and his advice may save you serious loss.

The man who takes off his hat to the flag shows a patriotic impulse; the man who takes off his coat for the flag shows a more practical one.—Jamestown Optimist.

TRACTORS.

SANDUSKY TRACTOR FOR SALE — Brand new, Model "J," 10-20 type, with three 14-inch self-lift tractor plows complete, at a bargain price. Write F. H. Stout Tractor Co., Marion, Kansas.

When Writing to Advertisers, Please Mention Kansas Farmer

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

September Poultry Work

OBSERVATIONS on the growth of chickens at the Government poultry farm at Beltsville, Md., showed that pullets of average size of the varieties kept there reached their adult weights as follows: White Plymouth Rock, average weight 6.07 pounds, at 28 weeks of age, at which time weight was made; White Wyandotte, average weight 5.17 pounds, at 26 weeks; Rhode Island Red, average weight 4.48 pounds, at 26 weeks; White Leghorn, average weight 3.14 pounds, at 26 weeks.

Pullets of these breeds and those of corresponding type and weight that reach the weights given above or are very near them early in September will begin laying by October if conditions are favorable. The two conditions which most commonly delay egg production from such pullets are change to winter quarters and shortage of feed.

The ideal way to manage laying hens is to have suitable houses at maturity, with other wards or ranges suited to the flock while growing, and have each flock of layers occupy the same quarters all their lives. If pullets must be moved from the quarters they have occupied during the growing season, every effort should be made to make the change as little disturbing to them as possible. Each poultry keeper must consider the situation as it exists for his stock and adapt his treatment to the circumstances.

Make the Change Early

In general it is desirable that pullets be in the houses they are to occupy during the winter three or four weeks before they are expected to lay. But if the pullets are on a good range, and placing them in winter quarters would deprive them of this and make it necessary to put them on winter rations several months earlier than if they remain on the range, it may be better to leave them in the small coops in which they were grown until winter. Then, if they are moved gently and carefully, and special attention is given to making them comfortable and contented in their new home, the change may have but slight effect on their egg production.

Whether the change to permanent winter quarters is made before or after laying begins, gentle handling and good treatment will go a long way toward offsetting the unfavorable effects of moving pullets. In reality it is not the change that is the chief disturbing factor, but the way the change is made. Rapid and rough handling is bad, yet most persons think it too much bother to handle hens gently and carefully. A little extra time and care in moving pullets makes a difference of weeks and sometimes months in egg production.

To change pullets from one coop to another with the minimum disturbance to egg production, whether the pullet is laying or not, have the new home ready in every detail. It should be clean, the floor covered with litter, all nests and feeding and watering equipment ready for use, with a feed of scratch grain in the litter, and the drinking vessel filled with water.

Move Them After Dark

Move the pullets after dark. If only a few birds are to be moved and the distance is short, the best way is to carry them two by two, one under each arm, the legs being grasped by the thumb and fingers and the breast and body of the bird resting on the hand and wrist. In this position the bird feels secure, and safe, and well treated. When the number of birds and the distance to be traversed make this method too laborious, a convenient box or coop should be used, the birds being lifted carefully, one by one, from their places on the roosts to the box. The birds should not be overcrowded, and should be taken with the same care from the box on arrival at the new location, where they should be placed on the floor near the rear of the pen.

The first thing the hens will know about their new home will be that as soon as they can see they find feed and drink there. With provision made for litter and nests, there is no occasion for an attendant to come into the pen to do anything that in the least disturbs the birds. Every visit to them the first day or two should be for the purpose of doing something which even hens will recognize as done for their welfare. With this treatment the effects of change are not great. It is a little trouble, but it pays.

Feeding for Egg Production

When there is no snow on the ground, pullets on the farm ought to get a large part of their feed by foraging. Whether they can get it depends not only upon what food may be available but on whether they have been so distributed as to get the feed on the range. To find whether they require more, is to observe how far they range and whether they find feed enough to keep them busy most of the time, and then to test them further by seeing how much they eat heartily in the morning, and then go foraging, and also how much they eat just before going to roost at night. Pullets that forage well and have the opportunity to get plenty of green feed, worms, and bugs, can not be overfed by giving them what grain they will eat up clean. Careful feeders learn just how much their flock will take, and so avoid waste while keeping the birds full fed.—From U. S. Department of Agriculture Circular.

Poultry Club Exhibits

A row of coops extending the full length of the poultry building and half way across one end represented the work of the boys' and girls' state poultry clubs of Kansas at the Kansas Free Fair held in Topeka last week. These clubs constitute a state-wide organization under the direction of the extension division of our Agricultural College. They have been organized in keeping with the war program of the Government to increase production of poultry in order to save meat for our armies across the sea. Ernest R. Weigand is the state leader of poultry clubs, and in the various counties of the state local leaders have enthusiastically given of their time and experience in helping the boys and girls in their poultry work. The fair association offered liberal cash prizes in all the leading breeds for exhibits made by boys and girls of these clubs, which were to consist of a cockerel and two pullets raised by the exhibitor. In addition to the individual trio prizes a special club prize of $25, carrying with it club honors for the state, was offered for the club making the best showing. We will later give a more complete report of the splendid work done by the boys and girls of the state through the poultry clubs.

Wonderful Egg Producer

Any poultry raiser can easily double his profits by doubling the egg production of his hens. A scientific tonic has been discovered that revitalizes the flock and makes hens work all the time. The tonic is called "More Eggs." Give your hens a few cents' worth of "More Eggs" and you will be amazed and delighted with results. A dollar's worth of "More Eggs" will double this year's production of eggs, so if you wish to try this great profit maker, write E. J. Reefer, poultry expert, 4676 Reefer Building, Kansas City, Mo., who will send you a season's supply of "More Eggs" Tonic for $1.00 (prepaid). So confident is Mr. Reefer of the results that a million dollar bank guarantees if you are not absolutely satisfied, your dollar will be returned on request and the "More Eggs" costs you nothing. Send a dollar today or ask Mr. Reefer for his free poultry book that tells the experience of a man who has made a fortune out of poultry.—(Adv.)

In the presence of a common enemy we sit at a common table with all people defenders.

Many of the larger hotels of the country are using no cane sugar in pastries and desserts.

JERSEY CATTLE.

REDHURST JERSEYS

FOR SALE—Noble's Jolly Actor No. 155761. Solid color, born October 14, 1916. Sire (the imported son of Golden Jolly), Golden Jolly's Masterpiece No. 86295, with six tested daughters out of Noble's Eminent Jess, a R. of M. cow whose dam is also in the R. of M. and whose sire, Noble's Oxford Sultan No. 106403, with six tested daughters, seven of Noble of Oakland's with 65 tested daughters and whose dam is in the R. of M. and since by Sultan's Oxford Lad, his great dam also in R. of M.

ALSO—Jolley's Chief No. 14948. Solid color, born September 3, 1917, the above imported son of Golden Jolly. Dam, Eminent's Lad Jess No. 255151, dam of one in R. of M. She by Em. Brown Lad with two or three tested cows, a grandson of Eminent with 80 tested daughters and whose dam is a tested cow.

REDMON & SON, TIPTON, MISSOURI

TESSORO PLACE

OWL INTEREST FINANCE JERSEYS (Register of Merit)

Buy a bull from a R. of M. cow and be more certain in your herd building. Every cow in milk in our herd has a year's test or one now on. Our two-year-olds will average 400 pounds of butter. Write for prices and other information.

R. A. GILLILAND, MAYETTA, KANSAS

LONGVIEW JERSEYS

(Register of Merit Herd)

Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.

Longview Farm

LEE'S SUMMIT - - MISSOURI

100 Good Jerseys for Sale

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.

J. W. BERRY & SON, Jewell City, Kan.

REGISTERED JERSEYS

Must sell quick ten high class young bulls and some wonderful heifers and young cows at sacrifice price, on account of scarcity of feed. Act at once if you want a bargain.

H. C. YOUNG, 133 So. 33rd St., Lincoln, Neb.

BROOKSIDE JERSEYS

REGISTERED JERSEY BULLS, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.

THOS. D. MARSHALL, SYLVIA, KAN.

Registered Jersey Bulls

Butter-Bred, from High-Producing Cows.
Photo furnished.
MAXWELL'S JERSEY DAIRY
Route 2 Topeka, Kansas

Fine Young Jersey Bulls

From Register of Merit and tested cows; Register of Merit sire.

DORNWOOD FARM, TOPEKA, KANSAS

Allen Center Stock Farm

Registered Bull Calves—Some ready for service. Sale or exchange for bull or heifers.

TREDWAY & SON, LA HARPE, KAN.

J. B. PORTER & SONS, Mayetta, Kansas

Breeders of Pure-Bred Jersey Cattle
A small but select herd of producing cattle, rich in blood of Gamboge, Oxford Lad, Golden Fern's Lad, Leda's Fern Lad, etc. Write for prices on young stock.

AUCTIONEERS.

FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. **VALLEY FALLS, KANSAS**

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri



P. M. GROSS
Live Stock Auctioneer
Twelve years on the block.
Pure-bred sales a specialty. Sales made anywhere.
4230 Paseo
Kansas City, Mo.

SHORTHORN CATTLE.

Pearl Shorthorn Herd

One of the oldest and strongest herds in the West, Scotch and Scotch-topped reds and roans. Twenty head young bulls ready for service. Fifteen last spring bull calves by Orange Lovel 420052, a Victor Orange bred bull; Village Heir 492857 by Imported Villager and Marengo Pearl 391962. All these calves are out of good useful cows.

C. W. TAYLOR - ABILENE, KANSAS

MARKS LODGE RED SHORTHORNS

For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

GUERNSEY CATTLE.

GUERNSEY BULLS

Good individuals of serviceable age, of May Royal, May Rose, Masher Sequel, Raymond of the Preel breeding. Write or come and see them.

ADAMS FARM, GASHLAND, MISSOURI
Twelve miles from Kansas City.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

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CLAIM SALE DATES.

Jacks and Jennets.

March 25, 1919—H. T. Hineman & Sons, Dighton, Kan.

Holsteins.

Oct. 3—Holstein Breeders' Dispersion Sale, Dixon, Ill. F. W. Spencer, Sales Manager.
Oct. 3—Galt & Spencer, Dixon, Illinois, Dispersion sale.
Nov. 1—Kansas Holstein Breeders' Sale, Independence, Kansas.

Jersey Cattle.

Oct. 9—B. R. Thompson, Garrison, Kan.
Oct. 14—W. H. Maxwell, Topeka, Kan.

Herefords.

Sept. 30—William Galloway, Waterloo, Ia.
Nov. 19—Robert H. Hazlett, El Dorado, Kan. Sale at Kansas City, Mo.

Shorthorn Cattle.

Nov. 8—Shorthorn Breeders' Sale, Peabody, Kan. O. A. Homan, Peabody, Kan., sales manager.
Nov. 23—H. H. Holmes and A. L. Harris. Sale at Kansas City, Mo.

Red Polled Cattle.

Oct. 8—W. T. McBride, Parker, Kan.

Spotted Poland Chinas.

Oct. 5—W. J. Honeymoon, Madison, Kan.
Oct. 19—C. A. Gooch, Orrick, Missouri.

Poland Chinas.

Oct. 15—H. B. Walter & Son, Effingham, Kansas.
Oct. 16—Dr. J. H. Lomax, Leona, Kansas.
Oct. 17—Fred B. Caldwell, Howard, Kan.
Oct. 31—F. J. Dowe, Hiawatha, Kan.
Oct. 23—T. J. Miesner, Sabetha, Kan.
Oct. 29—Hill & King, Topeka, Kansas.
Oct. 31—Adams & Mason, Gypsum, Kansas.
Nov. 1—E. B. Myers, Hutchinson, Kansas.
Nov. 2—H. E. Myers, Gardner, Kan.
Nov. 5—Moore Bros., Gardner, Kan.
Nov. 6—Earl Bowers, McLouth, Kan.
Nov. 6—M. C. Pollard, Carbondale, Kan.
Nov. 7—Schmitz Bros., Seneca, Kan.
Nov. 8—Ketter Bros., Seneca, Kan.
Feb. 18, 1919—F. Olivier & Son, Danville, Kan. Bred sow sale.

Duroc Jerseys.

Oct. 8—W. T. McBride, Parker, Kan.
Oct. 14—John W. Petford, Saffordsville, Kansas. Sale at Emporia.
Oct. 17—L. G. Wreath, Manhattan, Kan.
Oct. 19—W. W. Zink, Turon, Kansas.
Oct. 21—Kansas Breeders' Sale, W. W. Jones, secretary, Clay Center, Kan.
Oct. 23—Laptad Stock Farm, Lawrence, Kan.
Oct. 28—Geo. M. Klusmire, Holton, Kan.
Jan. 28—W. R. Huston, Americus, Kan. Duroc dispersion and general farm sale.

Spotted Poland Chinas. Spotted Polands.

Oct. 3—Alfred Carlson, Cleburne, Kan.
Oct. 14—D. W. DeVoe, Onaga, Kan.
Dec. 17—Geo. Akens-Failer & Miller, Rossville, Kan.

Chester Whites.

Oct. 23—J. H. McAnaw, Cameron, Missouri.
Feb. 11—Arthur Mosse, Leavenworth, Kan.

James Magee, of Magee Dairy Farm, Chanute, Kansas, reports his fine Holstein herd doing well. Mr. Magee owns one of the good herds of Holsteins in Kansas, but on account of shortage of help he has decided to disperse his herd.

C. W. Lamer, of Salina, Kansas, will go to war, and he has announced September 27 and 28 for a two days' auction for his herd of Hereford cattle and other stock on the farm. The herd is one of the well-bred herds of the breed and forty cows will be bred to the great herd bull, Overton Fairfax.

The oldest breeding firm of Poland Chinas is B. F. Dorsey & Sons, of Girard, Kansas, and Jacksonville, Illinois. The firm was established in 1860 and when the head of the firm retired from private business then the two sons, Ed R. Dorsey and Dr. A. L. Dorsey, the younger brother, kept the business going until they have shipped stock to many points in Europe, South America, and every state in the Union. Ed R. Dorsey, the elder brother, is widely known throughout Kansas, Missouri, and Illinois. In 1916, after being out of the show ring for ten years, they made ninety-six shows, winning ninety-two prizes; seventy-two firsts, sweepstakes and herd prizes. They showed at the Topeka fairs from the early 80's until 1900, and were at the fair with a few extra pigs under one year old in 1918.

A. A. Meyer, of McLouth, Kansas, reports his herd of big-type Polands doing well. Mr. Meyer owns one of the outstanding big-type herds in Kansas and has all of the popular blood lines. This year he raised an extra fine lot of spring pigs sired by some of the best sires of the breed and out of choice big-type dams.

J. B. Porter & Son, of Mayetta, Kansas, report their Jersey herd making a fine record. This is one of the very heavy producing herds in Kansas. The herd is made up entirely of record bred individuals.

John W. Petford, of Saffordville, Kansas, has announced October 14 for a Duroc boar sale. On this date he will offer fifty head of spring boars. The sale will be held at the Dr. W. H. Richards barn at Emporia. The offering will be sired by the noted boars of the breed, Illustrator's Orion 2d, Pet's Great Wonder by Great Wonder, dam by Grand Model and a son of Burk's Good Enuff, Pathfinder, King's Col., Cherry King Orion, Grand Model, Grand Model's Giant, Cherry King and other great boars of the breed.

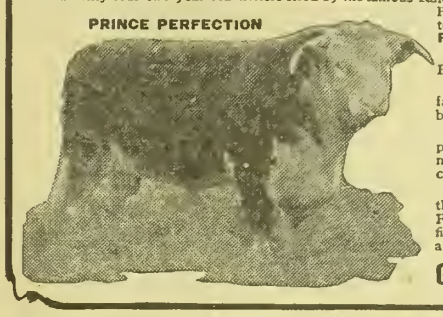
PRINCE PERFECTION HEREFORD SALE SEPT. 30

COWS WITH CALVES—BRED AND OPEN HEIFERS

My 1918 Fall **Prince Perfection** Sale consists of sixty lots of top quality Herefords as follows:

Thirty cows, daughters of Gallant, Minnesota Gold Bug by Gold Bug, Sir Hesiod 282965, Queen's Rupert, Champion, Alto Beau 29th by Masquerader and Preceptor the International winner; twenty with calves at foot, most of these calves sired by the great show and breeding bull, **Prince Perfection,** three by Preceptor and three by Repeater 86th, the great breeding son of Repeater and full brother to the $27,500 Repeater 7th. Four of these cows are bred to Perfection 16th by the great breeding bull, Belle's Perfection, and fifteen are re-bred to **Prince Perfection.**

Twenty-four two-year-old heifers sired by the famous Raleigh Fairfax, Alto Beau 29th, Sir Hesiod and the great Peerless Prince, six of which are bred to Perfection Disturber by the great Disturber 4th the balance to **Prince Perfection.**



Also four open heifers sired by Sir Hesiod and Alto Beau 29th.

I am putting in two yearling bulls by Raleigh Fairfax and Sir Hesiod as an attraction for buyers of well bred useful bulls.

This sale will present a great Hereford buying opportunity and should be attended by every beef cattle man who wants to start breeding profitable Hereford cattle or increase his herd.

Catalogs ready for mailing now. They describe the offering in detail. Sale held at farm on old Cedar Falls Road, Monday September 30, 1918. Come! The first day of the Cattle Congress! Reppert, Magness and Miller; Auctioneers.

Galloway Hereford Farms Waterloo Iowa

Modern Herefords

HAZFORD PLACE, EL DORADO, KANSAS

FIRST PUBLIC SALE

Cattle of my own breeding at Fine Stock Sale Pavilion, Kansas City, Missouri, on the forenoon of November 19, during the American Royal Live Stock Show.

Wm. Condell, Herdsman. **ROBT. H. HAZLETT**

HOLSTEIN CATTLE.

200 Head Registered and High Grade Holstein Cows and Heifers

On account of shortage of help I have decided to sell my entire herd at private sale, without reserve, consisting of **40 Registered Cows and Heifers,** mostly all with A. R. O. records up to 26 pounds in 7 days; **40 Fancy Young High Grade Cows,** exceptionally well marked, some fresh, balance will freshen in next 40 days, $115 to $135; **50 Fine Thrifty Large Two-Year-Old Heifers** due in October and November, $90 to $110; **65 Fine Growthy Yearlings from 15 to 20 months old,** bred to freshen from December to February, $65 to $80. All stock bred, in calf to registered bulls. This herd is absolutely clean and guaranteed free from abortion and tuberculosis and will be sold as represented. Will sell with purchaser's privilege of 60-day retest. Descriptive catalog on registered stock ready Oct. 1. **Magee Dairy Farm, Chanute, Kan.**

HOLSTEIN CATTLE

150 Head of Choice Two-Year-Old Grade Heifers bred to King Segis bulls, to freshen in September and October.

Fifty Cows in Milk, good ages.

Fifteen Registered Bulls, some are from King Segis Pontiac breeding and good enough to head herds.

Twenty-five Registered Cows and Heifers, several A. R. O. breeding.

Will price a few grade heifer calves at $30, express paid. Your money back if not satisfied. Can ship by Missouri Pacific, Santa Fe, or Rock Island. Come and see me.

M. A. ANDERSON, HOPE, KANSAS; DICKINSON COUNTY



SAND SPRINGS FARM

Registered Holsteins—The Long Distance Kind

Watch for our consignment to the State Breeders' Sale, November 1.

E. S. ENGLE & SON - ABILENE, KANSAS

MAURER'S HOLSTEIN FARM

Offers special attractions in pure-bred females of all ages with high class breeding, and a number of choicely bred yearling bulls; also grade cows and heifers with size and quality. Don't fail to see this herd before you buy, as they are all bred RIGHT and priced RIGHT.

T. R. MAURER & CO - - - - EMPORIA, KANSAS

$15 Holstein or Guernsey CALVES

From Waukesha County heavy producing stock. Write us today, we guarantee to satisfy you.

RIVERDALE FARMS, Oconomowoc, Wis.

Holstein Calves

Choice, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write

W. C. Kenyon & Sons

Holstein Stock Farms Elgin, Illinois

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

REGISTERED HOLSTEINS

If you want big producers, males and females, write us. All our own breeding.

Lilac Dairy Farm

Route 2 Topeka, Kansas

LONG FARM HOLSTEINS

Herd headed by Segis Moxie Lincoln. Six nearest dams averaged 23.52 pounds butter seven days. A few young bulls for sale.

HENDERSON LONG & SON, Haddam, Kan.

CHOICE HEIFER CALVES

Twelve heifers and three bulls, 15-16ths pure, five to seven weeks old, beautifully marked and from heavy milkers, at $25 each, crated for shipment anywhere.

FERNWOOD FARMS, Wauwatosa, Wisconsin

SEGRIST & STEPHENSON, HOLTON, KANSAS
Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

BRAEBURN HOLSTEINS

Service bulls; bull calves. Just now a few females for sale to make the herd fit the stables once more.

H. B. Cowles, 608 Kansas Ave., Topeka, Kan.

GALLOWAY CATTLE.

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

Registered Galloway Bulls

Ten Two-Year-Olds. Ten Long Yearlings.
These are in extra good condition.
Ready for immediate service.
Come and see them.

CALLAHAN & BECK, KINGMAN, KAN.

CHESTER WHITE HOGS

RECKARD'S CHESTER WHITES

Have raised pure-blooded Chester White hogs for fifteen years. Breeding stock for sale from prize-winning strains. Large kind and smooth.

E. M. RECKARDS - OZAWKIE, KANSAS

Pure-Bred Chester Whites.—One yearling boar and spring boars at reasonable prices. Gust Claussen, Russell, Kansas.

SHROPSHIRE SHEEP



FOR SALE

A bunch of good big **Registered Shropshire Bucks,** not high in price. Also registered ewes.

Howard Chandler, Chariton, Ia.

DOYLE PARK SHROPSHIRES

Forty Head—Twenty ewes and twenty ram lambs. Ram lambs sired by our show ram, a son of Senator Bibby.

HOMAN & SONS - PEABODY, KANSAS

Reg. Yearling Shropshire Rams

By imported sire. The right type and prices right. Farm near Pontiac, Butler County; P. O. address, Rosalia, Kansas, Route 1.

J. R. FLOREA.

TURNER & SON SHROPSHIRES

Fifty good big registered rams, $50 each, crated and express paid here. Also about 100 head of Lincoln and grade Shropshire ewes, ranging in age from one to six years, $22.50 per head. Sheep three miles north of town. Send check or draft with order. Pedigrees furnished for pure-breds. Always return crate. Reference, Harveyville State Bank.
J. R. TURNER & SON - - - - - - HARVEYVILLE, KANSAS

POLAND CHINAS.

POLAND CHINAS



Faulkner's Famous Spotted Polands

THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.

Pioneer Herd Poland Chinas

For Sale—Ten outstanding spring boars by A Wonderful King and Logan Price. Twenty-five farmer boars, priced reasonable. Bred sow sale February 18, 1919. Send for catalog.

F. Olivier & Son, Danville, Ks.

POLAND CHINA BOAR PIGS

For Sale—Twenty choice boar pigs, sired by Model Wonder, he by Big Bob Wonder; The Giant by Hercules by Big Ben; King Ben by Giant Ben; Captain Gerstdale Jones, Big Bob Jumbo, and A Big Wonder. Several herd boar prospects.

Ross & Vincent, Sterling, Kan.

Erhart's Big Polands

A few fall boars ready for hard service. Can spare two tried herd boars. Have the greatest showing of spring boars we have ever raised. Some by the 1,250-pound A Big Wonder. Will make prices on pairs and trios. Write me your wants. All immune.

A. J. ERHART & SONS, NESS CITY, KAN.

Morton's Poland Chinas

For Sale—Twenty-five choice boar pigs, sired by Morton's Giant by Discher's Giant and Girstdale Jumbo by Girstdale Jones, out of my best herd sows. Priced reasonable. Write or come and see my herd.

GEORGE MORTON
Oxford : Sumner County : Kansas

Oxford Herd Poland Chinas

Herd boar, Giant Lunker by Discher's Giant out of Lady Lunker. I have 57 early spring pigs. A few choice boars. Priced to sell. Come and see me; I can please you.

Howard R. Wenrich
Oxford - - - - Kansas

"The Fellow That Plays Second Violin Never Leads the Band"

Buy your POLAND CHINAS of the LEADER in the WORLD'S GREATEST prizes for the OLDEST FIRM doing business. One hundred pigs, both sexes, for sale.

B. F. Dorsey & Son
Girard, Kansas Jacksonville, Illinois

HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that weigh and win. S. C. Brown Leghorn Chickens that lay. See or write

S. Y BURKS, BOLIVAR, MO.

LONE CEDAR POLANDS

Strictly big type March and April pigs, either sex. Nothing but tops shipped. Prices reasonable. Guarantee to please. All cholera immune. A. A. MEYER, McLouth, Kansas.

Pliley's Spotted Polands

All Registered Stock. Pigs of either sex ready for shipment June 1. Am now booking orders.

J. EDW. PLILEY - GILMAN CITY, MO.

TOWNVIEW HERD POLAND CHINAS

For Sale—Choice lot spring boars. All gilts reserved for February bred sow sale. Herd boars, King Wonder's Giant, Walter's Expansive Sid, Big Timm Joe.

CHAS. E. GREEN - PEABODY, KANSAS

LANGFORD'S SPOTTED POLANDS

Last call for spring boars. $40 to $50.

T. T. LANGFORD & SONS, Jamesport, Mo.

Breeders' Directory

RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.

DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.

Hereford Cattle.
F. S. Jackson, Topeka, Kan.

HORSES AND MULES.

PERCHERON-BELGIAN-SHIRES



Registered mares with colts at side and bred again; registered fillies, stallions one to five years old; grown ourselves the ancestors for five generations on dam side. Sires imported.
Fred Chandler, R. 7, Charlton, Iowa
(Above Kansas City)

DUROC JERSEYS.

Wreath's Durocs Always Please

All spring boars and gilts must be sold to make room for fall litters. Critic Chief No. 241231 at head of herd. No fall sale.

L. G. Wreath, Manhattan, Kan.
Route 8

IMMUNE DUROC BOARS

Duroc Boars, immune and guaranteed breeders, shipped to you before you pay for them. The big Southeast Nebraska herd bred for size, bone and length. "Eventually" you will breed the "Crocker Type." "Why not now?"

F. C. Crocker, Filley, Nebraska
Box K

C. H. BLACK'S DUROCS

Herd headed by Giant Crimson by G. M.'s Crimson assisted by Red Cross Pathfinder. My herd sows are the big growthy kind and have all raised good litters. I have for sale bred gilts and spring pigs in pairs and trios, priced reasonably. Come and see my herd.

C. H. Black, Marion, Kansas

Duroc Bred Gilts

FOR SALE—Ten fall yearling Duroc gilts bred to September 15 litters. Graduate and B. & C.'s Col. breeding, priced to sell.

H. D. Plummer, Longton, Kan.

CONYERS HERD DUROCS

Herd boar, King Conyers by King the Col. Sows in herd by Golden Model, Graduate Chief, Cherry Chief and other good breeding. For sale, one extra good spring boar sired by Pathfinder and one by Great Wonder. Fifteen spring gilts by Royal Critic. Come and see me.

B. W. CONYERS - MARION, KANSAS

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. W. J. Harrison, Axtell, Kan.

WOODDELL'S DUROCS

Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

FOR SALE — Duroc Jersey Hogs, March and April farrow; cholera immune; either sex. P. J. MURTA, CUBA, MISSOURI.

ANGUS CATTLE

Edgewood Farm Angus

I have for sale

40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.

D. J. WHITE, Clements, Kan.

RED POLLED CATTLE.

RED POLLED CATTLE

For Sale—Four-year-old herd bull. Some extra good cows to calve in winter and early spring. A few yearling heifers.

I. W. POULTON - MEDORA, KANSAS

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.

CHAS. L. JARBOE - QUINTER, KANSAS

MULEFOOT HOGS.

Knox Knoll Mulefoots

Bred sows and gilts. Open gilts, spring gilts and boars. Satisfaction guaranteed. Free catalog.

S. M. KNOX - HUMBOLDT, KANSAS

HAMPSHIRE HOGS

REGISTERED HAMPSHIRE HOGS. Thirty spring boars, immuned. Am booking orders for fall pigs. Geo. W. Ela, Valley Falls, Kans.

Poland China Sale

At Madison, Kansas October 5th, 1918

64 Head Big Spotted Poland China Hogs

THE REAL FARMER PORK HOG

30 Spring Boars
15 Spring Gilts
15 Sows Bred for Fall Litters
4 Brood Sows with Fall Litters

Six fine spring gilts out of our foundation herd sow, Spotted Clara, one of the good sows of the breed, and she is one of the best producers we ever owned.



If you want good breeding, buy a gilt from this litter. Most of the spring pigs are by Spotted King, he by King of England and out of Spotted Wonder 2d. ALL ARE IMMUNED and PEDIGREES FURNISHED with each animal. Send for catalog today and come to our sale.

W. J. HONEYMAN & SONS - MADISON, KANSAS

KANSAS DUROC BOAR SALE

AT DR. W. K. RICHARDS' BARN

Emporia, Kan., Oct. 14th, 1918

ILLUSTRATOR'S ORION 2D AT HEAD OF OUR HERD

A thousand-pound giant, by Illustrator, dam by Joe Orion 2d, second dam by Col. Beabout by Defender.

FIFTY SPRING BOARS

Sired by Illustrator's Orion 2d; Pet's Great Wonder by Great Wonder, dam by Grand Model, and a son of Burke's Good Enuff, dam by Great Wonder! Pathfinder, King's Col. Again, Cherry King Orion, Grand Model, Grand Model's Giant, Cherry King Disturber, and others.

DAMS ARE BY Defender, King's Col., Big Wonder, John's Combination, Fancy Victor, Giant Wonder, Pathfinder, Grand Model, and others.

This will be one of the best bred lots of Duroc boars to be sold this fall. Several real herd boar prospects. Catalogs are ready to mail. Send for one and come to sale. Sale at Emporia, Kansas.

JOHN W. PETFORD - SAFFORDVILLE, KANSAS

DISPERSION SALE OF Registered Jerseys



EIGHTY HEAD

At Farm One Mile South of Fair Grounds on Topeka Avenue

OCTOBER 14th, 1918

I am leaving the farm on account of sickness and am compelled to sell my valuable herd of forty head of registered and forty head of high grade Jersey cows and heifers. I have spent years in building up this fine dairy herd. All have been regularly tested and are clean.

They are of the Saint Lambert, Flying Fox and Uncle Peter's Gold Mine breeding. Most all in milk or will freshen soon. All bred to my great herd bull, BROOKSIDE BABE TORONE. Every sire and dam for four generations back of him are in the Registe. of Merit. He has more daughters that produce one thousand pounds of butter fat than any bull living.

Please send for catalog and come to my sale.

W. H. MAXWELL - - - - TOPEKA, KANSAS

B. C. SETTLES, PALMYRA, MO., SALE MANAGER
Auctioneers—Col. D. M. Perry and Col. Charles W. Crews.

C. W. LAMER GOES TO WAR!

BEYOND THE DRAFT AGE, BUT ENLISTS TO FIGHT FOR OLD GLORY

Great Two Days Dispersion Sales---Sept. 27 and 28

545—CATTLE, HOGS, HORSES, MULES—545

FRIDAY, SEPTEMBER 27th

Sale of Registered Herefords

Forty Cows and Heifers bred to the $5,800 Fairfax bull, Overton Fairfax (547792). Twenty-eight of the cows have calves by side.

Eight Yearling Heifers. Six Yearling Bulls.
Herd Bull, Overton Fairfax (547729).

Sale Starts at 1 o'Clock Sharp. COL. P. M. GROSS, AUCTIONEER

SATURDAY, SEPTEMBER 28th

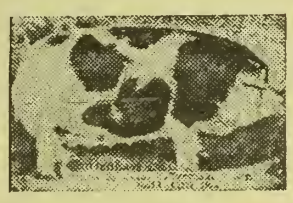
200 Steers weighing 1,000 pounds. 50 Grade Cows and Heifers. 200 Duroc-Jersey Hogs. 20 Registered Sows, all the offspring eligible.
75 Mules — 20 Horses.

FEED.

500 bushels old corn. 200 tons alfalfa. 230 tons ensilage, made from corn that would make thirty bushels per acre. 30 tons Cado cake. Kafir corn, cane and Indian corn in shock. Parties buying this feed will be allowed the use of feed yards this winter.

C. W. LAMER, SALINA, KANSAS

Big Bone Spotted Poland China Sale at CLEBURNE, KANSAS October 3, 1918



FIFTY HEAD OF BIG SPOTTED POLANDS

including

Five Tried Brood Sows with Litters at Side

Six Fall Yearling Gilts

Three will have pigs day of sale

Twenty-one Large Spring Boars, and

and

Eighteen Large Spring Gilts

These are the pick from my spring crop of pigs and they are all in good condition. Sale will be held on my farm three miles west of Cleburne. Catalogs are ready to mail out. Please send for one and arrange to attend my sale. All immuned.

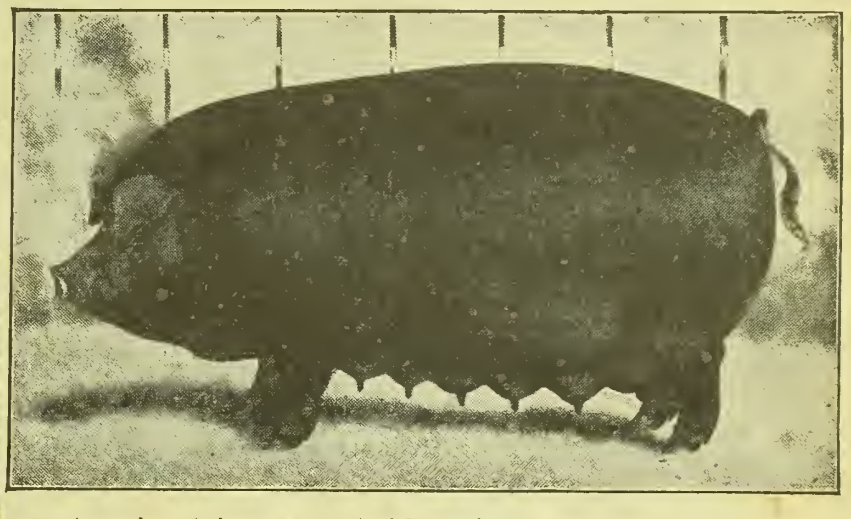
Alfred Carlson, Cleburne, Kansas

Auctioneers — Col. P. M. Gross and Col. Homer Bales

Duroc Jersey Bred Sow Sale, Parker, Kan., Oct. 8

25 RED POLLED CATTLE
One Herd Bull
Two Yearling Bulls
Several of the cows have calves and are bred again. All registered and in good condition.

FIFTY HEAD
consisting of
Twenty Bred Sows
Ten Spring Gilts
Five are by Pathfinder
Twenty Spring Boars



A number of the sows are sired by Parker Wonder and bred to H. & B.'s Pathfinder, and most of the boars and spring gilts are sired by him. I am not quitting the Durocs, but must reduce my herd. I am selling some of the best in my herd. If you want good foundation stock, come to my sale. I can please you. ALL IMMUNED.

Catalogs are ready to mail out. Please send for one and arrange to come to my sale. I guarantee a good offering. Farm adjoins city. Auctioneers: Rule Bros.

W. T. McBRIDE - - - - - PARKER, KANSAS

HEREFORDS and Percherons



Fifteen Registered Hereford Cows

With early spring calves at foot and bred again. Ten two-year-old Heifers in good flesh, all bred to Paul Perfection bull.

Three Registered Percheron Mares with Colts

(One imported); two 2-year-old Percheron stallions; one registered saddle stallion, and one registered saddle mare.

Twenty-five Head Registered Poland China Hogs

Including four brood sows by Caldwell's Big Bob and one by Superba. Ten spring boars and ten spring gilts.

Everything guaranteed in good condition and will price reasonable. Come and see us. Farm seven miles from Madison, five miles from Hamilton.

J. S. WILSON & SON - - - HAMILTON, KANSAS

REGIER'S Holstein Friesians

On account of short help we have to sell fifteen head of our cows and heifers, all registered, bred to Sir Rag Apple Korndyke De Kol. His sire is a three-quarters brother to Rag Apple 8th, the $25,000 bull. Will freshen by September 15 and until spring. Prices from $200 up to $600. Young bulls ready for service. Bull calves four months old and older, $80 and up.

G. REGIER & SONS - - - WHITEWATER, KANSAS

Holstein Breeders' Complete Dispersion Sale, October 3, 1918

Of entire herd. **Seventy-four head, all registered,** all A. R. O. but one heifer. All born on the farm but herd sire and one foundation cow. In the sale sixty head, either daughters of Maplecrest Sir De Kol No. 138077, our 31-pound herd sire, or they are bred to him. Also twelve head with records of 23 pounds to 29.48 pounds butter in seven days. Only three of them full aged. Also thirty of their daughters, also four 2-year-olds with butter records of 20 to 22.46 pounds with first calf. Milk weighed the year round since establishment of herd in 1903. A high class sale. Send for catalog.

PRAIRIEDALE FARM :: GALT & SPENCER :: DIXON, ILLINOIS

(Railroad station either Sterling or Dixon. Prairiedale Farm is situated midway between the two, which have electric connections.)

The Government's Call for Income Tax Statements Makes it Certain that

YOU NEED THIS BOOK

GET STARTED RIGHT

There is no better time than right now to begin keeping Farm Records so that you will have the required information ready to make your income tax statement next year. No doubt you are already keeping your records. You want the most simplified and easiest way. Get this book. It's FREE.

PRACTICAL ACCOUNT BOOK

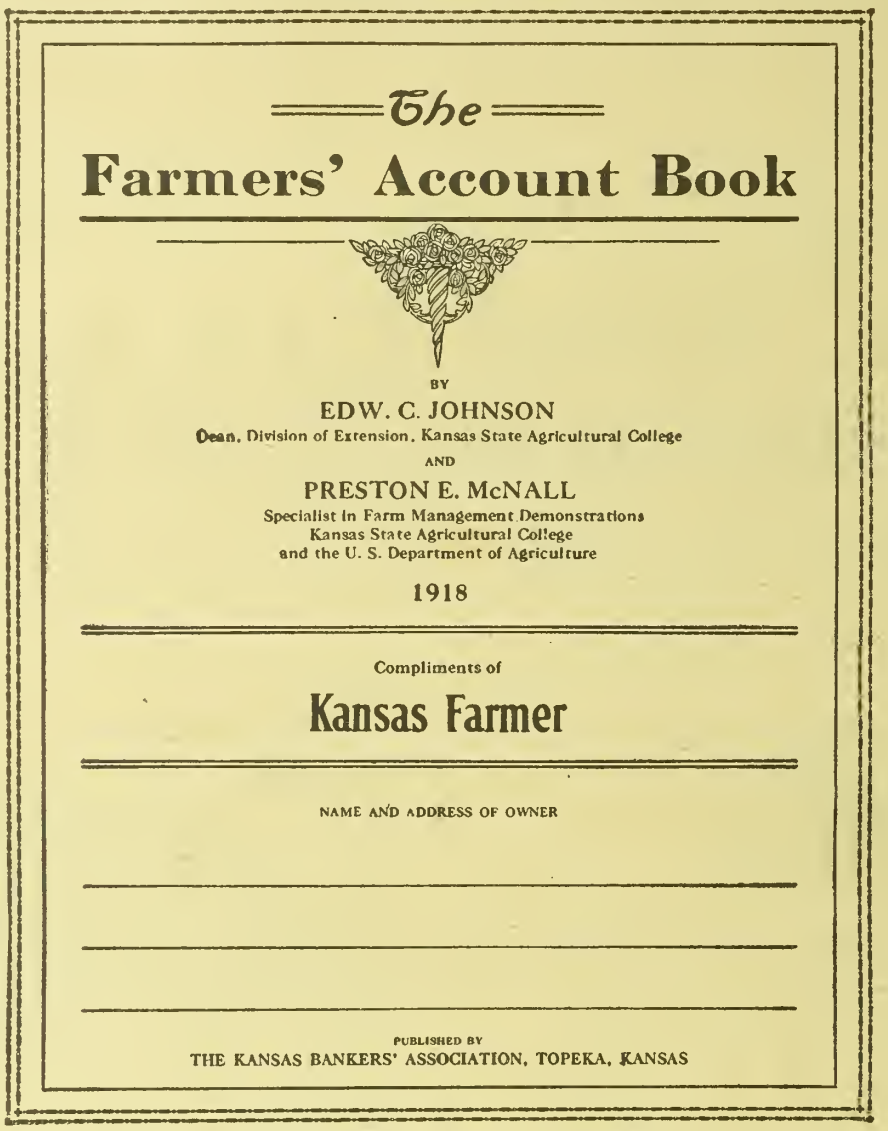
This book is a PRACTICAL Farm Account Book which has been developed under the direction of the United States Government men, working in co-operation with hundreds of farmers in Kansas. It is not merely theoretically correct, but has been prepared to fill the needs as shown by practical use on farms in this state.

THIS BOOK WILL MAKE YOUR WORK EASIER

Keeping accurate records of farm business is becoming more and more popular, not only because it is practically necessary for the income tax statement, but also for the value of the records to the farmer. The most important thing, however, is to secure and keep the information desired with the least amount of work and time; that is, in the simplest way.

The book which KANSAS FARMER is offering on this page, FREE to subscribers, is gotten up with the idea of keeping all the information necessary and valuable with the smallest amount of work. The book is a one-year record. It is small and convenient to keep. It contains full but simple instructions on how to keep the records required, with sufficient blanks for all entries.

ONE-HALF ACTUAL SIZE



ACTUAL SIZE OF BOOK, 8 x 11 INCHES

A PRACTICAL BOOK NOW IN USE BY FARMERS

The book is published by the KANSAS BANKERS' ASSOCIATION. It has been prepared by Dean Edwin C. Johnson and Preston E. McNall, both of the Extension Division of the Kansas Agricultural College, who have done their work on the book in co-operation with the United States Government.

This book has been used in Farm Management studies on hundreds of farms in Kansas where owners have heartily co-operated and offered many valuable suggestions for making it thoroughly practical and suited to actual farm conditions. These suggestions have been incorporated in this latest edition.

CONFORMS WITH REQUIREMENTS OF THE GOVERNMENT

It is the ultimate object of the Internal Revenue Office to adopt a uniform method of computing farmers' incomes. This includes farm inventories, farm receipts, and farm expenses, and follows very closely the book which is given by KANSAS FARMER to its subscribers. From year to year there may be a few slight changes made. For this reason it is best to buy a one-year book in order that each year your book will conform to the Internal Revenue rulings for that year.

FARMERS' ACCOUNT BOOK GIVEN FREE

HOW AND WHERE TO GET THIS BOOK

KANSAS FARMER desires to assist its readers in getting a book which will meet all their requirements at the least possible expense. The book described on this page is adapted to your needs and can be obtained FREE from many banks in Kansas, or KANSAS FARMER will give the book FREE with a subscription. Read our offer below and send today.

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We will mail you ABSOLUTELY FREE and postpaid one of these Account Books for your renewal subscription to KANSAS FARMER at $1.00. Send us your order today and get your accounts started in such a way as will be easy to keep and which you know will be correct.

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To subscribers whose subscriptions are already paid in advance we make the following offer: Send us one new subscription to KANSAS FARMER for six months at 50 cents and we will send you one of the books FREE AND POSTPAID. This offer is open only to subscribers whose subscriptions are paid in advance, and the subscription MUST be a NEW ONE; that is, for someone not taking KANSAS FARMER at the present time.

ORDER BLANK

KANSAS FARMER, TOPEKA, KANSAS.

GENTLEMEN: Inclosed please find $1.00, for which renew my subscription for one year and send me the Farmers' Account Book as per your offer.

Name..... R. F. D.....

Town..... State.....

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OCT 25 1918

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 39. TOPEKA, KANSAS, SEPTEMBER 28, 1918. Established 1863. $1 a Year

KANSAS STATE PIG CLUBS

Members Show Pigs at Kansas Free Fair in Special Classes

ONE of the overflow tents of the swine department at the Kansas Free Fair was devoted to pigs shown by State Pig Club members. This tent was a lively place all through the week. Someone asked a member of the Olathe Pig Club, a boy of ten or twelve, if he intended to sell his pig. "No," he answered as quick as a flash, "I am going to keep her and raise some more pigs." This spirit of progressive achievement seemed to animate the boys and girls who had taken advantage of the special premiums offered at Topeka and were showing their pigs in the pig club classification.

This is the second year that the State Pig Clubs have had a special show at the state fairs. In the big tent set aside for the club exhibits sixty-three pigs were shown by members of the officially organized State Pig Clubs. This classification was open only to bona fide pig club members. All the requirements as to records and other points made by Otis E. Hall, the state leader at the Agricultural College, had to be met by the boys and girls who entered for the fair association premiums. Prizes were offered in two groups, one for entries from within fifty miles of Topeka, and the other for entries outside the fifty-mile radius. In the first classification the prizes ranged from $12 for first place to $8 for sixth place, and in the second from $15 for first to $10 for sixth.

Getting young people to doing things along agricultural production and home economics lines in co-operative groups has been given much attention by the United States Department of Agriculture and the agricultural colleges. Both federal and state funds are available for handling the club organization work. In the state the extension division of the agricultural college is the department around which the boys' and girls' club work centers. Kansas has done some remarkably fine work in organizing and conducting clubs of various kinds. In the counties of the state having county farm bureaus these organizations have co-operated in the club work, and in many counties special club leaders have been appointed who have worked with the boys and girls in their club achievements, and many local club leaders have volunteered to look after groups of boys and girls in their home neighborhoods. The success of the clubs depends largely on the spirit of enthusiasm these local club leaders are able to develop. In nearly every instance a large enthusiastic club of almost any kind will be found to have a devoted leader who understands boys and girls and is willingly giving time and energy in their behalf.

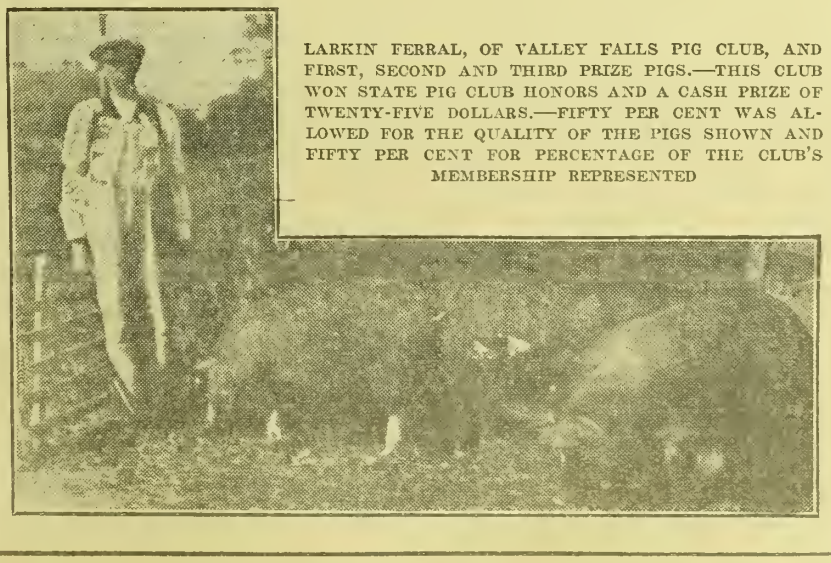
The state pig clubs which made such a fine showing at the Free Fair have an enrollment this year of over eight hundred members. About 250 of these are entered in the sow and litter clubs, which are more comprehensive in scope than the clubs where only a single pig is fed. Paul Imel up to a few months ago was the state club leader especially assigned to the live stock clubs. Before resigning his position to be inducted into Uncle Sam's army he had organized and personally visited a great many of the pig clubs of the state. To Mr. Imel must be given a great deal of credit for the organization of so many clubs over the state and the efficiency with which they have completed their work.

Perhaps a brief explanation of just what the pig club members do might not be out of place. Someone willing to risk a little money is usually an essential part of a pig club. For example, out in Jewell County last year William A. Matson, president of the Citizens' State Bank of Jewell, financed a very successful pig club, buying bred sows and pigs for the members, drawing up a contract in which they agreed to pay interest and the prineipal when the pigs were sold, keep accurate accounts of the feed, and make regular reports to the bank, finally writing a complete story telling all about what they had done. All over the state men like Mr. Matson have co-operated in this manner, loaning money for the buying of the pigs, which was to be paid back with interest when the money had been made from the sale of stock. Here is a sample financial report, that of Alberta Shue, one of Mr. Matson's club members. She paid $40 for the sow, giving her note to Mr. Matson, paid interest, $1.44; feed, $11.50. She sold the sow and pigs August 4 for $68.95, leaving a profit of $16.01. "This was a fine sow and litter," said Mr. Matson, "but they were sold when things looked about the worst. Alberta got discouraged and so did I." He of course was referring to the trying conditions the latter part of the season of 1917 when corn went up to as high as $2 a bushel and other feeds in proportion. Another member of this club paid $30 for his sow and $1.30 interest. She had six pigs. He sold the sow and five of the pigs for $73.32. Mr. Matson, speaking of this record, says: "His feed account is not accurate, because his father foolishly favored him on price." Therefore he did not attempt to report the actual profit made. It is from such groups of boys and girls all over the state that the pigs exhibited at the fair came.

The prizes offered by the fair association were for sows or barrows only, and they were to be judged solely from the standpoint of their fitness for market. The entries were made to the secretary of the fair in the same manner as other entries in the swine department, and pens were assigned by the superintendent of the department. L. C. Williams, of the extension division, who is assistant club leader under Otis E. Hall, Ernest R. Weigand, assistant in charge of poultry club work, and Frank W. Kirk, special assistant in the extension division, were on hand to help in locating the pigs and caring for them after they were delivered by the express companies. A good many of the boys came themselves later in the week and were present when the pigs were being judged late Wednesday afternoon. The greatest excitement prevailed among the club members during that day and while they were in the ring showing their pigs.

One club, that known as the Valley Falls Pig Club, having a membership of eighteen, had employed Larkin Farrel, president of the club, and Henry Baumgart, another member, to come with the pigs and care for all entered by members of that club. They shipped the pigs with George Ela, a Hampshire breeder who was showing a herd at the fair. Mr. Ela has been an enthusiastic backer of the pig club in his home locality and was glad of this ehance to help the club in getting its pigs to the fair as cheaply as possible.

W. A. Williams, of Marlow, Oklahoma, placed the awards. The two groups, those from within fifty miles and those from a greater distance, were run out and confined in two large pens made of hurdles and empty crates, and Mr. Williams, the judge, carefully picked out the best pig in each group from a market hog standpoint; the second best, and so on down the line to sixth place. This finished the show in so far as the fair association was concerned, but some of the hog breeders of the state had made up a purse of $165 which was distributed by judging the breeding stock entered as breeding animals, each breed in a class by itself. In the fair association classification there was no place for boar pigs, and the sows were necessarily judged as fat hogs. Every hog breeder knows that a fine young boar or sow grown and developed as a breeder cannot compete when in breeding condition with a barrow or sow fed for market and judged from the standpoint of market condition. This lack in the classification was called to the attention of a number of the leading breeders of the state only a week or so before the fair by R. W. Kiser, specialist in animal husbandry in the extension divisiou, who had visited some of the clubs and after studying the fair classification for the pigs saw that some of the good breeding pigs to be shown would not get their just deserts. The breeders responded liberally to his appeal and made up the prize mentioned. After the two groups of pigs had been judged as fat hogs, Mr. Williams, who is a most excellent judge of breeding hogs, picked out the winners in the different breeds.



LARKIN FERRAL, OF VALLEY FALLS PIG CLUB, AND FIRST, SECOND AND THIRD PRIZE PIGS.—THIS CLUB WON STATE PIG CLUB HONORS AND A CASH PRIZE OF TWENTY-FIVE DOLLARS.—FIFTY PER CENT WAS ALLOWED FOR THE QUALITY OF THE PIGS SHOWN AND FIFTY PER CENT FOR PERCENTAGE OF THE CLUB'S MEMBERSHIP REPRESENTED

The awards in the group from within fifty miles of Topeka, judged as fat hogs, are as follows: First, Larkin Farrel, Dennison, Kansas, on a Poland China barrow; second, Grace Farrel, and third, Everett Farrel. These three barrows were all from one litter. Larkin and the three pigs are shown in the cut on this page. Fourth place went to Arthur Reynolds, of Emporia, on a Poland China; fifth, to Lester McGuire, North Topeka, on a cross-bred Poland China-Duroc Jersey; sixth, to Robert Lindsey, Valencia, on a Duroc Jersey. Only eleven or twelve pigs were shown in the group from outside the fifty-mile radius. First went to Harold Butcher, Solomon, on a Duroc Jersey; second to Ethel Jung, Lyons, on a Duroc Jersey; third, Clarence Richards, Olathe, on a Poland China; fourth, Edward Kraus, Hillsboro, on a Chester White; fifth, Austin Brockway, Olathe, on a Poland China; and sixth, John Wingert, Emporia, on a Hampshire.

In the Chester White boar pigs, Edward Kraus won first and Henry Baumgart, Denison, second and third. In the Chester White sows Edward Kraus, Hillsboro, won first, and Henry Baumgart second and third. Melvin Jung, of Lyons, won first in Duroc Jersey boars, and Viola Thompson, Valencia, second. In the Duroc Jersey sows Ethel Jung won first, Harold Butcher second, Fred True, Perry, third, and Marmion McWilson, Rice, fourth.

In the Poland China boar pigs George McBrown, McLouth, won first; Carl Franke, Lyndon, second. and Albert Phillips, Olathe, third. In the Poland China sows Dwight Williams, Olathe, won first; Clarence Richardson, second; Austin Brockway, third; Marmion McWilson, fourth, and George McBrown, fifth.

There were no Hampshire boar pigs shown. In the sow class John Wingert won first; Thelma Schwartz, Valley Falls, second; Marion Schwartz, third; Dorothea Ela, Valley Falls, fourth, and Ida May Ela, fifth.

We fear many of the people who passed through the tent where these pigs were shown did not realize the scope of the State Pig Club work. Small placards were placed on each pen, giving the breed of the pig, its age and weight, and the name of the owner. A large banner setting forth specifically the scope and magnitude of the State Pig Club organization in this state would have greatly added to the interest in the exhibit.

If Your Subscription Has Expired See Back Page



HUNGER

For three years America has fought starvation *in* Belgium

Will you *Eat less*—wheat meat—fats *and* sugar that *we* may still send food *in* ship loads?

UNITED STATES FOOD ADMINISTRATION

SENATE CONCURRENT RESOLUTION No. 18.

A proposition to amend section 1 of article 5 of the constitution of the state of Kansas relative to the right of suffrage.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members elected to each house thereof concurring therein:

Section 1. The following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their approval or rejection: That section 1 of article 5 of the constitution of the state of Kansas be amended to read as follows:

Section 1. Every citizen of the United States of the age of twenty-one years and upwards—who shall have resided in Kansas six months next preceding any election, and in the township or ward in which he or she offers to vote, at least thirty days next preceding such election—shall be deemed a qualified elector.

Sec. 2. That this proposition shall be submitted to the electors of the state at the general election in the year 1918 for their approval or rejection. The amendment hereby proposed shall be designated on the ballot by the following title: "The suffrage amendment to the constitution," and shall be voted for or against as provided by law under such title.

Sec. 3. That this resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 8, 1917.
Approved March 12, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 18, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

SENATE CONCURRENT RESOLUTION No. 15.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members of each house concurring therein:

Section 1. That the following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their rejection or approval:

Sec. 2. The Legislature may levy a permanent tax for the use and benefit of the state educational institutions and apportion among and appropriate the same to the several institutions, which levy, apportionment and appropriation shall continue until changed by statute. Nothing herein contained shall prevent such further appropriation by the Legislature as may be deemed necessary from time to time for the needs of said state educational institutions.

Sec. 3. This proposition shall be submitted to the electors of this state at the election for representatives in the Legislature in the year 1918. The amendment hereby proposed shall be known on the official ballot by the title "Amendment to the constitution providing for a permanent income for the state educational institutions," and the vote for and against such amendment shall be taken as provided by law.

Sec. 4. This resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 7, 1917.
Approved March 10, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 15, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

A NATION'S STRENGTH IS IN ITS FOOD SUPPLY

Eat less—Waste nothing
Create a Reserve

AMERICA MUST FEED 120,000,000 ALLIES

Turkey is starving, Germany pinched and Austria rioting for food. The Allies are well fed and full of fight, thanks to Uncle Sam who invited them to sit down to his table a year ago—he has been passing around the victuals ever since.

"Dry up," once insulting slang, has now become the dignified command of an aroused democracy.—The Youth's Companion.

Constructive work at home must run well ahead of destructive work at the front.

MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Increase Usefulness of Automobiles

GOVERNMENT regulations are pinching down on the use of the automobile as a luxury. It is imperative that there be at all times plenty of gasoline for war purposes. On the farms the automobile has become almost indispensable in carrying on the farm business. The car designed for pleasure riding is made to answer many of the purposes of a truck.

Trailers are being used by many, in some cases crude home-made affairs. A good trailer is a great help in making the cars more useful. "A light-running, ball-bearing trailer attached to any automobile takes it out of the luxury class," says a writer in the Daily Drovers Telegram. "The principle of the trailer is well known. The best example is the steam locomotive with its train of forty to sixty heavily-loaded freight cars. Then consider the tractor which hauls the grain separator, the supply wagon, and the tank wagon without difficulty. Similarly you can attach a load behind your automobile and pull three times as much as you can carry in the auto itself and do it without the slightest strain on the automobile engine and without damage to the car.

"You can attach a three-fourths ton trailer behind your automobile and load it with grain, corn, farm implements, milk cans, stock—anything you have to haul—and travel at the road speed of the automobile. A patented coupling device absorbs the shocks of starting and stopping. The usual selling price is from $110 to $140. But when you consider that it does the work of a three-fourths ton truck and costs but little more than a first-class farm wagon, it should prove a profitable investment for every farmer owning an automobile.

"The following experience of a practical farmer using one of these trailers is interesting.

"'The trailer came a couple of months ago and found us in the pinch of a busy season. Every horse and tractor was busy in the fields and we were using two automobiles to cover the distance between two farms and two towns four miles away where we were getting machinery parts and supplies.

"'An automobile, while it is swift, is not the best vehicle in the world to carry mower and binder sickles, heavy tractor gears, barrels of oils and gasoline, feed and fertilizer, especially when you use the same automobile to take the family to church on Sundays.

"'Just to show our trailer it was on the place for service and not for decoration, we hooked it on our runabout and ran to town for a load of fertilizer. We carried three-fourths of a ton at least and made the 9½-mile trip in exactly forty-six minutes, which included about five minutes for loading. It would have taken a man and a team practically a day to have brought this load and the cost would have been far more than what a man and team is usually worth for it would have taken them out of the field where their work was worth, at that time, nearer $50 than $5.

"'We have used the trailer almost constantly for carrying milk and feed and light machinery. We also let down the front and tail boards and put in a row boat and canoe and speeded them to town for painting and brought them back unmarred and uninjured.'"

The cut on this page was from a photo taken at the Kansas Free Fair on the opening day. Not only were trailers used to deliver hogs, but in some instances auto trucks with the farm name painted on the side were to be seen.

We would be glad to have experience letters from those of our readers who have used trailers or trucks to increase their business efficiency.

Motor Transport Service

The tremendous importance of gasoline in the war is brought to our attention by the rapid development of motor transport service. The War Department, in preparation for the more rapid movement of troops and supplies of the American Expeditionary Forces, has made a sweeping change in organization by creating a Motor Transport Corps, to take over complete control of all motor vehicles in the army, from bicycles to motor trucks. This service, which has heretofore been a part of the Quartermaster Corps, has grown to such proportions that it has been found necessary to establish it as a separate corps, and its further rapid expansion is planned.

Motor trucks are taking a more vital part in each successive big battle. In the recent counter-offensive of the French and Americans at Chateau-Thierry motor trucks carried several regiments of troops to critical points in the line and supplied them with heavy and light guns, ammunition, horses, mules, and even wagons for supply train use over terrain that was not feasible for motor vehicles.

Motor trucks made it possible for the French to concentrate troops, ammunition, and supplies sufficient to stop the Germans at Verdun. When German aviators destroyed the railroad facilities, General Joffre called motor trucks into service to replace the wrecked trains, which they did with entire success. In attacking along the Marne recently the American units were supported by machine guns mounted on trucks and even passenger cars, which swept the enemy lines with a storm of fire. Trucks were also used extensively to bring up reserves to points of the line where they were badly needed. Much of the work of the corps must be done at night, and it is well known that much-used roads near the front are regularly searched by the enemy artillery, so that the Motor Transport Service, while technically noncombatant, is really quite as active and dangerous as many fighting branches.

Banks Encourage Tractor Use

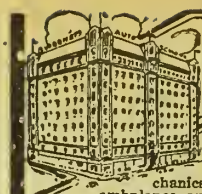
We quote herewith a letter addressed by W. P. G. Harding, governor of the Federal Reserve Board, and which explains the position of the Federal Reserve Banks in regard to handling paper given in purchase for farm tractors:

"The Board has received many inquiries of late as to the eligibility of notes given by farmers in payment for tractors used by them in agricultural operations. The Board has already ruled that notes given for the purchase price of farm implements which are to be resold may be discounted as commercial paper, and if the implements are to be used for an agricultural purpose, notes given in payment may be discounted as agricultural paper. The Board has considered the question whether a tractor can be regarded as a farming implement or whether it must be treated as a permanent fixed investment. While it is expected that the use of a tractor will be extended over several seasons, this circumstance does not make necessary the classification of a tractor as a fixed investment. Horses and mules bought for farm work are purchased with several years' use in view, yet there can be no question that a note given by a farmer in payment of a pair of mules to be used in farm work, maturing within six months, is eligible as agricultural paper. Where tractors are used to supplement the work of horses or mules or are used altogether instead of these animals, it seems to the Board that notes given by farmers for the purchase price of tractors, and maturing within six months, should be admitted to discount as agricultural paper, and you are requested to advise your member banks accordingly."

It is apparent from the above that paper given in payment for a tractor is considered agricultural paper and will be handled as such by the Federal Reserve Banks. However, it must come through the same channel and no transaction with an individual or with any business organization except a member bank can be entertained.

This ruling well illustrates the position of the farm tractor today. Banks that discouraged the purchase of tractors a few years ago are now willing to back a man who is in position to make profitable use of this form of farm power.

Cover the cough. Smother the sneeze.



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Big Free Catalog of the Sweeney Anto and Tractor School—the greatest in the world. You learn everything there is to know abont driving and repairing every kind of machine by actual experience. You do all this work yourself nnder best instruction. You are practical and qualified to fill any high salaried position. Thousands of my graduates now making big money. Write now for catalog—a postal card will bring it. E. J. SWEENEY, Prcs.,

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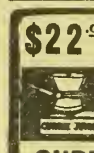

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SEED WHEAT LOANS

Enough seed has already been provided through the Government seed wheat loan plan to seed between 300,000 and 400,000 acres, which is a larger acreage than is planted to wheat by any one state east of Ohio. This is all land which would not have been seeded if the Government money had not been available. Farm bureau committees and county agents in Western Kansas have been reporting on the progress of the work and Edw. C. Johnson of the Agricultural College states that loans have been applied for in twenty counties, over forty meetings having been held under the direction of county agents and representatives of Leon A. Estabrook, who has had charge of seed wheat loans for the Department of Agriculture. Thus far 2,231 farmers have applied for loans aggregating $622,096. The total amount approved to date amounts to over $500,000. One hundred twenty-three applications have been rejected by the local committees because the ground was not in suitable condition for seeding or the applicant had not yet exhausted his means for getting credit locally.

There are over three hundred applications still to be considered and passed upon. The applications here reported are only those which have passed through the hands of county agents. There probably are additional applications which have been approved by Mr. Estabrook coming from counties where county agents are not located.

FEED SHORTAGE RESOLUTIONS

The mill feed question as affecting Kansas farmers was taken up by the State Board of Agriculture at its quarterly meeting held in Hutchinson last week. There is no getting around the fact that at the prices fixed on mill by-products there is a decided shortage of bran and shorts at the present time. The demand has been tremendously increased because the price is lower than the prevailing prices on other feeds. There should, however, be no discrepancies in prices charged for these feeds, as has been reported to Mr. Mohler, secretary of the State Board.

The Board of Agriculture at its recent meeting went on record in the form of a resolution pointing out that farmers and feeders of the state are facing an acute shortage of bran and shorts and that there is a smaller amount of wheat in the hands of farmers, elevator men, and millers, than has ever been known in the history of the state. It also calls attention to the wide discrepancy prevailing throughout the state in the price of milling by-products.

As a result of the investigations made and discussion by the members present at the meeting, the board recommended and urged the United States Food Administration to take such steps as may be necessary to hold within the state a sufficient quantity of this year's wheat to keep the mills and elevators running to capacity in order that enough bran and shorts be available to feed the live stock of the state. It also urged that the Food Administration make such rules and regulations as will bring about uniformity in prices of milling by-products.

On another page of this issue is a statement relative to the output of mill feed which explains some of the points which have been raised.

FARMERS AND THE DRAFT

The plan which has been agreed upon by the War Department, the Agricultural Department, and the Labor Department for classifying the men registered under the new draft law is given on another page of this issue. It is to be regretted that each registrant must make his own exemption claims. The reason given for insisting on this was that it would have enormously increased the work of the draft boards and made it practically impossible for them to get the men classified in time to fit in with the plan for increasing our army in training if the boards had been compelled to examine every questionnaire from the standpoint of possible exemptions. There seems to be a real effort, however, to consider farm labor requirements. This is most necessary or food production cannot be maintained.

The Federal Department of Agriculture points out in a recent statement that in the new draft the district boards are charged with the duty of putting into deferred classes those persons who are more likely to further the war by remaining in civilian occupations than by entering the army. To help the draft boards in doing this, three advisers are to be selected for each district board, one for agriculture, one for labor, and one for other occupations. The agricultural adviser is to be appointed by the board from the recommendations of the Secretary of Agriculture. These advisers are not members of the board but may on invitation attend its meetings.

The duties of the agricultural adviser will be to furnish to the board facts relative to farm-labor requirements, not only of his own district, but of the whole country. He should be the repository of all facts having relation to the deferment of agricultural workers, whether these be necessary farm laborers, managers or operators. He will be expected to advise the district boards as to a shortage or surplus of necessary farm workers for any given district, as well as for the entire nation. Such information will be supplied to the advisers by the Department of Agriculture. This will make it possible to have necessary workers transferred from districts in which they may not be necessary to other districts in which they are sorely needed.

The adviser may also concern himself with individual cases that come before the district board. He will have the right, under certain conditions, to examine the questionnaires and other records in the files of the local board for the purpose of ascertaining whether persons entitled to deferred classification have actually claimed it. In case he finds the names of such registrants he may file for them deferred classification with the district board, which, in turn, may require the local board to certify the questionnaire and record of any such registrants for consideration. Reasonable time will be given for the purpose of obtaining information and supplying the affidavits required. If a local board determines to consider a case for deferred classification because a registrant is engaged in a necessary occupation, notwithstanding no claim for deferred classification on that ground has been made, it shall endorse the recommendation on the questionnaire of the registrant and forward it to the district board having jurisdiction. The district board will thereupon consider the case and proceed to classify the registrant, notwithstanding the fact that no claim for deferred classification by or in respect of the registrant has been made.

A further duty with which the adviser is charged is to confer with employers of necessary farm workers, and to instruct them as to their right under the regulations to file a claim for deferred classification in respect of any registrant who has failed or refused to file a claim for deferred classification in his own behalf. This, in the opinion of the War Department, is a very important matter. The apparent injustice of placing many registrants in Class 1 is often due to the fact that employers have failed to make claims for deferred classification on behalf of necessary workers. It is to avoid a repetition of this trouble that farmers should see that all of their necessary employes, whether sons or other laborers, of the draft age have made for them just claims for deferred classification.

One important explanation is made in the new selective service regulations in connection with the expression, "skilled farm laborer." The questionnaire provides deferred classification for the "necessary skilled farm laborer in necessary agricultural enterprise." The new regulations provide that in Class 2 shall be placed any registrant found to be engaged in a "necessary" agricultural enterprise, and found to be necessary to such enterprise in the capacity of a farm laborer—"especially fitted for the work in which he is engaged." This quoted phrase constitutes an explanation of what is meant by "skilled" as applied to farm laborer. The expression will make easier the determination of the status of many registrants.

The purpose in the appointing of advisers is to place men where they can do most to help win the war. These advisers will be able to help greatly the district boards to keep in agriculture the necessary workers. These workers, whatever may be their inclination to enter military service, should stand ready to serve in any capacity in which they can contribute most toward a speedy ending of the war. In order that this may be done a frank statement should, in each case, be made to the boards. It is believed that it will frequently require as much courage on the part of many men to remain in their civilian occupations as to waive deferment.

This effort to keep men in industry, rather than to send them to the camps and the trenches, should not be abused so as to permit the slacker to escape military duty. The necessities for raising an army are paramount. Every man that can be spared will be needed and needed badly to bring the enemy to his senses. The adviser should be assisted in every possible way by every legitimate agricultural interest to find the men that can be spared for military duty, but also to keep those that are essential to the maintenance of a proper food supply.

FOURTH LIBERTY LOAN DRIVE

THE fourth Liberty Loan drive is now on. The amount asked for is double that of the third loan, or six billion dollars. There must be millions of subscribers to make such an enormous loan to our Government possible. The people of the farms will be asked to handle a goodly portion of this loan. Farmers have already demonstrated their patriotism and loyalty to their Government and no one doubts their willingness to sacrifice again and again for a cause such as the one at issue in this mighty conflict. This fourth and largest Liberty Loan will come as a challenge that must be met squarely by all the people of the whole country. The Government needs every dollar we can scrape together in driving the war home to eGrmany until she as a nation acknowledges that might does not make right and by her works gives some evidence of repentance.

There is no security in the world better than a United States bond. Lending money to our Government can be looked upon as a sound investment. While no one can measure his patriotism merely by the amount of his bond buying, money is absolutely necessary and it is not enough to loan only what can easily be spared. Our boys—a great army of them—are now standing in battle array ready to meet the proud and arrogant Hun. To refuse to loan to the limit of our ability so that our Government may furnish them food, ammunition, and other supplies, is to deny that son, relative, or friend who is ready to die for his country if necessary, the chance to make his efforts most efficient, and perhaps might lead to the needless sacrifice of many lives.

Our boys have already demonstrated their splendid fighting abiilty. They have pushed the German lines back and are already looking across the Rhine. Their faces are to the front and they should never for a moment have cause to doubt that we are back of them to the last dollar and the last ditch. News that we have gone over the top in the fourth Liberty Loan drive will give them added courage and strike terror to the hearts of those who still dare to fight against the aroused free people of the world. Let us put every dollar not absolutely needed in keeping up our efficiency in food production, into bonds of the fourth Liberty Loan. Every dollar loaned the Government will help to bring the final victory nearer and lessen the bloodshed and suffering.

G. C. Wheeler.

FARMERS' HEADQUARTERS

A most commendable movement is under way looking to the establishment of permanent headquarters at Washington for farmers. The purpose seems to be to have a place where the various farm organizations can maintain their representatives, establish research bureaus, get out publicity matter, and facilitate co-operation between the various organizations which represent several million farmers of the country, and the governmental departments. The farmers realize that they are not in a position to have their full share in directing governmental affairs. This has been very much in evidence as regards the conduct of the war.

Thirty-seven states were represented in the recent Washington meeting of the National Board of Farm Organizations. This is a federation of the national farm organizations, which has for its purpose the uniting of the organized farmers of the country. At this meeting A. A. Elmore, president of the Washington State Farmers' Union, offered the following resolution, which was unanimously adopted:

"1. Whereas, agriculture is the first, the most important and the most fundamental of all occupations, and

"2. Whereas there is in the City of Washington no place where the farmers of America can bring together their interests and their needs, and

"3. Whereas labor, commerce and other great interests have established general headquarters through which their demands and desires can be promptly formulated and effectively transmitted to Congress and the executive departments, and

"4. Whereas, the farmers of America have never had such headquarters and have suffered greatly from the lack thereof, and

"5. Whereas, at this time the need for united action among American farmers is greater than ever before in the history of our country, and

"6. Whereas, the service which a national headquarters for the organized farmers of America can render is greater than ever before, now therefore

"Be It Resolved, That the National Board of Farm Organizations hereby approves the erection, endowment and maintenance of a temple of agriculture in the City of Washington to serve as a general headquarters for the organized farmers of America, and be it further resolved that a committee of seven be appointed by the chairman with power to prepare plans and when such plans shall have been approved by the general council of the National Board of Farm Organizations to raise the necessary funds and thereupon to procure by purchase or otherwise such a temple of agriculture in the City of Washington, D. C. But we declare that our patriotic duty requires us to do no building during the war."

Our own attitude determines our friends or enemies.—Henry Wood.

No man is rich enough to eat what his country needs.

THE BELGIAN HORSE OF TODAY

American Breeder Must Prepare to Take Leadership in Draft Horses

By J. D. Connor, Jr., Secretary-Treasurer
American Belgian Association

THE exhibits of Belgian horses at the state fairs this year have again and again demonstrated the great popularity of this breed. Not only have great crowds been attracted to the ringsides wherever Belgians are being shown, but during the past years of the war the business of the American Association of Importers and Breeders of Belgian Draft Horses has been the best in thirty years and never in the history of the association have there been more sales and transfers made nor as high prices paid. This association is the only officially recognized association for registering Belgian horses in this country, and it would have been supposed that there would have been little business to transact on account of the conditions in Belgium. No horses have been imported from that country during the war, and probably none will be for years to come.

There are many reasons for this volume of business in Belgian horses, and among them might be mentioned the fact that the public has seen the breed develop from a rough and rugged type such as the animals imported twenty-five or thirty years ago, to a finished product. Many of the more improved type have since been purchased by American importers in the prize rings of Belgium, and with this foundation the skill of the American breeder has developed and perfected the Belgian horse of today as it is being shown at our leading fairs and expositions. In addition to this great improvement of the breed in this country it has been protected by a registry association whose records have never been questioned and which are so complete that they show a full detailed history and abstract of title of every Belgian horse that has been registered in the United States since its organization in 1887. No record has ever been made or certificate issued by the association that has not had as its foundation the kind of sworn proof that would be accepted in any court in the United States.

Due to war conditions and the great scarcity of labor, the number of horses of all breeds shown at our state fairs has fallen off, but at the state fairs of Iowa, Ohio, and Indiana, the leading Belgian breeding states, the finest showing of the breed was made in their history. It was worthy of special note that while there were some imported animals shown, the great majority were American-bred and were exhibited by the men who had produced them. Exhibiting breeders were more numerous than ever, showing the great and growing interest in Belgians and a determination on the part of the American farmer and breeder of pure-bred draft horses to do his full duty in the production of horses for the war and for the world when the war is over. American breeders recognize that this country must necessarily be the world's market for horses and especially for horses of this breed when the war ends.

It is not strange that in this great history-making period the eyes of the world are upon us when we recall that we possess 6 per cent of the world's area, 5 per cent of its population, a third of its wealth, produce three-fourths of the world's supply of corn, two-thirds of the cotton, one-third of the wool, 65 per cent of the oil, 60 per cent of the copper, and produce more coal and steel than Great Britain, France and Germany combined. This country is the mineral wonderland of the world and its granary and food storehouse.

I would sound a word of warning to American breeders of live stock, for many farmers and stock breeders are not doing their full duty in the breeding of horses. Many are trying to justify themselves by saying that feed is too high to raise horses at a profit, that they can buy them cheaper than they can raise them or that there will soon be no demand for horses on account of the increase in the use of the tractor. None of these statements are true, and breeders themselves, if they would give the matter a little thought and investigate present conditions as to the supply of horses, could satisfy themselves that they are not true.

In 1916 only 39,000 tractors were manufactured. In 1917 manufacturers hoped to put out 70,000, but on account of the scarcity of labor and material less than 50,000 were made. It has been estimated that there is a demand for a million tractors on American farms, but at the rate they are now being produced it will take twenty years to supply the United States on the basis of the above estimate. In addition there will be the demand that will be made on this country for tractors after the war by Great Britain, France, Russia, Roumania, Serbia, Greece, Italy, and Belgium, as well as Brazil, Argentina, South Africa, Australia, and New Zealand, all of which will look to the United States for at least a part of their supply. For a long time after the war all of Europe outside of Germany cannot produce more than 5,000 tractors a year. It will take this country a long time to supply the demand so that the effect upon the sale of horses for agricultural and other purposes will be of little consequence. It should also be kept in mind that a large number of horses is required for various purposes for which the tractor cannot be used.

Less than 5 per cent of the horses in the United States weigh 1,200 pounds or more. There will never be a time when the heavy draft horse will not be in great demand, especially the type of horses produced by the crossing of our native mares with the Belgian draft horse. These "big chunks" are the horses today that are bringing the highest prices for farm work and use in trucking. The experience of big trucking companies in our large cities and especially at the great shipping points, shows that short hauls can be made with horses at 50 per cent of the cost of making them with tractors. In the army it takes a horse for every four soldiers, exclusive of the cavalry. The American Expeditionary Force requires 477 horses for each regiment. There are sixty-six vehicles in an infantry regiment and 125 pack mules or horses are required for carrying machine guns. The number of horses killed in France alone is sometimes as high as 5,000 a day.

Light gunners must weigh 1,200 pounds or more, and heavy gunners 1,500 pounds or more. It is estimated that we have of all kinds of horses in the United States 21,563,000, and if only 5 per cent weigh 1,200 pounds or more there are only 1,078,150 suitable for war purposes. George W. Huston, secretary of the War Service Committee of the Carriage Builders' National Association, says: "One of the grim facts of the war is that the life of a horse is of more value than that of a private soldier as a military factor. It may be hard for the majority of people to admit this, but if they turn aside from sentimental contemplation to gaze upon stern reality, they must realize it. In the present conflict one of the most serious problems is the supply of horses and mules. Motor vehicles have not replaced them. The horse has not lost his importance in war. Armies in the field have already used five million horses and the new American army must have one and a half million more." This is 421,850 more horses than we have available in the United States of the proper size. With the enlargement of our military program and the great increase in our army now provided for, many more horses will be needed.

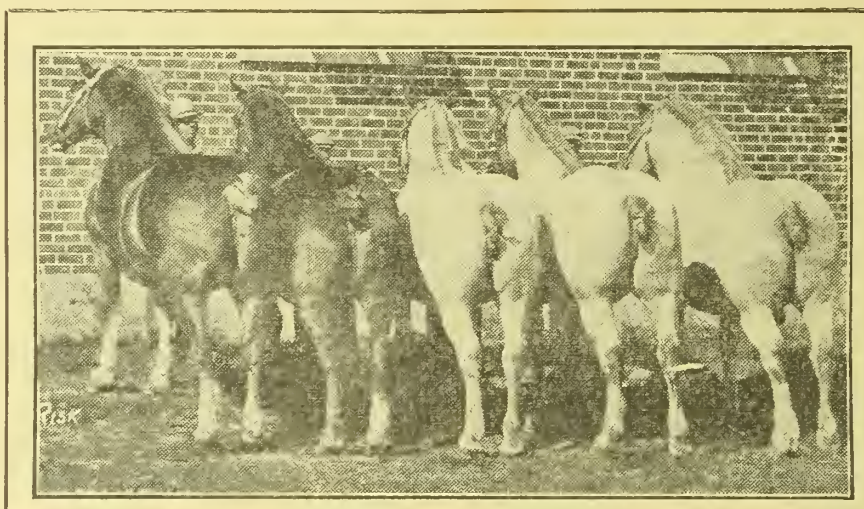
A shortage of horses was experienced even at the opening of the war in 1914. Within a few weeks practically every horse in Europe was seized and placed in war service. France and England began within a month to purchase horses in Spain, South America, the United States, and Canada. Since the war began more than one and a half million horses and a half million mules have been exported to Europe from the United States and Canada alone.

The average age of the horses mobilized in 1914 was six to seven years. The horses being mobilized today are from ten to twelve years old. Mares also have been taken, and as a result breeding in Europe has practically ceased. The maximum age of a horse is little more than twelve years. If the war continues a year or two longer it is obvious that practically all the mobilized horses will die or be unfit for work or breeding.

Throughout Europe there is an unprecedented shortage of horse power, and the situation will be worse as the war goes on. The supply of horses now and after the war is a most serious problem, the seriousness of which I fear is not appreciated by the American farmer and breeder. We will not know for some time the extent of the failure to breed mares in this country, as it takes four or five years for colts to come to a marketable age. When the time comes, as it surely will in the next two or three years, that this shortage will be more apparent, we will find that we are not able to supply the demand in this country, to say nothing of the foreign demand. The man who claims that he can buy horses cheaper in the market than he can raise them will not only be unable to find enough to meet his demands but will have to pay such prices as he never dreamed of, and prices that will well repay the breeder for the high-priced feed and labor required to produce horses.

As many of you know, the Belgian government now has representatives in this country canvassing the Belgian breeding districts with a view to making purchases of breeding stock after the war. Every government of Europe will aid its people in the purchase of horses to carry on the agricultural pursuits of the country since the very foundation and life of the nations will depend on the ability of their farmers and stockmen to produce foodstuffs and raw material for the home and factories. This cannot be done without draft horses.

The United States must be prepared to supply the demand, as it will be the world's market for draft horses after the war. Those of you who are doing your full duty in the production of draft horses will reap the richest harvest in the sale of horses that the country has ever known. It costs no more to feed good horses than poor ones. Good draft mares that will raise a colt every year can do most of the work of the farm. In addition to paying their own way with work, they will raise a colt each year that is worth almost as much as its mother. Soon the farm will be stocked with high-class draft horses that have cost practically nothing, since they have paid their way with work. Aside from the profit of producing good horses in this way it is a duty to this great country of ours to measure up to the standard that the world has set for us. We are being called upon not only to produce more horses, but to strive for maximum production of practically everything that can be raised or produced on American farms.



GROUP OF BELGIANS SHOWN BY C. G. GOOD & SON.—THE STALLION, FARCEUR, AT HEAD OF LINE, WAS NOT WITH EXHIBIT AT TOPEKA

Boys' Industrial School

It is to be regretted that every child cannot have the care and guidance that would start it on the right road in life, but if a wrong start has been made, the only thing that can be done is to stop the young person in his mistaken course and teach him how to live a useful life. Sometimes this cannot be done without taking him out of the environment in which he is placed. This is the work which the Boys' Industrial School at Topeka is trying to do.

The exhibit of the school at the fair in Topeka last week gave a comprehensive idea of the work accomplished in its different departments. The farm, garden, and orchard, were represented by displays of vegetables, canned fruit, and some fine specimens of yellow corn. Tempting cakes, rolls and bread were shown as samples of the work of the bakery. The greenhouse was represented by potted ferns and other plants, and the tailoring and shoemaking departments showed the different garments made and worn by the boys, while the signs used were the work of the printing department.

All the clothing worn is made by the boys, and the food eaten by those in the school and by the officers is prepared by the boys, the work in each department being done under the direction of a trained worker. Some very good basket work was shown, made by boys of from seven to eleven. The woodwork in the booth—chairs, table, and stand—had been made by boys of twelve to fourteen years, and the work in the shoe shop is done by those from fifteen to sixteen.

When a new boy comes to the school he is allowed to help with the work of the different departments wherever he is needed, until he shows special aptitude in learning some particular line of work, when he is assigned to that department and thoroughly taught that trade. "If there is any good in a boy, it is found and brought out," said the person in charge of the exhibit. The merit system is used. Each boy has a certain number of merits to make before he can leave the school. These are earned by good behavior and by the doing of extra tasks. When he has made a sufficient number of merits, he is paroled for a year. After this he is still under the control of the school to some extent until he becomes of age.

Redeeming Savings Stamps

In case a war savings certificate stamp or a Government thrift stamp is damaged, it may be redeemed at the full face value at any post office, providing the remaining portion is manifestly more than one-half the stamp. No payment whatever will be made if less than one-half of the full stamp is presented.

Stamps which have become detached from certificates and damaged or which are so badly damaged by fire or otherwise that the certificates to which they are affixed cannot be presented at post offices for redemption in the usual manner, may be sent by the owners to the Secretary of the Treasury, Division of Loans and Currency, Washington, D. C., with a sworn statement of the facts and a request for redemption.

OF SPECIAL INTEREST TO WOMEN

Things Seen and Heard at Fair by the Home Department Editor

IN THE exhibits at the Kansas Free Fair of particular interest to women, as well as in those appealing more strongly to the men, there was evidence everywhere of strong patriotic fervor. The central idea in all departments was the bearing of each particular line of work on the winning of the war. If anyone came to the fair with the thought that he would have a rest from war activity and simply be entertained for the week, we are sure that he made up his mind before he left to "catch the step" and march ahead harder than ever.

The first thing to be seen as one entered the grounds was the Red Cross building with the statue, "The Greatest Mother of All," in front, and, if it happened to be evening, illuminated. This statue represents a sweet-faced woman holding in her arms, as tenderly as if he were a baby, a khaki-clad lad on a stretcher, with a large red cross for a background. Inside the building the work of the different departments of the Red Cross in knitting, canteen, home service, home nursing, and the making of surgical dressings and refugee and hospital garments was represented. In a special tent two trained nurses from Topeka hospitals demonstrated the first aid work of the Red Cross, giving all their time to emergency, sick and injury calls from those in attendance at the fair.

Girls with baskets of artificial flowers sold tiny buttonhole boquets on the grounds at "ten cents or whatever you want to give," to buy milk for Belgian babies. They met with a generous response, in one day taking in $560.

In the People's Pavilion educational and patriotic features were given every day under the auspices of the Kansas Council of Defense. In the Government building the display of some of the big guns and munitions used in the war and models of battleships, cruisers and destroyers and army and navy accoutrements attracted large crowds. Even the entertainment features carried out the war idea. In addition to the usual horse and auto races, military drills were given by Kansas State Guards and by a company of infantry from Fort Leavenworth. The music was largely of a patriotic nature, and the grand fireworks display at night portrayed the taking of a French village by the Germans and its recapture by the Allies, introducing troops of all the allied nations.

The culinary and the home-made departments and the exhibits of the boys' and girls' clubs featured food conservation in canning and drying fruits and vegetables, curing and preserving meats, and the making of conservation breads and cakes. Daily demonstrations were given by the mother-daughter canning clubs in the cold-pack method of canning. In the culinary department Miss Irene Taylor, home demonstration agent for Shawnee County, also explained this method of canning fruits, vegetables, and meats, and in the home-made department Miss Rena Fabion demonstrated various uses of cottage cheese.

Canning Club Exhibit

One of the most striking and most attractive exhibits on the fair grounds was the display of the work of the mother-daughter canning clubs of the state. One side and one end of the entire west wing of the agricultural hall was occupied by the displays of the work of the canning, sewing, bread-making, and garden clubs, and more than half of this space was given to the canning club exhibit.

Eighteen mother-daughter club groups made 100-quart displays of canned fruit, vegetables, and meats. In many cases the products canned were those grown in the garden club work. The canned goods were unusually good in quality and in color and included a great variety, although no extra credit was given for more than fifty varieties in any one exhibit, this ruling being made to discourage the canning of novelties and products that it is impractical to preserve in this way. Some of the canned products noted were cauliflower, baked apple, stewed and roasted chicken, corn, roasting ears, beets, carrots, asparagus, string beans, rhubarb, lard, honey, eggs preserved in water-glass, and mixtures of various vegetables for soup, as well as the more commonly canned fruits.

Six prizes were offered for the best club displays, the awards being made on the basis of quality, general appearance of the exhibit, number of varieties of products, and the percentage of the club's membership represented. The first prize of $50 for the best 100-quart display went to the Paxico Mother-Daughter club, the second prize of $45 to the St. Marys club, third prize of $40 to Seabrook, a suburb of Topeka, fourth prize of $35 to Buck Creek, and the fifth prize of $30 to the Logan Avenue Club of Emporia. An attractive feature of the Seabrook club exhibit was the hand-made labels with a small sunflower, the club emblem, painted by members on each one.

In addition to the prizes offered by the fair association, the Hazel-Atlas Fruit Jar Company offered prizes of $25, $20, $15, $10, and $5, respectively, for the best exhibits of products canned in their E-Z Seal jars. These prizes went to Glen Valley, Easton, the Industrial Union of Neosho, Boling in Leavenworth County, and the Logan Avenue Club of Emporia, in the order named.

All the canned goods in these exhibits were canned by the one-period cold-pack method taught to all members of state and government canning clubs. This method, which is familiar to readers of KANSAS FARMER, consists of packing the fruit or vegetable or meat to be canned into the jars without cooking, or in the case of some fruits, after a little cooking, filling the jar with hot water or syrup, placing the lid on tightly and sterilizing in hot water or under steam pressure for a period of time depending on the kind of product to be canned and whether hot water or compressed steam is used. The color and flavor of most vegetables is improved by plunging them into hot water for from three to five minutes and then immediately into and out of cold water before packing in the jars. Full directions for this method of canning may be obtained by addressing Otis E. Hall, state club leader, extension division, Kansas Agricultural College, Manhattan, Kansas. No one who had the privilege of seeing this splendid exhibit or the canning shown in the culinary department can doubt that the method is a thoroughly satisfactory one.

Canning demonstrations were given by the mother-daughter canning clubs each day in the People's Pavilion.

Work of Woman Farmers

The Kansas branch of the Woman's National Farm and Garden Association had a booth in the agricultural building during the fair at Topeka, in charge of Mrs. Theodore Saxon of Topeka, state president. The vice-president of the association is Miss McEdna Corbet, who has recently volunteered for war work in France; the secretary, Mrs. Ella Brill Nelson, of Topeka; and the treasurer, Miss Louise Krigbaum, who lives on a farm near Topeka. Everything shown in this booth had been produced by Kansas women.

Among the garden products displayed were tomatoes, rhubarb, cabbage, beets, asparagus, squashes, potatoes, peppers, carrots, ever-bearing strawberries, Brussels sprouts, and flowers of various kinds.

A model farmhouse with well-arranged grounds, planned by Mrs. Saxon, formed a part of this exhibit. Moss was used for grass, and tiny trees and vines appeared here and there, while walks were laid in sand. Green twigs with bits of pink paper to represent blossoms were cleverly used to simulate roses climbing over the back porch. A fountain and lake in the foreground, and a swing with small dolls to represent those living in the home, pleased the children and gave to the older ones an attractive picture of farm life.

The largest exhibit by any one farm woman was that of Miss Lucretia Campbell of Meadows Farm, Humboldt, Kansas, who is a member of the advisory board of the association. In addition to garden products she showed medicinal herbs, persimmons, pawpaws, and exhibits of wheat and corn that would have made a creditable showing in the regular agricultural exhibit. Rabbit, squirrel, raccoon, and skunk pelts were included in the exhibit from this farm, the animals having been shot in the woodland and the hides tanned by Miss Campbell. A sample of crude oil from the well on the farm was also shown.

La Rest Park is a natural wooded park on the farm. Miss Campbell had a picture of one elm tree which measures twenty-five feet around the base. She is planning to build in this park a home for soldier boys when they return, a place where some of those who have no homes of their own can come to rest and adjust themselves to the new order of things.

Prize Oatmeal Bread

It seems to us that oatmeal makes one of the most satisfactory wheat substitutes for use in bread. The bread is more moist than when made entirely with wheat flour, and the nutty flavor of the oats is a distinct improvement in the taste, in our opinion. The color, of course, is a little darker than that of bread made wholly of wheat flour.

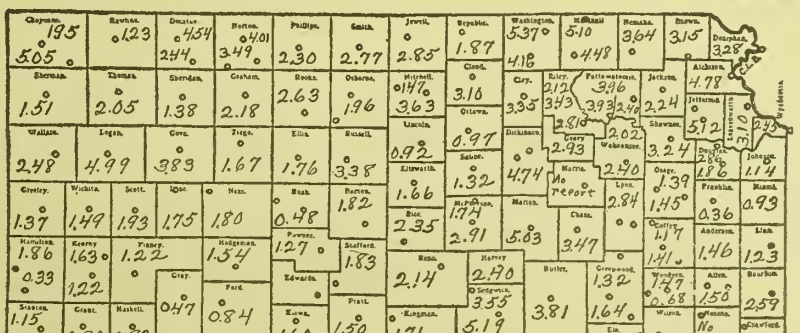
While attending the Topeka fair, Mrs. Theodore Saxon, of Topeka, who won first prize on oatmeal bread, presented us with a sandwich made from one of her oatmeal loaves. It was so light and moist and of such good flavor that we begged her to tell us her method of handling it. "No," she said in answer to a question, "I don't have time to grind the oatmeal; I don't even have time to cook it before using it in the bread. I just scald it in hot water, using twice as much hot water as oats.

"I pour the boiling water over the oats, stir them up well and let them stand until they are cool. At the same time I put a cake of yeast to soak in a little warm water. Then I boil two or three good-sized potatoes in their jackets, peel them, run through a ricer, and beat the potatoes and oatmeal together. When the mixture is cool enough, I add the yeast and stir it thoroughly through the oatmeal and potatoes. Then I add two large tablespoonfuls of sorghum and two of fat; bacon frylngs is the very best kind of fat to use. I usually measure the sorghum and the fat with the large spoon I use for mixing, so it is really more than an ordinary tablespoonful. Then I add a teaspoonful of salt and enough wheat flour to make a good batter and set it to raise over night or until light, if I start it in the morning.

"When light, I work in enough wheat flour to make it stiff, adding flour until it will take no more, and let it rise until twice its bulk. Then it is ready to be made out into loaves or light rolls. When it has risen to twice its bulk in the pans, I put it into a cold oven and start the fire, letting it rise as the oven heats. Of course one could not do this with bread made entirely from wheat flour, but the oatmeal bread will not get too light, if the oven is heated as rapidly as usual. It should be baked for at least an hour, until it is thoroughly done. This will keep for a week without drying out."

Rainfall of August, 1918

Reports Furnished by S. D. Flora, Meteorologist, U. S. Weather Bureau



THE rainfall of August was below normal in all parts of Kansas except here and there where there were heavy local downpours. It was the third consecutive dry month and, while the rainfall was not the least on record for August, it was totally inadequate, even for current needs. Corn was promising when the month began, but the intense heat and lack of moisture damaged it severely. By the end of the month the crop was considered a total failure in many counties and poor elsewhere, except in the few places that were favored with local rains. Pastures were burned bare and alfalfa stopped growing. In the eastern part of the state and in some of the central counties stock water was as scarce as it ever had been before.

Girls Make War Bread

Only war breads, made by bona fide bread club members according to instructions sent to the bread club girls from the Agricultural College, were awarded bread club prizes. The awards follow:

Liberty Muffins—1, Hazel Gray; 2, Mildred Musser; 3, Irene McCafferty, Oskaloosa; Clara Muniair, Greeley, and Elsie Marshall, Bonner Springs.

Oatmeal Muffins—1, Antoinette Hammerli; 2, Frances Doupnek, Agenda; 3, Louise Glick, Gladys Wright, and Christine Wolken.

Cornmeal Muffins—1, Agnes Wolken, Scipio; 2, Helen Berry, Jewell; 3, Velma Dennis, Oskaloosa; Gertrude Ganger, Leavenworth, and Arleen Glick, Jewell City.

Corn Dodgers—1, Dorothy Boosins, Kincaid; 2, Orvilla Rogge; 3, Esther Warden.

Best Loaf of Corn Bread—1, Edith Newbanks; 2, Helen Wenzel, Leavenworth; 3, Marjorie Greve, Matilda Schwegmann, Scipio, and Gladys Hannah Wright, Michigan Valley.

Best Loaf of Boston Brown Bread—1, Margaret Griffith, Emporia; 2, Helen Timmons, Bonner Springs; 3, Addie Scruggs and Inez Gromley, Chanute.

For the best war bread collection, consisting of any three of the above-mentioned breads, prizes of $5, $4, $3, $2 and $1 were offered. Hilda Schneider, of Richmond, won first place on an exhibit of rye bread, oatmeal muffins, and cornmeal muffins. The second prize went to Mary Chilcote on corn bread, corn dodgers, and liberty muffins; the third to Marjorie Greve on corn muffins, oatmeal muffins, and corn bread; the fourth to Blanche Emery on Boston brown bread, corn bread, and corn muffins, and the fifth to Christine Wolken on cornmeal muffins, oatmeal muffins, and rye bread.

A special prize of $25 carrying with it bread club honors, offered to the bread club group making the best showing at the fair, was awarded to the Jewell City Bread Club. This club of nine members sent in an exhibit of twenty-six plates of bread of various kinds.

A piece of simple schoolroom strategy which might also prove helpful in the home is the keeping of a small cake of scented soap in the soap dish. The odor is so pleasing to the little ones that it sometimes occurs to them to wash without waiting to be told.

Forcing a pro-German to kiss the American flag may be good discipline for him, but it is a doubtful compliment to the flag and a very cheap triumph for us.—The Youth's Companion.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

ONCE again we call attention to the matter of treating seed wheat for smut. Formaldehyde costs about 75 cents a pint and one pint will treat from forty to forty-five bushels of grain. It will take two men not to exceed an hour's time to treat this amount. In other words, it can be figured out that the cost will not exceed two cents an acre. Specialists who have been investigating the situation in Kansas find that probably not over 5 per cent of the seed wheat in Kansas is treated. Of course smut is not equally serious in all sections of the state. No area has been found, however, entirely free from smut, and a single smutted head this year may mean twenty next year.

A smut survey was made of the whole state of Kansas during June and July this year by specialists from the United States Department of Agriculture working in co-operation with our own experiment station. They found occasional fields containing as high as 40 per cent of smutted heads, and many fields showing from 5 to 10 per cent of smut. Roughly estimating the prevalence of smut throughout the state, they report that the average is probably not far from 4 per cent. Even with a minimum of 2 per cent of smut, it would mean that on two-dollar wheat four cents a bushel is wasted. In addition to the actual loss of grain by reason of the destructive action of the smut, it is docked on the market, the estimated loss from this cause based on an average yield in Kansas of twelve bushels to the acre being figured at 48 cents to the acre. At this rate, point out the investigators, the actual loss from smut alone on four acres would be sufficient to seed one acre. Of the 100,000,000-bushel wheat crop of Kansas this year, the total loss to the state on the basis of 2 per cent smut is 2,000,000 bushels of grain — $4,000,000 — or about 1,700,000 barrels of flour. We have talked with some of the men making these investigations, and they state that these figures are extremely conservative; in fact some of them feel quite sure that this estimated loss could be doubled and still not exceed the actual facts.

The losses to the individual farmer may seem small. In fact, unless the infestation is very serious they are apt to be overlooked entirely. It is a loss that is progressive and steps should by all means be taken to prevent Kansas wheat from general smut infestation. It is generally recognized that Kansas hard winter wheat is not excelled anywhere in the country, but the presence of smut tends to reduce its quality, and as has been pointed out, results in actual losses that in the aggregate are enormous. We have referred several times to the methods of smut treatment and would again urge that all seed not positively known to be free from smut be treated before planting this fall. If you do not know how to do this, refer to KANSAS FARMER of September 14, in which the method is described in detail, or call your county agent.

Farms for Returned Soldiers

Secretary Lane of the Interior Department has been looking forward to the time when our soldiers will be coming back to civilian occupations, and as a result of his study of the problems presented announces that the preparation of a program looking to providing farms for returned soldiers has been given into the hands of A. P. Davis, director and chief engineer of the Reclamation Service, who will have charge of the work and with whom will be associated Elwood Meade, H. T. Cory and Frank W. Hanna. In speaking of his plans, Mr. Lane says:

"We can have a job at good pay for every soldier who returns from France if Congress will give us the financial support needed. And while at work the soldier can be making a home for himself for which he can pay the Government in forty years' time. This plan has received the indorsement of so large a percentage of Congress and the press of the country that it appears to be a probable program; it certainly is a practicable one. We have but $200,000 now for preliminary surveys and reports, but this will be increased undoubtedly by the incoming Congress. There is enough waste and undeveloped land in this country to give every soldier a farm, but of course no such program is contemplated, because all would not want farms."

Importance of Club Work

Boys' and girls' club work as conducted in our state through the agency of our agricultural college and with the active co-operation of farm bureaus is claiming more attention each year. There are people, however, who still think that this work is of little importance, either educationally or financially. Anyone who would make a careful study of what has been accomplished even in one state or by single clubs such as have been demonstrating their work at our big fairs would be compelled to recognize the value of club work not only for the present but for the future, since these young people are in a short time to become the men and women who will carry on our industries. In the South, where club work has been more widely developed perhaps than in the North, the records for 1917 show that 115,745 boys were enrolled in the various agricultural activities and they produced food and feed valued at over four million dollars. These figures are for fourteen southern states, excepting Alabama.

Farm Bureau Industry

A Pottawatomie County reader asks if there is any connection between the "Federal Farm Bureau" about which we wrote in our issue of August 17, and the county farm bureau which they are now attempting to organize in that county. This reader says he has been asked to solicit memberships in the bureau, but wants to be sure it is all right before doing so.

Those who carefully read the article referred to will recall that the so-called "Federal Farm Bureau" is simply a concern making and selling an account book to farmers at a high price and deliberately using this name because it tends to create the very sort of confusion which the inquiry indicates is in the mind of our Pottawatomie County reader. This Federal Farm Bureau has advertised extensively, but we stated in this article that it could not buy a line of space in KANSAS FARMER. The farm bureau is a nation-wide organization fostered by the Federal Department of Agriculture and associated in the states with the agricultural colleges. No farmer need have any hesitancy in allying himself with a county farm bureau, such as are being organized. In fact no one thing puts a farmer more definitely in the ranks of the progressive forward-looking men of his community than membership in a well organized farm bureau.

Gas in Silos

Many new silos have been built in Kansas this season and are now being filled. The question as to the accumulation of dangerous gas in a newly-filled silo is again being raised. Carbonic acid gas, which is a gas much heavier than air, is a product of the changes which take place in the green material packed in a silo. It may accumulate in dangerous quantities immediately following filling or when the silo is left over night if there is not a free circulation of air. Pit silos are more apt to become dangerous than above-ground silos because they have no doors on the sides through which the gas can escape. In windy weather the suction of the air moving rapidly across the top of the silo will probably keep up enough agitation to prevent gas from settling over the silage, but it is well to keep in mind, and particularly while the filling is under way, the possibility of gas collecting in sufficient quantities to be dangerous to those going into the silo. Anything that will start the air to moving will remove the danger. On starting work after the silo has been left over night or for a day or so it is a good plan to run the blower for a few minutes before going into the pit. Throwing down a few bundles of fodder will start the air in motion. A test can be made by lowering a lighted lantern into the pit or silo. If the light burns, the silo is safe.

Report Unfair Feed Prices

J. C. Mohler, secretary of the State Board of Agriculture, reports that numerous complaints come to him as to the different prices charged by dealers in various localities in the state for milling by-products, as bran and shorts. In some cases the spread between points in a single county amounts to 50 cents a hundred. The State Food Administrator says this is too much and that all complaints of this character should be taken up with the County Food Administrator and they will be promptly investigated and rectified wherever the charges are too high according to the rules and regulations of the Food Administration. Parties who are dissatisfied with the prices they are required to pay for bran and shorts should promptly take the matter up as indicated, with the Food Administrator.

Do Fertilizers Ripen Crops?

Many fertilizer men as well as our agricultural college men and experiment station men say that commercial fertilizers hasten the ripening of crops. Last year certain farmers who used fertilizers on their corn stated that the fertilized corn ripened ten days to two weeks earlier than the unfertilized corn and that they secured their seed corn from their own field while their neighbors who used no fertilizer had no seed corn ripe enough to plant. If fertilizer does ripen the crop in this way, it certainly is a good thing to say for fertilizers. To have ripe seed corn or to know that your crops will really ripen is a great satisfaction, to say nothing about the profit side of the question.

If any of our readers have had experience along this line, we would be glad to have them tell us about it.

Agree on Cottonseed Prices

Organized cotton seed producers have agreed with the Food Administration in its plan to stabilize the price of cotton seed on the basis of average prices of last year. This was outlined in some detail in KANSAS FARMER of September 14, the statement being made that the Food Administration had called a meeting of the cattlemen to consult on the matter.

Differentials have now been fixed for crushing seed on the basis of last year's cost and the regulated profit of last year plus the increased cost imposed by change in labor, transportation, and supplies. This will mean that the price of cottonseed meal will average about three dollars a ton higher than last year. The Food Administration is of the opinion that this stabilization of cottonseed prices will eliminate a great deal of speculation. The details of the prices assessed to local zones will be issued by the federal food administrators in the various states.

Liberty Loan Slogans

Let all get on the bond wagon.
Be one of the millions to lend the billions.
Dig up the coin and bury the Hun.
Buy bonds before its "verboten."
Idle dollars are pro-German.
Put the "pay" into patriotism.
Bonds speak louder than words.
If you can't fight, your money can.
Freemen buy bonds; slaves wear them.

Gas Masks for Horses

The War Department has just announced that approximately five thousand gas masks for horses are being turned out daily by the Gas Defense Service and that they are being shipped at once to France for the equipment of every horse attached to the American Expeditionary Forces.—Rider and Driver.

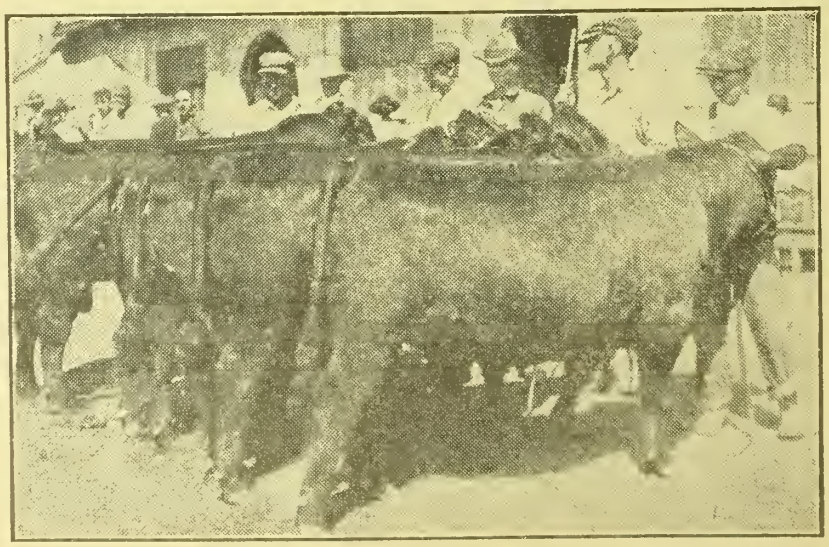
Beef Cattle at Hutchinson

TUESDAY at the Kansas State Fair held in Hutchinson last week was cattlemen's day. The Kansas Cattlemen's Association, which is one of the strongest organizations in the state, had charge of the program in the speaker's tent. George Donaldson, its president, presided. A number of enthusiastic speeches were made by livestock men, the principal address being that of John A. Edwards, the well known cattleman of Eureka, who has earned the title, "The orator of the flint hills."

Judging the beef cattle began Tuesday morning, and the interest in pure-bred stock was shown by the crowds gathered at the ringside to watch the judges make the awards. Walter L. Yost, of Kansas City, and Klaus Brothers, of Bendena, Kansas, had dropped out of the Hereford contestants, as they had met the previous week at Topeka, and W. I. Bowman & Company, of Ness City, took their places. Some changes were made in the awards, notably the winning of the grand championship on females by Robert Hazlett, of El Dorado, on his two-year-old heifer, Yerba Santa, and the grand championship on bulls on Bocaldo 11th.

In the Angus breed the showing was made by Oklahoma breeders with the exception of the two-year-old bull shown by Emil Hedstrom, of Lost Springs, Kansas. If this young bull is a fair sample of the kind of Angus cattle raised by Mr. Hedstrom, he has a herd of which to be proud. Myra of Topeka, the grand champion Angus female, has

(Continued on Page Seven)



GROUP OF ANGUS CATTLE SHOWN AT HUTCHINSON AND TOPEKA BY J. C. SIMPSON OF OKLAHOMA

Beef Cattle at Hutchinson

(Continued from Page Six)

the distinetion of heing dropped in Topeka during the fair three years ago, her mother, Myra of Rosemere, being the grand ehampion female that year. This heifer was grand champion female at Topeka last year and junior champion at Hutchinson.

The Shorthorn show was made by Kansas hreeders and two herds from Iowa. The hull champion ship went to the Iowa herds, as did also the junior and grand championship females. Crystal Maid, the aged cow shown hy A. L. Harris, of Osage City, Kansas, was the senior champion cow. H. H. Holmes won first in class on Count Valentine, senior yearling hull, and first on Lady Supreme in the senior heifer class.

In the fat steer classes the showing was made prineipally hy the Agricultural College of Kansas. Jimmie, a pure-hred Hereford steer shown by the college, was made champion. The heef cattle awards follow:

SHORTHORNS.

Exhibitors — A. L. Harris, Osage City, Kansas; H. H. Holmes, Topeka, Kansas; John Regier, Whitewater, Kansas; H. E. Gaedert, Buhler, Kansas; William Herkleman, Elwood, Iowa; W. E. Pritchard, Walnut, Iowa.

Judge—John Tomson, Dover, Kansas.

Aged Bulls (two shown)—1, Herkleman on Cumberland Standard; 2, Holmes on Viscount Standard.

No two-year-oid bulls shown.

Senior Yearling Bull (three shown) — 1, Holmes on Count Valentine; 2, Herkleman; 3, Gaedert.

Junior Yearling Bull (three shown) — 1, Regier on A. L. Cumberland; 2, Holmes; 3, Gaedert.

Senior Bull Calf (six shown)—1 and 2, Pritchard on Select Dale and Captain Clarion; 3, Holmes; 4, Herkleman.

Junior Bull Calf (five shown)—1, Pritchard; 2, Herkleman; 3, Holmes; 4, Regier, 5, Harris.

Senior Champion Bull — Herkleman on Cumberland Standard.

Junior and Grand Champion Bull—Pritchard on Select Dale.

Aged Cows (four shown)—1, Harris on Crystal Maid; 2, Regier; 3, Gaedert; 4, Harris.

Two-year-old Cow (one shown)—Holmes.

Senior Yearling Heifer (three shown)—1, Pritchard on Lady Susan; 2 and 3, Harris.

Junior Yearling Heifer (five shown) — 1 and 2, Pritchard; 3, Herkleman; 4, Holmes ;5, Harris.

Senior Heifer Calf (eight shown)—1, Holmes on Lady Supreme; 2 and 3, Pritchard; 4, Holmes; 5, Herkleman.

Junior Heifer Calf (seven shown)—1, Herkieman; 2, Holmes; 3, Pritchard; 4, Harris; 5, Holmes.

Senior Champion Cow—Harris on Crystal Maid.

Junior and Grand Champion Female—Pritchard on Lady Susan.

Aged Herds—1, Holmes, without competition.

Young Herds—1, Pritchard; 2, Holmes.

Calf Herd (five shown)—1, Pritchard; 2, Herkieman; 3, Holmes.

Get of Sire—1 and 2, Pritchard; 3, Herkleman; 4, Holmes; 5, Regier.

Produce of Cow—1 and 2, Pritchard; 3 and 5, Holmes; 4, Herkleman.

GALLOWAYS.

All awards in Galloway classes went to H. Croft, Medicine Lodge, Kansas, without competition.

HEREFORDS.

Exhibitors—W. I. Bowman & Co., Ness City, Kansas; W. J. Brown, Fali River, Kansas; Wallace and E. G. Good, Kansas City, Mo.; R. H. Hazlett, El Dorado, Kansas; Carl Miller, Belvue, Kansas; C. M. Largent & Sons, Merkel, Texas; S. J. & J. E. Turner, Lees Summit, Missouri.

Judge—William Burreiton, Kansas City.

Sixty-four cattle entered and shown.

Aged Bulis—None shown.

Two-year-old Bulis (three shown) — 1, Largent on Prince Fairfax; 2, Miller on Woodford 7th; 3, Bowman on Generous Leader.

Senior Yearling Bulls (five shown) — 1, Good on Good Donaid 3d; 2 and 5, Largent; 3, Hazlett on Beau Baltimore 25th; 4, Brown on Leon Rupert.

Junior Yearling Buils (seven shown)—1, Hazlett on Bocaldo 11th; 2 and 5, Turner; 3, Largent; 4, Hazlett.

Senior Buil Calves (eight shown)—1, Largent on Kinzer Fairfax; 2, Hazlett on Publican 7th; 3, Good; 4 and 5, Turner.

Junior Bull Calves (five shown)—1, Largent; 2, Good; 3, Miller on Echo Lad 169th; 4, Brown on Fred Rupert; 5, Miller on Echo Lad 178th.

Senior Champion Bull—Largent on Prince Fairfax.

Junior and Grand Champion Bull—Hazlett on Bocaldo 11th.

Aged Cows (three shown)—1 and 2, Largent on Rosa Britisher and Beauty Fairfax; 3, Bowman on Miss Pearl.

Two-year-old Heifers (four shown)—1, Hazlett on Yerba Santa; 2, Largent; 3, Good; 4 and 5, Bowman.

Senior Yearling Heifers (four shown — 1 and 2, Hazlett on Bloss 16th and Ozuma; 3, Largent; 4, Bowman.

Junior Yearling Heifers (five shown)—1, Largent; 2 and 4, Good; 3, Hazlett; 5, Brown.

Senior Heifer Calves (eleven shown)—1 and 3, Largent; 2 and 5, Hazlett; 4, Miller.

Junior Heifer Caives (six shown)—1, Turner; 2, Largent; 3, Hazlett; 4, Brown; 5, Miller.

Senior and Grand Champion Cow—Hazlett on Yerba Santa.

Junior Champion Cow—Hazlett on Bloss 16th.

ANGUS.

Exhibitors — L. R. Kershaw, Muskogee, Oklahoma; J. C. Simpson, Eufala, Oklahoma; Emil Hedstrom, Lost Springs, Kansas.

Judge—James McClung, Indianola, Neb.

Aged Bulis (two shown)—1, Simpson on Laddie of Rosemere; 2, Kershaw on Elmland Herman.

Two-year-old Bulls (three shown)—1, Kershaw on Piowman; 2, Hedstrom on Brome Ridge Browser; 3, Simpson.

Senior Yearling Bulis (two shown) — 1, Kershaw on Royal Black Eston; 2, Simpson on Black Cap Brigham.

Junior Yearling (one shown)—1, Kershaw.

Senior Caives (two shown)—1, Simpson on Eston of Elm Hill; 2, Kershaw on Muskogee Blackbird.

Junior Calves (three shown)—1, Kershaw; 2, Kershaw; 3, Simpson.

Senior and Grand Champion Bull—Kershaw on Piowman.

Junior Champion Bull—Kershaw on Muskogee 81st.

Aged Cows (two shown)—1, Simpson on Myra of Rosemere; 2, Kershaw on Twinburn Pride 5th.

Two-year-old Cows (two shown)—1, Simpson on Myra of Topeka; 2, Kershaw.

Senior Yearling Heifers (two shown)—1, Kershaw; 2, Simpson.

Junior Yearlings (three shown)—1 and 3, Simpson; 2, Kershaw.

Senior Calves (three shown)—1 and 2, Kershaw; 3, Simpson.

Junior Calves (four shown) — 1 and 4, Simpson; 2 and 3, Kershaw.

Senior and Grand Champion Cow—Simpson on Myra of Topeka.

Junior Champion Cow—Kershaw on Muskogee May 6th.

Aged Herds—1, Kershaw; 2, Simpson.

Young Herd—Kershaw.

Caif Herds—1 and 2, Kershaw.

Get of Sire—1 and 3, Kershaw on Black Emerson and Inverne of Rosemere; 2, Simpson on Black Eston 3d.

Produce of Cow—1 and 2, Kershaw; 3 and 4, Simpson.

Draft Horses at State Fair

The showing of draft horses at the Kansas State Fair at Hutchinson was made entirely hy Kansas hreeders, with the exeeption of Howell & Son, of Paris, Missouri, in the Percherons. Every exhihitor was a farmer breeder. Howell & Son won the grand championship in females on their two-year-old mare, Molly. The Gossard Breeding Farms won the senior grand ehampionship on stallions with Kapitaine. A. P. Loomis, Diamond Springs, had the reserve stallion ehampion, Kaption. The Belgian exhibit was made by David Cooper, of Freeport, and Rolla Persinger, of Little River. The awards follow:

PERCHERONS.

Exhibitors—Gossard Breeding Farms, Turon, Kansas; Cantwell Bros., Sterling, Kansas; Rolla Persinger, Little River, Kansas; George Burk, Little River, Kansas; J. A. Cowdry, Lyons, Kansas; H. N. Holdeman, Meade, Kansas; A. P. Loomis, Diamond Springs, Kansas; Howell & Son, Paris, Missouri; D. F. McAlister, Topeka, Kansas.

Judge—Dr. C. W. McCampbell, Manhattan, Kansas.

Aged Stallion (twelve shown)—1, Gossard on Kapitaine; 2, Cantwell; 3, Gossard; 4, Persinger.

Three-year-old Stallions (two shown)—1, Howells on Rocule; 2, Holdeman.

Two-year-old Stallion (one shown) — 1, Loomis on Kaption.

Yearling Stallion (five shown)—1 and 4, McAlister on Lynn and Daylo; 2, Gossard on Gaudet; 3, Loomis on Darco.

Stallion Foal (three shown)—1, Gossard; 2, Howell; 3, Holdeman.

Grand Champion Stallion — Gossard on Kapitaine.

Reserve Champion Stallion—Loomis on Kaption.

Group of Five Stallions—1, Gossard; 2, Holdeman.

Aged Mare (seven shown)—1, Loomis on Jugale; 2 and 4, Gossard; 3, McAlister.

Three-year-old Mare (two shown) — 1, Loomis on Francine; 2, Gossard.

Two-year-old Mare (six shown)—1, Howell on Molly; 2, Loomis; 3, McAlister; 4, Howell.

Yearling Mare (four shown)—1, McAlister; 2 and 3, Gossard; 4, Holdeman.

Filly Foal—1 and 2, McAlister; 3, Cantwell; 4, Howell.

Grand Champion Mare—Howell on Molly.

Get of Sire—1, Loomis; 2, McAlister; 3, Holdeman.

Produce of Mare—1, Loomis; 2, McAlister; 3 and 4, Howell.

BELGIANS.

Exhibitors—David Cooper, Freeport, Kansas; Rolla Persinger, Little River, Kansas.

Judge—A. P. Loomis, Diamond Springs, Kansas.

Aged Stallion—1 and 2, Cooper; 3, Persinger.

Cooper filled all other classes for first places.

Farm Labor Classification

A plan has been agreed upon by the War Lahor Policies Board, Provost Marshal General, Secretary of War, Secretary of Agriculture, and Secretary of Labor, to put into deferred classification such persons in the new draft as are necessary in agriculture, industry and other occupations. Three advisers are to be associated with each district draft hoard to present facts relative to the supply of necessary workers in these three occupational groups. The agriculture advisers will be nominated hy the Secretary of Agriculture. They will gather accurate facts regarding the requirements of agriculture for the various classes of workers in their own districts. They should have facts also as to the requirements for such classes in other districts in order that workers not sufficiently necessary in one district to entitle them to deferred elassification may have opportunity to go to other districts in which they are needed.

The Department of Agriculture has sent a questionnaire to each county agent asking him to furnish reliahle information at once relative to the farmlahor needs in his county. The questionnaire is to he duplicated, one eopy going to the state farm-help specialist and one returned to the department. The Department of Agriculture will undertake, both directly and through the state farm-help specialist, to keep each district adviser informed as to the needs of necessary farm workers in various parts of the country.

The purpose of the information called for is to assist the district draft boards in keeping in agriculture the (a) "necessary skilled farm laborer in necessary agricultural enterprise" (Deferred Class II); (b) "necessary assistant, associate, or hired manager of necessary agricultural enterprise" (Deferred Class III); (c) "necessary sole managing, controlling or directing head of neeessary agricultural enterprise" (Deferred Class IV).

What the draft hoards desire are the facts as to necessary skilled workers. The unskilled workers apparently are not to he considered for deferred classification; they are regarded as more important for the army than for agriculture and industry. Neeessary skilled farm laborers should not be confused with inexperienced help that, with a little training, can do fairly well at some kinds of farm work.

A "skilled farm lahorer" has heen defined by one authority as "one who has the strength, intelligenee and experience to perform acceptably the ordinary farm operations of the district, community or farm eoncerned, whether in fields, ranches, orchards or barns." This definition is merely suggested as a guide. The draft boards may have still other standards.

A further suggestion may be made with referenee to "necessary" as applied to skilled lahorers. Presumably the amount of skilled labor that may be regarded as "neeessary" is to he determined hy the requirements of the present agricultural war program — something more than a normal production of most farm products. Pertinent questions in this connection therefore are such as: "Are there sufficient skilled workers to produce the live stock, eereals, fruits, etc., required by this program? Do these workers toil harder and longer hours? Do some children, especially under fourteen years of age, work regularly eight hours or more? Are the burdens of farm women increased? In other words, do the farm people, responding to many patriotie appeals, make, as compared to other occupational groups, a very heavy draft upon their reserve strength and upon their children?"

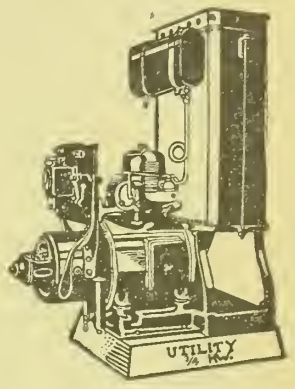
FIVE SIZES
CONSOLIDATED
ELECTRIC PLANTS FOR COUNTRY HOMES

THE "UTILITY" MODEL

A Consolidated Semi-Automatic at $425.00

rated at 700 watts and guaranteed with its battery to handle a 35% overload (1000 watts) for ten hours.

The "Utility" is Semi-Automatic, self-starting, burns gasoline or kerosene most economically, has a special electric governor giving automatic control of charging rate. Starts with the pressure of a button and automatically stops when charge is completed or whenever fuel supply is exhausted.



Write for illustrated booklet,
"Information for Practical Men"

United Electric Company, Wichita, Kansas

CONSOLIDATED UTILITIES CORPORATION
CHICAGO, ILLINOIS

Would Rather Be Americans

How would you like to be a wheat farmer in Australia or a corn grower in Argentina? The Food Administration reports that nearly 300 million hushels of wheat are stored in Australia. There are no ships to move it and therefore no market for it. The Government has guaranteed a price of 83 cents a bushel for it, and the commonwealth has added 12 cents, making a total of 95 eents to the producer. In Argentina there is no market for corn, and many farmers are disposing of it for fuel at 40 cents per bushel. At that, however, it would be better to be a farmer in Argentina or Australia than to he one in Russia, where the Germans would take your wheat and not even say thank you.

No, thanks; we are glad to be Americans, and we are not going to get over being glad, either.

Polled Hereford Breeders

A very attractive and instructive little booklet has just been published by the Polled Hereford Breeders' Association, Des Moines, Iowa. The origin and history of the breed is given as well as other valuable information for those interested in beef cattle. The revised membership of the local association has also just come from the press and shows Kansas to he one of the leading states in the number of breeders represented. The names and addresses are given of seventy-eight men in the Kansas list. These hooklets are free for the asking.

A cartoon in the New York World shows the kaiser leaning heavily on his sword-cane with a look of indignant worry on his face while the erown prinee eomes wobhling up to him on a erutch and a cane, bandaged and scared, asking, "Who told you there were no Amerieans in France, papa?" The kaiser is ahsolutely silent, which is quite a difference. —Hutchinson News.

Strengthen the "home front" with home-grown food.

Interesting War Items

The American Navy and Marines

IT IS difficult to keep as closely in touch with the soldiers of the sea as with those on land, and for that reason most of us fail to realize how much we owe to the American Navy and the Marine Corps. We should remember that had it not been for the efficiency of our navy and that of Great Britain, our soldiers today would not be in the trenches in the great numbers that they are. Every ton of supplies, every ounce of powder, and every pound of shell for the use of our army in France has been placed in French ports under the protection of the navy. Every merchant ship under the American flag and not directly commanded by naval officers is guarded by the navy.

Our navy and the Allies also command the seas and keep the Hun from invading our land. The submarine patrol now extends all the way from the Irish Sea to the Azores, circles the Straits of Gibralter, and stretches far into the Mediterranean. Navy seaplanes guard the Channel, and it has been officially announced that American submarines are part of the blockade which sooner or later will strangle the enemy.

The United States Marine Corps serves at sea under its own officers, acting as guards and police for the ship, and in battle acting as riflemen and manning certain of the smaller caliber and rapid-firing guns. They are also often employed as a landing force.

The Marines bore the brunt of the battle at the capture of Vera Cruz. They were with Scott in the Mexican War. They did valiant service in the Civil War. They went with Commodore Perry to Tripoli. They went to Cuba with General Shafter in 1898, and were of great service in bringing the war to a hurried close. They were in the Philippines and the Panama Canal Zone. They put down the rebellious Cacos in Haiti and quelled an insurrection in Santo Domingo. Now they are in France covering themselves and their corps with glory. The Germans have nicknamed them "Devil dogs."

A British military observer, commenting on the work of the United States Marines after their brilliant exploits at Torcy, Bouresches, and Chateau Thierry, enthusiastically declared, "They're fighters, every inch of them!"

In a recent discussion as to the merits of various famous military organizations, a colonel of the British army electrified his hearers by making this startling assertion: "The best equipped, organized, and most efficient body of its size in the world is the United States Marine Corps; the second best is the Northwest Canadian Police, and the third best the Pennsylvania State Constabulary."

It was of this body of men that Rudyard Kipling wrote:

There isn't a job on the top of the earth the beggar don't know how to do.
You can leave him at night on a bald man's 'ead to paddle 'is own canoe.

A French Schoolgirl's Letter

"It was only a little river, almost a brook; it was called the Yser. One could talk from one side to the other without raising one's voice, and the birds could fly over it with one sweep of their wings. And on the two banks there were millions of men, the one turned toward the other, eye to eye. But the distance which separated them was greater than the stars in the sky; it was the distance which separates right from injustice.

"The ocean is so vast that the sea gulls do not dare to cross it. During seven days and seven nights the great steamships of America, going at full speed, drive through the deep waters before the lighthouses of France come into view; but from one side to the other hearts are touching."—Letter of a French schoolgirl quoted by Dr. John H. Finley.

Y. M. C. A. Secretary Busy

"What does an Army Y. M. C. A. secretary do?" is often asked. His work is so varied that this is a difficult question to answer in detail, but the following daily military program which has been worked out for Y. M. C. A. No. 8 at Camp Funston gives a general idea of what is expected of a "Y" man at an army cantonment:

MORNING—6:00, Rise and dress; 6:15, breakfast; 6:30 to 8:00, make bed, clean up room, shave, walk, read the Bible; 8:00 to 9:00, staff devotions and business conference; 9:00, on the job, whatever or wherever it may be; 12:00, dinner.

AFTERNOON—12:30, One man at the desk; 12:30 to 1:30, recreational period for balance of staff; 1:30, on the job again; 5:30 to 6:00, supper, depending on the mess hour of the individual secretaries.

EVENING—6:30, One man at the desk; 6:30 to 7:00, recreational period for balance of staff; 7:00, on the job again; 9:00, close stamp drawer and balance cash; 10:00, close building; 10:30, taps and lights out.

SUNDAY—7:00, Rise and dress, no conference; 9:30, Bible classes in barracks; 10:30, morning service; 7:00, Soldiers' Christian League; 8:00, evening service.

These are the ideals kept before the members of the staff:

Each secretary to have a religious interview with at least one soldier every day.

Every secretary a religious secretary.

The greatest possible service to the soldiers at all times.

A strict conformity with the military rules and a cheerful and courteous compliance with all military customs and camp regulations.

Every secretary boosting the work of the other secretaries. Regular attendance at the daily building and weekly general conferences.

Each secretary will be assigned certain definite hours for desk duty on a separate desk schedule.

Each secretary will be given one day off every week, not more than one man to be off at any one time (on separate schedule).

Our motto—To win the war. To build up the morals of the soldiers and thereby the morale of the army.

Autocracy Exemplified

The difference between autocracy and democracy, between an emperor and president, between Germany and the United States, is symbolized by the following letters—two messages of condolence written to mothers who had given several sons in battle.

The first was written recently by Emperor William, of Germany, to Frau Meter, of Delmenhorst-Oldenburg, who had lost nine sons in the war. Compare with it the second letter, which was written by President Lincoln to Mrs. Bixby, who lost five sons in the Civil War. Would anyone but a despot say, "gratified?"

The kaiser wrote:

His Majesty the Kaiser hears that you have sacrificed nine sons in defense of the Fatherland in the present war. His Majesty is immensely gratified at the fact, and in recognition is pleased to send you his photograph, with frame and autograph signature.

President Lincoln wrote:

Dear Madam—I have been shown in the files of the War Department a statement of the Adjutant-General of Massachusetts that you are the mother of five sons who have died gloriously on the field of battle. I feel how weak and fruitless must be any words of mine which should attempt to beguile you from the grief of a loss so overwhelming. But I can not refrain from tendering to you the consolation that may be found in the thanks of the Republic they died to save. I pray that our Heavenly Father may assuage the anguish of your bereavement and leave you only the cherished memory of the loved and lost, and the solemn pride that must be yours to have laid so costly a sacrifice upon the altar of freedom.

Colleges Give War Training

More than 400 colleges have responded to the War Department's call for co-operation in training the new branch of the army, the Students' Army Training Corps. Plans are being made to convert fraternity houses and dormitories into barracks for the period of the war to meet this new emergency of training boys of eighteen years and over in institutions used as cantonments.

The Students' Army Training Corps has two branches—the collegiate, to which men qualified by high-school graduation are eligible, and the vocational section, to which grammar-school graduates are eligible. Recruits will be procured by voluntary induction. Student-soldiers will not be in a deferred class, but will be on active duty and on private's pay.

KANSAS FARMER DAIRY CLUB

Present Dairy Conditions

UNDUE anxiety has been expressed by a good many writers because of the slaughter of dairy cows over the country. Much has been said and written about this, it being contended that it is a serious menace to the future of the dairy business. The reported slaughter of dairy cows is not as serious as some people would have us believe. Careful investigations of the Department of Agriculture, as reported by Carl Vrooman, assistant secretary, indicate that it is largely the "boarder" cows or those near the "boarder" line that have been sent to the butcher's block.

This is due in part to the high prices for feed, in part to the scarcity and high cost of labor, and also in part to the high prices of beef.

In nearly every instance where profitable cows have been sold, because of unfavorable conditions for continuing the dairy business, they have been purchased by other farmers who continue to use the cows in the dairy business.

Moreover, every day in the large stock yards of the country one may meet dairy farmers who purchase some of the cows received there and return them to the farm.

If one has the idea that dairy cows are being sold, or have been sold in any quantity, let him talk with those men who make it a business to buy and sell dairy cattle, and he will find that good dairy cows are almost impossible to be had and cannot be had except at high prices. And why should any dairy farmer slaughter dairy cows, when the ordinary, average grade dairy cow is worth more for dairy purposes than for beef?

The ordinary period of usefulness of a dairy cow is six years; hence about one-sixth or 16⅔ per cent could be disposed of annually because of having outlived their usefulness. Normally, therefore, a very large number of dairy cows are slaughtered each year.

On the other hand, many a farmer has not only been feeding cows which have lost him money year after year, but many a farmer has also been feeding ten cows on feed which is barely enough for five.

He has lost money because he has been feeding five cows that do not pay back even the cost of their feed, and he has lost money on another five (high producers naturally, perhaps) because he has fed them but half enough and thus lost profits which he might have had.

Cow-testing associations, which have increased in number so rapidly, have been a large factor in discovering the unprofitable cow and in causing such cows to be sold at this time.

The high prices of feed and the high cost of labor make the "boarder" cow an even more expensive luxury than in the past. It is, of course, a good thing to discover these unprofitable cows and to slaughter them, because it will leave higher producing herds; also it will give farmers a chance to feed higher producing cows better, so that they, in turn, will produce more milk and more profit for the owner. It is also essential that the well-sired heifer calves of every good milk cow be raised to fill the gaps in the herd.

The number of dairy cows in the United States January 1, 1917, was 22,894,000. According to a report to the Secretary of Agriculture, the estimate of the number of dairy cows in the United States on January 1, 1918, was 23,284,000. This shows a substantial increase in the number of dairy cows, notwithstanding exaggerated reports of the slaughter of dairy cows within the United States.

Club Girl Leaves Kansas

A Dairy Club girl who has made a fine record in her work is to leave Kansas. Dora Brader, of Oswego, writes that her father has just held a farm sale and they are getting ready to go to California.

All will recall how fortunate Dora has been in getting heifer calves. She has attended most faithfully to the work of caring for her cow and calves and as a result has made a fine financial showing in the two and a half years since she began the club work. At the sale she sold her dairy herd also, which consisted of the original cow, a two-year-old heifer, a yearling heifer, and a steer calf. The cow, a grade Jersey, which Dora purchased when she began her first year's work in the club, cost her $85. In the sale this cow brought $126. Her first calf was a heifer and she freshened last February and was thus added to the producing herd. She brought $67, and the yearling heifer $48. The little steer calf sold for $8. Dora says: "I now have $249 clear, and I have the Kansas Farmer Dairy Club to thank for it, for if it had not been for the club I would not have had anything."

Dora promises to write again as soon as they get settled in California.

Milking Machines

The use of a mechanical milker hinges largely around its labor-saving possibilities. The scarcity of help is getting to be a limiting factor in dairy production. In many dairies it has been necessary to reduce the size of the herd because of lack of help. A writer in a recent issue of the County Agent is very enthusiastic over the milking machine as a means of saving labor. He says that when a farmer has to depend upon his own hands to milk his herd of fourteen to twenty cows he will realize what a blessing it is to relieve the strain by installing a milking machine. He states that it will do twice or three times as much as any hired man. Here is the way he figures out the financial side of it:

A good hired man is worth $50 a month in cash and at least $25 a month more in board—$75 a month is $900 a year. Nine hundred dollars is 10 per cent on $9,000.

Nine thousand dollars will buy a lot of barn equipment, which, when you have it installed, will make you labor proof. The $75 a month which you pay your hired man (when you can get him) would certainly install a gasoline engine which will furnish power for your new churn, separator, milking machine, to say nothing of the machinery it would run in your repair shop as well as the water it would pump for your house and barn.

Too many farmers are like the old fellow who was approached to buy a power washing machine. He said:

"Ma and the girls would set around and get too fat."

The only way to meet the labor situation is to do everything possible by machinery. Many a farmer thinks that he is too poor to put in running water in his house. Is there any farmer who couldn't afford to pay $1.50 a month for that comfort and convenience? One dollar and fifty cents a month is $18 a year; is 6 per cent on $300 and $300 would install a very serviceable water system, including a septic tank.

Accredited Dairy Herds Listed

Every dairy herd in the United States that on July 1 had been officially accredited as free from tuberculosis or that had passed successfully one test with a view to certification, is listed in a publication just issued by the Bureau of Animal Industry, United States Department of Agriculture. Copies of the list are available for the use of state and municipal officials and private persons.

Certificates of freedom from tuberculosis are soon to be issued by the Bureau of Animal Industry to all the owners of the accredited herds. Certificate No. 1 is to go to the United States Soldiers' Home in the District of Columbia. The Holstein-Friesian dairy herd at this institution includes 134 registered pure-bred cows and is one of the oldest accredited herds in the United States.

Control with a view to the eventual eradication of tuberculosis in cattle is being accomplished by systematic efforts of federal and state authorities in co-operation with cattle breeders' associations and herd owners.

A definite plan was adopted in 1917 whereby herds of cattle passing the prescribed number of official tuberculin tests should be certified or accredited as free from tuberculosis.

An accredited herd is one that has successfully passed two annual or three semi-annual tuberculin tests applied by regularly employed veterinary inspectors of the Bureau of Animal Industry or of

the state where co-operative work is conducted, and has otherwise complied with the regulations governing the work.

The work is thought to have been in progress long enough to justify publication of the results. If the status of any of the accredited herds should be changed, prompt notice is to be given to the officials of the various states. Additional lists are to be published from time to time.

How to Clean Dairy Utensils

Most of the bacteria which get into milk come from the utensils, such as cans, pails, strainers, coolers, and separators, which have not been properly cleaned. The University of Missouri College of Agriculture recommends the following method for cleaning the dairy utensils: 1. Rinse in luke warm water as soon after use as possible. 2. Wash in hot water containing washing powder which will remove grease. 3. Rinse in clean hot water and place in live steam fifteen seconds, drain and place right side up until steam evaporates. On the farm where steam is not available, sunning will give effective results. Drying should not he done with a cloth, but by heating the utensils in steam or an oven sufficiently to evaporate the moisture. 4. Invert in a clean protected place when dry.

Dairy Cattle at Hutchinson

The showing of dairy cattle at the Kansas State Fair last week was probably the best that has ever been made. The United States Disciplinary Barracks with its fine herd of Holsteins was in the competition, as well as the strong herd shown by the Cass Farm Company, of Sumner, Iowa. J. H. Cleverly, of Maxwell, Iowa, had a few strong entries. The balance of the showing was made by breeders from Kansas, among them being H. N. Holdeman, of Meade, one of the pioneers in the breeding of Holstein cattle in the state, and J. M. Chestnut & Sons, of Dennison. The fact that the Southwest Jersey Cattle Show was being held in Kansas City the same week drew from the Jersey showing. Chestnut's bull, Johanna Bonheur Champion 2d, the senior and grand champion at Topeka, won the same honors at Hutchinson. Cleverly's Sir Pietertje Watson Homestead won the junior championship. Some changes were made in the cow championships from the placings at Topeka. The senior and grand champion cow was Piebe De Kol Pride Homestead, the two-year-old cow shown by Cass Farm. The junior champion cow was Alcartra Pink Johanna, shown hy the Cass Farm. In the showing of Jerseys, R. A. Gilliland, of Mayetta, won most of the first prizes and the championships. The dairy cattle awards follow:

HOLSTEINS.

Exhibitors—The United States Disciplinary Barracks, Fort Leavenworth, Kansas; J. M. Chestnut & Sons, Dennison, Kansas; H. N. Holdeman, Meade, Kansas; F. L. Crow, Hutchinson, Kansas; J. W. Smyzer, Sterling, Kansas; Axtell Farms, Newton, Kansas; J. H. Cleverly, Maxwell, Iowa; Cass Farm Company, Sumner, Iowa.

Judge—W. L. Blizzard, Stillwater, Okla.

Aged Bull—1, Chestnut on Johanna Bonheur Champion 2d; 2, Cass Farm on King Aaggie Hengerveld; 3, U. S. Disc. Bar. on King Korndyke Akkrummer Ormsby; 4, Holdeman on Sir Korndyke Josephine De Kol.

Two-year-old Bull one (shown)—Cass on Fayne Bessie Homestead.

Senior Yearling Bull—1, U. S. Disc. Bar. on Korndyke Canary Ormsby, without competition.

Junior Yearling (two shown)—1, Chestnut; 2, Axtell Farms.

Senior Bull Calf (four shown)—1, Chestnut; 2 and 4, U. S. Disc. Bar.; 3, Cleverly.

Junior Bull Calf (four shown)—1, Smyzer; 2 and 3, Cass.

Aged Cow (four shown)—1 and 3, Chestnut; 2, U. S. Disc. Bar.; 4, Cass.

Two-year-old Cow (four shown)—1, Cass on Piebe De Kol Pride Homestead; 2, Chestnut; 3, Crow; 4, U. S. Disc. Bar.

Senior Yearling Heifer (two shown)—1, Chestnut; 2, Cass.

Senior Heifer Calf—1 and 2, Cass; 3, Chestnut; 4, U. S. Disc. Bar.

Junior Heifer Calf—1 and 2, Cass; 3, U. S. Disc. Bar; 4, Chestnut.

Senior and Grand Champion Bull—Chestnut on Johanna Bonheur Champion 2d.

Junior Champion Bull — Cleverly on Sir Pietertje Watson Homestead.

Senior and Grand Champion Cow—Cass on Piebe De Kol Pride Homestead.

Junior Champion Cow—Cass on Alcartra Pink Johanna.

Aged Herd—1, Cass; 2, Chestnut; 3, U. S. Disc. Bar.

Young Herd—1, Cass; 2, Chestnut.

Calf Herd—1, Cass; 2, U. S. Disc. Bar.

Get of Sire—1, Cass; 2, U. S. Disc. Bar.; 3, Chestnut.

Produce of Cow—1 and 3, Chestnut; 2, Holdeman.

JERSEYS.

Exhibitors — R. A. Gilliland, Mayetta, Kansas; W. O. Matthews, Hutchinson, Kansas.

Judge—W. L. Blizzard, Stillwater, Okla.

No aged bulls shown.

Two-year-old Bull—1, Gilliland on Blue Bell's Owl Boy.

No senior yearling bulls shown.

Junior Yearling Bull—1, Matthews, without competition.

Senior Bull Calf—1 and 2, Gilliland on Financial Laddie and Blue Bell's Owl Boy 2d.

Junior Bull Calf—1, Gilliland; 2, Matthews.

Aged Cow (four shown)—1, 2 and 3, Gilliland on Countess Lad's Rosebud, Rural Blue Bell, and Laddie's Golden Viola; 4, Matthews on Lucile Donna.

Two-year-old Heifer—1, Gilliland on Arline's Financial Countess; 2, Matthews.

Junior Yearling Heifer—1 and 2, Gilliland; 3, Matthews.

Senior Heifer Calf—1, Matthews, without competition.

Junior Heifer Calf—1 and 2, Gilliland; 3 and 4, Matthews.

Senior Champion Bull—Gilliland on Blue Bell's Owl Boy.

Junior and Grand Champion Bull—Gilliland on Financial Laddie.

Senior and Grand Champion Cow—Gilliland on Countess Lad's Rosebud.

Junior Champion Cow—Gilliland on Arline's Financial Countess.

Aged Herd—1, Gilliland, without competition.

Young Herd—1, Gilliland; 2, Matthews.

Calf Herd—1, Matthews, without competition.

Get of Sire—1, Gilliland; 2, Matthews.

Produce of Cow—1, Gilliland; 2, Matthews.

GUERNSEYS.

All awards in Guernseys went to Albert Hyzer, of Storm Lake, Iowa, without competition.

Cow-Testing Association

The cow-testing association takes the guesswork out of dairying. No longer can the camouflage of a fine appearance protect the low-producing dairy cow. Knowing the true feed and production records of each cow, the dairyman practices selective breeding, eliminates with certainty all low producers and feeds the remainder according to known production.

Output of Mill Feeds

In response to the appeals to the Food Administration on the mill feed question in Kansas, we have been told that the Grain Corporation is huying and storing large quantities of wheat in the state, using not only terminal elevators but elevators at interior points. As we pointed out in KANSAS FARMER September 21, this will help some, for it will hold much wheat in Kansas for grinding later in Kansas mills and this will increase the output of offal for feed. Kansas farmers, however, have not been able to understand why the policy of shipping wheat instead of flour to our Allies is being followed at the present time. We need the feed for our live stock and many contend that it is a serious mistake to permit such quantities of this feed to leave the country. In explaining the situation, the Food Administration recently made a statement pointing out that the foreign demand for flour from the United States has slackened and has heen replaced by a considerable demand for American wheat.

Shortage of animal feeds prevails among all the Western Allies, which now prefer to purchase wheat rather than to buy flour and mill feed separately. Wheat can be loaded very rapidly aboard ship on the American seaboard by mechanical conveyors. This operation consumes much less time than loading the equivalent of wheat as flour and its by-products and saves space.

One result of this development is a temporarily light production of wheat mill feeds in the United States. It should he recognized, however, says the Food Administration, that even with normal production of such feeds, the demand was expected to exceed the supply since the schedule of fair prices established for feed at the suggestion of the Agricultural Advisory Committee has made it very cheap, much cheaper in fact than other feeds of equal nutritive value.

The reduced output of wheat mill feeds is accompanied fortunately by an unusually large production of certain coarse grain products. Food Administration regulations provide for an extraction from barley of only 55 per cent flour, leaving nearly 45 per cent of the barley berry for feed which is remarkably rich and nourishing. Barley feed in itself is not a substitute for bran, but needs to be mixed with other light material, such as oat feed, to give bulk. There is an ample supply of oat by-products at prices averaging less than the cost of bran.

As a result of the large wheat crop the "fifty-fifty" rule requiring the purchase of equal amounts of substitute cereals with wheat flour has been modified and this is expected to increase the output of American flour mills and result in more mill feeds.

Corn by-products, though uncontrolled in price, are plentiful. The period for which these conditions are likely to prevail is undetermined, but the situation will be materially changed when foreign orders for flour from this country are again being filled.

It has been proven time and again that it is possible for a good dairy cow to produce double her own weight in milk in thirty days. A cow is a wonderful factory for converting farm-grown feed into a most valuable food product.



DE LAVAL
Separators
Save in
7 Ways

QUANTITY of cream that no other separator will recover completely, particularly under the harder conditions of every day use.

QUALITY of cream as evidenced by De Laval butter always scoring highest in every important contest.

LABOR in every way over any gravity system, and also over any other separator, by turning easier, being simpler, easier to clean and requiring no adjustment.

TIME by hours over any gravity system, and as well over any other separator by reason of greater capacity and the same reasons that save labor.

COST since while a De Laval Cream Separator may cost a little more than a poor one to begin with, it will last from ten to twenty years, while other separators wear out and require to be replaced in from one to five years.

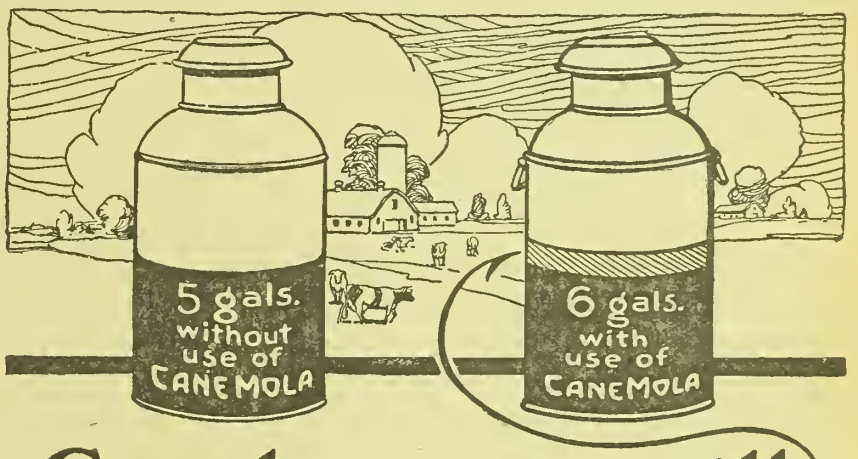
PROFIT in more and better cream, with less labor and effort, every time milk is put through the machine, twice a day, or 730 times a year for every year the separator lasts.

SATISFACTION which is no small consideration, and can only come from knowing you have the best separator, and being sure you are at all times accomplishing the best possible results.

Easy to prove these savings

These are all facts every De Laval local agent is glad of the opportunity to prove to any prospective buyer. If you don't know the nearest De Laval agency write the nearest De Laval office, as below.

THE DE LAVAL SEPARATOR CO.
165 Broadway, New York 29 E. Madison Street, Chicago
50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER



Get this extra milk
at less feed cost

Cane Mola is simply pure, 100% sugar-cane molasses—not a mixed feed, **not** beet molasses. As shown by the average ton analysis it contains approximately 55% sugar—this because science has not discovered any economical method of extracting this sugar from the molasses. Its feed value in itself is remarkably high—yet Cane Mola is much cheaper than corn.

CANE MOLA

Your great advantage lies not alone in the high feed value of Cane Mola itself, but also in the fact that it makes home grown coarse feeds palatable, thus giving them the feed value of the higher priced feeds, at much lower cost. Cane Mola will fatten stock at lower cost, will keep them in prime condition, correct digestive disturbances and prevent colic, on account of the natural salts it contains. Use it for cows, hogs, horses, sheep, etc. Stock eat it up clean; therefore, Cane Mola eliminates waste. Endorsed by Government Experiment Stations. Sold in 600 lb. barrels or smaller sizes, if desired. Write us—today.

Pure Cane Molasses Corporation
69P Wall Street New York City

Distributing Points: Omaha, Des Moines, Cedar Rapids, Milwaukee, Chicago, Boston, Philadelphia, New Orleans, Key West.



WEEKLY EAGLE
WICHITA KANSAS
65 CENTS FOR 3 YEARS
KANSAS' GREATEST FARM WEEKLY

SCHOOLS AND COLLEGES



LEARN TELEGRAPHY
Young men and women attend on credit. A practical school with railroad wires. Owned and operated by the A. T. & S. F. Ry. EARN FROM $75 TO $165 PER MONTH. Write for catalog.
SANTA FE TELEGRAPH SCHOOL
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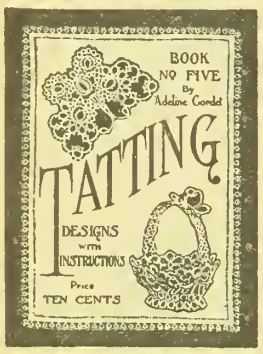
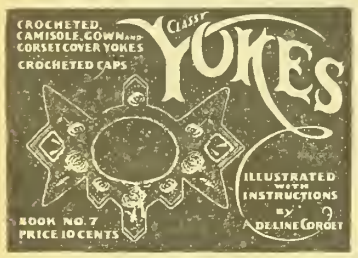
Business College
OTTAWA, KANS. CATALOG FREE

NEW TATTING BOOK



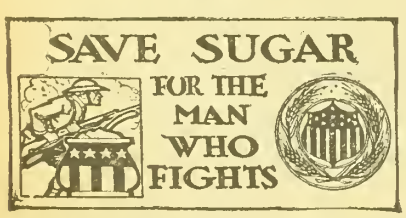
A collection of sixty pretty tatting designs with instructions, by Adeline Cordet. Price, postpaid, 10 cents. Ask for Book No. 5 when ordering. Address Fancy Work Dept., Kansas Farmer, Topeka, Kansas.

A New Crochet Book—Yokes



Crocheted camisole, gown, and corset cover yokes. A collection of pretty patterns with illustrations and complete instructions. In ordering be sure to ask for Book No. 7. Price, postpaid, 10 cents.
FANCY WORK DEPT., KANSAS FARMER, Topeka, Kansas.





When opportunity, like an ancient king, wishes to stroll the streets unnoticed, it wears the garb of drudgery.—The Youth's Companion.

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Girls' Garment-Making Clubs

IN SPITE of all the extra work that is required of women and girls in war time when farm labor is scarce, it is evident from the display of the work of the sewing and canning and bread-making clubs at the Free Fair that the girls of Kansas are not neglecting the household arts. Never before in the history of boys' and girls' club work in the state has so large and so excellent a showing been made.

This year the members of the garment-making clubs were divided into three classes, the class to which any member should be assigned being determined by her age and the number of years' work previously completed. Each club consists of a group of at least six girls working under the direction of a competent local leader, and the three years' work makes a complete course in practical sewing.

Each girl is expected to complete all the problems suggested for her class before being promoted to the higher class. This training in sewing and in the other lines of club work has become a recognized part of the educational system of the state and the country, its systematic instruction reaching many who would not have the opportunity to take this work in school.

Class C is the group doing the first-year work. It contains girls from ten to twelve years of age. The exhibit by each member of this class consisted of a set-on patch, one pair of darned hose, a kitchen utensil holder, buttonhole practice illustrating the different steps in making a buttonhole, a laundry, school, or button bag, and a little girl's sleeveless apron. It was hard to realize that the dainty aprons shown were the work of girls not over twelve years old.

The members of Class B, comprising girls from thirteen to fifteen years of age who had completed the first-year work, exhibited samples of their work, consisting of one pair of darned hose, a plain underskirt, a bib apron, a plain nightgown, and a one-piece work dress buttoning on the shoulder.

Class A is composed of girls from sixteen to eighteen years old. Their work included one pair of darned hose, a trimmed nightgown, an underwaist, an underskirt with dust ruffle, and a school dress.

Some very creditable displays were made by all classes, not only in the quality of the workmanship but also in the good taste shown in the selection and combination of materials and choice of trimmings. The awards were based on the quality of the work, its general appearance, the selection of material, and the records and story required at the end of the year. The prizes for the best complete outfit of the year's work in each class were $4, $3, and $2, with five fourth prizes of $1 each.

The awards were as follows:

Class C—1, Lucile Dietz, Cawker City; 2, Marceline DeWitt, Lyons; 3, Edna Kresling; 4, Korham Knotts, Lucerne Cousins, Maude Walker, Frances Kelliher, Esbon, and Nellie Warner.

Class B—1, Hazel Wickham, Cawker City; 2, Veta Walker, Utopia; 3, Rosalie Kelleher, Esbon; 4, Ethel Jung, Lyons; Alma Veach, Neal; Zula Smith, Lyons; Dorothy Goss, Garden City; and Leona Boone, Eureka.

Class A—1, Vera Coad, Cawker City; 2, Ruth Coad, Cawker City; 3, Avanel Ellis, Lyons; 4, Blanche Featherkile, Cottonwood Falls; Dorothy Marhenke, Utopia; Jennie Carter, Alma Goss, and Faye Wickham.

A special prize of $5 offered for the best three pairs of hose darned by any one member was won by Avanel Ellis, of Lyons.

For the best single articles or garments made in club work and exhibited by girls of any class, prizes were awarded as follows:

CLASS C GIRLS

Darning one pair hose—1, Marceline DeWitt, Lyons; 2, Frances Kelliher, Esbon; 3, Lucile Dietz, Cawker City.

Patches—1, Thelma Hall, Topeka; 2, Hildred Linville, Raymond; 3, Mildren Linville, Raymond.

Kitchen holder—1, Frances Kelliher, Esbon; 2, Thelma Hall, Utopia; 3, Loraine Schroepel, Raymond.

Buttonhole practice—1, Lucile Dietz, Cawker City; 2, Erma Teagarden, Wayne; 3, Marceline DeWitt, Lyons.

Laundry, school or button bag—1, Maude Walker, Utopia; 2, Thelma Hall, Utopia; 3, Hildred Linville, Raymond.

Little girl's apron—1, Lucile Dietz, Cawker City; 2, Lucerne Cousins, Cawker City; 3, Ruth Ruff, Chase.

CLASS B GIRLS

Darning one pair hose—1, Hazel Wickham, Cawker City; 2, Veta Walker, Utopia; 3, Rosalie Kelliher, Esbon.

Bib apron—1, Dorothy Goss, Garden City; 2, Alma Veach, Neal; 3, Leona Boone, Eureka.

One-piece work dress—1, Ethel Jung, Lyons; 2, Alma Veach, Neal; 3, Zula Smith, Lyons.

Plain underskirt—1, Lucile McKenzie, Wayne; 2, Veta Walker, Utopia; 3, Laren Becraft, Garden City.

Plain nightgown—1, Ethel Jung; 2, Gladys Schafer; 3, Doris Walton.

CLASS A GIRLS

Darning one pair hose—1, Vera Coad, Cawker City; 2, Blanche Featherkile, Cottonwood Falls; 3, Ruth Coad, Cawker City.

Nightgown, trimmed—1, Vera Coad, Cawker City; 2, Ruth Coad, Cawker City; 3, Rachel Boeskool.

Underskirt with dust ruffle—1, Vera Coad, Cawker City; 2, Blanche Featherkile, Cottonwood Falls; 3, Rachel Boeskool, Cawker City.

Underwaist—1, Vera Coad, Cawker City; 2, Ruth Coad, Cawker City; 3, Avanel Ellis, Lyons.

School dress—1, Cecile Paine, Admire; 2, Dorothy Marhenke, Utopia; 3, Cora Hunt, Americus.

We are sorry that we are not able in all cases to give addresses. These are given where known.

Bake Victory Bread

Do you bake straight wheat bread in your home, or do you bake victory bread, consisting of four pounds of wheat flour and one pound of substitutes?

If the straight wheat loaf is served in your home you are violating a solemn pledge made by Food Administrator Hoover to the food controllers of Italy, France, and England, that we would eat the same kind of bread they agreed to eat. At least that is the stand taken by Federal Food Administrator Innes in a letter sent to all county food administrators explaining the 80-20 rule.

The Allies enforce the 80-20 rule by law. In America bakers are required to live up to the regulations, but the householder is put on honor. Mr. Hoover has such faith in the American housewife he promised the Allies she would bake victory bread without being forced to do it.

That means that when the housewife buys a 24-pound sack of flour and six pounds of substitute, all the substitutes should be mixed with the bread. The housewife who bakes her own bread and fails to bake what the Allies are using, is by that act failing to eat the same bread as the guests at our table.

The Italians, French and British are our guests, for they cannot eat wheat unless we pass the plate around, according to figures given out by the Food Administration.

Under our agreement with the Allies we are expected to buy breakfast food cereals and corn meal for corn bread in addition to that purchased as a substitute with wheat flour.

Hominy Meat Cakes

2 cupfuls boiled hominy grits
½ cupful cooked meat, minced
2 tablespoonfuls minced onion
Celery salt, or 2 tablespoonfuls minced celery
Stock or milk, sufficient to moisten
Salt
Paprika

Combine the ingredients and shape the mixture into small cakes. Brown them in a small amount of hot fat. Serve them with plain brown gravy, if desired, or with a horse-radish sauce made as follows:

1 tablespoonful butter
1 tablespoonful cornstarch
1 cupful stock
1 tablespoonful horseradish
Salt and paprika

Melt the butter, remove the pan from the heat, and add the cornstarch. Stir the mixture until it is well blended. Add the stock, and boil the sauce until it thickens, stirring it constantly. Add the horseradish and the salt and pepper.

Sweeten cocoa with cane syrup. If you do not like the flavor, use a very little sugar with the syrup and your family will never know that it was not seasoned entirely with sugar.

FASHION DEPARTMENT

All patterns, 10 cents.



No. 8931—Ladies' Slip-On Waist: Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. The new round collarless neck line is the striking feature of this slip-on waist. The dainty model shown may be either gathered or tucked across the front and back at the slightly rounded neckline. The long sleeves may be either gathered into the cuffs or left partly free. **No. 8964—Boys' Suit:** Cut in sizes 2, 4 and 6 years. In the interval between rompers and a real boy's suit the little chap can be no more appropriately dressed than in a simple little blouse suit like No. 8964. The blouse buttons at center front and the neck is finished with a narrow roll collar of contrasting material. The straight trousers are included in the pattern. **No. 8959—Ladies' One-Piece Apron:** Cut in sizes 36, 40 and 44 inches bust measure. This very sensible kitchen apron has two good points to its credit—it is cut all in one piece and it is simple to make. The kimono sleeves are an excellent length for house wear. The apron is belted in at the normal waistline with a belt of the material.



No. 8687—Girls' Coat: Cut in sizes 6, 8, 10, 12 and 14 years. A smart top coat for the spring months is pictured in loose box effect, but it may be worn with a belt if preferred. The ends of the collar are crossed and buttoned to the belt. **No. 8694—Ladies' Apron:** Cut in sizes 34, 36, 38, 40, 42 and 44 inches bust measure. A handy apron which is neat and good-looking enough to be seen in public is shown in No. 8694. The front is slightly bloused. The skirt has three pieces. **No. 8692—Ladies' Four-Gored Skirt:** Cut in sizes 24, 26, 28, 30 and 32 inches waist measure. Just the thing to wear with a dainty new spring blouse is this attractive skirt. The front and back gores are in the form of panels, and the side gores are gathered between the panels to the inside belt.

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Chickens for Red Cross

THE "helpful hen" has been drafted for war service in Marshall County. Miss Edna Danner, emergency home demonstration agent for that county, tells us that the farm women are raising chickens for the Red Cross. The country women cannot take time to go to the Red Cross rooms in town and sew, but they are anxious to help with the work of the organization and they enthusiastically accepted the suggestion of Mrs. J. A. Craik, secretary of the woman's committee of the farm bureau, that they set one more hen and give the proceeds from the sale of her chickens to the Red Cross to be used in buying supplies for the women who do the sewing.

This work is being handled through the woman's committee of the farm bureau, and is a fine illustration of the results that can be obtained through the co-operation of the women in this organization. The woman's committee is composed of one vice president from each township in the county. It works with the farm bureau, its object being to organize the women to work together for their common interests in the same way that the farm bureau unites the men of the county. An executive committee of five members is chosen from among the twenty-five township vice presidents, and each township vice president is assisted by school district helpers representing the different districts of the township.

Through this organization it was a simple matter to reach practically every farm woman in the county. The school district helper presented the plan to her neighbors and reported to the central committee the names of those promising to do the work. The appeal has met with a hearty response. Out of a total of not more than 115 families in one township, 98 have pledged themselves to this war work. In many other townships the percentage was almost as large. The majority of the school districts of the county have reported 100 per cent of their families as making the pledge.

The chickens will be marketed about the third week in October through a local produce dealer and the proceeds in each case will go to the branch of the Red Cross designated by the donor.

To the best of our knowledge, the women of Marshall County are the first to adopt this method of raising funds. It is war work in a twofold sense, since in addition to the aid given the Red Cross, the extra poultry produced will release an equal amount of meat for overseas. We shall await the result of this undertaking with interest.

Late-Hatched Pullets

It is sometimes difficult to decide what to do with late-hatched pullets. In spite of our plans to hatch all stock early, it always happens that a good many pullets are not nearly grown in September, or even by the first of November. Obviously these will never make early winter layers. They may make profitable layers, though not likely to pay as well as the earlier-hatched hens.

With the age of the undersized pullets known, and by the use of the scales, it is a simple matter at this season to cull out those that it will not pay to feed through the fall and early winter, unless waste feeds are so abundant that no feed need be bought for any of the poultry stock.

Applying the weight table for this purpose it appears that a Plymouth Rock pullet that is five months old in the early part of September and weighs less than four pounds is not promising material for a winter layer; a Wyandotte or Rhode Island Red pullet that is five months old at this season and weighs under three pounds is not a desirable bird to keep; a Leghorn that is four months old and weighs less than two pounds should also be classed as a cull and used for the table. Birds having these weights with less age are desirable in proportion to their age. Many poultry keepers who do not mark their chicks when hatched and let broods of different ages run together in the growing season can not tell the age of a pullet with certainty in the fall, and take it for granted that the small birds are the later hatched. This error leads to the holding of many pullets which, if their true age were known, would be discarded for market poultry.

Showing White Chickens

Have you ever wondered at the clean, white, fluffy condition of the plumage of some of the white chickens you see at the poultry shows? These chickens have been carefully washed before bringing them to the show room. If you handle a white breed and wish them to look their best when shown, you will have to learn how to put them through this washing process. Different breeders have different methods, but the main points are to use plenty of clean soft water, a good laundry soap, and a warm place for drying. A writer in the Iowa Agriculturalist describes the process he uses as follows:

"First I have three tubs of water all about the same temperature, say 80 degrees F. The bird to be washed is placed in one tub and wet all over, and down to the skin. Next, the soap is put on by pouring soap over it which has been dissolved in hot water. Holding the bird with one hand, I work the soap clear to the skin and through the feathers.

"After the bird is well soaped, I pour on some water and make a fine lather. When this is done I remove the bird and wipe off all the surplus lather. Then I put him in the second tub and remove all the suds. To do this thoroughly, the bird is put on its back and water poured over it. The wings are also splashed up and down.

"In the last tub I add a little bluing and give the bird the final rinsing. I make sure not to add too much bluing, because I may color the plumage to some extent.

"When I am sure the bird is free from suds, I wipe him dry with a bath towel and put him in a clean coop with clean, dry straw on the floor. The temperature of the room should be about 80 to 90 degrees F., so that the bird will not become chilled.

"The bird should not be taken outside until he becomes thoroughly dry."



Young Man, Uncle Sam Wants to Educate You at The Kansas University of Commerce

He will pay your board, room, tuition, and $30.00 a month.

Four Schools—

School of Commerce, Finance and Business Administration
Kansas Wesleyan Business College
Auto, Tractor and Aero School
Morse and Radio School

Greatest Business and Vocational University of the West

Write for full information.

KANSAS UNIVERSITY OF COMMERCE
(A PART OF KANSAS WESLEYAN UNIVERSITY)
Salina, Kansas

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FOR SALE, REGISTERED SHORTHORNS, reds and roans, both sexes. Twenty miles from Hutchinson fair grounds. W. E. Currie, Sterling, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 16-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

DOGS.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

RABBIT HOUNDS, FOX HOUNDS, COON, opossum, skunk, squirrel dogs. Setters, pointers, ferrets, rabbits. Catalog 10c. Brown's Kennels, York, Pa.

WANTED

WANTED — FIFTY WHITE ESKIMO Spitz puppies, six to eight weeks old. Brockway Kennels, Baldwin, Kan.

POULTRY.

BUFF ROCKS, SINGLE COMB BLACK Minorcas, fine choice cockerels, $1.50 each. Strohscheim Bros., Turtle Lake, Wis.

SINGLE COMB BLACK MINORCAS — May pullets, $1.00. Sarah Peters, Nashville, Kansas.

ROSE COMB BROWN LEGHORN STOCK for sale reasonable if bought soon. Mrs. John Holzhey, Bendena, Kansas.

PURE-BRED SINGLE COMB WHITE Leghorn cockerels, two dollars each. Kate Skelley, Delia, Kansas.

POULTRY WANTED.

IF DISSATISFIED WITH LOCAL POULtry and egg market, ship direct. We loan coops and cases free. The Copes, Topeka.

SHEEP.

FOR SALE — TWENTY-FIVE HEAD OF pure-bred unregistered Shropshire ram lambs; 150 blackfaced ewes, one and two-year-olds; a few registered yearlings and two year-old Shropshire rams. K. Hague, Route 6, Newton, Kan. Phone 5742 Elbing.

REAL ESTATE.

FOR SALE — GOOD COMBINATION farm, 240 acres, 9 miles from Ord, Valley County, Nebraska. On rural route and near school. 145 acres under cultivation, balance pasture; fair improvements. Price, $65 per acre; $4,000 cash, balance at 6 per cent. R. L. Dunham, Ord, Nebraska.

SITUATION WANTED.

SITUATION WANTED AS HOUSEkeeper in the country for widower's family. Lady past fifty, good cook, neat housekeeper, recent experience, first class in every respect. References. Address 2034 Lister Ave., Kansas City, Mo.

FARM LANDS

YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

MISCELLANEOUS.

LEATHER TANNING RECIPE. $2.50, guaranteed. R. N. Gilley, Carlton, Texas.

HOGS.

FOR SALE — FOUR POLAND CHINA sows, eligible to registry; due to farrow the first of October with third litter. Raised 35 pigs last spring, good ones. Arthur Hallgren, White City, Kansas.

FEATHER BEDS.

NEW 36-POUND FEATHER BEDS, $13.95. A pair 6-pound pillows to match, $2.45. New, live, clean, sanitary feathers. Best ticking. Sold on money back guarantee. Write for free catalog. Agents wanted. American Feather & Pillow Co., Desk 400, Nashville, Tennessee.

THE STRAY LIST.

TAKEN UP BY G. L. HENRY, OF JOHNson, Stanton Township, Stanton County, Kansas, on or about the 18th day of May, 1918, one red steer with white face, branded \/\ on right thigh; valued at $60. Elam Hilty, County Clerk, Johnson, Kan.

TAKEN UP — BY LOUIS KAISER, OF Park, Payne Township, Gove County, on the 30th day of August, 1918, one red and white cow, medium size, no marks or brands. E. E. Baker, County Clerk.

Real Estate For Sale

RANCH FOR SALE

540 acres fee; 500 acres long term Government leases at 50 cents per acre annually; 110 acres cultivated lands; remainder hay meadow. Timber for protection. Incumbrance $7,500 at 5 per cent, five years. Location near Kansas line, eight miles from Nowata, county seat, three miles from Watova Station; Ozark trails adjoin. Price, $40. Leases included.

Gid Graham, Claremore, Okla.

FOR SALE—EIGHTY ACRES
Twenty miles south of Topeka; 45 a. cult., 20 meadow, 20 wheat; 3-room house, stable, etc.; ½ mile school. $45 per acre.
THOS. G. SHILLINGLAW, TOPEKA, KAN.

A pullet that is worth keeping as a layer is worth good care and full rations all the time. A pullet that is not considered worth keeping should be eaten or marketed as soon as she is eatable. The one exception to this is where there is more than enough waste feed for all the poultry kept.

To get all that is possible out of all the promising pullets, good care and good feeding should be the rule at all stages. It is impossible to grow pullets carelessly and on short rations until they reach the age when they should be full grown and mature, and then bring them forward quickly by a short course of good management.

Where conditions are favorable and accommodations available, crate fattening of birds for market means a great improvement in quality as well as considerable increase in weight. Birds should be confined to a limited space so that but little exercise is possible. A mixture of equal parts of corn meal or barley meal and ground oats with enough buttermilk or skim milk to make a medium thin batter will produce good results. From two to three weeks of such feeding is sufficient.

The central thing to be borne in mind in considering the growing of more poultry as a war necessity is the fact that the keeping of poultry is a means of converting into good food materials that can not be utilized by man, that can not be eaten by any other kinds of stock, and that, without the poultry, would be absolute waste.

JERSEY CATTLE.

REDHURST JERSEYS

FOR SALE—Noble's Jolly Actor No. 155761. Solid color, born October 14, 1916. Sire (the imported son of Golden Jolly), Golden Jolly's Masterpiece No. 86295, with six tested daughters out of Noble's Eminent Jess, a R. of M. cow whose dam is also in the R. of M. and whose sire, Noble's Oxford Sultan No. 106403, with six tested daughters, seven of Noble of Oakland's with 65 tested daughters and whose dam is in the R. of M. and since by Sultan's Oxford Lad, his great dam also in R. of M.

ALSO—Jolley's Chief No. 14948. Solid color, born September 3, 1917, the above imported son of Golden Jolly. Dam, Eminent's Lad Jess No. 255151, dam of one in R. of M. She by Em. Brown Lad with two or three tested cows, a grandson of Eminent with 80 tested daughters and whose dam is a tested cow.

REDMON & SON, TIPTON, MISSOURI

100 Good Jerseys for Sale

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.

J. W. BERRY & SON, Jewell City, Kan.

AUCTIONEERS.

FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. VALLEY FALLS, KANSAS

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri

SHORTHORN CATTLE.

Pearl Shorthorn Herd

One of the oldest and strongest herds in the West, Scotch and Scotch-topped reds and roans. Twenty head young bulls ready for service. Fifteen last spring bull calves by Orange Lovel 420052, a Victor Orange bred bull; Village Heir 492857 by Imported Villager and Marengo Pearl 391962. All these calves are out of good useful cows.

C. W. TAYLOR - ABILENE, KANSAS

MARKS LODGE RED SHORTHORNS

For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

GUERNSEY CATTLE.

GUERNSEY BULLS

Good individuals of serviceable age, of May Royal, May Rose, Masher Sequel, Raymond of the Preel breeding. Write or come and see them.

ADAMS FARM, GASHLAND, MISSOURI
Twelve miles from Kansas City.

HORSES AND MULES.

Dispersion Sale Percheron Horses

AT FARM NEAR HOLTON, KANSAS, OCTOBER 3, 1918

Our offering will include the Percheron stallion, Inclus, several times champion at leading shows. Four of his daughters from 2 to 5 years old. Two aged mares, one imported; one 16-hand jack, one yearling jack and four jennets. Will also make general farm sale.

BRUCE SAUNDERS
Holton - - - Kansas

PERCHERON-BELGIAN-SHIRES



Registered mares with colts at side and bred again; registered fillies, stallions one to five years old; grown ourselves the ancestors for five generations on dam side. Sires imported.
Fred Chandler, R. 7, Chariton, Iowa
(Above Kansas City)

HAMPSHIRE HOGS

REGISTERED HAMPSHIRE HOGS. Thirty spring boars, immuned. Am booking orders for fall pigs. Geo. W. Ela, Valley Falls, Kans.

Breeders' Directory

RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.
DORSET HORN SHEEP
H. C. LaTonrette, Route 2, Oberlin, Kan.
Hereford Cattle.
F. S. Jackson, Topeka, Kan.

Robert H. Hazlett, of El Dorado, Kansas, has announced November 19 for his first annual auction of Hereford cattle. The sale is to be held at the fine stock pavilion at the stock yards, Kansas City, Missouri, on the second day of the American Royal.

SHROPSHIRE SHEEP



FOR SALE

A bunch of good big Registered Shropshire Bucks, not high in price. Also registered ewes.
Howard Chandler, Chariton, Ia.

DOYLE PARK SHROPSHIRES

Forty Head—Twenty ewes and twenty ram lambs. Ram lambs sired by our show ram, a son of Senator Bibby.

HOMAN & SONS - PEABODY, KANSAS

Reg. Yearling Shropshire Rams

By imported sire. The right type and prices right. Farm near Pontiac, Butler County; P. O. address, Rosalia, Kansas, Route 1.
J. R. FLOREA.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

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CLAIM SALE DATES.

Jacks and Jennets.
March 25, 1919—H. T. Hineman & Sons, Dighton, Kan.

Holsteins.
Oct. 3—Holstein Breeders' Dispersion Sale, Dixon, Ill. F. W. Spencer, Sales Manager.
Oct. 3—Galt & Spencer, Dixon, Illinois. Dispersion sale.
Oct. 24—Gish & Smeltz, Enterprise, Kan.
Nov. 1—Kansas Holstein Breeders' Sale, Independence, Kansas.

Jersey Cattle.
Oct. 9—B. R. Thompson, Garrison, Kan.
Oct. 14—W. H. Maxwell, Topeka, Kan.

Herefords.
Sept. 30—William Galloway, Waterloo, Ia.
Nov. 19—Robert H. Hazlett, El Dorado, Kan. Sale at Kansas City, Mo.

Shorthorn Cattle.
Nov. 8—Shorthorn Breeders' Sale, Peabody, Kan. O. A. Homan, Peabody, Kan., sales manager.
Nov. 23—H. H. Holmes and A. L. Harris. Sale at Kansas City, Mo.

Red Polled Cattle.
Oct. 8—W. T. McBride, Parker, Kan.

Poland Chinas.
Oct. 16—Dr. J. H. Lomax, Leona, Kansas.
Oct. 17—Fred B. Caldwell, Howard, Kan.
Oct. 31—F. J. Dowe, Hiawatha, Kan.
Oct. 23—T. J. Miesner, Sabetha, Kan.
Oct. 29—Hill & King, Topeka, Kansas.
Oct. 31—Adams & Mason, Gypsum, Kansas.
Nov. 1—E. B. Myers, Hutchinson, Kansas.
Nov. 2—H. E. Myers, Gardner, Kan.
Nov. 5—Moore Bros., Gardner, Kan.
Nov. 6—Earl Bowers, McLouth, Kan.
Nov. 6—M. C. Pollard, Carbondale, Kan.
Nov. 7—Schmitz Bros., Seneca, Kan.
Nov. 8—Ketter Bros., Seneca, Kan.
Nov. 9—Jones Bros., Hiawatha, Kan.
Feb. 18, 1919—F. Olivier & Son, Danville, Kan. Bred sow sale.

Duroc Jerseys.
Oct. 8—W. T. McBride, Parker, Kan.
Oct. 14 — John W. Petford, Saffordsville, Kansas. Sale at Emporia.
Oct. 19—W. W. Zink, Turon, Kansas.
Oct. 21 — Kansas Breeders' Sale, W. W. Jones, secretary, Clay Center, Kan.
Oct. 23—Laptad Stock Farm, Lawrence, Kan.
Oct. 28—Geo. M. Klusmire, Holton, Kan.
Jan. 28—W. R. Huston, Americus, Kan. Duroc dispersion and general farm sale.

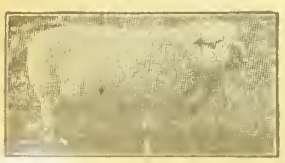
Spotted Poland Chinas.
Oct. 3—Alfred Carlson, Cleburne, Kan.
Oct. 5—W. J. Honeymoon, Madison, Kan.
Oct. 14—D. W. DeVoe, Onaga, Kan.
Dec. 17—Geo. Akens-Failer & Miller, Rossville, Kan.

Chester Whites.
Oct. 23—J. H. McAnaw, Cameron, Missouri.
Feb. 11—Arthur Mosse, Leavenworth, Kan.

Henry S. Voth, of Goessel, Kansas, owner of good herds of Holstein cattle and Poland China hogs, reports his herds doing well. Mr. Voth has the best breeding of both Holsteins and Poland Chinas in his herds, and a feature of both herds at this time is the choice lot of young stock.

Bruce Saunders, of Holton, Kansas, has announced a dispersion sale of his Percheron horses and also his jacks and jennets. The sale will be held at the farm near Holton on October 3. The offering will include nclus, the great Percheron stallion that was several times champion at leading shows. It will also include five mares of his get, one imported mare, two jacks, and a number of jennets.

R. H. McCune, of Longford, Kansas, owner of one of the good herds of old original big-boned Spotted Polands, reports his herd doing well. Mr. McCune has the best blood lines of the Spotted breed in his herd. He has an extra fine herd of big Spotted sows and his herd boar, Spotted Wonder, is one of the good sires of the breed. This year he raised a choice lot of spring pigs that have grown out fine.



WEIGHT AND WOOL WIN

Two championships, silver cup, seven firsts and four seconds were awarded our exhibit at 1918 Iowa State Fair. Rams at farmers' prices; also bred ewes for sale. Photos of our winners if you want them. Write now.

C. W. & Frank Chandler, Kellerton, Iowa

Modern Herefords

HAZFORD PLACE, EL DORADO, KANSAS

FIRST PUBLIC SALE

Cattle of my own breeding at Fine Stock Sale Pavilion, Kansas City, Missouri, on the forenoon of November 19, during the American Royal Live Stock Show.

Wm. Condell, Herdsman. ROBT. H. HAZLETT

HOLSTEIN CATTLE. HOLSTEIN CATTLE.

REGIER'S Holstein Friesians

On account of short help we have to sell fifteen head of our cows and heifers, all registered, bred to Sir Rag Apple Korndyke De Kol. His sire is a three-quarters brother to Rag Apple 8th, the $25,000 bull. Will freshen by September 15 and until spring. Prices from $200 up to $600. Young bulls ready for service. Bull calves four months old and older, $80 and up.

G. REGIER & SONS - - - WHITEWATER, KANSAS

200 Head Registered and High Grade Holstein Cows and Heifers

On account of shortage of help I have decided to sell my entire herd at private sale, without reserve, consisting of **40 Registered Cows and Heifers**, mostly all with A. R. O. records up to 26 pounds in 7 days; **40 Fancy Young High Grade Cows**, exceptionally well marked, some fresh, balance will freshen in next 40 days, $115 to $135; **50 Fine Thrifty Large Two-Year-Old Heifers** due in October and November, $90 to $110; **65 Fine Growthy Yearlings** from 15 to 20 months old, bred to freshen from December to February, $65 to $80. All stock bred, in calf to registered bulls. This herd is absolutely clean and guaranteed free from abortion and tuberculosis and will be sold as represented. Will sell with purchaser's privilege of 60-day retest. Descriptive catalog on registered stock ready Oct. 1. **Magee Dairy Farm, Chanute, Kan.**

HOLSTEIN CATTLE

150 Head of Choice Two-Year-Old Grade Heifers bred to King Segis bulls, to freshen in September and October.

Fifty Cows in Milk, good ages.

Fifteen Registered Bulls, some are from King Segis Pontiac breeding and good enough to head herds.

Twenty-five Registered Cows and Heifers, several A. R. O. breeding.

Will price a few grade heifer calves at $30, express paid. Your money back if not satisfied. Can ship by Missouri Pacific, Santa Fe, or Rock Island. Come and see me.

M. A. ANDERSON, HOPE, KANSAS; DICKINSON COUNTY



SAND SPRINGS FARM

Registered Holsteins—The Long Distance Kind

Watch for our consignment to the State Breeders' Sale, November 1.

E. S. ENGLE & SON - ABILENE, KANSAS

MAURER'S BIG DISPERSION SALE

OCTOBER 16

125 Registered and High-Grade Holsteins. Watch next issue or write

T. R. MAURER & COMPANY - - EMPORIA, KANSAS

$15 Holstein or Guernsey CALVES

From Waukesha County heavy producing stock. Write us today, we guarantee to satisfy you.

RIVERDALE FARMS, Oconomowoc, Wis.

Holstein Calves

Choice, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write

W. C. Kenyon & Sons
Holstein Stock Farms Elgin, Illinois

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Heilo No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

REGISTERED HOLSTEINS

If you want big producers, males and females, write us. All our own breeding.

Lilac Dairy Farm
Route 2 Topeka, Kansas

CHOICE HEIFER CALVES

Twelve heifers and three bulls, 15-16ths pure, five to seven weeks old, beautifully marked and from heavy milkers, at $25 each, crated for shipment anywhere.

FERNWOOD FARMS, Wauwatosa, Wisconsin

SPLENDID HOLSTEIN BULL FOR SALE—Six months old. Over half white. He is a beauty.

HENRY S. VOTH, Route 2, GOESSEL, KAN.

BRAEBURN HOLSTEINS

Service bulls; bull calves. Just now a few females for sale to make the herd fit the stables once more.

H. B. Cowles, 608 Kansas Ave., Topeka, Kan.

SEGRIST & STEPHENSON, HOLTON, KANSAS
Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

GALLOWAY CATTLE.

GALLOWAY CATTLE

80 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

CHESTER WHITE HOGS

Frost's Big Smooth O. I. C.'s

Forty Spring Pigs, Two Yearling Boars and 100 Early Fall Pigs.

All from prize winning blood and priced for quick sale. Write us today.

S. D. & B. H. Frost, Route 2N, Kingston, Mo.

RECKARD'S CHESTER WHITES

Have raised pure-blooded Chester White hogs for fifteen years. Breeding stock for sale from prize-winning strains. Large kind and smooth.

E. M. RECKARDS - OZAWKIE, KANSAS

Pure-Bred Chester Whites.—One yearling boar and spring boars at reasonable prices. Gust Claussen, Russell, Kansas.

ANGUS CATTLE

Edgewood Farm Angus

I have for sale

40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.

D. J. WHITE, Clements, Kan.

RED POLLED CATTLE.

RED POLLED CATTLE

For Sale—Four-year-old herd bull. Some extra good cows to calve in winter and early spring. A few yearling heifers.

I. W. POULTON - MEDORA, KANSAS

ADVANCED REGISTRY RED POLLS

Choice young bulls from heavy milking dams. Inspection of herd invited.

CHAS. L. JARBOE - QUINTER, KANSAS

Big Bone Spotted Poland China Sale at

Onaga, Kan., Oct. 14

Sixty Head of March, April and May Pigs sired by Master A, he by Spotted Chief by Spotted Hero

20 Boars
40 Gilts **All can be recorded**

EIGHT HEAD REGISTERED BROOD SOWS

These sows have raised large spring litters. They are not fat, but are in good condition to produce a good spring litter and raise them.



I will sell five head of milk cows, one registered Shorthorn bull, and seven head of work horses, harness and farm machinery. I am leaving the farm and am selling everything. Please send for catalog and arrange to attend my sale. Farm is seven miles south of Onaga and about ten miles north of Wamego, Kansas.

D. W. DEVOE, ONAGA, KANS

Auctioneer—Col. Chas. W. Crews, Topeka, Kansas

HENRY FEHNER'S
Chester White & O. I. C. Sale

AT HIGGINSVILLE, MISSOURI

Tuesday, October 15, 1918

55 HEAD OF EXCELLENT BOARS AND GILTS **55**

Great, big, stretchy, high backed hogs — the kind they are all striving for. They are the pick of 200 head and are out of some of the most noted sows and boars of the breed. ....:-: :-:



SIRES: Sunny Bar, the greatest breeding boar of the breed. Scottlea Archer, the old war horse. **Some noted sows in herd:** Scottlea Prudence, the $515 gilt, highest priced Chester yearling ever sold. The Iowa Grand Champion Gilt, 1917, sired by White Rex. She has a wonderful litter by Sunny Bar. Other noted sows appear in our next issue.

We especially call your attention to a great litter by Sunny Bar and out of the great White Rex sow, and also the Scottlea Prudence litter. Attend this sale. Write for catalog. All cholera immune.

Henry Fehner, Higginsville, Mo.

Difficult Churning

Sometimes the cream from a single cow churns into butter with the greatest of difficulty. This is frequently the case when the cow is a stripper. It never occurs when making butter from the cream of fresh cows. The reason the cream churns so hard is that the stripper's milk contains more curd than the fresh cow's milk and the fat is harder. It has no connection with feed or the failure of the cow to have salt, as some suppose.

When there is trouble in churning, the first thing to do is to make certain that the cream is not too thin and that the temperature is right. Sometimes this does not remedy the trouble, especially when the cream all comes from one cow. When the cream of a cow begins to give this trouble she had better be dried up. Adding some cream from a fresh cow will generally cause the butter to come if the cream is not too thin and the temperature is right.

An increase of 130 per cent of butter fat was secured from daughters of scrub cows in Iowa by the use of a pure-bred Guernsey sire. In an Ohio herd the two-year-old daughters of a pure-bred sire produced 70 per cent more butter fat than their scrub dams. The yearly production of a grade herd in Minnesota was increased 24 per cent by the use of a pure-bred sire.

Kansas Fairs in 1918

The following is a list of the fairs to be held in Kansas in 1918, their dates (where they have been decided on), locations and secretaries, as reported to the State Board of Agriculture and compiled by Secretary J. C. Mohler:

Barton County Fair Association, Porter Young, secretary, Great Bend; first week in October.

Clay County Fair Association, W. F. Miller, secretary, Clay Center; October 1-4.

Coffey County Agricultural Fair Association, C. T. Sherwood, secretary, Burlington; October 1-4.

Ellis County—Golden Belt Fair Association, P. J. Deane, secretary, Hays; October 1-4.

Marshall County Stock Show and Fair Association, J. N. Wanamaker, secretary, Blue Rapids; October 8-11.

Russell County Fair Association, H. A. Dawson, secretary, Russell; possibly October 1-4.

Sedgwick County—Wichita Fair and Exposition, E. F. McIntyre, general manager, Wichita; September 30-October 12.

State Fairs and Expositions

American Royal Live Stock Show, Kansas City, Mo.; secretary, W. H. Weeks; November 16-23.

International Live Stock Exposition, Union Stock Yards, Chicago; secretary and general superintendent, B. H. Heide; November 30-December 7.

National Dairy Show, Columbus, Ohio; W. E. Skinner, general manager; October 10-19.

National Swine Show and Exposition, Cedar Rapids, Iowa; John T. Stinson, manager; September 30-October 5.

Oklahoma Free State Fair, Muskogee, Okla.; O. M. Savage, secretary; September 30-October 5.

FARM AND HERD.

W. H. Maxwell, of Topeka, Kansas, has announced October 14 as the date for dispersing his entire herd of eighty head of Jerseys. The Maxwell Dairy has always been rated as one of the best in Shawnee County. The cattle are a high class lot. Forty head are registered and are of the most popular breeding. They have been regularly tested and are clean and in good condition. Most of the offering are in milk and are bred to a registered Jersey bull that has proven a great sire.

C. W. and Frank Chandler, of Kellerton, Iowa, report their great flock of Shropshire sheep doing well. This is one of Iowa's oldest and best flocks of pure-bred Shropshire sheep. This year their show flock won seven first and four second premiums at the Iowa State Fair.

John W. Petford, Saffordville, Kansas, is the owner of a high class herd of Duroc Jersey swine. He purchased several years ago the best sows that sold in the Doctor Still sale. They were a picked lot with good pedigrees. His great herd boars are among the best in the West. Illustrator O'Rion 2d heads the herd. He was by Illustrator. He is a thousand-pound hog if properly fitted. His dam was sired by the $5,000 Joe O'Rion. As a second boar Mr. Petford is using Pet's Great Wonder by Great Wonder, dam by Grand Model. At the recent Kansas Free Fair Mr. Pteford purchased the grand champion Duroc boar, Model Ally, shown by R. W. Murphy, of Dearborn, Missouri, to assist in his herd. This hog is sired by A Model and his dam was R W S Model by Hoosier Lad. Mr. Petford has announced October 14 for his annual fall sale.

S. D. & B. H. Frost, of Kingston, Missouri, owners of one of the oldest and best herds of pure-bred white hogs in the West, report their herd doing well and their young stock growing out fine. This herd has been famous for many years as a prize winning herd and has probably produced more prize winners than any herd of that breed in the West.

LOCKRIDGE'S
Poland-China Sale

At Fayette, Mo., Oct. 12, 1918

45 HEAD BIG TYPE POLANDS 45

No. 1 will be Giant Wonder, a September 4th pig by The Giant, dam Big Bob's Wonder. Giant Wonder is a litter mate to my herd boar, Liberty Giant. He is also a litter mate to Giant Bob, the junior champion boar at the Missouri State Fair, 1918.

No. 2 is another good son of The Giant, dam Long Wonder 2d, one of the best brood sows I ever owned. This pig is not named yet, we will let his new owner name him. He was farrowed August 26. These two make a great pair of pigs and are sure to be appreciated by all who see him.



Twenty big summer gilts, either sold open or with breeding privilege to The Giant by Liberty Giant. There will be four fall gilts by King Joe that will be sold with breeding privilege to The Giant.

Twenty big early spring boars sired by The Giant, Joe Jr., and Goliath. The boars by Joe Jr. and Goliath are out of sows by The Giant.

Two choice boars by Gerstdale Jones. One choice boar by Big Ben.

EVERY HOG IMMUNE AND IN PRIME CONDITION.

WILL G. LOCKRIDGE -:- FAYETTE, MISSOURI

GENEROUS-FAIRFAX HEREFORDS

BRED FOR BEEF, BONE AND QUALITY FOR MANY GENERATIONS

113—SPLENDID COWS, HEIFERS AND BULLS—113

WILL BE OFFERED IN OUR SEVENTH ANNUAL SALE AT FAIR GROUNDS

HUTCHINSON, KANSAS, OCTOBER 23, 1918

FIFTY-FIVE BIG YOUNG COWS bred to Generous 5th, Lawrence Fairfax and Imported Shucknall Monarch.
TWENTY-FIVE CRACK HEIFERS, granddaughters of Perfection Fairfax and Generous, bred to Lawrence Fairfax and Shucknall Monarch.
THIRTY-THREE BIG HUSKY BULLS of Generous and Fairfax breeding. All ready for service.

Send your name for copy of illustrated catalog, mentioning Kansas Farmer.

W. I. BOWMAN & CO., Ness City, Kan.

POLAND CHINAS.



Faulkner's Famous Spotted Polands

THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.

Pioneer Herd Poland Chinas

For Sale—Ten outstanding spring boars by A Wonderful King and Logan Price. Twenty-five farmer boars, priced reasonable. Bred sow sale February 18, 1919. Send for catalog.

F. Olivier & Son, Danville, Ks.

POLAND CHINA BOAR PIGS

For Sale—Twenty choice boar pigs, sired by Model Wonder, he by Big Bob Wonder; The Giant by Hercules by Big Ben; King Ben by Giant Ben; Captain Gerstdale Jones, Big Bob Jumbo, and A Big Wonder. Several herd boar prospects.

Ross & Vincent, Sterling, Kan.

Erhart's Big Polands

A few fall boars ready for hard service. Can spare two tried herd boars. Have the greatest showing of spring boars we have ever raised. Some by the 1,250-pound A Big Wonder. Will make prices on pairs and trios. Write me your wants. All immune.

A. J. ERHART & SONS, NESS CITY, KAN.

Morton's Poland Chinas

For Sale—Twenty-five choice boar pigs, sired by Morton's Giant by Discher's Giant and Girstdale Jumbo by Girstdale Jones, out of my best herd sows. Priced reasonable. Write or come and see my herd.

GEORGE MORTON

Oxford : Sumner County : Kansas

Oxford Herd Poland Chinas

Herd boar, Giant Lunker by Discher's Giant out of Lady Lunker. I have 57 early spring pigs. A few choice boars. Priced to sell. Come and see me; I can please you.

Howard R. Wenrich

Oxford - - - - Kansas

"The Fellow That Plays Second Violin Never Leads the Band"

Buy your POLAND CHINAS of the LEADER in the WORLD'S GREATEST prizes for the OLDEST FIRM doing business. One hundred pigs, both sexes, for sale.

B. F. Dorsey & Son

Girard, Kansas Jacksonville, Illinois

HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that weigh and win. S. C. Brown Leghorn Chickens that lay. See or write

S. Y. BURKS, BOLIVAR, MO.

LONE CEDAR POLANDS

Strictly big type March and April pigs, either sex. Nothing but tops shipped. Prices reasonable. Guarantee to please. All cholera immune. A. A. MEYER, McLouth, Kansas.

TOWNVIEW HERD POLAND CHINAS

For Sale—Choice lot spring boars. All gilts reserved for February bred sow sale. Herd boars, King Wonder's Giant, Walter's Expansive Sid, Big Timm Joe.

CHAS. E. GREEN - PEABODY, KANSAS

LANGFORD'S SPOTTED POLANDS

Last call for spring boars, $40 to $50.

T. T. LANGFORD & SONS, Jamesport, Mo.

McCUNE'S SPOTTED POLANDS

Twenty spring boars and gilts (gilts open) well spotted, sired by Spotted Wonder and out of choice dams.

R. H. McCUNE - LONGFORD, KANSAS

POLAND CHINAS

Poland Chinas

Big type, big bone, big litters. A number of early summer pigs, either sex, for sale. Unusual quality and out of good sows and boars. Am closing out on them, so am offering them at an attractive price. Be sure to write me before buying elsewhere.

F. A. SWANSON, MANHATTAN, KANSAS

POLAND CHINA BOARS

Five and eleven months old, at a reasonable price. Pedigree with every hog.

HENRY S. VOTH, Route 2, GOESSEL, KAN.

MULEFOOT HOGS.

Knox Knoll Mulefoots

Bred sows and gilts. Open gilts, spring gilts and boars. Satisfaction guaranteed. Free catalog.

S. M. KNOX - HUMBOLDT, KANSAS

DUROC JERSEYS.

Wreath's Durocs Always Please

All spring boars and gilts must be sold to make room for fall litters. Critic Chief No. 241231 at head of herd. No fall sale.

L. G. Wreath, Manhattan, Kan.
Route 8.

C. H. BLACK'S DUROCS

Herd headed by Giant Crimson by G. M.'s Crimson assisted by Red Cross Pathfinder. My herd sows are the big growthy kind and have all raised good litters. I have for sale bred gilts and spring pigs in pairs and trios, priced reasonably. Come and see my herd.

C. H. Black, Marion, Kansas

Duroc Bred Gilts

FOR SALE—Ten fall yearling Duroc gilts bred to September 15 litters. Graduate and B. & C.'s Col. breeding, priced to sell.

H. D. Plummer, Longton, Kan.

CONYERS HERD DUROCS

Herd boar, King Conyers by King the Col. Sows in herd by Golden Model, Graduate Chief, Cherry Chief and other good breeding. For sale, one extra good spring boar sired by Pathfinder and one by Great Wonder. Fifteen spring gilts by Royal Critic. Come and see me.

B. W. CONYERS - MARION, KANSAS

DUROC JERSEY SWINE

For Sale—Choice spring pigs in pairs and trios out of state fair winners. Write or come and see herd. W. J. Harrison, Axtell, Kan.

WOODDELL'S DUROCS

Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

FOR SALE—Duroc Jersey Hogs, March and April farrow; cholera immune; either sex. P. J. MURTA, CUBA, MISSOURI.

POLLED DURHAM CATTLE.

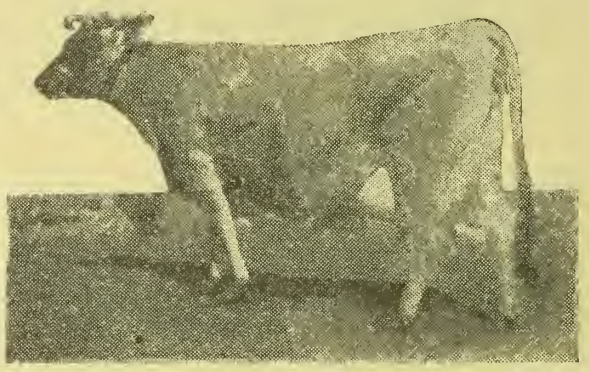
FOR SALE

Few young Polled Durham Bulls from strong milk strain dams.

W. C. HALL - COFFEYVILLE, KANSAS

Dispersal Sale of Jersey Cattle, October 9th. Monterey Dairy Farm, Near Garrison, Kan.

TWENTY-NINE HEAD OF HIGH-CLASS JERSEYS



Twenty-three females—twelve head giving milk, two bred heifers, several young calves. All old enough to breed are bred to my herd bull, Mermaid's Owl, a grandson of The Owl of Hebron, and is out of a Register of Merit dam that made 415 pounds of butter as a two-year-old. The cows are all in good condition and all will be tested and guaranteed right. Catalogs are now ready to mail. Send for one and come to sale. Farm is four miles south of Randolph, two and a half miles north of Garrison Crossing. The farm, consisting of 100 acres, will also be offered for sale. Write for description. It is well improved and good land.

B. R. THOMPSON - - GARRISON, KANSAS

Auctioneers—Jas. T. McCulloch, Homer Bales

KANSAS DUROC BOAR SALE

AT DR. W. H. RICHARDS' BARN

Emporia, Kan., Oct. 14th, 1918

ILLUSTRATOR'S ORION 2D AT HEAD OF OUR HERD

A thousand-pound giant, by Illustrator, dam by Joe Orion 2d, second dam by Col. Beabout by Defender.

FIFTY SPRING BOARS

Sired by Illustrator's Orion 2d; Pet's Great Wonder by Great Wonder, dam by Grand Model, and a son of Burke's Good Enuff, dam by Great Wonder! Pathfinder, King's Col. Again, Cherry King Orion, Grand Model, Grand Model's Giant, Cherry King Disturber, and others.

DAMS ARE BY Defender, King's Col., Big Wonder, John's Combination, Fancy Victor, Giant Wonder, Pathfinder, Grand Model, and others.

This will be one of the best bred lots of Duroc boars to be sold this fall. Several real herd boar prospects. Catalogs are ready to mail. Send for one and come to sale. Sale at Emporia, Kansas.

JOHN W. PETFORD - SAFFORDVILLE, KANSAS

HEREFORDS and Percherons



Fifteen Registered Hereford Cows

With early spring calves at foot and bred again. Ten two-year-old Heifers in good flesh, all bred to Paul Perfection bull.

Three Registered Percheron Mares with Colts

(One imported); two 2-year-old Percheron stallions; one registered saddle stallion, and one registered saddle mare.

Twenty-five Head Registered Poland China Hogs

Including four brood sows by Caldwell's Big Bob and one by Superba. Ten spring boars and ten spring gilts.

Everything guaranteed in good condition and will price reasonable. Come and see us. Farm seven miles from Madison, five miles from Hamilton.

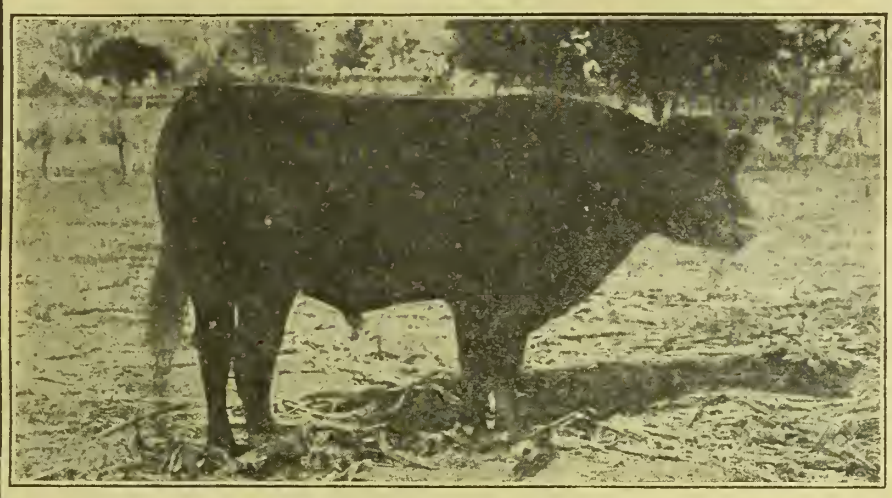
J. S. WILSON & SON - - - HAMILTON, KANSAS

DUROC-JERSEY BRED SOW SALE

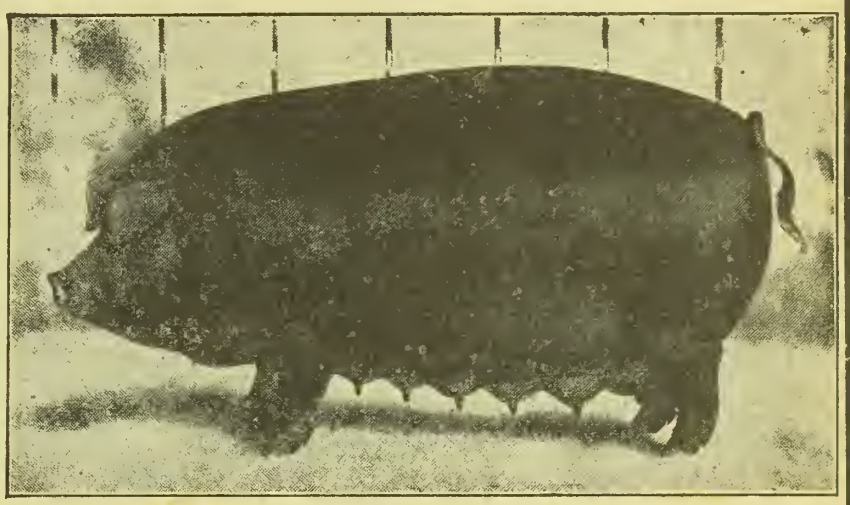
Parker, Kansas, October 8th, 1918

TWENTY-FIVE RED POLLED CATTLE
One Herd Bull, Two Yearling Bulls.
Several of the cows have calves and are bred again. All are registered and in good condition.

FIFTY HEAD, CONSISTING OF
TWENTY BRED SOWS
TEN SPRING GILTS—Five are by Pathfinder
TWENTY SPRING BOARS



BEST GOODS—RED POLL BULL

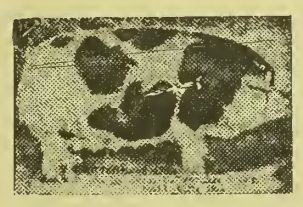


A number of the sows are sired by Parker Wonder and bred to H. & B.'s Pathfinder, and most of the boars and spring gilts are sired by him. I am not quitting the Durocs, but must reduce my herd. I am selling some of the best in my herd. If you want good foundation stock, come to my sale. I can please you. ALL IMMUNED. Farm adjoins city.

Catalogs are ready to mail out. Please send for one and arrange to come to my sale. I guarantee a good offering. Farm adjoins city. Auctioneers: Rule Bros.

W. T. McBRIDE
PARKER, KANSAS

Big Bone Spotted Poland China Sale at CLEBURNE, KANSAS October 3, 1918



FIFTY ~~HEAD~~ OF BIG SPOTTED ~~POLANDS~~

including

Five Tried Brood Sows with ~~Litters~~ at ~~Side~~

Six Fall Yearling Gilts

Three will have pigs day of sale

Twenty-one Large Spring Boars, and

and

Eighteen Large Spring Gilts

These are the pick from my spring crop of pigs and they are all in good condition. Sale will be held on my farm three miles west of Cleburne. Catalogs are ready to mail out. Please send for one and arrange to attend my sale. All immuned.

Alfred Carlson, Cleburne, Kansas

Auctioneers — Col. P. M. Gross and Col. Homer Bales

Dispersion Sale of Registered Jerseys

At Farm One Mile South of Fair Grounds on Topeka Ave.

October 14, 1918

EIGHTY HEAD



I am leaving the farm on account of sickness and am compelled to sell my valuable herd of forty head of registered and forty head of high-grade Jersey cows and heifers. I have spent years in building up this fine dairy herd. All have been regularly tested and are clean.

They are of the Saint Lambert, Flying Fox, and Uncle Peter's Gold Mine breeding.

Most all in milk or will freshen soon. All bred to my great herd bull, BROOKSIDE BABE TORONE. Every sire and dam for four generations back of him are in the Register of Merit. He has more daughters that produce one thousand pounds of butter fat than any bull living.

Please Send for Catalog and Come to Sale

W. H. Maxwell, Topeka, Kansas

B. C. SETTLES, PALMYRA, MISSOURI, SALE MANAGER

Auctioneers—Col. D. M. Perry, Col. Chas. W. Crews

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"DISCONTINUE ALL SUBSCRIPTIONS IN ARREARS OVER SIX MONTHS ON OCTOBER 2, 1918"

KANSAS FARMER will obey this order promptly on October 2

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6. President Wilson's address calling for action, April 2, 1917.
7. Causes and progress of the war.
8. Statistics of populations of countries and cities of the world.

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Name..... R. F. D.....

Town..... State .....

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Kansas Farmer, Topeka, Kansas:

Enclosed find $1.00, for which please send me KANSAS FARMER for one year, and your War Atlas.

Name..... R. F. D.....

Town..... State .....

KAF

OCT 25 1918

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 40. TOPEKA, KANSAS, OCTOBER 5, 1918. Established 1863. $1 a Year

ERADICATION OF TUBERCULOSIS

Accredited Herd List Published by Bureau of Animal Industry

THE accredited herd plan of controlling and eradicating tuberculosis in cattle has been tried out by several states with most satisfactory results. The Bureau of Animal Industry has for ten years been testing out control methods and its officials are now confident that the possibility of eradicating the disease is no longer a theory but an established fact. The accredited herd plan is now being put in operation with the backing of the Federal Government in co-operation with the live stock sanitary officials of the states. The plan was unanimously adopted by the United States Live Stock Sanitary Association and by representatives of pure-bred cattle breeders' associations and approved by the Bureau of Animal Industry in December, 1917.

As was stated in KANSAS FARMER last week in announcing the publication of the first accredited herd list, an accredited herd is one that has successfully passed two annual or three semi-annual tuberculin tests applied by regularly employed veterinary inspectors of the Bureau of Animal Industry or of the state where co-operative work is conducted, and has otherwise complied with the regulations governing the work. We printed the uniform methods and rules adopted in KANSAS FARMER some months ago.

The work in Kansas was not started until last August. The weather at that time was not favorable for testing and for that reason there are as yet no accredited herds in the state. Dr. T. J. Eagle, who has his office at 312 Wyandotte Building, Kansas City, Kansas, is in charge for the Bureau of Animal Industry. He is co-operating with J. H. Mercer, live stock sanitary commissioner for Kansas, and is making very good progress. The matter has been brought to the attention of a good many owners of cattle in Kansas and arrangements have been made for establishing accredited herds in the state.

The work has now been going on long enough in the United States to justify publication of the results. List No. 1 showing herds accredited to date, together with those that have successfully passed one test without reactors, has been published by the Bureau of Animal Industry. Those desiring copies of this first accredited list should write to Doctor Eagle.

We have just received a letter from J. R. Mohler, chief of the Bureau of Animal Industry, in which he comments on the work under way and refers to the publication of this first list. He says: "This first accredited herd list contains the names of more than one thousand herd owners whose cattle have been found apparently free from tuberculosis. It is true that these herds represent only a small percentage of the total number of pure-bred herds in the United States, but it is a beginning and in view of the fact that the plan was only formally adopted December 23, 1917, we believe that good results have been accomplished. The reason why so many herds have been accredited in so short a space of time is due to the fact that Minnesota, Wisconsin and some of the other states have been working under the accredited plan for several years and such herds as passed successful tests during 1918 were certified. The bureau has, also, been engaged in tuberculosis eradication work in the District of Columbia, Virginia, Maryland and other states for ten years during which time hundreds of herds have been freed of tuberculosis and maintained healthy; these also were added to the list.

"A summary of the co-operative tuberculosis eradication work for the month of July has been made and this shows that the campaign is being carried on in approximately forty states, in all of which veterinary inspectors are located who are prepared to co-operate with any breeder in tuberculin testing his herd. Under the uniform accrediated plan a pure-bred herd is one containing at least one pure-bred registered animal.

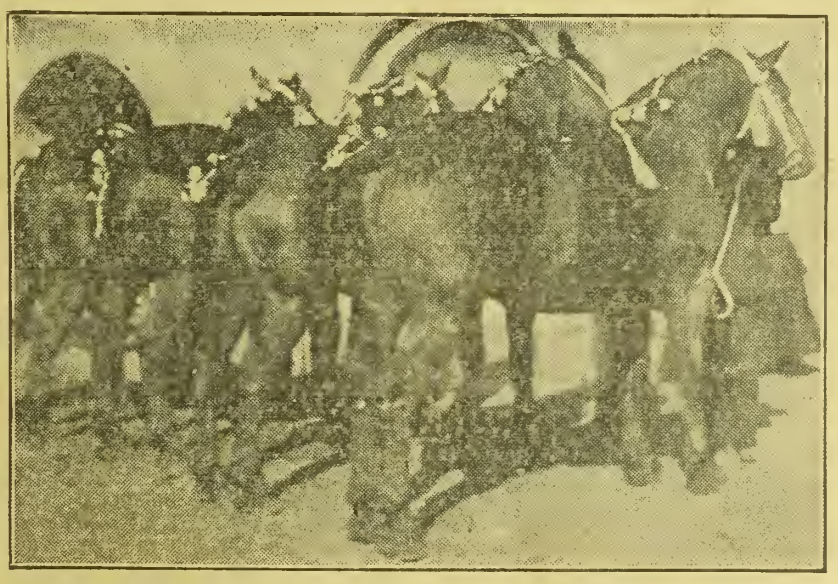
"That tuberculosis may be eradicated is not a theory but a fact demonstrated for a number of years by the bureau in the work accomplished among herds in Maryland, Virginia, the District of Columbia, and elsewhere. In the District during 1910 all of the cattle were tested consisting of 1,701 head; of the total, 18.87 per cent were found to be tuberculous by the tuberculin test. The diseased animals were slaughtered and the premises cleaned and disinfected. Each succeeding year since 1910 all of the cattle have been tuberculin tested with the result that during the fiscal year terminating June 30, 1918, less than 1 per cent of the animals were found tuberculous. The financial losses from tuberculosis of live stock each year is at least $25,000,000, but far greater than the loss in dollars and cents is the curtailment of our supply of meats, fats and dairy products. During the fiscal year terminated June 30, 1918, there were slaughtered at official abattoirs in the United States 10,938,287 cattle and 35,449,247 swine; there were 222,787 cattle and 3,493,188 swine found affected with tuberculosis which resulted in the condemnation of meat products to the extent of the stupendous sum of 25,875,200 pounds. It is for the purpose of preventing such appalling losses that the campaign against tuberculosis was inaugurated. The fact that it has been demonstrated over a considerable area that the disease can be eradicated is sufficient encouragement to take up the work in every state in the United States in co-operation with the live stock sanitary officials, with the owners of live stock and others interested in the welfare, the preservation and the stimulation of the live stock industry.

"The eradication of tuberculosis is a question of national importance. The live stock industry of each state is but a part of the agricultural resources of the nation. The greater the productivity of the cattle industry of one commonwealth, the larger will be the resources of our country; the deeper the disease preys on our cattle, whether in the north, east, south or west, the lower will our resources sink. Our live stock wealth is enormous. It far surpasses that of any other nation, as the following brief statistics indicate:

"On January 1, 1918, our cattle were valued at $3,159,231,000 and our swine at $1,361,242,000.

"In order that the campaign for the eradication of tuberculosis from live stock may achieve the success it justly deserves, the full co-operation and assistance of all those who are interested must be obtained. The bureau can not expect to accomplish satisfactory results without the aid and full assistance of the live stock owners. If each agency will assume its full responsibility it is only reasonable to expect that within a few years there will be a noticeable reduction in the amount of tuberculosis among live stock. Other diseases which gained widespread distribution throughout the country have been controlled and eradicated, not by reason of the efforts put forth by the bureau only, but through a determination upon the part of the live stock producers to stamp out the annual financial drain caused by those diseases."

This is a matter in which every live stock farmer in Kansas is directly interested. We should make every effort possible to prevent tuberculosis from gaining a footbold in the herds of our state. While the plan of establishing accredited herds is primarily designed for those having pure-bred animals, the ruling that ownership of a single registered animal makes a man a pure-bred breeder will make it possible for many having grade herds to get them in the accredited list by complying with the rules of the Bureau of Animal Industry and the State Live Stock Sanitary Commission. Practically every up-to-date farmer, even though keeping grade stock only, uses pure-bred bulls. We would especially commend this campaign against tuberculosis to our readers and would urge that steps be taken to get herds on the Government accredited list. It will not only help to prevent the spread of the disease in the home herd, with its attendant losses, but will be a valuable asset from an advertising standpoint.



GROUP OF MARES AND YOUNG STALLION SHOWN AT TOPEKA AND HUTCHINSON BY A. P. LOOMIS.—PRODUCE OF ONE FOUNDATION MARE

An Alien's Loyalty

Bradford Knapp, of the United States Department of Agriculture, who gave an address on the fair grounds at Topeka during the Free Fair, told a story of a Jewish boy just back from France whom he found in a hospital with his right arm gone, one eye missing, and just recovering from twelve gunshot wounds. He had gone to war from New York, and Mr. Knapp was interested to see what he would say of America after nine months' service in France. The boy's father came to the hospital and with tears in his eyes turned away from his own son because he could not bear to look upon him. Yet that boy with twinkling eye turned to his father and said: "Why, father, you ought to be happy! Am I not here, alive and with a good chance to get well? I am here in America, and I would have given my life in order that you and mother might be here and not have to see the things I have seen and undergo the things I have seen others undergo over there. America is the hope of the world."

Because of the scarcity of fertilizers this year and the increased demand for them, farmers who want to be sure of getting a supply should see that their orders are placed at once. Furthermore, farmers wishing a particular brand should order it either through the local dealer or a farm club, and should place the order in advance so that the goods may be shipped with a regular carload. Men who wait and take what the fertilizer dealer has in stock may have little choice. In any case, however, fertilizer should be used even though it is a low grade, since it is almost certain to increase the yield and bring a net return, says Prof. M. F. Miller of the Missouri College of Agriculture. Moreover, the world needs the wheat.

Eleven Kansas colleges, including the Kansas State University, Kansas Agricultural College, College of Emporia, Ottawa University, Southwestern College, State Manual Training Normal School, and Washburn College, will have units of the Students' Army Training Corps under command of United States Army officers.



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SENATE CONCURRENT RESOLUTION No. 18.

A proposition to amend section 1 of article 5 of the constitution of the state of Kansas relative to the right of suffrage.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members elected to each house thereof concurring therein:

Section 1. The following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their approval or rejection: That section 1 of article 5 of the constitution of the state of Kansas be amended to read as follows:

Section 1. Every citizen of the United States of the age of twenty-one years and upwards—who shall have resided in Kansas six months next preceding any election, and in the township or ward in which he or she offers to vote, at least thirty days next preceding such election—shall be deemed a qualified elector.

Sec. 2. That this proposition shall be submitted to the electors of the state at the general election in the year 1918 for their approval or rejection. The amendment hereby proposed shall be designated on the ballot by the following title: "The suffrage amendment to the constitution," and shall be voted for or against as provided by law under such title.

Sec. 3. That this resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 8, 1917.
Approved March 12, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 18, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

SENATE CONCURRENT RESOLUTION No. 15.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members of each house concurring therein:

Section 1. That the following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their rejection or approval:

Sec. 2. The Legislature may levy a permanent tax for the use and benefit of the state educational institutions and apportion among and appropriate the same to the several institutions, which levy, apportionment and appropriation shall continue until changed by statute. Nothing herein contained shall prevent such further appropriation by the Legislature as may be deemed necessary from time to time for the needs of said state educational institutions.

Sec. 3. This proposition shall be submitted to the electors of this state at the election for representatives in the Legislature in the year 1918. The amendment hereby proposed shall be known on the official ballot by the title "Amendment to the constitution providing for a permanent income for the state educational institutions," and the vote for and against such amendment shall be taken as provided by law.

Sec. 4. This resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 7, 1917.
Approved March 10, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 15, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.



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MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Storing The Tractor

TRACTORS are expensive equipment. Every effort possible should be made to reduce depreciation and lessen the danger of serious damage during the winter season. The following suggestions on laying by the tractor for the winter are offered by the agricultural engineering division of Nebraska University:

Be sure all water is drained from the cooling system and all fuel from the fuel tanks.

The last time the tractor is run, use heavy oil so as to coat the cylinders and pistons—a little oil might be poured through the priming cocks. This will prevent rusting of the cylinders and pistons.

Where the exhaust pipe is vertical, with the exhaust end up, cover to keep water out.

Clean grease and dirt off engine and all moving parts, and inspect whole tractor for breakage.

All new parts should be ordered at once on account of the difficulty in obtaining them. This applies to all machinery.

Under-Inflation of Tires

Tire costs are soaring, and now if never before every effort possible should be made to get maximum service from tires. Under-inflation is the "white plague" of the pneumatic tire. Probably no other cause is responsible for so much damage. The wavy condition of tire treads is the result of running the tires soft, the fabric becoming loose from the treads through no fault of manufacture.

Tire manufacturers have inflation schedules which they are anxious to place in the hands of every automobile owner. You are constantly urged not to guess at the pressure. Use a pressure gauge or a tire caliper to determine the inflation. The caliper is a recent invention which you can use to determine whether you have the proper pressure or not without removing the valve cap.

Watch Mileage

It would pay every automobile or truck driver to watch closely the mileage he gets from a gallon of gasoline. It is not only a money-saving proposition but a patriotic duty since we are of necessity being compelled to conserve gasoline in order to insure there being an abundant supply for war purposes. By keeping a strict account of the mileage obtained from the fuel used, any marked change will be noted at once. A sudden drop in mileage means something wrong somewhere. The difficulty may be progressive in character and by locating it promptly more serious trouble may be averted by applying the proper remedy at once. A sudden drop in mileage should always call for a careful search to locate the cause. If no mileage is kept a car might run for weeks without the difficulty becoming serious enough to force attention.

Saving Gasoline

The request to save gasoline, and particularly the plan to refrain from pleasure riding on Sunday in the East, has met with a wonderful response. It shows how willingly the American people are falling in line with whatever the Government says is necessary. It should be understood that the Fuel Administration did not issue an order against pleasure riding on Sunday, but merely a request.

The adoption of a card rationing method, as has been suggested, is too slow and in addition is expensive.

People in the territory effected have asked whether they should use their cars for churchgoing. The answer, according to the Fuel Administration, is that where church can be reached reasonably in another way the automobile should not be used, and that, after all, the conscience of each citizen will be his best guide.

It has been reported that in a great many cases the proprietors of hotels and restaurants in outlying districts and many operators of soda fountains in the cities refused to serve pleasure-seeking customers who drove out in automobiles on the Sundays since the request was made. Taxicab operators in most cities refused to take passengers except on specific trips. They declined all hourly and pleasure trips. Patrons of sight-seeing cars have also been made to feel that by riding on Sunday they are violating the administration's request just as much as the man who drives his own car.

The Small Threshing Outfit

It is pointed out in a recent issue of Tractor Farming that while the light farm tractor has paid for itself on a good many farms, average farm conditions do not permit its use for more than a few months of the year. How to employ its power with profit during the periods of enforced idleness and thus make it a still better paying investment is a subject to which many farmers are giving attention. As no increase in the amount of regular drawbar work seems possible, the farmer has turned to the possibility of more belt work as a solution of the problem, and, naturally, one of the things that suggests itself to the grain grower is the thresher.

To the man who has investigated the matter, the profit in owning equipment for threshing his own grain is beyond question. He can now thresh when he is ready, eliminating the waiting and resultant losses from bad weather, bleaching by the sun, and shattering of the grain out of the heads. He can thresh with his own help or his own company with his neighbors. He reduces his expenses for boarding the crew, for he no longer buys provisions for threshing crews that fail to turn up at the appointed times.

There need be no loss of grain through careless or hurried threshing because his own help has no reason to hurry wastefully, and he can control their action as he could not control that of a custom threshing crew. The machine he uses can be kept in perfect repair because he has ample time during the winter to overhaul it.

When he is through with his own work, he can thresh for a few neighbors, thus helping to pay the original cost of the equipment and earning an additional profit. When threshing is done early, the land is cleared of shocks and is in shape for fall plowing, whereas if the grain stands until late in the fall, this important work is often neglected.

Gasolineless Sundays

It has been frequently asked if the gasolineless Sunday request would be extended to include the territory west of the Mississippi River. At the moment it does not seem that this will be necessary, although it is among the possibilities, according to a recent statement from the Fuel Administration.

Mid-continent refiners are now canvassing the situation with a view of determining their ability to care for the western territory and at the same time furnish the amount of gasoline they have agreed to deliver at Atlantic seaboard.

The solution will rest entirely upon their ability to provide for both demands. If this is found to be impossible, the country west of the Mississippi will, of course, be called upon to forego Sunday pleasure driving temporarily, in order that the necessary stocks may be built up and maintained upon the Atlantic seaboard for shipment overseas.

Oil that has been drained from crank cases, differentials, or transmission, has a commercial value. We are urged to save all such oil. Even oil used in cleaning can be reclaimed.

Economy in the use of gasoline can be effected by keeping the carbureter adjusted to work on the thinnest possible mixture. Cut-off cocks should be installed in the gasoline line next to the carbureter with control on the cowl of the car so that the supply of gasoline can be entirely shut off in coasting. Quite a saving in the use of gasoline can be effected by the installation of such a device.



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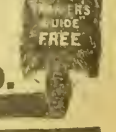

The Yanks are using the bayonet to make Fritz see the "point" in the argument.—Wichita Beacon.

Editorial, Advertising and Business Offices, Topeka, Kansas

Entered at Topeka Post Office as Second Class Matter

Published Weekly by The Kansas Farmer Company, at Topeka

KANSAS FARMER

THE FARM PAPER OF KANSAS

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FEED FOR KANSAS STOCKMEN

The Food Administration has taken notice of the milling situation in Kansas as regards the shortage of bran and shorts. A letter received by Governor Capper indicates that regulations are being formulated which will insure a larger percentage of the bran and shorts produced in Kansas mills remaining in the state. Since so much of the flour from Kansas mills must of necessity be sold outside the state, the practice of using feeds to stimulate flour sales could not act otherwise than to cut down the supply available for use in the state.

We are glad to learn that the Food Administration is recognizing the valid claim we have on feed coming from the wheat produced on our own soil. It would be poor policy to force our live stock men to cut down production and otherwise retrench in their operations because the feed from our Kansas mills was being shipped out of the state. If there is a shortage of feeds, the Kansas live stock man who has stock within wagon haul of the source of mill feed should be the last to suffer, and this not for selfish reasons, but because it is true conservation to reduce unnecessary transportation of feeding material.

WALNUT LOG PRICES

We have already referred several times to the purchase of walnut lumber for war purposes. Next week we will publish a special article on this subject. Many firms have Government contracts for walnut to be used in making propeller blades and gunstocks. The Government official having this special matter in charge is asking that those having logs confine their sales to sawmills having Government contracts or buyers carrying credentials from the Government setting forth that the mills they represent have Government contracts. This does not give any excuse for buyers to create the impression that the Government has or will in the near future commandeer walnut lumber. It is further stated that in arriving at the price to be paid for propeller and gunstock lumber the Government has taken into consideration a schedule of fair prices for the logs which has been published and has allowed the mills prices for the material which will furnish only fair and reasonable profit to both mill and log buyer.

We referred to this Government schedule, giving the general range of prices several weeks ago. For example a log twelve to fourteen inches in diameter and not less than eight feet in length should sell, according to the Government schedule, for from $45 to $55 a thousand board feet on the car or from $20 to $35 a thousand standing. A nineteen- to twenty-inch log should bring from $75 to $85 a thousand on board the car or $50 to $60 standing. A thirty-foot log should bring from $100 to $110 a thousand standing. The Doyle rule is used in measuring, the diameter being taken at the small end under the bark. No logs under twelve inches in diameter should be cut, as they are too small to pay either the sawmill or the owner of the logs. They are too small to produce Government material.

TRAINING WOMEN FOR WAR WORK

Women all over the country are eagerly offering themselves for war work. Training for the task is imperative. Too many women are already in France who are not particularly fitted for the work they are called upon to perform. "Train, train, train," said Helen Fraser, leader of women's war work in England, when asked what women could do. We would repeat this cry to the women of America.

A war work school has just been opened in Chicago for the purpose of training women for the various tasks which they can perform in connection with the war. It has the sanction of some of the highest authorities, notably that of Mrs. Frederick Tice, supervisor of instruction of the American Red Cross. The subjects taught and emphasized are those which will most probably be needed by the women who go across, such as the French of every-day life, intensive business, home nursing and first aid, and recreation with its psychological basis.

There is a very urgent need for women in war work, not only as nurses but as canteen workers, "hut" matrons, business women, etc. The Red Cross recently made a call for more than a thousand such workers. The Government has called for four thousand reconstruction workers and teachers. Those interested in this school can get further information from Dr. Lucy Rider Meyer, 4947 Indiana Avenue, Chicago.

SOIL FERTILITY

Soil is fundamental to agriculture. In a state like Kansas the soil is the most important source of wealth. A poor, barren soil means meager crops and hard conditions generally. On the richer soils will be found the most progressive and most prosperous agriculture. Maintenance of soil fertility thus becomes one of the foundation principles of a permanent and prosperous farming business.

A careful, systematic study of the soils of the state is one of the duties laid on our Experiment Station. Constructive work along this line is necessarily the result of long-continued experimentation and investigation. Hasty conclusions based on limited experience and study will not help in solving our soil problems. The soil work at our Kansas Experiment Station is being well handled. Prof. L. E. Call, who came to Kansas ten years ago, almost immediately made plans for soil studies involving the effect of fertilizers, manures, and crop rotations which were to continue for a long period of years. Later R. I. Throckmorton took up the special soil work. A bulletin, "Soil Fertility," has just been published, prepared jointly by these two men, which gives in detail the results of the work of the past ten years. It is not a pamphlet so technical in its treatment as to be beyond the comprehension of the ordinary reader unfamiliar with chemical terms. The information is practical and most valuable to Kansas farmers. Coming when it is so important to produce all the food we can, it is most timely. In the summary of this pamphlet it is stated that Kansas soils have decreased rapidly in productivity during the past fifty years. The yield of corn has decreased 40 per cent and the yield of wheat has decreased 17 per cent during this period. The removal of large quantities of hay and grain without returning organic matter and plant food to the soil has been largely responsible for it.

Many soils that are of low productive capacity still contain large quantities of plant food but it is not in an available form. The addition of organic matter will aid in liberating this plant food and thereby increase the productivity of the soil.

If the supply of organic matter in the soil is maintained, phosphorus will be the first element of plant food necessary to add. Kansas soils are naturally low in this element. In fact, phosphatic fertilizers can be used at a profit at the present time on many of the shale and sandstone soils of the eastern part of the state.

The organic content of the soil may be maintained by applications of barnyard manure and by plowing under green manure crops, straw, and other crop residue. A rotation containing a hay or grass crop will also aid. Straw is an important source of organic matter and should be utilized as far as possible. It may be used as bedding, feed, or applied direct to the field. Of the green manure crops, sweet clover and cowpeas are the more important, but green manure crops should not be grown until all other sources of organic matter have been exhausted.

Barnyard manure is the best form of organic matter, as it decays quickly and adds considerable available plant food. Manure may be profitably used on all crops, but will usually give greater returns when applied on wheat, alfalfa, or clover.

Whenever possible, manure should be applied as soon as produced. Manure exposed for a period of seven months loses more than 65 per cent of its value.

Light applications of manure as a surface dressing on wheat may be used successfully in the wheat belt.

Of the three elements, nitrogen, phosphorus, and potassium, purchased in the form of commercial fertilizers, only phosphorus has given paying returns.

Wheat has responded profitably to applications of phosphorus on the sandstone and shale soils of the eastern part of the state, and alfalfa has responded profitably on all upland soils of the eastern one-third of Kansas.

Lime is needed only on the soils of the eastern one-fifth of the state. The soils of Central and Western Kansas are well supplied with lime.

We would urge our readers to make a careful study of the facts and conclusions given in this bulletin on soil fertility and use the information to the best advantage possible in their farming operations. If you do not receive a copy, write to the Director of the Experiment Station, Manhattan, Kansas.

FOURTH LOAN THE FIGHTING LOAN

As the campaign for the Fourth Liberty Loan proceeds, the American army in France moves on toward Berlin. Under our own leaders the great American Army has won a notable victory.

The Fourth Loan must be a great success. The Fourth Liberty Loan is a fighting loan.

When our soldiers on the battle front are braving death, each one offering to make the supreme sacrifice for his country and the great cause, we who remain safely at home surely should give them every support, should make every sacrifice to strengthen them. If we can not fight ourselves, we can make our dollars fight.

It is a great cause for which America is engaged in this war; it is a great struggle in which the very hope of the world is bound up that is being waged in Europe and on the high seas. It is an honor to have a part in it and all Americans, all of their lives, will be proud of the part they had in it or ashamed of their failure to do their part.

The Fourth Loan is a fighting loan. Every subscriber to the loan strikes a blow for liberty, for victory.

BUDGET PLAN FOR WELFARE WORK

Seven different organizations have Government recognition in carrying on welfare work in the American army camps in this country and in France. Each has a particular job to handle in or around the camps. There is no duplication of effort in the work of these seven agencies.

A single campaign to raise all the money needed to carry on the work of the seven organizations will be made during the week beginning November 11. Heretofore there have been seven campaigns, each agency recognized by the Government making its own campaign. Under instructions of President Wilson to Raymond Fosdick, Chairman of the Commission on Training Camp Activities, the raising of the funds has been combined but the use of the money will go through the different channels now regarded as necessary to carry on the work. The gift of the American people is to be 170 million dollars, the largest single gift ever asked in this country. It will be distributed to these organizations: Young Men's Christian Association, Young Women's Christian Association, Knights of Columbus, War Camp Community Service, War Camp Library Service, Salvation Army, Jewish Relief.

The Kansas apportionment of this fund has not been made. It, of course, will be 70 per cent larger than the state's apportionment in the Red Cross Campaign last May. As the money is collected it is to be divided according to an exact percentage ratio among the seven organizations.

"The President has raised a standard to which every man and woman in the nation can and will rally royally," said John R. Mott, General Secretary of the National War Work Council for the Young Men's Christian Association. "This is not to be a Y. M. C. A. campaign, nor a Knights of Columbus campaign, nor a Salvation Army campaign, but a campaign for the men over there, in the cantonments in America and on the ships of our country everywhere.

"It is a campaign for the maintenance and increase of morals which Napoleon said is to other factors in war as three to one. The dollars given to the common fund will reach the boys through seven different channels, but every dollar will be made to do a maximum work and no matter what sign is painted over the door of any hut and any hostess house, its door will be open to every boy equally.

"A recent letter from one of General Pershing's staff officers said that the work of these seven organizations is adding not less than 10 per cent to the fighting efficiency of the American soldiers. If it is worth eighteen billion dollars to keep the American soldiers under arms next year, surely it is worth 170 million dollars to make them fight 10 per cent more efficiently. Nothing in my five visits to the battlefield has impressed me more than the way in which the men of all the religious bodies have blended their sacrifices even unto death for a supreme cause. This great campaign will give us a chance to show that the men and women at home are capable of rising to the same heights of splendid co-operation as their representatives over there. If they can struggle and die together to make forever secure our liberties, we can plan and work together to get the money needed to serve them."

SAVE THE PEACH PITS

Every American has the chance for direct war service that will save the lives of soldiers. Carbon is needed to make millions of gas masks for the American army. Cocoanuts have furnished much of this material, but cocoanuts mean ships, and during the present shortage material for carbon must be found nearer home. The pits of apricots, peaches, prunes, olives, dates, cherries and plums, and the shells of Brazil nuts, hickory nuts, walnuts and butternuts make carbon for masks that will outlast the most diabolical of the German gases.

It takes two hundred peach stones or seven pounds of nut shells to furnish carbon for a gas mask to save the life of an American soldier. How many masks can your neighborhood furnish? Here is work for all, every home, church, and school. See that the work is started in your neighborhood. Urge the boys and girls to scour the woods for nuts. Place collection boxes in the schools, churches, banks, and stores, and above all in your own home so your boys and girls can see the pile grow.

Dry the pits and shells before turning them in to the nearest Red Cross chapter. This organization is in charge of collecting all material.

We have spent over $120,000,000 just for staple supplies for our army, such as flour, bacon, rice, etc. Every subscriber to the Liberty Loan helps feed our soldiers.

We have nearly two million men in France. Every subscriber to the Liberty Loan helped send them there.

He buys best who buys quickly. Buy your bonds now.

Every hundred dollar bond makes a Hun dread more.

SELECT KAFIR SEED IN FIELD

Of Greater Importance Than The Selection of Seed Corn

GRAIN sorghums in Kansas improved during the month of September, according to the reports from over the state, and indications now are that in many sections seed will mature unless we have an early killing frost. This is most encouraging news. Only once has the yield of corn in Kansas been as low as it will be this season, taking the state as a whole. Early in the season the prospects were exceptionally favorable for an unusually large yield of corn. This disaster to the corn crop should lead us to concentrate more on the grain sorghums. Each year these crops are demonstrating their dependability. We must pay more attention, however, to seed selection. Failure to carefully select seed from the field in the fall is perhaps the weakest point in grain sorghum production. It is of greater importance even than selecting seed corn, for seed of the grain sorghums taken from the bin is always of doubtful value. It is a conglomerate mixture of good, bad, and indifferent, and is almost sure to be injured in vitality. As far as we have observed over the state, farmers who are making any pronounced success in growing grain sorghum crops all carefully select their seed from the field in the fall and store it in the head.

Now is the time to provide for a supply of grain sorghum seed to sow next spring. Select enough of the best heads from the field before harvest time. Pure and high germinating seed of adapted varieties give best results. Uniformity in stand and in ripening of the crop increases the yield and quality of the grain. When the stalks are all of the same height, harvesting is easier, whether done by hand or by machinery. A lot of poor seed is used each year which is a source of loss to the growers. Guard against that loss next year by selecting home-grown seed. Do not depend on the grain bin or that of neighbors for a supply.

In gathering seed of the grain sorghums, observe the following important points:

Select heads from plants all of which are dwarf or of average height.

Select early-maturing heads.

Select well-formed and well-filled heads of the same type and uniform in size.

Select heads that grow completely out of the boot.

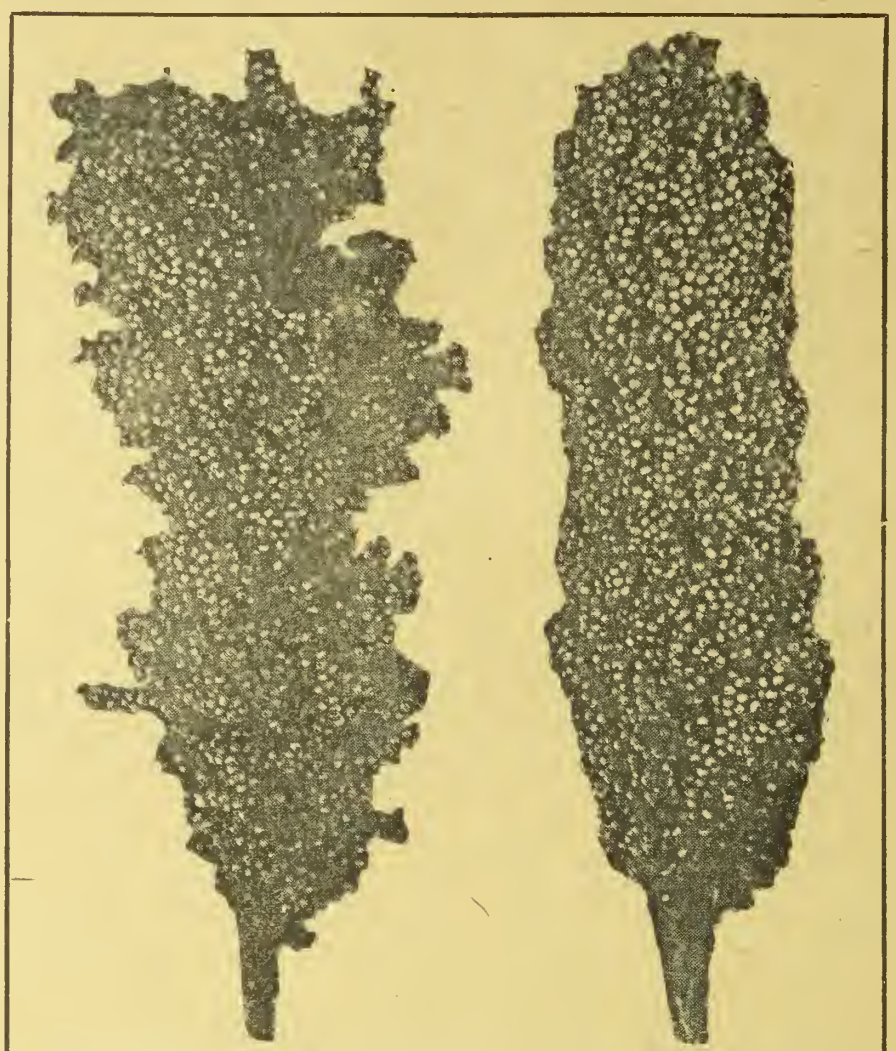
Select compact, not sprawly, heads, with short, well-loaded branches.

Go into the field where the stand is good and the plants grew under average conditions. Keep as far as possible from other varieties in order to avoid hybrids. Select good early heads from rather low stalks of uniform height, of a variety which is adapted to local conditions and has made good in the neighborhood for several years. Make the selections as soon as the early heads are fully ripe. If this work is delayed until after the whole crop is ripe, it is impossible to tell which heads ripened early. Poor seed of mixed varieties produces low yields of poor quality grain. Lost profits result. Now is the time to guard against loss from that source.

The above summarizes briefly the main points to observe in selecting grain sorghum seed. The illustrations on this page show better than words can describe the type of head to select. The dissected head is a typical high-yielding type. It was grown in 1913, one of the dryest and hottest seasons Kansas has ever experienced. The ten-head sample from which this head was selected showed the effect of dry weather, the seed being small and many glumes not filled. This is the prevailing type of head found in every high-yielding field.

Type of High-Yielding Head

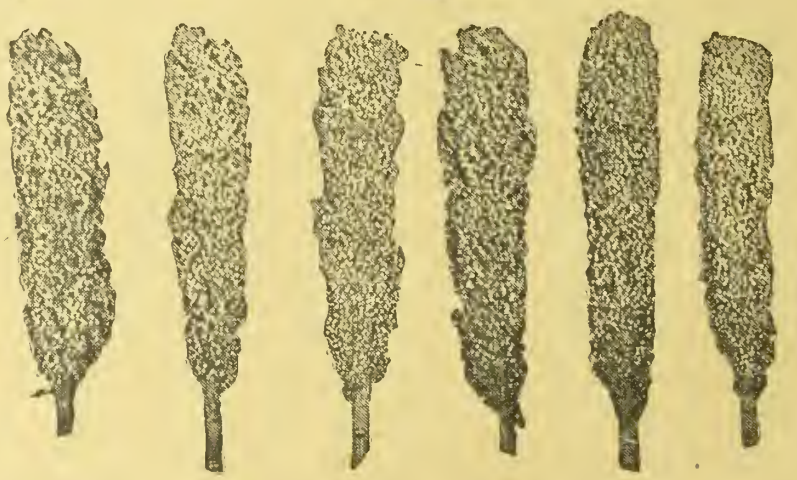
The six heads shown together were grown in 1912. They are all of the type of the dissected head which shows the internal structure. The caption under the cut of these six heads tells the story. Such yields would have been impossible if the heads produced had been of the type illustrated by the left-hand head in the large cut showing the two heads together. It is well to make a study of the structure of typical high-yielding heads, so as to know the kind of heads to select when saving seed. In the dissected head, note the long and continuous main stem and the number of joints,



HEAD TO RIGHT OF TRUE HIGH-YIELDING TYPE, TYPICAL OF FIELD YIELDING EIGHTY BUSHELS TO ACRE IN 1912. — LOW-YIELDING HEAD TO LEFT, TYPICAL OF FIELD YIELDING TWENTY BUSHELS TO ACRE IN 1912

each surrounded with numerous seed-bearing stems. Each of these stems is packed with seed from end to end. The extreme length of this particular head from the well-rounded top to the first joint at the bottom was sixteen and a half inches. It weighed eight ounces when thoroughly dry and after considerable seed had been shattered as a result of much handling. The main stem had nine joints from which fifty-two seed-bearing stems grew. The head to the right in the large cut showing the two together is a head of this type. Such a head in its whole structure is designed to carry a maximum amount of seed. Careful selection of this type, noting early maturity and studying the general type of the plant, will result in developing high-yielding strains of kafir or other grain sorghums.

In "Sorghums: Sure Money Crops," a most valuable book written by T. A. Borman, president of the Kansas Farmer Company, it is stated that when selecting seed heads of kafir as much attention should be given to the type of stalk as to the type of head. The stalks of well-bred kafir might be called heavy set, bearing no suckers or side shoots and of even height producing heads uniform in shape and size. The joints should be short with a pair of large leaves growing beneath. This type of stalk will make most fodder or silage. It is the vigorous, hardy type which resists the winds and dry weather and which gives the grower the most certain and greatest returns. If possible typical seed heads should be selected from stalks having these characteristics of good breeding. There are hundreds of fields in Kansas and Oklahoma in which not a single stalk of this type can be found and from which fields not one desirable seed head could be obtained. It would be a waste of time and energy to look for seed in such fields. Better results would be obtained by purchasing seed from a seed patch at least from some farmer who has systematically studied kafir and grain sorghum improvement and developed high-yielding strains.



THREE heads on left typical of field of B. V. Jackson, Greer County, Oklahoma, 1912. Yield, sixty-two bushels per acre; corn on same ground yielded twenty-five bushels. Seed has been selected seven years for heavy-yielding type. Land plowed ten inches deep in November. Field averaged three stalks per foot and was cultivated four times. Heads on right grown by Lee Neeley, Johnson County, Oklahoma, 1912. Yield, 122 bushels per acre. Land and crop measured by agent of Federal Department of Agriculture. These are typical high-yielding heads.

Selecting Seed Heads in Field

On nearly every page of the book referred to, reference is made to the desirability of early maturity in grain sorghums. If the earliest-maturing heads and those borne on the true type of stalk are to be obtained for seed, they must be selected in the field before any of the heads have fully matured. By the time the earliest heads can safely be gathered for seed, they will be indistinguishable from other heads maturing a week or ten days later. It is advisable to mark four or five times as many heads as may be needed for seed the following season. This, because in the field proper attention cannot be given to head characteristics and in the final selection many of those heads may be rejected. The marking is most conveniently done by tying a bit of bright-colored rag around the stalks just below the heads. This method of marking will attract attention to the heads when they are ready for gathering.

Do not select heads from stalks growing in the outside rows or to themselves in the turning row. Such stalks have had more than their proportion of moisture and so have not grown under the more trying conditions of plants at regular intervals in the row. But if four or five stalks should be found growing closer together than usual and of these one or two have produced heads of proper type, these heads will be desirable seed. Such stalks show unusual vitality and ability to produce grain under unfavorable conditions. Do not select the largest heads of the field. These usually grow on the over-sized stalks. The large stalks use more water than the smaller stalks and economy in the use of the soil's moisture should be kept in mind. A good rule is to select the largest heads from the smallest or medium-sized stalks. Select only those heads which have exserted themselves from the boot.

After the marked heads have fully matured they should be gathered. It is not a big job to ride a muzzled horse through the field, cut the heads off with a knife and place them in a sack fastened to the saddle. If the crop is to be harvested by hand soon after maturity and before the heads are exposed to wet or freezing weather, the selected heads may be gathered at the same time and placed in a box attached to the wagon. If it is worth while to plant good seed it is well worth the time necessary to properly gather it, and it is dangerous to delay until the crop is harvested.

Final Selection of Seed Heads

The work of making the last critical examination to decide upon the best seed heads should be done under convenient circumstances and at a time when it need not be hurried. It is now that the kafir grower will begin to learn things he has not dreamed. He will study shape, structure and weight of head, and will observe the result of variation from the true type. He should have the score card before him and by his side the kitchen scales which will weigh accurately by ounces. An intelligent use of the scales will reveal surprises in weight of heads of different conformation.

For making this selection, a table of convenient size should be provided. Two boards, each a foot wide and twelve to sixteen feet long, placed across two barrels or boxes, answer the purpose well. Place 100 heads on the nearest board and begin the final selection. Throw aside such heads as do not meet the standard in mind. Lay on the farther side of the table those that meet or come near meeting the standard; go over the first selection a second time, being more exacting in the requirements, and finally determining upon the heads the seed of which will be used for the following season's planting.

Hold the selected seed in the heads until ready to plant. There is danger held even in small quantities. At plant-

(Continued on Page Seven)

PROOF OF THE PURE-BRED SIRE

THERE is no more convincing argument than to see with your own eyes the results of following a given policy, whether it be in the breeding of live stock or in the conduct of a manufacturing business. The pure-bred sire will have such a chance to demonstrate his value in beef production at the field day demonstration to be held October 10 on the Sni-A-Bar Farm near Kansas City. A most cordial invitation to attend this demonstration is extended to farmers, beef growers, and in fact all who are interested in live-stock improvement. The late Colonel Nelson conceived the idea of conducting this demonstration for the purpose of providing a forcible and practicable illustration of the value of pure-bred sires of correct type on ordinary cows. It has been under way for several years and the first, second, third and fourth generations of the get of the pure-bred sires are in the herd and will be grouped and arranged for comparative study on the day of this demonstration.

The cows used in beginning this demonstration were bought on the Kansas City market, preference being given for red cows. Registered Shorthorn bulls were selected for use on these cows and one of Colonel Nelson's requirements was that these should be white bulls. This was decided upon at a time when red was the popular color and even roans were not then regarded with anything like the favor they deserved. As a result of the use of these white bulls the calves at Sni-A-Bar came largely roans.

More recently a registered herd has been established at Sni-A-Bar and many choicely bred animals are included therein, but it is the grading up from the common foundation by these several crosses of white registered Shorthorn bulls that affords the most interesting study. It is this demonstration that the public is especially invited to observe and the day promises to be one of unusual interest to those who are concerned in improving the beef making standards.

The station at the farm is Grain Valley on the Chicago & Alton and special arrangements have been made for transporting those who come to Kansas City to the farm. Telephone the Kansas City Star upon arrival in the city. Don't fail to take advantage of this opportunity to make a comparative study in types and of progress with each succeeding pure-bred cross.

Jacks and Mules

A good showing of jacks and mules is always made at the State Fair held in Hutchinson. This year was no exception. The show was very acceptably judged by Dr. C. W. McCampbell, head of the animal husbandry department of the Kansas Agricultural College.

The awards follow:

Exhibitors—H. T. Hineman & Son, Dighton, Kan.; Cantwell Bros., Sterling, Kan.; A. S. Wright, Oxford, Kan.; W. B. Shore, Simpson, Kan.

Aged Jacks—1, Hineman on Billy B; 2, Cantwell Bros. on Clover Leaf King; 3, Wright on Limestone Big Boy.

Three-year-olds—1, Hineman on Mammoth Monarch; 2, Shore on Big Buster.

Two-year-olds—1, Hineman on Big Ike; 2, Cantwell on Billy Sunday.

Yearlings—1, Hineman on Electioneer.

Foal—1 and 2, Hineman on High Tide and Prairie Boy; 3, Cantwell.

Aged Jennets—1, 2 and 3, Hineman on Fanny Long, Susie McCord and Pay Girl; 4, Cantwell on Squaw Chief.

Three-year-olds — 1, Hineman on Prairie Queen.

Two-year-olds—1, Cantwell.

Yearlings—1, Hineman. Foal, 1, Same.

Grand Champion Jack — Hineman on Billy B.

Grand Champion Jennet — Hineman on Fanny Long.

Herd—1, Hineman; 2, Cantwell.

MULES.

Exhibitors — Pete Ricksecker, Partridge, Kan.; Cantwell Bros., Sterling, Kan.; H. T. Hineman & Sons, Dighton, Kan.

Three-year-olds—1, 2 and 3, Hineman on mules by Kansas Chief.

Two-year-olds—1, Hineman on mule by Kansas Chief; 2 and 3, Ricksecker; 4, Cantwell.

Yearling—1, Cantwell.

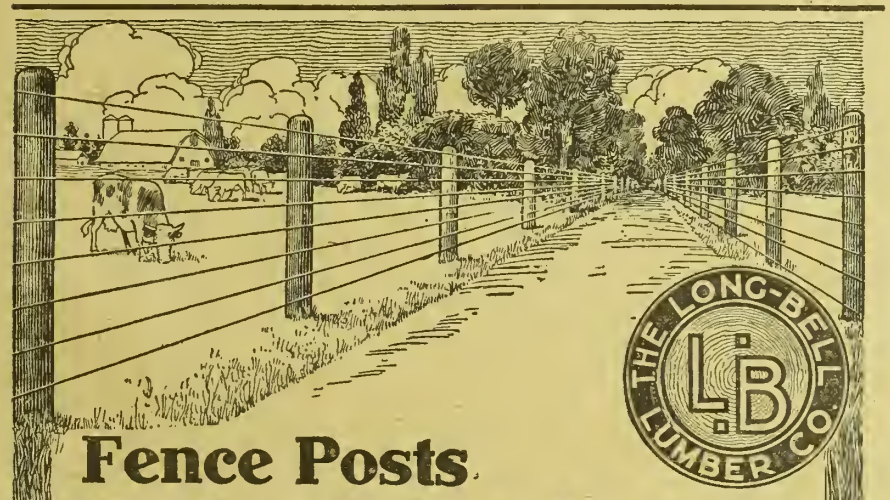
Foals—1, Cantwell.

Champion Mule—Hineman on Maude.

Yanks Want Home Papers

"More home newspapers" is the constant appeal of the American soldiers in camps and hospitals in Great Britain and in France, according to a report by the Red Cross.

It was a wise farmer who said: "It's a lot cheaper to keep up fertility than it is to bring up fertility."



Fence Posts That Last 50 Years!

The L-B Trade-Mark —branded on all The Long-Bell Creosoted YellowPineProducts. Your guarantee of quality.

IT is estimated that it costs $75 per year per farm to replace broken and decayed fence posts. This expense can now be saved by using L-B Creosoted Yellow Pine Posts—posts of selected yellow pine treated with high grade creosote under hydraulic pressure. These posts are decay-proof and fire-proof. They will last for 50 years, and are the most practical and cheapest for permanent construction.

Long-Bell
Creosoted Yellow Pine Products

A good fence is one of the most important farm investments—make it give longer service by using posts that will not rot or decay. Don't replace another decayed or broken fence post with one that will undergo the same process of wastage in a few years. Don't reduce the life of your fencing by using posts that permit staples to fall out and the fencing to collapse.

FREE BOOK
Every farm owner should have a copy of our free book—THE POST EVERLASTING. Filled with interesting facts and figures pertaining to permanent farm construction. Sent postpaid on request.

The Long-Bell method of treating posts, barn poles, watering troughs, feed troughs, hay racks, etc., kills the germ of decay. Other methods are merely makeshifts.

Your lumber dealer can supply you with L-B Creosoted Yellow Pine Products.

The Long-Bell Lumber Co.
R. A. Long Bldg., Kansas City, Mo.



Unarmed Arms of the Service

Men from the battle front who have been holding the line for months and years complain of the monotony of war. The soldier's life in the trenches soon ceases to be a novelty and becomes a tedious routine.

The morale of the army is of supreme importance and the greatest military authorities of the world are enthusiastic in their praise of the organizations which make it their business to keep the soldier in good spirits.

This work, like that of the Signal Corps, has been more highly developed in this war than ever before. Huts for amusement, comfort and recuperation of the fighting men are in the trenches as well as behind the lines. The unarmed workers go about their duties under shell fire as coolly and as self-forgetfully as the telephone men of the Signal Corps who are frequently their neighbors, and who keep intact, often under a hail of bullets, the indispensable lines of communication.

It is for us who remain at home to support these unarmed heroes to the utmost, with our gifts, our labor, and our unbreakable morale.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy *One System* *Universal Service*

TEN DOZEN EGGS A YEAR

TEN dozen eggs a year is a hen's duty to the country in war time, according to J. G. Halpin, of the Wisconsin Agricultural Experiment Station. "A hen that is housed and fed, as poultry must be in town, should have a yearly output of 120 eggs," says Mr. Halpin. "That output won't enable her owner to make any money on her, but she won't owe the country anything. The farm hen that picks up her feed from sources that would otherwise not be utilized and which is housed less carefully, can be slacker enough to lay only eighty eggs and still not be a liability to her owner.

"Not 50 per cent of the town hens reach the record they should have. It isn't always the fault of the hen, for it may be due to poor housing, lack of green feed, or too little animal feed.

"It is especially necessary this winter, in view of the high prices of grain, that the owner of the flock determine whether his hens are paying their way. Unless he is sure that his flock has averaged better than ten dozen eggs last year, he should cull out the poor ones now to save winter feeding.

"Choose the hens that are first off the roost in the morning and the last on the roost at night; that are good feeders with full crops at night; that are active and looking for feed and always busy; that have bright eyes, full-sized, rather slippery red combs, and smooth, pliable, oily skins; that have large abdomens, wide pelvic arches, and good depth from keel to pelvis."

The Federal Food Administration is urging us to keep our turkeys to maturity this year in order to add to the nation's meat supply. Dealers have been notified that the Food Administration is opposed to the killing of immature birds to supply broilers for hotels, clubs and restaurants and is urging that such eating places discontinue the serving of broiler turkeys. Turkeys, unlike chickens, do not become plump and well meated until nearly full grown.

All hens of the general purpose breeds which have finished their second laying year and those of the so-called egg breeds which have finished their third laying year should be disposed of at this time through marketing or eating at home. It is not generally considered profitable to continue to feed such hens if pullets can be produced to replace them.

The United States Department of Agriculture says there should be 100 hens on each farm in the United States. Each hen should produce at least 100 eggs. With approximately 6,000,000 farms, that would mean 600,000,000 hens and 60,000,000,000 eggs per year. That number of eggs constitutes a military resource not to be ignored. These figures are averages and the poultry grower should use his best judgment as to how many he can profitably keep. We have seen farms where seventy-five good hens given proper care would have laid more eggs than the 200 that were kept.

CHICKENS SICK? Roup, Colds, Canker, Bowel Complaint, Limberneck, Sorehead, etc., the best remedy is always GERMOZONE. At most dealers or 75c postpaid with 5-book poultry library free.
GEO. H. LEE CO., Dept. 415, Omaha, Neb.

SAVE THOSE DOLLARS SPECIAL 30 DAY OFFER CLOSES BE MORE EFFICIENT

ON DATE SHOWN BELOW

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WAR ITEMS

Cowardice of a Bully

CAPT. R. MUIR ALLAN of the Army Service Corps of the British Army, who spoke at Topeka during the Free Fair, said that he had understood from reading history that slavery had been abolished in America, but when he gets the schedule for the meetings at which he is to speak he sometimes feels that slavery is not altogether a thing of the past. "But that is one thing we don't mind," he added with a smile, "being a bit of a slave for the cause we are engaged in today."

Captain Allan says that one difference between the boches and the Allies is that the Allies can see a Red Cross flag. When the boche makes a raid he never fails to destroy a hospital, but the Allies can tell the difference between a hospital and an ammunition dump, and they always find the ammunition factories and the storehouses.

"As long as Germany can do something that any coward can do, such as blowing up little Belgium, she is very courageous," asserted Captain Allan, "but whenever the Germans come up against anything equal to themselves then they give up; they cave in. In Heaven's name, why has Germany not won the war before this? She has had the men; she has had the guns, but she has had only the Dutchman's courage!

"Germany says that we British love a fight. She says England forced her into the war. Well, Germany can tell her people truthfully today that she is fighting a war of defense. She started a war of offense in 1914, but she has been compelled to start a war of defense in 1918. Will she tell them the truth? We know she won't! She calls it a 'strategic retreat.' We enlist to fight for the duration of the war; the Germans volunteer to be chloroformed for the duration of the war. If they should happen to wake up before the war is over, won't there be a time?"

Does Heart Good

"It would do your heart or the heart of any other red-blooded American good to see what the good old U. S. A. is doing. One can form no opinion of it without seeing for themselves and then one could hardly believe it," writes Lieut. D. Ray Campbell, of Leavenworth, in a letter written just after his arrival in France and quoted in the Leavenworth Times.

The Best Medicine

Dictating a message of congratulation on the St. Mihiel victory to General Pershing while ill in bed, Premier Lloyd George said that the news of the American success had done him more good than any of the medicines he had taken. General Pershing replied that the American army would endeavor to continue supplying the premier with "occasional doses of the same sort of medicine."

Old Friends

"I saw a few wind-flowers the other day, and a vast meadow full of kingcups, and that was enough to make me happy for weeks." This extract from a letter written from the front reminds of a verse from a poem recently published by Punch:

And you who go in English fields,
O think not that our days
Are wholly dark or wholly ill,
For there are flowers in Flanders still,
And still a God to praise.

Submarine Must Have Air

An inquirer asks how long a submarine can remain submerged. This depends upon the amount of air space in the submarine and the number of people on board. If air-purifying apparatus is installed, it is possible for a submarine to remain under the water without coming to the surface for air about seventy-two hours.

Not Lost, but Given

Arthur Malwyn Evans, a cousin of Lloyd George, who has come to this country to take part in the fourth Liberty Loan campaign, said in discussing the loan:

"Every American must say with the wounded soldier who replied to his nurse when she told him he had lost his arm: 'I did not lose it; I gave it.' You, too, must give, if not your lives, your comforts, and sacrifice all non-essentials until this war is brought to a victorious conclusion."

Select Kafir Seed in Field

(Continued from Page Four)

of damage to the seed if threshed and ing time the weather is warm and conditions are extremely favorable to heating. This instance well illustrates the point:

A farmer in Southern Kansas bought choice kafir seed and tested it just before planting. It germinated well. He planted part of a large field, when further planting was delayed on account of rain. He stored the unplanted seed in bags in his residence. In about a week the remainder of the field was planted. The seed planted before the rain gave a full stand, while that planted after the rain did not give one-fourth of a stand. Although kept in a dry room, it absorbed enough moisture to make it heat sufficiently to destroy its germinating powers.

Care of Seed Heads

The heads selected for seed should be stored in a dry, ventilated place. Each individual head should be suspended with the tip hanging downward, and the



INTERNAL STRUCTURE OF HIGH-YIELDING KAFIR HEAD—SHOWS LARGE SEED-BEARING CAPACITY

heads should not be permitted to touch each other. Thorough drying is to be accomplished and holding and heating prevented. If the heads are tied in bunches of four or five or placed in sacks, there is danger of damage to the seed of that part of the head through which the air cannot circulate. If four or five times as many heads as are necessary for seed have been gathered, the job of properly storing is much greater than if the selection is made immediately after gathering. Immediate final selection is to be recommended and it is the part of wisdom to save enough heads to replant or for use another year in case the seed planted is lost.

It requires no more time to do a job in season than out of season, and when the importance of good seed is considered it is apparent that time from other work can better be sacrificed than that necessary to properly select and store the seed upon which the next year's crop is dependent.

Loans to Live Stock Producers

The cattle loan plans of the War Finance Corporation have now been fully outlined and authorized information for borrowers has been given out.

The Corporation considers that the business of raising live stock is contributory to the prosecution of the war and, in proper cases, is willing to give financial assistance where needed, preferably by lending to banks, trust companies, and other financial institutions which make loans on live stock. All banks have been advised by the Federal Reserve Bank of their respective districts how this assistance may be obtained.

As the banks, trust companies and cattle loan companies throughout the country have ample funds to loan for short periods of time on "feeder" cattle, the assistance of the War Finance Corporation is not needed to carry this class of cattle, and it will consider only loans on stock cattle, meaning cows, bulls, calves, and cattle under two years old of either sex. It will also make loans on corresponding classes of sheep and goats.

Its object in making advances on stock cattle is to preserve breeding herds, so that an adequate supply of meat may be assured for the future. As the breeding herds in greatest danger are those in the drouth-stricken district in the Southwest, it was thought that prompt and adequate relief may be given by encouraging cattlemen in localities where conditions are good, to buy stock cattle in the drouth-stricken area and move them to other localities where they have adequate range, water, and feed, and proper facilities for taking care of them.

To aid in accomplishing this result, and to supplement the facilities of banks and cattle loan companies, the War Finance Corporation has created cattle loan agencies in Kansas City, Missouri, and Dallas, Texas, through which it will make loans, in proper cases, preferably to banks and bankers under Section 7, and in exceptional cases to cattle loan companies under Section 9 and direct to the owners of stock cattle.

If a stock raiser has been unable to procure a loan from his bank or cattle loan company, and can give ample security for the amount needed, he should apply to the Cattle Loan Agency of the War Finance Corporation, either at Kansas City, Missouri, or Dallas, Texas.

Applicants residing in, or whose principal place of business is in the Atlanta, Dallas, or Richmond Federal Reserve Districts should make application to the Cattle Loan Agency of the War Finance Corporation at Dallas, Texas. Those residing in, or whose principal place of business is in Kansas City, St. Louis, San Francisco and Minneapolis Federal Reserve Districts should make application to the Cattle Loan Agency of the War Finance Corporation at Kansas City, Missouri.

The security offered for all cattle loans must be worth at least 25 per cent more than the amount borrowed, and the borrower must agree to give additional security at any time upon demand of the War Finance Corporation.

Garden Club Work

In the exhibit by the boys' and girls' state garden clubs at the Free Fair about seventy-five individual entries were made, including forty varieties of vegetables. The Mankato club won the $15 prize for the best exhibit made by a garden club group. Every one of the eighteen members of this club sent in samples of their vegetables, and the quality of the exhibit as a whole was good. The second prize of $10 went to the Nortonville club, and the three $5 prizes to the clubs at McLouth, Jewell City, and Ottawa. Oskaloosa was given sixth place.

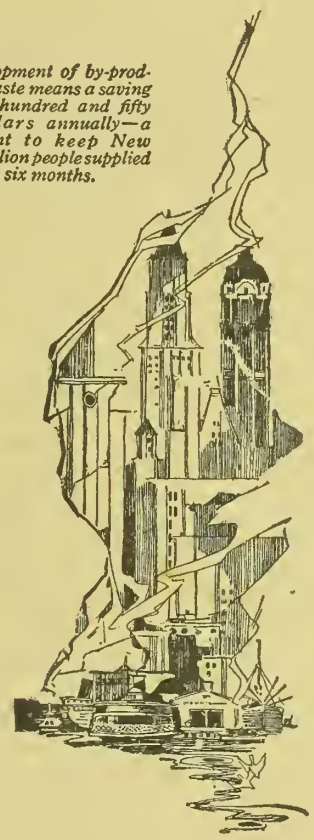
Thirty-two ten-ear samples of corn were shown, four clubs being represented in this display. The corn club honors and special prizes of $25 offered to the corn club group making the best showing were awarded to the Dover club. In making this award, 50 per cent was allowed on the quality of the exhibits and 50 per cent on the percentage of the club's membership represented. The Newman corn club had the best percentage of its membership exhibiting, each member sending in a sample.

Few machines have a higher speed in reverse than they have in forward as has the kaiser's fighting machine.

How the packer is saving millions out of waste

—and how this results in higher cattle prices for the stockman

The development of by-products out of waste means a saving of about one hundred and fifty million dollars annually—a sum sufficient to keep New York's six million people supplied with meat for six months.



THERE was a time when the steer was handled solely for its edible meat, its hide, and its tallow.

The remainder of the animal, in weight totaling many millions of pounds annually, was thrown away—a sheer waste.

Today virtually all of this former waste is utilized. Over 250 articles are now contributed by the steer to human needs, and a larger proportion of the animal is saved for human food.

At the time of writing $135 is, on the average, the price paid for the average beef animal to the stockman by Swift & Company.

But if the old order of waste still prevailed and only the hide and tallow were saved, Swift & Company would be obliged either to pay not more than $125 to the stockman, or to charge the public higher meat prices.

Thus, you see, by-product utilization results in a saving of about $10 per animal—a saving which, when multiplied by the total number of cattle dressed annually by Swift & Company, over two million, amounts to more than twenty million dollars annually. This saving goes to the stockman in higher cattle prices and to the consumer in lower meat prices.

If applied to the entire number of cattle dressed annually in America, approximately fifteen million, this saving would amount to about one hundred and fifty million dollars annually.

The real development of by-products came with the development of the larger packing organizations.

Success was attained not easily, but by patient effort, by exhaustive experiment, by intense specialization. It has been a big job and has called for big methods—a job far beyond the resources of the old, unorganized system of local meat dressing.

Not only are the by-products saved but their value has been increased through better handling of hides, fats, and other edible portions of the steer.

Swift & Company is glad to have had a part in this development. It is an achievement of thrift—an achievement that has made possible today lower meat prices to the consumer and higher prices to the producer of cattle than would have been possible under the old methods.

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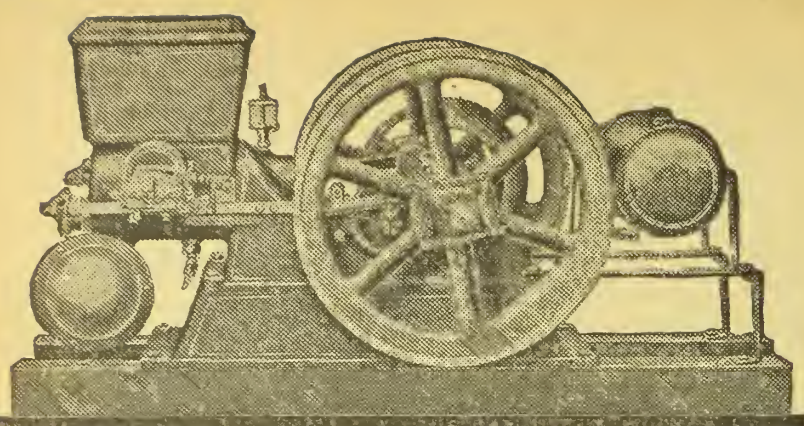

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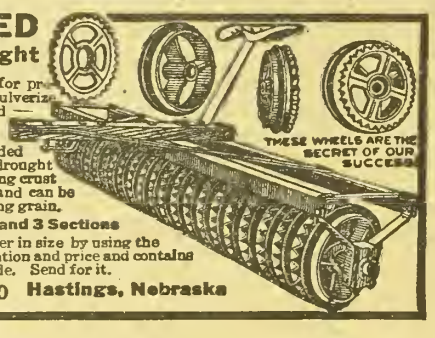

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and management of Kansas Farmer, published weekly, at Topeka, Kan. For October 1, 1918. Required by the Act of August 24, 1912.

State of Kansas } ss.
County of Shawnee }

Before me, a notary public in and for the state and county aforesaid, personally appeared W. J. Cody, who, having been duly sworn according to law, deposes and says that he is the manager of Kansas Farmer and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management of the aforesaid publication for the date shown in the above caption.

President and Editor—T. A. Borman, Topeka, Kan.

Business Manager—W. J. Cody, Topeka, Kan.

Publisher—The Kansas Farmer Company, Topeka, Kan. (A corporation.)

Names and addresses of stockholders holding 1 per cent or more of total amount of stock:

T. A. Borman, Topeka, Kan.
M. A. Low, Topeka, Kan.
S. H. Pitcher, Topeka, Kan.
John R. Mulvane, Topeka, Kan.
E. W. Rankin, Topeka, Kan.
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Deon R. Low, Bartlesville, Okla.
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Known bondholders, mortgagees, and other security holders, holding 1 per cent or more of total amount of bonds, mortgages, or other securities:

None.

(Signed) W. J. CODY,
Business Manager.

Sworn to and subscribed before me, this 24th day of September, 1918.

S. H. PITCHER,
(Seal.) Notary Public.

My commission expires March 17, 1919.

Limit Number of Breeds

We lose many of the advantages of co-operative effort because of our inborn spirit of independence. For example, a man decides on a certain breed of cattle, not because it is the prevailing breed in his community but because he wants to have something different. There are a good many advantages in having a community given over largely to a single breed. The surplus stock in such a community can be disposed of much more easily and at better prices. There are enough animals of one breed to attract buyers from a distance and this is particularly true of buyers out for large consignments. Co-operative advertising may be carried and thus reach a larger buying field at little expense to the individual breeder.

There are also advantages in making purchases in communities devoted largely to some one breed. Bulls may be bought and owned co-operatively, thus making it possible to have the best of males at no greater expense than inferior animals. Exchanges can often be made to good advantage in neighborhoods devoted to one breed. The buyer will be familiar with the history of his neighbors' herds and can often find a suitable animal for breeding purposes at little expense in travel. The principle is just as applicable in the handling of grade herds as pure-bred.

KANSAS FARMER DAIRY CLUB

Likes Prize Silo

THE hinge door silo offered by the silo department of the Beatrice Creamery Company of Topeka as one of the prizes in the first Kansas Farmer Dairy Club, was won by Rudolph Enns, of Newton, Kansas. The awards were made last fall, but it was so late that Rudolf asked Mr. Pugh, of the silo department of the creamery, to hold the silo for him until he could find a place to put it. He had some idea at that time that it might be used by filling it with dry corn fodder, but finally decided to wait until the silo-filling season of 1918. Rudolf wrote a few weeks ago to tell about getting the silo and the dispositions he had made of it. He says:

"There were a number of prizes and, as I was given my choice, I decided that the silo would be most valuable to me, for good silage is worth as much as $8 a ton around Newton.

"I received the silo on a Monday morning and hauled it home the same day. Father and I talked to a neighbor, Mr. Krider, about it, who happened to have some corn that was drying up. After considering the problem a few days he decided to buy it if we would take $25 off the regular selling price. We agreed to this and he bought it for $325. The prize was a 10 x 28 hinge-door silo offered by the Beatrice Creamery Company, of Topeka, and valued at $285, but as no one seemed to want one that small, my father added $65 and we received a 12 x 28 silo, the market price of which was $350.

"We delivered the silo to Mr. Krider the same day he purchased it and he had it erected in a week. I think this prize silo is better than either of our two stave silos, but as we have three silos it was of no use to us. Mr. Krider filled the silo and likes it very much.

"Out of the $260 coming to me I paid $7 freight and $1 for telephoning to Topeka. This left me $252. I decided to divide up a little with my sister and my two brothers. I gave my oldest brother, Bernhard, $50, and my sister and younger brother $25 each. The balance, $152, with my savings of $50, I loaned to my father at 6 per cent interest until the next Liberty Loan drive, when I expect to invest it in bonds and some more war savings stamps."

We are glad to learn that this silo which Rudolph won is playing its part in conserving feed and that the money received for it is going into Liberty bonds to help Uncle Sam win the war.

Government Takes Butter

Sixty per cent of the storage butter of the country has been reserved for Government use. This cuts down enormously our butter reserves. Dairymen can confidently expect high prices for cream for some time to come. There has been practically no increase in butter production, while the demand has tremendously increased. The army and navy are the two great sources of this extra demand. The price of butter has rapidly advanced owing to the demand being so much in excess of the supply. Creameries are paying better than 60 cents a pound for butter fat.

Feed prices may seem high, but with such prices for butter fat we cannot afford to overlook the possibility of profit from cream production. The cows can turn even high-priced feed into butter fat at a profit. Fortunate is the cow owner having an abundant supply of silage, alfalfa, and other rough feed for the cows the coming season. There is every incentive in the continued upward trend of prices for converting farm-grown feeds into butter fat. The dairy industry is not sufficiently developed to meet present demands. There seems to be no prospect in the near future of any sudden break in prices.

Real Butter Shortage

The report of the Bureau of Markets for September 1 shows a shortage of butter as compared with last year of 7,272,904 pounds. This does not begin to tell the whole tale, however. The commandeering of 60 per cent of all storage butter by the Government, with the butter contracted for by the navy prior to this commandeering, has been estimated to represent sixty million pounds. The entire storage butter available for home use, on the basis of the September 1 report, is thus only about forty million pounds as compared to the hundred and seven million pounds of the same date one year ago. There is no getting around the fact that there is a real shortage, and the prices being paid are a result of this shortage. The fresh butter being made from day to day does not begin to supply the demand. If it had not been for the reserve of storage butter, the prices now would be even higher.

Dairy Club Records Close

The second year of the Dairy Club work closed September 30 with the night milking. Of course quite a number of the members started their records before the first of October and these have already closed their year's work. The ones who did not begin their records until October 1 or later must now close the year with the September 30 record. As soon as the tests for September have been received, these members can close their records for the year.

Not all the members who enrolled have completed the year's work. As in everything else, there are those who get tired or lose interest and drop out before completing the task to which they have set their hands. There are also a few members who have been compelled to drop out because of things happening over which they had no control.

The last thing to do it to write an account of the year's work. This is a part of the work which is up to the Dairy Club member. Whether you were fortunate enough to get a good cow or not, you cannot charge the cow with responsibility for a low grade on the story which you write telling all about what you have done and what the work of the Dairy Club has meant to you. We hope every member who completed the year's work will make a real effort to get a perfect score on this story which is to be submitted. If you wish further suggestions than have been sent by letter, write and ask about any specific point which may be puzzling you.

Holstein History

Holstein-Friesian cattle have been bred for hundreds of years in the lowland countries of Europe bordering on the North Sea, especially in the north part of Holland. The land is very fertile and pastures are luxuriant. A number of different names have been used to designate these cattle, both in Europe and America, among which are the following: North Hollander, Holland, Netherland, Dutch, Dutch Friesian, Holstein, and Holstein-Friesian, the last being the name usually used in this country and the official name of the breed.

The Dutch settlers of New York were probably the first to bring cattle of this breed to America, although the first importations of which we have actual records are those made between 1857 and 1862 by W. W. Chenery, of Massachusetts. Many of our present-day Holsteins are descended from these importations. For a number of years the business of importing Holstein cattle flourished, but in recent years very few animals have been imported, owing largely to quarantine regulations which have been in effect a large part of the time against the continental countries of Europe.

Meeting of Woman Farmers

The Shawnee County Woman's Farm and Garden Association will hold its next regular meeting October 11 in the Chamber of Commerce rooms at Topeka, with Mrs. T. A. Modlin as chairman. Some important business will come up at this time relative to the national meeting to be held at Des Moines, Iowa, November 5 to 8.

Agricola—Say, missy, whar be ye going with them two buckets?

Farmerette—I am going to milk the cow, sir. One bucket is for the milk and the other for the cream.

Cows should be fed all the good roughage such as hay and silage that they will eat, and grain should be fed in proportion to the amount of milk produced. The average cow should receive daily one pound of grain for each three and a half pounds of milk produced.

HOGS AT STATE FAIR

THE Kansas State Fair at Hutchinson brought out a well balanced exhibit of hogs of the leading breeds. There have been larger numbers shown, but in quality and uniformity of fitting it was as good a hog show as has ever been made at Hutchinson. It required a lot of nerve to fit a herd of show hogs this year with feeds at prevailing prices.

The awards follow:

POLAND CHINAS.

Exhibitors—R. L. Barnes, Grenola, Kan.; F. B. Caldwell, Howard, Kan.; Deming Ranch, Oswego, Kan.; A. J. Erhart, Ness City, Kan.; H. H. Meyer & Sons, Fontanelle, Neb.; Moore Farm, Gardner, Kan.; A. F. Olivier & Sons, Danville, Kan.; George M. Parkert, Cooper, Neb.; Ross & Vincent, Sterling, Kan.

Judge—Phil Dawson, Endicott, Neb.

Aged Boars (four shown)—1, Meyer on Bobbie; 2, Erhart on Big Sensation; 3, Ross & Vincent on Model Wonder; 4, Moore on Buster Giant.

Senior Yearling (one shown)—Erhart on Long Bob.

Junior Yearlings (five shown)—1, Meyer on Cornhusker Bob; 2 and 3, Deming on Liberty Jumbo and Liberty Bob; 4, Olivier on King Wonder.

Senior Boar Pigs (eight shown)—1, Caldwell; 2, Moore; 3, Olivier; 4, Deming.

Junior Boar Pigs (fifteen shown) — 1, Barnes on Orphan's Bob; 2 and 3, Caldwell; 4, Deming.

Aged Sows (seven shown)—1, 2 and 3, Moore on Miss Chief A, Buster's Best and Miss Orange 3d; 4, Deming on Durbin Lady.

Senior Yearlings (four shown)—1, Meyer on Cornhusker Princess; 2, Moore; 3, Olivier; 4, Erhart.

Junior Yearling Sows (thirteen shown)—1, Meyer on Ring It Again; 2, Caldwell; 3, Olivier; 4, Deming.

Senior Pigs (ten shown)—1, Caldwell on Sensation 1st; 2, Moore; 3, Meyer; 4, Barnes.

Junior Pigs (twelve shown)—1, Barnes; 2, Olivier; 3, Moore; 4, Olivier.

Senior and Grand Champion Boar—Meyer on Bobbie.

Reserve Senior Champion—Meyer on Cornhusker Bob.

Junior Champion Boar—Caldwell on Big Mack.

Junior Reserve Champion Boar—Meyer on Orphan's Bob.

Senior and Grand Champion Sow—Moore on Miss Chief A.

Senior Reserve Champion Sow—Meyer on Ring It Again.

Junior Champion Sow—Barnes on Zelma Queen.

Junior Reserve Champion Sow — Caldwell on Sensation 1st.

Aged Herds (five shown)—1, Meyer; 2, Moore; 3, Olivier; 4, Deming.

Young Herds bred by exhibitor—1, Barnes; 2, Moore; 3, Olivier; 4, Deming.

Get of Sire (five shown)—1, Caldwell on Caldwell's Big Bob; 2, Barnes on King Bob; 3, Moore on Giant Buster; 4, Olivier on A Wonderful.

Produce of Sow (five shown)—1, Caldwell; 2, Barnes; 3, Deming; 4, Olivier.

DUROC JERSEYS.

Exhibitors — B. R. Anderson, McPherson, Kan.; F. L. Crow, Hutchinson, Kan.; J. W. Brooks & Sons, Eagleville, Mo.; A. L. Breeding, Home, Kan.; Danner & Woodell, Winfield, Kan.; Howell Bros., Herkimer, Kan.; Melvin Jung, Lyons, Kan.; Ethel Jung, Lyons, Kan.; W. W. Otey, Winfield, Kan.; G. M. Shepherd, Lyons, Kan.; W. W. Zink, Turon, Kan.; United States Disciplinary Barracks, Fort Leavenworth, Kan.; H. C. Kraus, Hillsboro, Kan.

Judge—E. Z. Russell, Washington, D. C.

Aged Boars (five shown)—1 and 4, Crow on Potentate and Overland Col. 4th; 2, Anderson on Royal Grand Wonder; 3, Lowell on Elk Col. 2d.

Senior Yearling Boars (four shown) — 1, Danner on Chief Wonder; 2, Otey on Pathfinder 2d; 3 and 4, Crow on Crow's Orion Cherry King and Burk's Conservationer.

Junior Yearlings (four shown)—1, Shepherd on Great Wonder Model; 2, Zink; 3, Crow; 4, Howell.

Senior Boar Pigs (five shown)—1, Crow on National King; 2, Zink; 3, Otey; 4, Anderson.

Junior Boar Pigs (eighteen shown)—1, 3 and 4, Shepherd.

Aged Sows (eight shown)—1, 2 and 3, Crow on Orion Rose, Crow's Orion Rose and Futurity Lady 7th; 4, Howell on Gay Dora.

Senior Yearling Sows (five shown)—1 and 3, Crow; 2, Howell; 4, Danner & Woodell.

Junior Yearling Sows (eight shown)—1, Zink; 2, Howell; 3, Crow; 4, Anderson.

Senior Sow Pigs (fourteen shown)—1, Zink on Maid's Critic; 2, Crow; 3 and 4, Shepherd.

Junior Sow Pigs (eighteen shown)—1 and 3, Zink; 2 and 4, Shepherd.

Senior and Grand Champion Boar—Crow on Potentate.

Reserve Champion Boar—Danner & Woodell on Chief Wonder.

Junior Champion Boar—Crow on National King.

Reserve Junior Champion — Shepherd on High Pathfinder.

Senior and Grand Champion Sow—Crow on Orion Rosa.

Reserve Senior Champion Sow—Crow on Crow's Orion Rose.

Junior Champion Sow — Zink on Maid's Critic.

Reserve Junior Champion Sow—Zink on Big Girl's Lady 1st.

Aged Herds (four shown)—1 and 2, Crow; 3, Howell; 4, Hanner & Woodell.

Young Herds (three shown)—1, Zink; 2, Shepherd; 3, Crow.

Get of Sire (nine shown)—1, Crow; 2, Shepherd; 3, Zink; 4, Danner & Woodell.

Produce of Sow (eight shown)—1, Crow; 2, Shepherd; 3, Zink; 4, Howell.

HAMPSHIRES.

Exhibitors—J. C. Getthens, Amber, Okla.; W. O. Matthew, Hutchinson, Kan.; F. B. Wempe, Frankfort, Kan.

Judge—E. Z. Russell, Washington, D. C.

Aged Boars—Getthens on My Lord.

Senior Yearling Boar—Wempe on Kansas Kid.

Junior Yearling Boars (three shown)—1, Getthens on Amber Tipton; 2, Wempe; 3, Matthew.

Senior Boar Pigs (two shown)—1 and 2, Wempe.

Junior Boar Pigs (three shown)—1, 2 and 3, Wempe.

Aged Sows (four shown)—1 and 3, Wempe on Jeanetta and Kate; 2, Getthens.

Senior Yearling Sows (two shown)—1 and 2, Wempe.

Junior Yearling Sows (three shown)—1 and 2. Getthens; 3, Matthews.

Senior Sow Pigs (three shown)—1, 2 and 3, Wempe.

Junior Sow Pigs (ten shown)—1 and 2, Wempe; 3, Getthens.

Senior and Grand Champion Boar—Getthens on Amber Tipton.

Reserve Senior Champion — Getthens on My Lord.

Junior and Reserve Grand Champion—Wempe on Model Again.

Senior and Grand Champion Sow—Wempe on Jeanette.

Reserve Senior Champion Sow—Wempe on Grace.

Junior and Reserve Grand Champion Sow—Wempe on Lady Again.

Aged Herds (two shown)—1, Getthens; 2, Wempe.

Young Herds (three shown) — 1 and 2, Wempe; 3, Getthens.

Get of Sire (three shown)—1 and 2, Wempe; 3, Getthens.

Produce of Sow (four shown)—1, Getthens; 2 and 3, Wempe.

CHESTER WHITES.

Exhibitors—J. H. McAnaw, Cameron, Mo.; W. W. Waltmire & Son, Peculiar, Mo.; E. E. Smiley, Perth, Kan.; Coleman & Crum, Danville, Kan.; Henry Murr, Tonganoxie, Kan.; J. H. Krause, Danville, Kan.

Judges—E. Z. Russell, Washington, D. C.; Phil Dawson, Endicott, Neb.

Aged Boars (two shown)—1, Coleman & Crum; 2, McAnaw.

Senior Yearling Boars (two shown) — 1, Coleman & Crum; 2, Waltmire.

Junior Yearling Boars (five shown) — 1, McAnaw; 2, Murr; 3 and 4, Coleman & Crum.

Senior Boar Pigs (five shown)—1, Waltmire; 2, Smiley; 3 and 4, Coleman & Crum.

Junior Boar Pigs (six shown)—1, 2 and 4, McAnaw; 3, Kraus.

Aged Sows (seven shown)—1, 3 and 4, Coleman & Crum; 2, McAnaw.

Senior Yearling Sows (four shown)—1 and 3, McAnaw; 2, Smiley; 4, Waltmire.

Junior Yearling Sows (six shown)—1, 2 and 3, McAnaw; 4, Waltmire.

Senior Sow Pigs (seven shown)—1, 2, 3 and 4, McAnaw.

Junior Sow Pigs (twelve shown)—1, 2 and 3, McAnaw; 4, Smiley.

Senior and Grand Champion—Coleman & Crum on Smiley's Kind.

Junior Champion Boar — McAnaw on Joe Wing 2d.

Senior and Grand Champion Sow — Coleman & Crum on Tip Top.

Junior Champion Sow—McAnaw.

Get of Sire (five shown)—1, 2 and 3, McAnaw on get of Joe Wing; 4, Waltmire.

Produce of Sow (three shown)—1, McAnaw; 2, Coleman & Crum; 3, Waltmire.

Aged Herd (five shown)—1, Coleman & Crum; 2 and 4, McAnaw; 3, Waltmire.

Young Herd (four shown)—1 and 2, McAnaw; 3, Smiley; 4, Waltmire.

In the Mulefoot hog classes all awards went to S. M. Knox, Humboldt, Kan., showing twenty-three head.

Sheep Show at Hutchinson

The number and quality of the sheep exhibits constituted one of the features of the live stock show at Hutchinson this year. The Agricultural College exhibit was especially good. Two breeders from Missouri had entries. The remainder were Kansas breeders. Interest in sheep is on the increase. The judging was done by W. L. Blizzard, of the Oklahoma Agricultural College.

The awards in the sheep classes were as follows:

Exhibitors — Kansas Agricultural College, Manhattan; Doyle Park Farm, Peabody, Kan.; Dr. F. B. Cornell, Nickerson, Kan.; John Coldwater, Chase, Kan.; Gilmore & Hague, Peabody, Kan.; Waltmire & Son, Peculiar, Mo.; Sherwood Bros., Shelbyville, Mo.; C. E. Wood, Topeka, Kan.

SHROPSHIRES.

Aged Rams—1, Doyle Park Farm; 2, Coldwater; 3, Cornell.

Ram, one year and under two—1 and 2, K. S. A. C.; 3, Coldwater.

Ram Lambs—1, Gilmore & Hague; 2 and 3, K. S. A. C.

Aged Ewes—1, K. S. A. C.; 2, Doyle Park Farm; 3, Coldwater.

Yearling Ewes—1, K. S. A. C.; 2, Gilmore & Hague; 3, Doyle Park Farm.

Ewe Lambs—1, Gilmore & Hague; 2, K. S. A. C.; 3, Doyle Park Farm.

Flocks—1, K. S. A. C.; 2, Doyle Park Farm; 3, Gilmore & Hague.

Pen Three Lambs—1, Gilmore & Hague; 2, K. S. A. C.; 3, Doyle Park Farm.

Champion Ram—Doyle Park Farm.

Champion Ewe—K. S. A. C.

HAMPSHIRES.

Aged Rams—1, Sherwood Bros.; 2, Waltmire.

Yearling Rams—1, 2 and 3, Sherwood Bros.

Ram Lambs—1, 2 and 3, Sherwood Bros.

Aged Ewes—1 and 3, Sherwood Bros.; 2, K. S. A. C.

Yearling Ewes—1 and 3, Sherwood Bros.; 2, Coldwater.

Ewe Lambs—1 and 2, Sherwood Bros.; 3, K. S. A. C.

Flocks—1 and 2, Sherwood Bros.; 3, K. S. A. C.

Pen Three Lambs — 1 and 2, Sherwood Bros.; 3, K. S. A. C.

Champion Ram and Champion Ewe—Sherwood Bros.

COTSWOLDS.

Aged Rams—1, Waltmire, without competition.

Yearling Rams—1 and 2, Wood.

Ram Lambs—1, 2 and 3, Wood.

Aged Ewes—1, Waltmire; 2 and 3, Wood.

Yearling Ewes — 1, Waltmire; 2 and 3, Wood.

Yearling Ewes—1 and 3, Wood; 2, Waltmire.

Ewe Lambs—1, 2 and 3, Waltmire.

Champion Ewe—Waltmire.

Champion Ram—Wood.

Flocks—1, Wood.

Pen, Three Lambs—1 and 2, Wood.

SOUTHDOWNS.

Aged Rams—1, K. S. A. C.; 2 and 3, Sherwood Bros.

Yearling Rams—1, K. S. A. C.

Ram Lambs—1 and 2, K. S. A. C.

Aged Ewes—1, Sherwood Bros.; 2 and 3, K. S. A. C.

Yearling Ewes—1 and 3, K. S. A. C.; 2, Waltmire.

Ewe Lambs—1 and 2, K. S. A. C.; 3, Waltmire.

Champion Ram—Sherwood.

Champion Ewe—K. S. A. C.

Flocks and Pen of Three Rams—K. S. A. C.

OXFORDS.

Aged Rams—1, Waltmire.

Yearling Rams—1 and 2, Waltmire.

Ram Lambs—1 and 2, Coldwater.

Aged Ewes—1 and 2, Waltmire; 3, Coldwater.

Yearling Ewes—1, Coldwater; 2 and 3, Waltmire.

Ewe Lambs—1 and 2, Coldwater; 3, Waltmire.

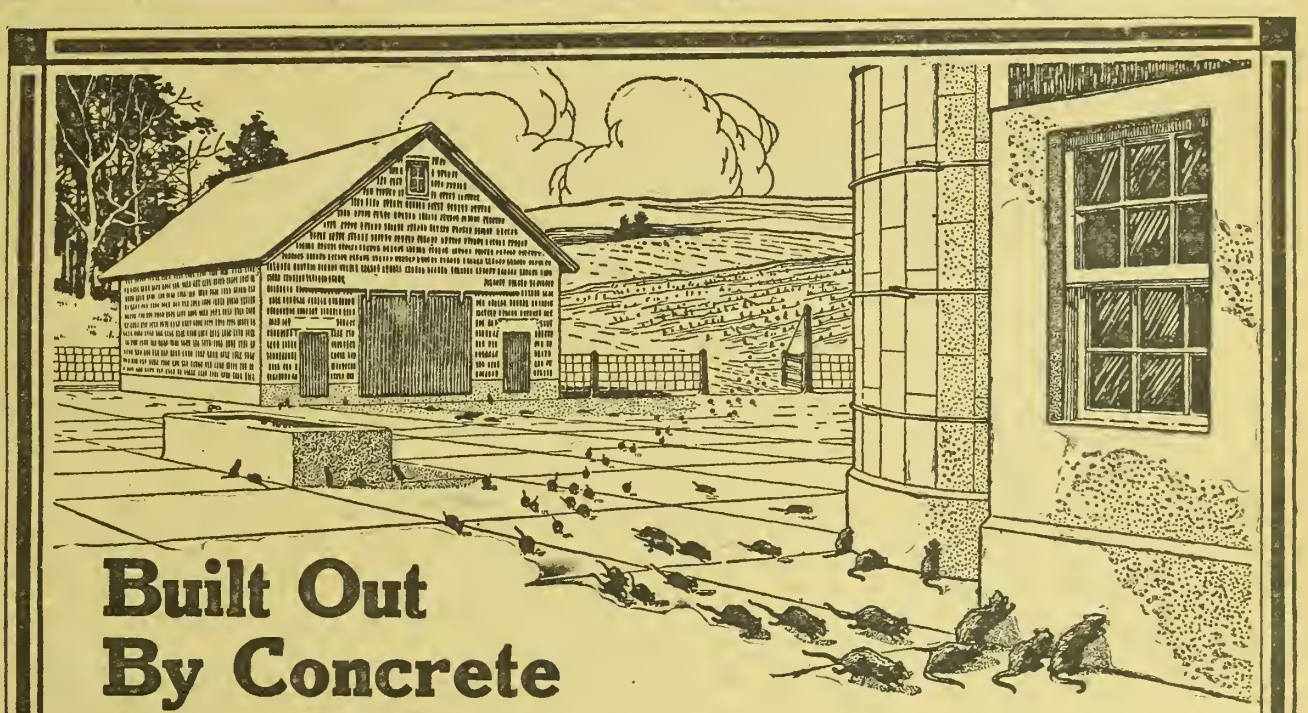
Flocks—1, Waltmire; 2, Coldwater.

Pen, Three Lambs—1, Coldwater; 2, Waltmire.

Champion Ram and Champion Ewe—Waltmire.

A country worth fighting for is a country worth saving. Buy War Savings Stamps.

Many people say, "Life is poor picking." No wonder; they never planted anything.—Christian Herald.



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No chance to get into these farm buildings!

Concrete foundations, concrete walls, concrete barnyard pavements, concrete feeding floors provide no home for this army of rats seeking winter cover.

No Rat Can Gnaw Through Concrete

There are no nesting places under concrete floors, no chance of entrance through concrete foundations. Waste caused by rats is enormous. If you house them, you must feed them, and this is no time to feed an army of rats. We must feed our soldiers.

Build Out the Rats with Concrete

Write our nearest office for your free copy Bulletins 131 and 141. They will tell you how you can make your farm ratproof.

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He will pay your board, room, tuition, and $30.00 a month.

Four Schools—

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Write for full information.

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(A PART OF KANSAS WESLEYAN UNIVERSITY)
Salina, Kansas

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

FOR SALE—ONE PURE-BRED GUERNsey bull, five years old; two grade cows, six years old; one heifer two years old; one yearling heifer; one heifer four months old. All bred for spring calves. Address G. W. Sutherlin, Pleasant Hill, Mo.

DOGS.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

RABBIT HOUNDS, FOX HOUNDS, COON, opossum, skunk, squirrel dogs. Setters, pointers, ferrets, rabbits. Catalog 10c. Brown's Kennels, York, Pa.

FOR SALE—A FEW HIGH CLASS COON, opossum and skunk dogs. Stamp for reply. A. F. Sampey, 317 East Mt. Vernon St., Springfield, Mo.

WANTED

WANTED — FIFTY WHITE ESKIMO Spitz puppies, six to eight weeks old. Brockway Kennels, Baldwin, Kan.

POULTRY.

WHITE ROCKS, SIZE AND QUALITY; cockerels only. G. M. Kretz, Clifton, Kan.

FREE — BARRED ROCK EGGS WITH orders for cockerels, or pullets. J. Greiner, Mena, Ark.

ROSE COMB BROWN LEGHORN STOCK for sale reasonable if bought soon. Mrs. John Holzhey, Bendena, Kansas.

PURE-BRED SINGLE COMB WHITE Leghorn cockerels, two dollars each. Kate Skelley, Delia, Kansas.

DARK RED ROSE COMB REDS, GOOD scoring, greatest laying strain; cockerels, pullets, eggs. Satisfaction guaranteed. Highland Farm, Hedrick, Iowa.

POULTRY WANTED.

IF DISSATISFIED WITH LOCAL POULtry and egg market, ship direct. We loan coops and cases free. The Copes, Topeka.

SHEEP.

FOR SALE—BREEDING EWES FOR OCtober delivery. Box 739, Kansas City, Mo.

FOR SALE — TWENTY-FIVE HEAD OF pure-bred unregistered Shropshire ram lambs; 150 blackfaced ewes, one and two-year-olds; a few registered yearlings and two year-old Shropshire rams. K. Hague, Route 6, Newton, Kan. Phone 5742 Elbing.

AUTO TIRES.

TIRES — FORD, $6.50. LARGER SIZES, equally low. "Lowest tube prices." Booklet free. Economy Tire Co., Kansas City, Mo.

THE STRAY LIST.

TAKEN UP—BY JACOB BEYER, OF Gridley, Liberty Township, Coffey County, Kansas, on the 4th day of September, 1918, one black mare colt, white spot on forehead. Valued at $95. Geo. Bruce, County Clerk, Burlington, Kansas.

TAKEN UP BY G. L. HENRY, OF JOHNson, Stanton Township, Stanton County, Kansas, on or about the 18th day of May, 1918, one red steer with white face, branded V/ on right thigh; valued at $60. Elam Hilty, County Clerk, Johnson, Kan.

TAKEN UP — BY LOUIS KAISER, OF Park, Payne Township, Gove County, on the 30th day of August, 1918, one red and white cow, medium size, no marks or brands. E. E. Baker, County Clerk.

FEATHER BEDS.

NEW 36-POUND FEATHER BEDS, $13.95. A pair 6-pound pillows to match, $2.45. New, live, clean, sanitary feathers. Best ticking. Sold on money back guarantee. Write for free catalog. Agents wanted. American Feather & Pillow Co., Desk 400, Nashville, Tennessee.

MISCELLANEOUS.

LEATHER TANNING RECIPE, $2.50, guaranteed. R. N. Gilley, Carlton, Texas.

REAL ESTATE.

SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price $10 to $15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address E. T. Cartlidge, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kan.

Real Estate For Sale

Shawnee County Farm Bargains Near Topeka
200 Acres $65
160 Acres $65
Ten years' time on one-third if desired. Can fit you out in size farm desired.
J. E. THOMPSON (The Farmer Land Man)
Route 15, Tecumseh, Kansas

For a Farmer Who Wants to "Move In"

I am offering for sale my beautiful eight-room residence and three lots in Oakland (a suburb of Topeka), at an exceptionally low price. Fine barn with three stalls, mow, feed bins, harness closets, etc.; built-in carriage or auto shed; coal house, chicken house, etc. One block from car line; three blocks to fine high and grade school. Electric lights and gas in house. Nice floors and woodwork. A place to be proud of, and ideal for a farmer who would like to have city conveniences and yet live in a quiet district. $2,200 will buy it, with only a few hundred dollars cash. House could not be built for $4,000. Best of reasons for making sale, and not selling because of dissatisfaction with the property. Call or write

L. F. RICHARDSON - TOPEKA, KANSAS
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If fruit is allowed to become soft ripe on the trees it will acquire enough sugar on its own account to make it very palatable for canning without sugar. Where fruit is abundant, can ripe fruit in its own juice.

Remember that the best possible house cleaners and germ-destroyers are fresh air, sunshine, a good broom, and a soft wet cloth. Don't wipe the dust with dry cloths or scatter it with feather dusters. Use damp cloths and sweep with a dampened broom.

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

A Child's Hours of Sleep

A MOTHER asks: "How many hours' should my baby girl of three sleep? Her father works until late, and it is often ten or eleven before we are ready for bed. She is a nervous, wide-awake child and does not like to go to bed until we do. The evening is the only part of the day when her father is at the house for any length of time. If she goes to bed early, he hardly sees her at all. Besides she is a great deal of company for me, as I would otherwise be alone until late in the evening. If she takes a nap in the afternoon and sleeps late in the morning, does it do her any harm to sit up late at night?"

The fact that a child is nervous and wide-awake at bedtime is not a good reason for letting it stay up. A nervous or a frail child requires more sleep than one which is entirely normal. Lack of sufficient sleep makes nervous, pale children who do not grow strong and are not as bright as they would otherwise be. It would seem better for the parents to sacrifice their pleasure for the child's good until it is older.

As to the number of hours' sleep a young child should have, Mrs. Max West of the Children's Bureau of the U. S. Department of Labor, says in her recent bulletin on "Child Care": "Up to six years of age the child should sleep not less than twelve hours out of the twenty-four—ten or twelve hours at night and often one or two in the afternoon. The nap should be taken until the child can no longer be induced to go to sleep in the daytime. It is a wise precaution to have all growing children rest for a while in the afternoon even if they do not sleep. Plenty of sleep is of special importance in this day when so many parents are nervous and high strung. Children of such parents, or those who are inclined to delicacy or any form of illness, are particularly in need of large amounts of sleep in order to give the body even more than ordinary opportunity to build up its weakened tissues and increase its resistance. Sleep should begin early in the evening and should continue until the child wakes naturally. To require children to wake and be ready for an early breakfast, regardless of their desire to sleep, is not longer held to be sound physiologically or otherwise."

A little booklet on "The Child," printed and published by a leading life insurance company for the purpose of promoting the health of the children among its policy holders, makes the statement that runabout children—babies from one to two and a half years—should be in bed at half past six or seven o'clock every night, sleeping of course with open windows. "Up to eighteen months," says the author, "children should still take a nap in the morning and one in the afternoon. After that, one nap is enough. Little children should never be kept out after their usual bedtime. It is a poor plan to take little children on long excursions that keep them away from home until eight or nine o'clock in the evening or even later. Parents can afford to give up a few pleasures until the child is old enough to enjoy them."

Culinary Exhibit at Fair

"In the four years that I have had charge of this department," said Mrs. Harry T. Forbes, superintendent of the culinary department at the Kansas Free Fair, "this year's exhibit has the highest class of products that we have ever had." The exhibits of canned fruits and vegetables was larger and better than ever before and included a greater variety than in previous years.

Among the canned vegetables were butter beans, egg plant, cauliflower, celery, carrots, sweet potatoes, asparagus, both yellow and green string beans, and corn. The lectures of Miss Irene Taylor, home demonstration agent for Shawnee County, in this booth, explaining the cold-pack method of canning and the use of wheat substitutes, proved a popular feature.

While the exhibit in this department was very complete, a large proportion of the entries were made by women living within driving distance of Topeka. This is of course due to the difficulty of shipping these exhibits, but it is to be regretted that the work of all sections of the state in these lines does not have a better representation at our state fairs.

A partial list of the awards follows:

White Yeast Bread—1, Mrs. Thomas Owen, Topeka; 2, Mrs. F. M. Lake, Topeka.
Oatmeal Bread—1, Mrs. Theodore Saxon, Topeka.
Graham Bread—1, Mrs. Elmer Ebey, Topeka; 2, Mrs. F. H. Brown, Topeka.
Rolls—1, Mrs. Fletcher Woodford, Topeka; 2, Opal Linden, North Topeka.
Baking Powder Biscuit — 1, Mrs. Ralph Hummel; 2, Mrs. F. M. Drake, Topeka.
Corn Bread — 1, Mrs. Fred Miller, Topeka; 2, Mrs. Thomas Owen, Topeka.
Nut Bread—1, Mrs. Fred Miller; 2, Mrs. Elmer Ebey, Topeka.
Raisin Bread—1, Mrs. Shaw; 2, Mrs. Bjorman.
Angel Cake—1, Mrs. E. T. Mendel, Emporia; 2, Mrs. F. H. Brown, Topeka.
Fruit Cake—1, Mrs. F. H. Brown, Topeka; 2, Mrs. Susan Eudaly, Topeka.
Fruit Filling—1, Mrs. Elmer Ebey, Topeka; 2, Susan Eudaly, Topeka.
Nut Filling—1, Mrs. F. M. Drake, Topeka; 2, Mrs. Elmer Ebey, Topeka.
Marble Cake—1, Mrs. F. M. Drake, Topeka; 2, Mrs. Lillian Danforth.
Eggless Cake—1, Mrs. Lillian Danforth; 2, Mrs. W. J. Rickenbacher.
Ginger Bread — 1, Mrs. Elmer Ebey, Topeka.
Best Collection of Canned Fruits—1, Mrs. George Boone, Topeka; 2, Mrs. Ford Robinette.
Best Collection of Canned Vegetables—1, Mrs. F. W. McClintock, Wichita; 2, Mrs. Sherburne, North Topeka.
Best Collection of Jellies—1, Mrs. F. W. McClintock, Wichita; 2, Mrs. George Boone.

We shall be so kind in the afterwhile,
But what have we been today?
We shall bring each lonely life a smile,
But what have we brought today?
We shall give to truth a grander birth,
And to steadfast faith a deeper worth,
We shall feed the hungering souls of earth,
But whom have we fed today?
—Selected.

The School Lunch

The need of using substitutes for accustomed food together with the high prices makes the provision of the right kind of lunch for the school child of double importance this year. Proper nourishment affects vitally the mental and the physical growth of the child and the social and temperamental development as well.

If you have a county home demonstration agent in your county, get her to help you work out definite plans for starting a hot school lunch, or making provision for the addition of some hot dish, such as cocoa or soup, to the lunch brought from home. Simple, inexpensive equipment may be used to start the work.

Send Stamps for Patterns

"Please state in your paper whether you will accept stamps in payment for patterns or not, as it is so much handier to send stamps," writes Mrs. B. H., of Sherman County.

We are perfectly willing to accept postage stamps in payment for patterns. In fact most of the patterns we sell are paid for in this way. So do not hesitate to inclose stamps with your pattern order if that is the most convenient way for you to make payment.

Pepper Hash

1 dozen ripe peppers
1 dozen green peppers
6 large onions

All green peppers may be used, but the red peppers give a pleasing bit of color to the mixture. Run all through the food chopper, pour boiling water over the whole twice, draining it off each time, then add:

1 quart diluted vinegar
2 cupfuls sugar
2 tablespoonfuls salt

Cook the chopped peppers and onions in the vinegar mixture for twenty minutes and seal.

Fresh fruits and green vegetables used freely in the diet will cut the demand for very sweet desserts.

DISPERSION SALE

of 70 Head of Registered

Big Type Poland Chinas

TO BE HELD AT TURON, KANSAS

OCTOBER 16th, 1918

EVERY HOG HAS BEEN VACCINATED FOR CHOLERA, USING THE DOUBLE TREATMENT, AND SHOULD BE IMMUNE FOR LIFE

Mr. Farmer and Breeder—You will find in this herd some of the best big-type hogs of the breed—best in blood lines and best as individuals. Sows weighing in show ring condition 600, 700 and 800 pounds, sired by such boars as A Wonderful King, King Price Wonder, Big Hadley Junior, Big Bob Jumbo, and the world's champion, Caldwell's Big Bob. They have license to be big, and the spring pigs from these sows show for themselves.

This herd has made us money right from the beginning, commencing three years ago, and we couldn't be induced to part with some of these sows only for the reason that we are changing location. This will be your opportunity to get RIGHT in the hog business.

You can get foundation stock in this herd that will suit you and make money on your investment.

35-HEAD OF CATTLE-35

Including ten head grade and pure-bred Holsteins. Some cows giving milk. Write for hog catalog we will have out October 1.

TERMS OF SALE will be same as all sales of this kind—cash and settlement made before property is removed. Parties wanting credit should see the clerk or owner before sale starts.

Auctioneers
Col. John D. Snyder, Hutchinson; Col. Geo. Goodenough, Turon; Col. Fred Nucomb, Wichita
Clerk—E. E. Shive, Turon

BARKER & ALLMON
TURON, KANSAS

Poland China Sale

AT FARM NEAR

LEONA, KANSAS

October 16, 1918

40-Head Large Growthy - 40
40 - Poland Chinas - 40

Consisting of Nine Fall Boars, Eleven Spring Boars, Seven Yearling Gilts, Thirteen Spring Gilts

THE BEST LOT I HAVE EVER SOLD

They are sired by Big Bob King, he by Big Bob Wonder and Model by Jumbo by Model Big Bob. The offering is out of such valuable brood sows as Lady Ben by Big Ben; Big Osborne 5th by Chief Jumbo; Likeness Coin by Big Hadley's Likeness; Miss Mastodon D by A Wonder Price; Wonder's Queen by A A Wonder; Leona Model by Master Orphan; Lady Prince by Goliath; D Wonder by B Wonder, and other good sows.

Catalog is Now Ready to Mail Out. Please Send for One and Arrange to Come to My Sale. Address

DR. J. H. LOMAX
LEONA, KANSAS

(Sale at the Farm, 2½ Miles Southwest of Leona, Kansas)

Auctioneers—Col. P. M. Gross and Col. Chas. Foster
Clerk—A. Delaney

HEREFORDS and Percherons



Fifteen Registered Hereford Cows

With early spring calves at foot and bred again. Ten two-year-old Heifers in good flesh, all bred to Paul Perfection bull.

Three Registered Percheron Mares with Colts

(One imported); two 2-year-old Percheron stallions; one registered saddle stallion, and one registered saddle mare.

Twenty-five Head Registered Poland China Hogs

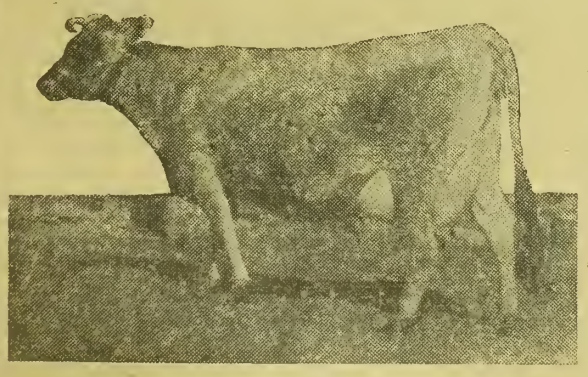
Including four brood sows by Caldwell's Big Bob and one by Superba. Ten spring boars and ten spring gilts.

Everything guaranteed in good condition and will price reasonable. Come and see us. Farm seven miles from Madison, five miles from Hamilton.

J. S. WILSON & SON - - - HAMILTON, KANSAS

Dispersal Sale of Jersey Cattle, October 9th.
Monterey Dairy Farm, Near Garrison, Kan.

TWENTY-NINE HEAD OF HIGH-CLASS JERSEYS



Twenty-three females—twelve head giving milk, two bred heifers, several young calves. All old enough to breed are bred to my herd bull, Mermaid's Owl, a grandson of The Owl of Hebron, and is out of a Register of Merit dam that made 415 pounds of butter as a two-year-old. The cows are all in good condition and all will be tested and guaranteed right. Catalogs are now ready to mail. Send for one and come to sale. Farm is four miles south of Randolph, two and a half miles north of Garrison Crossing. The farm, consisting of 100 acres, will also be offered for sale. Write for description. It is well improved and good land.

B. R. THOMPSON - - GARRISON, KANSAS
Auctioneers—Jas. T. McCulloch, Homer Bales

GENERAL FARM ITEMS

It is announced that there will shortly be a campaign started in the United States to bring about the general practice of selling eggs by the pound, the idea being taken this time from the success reported in Ontario with the work of selling under this plan there.

Kansas Breeders Win Honors

A strong live-stock show was staged at Oklahoma City the week following the fair at Hutchinson. A number of the leading breeders of pure-bred live stock from Kansas took part in this show. High honors came to the Kansas Hereford breeder, R. H. Hazlett. Mr. Hazlett's two-year-old heifer, Yerba Santa, was the senior and grand champion female of the show with the strongest of competition. His young bull, Hazford Rupert, was junior and grand champion bull, being placed in class above Bocaldo 11th. Bloss 16th was the junior champion female. In the Poland China section of the hog show the sow, Buster's Best, shown by Moore's Farm of Kansas, added another grand championship ribbon to her winnings. Deming Ranch of Kansas made some good winnings, among them first and second aged herd bred and owned by exhibitor; second in young herd bred and owned by exhibitor, and second in produce of sow.

Look to the Poultry House

The winter quarters for the poultry should not be neglected until cold weather comes. Early attention to the necessary repairs may mean the difference between profit and loss.

The first task to perform when beginning to clean and repair the poultry house should be to clean the interior thoroughly. The walls, ceilings, floors and nests should be scraped and brushed and a good coat of whitewash applied. If the floors are of earth, at least two inches of the surface soil should be removed and replaced with fresh earth or sand. If they are of concrete construction they should be washed and scraped. All cracks and crevices, especially about the roosting quarters, should receive a liberal coat of whitewash. If this work is faithfully performed the poultry keeper should be relieved of considerable worry over the comfort of his fowls the coming winter.

The next task to undertake should be the necessary repairs to windows and doors and to the interior fixtures. It is of vital importance to the health of fowls that all broken doors and windowpanes be repaired before the first cold snap arrives. Drafts due to carelessness in this respect are almost always fatal to chickens, and such diseases as roup and pneumonia are often contracted as a direct result. Let us remember the old saying that an ounce of prevention is worth a pound of cure and see if the next rainy day cannot be used to good advantage by spending it at the poultry house.

The money-making dairyman learns to know cows—their likes and dislikes, their needs and what is hurtful to them. A cow that gives a large yield is always notionate and has many petty whims about the way she wants her feed arranged, and the manner she wants her milker to treat her. An increase in yield is often secured by humoring these whims.

"No, the fear of falling never enters my head," said the aviator to his gaping hearers. "What scares me is the danger of stalling my engine about two miles up and not being able to get down."

A pint of 40 per cent commercial formaldehyde with forty-five gallons of water is enough to destroy all smut spores in forty or fifty bushels of seed wheat. If the seed has been fanned to remove smut balls, chaff, and poor seed, the solution can be applied by spreading the grain four to six inches deep on a barn floor or canvas and sprinkling it. Shovel it over carefully until every grain is moistened. Place in a pile and cover with a canvas for from two to five hours. Spread out and dry carefully, storing in disinfected sacks. You need have no fear of smutty seed if you will give it this treatment before planting.

JERSEY CATTLE.

REDHURST JERSEYS

FOR SALE—Noble's Jolly Actor No. 155761. Solid color, born October 14, 1916. Sire (the imported son of Golden Jolly). Golden Jolly's Masterpiece No. 86295, with six tested daughters out of Noble's Eminent Jess, a R. of M. cow whose dam is also in the R. of M. and whose sire, Noble's Oxford Sultan No. 106403, with six tested daughters, seven of Noble of Oakland's with 65 tested daughters and whose dam is in the R. of M. and since by Sultan's Oxford Lad, his great dam also in R. of M.

ALSO—Jolley's Chief No. 14948. Solid color, born September 3, 1917, the above imported son of Golden Jolly. Dam, Eminent's Lad Jess No. 255151, dam of one in R. of M. She by Em. Brown Lad with two or three tested cows, a grandson of Eminent with 80 tested daughters and whose dam is a tested cow.

REDMON & SON, TIPTON, MISSOURI

100 Good Jerseys for Sale

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.

J. W. BERRY & SON, Jewell City, Kan.

TESSORO PLACE

OWL INTEREST FINANCE JERSEYS
(Register of Merit)

Buy a bull from a R. of M. cow and be more certain in your herd building. Every cow in milk in our herd has a year's test or one now on. Our two-year-olds will average 400 pounds of butter. Write for prices and other information.

R. A. GILLILAND, MAYETTA, KANSAS

LONGVIEW JERSEYS

(Register of Merit Herd)

Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.

Longview Farm

LEE'S SUMMIT - - MISSOURI

BROOKSIDE JERSEYS

REGISTERED JERSEY BULLS, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.

THOS. D. MARSHALL, SYLVIA, KAN.

Allen Center Stock Farm

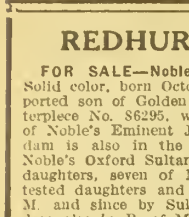
Registered Bull Calves—Some ready for service. Sale or exchange for bull or heifers.

TREDWAY & SON, LA HARPE, KAN.

J. B. PORTER & SONS, Mayetta, Kansas
Breeders of Pure-Bred Jersey Cattle

A small but select herd of producing cattle, rich in blood of Gamboge, Oxford Lad, Golden Fern's Lad, Leda's Fern Lad, etc. Write for prices on young stock.

AUCTIONEERS.



P. M. GROSS
Live Stock Auctioneer

Twelve years on the block.
Pure-bred sales a specialty. Sales made anywhere.
4230 Paseo
Kansas City, Mo.

FRANK BLAKE
Live Stock Auctioneer
I make sales anywhere
Write for date. VALLEY FALLS, KANSAS

W. B. CARPENTER
Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri

SHORTHORN CATTLE.

Pearl Shorthorn Herd

One of the oldest and strongest herds in the West, Scotch and Scotch-topped reds and roans. Twenty head young bulls ready for service. Fifteen last spring bull calves by Orange Lovel 420052, a Victor Orange bred bull; Village Heir 492857 by Imported Villager and Marengo Pearl 391962. All these calves are out of good usefu cows.

C. W. TAYLOR - ABILENE, KANSAS

SHORTHORN BULLS

For Sale — Ten bulls, seven to fifteen months old; Scotch and Scotch topped. Two Scotch bulls by Type's Goods, one a Brawith Bud, the other a Duchess of Gloster. All in good condition and priced reasonably.

S. B. AMCOATS, CLAY CENTER, KANSAS
Write Me Your Wants

MARKS LODGE RED SHORTHORNS

For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

Breeders' Directory

RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
Hereford Cattle.
F. S. Jackson, Topeka, Kan.

POLLED DURHAM CATTLE.

FOR SALE
Few young Polled Durham Bulls from strong milk strain dams.
W. C. HALL - COFFEYVILLE, KANSAS

SHROPSHIRE SHEEP



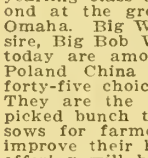
FOR SALE

A bunch of good big Registered Shropshire Bucks, not high in price. Also registered ewes.
Howard Chandler, Chariton, Ia.

DOYLE PARK SHROPSHIRES

Forty Head—Twenty ewes and twenty ram lambs. Ram lambs sired by our show ram, a son of Senator Bibby.

HOMAN & SONS - PEABODY, KANSAS

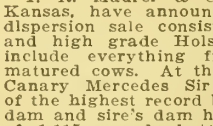


SHROPSHIRES—BRED EWES
Won 2 champions, 7 firsts and silver cup at 1918 Iowa State Fair Weight and Wool Win. Yearling rams and ewes bred to imported prize winning rams for sale at farmers' prices. C. W. & Frank Chandler, Kellerton, Ia. (80 ml. from St. Joseph)

HAMPSHIRE HOGS

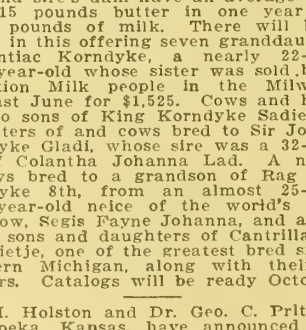
REGISTERED HAMPSHIRE HOGS. Thirty spring boars, immuned. Am booking orders for fall pigs. Geo. W. Ela, Valley Falls, Kans.

Hampshires on Approval



FOR SALE
10 SPRING BOARS
10 SPRING GILTS
Several prize winners
Few tried sows

F. B. WEMPE - FRANKFORT, KANSAS



FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stoek Advertising
O. W. Devine, Field Representative

Address All Communications to Kansas Farmer, and Not to Individuals

Personal mail may have to be held for several days, or be delayed in forwarding, and Kansas Farmer cannot assume any responsibility for mistakes occurring thereby

V. O. Johnson, of Aulne, Kansas, announces October 28 for his annual fall sale of Poland Chinas. On this date Mr. Johnson will offer fifteen large husky spring boars sired by the great prize winning boar, Big Wonder, a hog that was first in junior yearling class at Topeka last year and second at the great National Swine Show at Omaha. Big Wonder was sired by the noted sire, Big Bob Wonder. This family of hogs today are among the most popular of the Poland China breed. There will also be forty-five choice gilts of the same breeding. They are the best in the herd and are a picked bunch that will make valuable herd sows for farmers and breeders wishing to improve their herds. A feature of the sale offering will be a splendid March gilt out of the top sow in Fred B. Caldwell's last February sale. This gilt was sired by the world's champion boar, Caldwell's Big Bob, and will be sold with a breeding privilege to Big Giant Lunker, a boar by Morton's Giant out of Discher's Giant and out of the great brood sow, Lady Lunker. The catalogs will be ready to mail out October 10.

T. R. Maurer & Company, of Emporia, Kansas, have announced October 16 for a dispersion sale consisting of 125 registered and high grade Holsteins. This sale will include everything from heifer calves to matured cows. At the head of this herd is Canary Mercedes Sir Wadnah 145366, one of the highest record bulls in the West. His dam and sire's dam have an average record of 1,115 pounds butter in one year from 26,437 pounds of milk. There will be included in this offering seven granddaughters of Pontiac Korndyke, a nearly 22-pound three-year-old whose sister was sold by the Carnation Milk people in the Milwaukee sale last June for $1,525. Cows and heifers bred to sons of King Korndyke Sadie Vale. Daughters of and cows bred to Sir Johanna Korndyke Gladi, whose sire was a 32-pound son of Colantha Johanna Lad. A number of cows bred to a grandson of Rag Apple Korndyke 8th, from an almost 25-pound three-year-old neice of the world's champion cow, Segis Payne Johanna, and a number of sons and daughters of Cantrilla Hillside Pietje, one of the greatest bred sires in Southern Michigan, along with their fine mothers. Catalogs will be ready October 5.

J. H. Holston and Dr. Geo. C. Pritchard, of Topeka, Kansas, have announced October 16, 1918, for their Holstein dispersion sale date. Sixty-four head of registered A. R. O. cows and heifers will be dispersed at the fair grounds at Topeka. Fifty of these cows will include daughters and granddaughters of such noted sires as King Segis, Hengerveld De Kol, Johanna McKinley Segis, Sir Ormsby Hengerveld De Kol, Pontiac Korndyke, Colantha Johanna Lad, Pietertje Hengerveld's Count De Kol, Judge Hengerveld De Kol, and other 30 to 31-pound sires. This offering of cattle promises to be one of the best dairy herds to be dispersed this fall in this part of Kansas. Ann animals over six months old will be tested and everything sold will be guaranteed as represented. Catalogs are now ready to mail out. Sale will be held at fair grounds at Topeka, Kansas.

Modern Herefords

HAZFORD PLACE, EL DORADO, KANSAS

FIRST PUBLIC SALE

Cattle of my own breeding at Fine Stock Sale Pavilion, Kansas City, Missouri, on the forenoon of November 19, during the American Royal Live Stock Show.

Wm. Condell, Herdsman. ROBT. H. HAZLETT

HOLSTEIN CATTLE.

HOLSTEIN CATTLE.

Plan to Attend

Maurer's Big Holstein Dispersion Sale

EMPORIA, KANSAS, WEDNESDAY, OCTOBER 16
Seventy-five Registered Females

From calves to matured cows, all with good A. R. O. backing; and a number of young bulls. Also a select lot of high-grade cows and heifers. This is the choicest bred lot of Holsteins ever offered at public auction in this section of the state. Write for catalog.

T. R. MAURER & COMPANY, OWNERS, EMPORIA, KANSAS
COL. D. L. PERRY, COLUMBUS, OHIO, AUCTIONEER

200 Head Registered and High Grade Holstein Cows and Heifers

On account of shortage of help I have decided to sell my entire herd at private sale, without reserve, consisting of **40 Registered Cows and Heifers**, mostly all with A. R. O. records up to 26 pounds in 7 days; **40 Fancy Young High Grade Cows**, exceptionally well marked, some fresh, balance will freshen in next 40 days, $115 to $135; **50 Fine Thrifty Large Two-Year-Old Heifers** due in October and November, $90 to $110; **65 Fine Growthy Yearlings** from 15 to 20 months old, bred to freshen from December to February, $65 to $80. All stock bred, in calf to registered bulls. This herd is absolutely clean and guaranteed free from abortion and tuberculosis and will be sold as represented. Will sell with purchaser's privilege of 60-day retest. Descriptive catalog on registered stock ready Oct. 1. **Magee Dairy Farm, Chanute, Kan.**

HOLSTEIN CATTLE

150 Head of Choice Two-Year-Old Grade Heifers bred to King Segis bulls, to freshen in September and October.

Fifty Cows in Milk, good ages.

Fifteen Registered Bulls, some are from King Segis Pontiac breeding and good enough to head herds.

Twenty-five Registered Cows and Heifers, several A. R. O. breeding.

Will price a few grade heifer calves at $30, express paid. Your money back if not satisfied. Can ship by Missouri Pacific, Santa Fe, or Rock Island. Come and see me.

M. A. ANDERSON, HOPE, KANSAS; DICKINSON COUNTY



SAND SPRINGS FARM

Registered Holsteins—The Long Distance Kind
Watch for our consignment to the State Breeders' Sale, November 1.
E. S. ENGLE & SON - ABILENE, KANSAS

$15 Holstein or Guernsey CALVES

From Waukesha County heavy producing stock. Write us today, we guarantee to satisfy you.

RIVERDALE FARMS, Oconomowoc, Wis.

Holstein Calves

Choice, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write

W. C. Kenyon & Sons
Holstein Stock Farms Elgin, Illinois

FOR SALE Registered Holstein bull Calf, ten months old, nicely and evenly marked. Sired by a 31-pound son of the King of the Pontiacs. Dam is a 21 pound daughter of a noted sire.

Also some fine young fresh cows, giving from 60 to 80 pounds of milk a day.

Dr. J. T. Axtell, Newton, Kan.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

SPLENDID HOLSTEIN BULL FOR SALE—Six months old. Over half white. He is a beauty.

HENRY S. VOTH, Route 2, GOESSEL, KAN.

BRAEBURN HOLSTEINS

Service bulls; bull calves. Just now a few females for sale to make the herd fit the stables once more.

H. B. Cowles, 608 Kansas Ave., Topeka, Kan.

SEGRIST & STEPHENSON, HOLTON, KANSAS
Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

S. B. Amcoats, the well known breeder of Shorthorn cattle at Clay Center, Kansas, is the owner of one of the good herds of cattle in Northeast Kansas. He reports the sale of two Scotch cows and a Scotch bull to M. R. Peterson, of Troy, Kansas, and two heifers and a choice Scotch bull to J. H. Holcomb, of Humboldt, Kansas. Mr. Amcoats has done a lot of good to the Shorthorn breed by encouraging farmers to purchase a few foundation cattle and build up a small herd.

Dr. J. H. Lomax, of South St. Joseph, Missouri, has announced October 16 for his annual fall sale of Poland Chinas at the Lomax Jersey Farm, 2½ miles southwest of Leona, Kansas. The catalogs are out and this year Mr. Lomax has catalogued forty head of the biggest and best Poland Chinas ever sold from this farm. The offering is sired by Big Bob King, he by Big Bob Wonder. This hog has proven a great sire and is widely known as one of the best breeding boars in service. Model Big Jumbo by Model Big Bob will also be represented in the herd. The offering will consist of forty head: nine large fall yearling boars that will weigh right at 400 pounds and not fat; eleven spring boars, seven large fall yearling gilts sold open that are fine prospects for herd sows, and thirteen spring gilts. All will be immunized.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

REGISTERED HOLSTEINS

If you want big producers, males and females, write us. All our own breeding.

Lilac Dairy Farm
Route 2 Topeka, Kansas

CHOICE HEIFER CALVES

Twelve heifers and three bulls, 15-16ths pure, five to seven weeks old, beautifully marked and from heavy milkers, at $25 each, crated for shipment anywhere.

FERNWOOD FARMS, Wauwatosa, Wisconsin

GALLOWAY CATTLE.

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

CHESTER WHITE HOGS

Frost's Big Smooth O. I. C.'s

Forty Spring Pigs, Two Yearling Boars and 100 Early Fall Pigs.
All from prize winning blood and priced for quick sale. Write us today.

S. D. & B. H. Frost, Route 2N, Kingston, Mo.

RECKARD'S CHESTER WHITES

Have raised pure-blooded Chester White hogs for fifteen years. Breeding stock for sale from prize-winning strains. Large kind and smooth.

E. M. RECKARDS - OZAWKIE, KANSAS

ANGUS CATTLE

Edgewood Farm Angus

I have for sale

40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.

D. J. WHITE, Clements, Kan.

RED POLLED CATTLE.

RED POLLED CATTLE

For Sale—Four-year-old herd bull. Some extra good cows to calve in winter and early spring. A few yearling heifers.

I. W. POULTON - MEDORA, KANSAS

FOR SALE

Red Polled cows, heifers and bulls. Special price if taken at once.

W. J. HARRISON - AXTELL, KANSAS

Caldwell's Poland China Sale

FIFTY HEAD of Herd-Heading Boars and Selected Sows and Gilts—

An Offering of Immuned Boars and Gilts at Howard Kansas

OCT. 17, 1918

The Greatest Offering of the Year. The Feature Sale of the Fall Season.



CALDWELL'S BIG BOB

HALF OF THE OFFERING SIRED BY THE WORLD'S CHAMPION

CALDWELL'S BIG BOB

Including the most sensational prospect of the year, the wonderful September boar

BIG MACK 312847

Big Mack is a real son of Caldwell's Big Bob, and I consider him a better individual than "Bob" was when I bought him, and you know what that means. He is the season's sensation.

SENSATION 1st, 2d and 3d

Big Mack's three litter sisters, also sell. They are also outstanding and propositions unsurpassed.

Ten Spring Boars, every one a herd header. Sons of the world's champion that are his counterparts in general conformation.

Five Spring Gilts, every one a show prospect as well as a real brood sow prospect. Sired by Caldwell's Big Bob. Just what you want to breed to your good boar.

Fifteen Yearling Sows of the Right Type. A great array of real brood sow material. A number of good things sired by KING BOB by BIG BOB and GIANT BOS by BOS PREMIGENIUS.

AN OFFERING IN WHICH EVERY LOT IS A REAL ATTRACTION.

The greatest draft of herd-heading and brood sow material ever offered from the Elkmore Farm Herd. Please send for catalog and come to my sale.

FRED B. CALDWELL, HOWARD, KANSAS

Auctioneers—Col. J. C. Price, Col. Boone THE ELKMORE FARM HERD

HENRY FEHNER'S

Chester White & O. I. C. Sale

AT HIGGINSVILLE, MISSOURI

Tuesday, October 15, 1918

55 HEAD OF EXCELLENT BOARS AND GILTS 55

Great, big, stretchy, high backed hogs—the kind they are all striving for. They are the pick of 200 head and are out of some of the most noted sows and boars of the breed. ....:-: :-:



SIRES: Sunny Bar, the greatest breeding boar of the breed. Scottlea Archer, the old war horse. **Some noted sows in herd:** Scottlea Prudence, the $515 gilt, highest priced Chester yearling ever sold. The Iowa Grand Champion Gilt, 1917, sired by White Rex. She has a wonderful litter by Sunny Bar.

We especially call your attention to a great litter by Sunny Bar and out of the great White Rex sow, and also the Scottlea Prudence litter. Attend this sale. Write for catalog. All cholera immune.

Henry Fehner, Higginsville, Mo.

KANSAS DUROC BOAR SALE

at Dr. W. H. Richard's Barn

Emporia, Kan., Oct, 14, 1918

Illustrator's Orion 2nd, At Head of Our Herd

A 1,000-pound giant, by Illustrator, dam by Joe Orion 2d, second dam by Col. Beaubout by Defender.

Fifty Spring Boars

Sired by Illustrator's Orion 2d, Pet's Great Wonder by Great Wonder, dam by Grand Model, and a son of Burke's Good Enuff, dam by Great Wonder; Pathfinder, King's Col. Again, Cherry King Orion, Grand Model, Grand Model's Giant, Cherry King Disturber and others.

Dams Are By Defender, King's Col., Big Wonder, John's Combination, Fancy Victor, Giant Wonder, Pathfinder, Grand Model, and Others

This will be one of the best bred lots of Duroc boars to be sold this fall. Several real herd boar prospects. Catalogs are ready to mail. Send for one and come to sale. Sale at Emporia, Kansas.

JOHN W. PETFORD, SAFFORDVILLE, KAN.

LOCKRIDGE'S

Poland-China Sale

At Fayette, Mo., Oct. 12, 1918

45 HEAD BIG TYPE POLANDS 45

No. 1 will be Giant Wonder, a September 4th pig by The Giant, dam Big Bob's Wonder. Giant Wonder is a litter mate to my herd boar, Liberty Giant. He is also a litter mate to Giant Bob, the junior champion boar at the Missouri State Fair, 1918.

No. 2 is another good son of The Giant, dam Long Wonder 2d, one of the best brood sows I ever owned. This pig is not named yet, we will let his new owner name him. He was farrowed August 26. These two make a great pair of pigs and are sure to be appreciated by all who see him.



Twenty big summer gilts, either sold open or with breeding privilege to The Giant by Liberty Giant. There will be four fall gilts by King Joe that will be sold with breeding privilege to The Giant.

Twenty big early spring boars sired by The Giant, Joe Jr., and Goliath. The boars by Joe Jr. and Goliath are out of sows by The Giant.

Two choice boars by Gerstdale Jones. One choice boar by Big Ben.

EVERY HOG IMMUNE AND IN PRIME CONDITION.

WILL G. LOCKRIDGE -:- FAYETTE, MISSOURI

64 Head---Registered A .R. O. Holsteins---64 Head

Don't Miss It! The Greatest Quality Sale of Holsteins Ever Held in Kansas

THE HOLSTON-PRITCHARD DISPERSAL, CLOSING OUT HOLLYCREST HERD OWNED BY J. H. HOLSTON AND THE HERD OWNED BY GEO. C. PRITCHARD AT THE

Fair Grounds, Topeka, Kan., Wednesday, October 16, 1918

Fifty cows and heifers, including daughters and granddaughters of such noted sires as—

KING SEGIS
PONTIAC KORNDYKE
HENGERVELD DE KOL
COLANTHA JOHANNA LAD
JOHANNA McKINLEY SEGIS
PIETERTJE HENGERVELD'S COUNT DE KOL
SIR ORMSBY HENGERVELD DE KOL
JUDGE HENGERVELD DE KOL
UNEEDA KORNDYKE ABBYGAIL BOY
And other 30 to 31pound sires

HENGERVELD LYONS DE KOL, the state record cow, who produced in semi-official test 14,818.3 pounds milk and over 517 pounds butter in six months, and three of her daughters and one son will be sold. One daughter produced 65 pounds of milk a day at 2 years and 3 months old.

HOLLYCREST COLANTHA LASS, a 17-pound junior two-year-old grand daughter of COLANTHA JOHANNA LAD in calf to a grand son of DUCHESS SKYLARK ORMSBY.

A two-year-old daughter of JOHANNA McKINLEY SEGIS whose three nearest dams average nearly 30 pounds.

A yearling son of SIR ORMSBY BANOSTINE CHAMPION, the only living son of DUCHESS SKYLARK ORMSBY, and from a daughter of JOHANNA BONHEUR CHAMPION.

A three-year-old son of SPRING FARM KING PONTIAC 6TH (the bull that puts degree in pedigree) from a 26.6-pound four-year-old dam.

There are several young bulls in this sale sired by one of the very best sons of COLANTHA JOHANNA LAD and from good A. R. O. dams. They have what so many bulls do not have—a straight back line.

These herds have been built on a "Buy the Best and Breed Them Better" policy and each and every animal is guaranteed right.

All animals over six months old will be tuberculin tested by state authorized veterinarians. For catalog write

Owners—J. H. Holston, Geo. C. Pritchard
Auctioneers—C. M. Crews, Boyd Newcomb

J. H. HOLSTON, Sale Manager
TOPEKA, KANSAS, R. 1

GENEROUS-FAIRFAX HEREFORDS

BRED FOR BEEF, BONE AND QUALITY FOR MANY GENERATIONS

113—SPLENDID COWS, HEIFERS AND BULLS—113

WILL BE OFFERED IN OUR SEVENTH ANNUAL SALE AT FAIR GROUNDS

HUTCHINSON, KANSAS, OCTOBER 23, 1918

FIFTY-FIVE BIG YOUNG COWS bred to Generous 5th, Lawrence Fairfax and Imported Shucknall Monarch.
TWENTY-FIVE CRACK HEIFERS, granddaughters of Perfection Fairfax and Generous, bred to Lawrence Fairfax and Shucknall Monarch.
THIRTY-THREE BIG HUSKY BULLS of Generous and Fairfax breeding. All ready for service.

Send your name for copy of illustrated catalog, mentioning Kansas Farmer.

W. I. BOWMAN & CO., Ness City, Kan.

POLAND CHINAS.



Faulkner's Famous Spotted Polands

THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.

Pioneer Herd Poland Chinas

For Sale—Ten outstanding spring boars by A Wonderful King and Logan Price. Twenty-five farmer boars, priced reasonable. Bred sow sale February 18, 1919. Send for catalog.

F. Olivier & Son, Danville, Ks.

Erhart's Big Polands

A few fall boars ready for hard service. Can spare two tried herd boars. Have the greatest showing of spring boars we have ever raised. Some by the 1,250-pound A Big Wonder. Will make prices on pairs and trios. Write me your wants. All immune.

A. J. ERHART & SONS, NESS CITY, KAN.

Morton's Poland Chinas

For Sale—Twenty-five choice boar pigs, sired by Morton's Giant by Discher's Giant and Girstdale Jumbo by Girstdale Jones, out of my best herd sows. Priced reasonable. Write or come and see my herd.

GEORGE MORTON
Oxford : Sumner County : Kansas

Oxford Herd Poland Chinas

Herd boar, Giant Lunker by Discher's Giant out of Lady Lunker. I have 57 early spring pigs. A few choice boars. Priced to sell. Come and see me; I can please you.

Howard R. Wenrich
Oxford - - - - - Kansas

POLAND CHINAS

Poland Chinas

Big type, big bone, big litters. A number of early summer pigs, either sex, for sale. Unusual quality and out of good sows and boars. Am closing out on them, so am offering them at an attractive price. Be sure to write me before buying elsewhere.

F. A. SWANSON, MANHATTAN, KANSAS

POLAND CHINA BOARS
Five and eleven months old, at a reasonable price. Pedigree with every hog.
HENRY S. VOTH, Route 2, GOESSEL, KAN.

TOWNVIEW HERD POLAND CHINAS
For Sale—Choice lot spring boars. All gilts reserved for February bred sow sale. Herd boars, King Wonder's Giant, Walter's Expansive Sid, Big Timm Joe.
CHAS. E. GREEN - PEABODY, KANSAS

LANGFORD'S SPOTTED POLANDS
Last call for spring boars, $40 to $50.
T. T. LANGFORD & SONS, Jamesport, Mo.

McCUNE'S SPOTTED POLANDS
Twenty spring boars and gilts (gilts open) well spotted, sired by Spotted Wonder and out of choice dams.
R. H. McCUNE - LONGFORD, KANSAS

HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that weigh and win. S. C. Brown Leghorn Chickens that lay. See or write

S. Y. BURKS, BOLIVAR, MO.

LONE CEDAR POLANDS
Strictly big type March and April pigs, either sex. Nothing but tops shipped. Prices reasonable. Guarantee to please. All cholera immune. A. A. MEYER, McLouth, Kansas.

POLAND CHINAS.

"The Fellow That Plays Second Violin Never Leads the Band"

Buy your POLAND CHINAS of the LEADER in the WORLD'S GREATEST prizes for the OLDEST FIRM doing business. One hundred pigs, both sexes, for sale.

B. F. Dorsey & Son
Girard, Kansas Jacksonville, Illinois

POLAND CHINA BOAR PIGS

For Sale—Twenty choice boar pigs, sired by Model Wonder, he by Big Bob Wonder; The Giant by Hercules by Big Ben; King Ben by Giant Ben; Captain Gerstdale Jones, Big Bob Jumbo, and A Big Wonder. Several herd boar prospects.

Ross & Vincent, Sterling, Kan.

H. O. Mott's Poland Chinas

For Sale—Fifteen spring boars and ten spring gilts, priced for quick sale at $35 to $50. First check gets choice. Guaranteed right or money back.

H. O. Mott, White City, Kansas
R. F. D. 4

MULEFOOT HOGS.

Knox Knoll Mulefoots

Bred sows and gilts. Open gilts, spring gilts and boars. Satisfaction guaranteed. Free catalog.
S. M. KNOX - HUMBOLDT, KANSAS

GUERNSEY CATTLE.

GUERNSEY BULLS
Good individuals of serviceable age, of May Royal, May Rose, Masher Sequel, Raymond of the Preel breeding. Write or come and see them.
ADAMS FARM, GASHLAND, MISSOURI
Twelve miles from Kansas City.

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DUROC JERSEYS.

C. H. BLACK'S DUROCS

Herd headed by Giant Crimson by G. M.'s Crimson assisted by Red Cross Pathfinder. My herd sows are the big growthy kind and have all raised good litters. I have for sale bred gilts and spring pigs in pairs and trios, priced reasonably. Come and see my herd.

C. H. Black, Marion, Kansas

Wreath's Durocs Always Please

All spring boars and gilts must be sold to make room for fall litters. Critic Chief No. 241231 at head of herd. No fall sale.
L. G. WREATH, Rte. 8, Manhattan, Kan.

CONYERS HERD DUROCS
Herd boar, King Conyers by King the Col. Sows in herd by Golden Model, Graduate Chief, Cherry Chief and other good breeding. For sale, one extra good spring boar sired by Pathfinder and one by Great Wonder. Fifteen spring gilts by Royal Critic. Come and see me.
B. W. CONYERS - MARION, KANSAS

WOODDELL'S DUROCS
Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.
G. B. WOODDELL, WINFIELD, KANSAS

FOR SALE — Duroc Jersey Hogs, March and April farrow; cholera immune; either sex. P. J. MURTA, CUBA, MISSOURI.

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HORSES AND MULES.

PERCHERON-BELGIAN-SHIRES
Registered mares with colts at side and bred again; registered fillies, stallions one to five years old; grown ourselves the ancestors for five generations on dam side. Sires imported.
Fred Chandler, R. 7, Charlton, Iowa
(Above Kansas City)



PERCHERON STALLIONS

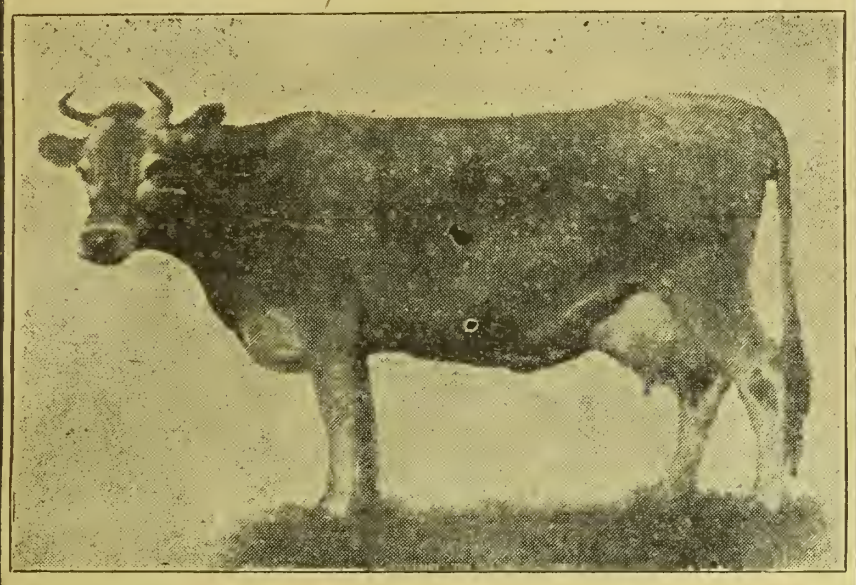
Some good young stallions sired by Algare and Bosquet, two great herd sires. These young stallions are very promising and priced to sell.
D. A. HARRIS - GREAT BEND, KANSAS

Dispersion Sale of Registered Jerseys

At Farm One Mile South of Fair Grounds on Topeka Ave.

October 14, 1918

EIGHTY HEAD



I am leaving the farm on account of sickness and am compelled to sell my valuable herd of forty head of registered and forty head of high-grade Jersey cows and heifers. I have spent years in building up this fine dairy herd. All have been regularly tested and are clean.

They are of the Saint Lambert, Flying Fox, and Uncle Peter's Gold Mine breeding.

Most all in milk or will freshen soon. All bred to my great herd bull, BROOKSIDE BABE TORONE. Every sire and dam for four generations back of him are in the Register of Merit. He has more daughters that produce one thousand pounds of butter fat than any bull living.

Please Send for Catalog and Come to Sale

W. H. Maxwell, Topeka, Kansas

B. C. SETTLES, PALMYRA, MISSOURI, SALE MANAGER

Auctioneers—Col. D. M. Perry, Col. Chas. W. Crews

Fashionable Stock Place POLAND CHINA SALE at Aulne, Kan,. Oct. 28



SIXTY HEAD

15 HERD HEADING BOARS

45 CHOICE GILTS

This sale will feature the get of

BIG WONDER 281929

The outstanding two-year-old son of the noted Big Bob Wonder, first in junior yearling class at Topeka and second at the National Swine Show in competition against the world, 1917.

A number of top sows mated to noted boars were purchased last winter and many of the good things from these litters go in this sale. They include sons and daughters of Eckhardt's Belmont Buster, Wagner's Bestdale Jones, Leonard's Big Jones, Caldwell's Big Bob, A Wonderful King, Big Bob Wonder, Walter's Jumbo Timm, McCord Bros.' Spooner Wonder and Harry Myers' Giant Joe.



HOG HOUSE AND SALE PAVILION AT FASHIONABLE STOCK PLACE

The attraction will be the top gilt from top sow in Caldwell's winter sale. Sold with breeding privilege to my herd boar. All are immuned. We want you at this sale. Send your name for our mailing list. Inspection of herd invited, and information gladly furnished.

V. O. JOHNSON, AULNE, KANSAS

J. H. McANAW Chester White Sale

at Cameron, Mo., October 23, 1918



45 HEAD - 25 SPRING BOARS

By Joe Wing, Combination Defender, Combination Again, King Prince and Champion 2d.

TWENTY SPRING GILTS

By same sires and the pick of my herd, including a part of my show herd. I am selling a splendid lot of boars and herd sow prospects. Please send for catalog and come to my sale. I guarantee a good offering of the most profitable farmer hog.

J. H. McANAW, CAMERON, MO.

Auctioneers—Col. Cliff Evans, Col. Thos. E. Deem

Duroc Jersey Sale

AT FARM NEAR TURON, KANSAS

October 19, 1918

45 -- H E A D - - 45

THIRTY-TWO SPRING BOARS SIRED BY KANSAS CRITIC AND CRIMSON ILLUSTRATOR



I have selected this number from my spring crop of pigs. They are a picked bunch and are real herd headers. I am not expecting high prices, but am offering real bargains.

THIRTEEN SPRING GILTS BY KING ORION CHERRY

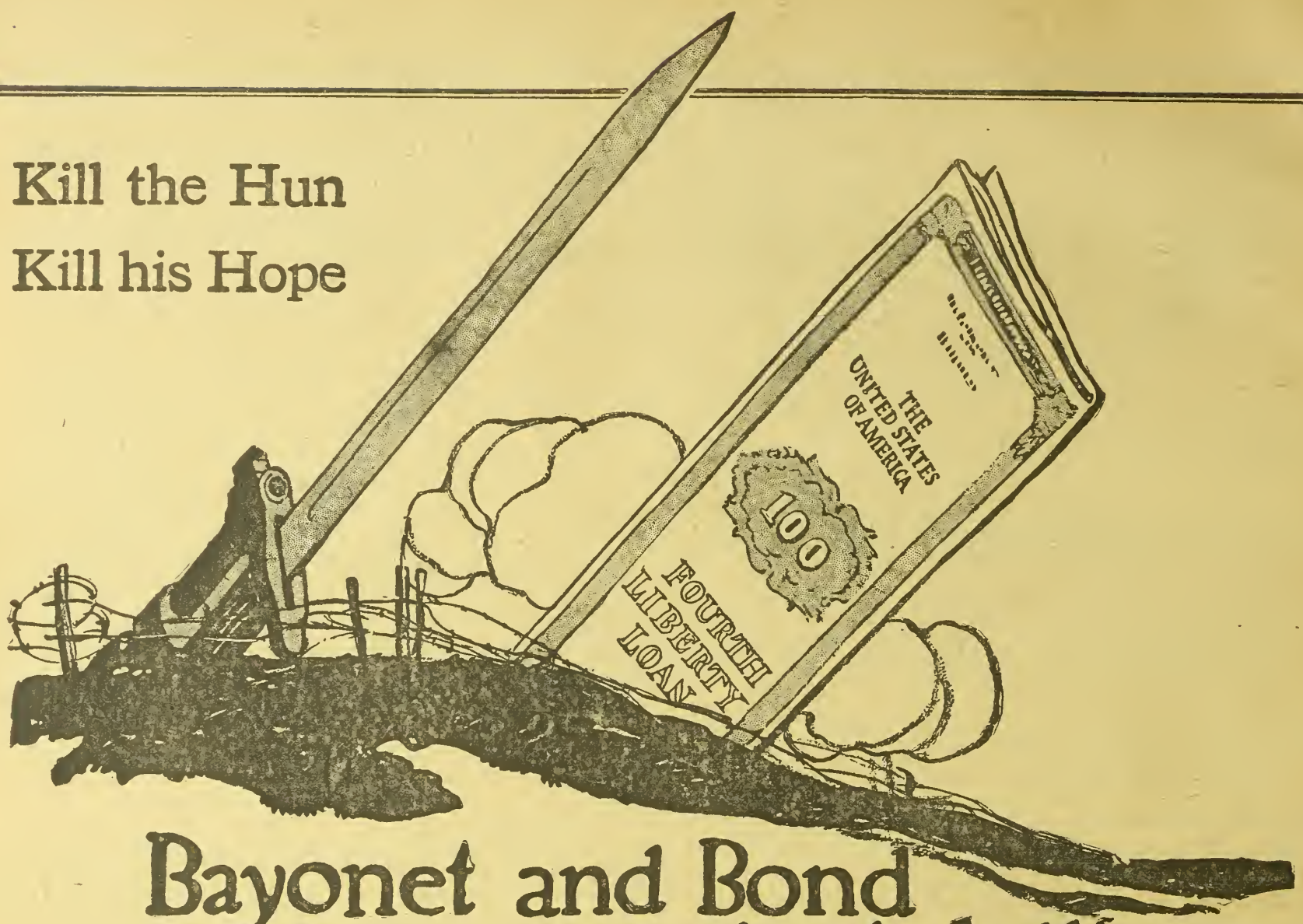
These gilts are every one good and will please anyone wanting foundation herd material.

Please send for catalog and come to my sale. I guarantee a splendid offering.

W. W. ZINK, TURON, KAS.

Auctioneer—Col. John D. Snyder

Kill the Hun
Kill his Hope



Bayonet and Bond -both kill!

ONE KILLS the Hun, the other kills his hope. And to kill his hope of victory is as essential right now as to kill his fighting hordes. For while hope lasts, the Wolf of Prussia will force his subject soldiers to the fighting line.

We have floated other loans, built a great fleet of ships, sunk pirate submarines, sent our men across and shown the Kaiser's generals what American dash and grit and initiative can do. The Hun has felt the sting of our bullets and the thrust of our bayonets. He is beginning to understand America Aroused—to dread the weight of our arms and energy.

This is a crucial moment. Nothing can so smother the Hun morale, so blast his hopes, as a further message from a hundred million Freemen, a message that says in tones that cannot be misunderstood, "Our lives, our dollars, our ALL. These are in the fight for that Liberty which was made sacred by the sacrifices of our forefathers."

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OCT 25 1918

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 41. TOPEKA, KANSAS, OCTOBER 12, 1918. Established 1863. $1 a Year

GETTING STARTED IN SHEEP

Suggestions for Beginners in Selecting Breeding Stock

THE success of the beginner in sheep husbandry depends very largely upon his selecting the right kind and the proper number of animals in making his start. The present high prices for wool and mutton have created an unusual demand for breeding sheep. New flocks are being established throughout the Middle West and eastern sections of the United States, and those who have been keeping sheep for a number of years are not disposed to sell their good breeding ewes. As a result breeding ewes are scarce and the keen demand has created a market for the undesirable kind. These facts are pointed out in the opening sentences of a recent bulletin by Prof. W. C. Coffey of the Illinois College of Agriculture. "It is a mistake for any one, especially for a beginner, to buy these inferior grades," says Professor Coffey. "Rather than to buy unthrifty ewes improperly bred for producing lambs and wool on a profitable basis, it is better, as a rule, not to start with sheep at all."

Number of Ewes to Buy

Begin with a small flock, advises Professor Coffey. He states that the beginner can learn more about the types and habits of sheep from a small flock than from a large one. If he has a flock of twenty-five ewes, it is easily possible for him to take note of the capacity of each for producing lambs and wool. He develops a conception of the type of ewe that is prolific, motherly, and able to produce enough milk to grow her lambs rapidly. By observing certain individuals from day to day, he also becomes familiar with the habits of sheep and learns to know when they are slightly "off" in health. Often a little attention in the first stage of illness will restore a sheep to complete health, but if it is neglected until it no longer attempts to stay with the flock, the task of treating it is much more difficult.

The beginner should buy enough sheep, however, to justify giving them adequate attention. Except in certain periods such as lambing time, fifteen to twenty-five ewes require little, if any, more care than from two to ten head. A busy man with three or four sheep on his hands will find that they require more time than the returns will justify, and he will be tempted to neglect them. Even boys and girls above twelve years of age, enrolled in the lamb clubs, would better have from four to ten ewes rather than only two.

Owners of large farms who are experienced in handling classes of live stock other than sheep may find it advisable to start with a carload of ewes. By handling such a number on a large farm the flock is more likely to receive proper attention, and in selling the lambs there is a distinct advantage in having enough to make a carload.

In what follows we give Professor Coffey's suggestions on getting started in sheep, as they appear in the pamphlet referred to above.

Kind of Ewes to Buy

The beginner desiring twenty-five ewes or less should select, if possible, from healthy well-bred flocks in his home community. He will know more about his ewes than he would were he to purchase them on the open market, and he avoids a heavy freight bill. But in many cases there are no desirable ewes for sale in the home community and the only recourse is to go to commission firms on the open market or to dealers operating outside of established markets. Before purchasing from any dealer, satisfactory information relative to his ability and integrity should be obtained.

There are two general classes of ewes, natives and westerns. The natives are produced in the farm flocks of the Middle West and East; the westerns in the large flocks or bands kept on the ranges of the West. As a rule the natives are larger and fatter than the westerns and hence cost more per head. They usually have dark faces indicating a preponderance of Down mutton blood, while the westerns have either white faces as a result of crossing the Merino with the long-wool breeds, or mottled faces indicating one cross of Down blood. The natives are inclined to produce more twins, but a given number of western ewes will produce a lot of lambs more uniform in size than an equal number of natives, because they will lamb within a shorter period. As a whole the westerns are more nearly free from internal parasites than the natives and, taken as lots, they are a little more uniform in their wool. Some prefer the natives; others, the westerns. If carefully selected, either are satisfactory as foundation material.

Ewes selected for breeding should be (a) well grown, healthy, and spirited; (b) sound in mouth and milking organs; (c) from one to four years old; (d) covered with dense coats of marketable wool; (e) uniform in size and breeding; (f) straight in body lines and showing capacity for feed.

Good health, which is very important, is indicated by lively, energetic movements; by a bright, clean skin, deep pink except in occasional specimens of the dark-faced breeds; and by bright eyes, with plenty of red blood showing in the veins of the whites of the eyeballs.

Pronounced emaciation, hard coughing, pale skin, dry harsh wool, and chronic scouring, are indications of poor health. Ewes may be thin because they have been suckling lambs and have not had enough feed. It is well to buy such ewes if they are otherwise desirable, but unthrifty ewes should not be purchased, for they may be infested with internal parasites which are hard to eradicate and which permanently injure the health of the flock.

The teeth should be carefully inspected, especially if the ewes are over four years old. Even though the front teeth be intact, some of the molars may be missing, or worse still they may be decaying and forming poisonous pus, the absorption of which may later cause the death of the animal.

The ewe's udder should be soft and pliable; the teats intact and free from hard cores. Sometimes shearers, accidentally or otherwise, cut off the ends of the teats. In healing, the milk channel is usually closed and the teat becomes functionless.



FARM FLOCK ON H. W. M'AFEE FARM, SHAWNEE COUNTY.—MOST PROFITABLE STOCK ON FARM, SAYS MR. M'AFEE

With respect to age, the ideal ewe for the beginner is the two- or three-year-old. Ewes of this age are in their prime for producing both lambs and wool. Having raised one or two crops of lambs they have less trouble in delivering their lambs and they are better mothers than young ewes. Four- and five-year-old ewes may be profitable for two or three years, but before a purchase is made they should be carefully inspected by a competent judge. As a whole, six-year-old ewes are on the decline in wool production and they are good for at most only two crops of lambs. Yearling ewes do not equal two and three-year-olds in the first year, but they are a better investment than old ewes because they are increasing in their producing powers. As a practice, the breeding of ewe lambs is bad flock husbandry. They are too young to be good mothers and their development is likely to be arrested. It may pay now and then to breed well-grown ewe lambs born in February or March so that they will lamb in April or May, but they should receive the best of care during the pregnant and sucking periods.

The wool is a very important factor which too often is partly overlooked in selecting breeding ewes. A ewe yielding less than eight pounds should be discarded unless she is an exceptional producer of lambs. To get a fleece of desirable weight the body must be densely covered with wool. The purchaser should see to it that the belly is well covered and that the wool extends to the knees and hocks, and also over the forehead and cheeks. The fleece should be even in quality and for farm flocks should grade from one-fourth blood staple to fine staple. In addition to its commercial value a dense, compact fleece, completely covering the body of the ewe, protects her health by keeping her skin dry and by lessening the effects of sudden changes in temperature.

For the sake of the greater value which results from the uniformity of the lamb and wool crops, the purchaser should attempt to get ewes that are uniform in size and breeding. Ewes having capacious bodies and straight body lines are likely to have well-formed lambs and to nourish them well; and tidy, well-nourished lambs get to market quicker than any other kind.

Good Ram Half the Flock

Even more discrimination should be used in the selection of the ram than of the ewes, for as someone has aptly said, "A good ram is half the flock and a bad one is more than half." If possible, a pure-bred ram should be secured because he will impress his characteristics on his offspring in greater degree than will a grade. If a suitable pure-bred cannot be found, the next best thing to do is to get a ram from a high-grade flock belonging to a man who has culled his ewes carefully and who has used good pure-bred rams of the same breed for a number of years. It is hazardous to buy a ram without having any knowledge of his breeding; and no matter how good the breeding, it is poor practice to select a ram that does not conform to a high standard of excellence. Therefore, in selecting, one should endeavor to get a ram that is (a) bold in head features and strong in constitution; (b) active, vigorous, and from one to three years old; (c) symmetrical and evenly developed; (d) covered with firm flesh; (e) strong and straight in his legs; (f) evenly covered with a dense fleece.

Occasionally it is possible to get an excellent pure-bred ram for a grade flock at a comparatively cheap price because he is deficient in one or two breed characteristics. In hornless breeds, a ram having strong stubs of horns cannot be sold at a high figure; nor can a ram having dark wool on his head command a high price if the breed requirement calls for a white wool in that region. In case a man starts with a ram belonging to a breed generally recognized as being adapted to his community, he should select rams of that breed year after year. By using care in selecting his rams he should be able to correct any marked deficiency in his flock without introducing a ram of another breed.

If Your Subscription Has Expired See Page Seven

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THE ALL-AMERICAN JOB

USING the food-power and the man-power to the utmost to win the war is to be our religion of 1919—and by this sign we shall conquer. Remember that a supreme concentrated effort on the part of all the Allies, and particularly on the part of America, would clean Germany up. —DR. ALONZO TAYLOR, U. S. Food Administration.

FIXING HOG PRICE

Price fixing of any kind leads to many complications. The attempt to guarantee prices for pork is no exception. The thirteen-to-one corn-hog ratio is to be maintained, according to the reports made following the conference of the agricultural advisory committee with the Food Administration. It will be remembered that last fall the Food Administration stated that it would use every effort possible to make $15.50 a hundred the minimum price for the average of packers' droves on the Chicago market until further notice. The promise was also made that the Food Administration would endeavor to stabilize the price of the hogs of the 1918 farrow so that the producer could count on getting for each hundred pounds of hog thirteen times the price of a bushel of the corn fed into them. Hog men have been looking forward some time for definite action that would settle the uncertainty as to future prices. The report of this conference of the Food Administration with the agricultural advisory committee develops that the minimum guarantee of last fall is still to be maintained. In view of present prices of hogs, this may seem of small moment, but it will have a quieting effect to have the announcement definitely made.

The one new piece of information in the report that has just been made is that corn is to be figured at the "farm value," which is defined as the average selling price of corn at the local railway station. Hogs are bringing good prices now and on this basis the thirteen-to-one ratio is probably being maintained.

The report of the special subcommittee of the agricultural advisory board is of considerable interest since it throws new light on the commercial methods likely to be used in the endeavor to follow out the policy announced last November. The recommendations of the committees are as follows:

"It is recognized that the Food Administration has no power to fix the price of hogs or corn, and can only influence the hog price so far as the volume of controlled orders for the army, navy, Allies and export trade will absorb the surplus production. If prices should go so high as to curtail consumption at home and abroad, then in this event the stabilization of prices during the next winter would be likely to fail, with disaster to the producer. On the other hand, it must be recognized that the costs of production are necessarily greatly increased, and that to maintain production fair returns must be assured to the farmer. It is, therefore, in the fundamental interest of the producer and consumer that both extreme high and low prices should be guarded against.

"In order to effectually carry out the above policy of the Food Administration, it is recommended that in dealing with the packer in respect to the co-ordinated purchase of pork products, directions should if necessary include a definite price basis in advance from month to month for the packers' purchase of hogs, upon which such orders will be based.

"It is recommended by the committee that the 'average cost per bushel of corn' for the purpose of determining the price of hogs be considered as the average 'farm value of corn,' or the average selling price of corn at local railroad stations as determined by the Department of Agriculture, and that the general corn figures be arrived at by taking these averages and considering them according to production over the eight leading hog and corn producing states for a period of five months preceding the month the hogs are marketed, or prior to the month for which directions are given to the packers. The price of hogs should be calculated on the average of packers' droves at Chicago.

"To illustrate: Based upon the prices of corn figured on the above basis during the last five months, and a general survey of market and consumption conditions, it was agreed that a fair price interpretation of the ratio for the month of October would be an average price, for the average packers' droves, of about $18.50 per hundred pounds at Chicago. It cannot be expected that the day to day market prices, with the fluctuating flow of demand and supply, can be maintained at any fixed and definite figures, but that it should be the aim to maintain about an average during the month.

"The indications of war demands are that the supply of pork products for the future should be kept up to the present level of production. The producers have responded magnificently and are placing at the hands of the Government the hogs with which to carry over the allied and domestic necessities for the next twelve months. It is obvious that after peace the world demand for pork products will be greatly increased over the present large war demands. The Food Administration should endeavor during the war to maintain prices for hogs that will be profitable to the producer and fair to the consumer, and to give this assurance to the producer, the committee recommends that the Food Administration should at once announce its intention to maintain the minimum price of not less than $15.50 continuously during the war."

On Thursday of last week Food Administration officials met with about forty-five packer representatives and it was agreed that no fluctuations in excess of 50 cents a hundred a week would be permitted and that the October price for hogs would be maintained on a basis of $18.50 a hundred as an average, with a minimum of $18. The packers also agreed that hogs would not be permitted to drop below $15.50 a hundred during the packing season, no matter what corn might be. Corn was slumping in price at the time of this meeting of packers with the Food Administration.

While pork at a price equivalent to the price of thirteen bushels of corn for each hundred pounds does not give a very wide margin, hog men seem willing to take chances at finishing hogs. The liberal buying of stock hogs on the Kansas City market is an indication of this feeling. Large numbers of stock hogs are going to Iowa, Illinois, and other states. Only last week four feeders from Storey County, Iowa, took out 150 hogs each. Three Warren County, Illinois, men also purchased 150 head each of immune hogs. One of these men had bought two carloads ten days before.

No announcement has yet been made as to the November price of hogs. It is to be assumed, however, that it will be figured on the same basis as the October price.

MILL FEEDS TO BE RATIONED

A distribution of mill feeds by states has been adopted by the Food Administration as a means of controlling the feed situation. The ruling is national in its scope, but a few exceptions are made in sections where the weather conditions were unusualy severe and feeds as a result are extremely scarce. Kansas is included in the excepted territory. The text of the ruling is as follows:

"The wheat miller shall distribute all mill feed manufactured by him equitably between the different states of the United States, in such manner that during each calendar quarter on and after October 1, 1918, the amount of wheat mill feed shipped into any state shall not be a less percentage of his total shipments of mill feed during such quarters than was shipped into such state in the corresponding quarter of the year 1917. Where shipments made in 1917 were subsequently reconsigned to other points, the ultimate point of consignment shall be taken as the basis for the foregoing calculation, so far as the miller, from his records or best judgment, can judge as to the ultimate point of consignment. This rule shall not apply to mills located in the drought areas of Montana, Colorado, New Mexico, Nebraska, Kansas, Oklahoma and Texas."

A similar rule has been issued applying to feed dealers. The Food Administration states that farmers should realize that the price of wheat mill feeds is artificially low and the supply is insufficient to give everyone the quantity desired. Under the system of distribution outlined, however, the benefits of low-priced mill feeds will be shared by a greater number of farmers than heretofore and the feed will be used in a manner to strengthen America's position in the international food program.

It is further announced that a pledge card system of control will be put in operation. This began October 1 also. Millers and feed dealers all over the country are securing from those buying feed a signed pledge that they will not use mill feed for other stock than dairy cattle, poultry, young pigs, young calves, or a weekly bran mash for work animals, and that they will not at any time have more than a sixty-day supply of mill feeds on hand.

The ruling under which the mills distribute in connection with the pledging of users of mill feed amounts practically to a rationing out of the mill feed of the country with some advantages to certain states like Kansas where the feed conditions are unusually severe. The purpose seems to be to limit the use of mill feeds all over the country, and since Kansas and a few other states are exempt from both the pledge and the mill restrictions, more feed should be available in these states. In announcing these rulings, Mr. Hoover points out the serious needs of our Allies for animal feeds during the coming months and also the necessity for so apportioning out mill feeds as to maintain the production of milk, both in the United States and the allied countries of Europe. He intimates that the artificially low price of mill feeds as compared with the prices of other feeds is resulting in a great deal of mill feed unnecessarily going into work animals and beef cattle.

We can confidently expect this ruling as to distribution with the general appeal for mill feed conservation to bring results. The American people have given the Food Administration remarkable co-operation all along the line.

GRADUATED PRICE FOR WHEAT

It costs money to hold wheat, and yet the man who goes to the expense of storing must look forward to the same price that he could have obtained if he had sold direct from the thresher. A very large percentage of the crop did go direct into the channels of trade, but some wheat was necessarily held back. In Shawnee County the farm bureau reports that the man who threshed late was handicapped financially. There was stiff rivalry among the larger wheat growers on the priority service of threshing machines. Very little wheat was stacked because everyone expected to thresh at once. This resulted in damage to some of the wheat left in the field.

In view of the fact that carrying wheat on the farms, as many are compelled to do, is an added cost, several of the farm bureaus of Kansas are recommending that a graduated price be fixed by the President. The plan has been taken up with the Food Administration.

As a result of the heavy marketing, elevators were swamped and a railway embargo was put in operation. This shutting off of the market caused some wheat growers to sell for a lower price than the Government price, because they could not help themselves. Buyers taking advantage under these circumstances, however, are being punished by the enforcement division of the Grain Corporation.

The paying of the graduated price based on the time the wheat has been held is no more than justice to the grower who could not get his wheat marketed direct from the machine. He is rendering a real service in holding his wheat and should not be compelled to suffer loss as a result.

CONSERVATION OF EFFORT

The creation of the field division of the National Council of Defense is a step in the right direction. It will eliminate much duplication of effort and lead to greater efficiency. This new field division of the Council began its work October 1. Its purpose is to organize and arouse the opinion and the energies of the country upon war work. It is to move through the state councils and subsidiary organizations down to the heart of the nation, its core, the small community. It is an amalgamation of those organizations which have hitherto made this effort—the state section of the council and the woman's committee—and all the far-reaching agencies of both are incorporated as a part of its machinery. It is intended to be the connecting line between the National Council and the citizen. Since the war began this connection has been maintained through the two organizations which are now merged; but it has become more manifest with each passing month that there was no sense in supporting two distinctive agencies, one of men and one of women; and this was recognized earliest by the state councils which took the women of the country into their directorate and gave them full part in their work. The part which women are playing in this war and the increasing part which they are taking in making it possible to maintain it make this consolidation no more than the recognition of a fact—all men and women are making and are to make common sacrifice and effort.

The preliminary classification of the International Exposition to be held in Chicago November 30 to December 7 is ready for distribution. A glance through this booklet shows that the exposition will be this year a real food training camp in the service of the United States. The pamphlet will be sent on request. Address B. H. Heide, Chicago Union Stock Yards.

BUTTER PROFITS CONTROLLED

The Food Administration is turning the full power of its enforcement machinery against dealers who are attempting to reap large profits from the rising butter market. Under Food Administration rulings, butter, both storage and fresh, must be sold at prices not to exceed a stipulated margin over cost. Dealers are not allowed to profit by abnormal advances in market quotations.

Wear your old clothes and buy Liberty Bonds.

SELLING WALNUT LUMBER

Firms Having Government Contracts Paying High Prices for Logs

ONE of our Brown County readers writes that walnut logs are worth more for farm lumber than is being paid by concerns buying walnut to use in filling government contracts. He says that if a crop of walnut logs cannot be sold for more than the price of one or two good crops of corn or alfalfa, there is little inducement for leaving eight- to ten-inch walnut trees stand until they grow to marketable size. The land would give a better return if cleared and put in cultivation. This raises a question in forestry about which there has probably been considerable misinformation passed around. We took the matter up with Prof. Albert Dickens of our Agricultural College, who has always been known for his practical ideas on the matter of tree planting in Kansas. He says:

"A good deal of the disappointment and misunderstanding that is expressed in the matter of marketing walnut logs is due to the fact that the Government has not well advertised the prices that are paid and the very considerable difference that is paid for different logs.

"I think there is no doubt that a good many buyers have misrepresented the matter when they have tried to buy logs and have talked about 'commandeering' as if it was likely to be done. As a matter of fact the Government simply has contracts with a number of firms for 'flitches' for gun stocks and for planks for airplane propeller blades.

"Most of the prices have been by the thousand and they have varied from eight to twenty dollars for twelve-inch logs, to as high as $100 for logs that were fine and of large diameter. For instance, a log twelve inches in diameter and twelve feet long, contains forty-eight feet, and at $20 per thousand would bring a little less than one dollar. A log thirty inches in diameter and twelve feet long would contain 507 feet and at $80 a thousand would bring slightly over $40 for the one log.

"Considerable misunderstanding has come about from some buyers paying for logs on the stump while others have bought and paid for logs on the cars ready for shipment. It is easily recognized that none of the buyers are taking any chances on the quality of the logs and if the owner insists on having the prices stated while the trees are standing, he may be certain that the buyer is protecting himself against any possible defect that the logs may contain, such as 'shaky' spots, bad hollows or splits occasioned from accident or bad judgment in cutting and felling the trees.

"In a circular sent out by the Forest Service of the United States Department of Agriculture it is suggested that from ten to twenty dollars a thousand is the ordinary cost of cutting the trees and getting the logs to the cars. This cost varies of course with the distance from the loading point. I have known of some cases where the cost of getting the logs to the cars is considerably in excess of these figures.

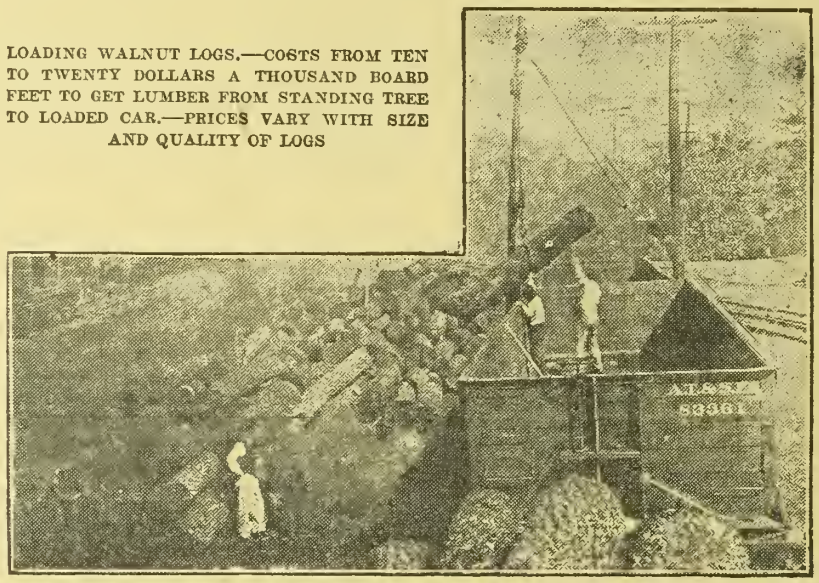
"Another reason for disappointment in selling walnut trees is that the logs are always measured at the small end and when a tree is felled it is frequently found to be considerably smaller in diameter than the owner expected as he viewed it from the ground.

"It is unusual to think of walnut as a crop, because in practically all timber stands there is a small amount of black walnut. Black walnut does not succeed well in close plantings and the best walnut trees are usually found at some considerable distance apart among trees of other species. Most of the logs that are being cut now are found along crooked creeks and along river banks and are practically just that much bonus on the production of the land. Your Brown County correspondent is right in thinking that a farmer could not well afford to devote farm land to growing logs, for even on the finest Kansas timber plantations there are not usually more than ten to twelve good logs in a square acre, but where the timber is a thin belt along the streams it is not uncommon to find trees from fifty to a hundred feet in height, where care has been taken to preserve them.

"A good deal of disappointment has come to Kansas farmers who have reasoned that if one walnut log was a good thing, a walnut plantation would be a money-making proposition. Even on strong soils walnut has not given satisfactory results in pure stands. On some of the old timber claims, plantings which were made of walnuts have been unsatisfactory. On rather high upland near the Agricultural College there is a walnut plantation made in 1867. The nuts were planted where the trees now stand and they are said to have been given good care during their early days. There are but few logs of marketable size, that is, from ten to twelve inches in diameter, and there are probably fifty that are under eight inches, while there are some as small as five to six inches after fifty years' growth. The same amount of energy devoted to planting walnuts along some crooked streams, ravines, or even in the swales on a prairie farm, would have given greater returns and the trees would have been of service in holding soil and preventing 'washing,' whereas on the good farm land they have not made rent equivalent to the rent that would have been secured if the ground had been devoted to grain or grass crops.

"The walnut is a species that demands good soil. In the early days of Kansas the old principle of forestry was frequently stated, that 'land that was too poor for crops might well be planted to trees.' On one gravelly hill on the horticultural farm at the Agricultural College, a block of walnut was planted in 1874. At the end of forty-six years there is not a tree that is over six inches in diameter at breast high. This ground would grow fair crops of kafir, corn, alfalfa or prairie grass, and would have given much greater returns if devoted to these crops. This land could usually be depended upon to give two fair crops and one light crop of alfalfa which would usually average about two tons an acre to the season. Some of the trees are not making good growth and in all probability will never attain sawmill size and as fuel or posts the value of the stand would be small. On the other hand walnuts planted in single rows have in fifty years reached a size of fifteen inches and are now being sawed up into marketable logs, for which good prices are being paid."

Black walnut is urgently needed for war purposes, according to the circular of the Forest Service to which Professor Dickens refers. Firms having contracts with the Government to furnish black walnut for gunstocks and airplane propellers, and their subcontractors, buy logs in carload lots and most of them buy standing timber of merchantable amounts. These afford the best markets for owners of walnut, since small sawmills are generally poorly equipped and wasteful in handling walnut. In outlying sections of walnut production, however, the smaller sawmill sometimes offers the only practical means of utilizing walnut as war material, selling the product to firms filling Government contracts. A list of the latter may be had by addressing the Forester, Forest Service, Washington, D. C. Owners of walnut would do well to communicate with them.



LOADING WALNUT LOGS.—COSTS FROM TEN TO TWENTY DOLLARS A THOUSAND BOARD FEET TO GET LUMBER FROM STANDING TREE TO LOADED CAR.—PRICES VARY WITH SIZE AND QUALITY OF LOGS

Logs are wanted twelve inches and over in diameter at the small end and eight, ten, twelve, etc., feet in length. A few logs down to ten inches in diameter and six feet in length will be accepted in order to avoid wasting useful parts of the tree. Trees cutting less than a ten-foot log fourteen inches in diameter lose much in scaling and should be cut sparingly and only to fill out an order. The Doyle rule is the one most commonly used for scaling logs. To find the number of board feet by the Doyle rule, subtract four inches from the diameter of the small end of the log measured in inches; square one-quarter of the remainder and multiply the result by the length of the log in feet. For example, a log sixteen inches in diameter at the small end, and ten feet long, has ninety board feet.

Before starting to cut their walnut, owners should have an agreement regarding specifications and terms of sale with one of the firms filling Government orders. Prices for logs vary widely and are based chiefly upon diameter and cost of transporting them to the manufacturing plant. The prices paid at loading points for reasonably clear walnut logs that will cut airplane propellers and gunstock material have, in a number of cases, averaged around $80 to $90 per thousand board feet, higher or lower depending on the diameter and location of the logs. On the stump similar walnut has been bringing mostly from $60 to $80.

Gunstocks are made from planks or "flitches" sawed two and one-half inches thick, from second-grade logs, and the less desirable portions of better logs. Airplane propellers demand the very best grades and clear walnut boards, full one inch thick. The widths most desired are ten inches to fourteen inches and the lengths ten feet and up. Logs sixteen inches and up at the small end and ten feet and over in length, containing airplane propeller stock, are especially needed by the firms upon whom our Government is dependant for war material for winning the war.

A carload of walnut logs usually contains from 3,000 to 5,000 board feet. Larger sized logs average eighteen to twenty-five and smaller logs from thirty to fifty per carload. Since it is impracticable to ship less than a carload of logs, owners of smaller amounts should join with neighbors in making co-operative shipments of logs or selling jointly a merchantable amount of standing trees to firms having Government contracts.

The list furnished by the Government contains the names of forty-eight firms. Probably only three of these are operating in Kansas; namely the Des Moines Sawmill Company of Des Moines, Iowa; the Penrod Walnut & Veneer Company of Kansas City, Missouri, and the Pickrell Walnut Company of St. Louis, Missouri. There are a good many subcontractors buying walnut logs and sawing out gunstock "flitches" and airplane propeller lumber. The Government fair price schedule is given in the table on this page.

GOVERNMENT FAIR PRICE SCHEDULE FOR WALNUT LOGS

Diameter	Prices of Black Walnut Logs 8 Feet and Over Long On Board Cars — Minimum	Maximum	Equivalent Value for Standing Timber — Minimum	Maximum
12"-14"	$ 45 per M.	$ 55 per M.	$ 20 per M.	$ 35 per M.
15"-16"	55 per M.	65 per M.	30 per M.	45 per M.
17"-18"	65 per M.	75 per M.	40 per M.	50 per M.
19°-20"	75 per M.	85 per M.	50 per M.	60 per M.
21"-22"	85 per M.	95 per M.	60 per M.	70 per M.
23"-24"	95 per M.	105 per M.	70 per M.	80 per M.
25°-26"	105 per M.	115 per M.	80 per M.	90 per M.
27"-28"	115 per M.	125 per M.	90 per M.	100 per M.
29"-30"	125 per M.	135 per M.	100 per M.	110 per M.
31" and up	135 per M.	150 per M.	110 per M.	120 per M.

Do We Deserve Credit?

If we save and thereby better our financial position and at the same time help our Government win the war, are we deserving of credit? The editor of the Duluth Herald thinks not. In a recent editorial he wrote:

"When Uncle Sam asks us to save to help win the war he asks us to do ourselves a great favor; and yet, simply because the need is great and the appeal urgent, and because the nation pleads with us to do this simple thing, we are prone to look upon it as a great favor to the country, and to stick feathers in our hats and go strutting around because we granted it. It's patriotic, all right. It helps the country—not only now, but later; not only for the war, but for the trial of national fiber that comes after the war—but it helps us even more.

"And it is so easy, so much more helpful to ourselves than to the country, so small a thing to do compared with what our boys in arms are doing, that it really is a joke to pin roses on ourselves for doing it.

"We ought to do it. We must do it. But instead of expecting Uncle Sam to decorate us for heroism we ought to get on our knees and thank him for the opportunity of getting a little sound sense pounded into us at last. And that goes as to the average individual, and as to the nation and people as a whole."

Christmas in Wartime

Except for young children, the Council of National Defense discourages the giving of any but useful articles as Christmas presents. This is no time for the indiscriminate and often reckless buying of other years. The children of course must have their Christmas, but they will be just as well satisfied with less elaborate presents than usual and with fewer of them, especially if the reason is explained to them.

In order to release the transportation facilities of the country from a congestion in the latter half of December which would be so hurtful to the interests of the nation that it cannot be permitted, retail interests have been asked to spread the period for holiday purchases over the months of October, November, and December. This year it is a patriotic duty to "do your Christmas shopping early."

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

GRAIN sorghum growers always complain of the difficulty of keeping the grain from spoiling. The grain of kafir, milo, and others of the sorghums is very close to corn in feeding value, but can easily become musty and unfit for feed if not thoroughly dried before storing in the bins. The threshed grain must of necessity be stored only in well ventilated bins. Otherwise it will heat and be reduced in feeding value. The heating in the bin is the principal reason for the unsatisfactory results in planting seed that has been stored in this way. It is practically never safe to plant bin-stored kafir seed. For seed purposes the only safe way is to select and store the grain in the head. This was described in detail in last week's issue.

In handling the general crop the usual practice is to throw the heads in long shallow piles as they are cut from the stalks. These piles must not be made too large, particularly if the crop is wet from recent rains or if it is at all green. When fully mature and thoroughly dried out, the heads of milo or feterita may be hauled directly to well ventilated cribs. The heads of kafir, however, require more care in drying, for the stems are apt to be green and juicy when the heads are cut from the stalks.

If threshing or grinding is to be done, the grain should be allowed to become thoroughly dry. In ordinary threshing a high percentage of grain is cracked. Cracked grain packs more closely and spoils more readily than whole grain. To increase the percentage of whole grain in threshing, reduce the speed of the cylinder and remove part of the concaves of the separator.

In storing sorghum heads or the threshed grain, every precaution should be taken to prevent heating. The more moisture the grain contains when put in storage, the more readily will it heat. If large quantities are stored in one bin, the risk of damage increases. The warmer and moister the climate, the quicker the grain will get out of condition. Weevils working in the grain increases its temperature and decreases the spaces for air circulation, thus making conditions favorable for further damage from heating. Storage bins should be provided with simple, cheap ventilators made of long, narrow frames covered with wire screen. These should be placed on the floor three or four feet apart, extending the full length of the bin, and opening at either end to the outer air. In wide and deep bins it is advisable to place a row of upright ventilators through the middle of the bin, the lower ends resting on the ventilator which has been placed on the floor, thus making a sort of chimney up through the grain and giving better circulation of air. Whenever possible the storage of sorghum in large bins should be avoided, and always stored sorghum should be inspected frequently.

Feeding Barley and Oats

Substitutes for corn must be fed extensively in Kansas during the coming months. According to our State Board of Agriculture, the Kansas corn crop this year is the fourth poorest on record. Corn is so high in price that livestock men long accustomed to the use of this grain are looking about for some more economical substitutes. The order of the Food Administration prohibiting the use of barley and other grains for brewing into beer will release large quantities of grain for feeding purposes. The grower of barley need not fear that his market is gone, and he can sell his grain with the feeling that it is being used for the production of human food, such as meat and milk, and for the maintenance of necessary work animals. Probably no grain comes nearer equaling corn in feeding value than good sound barley. Dr. C. W. McCampbell, head of the live stock department of the Agricultural College, makes the statement that for horses, cattle, and sheep, a hundred pounds of barley is equivalent in feeding value to a hundred pounds of corn. For hogs, approximately 110 pounds are required to equal a hundred pounds of corn, because the barley is more bulky and is less palatable to hogs.

These suggestions apply to good sound barley that grades number two or better. Up to the present time it has been almost impossible to buy barley that would grade better than number four. This grade includes shrunken, musty, dirty barley and is of uncertain feeding value, yet it is quoted at prices ranging from $1 to $1.25 per bushel.

If good sound number two barley can be bought for $1.25 a bushel, good sound corn would have to sell as low as $1.45 a bushel to be as cheap. Barley is plentiful in the northern states and since the brewing demand is gone, more of the better grades of barley should be available for feeding purposes.

Barley should be ground coarse or rolled for best results in feeding all classes of livestock.

In case barley is not available, oats will probably be the most economical substitute for corn, but as in the case of barley one should be careful about the grade purchased. One should buy number two northern oats. One should be able to buy such oats in car lots for less than 80 cents a bushel. Corn of the same grade would have to sell as low as $1.40 a bushel to be as cheap. Oats are about 25 per cent less efficient than corn for fattening hogs, but all other classes of live stock fatten almost as readily on oats as they do on corn. For breeding stock, oats is far superior to corn. Crushed oats usually give the best results. The supply of oats in most of the north central states is quite plentiful.

Never before was co-operative buying so profitable as at the present time, and car-lot purchases by groups of farmers and co-operative associations will help very materially to solve the feed situation this winter.

Manure Needs Phosphates

The fertilizer tests made in Kansas and in Missouri show that the soil is quite deficient in phosphates. Barnyard manure does not supply enough phosphates to meet the requirements. It has been found that the addition of phosphates to the manure will in many cases bring good returns. Barnyard manure can be thus reinforced either with the acid phosphate or the raw rock phosphates. Tests in Missouri have shown large returns from adding forty to eighty pounds of either acid phosphate or raw rock phosphate to each ton of manure applied. A good way to do this is to scatter the phosphate on the load just before spreading, or it may be scattered on the manure in the shed or pile from time to time as the manure accumulates.

The results of the soil fertility tests made at the Kansas station, which have just been published in bulletin form, show that phosphoric acid is about the only form of commercial plant food that need be considered. Lime of course may be necessary at times in order to correct soil acidity. On live stock farms where manure is carefully conserved and where good rotations are practiced including a legume, the use of the phosphate with the manure balances up the plant food requirements and increases the net returns from crops.

Patriotic Pig Club Show

LAST winter a group of patriotic boys in the community about the little town of McLouth, in Jefferson County, joined a pig club and most faithfully fed and cared for their pigs. They were providing pork to help win the war, and this thought kept them steadily to the task. As a special feature of their club work a show was held on the first Saturday in September, attended by over two hundred interested persons.

Eric Steeper, a local banker who had financed the club, offered first, second and third cash prizes to the boys who produced the pork with the least expense and showed their best pigs at the local show. A number of the boys selected the best pig from their litters and brought them to this show, while others brought several pigs, as it seemed almost impossible to pick out the best one. When it came to awarding the prizes, even the judge, O. W. Devine of KANSAS FARMER, had a hard time deciding which was the best pig of the lot shown. Mr. Pennington and Professor Beeler assisted Mr. Devine and after looking at the pigs, studying the records kept by the boys, and reading their stories, they decided that Dwight Williams, secretary of the club, was entitled to first place in the pork production contest, having produced his pork at $7.41 a hundred pounds, thus proving that pork can be profitably made even at the present high cost of feed. George McBroom, president of the club, was awarded second place, and Cleason Freeman third.

Earl Bower, who furnished the gilts for this club, had offered a first and second prize for the best type pig from a breeding standpoint, and in addition had offered to breed free the best sow pig from each litter represented at the show. In this contest George McBroom took first and Dwight Williams second. Dwight and George later sent their pigs to the Kansas Free Fair in Topeka, where sixty-three state pig club pigs were shown. In the special showing by breeds at the big Free Fair, which was made possible by the generosity of the hog breeders over the state, these two boys were both very successful in showing their Poland China pigs. George took first on Poland China boar pig and fifth on Poland China sow pig, and Dwight took first on Poland China sow. George also sent his pigs to the Valley Falls fair, where he took third in the pig club class.

Dwight Williams sold four of his pigs when they were seven weeks old for $80. This paid for the sow and all the feed the sow and litter had consumed up to that time, leaving him the sow and one pig as clear profit. It would be hard to convince Dwight that there is no money in raising pigs.

Mr. Steeper, the local leader, organized this club by calling a meeting January 5. It was a stormy day, but thirteen boys were present and each signified a willingness to buy a gilt and do the club work. Mr. Steeper loaned the boys the money to pay for the gilts, which were furnished by Mr. Bower, who delivered them in crates at McLouth on the day appointed. The crates were numbered, duplicate numbers being put in a hat and each boy while blindfolded drew a numbered slip from the hat, getting the gilt corresponding to the number drawn. Mrs. Jessie McCafferty, the county club leader, was present and organized the boys into a state pig club.

These boys had several meetings during the season, one of which is worthy of special mention. At this meeting, held in June, Paul Imel, who had charge of the live-stock work for the state, gave an illustrated lecture at the McLouth theater, the building being crowded full. Mr. Imel entered war service early in July, so the McLouth meeting was one of the last pig club meetings he attended. The boys all enjoyed his talk and learned many valuable things about pig feeding.

It is estimated that this club has produced over 13,000 pounds of pork, which will make several meals for the soldiers. This enthusiastic group of boys adopted a club yell which runs as follows:

"Grow, grow, grow a pig,
Fatter every day.
Merrily, merrily, cheerily, cheerily,
Growing war pigs will pay."





DWIGHT WILLIAMS AND HIS PRIZE PIG AT LEFT. — BELOW, GEORGE M'BROOM AND PIG AT M'LOUTH PIG SHOW. — GEORGE HOLDS RIBBON JUST AWARDED

Rats Are Spoilers

In England they fine a man who lets the rats destroy grain. Here in this country it is estimated that the damage from rats and mice runs into millions each year. Making bins, cribs, and other buildings rat-proof by using concrete or tile in floors and foundations is the best remedy. Rats cannot make much headway against a concrete foundation or floor. Wire screen can be used to ratproof both new and old buildings.

We are not threatened with fines, but we are urged to use every effort possible to reduce the damage done by these pests. Study the question of keeping rats out of grain and other feeds. It is not only a serious loss to the individual to feed a horde of rats on the farm, but it has a bearing on the prosecution of the war. Food is too important a factor in our war plans to be wasted because of a lack of forethought in planning to make buildings where grain is stored rat-proof.

The Dog Army of France

There are four classes of dogs enlisted in the dog army of France—rat killers, Red Cross dogs, sentinels, and dispatch dogs. The last two are the most important. The sentinel dogs go into advance posts with their masters and are trained to give the alarm, by a low growl, at the approach of any other person. The dispatch dogs are used for sending orders. They are real soldiers, too. They share all the dangers of life at the front and they share, too, the "wooden cross" or military honors.

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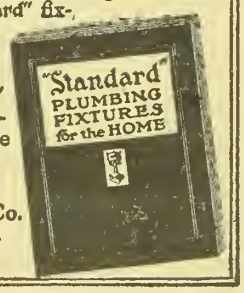

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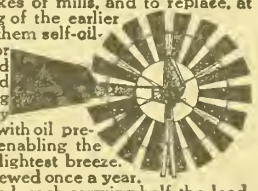
has become so popular in its first three years that thousands have been called for to replace, on their old towers, other makes of mills, and to replace, at small cost, the gearing of the earlier Aermotors, making them self-oiling. Its enclosed motor keeps in the oil and keeps out dust and rain. The Splash Oiling System constantly floods every bearing with oil preventing wear and enabling the mill to pump in the lightest breeze. The oil supply is renewed once a year. Double Gears are used, each carrying half the load



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MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Faulty Lubrication

THE life of an internal combustion engine is at the mercy of lubrication. The sbortage of steel and labor is adding to the cost of tractors and repair work of all kinds. This is an added reason for practicing the most rigid economy in operation.

"Tbe man who buys his first tractor, automobile or gas engine, should make tbe lubrication of his motor a subject of special study," says a writer in American Thresherman and Farm Power. "The ravages of friction will quickly destroy, unless all moving parts are protected by a clinging film or cushion of good oil. He must not be satisfied with 'just oil' but should use the utmost care in selecting his lubricants. And once he has made this selection, he should never mix one grade of oil with another.

"A temperature of more than 1200 degrees is often developed in the cylinders and unless the motor oil be uniform and of the highest grade so as to function properly under extreme heat, dry cylinders will result, wbich means that they will become scored and worn. Besides wearing out the engine, this eauses two other serious conditions, viz: loss of power and waste of fuel.

"The best oil is, therefore, one that will perform its function and then mix with tbe fuel and be entirely burned up. No residue must be left; no friction permitted.

"Many motor owners have tbe idea that too mucb oil cannot be used. This is not a fact. The sump or reservoir of a motor should not be filled above its correct level. If too much oil is used, more will be drawn into the firing chamber than can be used and burned and a earbon-forming paste will result.

"This is especially true of tractors, for these motors are continually taking in dirty, gritty air, and these substances mix witb this paste, causing a destructive wear on pistons, piston rings and cylinder walls.

"If the splash system is used, it is a good practice to drain tbe oil out of tractor crank cases at least once a week and replace it with new oil. Some authorities reeommend the cbanging of oil every three days. In either case kerosene should be put in and the engine allowed to run a few minutes to wash out gum and grit, then draw out the kerosene and refill with new oil. Be sure that your filling funnel is absolutely elean and free from sand, dirt and other substanees.

"The changing of oil in an automobile need not be done as often, but remember that new oil and clean motor surfaces are eheaper than a new motor or even repair bills. The best oil, changed often, is economy.

"The farmer has always been subjeet to more or less eritieism for the treatment he gives his implements and machinery. Some of this eritieism is just, some is not. But the fact remains that there has been an enormous waste in farm machinery that must be avoided in the future. And correct lubrication is one of the surest ways to give maehinery longer life and to make it give more productive power while it is in use.

"The sooner the farmer recognizes this truth, the sooner his annual profits will increase."

Waning Horsepower in France

After the present harvest is gathered, French farms are to be almost stripped of horses suitable for military purposes. The requisitioning of horses has already caused farmers a great deal of hardship, and although this measure is necessary to supply the army, it is being done with the greatest consideration possible.

Farmers possessing only one horse are not to be deprived of their animals. Requisitioning committees have been instructed also to take only a certain proportion of the animals of others, and most of the horses selec'ed are not to be removed from farms until after the crops are gathered.

The rapidly decreasing animal power of France will demand still greater human efforts of the war-weary populations, and especially of the women and erippled men who are now operating most of the farms. Such conditions emphasize the need for throwing the full military and agricultural strength of America into the war to win it as quickly as possible.

Water System for Farm Homes

No convenience adds more to the comfort and well being of the family on the farm than a good system of running water. Many farmers feel the need of a water system and realize its value, but think that it is too expensive. They are overlooking the fact that there is a successful and practical water system which is within the reach of every farmer. It need not be elaborate. Such a system was worked out by the engineering division of our Kansas Experiment Station. A card of inquiry will bring full information.

Pays to House Machinery

Even though building cost is high, the price of machinery makes a machine shed imperative. Rust and weather put more machinery out of commission than service. The life of any machine, even though it be made wholly of steel, will be materially lengthened by protection from weatber. Bright parts should be given a coat of grease before the machine is stored away for the winter. New paint should be applied to places where the paint has scaled off. Careful housing of machinery, followed by eareful repairing before the working season, will pay big profits.

Sunday Saving of Gasoline

Public opinion proved all-potent in seeing that the request of the United States Fuel Administration, that pleasure driving of automobiles be discontinued on Sundays, was generally heeded.

In several cities the boys made life miserable for motorists who failed in their duty. In some instances, where automobilists ignored the request and displayed flags on their machines, these emblems were removed, with the contention that anyone wbo so failed in their patriotic duty had no right to display tbe flag.

In many places tbe police took a hand by requiring all motorists to explain their purpose for using cars on Sunday. The newspapers led public opinion by the manner with whicb, without exception, they criticized those wbo used their cars.

Machinery Helps Make Fuel

Wood can be made into fuel mucb more cheaply and quickly by machinery than by hand. Officials of the Forest Service, United States Department of Agriculture, estimate that a three-man crew will cut ten cords a day with an outfit consisting of a gasoline engine of six or eight horsepower, costing $275 to $300, and a 26-inch saw with its frame, costing $75.

If a double-action 500-pound splitter (cost $300) is added to this equipment, a four-man crew will average twelve to fifteen cords a day sawed into 16-inch stove lengths and split ready for use. This is at the rate of three to four cords a man in a day, while by hand labor one to two cords cut into four-foot lengths is the average. A circular on working up wood for fuel can be obtained free from the Division of Publications, U. S. Department of Agriculture, Washington, D. C., as long as the supply lasts.

The State Council of Defense of New York owns forty tractors and the necessary plows and other equipment. The tractors are loaned to county farm bureaus, or county defense committees. The State Council has a local representative in each county who approves all contracts.

Buying Liberty Bonds puts "U" in the U. S. A.

Your money should not be neutral; enlist it in the Fourth Loan.

With Concrete

You build once Only —Think of That!

¶ Fireproof, rotproof, ratproof, cycloneproof — no painting, no expensive upkeep, no insurance on the building — permanent.

¶ *We must stop waste*—waste of money, waste of labor, waste of transportation. *We can do it with concrete.* The bulk of materials required can usually be obtained on the farm or near by. Home labor can do the work.

¶ Granaries, silos, fruit and vegetable storage cellars, corncribs, milk, hog and poultry houses, hotbeds, cisterns, feeding and watering troughs or tanks, barns, all kinds of floors and pavements — any necesssary building or improvement you can think of —is most economically made with concrete, for *with concrete you build once only.*

Cold weather need not stop you.

Write for Bulletin 115, which will tell you what you can do with concrete in your spare hours this fall and winter.

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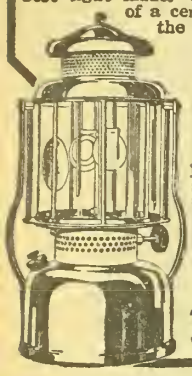

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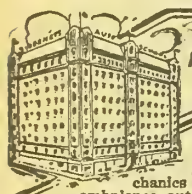

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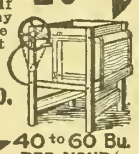
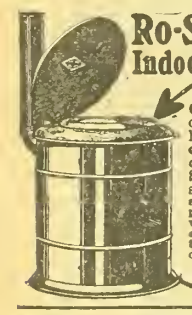


40 to 60 Bu. PER HOUR



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NATIONAL FOOD & FUR ASSOCIATION
Dept. 242 MILWAUKEE, WISC

If the Germans are supermen and the final strokes of the eternal powers, then what is to be said of the Yankee boys who cleaned them up?—Jewell Republican.

America must literally feed the world during the war and at the same time prepare to rebuild the world's food supplies when victory brings peace.

Chopped Alfalfa for Dairy Cows

CHOPPED alfalfa is equal to bran in a dairy cow ration, according to the tests made at the North Platte Experimental Substation of Nebraska. The experiments were conducted to see whether in a standard grain mixture, consisting of four parts corn, two parts bran, and one part oilmeal, chopped alfalfa could be substituted for the bran without reducing the milk flow. Two tests were made. The first extended from December 1, 1916, to January 30, 1917. The cows were fed thirty pounds of silage daily and had access to a rack containing alfalfa hay. The second test began March 1, 1917, and ended May 30. In this second test the cows were fed silage and alfalfa and had some grass toward the end of the period. The amount of the grain mixture fed in each test was based on the milk flow, a pound of the grain mixture being fed for each three or four pounds of milk produced.

Twelve cows were used in each test, being selected in pairs. Each pair was matched as closely as possible in breed, lactation period, previous record, milk flow, percentage of fat, and other factors likely to affect production. One cow from each pair was put into Group A and the other cow into Group B. The cows in Group A were fed a grain mixture consisting of four parts ground corn, two parts bran, and one part oilmeal during the first fifteen days of the test. The cows of Group B were fed a similar grain mixture with the exception that chopped alfalfa was substituted for bran. During the second fifteen-day period the two groups were exchanged. The test was extended through four fifteen-day periods, the groups being exchanged at the end of each fifteen-day period. Thus during two periods the cows of Group A were fed the bran ration and two periods the chopped alfalfa ration. The cows of Group B were fed in a similar manner, getting the alfalfa ration while those of Group A were getting the bran ration.

During the third period one cow in Group A while getting the bran mixture went off feed for a few days. A cow in the same group during the fourth period being fed the alfalfa mixture also dropped in production for a few days. As one cow was off when on bran and the other when on chopped alfalfa, the results were not affected. During the second test a cow became sick. This cow and her mate were taken out of the test, leaving only five pairs of cows.

In the circular giving the results it is stated that the six cows in Group A while on the bran mixture during two fifteen-day periods gave 3,972 pounds of milk containing 144.3 pounds of butter fat, and lost thirty-two pounds in weight. The same six cows while on the alfalfa mixture during two fifteen-day periods gave 3,952 pounds of milk containing 138.7 pounds of butter fat, and gained 223 pounds in weight.

The six cows of Group B while on the bran mixture during two fifteen-day periods gave 4,244 pounds of milk containing 158.4 pounds of butter fat, and gained 128 pounds in weight. This same group of cows while on the alfalfa mixture during two fifteen-day periods gave 4,332 pounds of milk containing 163.6 pounds of butter fat and gained one pound in weight.

Bringing together the results from both groups we find that the twelve cows while eating the bran mixture during two fifteen-day periods produced 8,216 pounds of milk containing 303 pounds of butter fat and gained ninety-six pounds in weight. The same twelve cows while on the alfalfa mixture during similar periods produced 8,284 pounds of milk containing 302.2 pounds of butter fat and gained 224 pounds in weight.

In the second test the five cows in Group A, while on the ration of corn, bran, and oilmeal, during three fifteen-day periods, gave 7,430 pounds of milk containing 250 pounds of butter fat, and lost three pounds in weight. The same five cows while on the ration of corn, alfalfa, and oilmeal, during three fifteen-day periods gave 7,147 pounds of milk containing 245 pounds of butter fat and lost fifty-two pounds in weight.

The five cows of Group B, while on the ration of corn, bran, and oilmeal, during three fifteen-day periods gave 7,239 pounds of milk containing 241 pounds of butter fat and lost 125 pounds in weight. The same five cows while on the ration of corn, alfalfa and oil meal during three fifteen-day periods gave 7,309 pounds of milk containing 239 pounds of butter fat and gained sixty-eight pounds in weight.

Combining the results from the two groups we find that the ten cows while being fed bran with corn and oilmeal during three fifteen-day periods gave 14,669 pounds of milk containing 491 pounds of butter fat and lost 128 pounds in weight. The same ten cows while being fed alfalfa with corn and oilmeal during three fifteen-day periods gave 14,456 pounds of milk containing 484 pounds of butter fat and gained sixteen pounds in weight.

Combining the two tests, it appears that twenty-two cows while being fed a forage ration of silage and alfalfa hay, and a grain ration of four parts ground corn, two parts bran and one part oilmeal during an average period of seventy-five days, gave 22,886 pounds of milk containing 794 pounds of butter fat and lost thirty-two pounds in weight. The same cows during the similar period and under similar conditions, and fed the same ration excepting that chopped alfalfa replaced bran in the grain ration, gave 22,741 pounds of milk containing 786 pounds of butter fat and gained 240 pounds in weight.

During these tests with twelve cows for two months and ten cows for three months, chopped alfalfa was substituted for bran in the standard dairy grain ration of four parts ground corn, two parts bran and one part oil meal without any appreciable unfavorable effect. The slight decrease of 145 pounds in milk and 7.5 pounds in butter fat production while the alfalfa was being eaten was more than overcome by the gain of 272 pounds in the weight of the cows. It is evident that in these tests alfalfa was fully equal to bran. If these results are the same as are found in general practice, then alfalfa fed in this manuer has the same feeding value as bran.

Professor Eckles to Minnesota

Prof. C. H. Eckles, who for the past fifteen years or more has been at the head of the dairy department of the Missouri College of Agriculture, has accepted a similar position with the Minnesota college. It is rather unusual for agricultural college men to remain at the head of an important department of an institution for so long a period. Professor Eckles has given practically fifteen years to the job of building up a first class dairy herd at the Missouri institution. A dairy herd such as that now owned by the Missouri College of Agriculture cannot be built up in a short period of time. It is to Professor Eckles' credit that his interest in the task has held him all these years. He is now recognized as one of the dairy leaders of the country. He takes the place in the Minnesota college of H. H. Kildee, who goes to head the animal husbandry work at Iowa State College.

Larger Milk Demand Follows Prohibition

Increased demand for milk following curtailment of brewing in the United States is a probable development in the nation's food situation during the coming year. In a recent conference with Food Administration officials at Washington, R. C. Reed, secretary of the Michigan Milk Producers' Association, presented facts of unusual interest to all dairymen. Since last May when Detroit became dry, consumption of milk, according to Mr. Reed, increased 20 per cent and of buttermilk about 50 per cent. To satisfy this sudden demand, it became necessary to bring in milk from greater distances and to a considerable extent utilize the supply formerly made into cheese.

Not only has consumption of milk increased in private homes, but many saloons have been converted into lunch rooms and ice cream parlors. These establishments have become new outlets for milk and its numerous products. The large increase in buttermilk consumption is explained by its mild acidity, which seems to allay the alcoholic craving.

While the Detroit percentages should not be considered an exact index to future conditions in other cities, they emphasize the present importance of dairy products in the world food program. Curtailment in the supply of alcoholic beverages and similar drinks may be expected to stimulate demand for milk to a very material degree.

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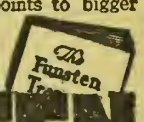
Send at once for Funsten 3-in-1 Book, FREE, Game Laws, Trappers' Guide, Supply Catalog, listing lowest prices on traps, market reports, guns, smokers, etc. A postal brings it.

Every indication points to bigger money to trappers this year than ever before. Furs are the rage, many trappers have been drafted—greater opportunity for *you*. Write for this book and Fur Price List.



FUNSTEN BROS. & CO.
of the International Fur Exchange
217 Funsten Bldg.
St. Louis, Mo.

SENATE CONCURRENT RESOLUTION No. 15.

Be It resolved by the Legislature of the State of Kansas, two-thirds of the members of each house concurring thereln:

Section 1. That the following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their rejection or approval:

Sec. 2. The Legislature may levy a permanent tax for the use and benefit of the state educational institutions and apportion among and appropriate the same to the several institutions, which levy, apportionment and appropriation shall continue until changed by statute. Nothing herein contained shall prevent such further appropriation by the Legislature as may be deemed necessary from time to time for the needs of said state educational institutions.

Sec. 3. This proposition shall be submitted to the electors of this state at the election for representatives in the Legislature in the year 1918. The amendment hereby proposed shall be known on the official ballot by the title "Amendment to the constitution providing for a permanent income for the state educational institutions," and the vote for and against such amendment shall be taken as provided by law.

Sec. 4. This resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 7, 1917.
Approved March 10, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 15, now on file in my office.

J. T. BOTKIN,
Secretary of State.
(Seal)

SENATE CONCURRENT RESOLUTION No. 18.

A proposition to amend section 1 of article 5 of the constitution of the state of Kansas relative to the right of suffrage.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members elected to each house thereof concurring thereln:

Section 1. The following propositlon to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their approval or rejection: That section 1 of article 5 of the constitution of the state of Kansas be amended to read as follows:

Section 1. Every citizen of the United States of the age of twenty-one years and upwards—who shall have resided in Kansas six months next preceding any election, and in the township or ward in which he or she offers to vote, at least thirty days next preceding such election—shall be deemed a qualified elector.

Sec. 2. That this proposition shall be submitted to the electors of the state at the general election in the year 1918 for their approval or rejection. The amendment hereby proposed shall be designated on the ballot by the following title: "The suffrage amendment to the constitution," and shall be voted for or against as provided by law under such title.

Sec. 3. That this resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 8, 1917.
Approved March 12, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 18, now on file in my office.

J. T. BOTKIN,
Secretary of State.
(Seal)

CASH FOR BAGS

Don't throw them away. Save them and ship to us. We'll pay you HIGHEST MARKET PRICE. Get your neighbor to ship his bags with yours. Established 1870.

FULTON BAG & COTTON MILLS
590 S. Seventh St. St. Louis, Mo.

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Poultry Hints for October

BEGIN now to get things in snug condition for the winter. Be careful that young stock is not taken from airy coops and shut into winter quarters that are warm and tight. Let them have plenty of fresh air, but no draughts. Do not have too many windows, as they make the houses hot during the day and cold at night. Remember the birds have on their new coats and are not in need of so much warmth. Damp and wet are far worse for fowls than cold, and hens are often kept from laying on account of poor houses. This time of the year a change to damp and cold will often give colds that will perhaps lead to a case of roup during the winter. Keep the house clean, warm and dry, disinfect often, and much will be done to prevent disease. Warm and dry quarters are necessary for the birds that are not through with moult.

Do not keep the cockerels intended for market too long; the price is going down as it nears November, and the turkey has the right of way.

The cockerels to be sold for breeding purposes are being culled rapidly. Get the orders in early.

If a number of cockerels are on hand and fight a great deal, put an old cock in with them. He will settle the scraps and be proud of his job.

Be on intimate terms with the poultry. Pick them up occasionally. They will lay better if treated in a sociable manner.

If one has a mongrel flock, why not select the best of the females and purchase a strong, vigorous, pure-bred male to mate with them?

Some of the best birds that will be shown at the shows this season have been raised on the farm. The farmer can let them have free range and a variety of food, both of which are valuable in the production of shape and color.

Early-hatched pullets, or yearling hens that have moulted in season; airy houses without too many glass windows and no draughts; plenty of litter to keep the fowls busy scratching; a good supply of fresh air; clean water, shell and grit; and all this mixed well with a whole lot of human kindness is a simple recipe for getting eggs this winter.

Bank the houses to keep them free from draughts and keep enough litter on the floor to keep their feet warm and to give them plenty of exercise scratching for their morning feed. The circulation of blood is very active through a hen's foot, and she cannot make her food into eggs if it takes too much of it to keep her feet warm.—MRS. G. W. RANDLETT in North Dakota Institute Monthly.

Handle Poultry with Care

The Food Administration wishes to discourage the practice of tying the legs of poultry together when bringing to market. To tie a bunch of hens together with twine or baling wire is not only a cruel but a wasteful practice. In some cases the birds are badly injured. Sometimes their legs are broken. Even if the practice did not result in serious injuries, the rough handling bruises the flesh, thus reducing the keeping qualities of the dressed fowl and causing the poultry to sell for less money. The practice is not only inhumane, but it is a willful waste of food.

Save the Feed

Heavy feeding of poultry about to be marketed is wasteful. Feed given to poultry closely confined in crates should not exceed one ounce of grain or other dry feed for every two pounds of live weight. Persons are sometimes tempted to feed fowls heavily just before marketing, in the hope of receiving poultry prices for the feed contained in the birds' crops. But in actual practice this is a loss both in money and food. Birds frequently die in farmers' wagons, but more often shortly after they are delivered. In either case a loss is sustained which is ultimately reflected back to producers.

Poultry in crates is unable to exercise. More than that, the watering cups are seldom adequate for all the fowls in the crate, either from lack of attention, evaporation, losses from spilling, or several of these causes combined.

Feed consequently cakes in the overfull crops, causing sickness and death. In warm weather heavy feeding also results in overheating and is another cause of mortality.

It is better to give more water and less feed to poultry just before marketing. Experienced poultry handlers have recognized the soundness of this suggestion and during hot weather give their fowls an abundance of clean water but a mere maintenance ration. This practice has greatly reduced losses in handling live poultry.

Some Poultry Truths

Various bulletins on poultry keeping are coming in from many sources, state and national. They offer excellent advice touching breeding, feeding and housing. They offer growing and laying rations that have been tested and every poultry keeper should adopt one of them. In addition to advice touching sound poultry practices there are numerous appeals addressed to the patriotism of poultry keepers. But there is one appeal which every person must heed—the appeal of intelligent experience. And the first and controlling maxim is that the value of poultry products must exceed the value of the feed and other maintaining costs. If the poultry products are not worth more than the feed and time consumed, the operation is wasteful of both grain and time and no patriotism would approve of wastefulness in the poultry yard, for wastefulness there is just as blameworthy as wastefulness in the kitchen. The basic fact of poultry keeping is this: Every mature fowl will consume six pounds of feed monthly. This amount of feed in proper balance is required. The hen demands this regardless of cost. As the retail price of this feed is now 6 cents the poultry keeper who has to buy everything faces a monthly fixed cost of 36 cents per hen. By buying in larger quantities the feed cost may be brought down a little.

The next fact is indeterminable: The number of eggs a hen will lay in any month. A perfect score is not to be expected and twelve eggs per hen per month would be satisfactory production, and much above the average. A hen's twelve eggs will not pay for the feed she will consume in a month and give a profit. The conclusion of the matter is that prices are too low for current feed costs.

As under present conditions a single loafing hen will consume the monthly profit of eleven others, it behooves the poultry keeper to exercise unusual care in culling. All two-year-old hens should be disposed of. They would not lay enough eggs to pay for their feed. Only the best yearlings should be carried over. In deciding which are the best do not be deceived by appearances. The good dresser is probably a slacker. Faded coats and legs are generally the result of heavy laying.

The rules for culling pullets are different. All undersized, and maldeveloped ones, should be excluded as soon as detected. The late hatched pullets present a special problem. As they will not lay before the middle of February, the chances for making a profit with them are very slim.—American Fruit Grower.

German Poultry Regulations

At the beginning of the 1918 crop year the Prussian state office for foodstuffs and eggs ordered that poultry keepers must deliver to the government from twenty-five to thirty eggs for each hen kept. In many districts, however, the minimum compulsory delivery was raised to fifty eggs. More lately the state office has ruled that one hen is to be allowed free for each member of the household, prisoners of war not included.

Regulations of this kind are typical of the detailed supervision which Germany has assumed over her people. The logical answer from American poultrymen is an abundant production of eggs and meat to demonstrate the results of voluntary action under democratic government.

It costs from 45 to 50 cents a day to feed a soldier. I takes about 478,515,000 pounds of beef a year for an army of three million men. "Not since the army has been in France has a single soldier had to wait a minute for a meal."—PERSHING.



Start Your Moulted Hens to Laying



THE world is calling for more poultry and more eggs. Everybody must speed up—it's a patriotic duty. Now's the time to get ready for regular fall and winter laying.

DR. HESS POULTRY PAN-A-CE-A

Will start your pullets and moulted hens to laying promptly

Remember, going through the moult is like going through a long spell of sickness. The egg organs become dormant, but why let nature bide its own time to revive the egg organs? Feed a tonic.

Dr. Hess Poultry Pan-a-ce-a contains *Nux Vomica* and *Quassia*—tonics that promote digestion, that tone up the dormant egg organs. It has *Iron* for the blood, and *internal antiseptics*. This combination will keep your whole flock healthy and start your pullets and moulted hens to laying.

IMPORTANT: If your hens are not yet over the moult, supply them with Pan-a-ce-a daily to give them strength and vitality to force out the old quills and grow new feathers. Always buy Pan-a-ce-a according to the size of your flock—a penny's worth for each hen to start with. There is a package for all sizes of flocks.

You have no chances to take. The dealer in your town who sells Pan-a-ce-a will refund your money if it does not do as we claim. 30c, 75c and $1.50 packages; 25-lb. pail, $3.00; 100-lb. drum, $10.00. Except in the far West and Canada.

Dr. HESS & CLARK, Ashland, Ohio

Dr. HESS Stock Tonic
Keeps Hogs Healthy
Drives Out the Worms

Dr. Hess Instant Louse Killer Kills Lice

"GET-A-WITTE"

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KEROSENE ENGINE
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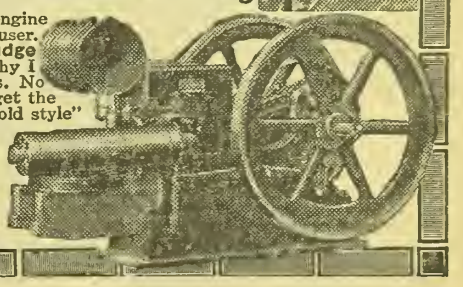
WITTE Engines
Stationary—Portable—Saw-Rig

are all made in the largest exclusive engine factory in the world dealing direct with user. My Free Factory Book, "How To Judge Engines", tells the whole story—tells why I can make a better engine and sell it for less. No need to pay higher prices than I ask to get the kind of an engine you want, or accept an "old style" or "back-number" to save money. Write for my new illustrated factory book and see just what a big offer I am able to make.



Witte Engine Works
1604 Oakland Ave. Kansas City, Mo.
1604 Empire Bldg. Pittsburgh, Pa.

Why Hens Won't Lay

P. J. Kelly, the Minnesota Poultry Expert, 90 Kelly Bldg., Minneapolis, Minn., has published a book, "The Tale of a Lazy Hen." It tells why the hens won't lay and how to make them lay every day. Mr. Kelly will mail the book free to anyone who will write him.

CHICKENS SICK? Roup, Colds, Canker, Bowel Complaint, Limberneck, Sorehead, etc., the best remedy is always GERMOZONE. At most dealers or 75c postpaid with 5-book poultry library free.
GEO. H. LEE CO., Dept. 415, Omaha, Neb.

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He will pay your board, room, tuition, and $30.00 a month.

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Kansas Wesleyan Business College
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Greatest Business and Vocational University of the West

Write for full information.

KANSAS UNIVERSITY OF COMMERCE
(A PART OF KANSAS WESLEYAN UNIVERSITY)
Salina, Kansas

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

REGISTERED GUERNSEY CATTLE OF high quality, one cow soon to freshen, a young bull and two heifers, priced right. J. W. Marley, Oswego, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

DOGS.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

RABBIT HOUNDS, FOX HOUNDS, COON, opossum, skunk, squirrel dogs. Setters, pointers, ferrets, rabbits. Catalog 10c. Brown's Kennels, York, Pa.

FOR SALE—A FEW HIGH CLASS COON, opossum and skunk dogs. Stamp for reply. A. F. Sampey, 317 East Mt. Vernon St., Springfield, Mo.

WANTED

WANTED — FIFTY WHITE ESKIMO Spitz puppies, six to eight weeks old. Brockway Kennels, Baldwin, Kan.

POULTRY.

WHITE ROCKS, SIZE AND QUALITY; cockerels only. G. M. Kretz, Clifton, Kan.

FOR SALE—BARRED ROCK COCKERels, layers and winning strain. Farnsworth, 224 Tyler, Topeka.

BARRED ROCK, WHITE WYANDOTTE, Leghorn cockerels. Geese, ducks, guineas. Emma Ahlstedt, Lindsborg, Kansas.

PURE-BRED SINGLE COMB WHITE Leghorn cockerels, two dollars each. Kate Skelley, Delia, Kansas.

LIGHT BRAHMA COCKERELS AND pullets, fine ones, from prize winning strain, $3 each. Mrs. C. H. Jameson, Anadarko, Okla.

DARK RED ROSE COMB REDS, GOOD scoring, greatest laying strain; cockerels, pullets, eggs. Satisfaction guaranteed. Highland Farm, Hedrick, Iowa.

CLOSING OUT SALE S. C. REDS. HAVE for immediate sale about 75. Tompkins cockerels and pullets. Few fine specimens of Mahood strain. Pullets, $3 to $5; cockerels, $3 to $5; on approval. Samuel H. Nite, Garden City, Kansas.

POULTRY WANTED.

THE COPES, TOPEKA, BUY ALL KINDS of poultry. They are prompt and reliable. Write for cash offers.

SHEEP.

FOR SALE — TWENTY-FIVE HEAD OF pure-bred unregistered Shropshire ram lambs; 150 blackfaced ewes, one and two-year-olds; a few registered yearlings and two year-old Shropshire rams. K. Hague, Route 6, Newton, Kan. Phone 5742 Elbing.

HONEY.

FOR SALE—1918 CROP OF HIGH GRADE table honey direct from bees to you. Guaranteed to be absolutely pure. Can containing 60 pounds net, $15.25. On orders for two cans or more the price is $15 per can and the freight is less on shipments of 100 pounds or over. Have dark honey for table or cooking purposes also, which I can recommend as pure and good. Single 60-pound can, $13, or $12.75 each for larger lots. Prices f. o. b. Hotchkiss, Colo. All cans securely boxed and strapped. Frank H. Drexel, Crawford, Colorado.

SITUATION WANTED.

WIDOW 41 YEARS OF AGE WANTS housework on a farm. Has son 17 years of age, a good farm hand. Address M. L. R., care Kansas Farmer.

FEATHER BEDS.

NEW 36-POUND FEATHER BEDS, $13.95. A pair 6-pound pillows to match, $2.45. New, live, clean, sanitary feathers. Best ticking. Sold on money back guarantee. Write for free catalog. Agents wanted. American Feather & Pillow Co., Desk 400, Nashville, Tennessee.

FARM LANDS

YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

TRACTORS.

FOR SALE—BIG BULL TRACTOR, $500. H. H. Shultz, Schuyler, Neb.

TANNING.

LEATHER TANNING RECIPE GUARANteed to tan, $2.50. R. N. Gilley, Carlton, Texas.

THE STRAY LIST.

TAKEN UP—BY JACOB BEYER, OF Gridley, Liberty Township, Coffey County, Kansas, on the 4th day of September, 1918, one black mare colt, white spot on forehead. Valued at $95. Geo. Bruce, County Clerk, Burlington, Kansas.

TAKEN UP — BY LOUIS KAISER, OF Park, Payne Township, Gove County, on the 30th day of August, 1918, one red and white cow, medium size, no marks or brands. E. E. Baker, County Clerk.

Real Estate For Sale

Shawnee County Farm Bargains Near Topeka
200 Acres $65
160 Acres $65
Ten years' time on one-third if desired. Can fit you out in size farm desired.
J. E. THOMPSON (The Farmer Land Man)
Route 15, Tecumseh, Kansas

For a Farmer Who Wants to "Move In"

I am offering for sale my beautiful eight-room residence and three lots in Oakland (a suburb of Topeka), at an exceptionally low price. Fine barn with three stalls, mow, feed bins, harness closets, etc.; built-in carriage or auto shed; coal house, chicken house, etc. One block from car line; three blocks to fine high and grade school. Electric lights and gas in house. Nice floors and woodwork. A place to be proud of, and ideal for a farmer who would like to have city conveniences and yet live in a quiet district. $2,200 will buy it, with only a few hundred dollars cash. House could not be built for $4,000. Best of reasons for making sale, and not selling because of dissatisfaction with the property. Call or write

L. F. RICHARDSON - TOPEKA, KANSAS
202 Winfield Avenue

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Young men and women attend on credit. A practical school with railroad wires. Owned and operated by the A. T. & S. F. Ry. EARN FROM $75 TO $165 PER MONTH. Write for catalog.

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OTTAWA Business College
OTTAWA, KANS. CATALOG FREE

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Can All Through the Year

WE ARE coming more and more to think of canning as a part of the housewife's work which extends over the entire year, rather than as a task to be finished during the summer and early fall. The efficient housewife never has a large number of empty jars. It is better to get fewer jars and keep them filled. As some of the early vegetables and fruits are used the jars can be refilled with the fall fruits and the fries you do not want to feed until they are needed.

If there is nothing else to put into your empty jars, use windfall apples. Apple sauce, apple butter, and apple jelly are always good things to have on hand. If you find your sweet potatoes are not going to keep until they are all used, they should be canned. Carrots, turnips, and beets may also be canned very nicely, slicing and cooking them fifteen or twenty minutes before canning, and sterilizing one and one-half hours in the hot water bath. In preparing an exhibit of different canned products, there is nothing more attractive than the highly colored carrots cut in lengthwise pieces to fit the jar, and carefully packed. Can pumpkins and squashes when you can no longer keep them fresh. All through the winter vegetables and apples that would not otherwise keep should be preserved by canning.

When butchering time comes, some of the beef and pork can be kept fresh by roasting, oven-baking, frying, or stewing and then canning. And in the spring when the young rabbits provide tender, juicy meat at no cost, some of them may be fried or roasted and put into the jars emptied during the winter, to be eaten before the spring fries are ready or during the following winter.

Make Jelly as Needed

Everyone knows that a freshly made jelly is more delicious than one which has stood some time and so the wisest plan seems to be to bottle the unsweetened fruit juice and make up the jelly in small quantities as needed.

The shortage of sugar may become less acute, but if it does not, satisfactory jelly may be obtained with corn syrup or honey.

When corn syrup alone is used the flavor of the fruit is pronounced, but the texture of the jelly, though firm and steady, is not delicate and tender.

With honey alone the flavor of honey is pronounced, that of the fruit hidden, and the jelly has a firm, tender texture.

The best result is obtained by using a combination of half corn syrup and half honey. This gives a jelly which is equal in texture to one made with sugar. The flavor may not be quite so delicate.

If the strained fruit juice is thin, as is often the case with apple juice, it should be boiled down until it has the consistency of cream.

For each cup of juice, measure out three-fourths of a cup of honey or syrup or combination of both, and boil the syrup alone as long as possible without scorching, to evaporate the water present. If sweetening and juice are boiled long together a syrupy jelly is apt to be produced.

Have the fruit juice boiling and pour it over the syrup and cook until the usual tests for jelly are obtained.—MARJORIE SHUTT, Colorado Agricultural College.

Home-Made Products

The department showing home-made products at the Kansas Free Fair at Topeka made a very interesting showing this year. The exhibit was much larger than last year, and was almost strictly along conservation lines. Mrs. Robert Copp, of Topeka, was in charge of this department and was assisted by Miss Leona Williams.

Home-dried fruits and vegetables were shown, home-cured herbs, home-preserved and cured meats, and both hard and soft soap. One coffee substitute shown was made from rye, okra, and sweet potato; another was two-thirds bran and one-third cornmeal mixed with dark syrup, browned in the oven and ground. Samples of both liquid and hard yeasts were shown, as well as home-made hominy, home-made lard, and cottage cheese.

Miss Rena Faubion, the Government cottage cheese expert working in Kansas, gave demonstrations with cottage cheese in this booth each day from five to six.

In the dried vegetable exhibit some products not commonly dried were tomatoes, horse radish, string beans, pumpkin and squash.

The cake of hard soap winning first prize was twenty years old. It was a dark yellow in color, but was still firm and of good texture.

The largest number of entries made by one woman were those of Mrs. George Kriepe, of Tecumseh, who won a number of first prizes on ham and soap and on dried fruits and vegetables.

Kill the Winter Fly

Now is the time to start a fall drive on the flies. Every fly you kill now means millions less next summer. Dr. L. O. Howard, United States Government expert, estimates that each winter fly with her offspring will produce 5,598,000,000 flies from April 15 to September 10. Swatting all those flies next summer will keep you pretty busy. Better get the winter fly now.

War Savings Song

Sing a song of Thrift Stamps,
Sixteen in a row,
Take them to an agent,
Add fifteen cents or so,
Change them for a War Stamp,
And for your loyalty
You'll get a crisp $5 bill
In 1923.
—War Savings Stamps Committee.

Apple Sauce Cake

2 cupfuls apple sauce, unsweetened
2 cupfuls Orleans molasses
½ cupful shortening
2 tablespoonfuls soda
3 cupfuls flour
1 cupful chopped raisins and citron
1 teaspoonful each allspice, nutmeg, and cinnamon

Simmer together the apple sauce and molasses until dark red or brown. Let it cool and add shortening, soda, flour, floured fruit, and spices. Bake in a slow oven from two to two and one-half hours.



No. 8446—Girls' Dress: Cut in sizes 6 to 14 years. The dress is cut in one piece. **No. 8468—Ladies' Skirt:** Cut in one size. The skirt is cut in one piece. **No. 8444—Ladies' House Dress:** Cut in sizes 36 to 44 inches bust measure. Long or short sleeves may be used.

Irrigation Developments in Kansas

MODIFICATION of existing immigration laws to make it possible to obtain a larger supply of desirable labor.

The making of federal farm loans more generally available for irrigation farmers.

More extensive investigations as to methods and practices in irrigation by pumping.

Recognition of the possibilities of irrigation farming in any plan for giving returned soldiers land opportunities in Kansas.

The foregoing suggestions were the feature of resolutions adopted at the Kansas State Irrigation Congress in Garden City last week. The convention was attended by a large number of farmers, special agricultural workers, and others. The students of vocational agriculture in the Garden City high school attended some of the sessions, and made an exhibit of sorghums grown in connection with the class work.

E. E. Frizell, of Larned, state farm labor director, was unanimously elected president of the congress for the ensuing year. Other officers elected were the following: Vice president, Judge Charles Fulton, Hutchinson; secretary, J. B. Marcellus, Manhattan; treasurer, I. L. Diesem, Garden City; committee on constitution, J. B. Marcellus, Manhattan; John V. Hepler, Dodge City; J. K. Freed, Scott City.

Hutchinson was selected as the place for the next annual congress. The date was not chosen.

Emphasis was laid at the meeting on irrigation farming as helpful to home and community building, rather than exclusively as a business proposition. F. D. Farrell, dean of agriculture in the Kansas Agricultural College, gave many facts in support of this view.

Irrigation agriculture, Dean Farrell showed, is one of the oldest existing institutions in the world. In the United States the work was begun on a permanent basis in 1847. The total area of irrigated crops produced annually in the western part of the country he estimated at 16,000,000 acres, divided into 250,000 farms in fifteen states. The altitude of these farms ranges from 200 feet below sea level to 9,000 feet above. The population of the irrigated region is perhaps the most cosmopolitan agricultural population in the world.

Dean Farrell pointed out clearly the difficulties which irrigators encountered and the manner in which they were solved. He characterized irrigation farming as a type of agriculture which affords excellent opportunities for building homes and developing good citizens.

In Western Kansas, he reminded his audience, much of the irrigation makes use of underground water.

"This method," commented the speaker, "has some important advantages over ordinary methods. In the irrigated regions the transmission losses of water through seepage from canals range from about 20 per cent to as high as 50 per cent; that is, this large percentage of water fails to reach the land it is intended to supply. This difficulty can be overcome only by expensive canal construction. The absence of this necessity is one of the outstanding advantages of securing water from under ground, at or near the point of use.

"On the other hand, where the water supply is underground, pumping plants may be maintained. These frequently are expensive, and their successful operation requires special skill. Moreover, it is important in connection with irrigation by pumping, to recognize the fact that the underground water supply is limited. Costly experience in certain sections of the United States, notably New Mexico and California, and also in Australia, has proved that underground water supplies may be exhausted through the multiplication of water users at the surface."

That irrigation farming is gradually covering a larger area in Kansas, was pointed out by several speakers. The beginnings of irrigation, both from river water and from wells, were traced by I. L. Diesem of Garden City, president of the congress and a pioneer irrigator in Western Kansas. Mr. Diesem showed how this type of farming had long passed the experimental stage in the state and was gradually being extended from the immediate region in which it was started. Other speakers bore testimony to the fact that irrigation farming is proving a success in a much larger area in Southwestern Kansas than had been thought possible a few years ago.

Further development of supplementary irrigation in the bottom lands of Central Kansas to help in the short drouth periods was predicted by Edward C. Johnson, dean of extension in the agricultural college.

"Much water is available from the streams and larger rivers," said Mr. Johnson, "and an abundance of water can be secured by pumping from fifteen to fifty feet.

"Several very profitable irrigation plants already are in operation in Washington County, where corn is the chief crop irrigated. A number of plants are owned by farmers around Wichita, where alfalfa and truck crops are irrigated, and also in the Arkansas Valley, in the south central part of the state, where the water is used for orchards.

"Some of the plants in Washington County netted their owners over $8,000 in 1918 on forty acres or less of corn. The original cost of these plants in no case exceeded $2,000 and they irrigated from thirty-five to ninety acres at a cost this year of $3.10 to $6.87 an acre.

"Irrigation development is likely to be most rapid for the growing of alfalfa and corn, making possible profitable yields every year. In connection with this will be a sound development of hog raising, dairying, sheep production, and the beef feeding industry. Supplementary irrigation also will be used on truck farms in the neighborhoods of the larger towns and already is so used on some farms around Wichita, Columbus, and Topeka."

This irrigation development will be progressive and not in the form of a boom, believes Mr. Johnson, and its rate of progress will depend on the availability of labor, the demand for farm products, and the consequent demand for land.

J. C. Mohler, secretary of the State Board of Agriculture, placed irrigation among the four big agricultural accomplishments of Western Kansas. The other three which he named are sorghums, alfalfa, and sweet clover. He pointed out the importance of diversified cropping, whether under irrigated or non-irrigated conditions.

Specific figures were given by several speakers as to the gains made in crop yields by means of irrigation. Charles E. Cassell, demonstration agent for Finney County, pointed out, for example, that under irrigation sixty-five to eighty-five bushels of milo to the acre were a common yield, while under dryland conditions yields of half these amounts were above the average.

The labor situation was dealt with by E. E. Frizell, state farm labor director, who outlined conditions that existed in Kansas during the past season. He gave suggestions as to means for continuing successful efforts in securing adequate supplies of labor. He emphasized the importance of sufficient labor for handling irrigated crops.

J. W. Lough, state irrigation commissioner, gave many valuable suggestions from his experience in irrigation farming. He laid stress on successful and economical operation of the irrigation plant.

One of the attractive features of the meeting was a trip to a number of irrigation plants in Finney and Kearney counties. Both crops and pumping plants were inspected.

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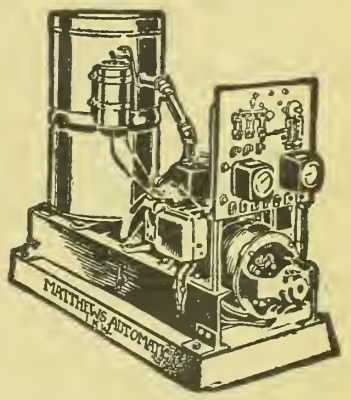

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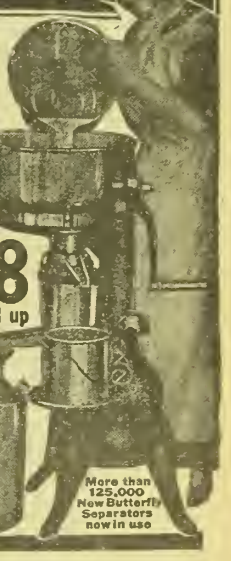

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Fifteen cows with calves at foot and rebred.

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EIGHTY HEAD OF CAREFULLY SELECTED CATTLE—Seventy Head of Cows and Heifers and Ten Bulls Ready for Service

A sale full of good breeding and individuality. Read the following sale news carefully:

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Fifteen of the largest and strongest breeders in the state have consigned the good ones from their herds.

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ALSO—Jolley's Chief No. 14948. Solid color, born September 3, 1917, the above imported son of Golden Jolly. Dam, Eminent's Lad Jess No. 255151, dam of one in R. of M. She by Em. Brown Lad with two or three tested cows, a grandson of Eminent with 80 tested daughters and whose dam is a tested cow.

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OWL INTEREST FINANCE JERSEYS
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A small but select herd of producing cattle, rich in blood of Gamboge, Oxford Lad, Golden Fern's Lad, Leda's Fern Lad, etc. Write for prices on young stock.

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30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

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All from prize winning blood and priced for quick sale. Write us today.

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A bunch of good big Registered Shropshire Bucks, not high in price. Also registered ewes.

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Forty Head—Twenty ewes and twenty ram lambs. Ram lambs sired by our show ram, a son of Senator Bibby.

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REGISTERED HAMPSHIRE HOGS. Thirty spring boars, immuned. Am booking orders for fall pigs. Geo. W. Eia, Valley Falls, Kans.

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40 REGISTERED COWS
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Cattle of my own breeding at Fine Stock Sale Pavilion, Kansas City, Missouri, on the forenoon of November 19, during the American Royal Live Stock Show.

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Seventy-five Registered Females

From calves to matured cows, all with good A. R. O. backing; and a number of young bulls. Also a select lot of high-grade cows and heifers. This is the choicest bred lot of Holsteins ever offered at public auction in this section of the state. Write for catalog.

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On account of shortage of help I have decided to sell my entire herd at private sale, without reserve, consisting of **40 Registered Cows and Heifers**, mostly all with A. R. O. records up to 26 pounds in 7 days; **40 Fancy Young High Grade Cows**, exceptionally well marked, some fresh, balance will freshen in next 40 days, $115 to $135; **50 Fine Thrifty Large Two-Year-Old Heifers** due in October and November, $90 to $110; **65 Fine Growthy Yearlings** from 15 to 20 months old, bred to freshen from December to February, $65 to $80. All stock bred, in calf to registered bulls. This herd is absolutely clean and guaranteed free from abortion and tuberculosis and will be sold as represented. Will sell with purchaser's privilege of 60-day retest. Descriptive catalog on registered stock ready Oct. 1.

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150 Head of Choice Two-Year-Old Grade Heifers bred to King Segis bulls, to freshen in September and October.

Fifty Cows in Milk, good ages.

Fifteen Registered Bulls, some are from King Segis Pontiac breeding and good enough to head herds.

Twenty-five Registered Cows and Heifers, several A. R. O. breeding.

Will price a few grade heifer calves at $30, express paid. Your money back if not satisfied. Can ship by Missouri Pacific, Santa Fe, or Rock Island. Come and see me.

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15,000 to 30,000 Pounds of Milk

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Choice, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write

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For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

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Also some fine young fresh cows, giving from 60 to 80 pounds of milk a day.

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FORTY HEAD — Twenty Spring Boars and Twenty Spring Gilts sired by such boars as H. & K.'s Big Price by the grand champion Big Price, and King Wonder 2d out of an Expansion bred dam and Big Hadley Junior boar.

These March and April pigs are large and thrifty and are a useful lot for farmers and breeders to buy. Please send for a catalog to

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45 20 BOARS 25 GILTS 45

ALL SIRED BY ORION ILLUSTRATOR K

And out of tried sows by Critic, Golden Rule, and Col. Sensation

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20 Polands



20 Durocs

LAWRENCE, KAN., OCTOBER 23, 1918

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MORSE, KANSAS, SATURDAY, OCTOBER 19

Twenty-two miles southwest of Kansas City on Clinton Branch of Frisco Railroad. Trains leaving Kansas City by way of Olathe, 10:40 a. m., returning at 4.

34—REGISTERED SHORTHORNS—34

SEVEN BULLS—Two two-year-olds, one yearling, four calves four to six months old.
NINE COWS, three to ten years old.
FOURTEEN HEIFERS, one to three years old.
FOUR HEIFER CALVES, four to six months old.

All are registered in American Shorthorn Society, and cows and heifers will be fresh this spring and winter. The blood is Searchlight Pavonius and Royal Gloster. Most of them sired by a son of Searchlight, the $10,000 bull. Papers furnished.

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Registered mares with colts at side and bred again; registered fillies, stallions one to five years old; grown ourselves the ancestors for five generations on dam side. Sires imported.



Fred Chandler, R. 7, Charlton, Iowa
(Above Kansaa City)

HORSES AND MULES.

PERCHERON STALLIONS

Some good young stallions sired by Algare and Bosquet, two great herd sires. These young stallions are very promising and priced to sell.

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....SALE....

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October 25, 1918

NINETY HEAD OF HIGH CLASS REGISTERED HEREFORDS

Forty-six head large mature cows, several with calves at foot and rebred. Twenty-two heifers, yearlings and two-year-olds. Twenty-two head of bulls, several real herd bulls ready for service.

Among the sires represented are Bonnie Brae 11th, Bonnie Brae 18th, Prince Rupert 52d, Beau Mischief 10th, Beau Donald 4th and Col. Rupert.

The offering is one of the best to be sold this year and are cattle that can go into any herd. The very best of breeding and choice individuals.

BULLS AT PRIVATE TREATY

We will have for sale at private treaty on sale day a carload of range bulls, twenty yearlings and thirty calves; good individuals, priced right for your buying.

Please send for catalog and arrange now to attend my sale. Write today to

W. J. Brown, Wilson Co., Fall River, Kan.

Auctioneer—Col. Fred Reppert

DISPERSION SALE OF

Registered Jerseys



EIGHTY HEAD

At Farm One Mile South of Fair Grounds on Topeka Avenue

OCTOBER 14th, 1918

I am leaving the farm on account of sickness and am compelled to sell my valuable herd of forty head of registered and forty head of high grade Jersey cows and heifers. I have spent years in building up this fine dairy herd. All have been regularly tested and are clean.

They are of the Saint Lambert, Flying Fox and Uncle Peter's Gold Mine breeding. Most all in milk or will freshen soon. All bred to my great herd bull, **BROOKSIDE BABE TORONE.** Every sire and dam for four generations back of him are in the Register of Merit. He has more daughters that produce one thousand pounds of butter fat than any bull living.

Please send for catalog and come to my sale.

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Auctioneers—Col. D. M. Perry and Col. Charles W. Crews.

Poland China Sale

Seneca, Kansas, November 7

SEVENTY HEAD OF LARGE POLAND CHINAS

Consisting of one herd boar, Schmitz Bros.' Goliath, a tried sire; five fall yearling boars, all sired by Jumbo Bob, real herd headers. One is Victory Bob, a litter mate to Liberty Bob, a futurity prize winner that sold for $500. Thirty-six spring boars and twenty-six spring gilts. All immunized. We are selling the very best from our entire spring crop of pigs. They are large and growthy and will please the most critical purchaser.

Catalogs are now ready to mail out. Please send for one and arrange to attend two days' sale at one expense.

(Ketter Bros. Sell November 8 at Seneca, Kansas)

Schmitz Bros., Seneca, Kansas

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I have been breeding Herefords for twenty years. Catalogs mailed upon request. A carload of yearling and two-year-old bulls at private sale.

Auctioneers—Col. Fred Reppert and Earl Garten

110 HEREFORDS—90 FEMALES, 20 BULLS
Mostly Yearlings and Early Calves

45 COWS—15 TWO-YEAR-OLD HEIFERS, 18 YEARLING HEIFERS OPEN, 12 HEIFER CALVES

Thirty cows bred to Rochampton 1st 433534; twelve calves at foot. All cows that have not raised calves this year are re-bred to Rochampton 1st or Judge Fairfax. The heifers and heifer calves are exceptionally strong in Anxiety breeding. The bulls are also of the same breeding, with a cross between Fairfax, Imported Britisher, and Boatman blood. These cattle will be brought into the sale right off the pasture and are in good breeding condition, and are a very useful lot of cattle. The cows are a lot of big-boned large-framed roomy matrons of strong milking families. The two-year-old heifers are all bred to either grandsons of Perfection Fairfax or Rochampton 1st. Seven of the yearling heifers are by Hazford Paragon, others by Repeater 91st and Prince Donald 19th, Forest by Spellbinder by Imp. Britisher. Twelve heifer calves sired by such bulls as Rochampton 1st, Master Fairfax, and other good sires.

Sale will be held rain or shine at the Star Breeding Farm, near

Elk City, Kansas, Thursday, October 24

Free conveyance from town to the farm

Samuel Drybread, Elk City, Kansas

GENEROUS-FAIRFAX HEREFORDS

BRED FOR BEEF, BONE AND QUALITY FOR MANY GENERATIONS

113—SPLENDID COWS, HEIFERS AND BULLS—113

WILL BE OFFERED IN OUR SEVENTH ANNUAL SALE AT FAIR GROUNDS

HUTCHINSON, KANSAS, OCTOBER 23, 1918

FIFTY-FIVE BIG YOUNG COWS bred to Generous 5th, Lawrence Fairfax and Imported Shucknall Monarch.
TWENTY-FIVE CRACK HEIFERS, granddaughters of Perfection Fairfax and Generous, bred to Lawrence Fairfax and Shucknall Monarch.
THIRTY-THREE BIG HUSKY BULLS of Generous and Fairfax breeding. All ready for service.

Send your name for copy of illustrated catalog, mentioning Kansas Farmer.

W. I. BOWMAN & CO., Ness City, Kan.

POLAND CHINAS.



Faulkner's Famous Spotted Polands

THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.

Pioneer Herd Poland Chinas

For Sale—Ten outstanding spring boars by A Wonderful King and Logan Price. Twenty-five farmer boars, priced reasonable. Bred sow sale February 18, 1919. Send for catalog.

F. Olivier & Son, Danville, Ks.

Erhart's Big Polands

A few fall boars ready for hard service. Can spare two tried herd boars. Have the greatest showing of spring boars we have ever raised. Some by the 1,250-pound A Big Wonder. Will make prices on pairs and trios. Write me your wants. All immune.

A. J. ERHART & SONS, NESS CITY, KAN.

Morton's Poland Chinas

For Sale—Twenty-five choice boar pigs, sired by Morton's Giant by Discher's Giant and Girstdale Jumbo by Girstdale Jones, out of my best herd sows. Priced reasonable. Write or come and see my herd.

GEORGE MORTON
Oxford : Sumner County : Kansas

Oxford Herd Poland Chinas

Herd boar, Giant Lunker by Discher's Giant out of Lady Lunker. I have 57 early spring pigs. A few choice boars. Priced to sell. Come and see me; I can please you.

Howard R. Wenrich
Oxford - - - - - Kansas

POLAND CHINAS

POLAND CHINA BOARS
Five and eleven months old, at a reasonable price. Pedigree with every hog.
HENRY S. VOTH, Route 2, GOESSEL, KAN.

TOWNVIEW HERD POLAND CHINAS
For Sale—Choice lot spring boars. All gilts reserved for February bred sow sale. Herd boars, King Wonder's Giant, Walter's Expansive Sid, Big Timm Joe.
CHAS. E. GREEN - PEABODY, KANSAS

H. O. Mott's Poland Chinas

For Sale—Fifteen spring boars and ten spring gilts, priced for quick sale at $35 to $50. First check gets choice. Guaranteed right or money back.

H. O. Mott, White City, Kansas
R. F. D. 4

HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that welgh and win. S. C. Brown Leghorn Chickens that lay. See or write

S. Y. BURKS, BOLIVAR, MO.

LONE CEDAR POLANDS
Strictly big type March and April pigs, either sex. Nothing but tops shipped. Prices reasonable. Guarantee to please. All cholera immune. **A. A. MEYER, McLouth, Kansas.**

POLAND CHINA BOAR PIGS

For Sale—Twenty choice boar pigs, sired by Model Wonder, he by Big Bob Wonder; The Giant by Hercules by Big Ben; King Ben by Giant Ben; Captain Gerstdale Jones, Big Bob Jumbo, and A Big Wonder. Several herd boar prospects.

Ross & Vincent, Sterling, Kan.

POLAND CHINAS.

LANGFORD'S SPOTTED POLANDS
Last call for spring boars, $40 to $50.
T. T. LANGFORD & SONS, Jamesport, Mo.

McCUNE'S SPOTTED POLANDS
Twenty spring boars and gilts (gilts open) well spotted, sired by Spotted Wonder and out of choice dams.
R. H. McCUNE - LONGFORD, KANSAS

AUCTIONEERS.

FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. **VALLEY FALLS, KANSAS**

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri

GUERNSEY CATTLE.

$15 Holstein or Guernsey CALVES

From Waukesha County heavy producing stock. Write us today, we guarantee to satisfy you.

RIVERDALE FARMS, Oconomowoc, Wis.

GUERNSEY BULLS
Good individuals of serviceable age, of May Royal, May Rose, Masher Sequel, Raymond of the Preel breeding. Write or come and see them.
ADAMS FARM, GASHLAND, MISSOURI
Twelve miles from Kansas City.

Breeders' Directory

RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
Hereford Cattle.
F. S. Jackson, Topeka, Kan.

DUROC JERSEYS.

Wreath's Durocs Always Please

All spring boars and gilts must be sold to make room for fall litters. Critic Chief No. 241231 at head of herd. No fall sale.

L. G. WREATH, Rte. 8, Manhattan, Kan.

CONYERS HERD DUROCS
Herd boar, King Conyers by King the Col. Sows in herd by Golden Model, Graduate Chief, Cherry Chief and other good breeding. For sale, one extra good spring boar sired by Pathfinder and one by Great Wonder. Fifteen spring gilts by Royal Critic. Come and see me.
B. W. CONYERS - MARION, KANSAS

Ellen Dale Breeding Farm

Offers Duroc Jerseys of blood lines of Watson's Wonder, Ideal Pathfinder, Crimson Orion King and Joe Orion, also a one-year-old herd boar, a grandson of King the Col. Also one-year sows bred or open.
R. C. WATSON -- ALTOONA, KANSAS

WOODDELL'S DUROCS
Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.
G. B. WOODDELL, WINFIELD, KANSAS

IMMUNE DUROC BOARS

Duroc Boars, immune and guaranteed breeders, shipped to you before you pay for them. The big Southeast Nebraska herd bred for size, bone and length. "Eventually" you will breed the "Crocker Type." "Why not now?"

F. C. Crocker, Filley, Nebraska
Box K

MULEFOOT HOGS.

Knox Knoll Mulefoots

Bred sows and gilts. Open gilts, spring gilts and boars. Satisfaction guaranteed. Free catalog.
S. M. KNOX - HUMBOLDT, KANSAS

When Writing to Advertisers, Please Mention Kansas Farmer

Caldwell's Poland China Sale

FIFTY HEAD of Herd-Heading Boars and Selected Sows and Gilts

An Offering of Immuned Boars and Gilts at Howard Kansas

OCT. 17, 1918

The Greatest Offering of the Year. The Feature Sale of the Fall Season.



CALDWELL'S BIG BOB

HALF OF THE OFFERING SIRED BY THE WORLD'S CHAMPION

CALDWELL'S BIG BOB

Including the most sensational prospect of the year, the wonderful September boar

BIG MACK 312847

Big Mack is a real son of Caldwell's Big Bob, and I consider him a better individual than "Bob" was when I bought him, and you know what that means. He is the season's sensation.

SENSATION 1st, 2d and 3d

Big Mack's three litter sisters, also sell. They are also outstanding and propositions unsurpassed.

Ten Spring Boars, every one a herd header. Sons of the world's champion that are his counterparts in general conformation.

Five Spring Gilts, every one a show prospect as well as a real brood sow prospect. Sired by Caldwell's Big Bob. Just what you want to breed to your good boar.

Fifteen Yearling Sows of the Right Type. A great array of real brood sow material. A number of good things sired by KING BOB by BIG BOB and GIANT BOS by BOS PREMIGENIUS.

AN OFFERING IN WHICH EVERY LOT IS A REAL ATTRACTION.

The greatest draft of herd-heading and brood sow material ever offered from the Elkmore Farm Herd. Please send for catalog and come to my sale.

FRED B. CALDWELL, HOWARD, KANSAS

Auctioneers—Col. J. C. Price, Col. Boone THE ELKMORE FARM HERD

Fashionable Stock Place POLAND CHINA SALE at Aulne, Kan,. Oct. 28



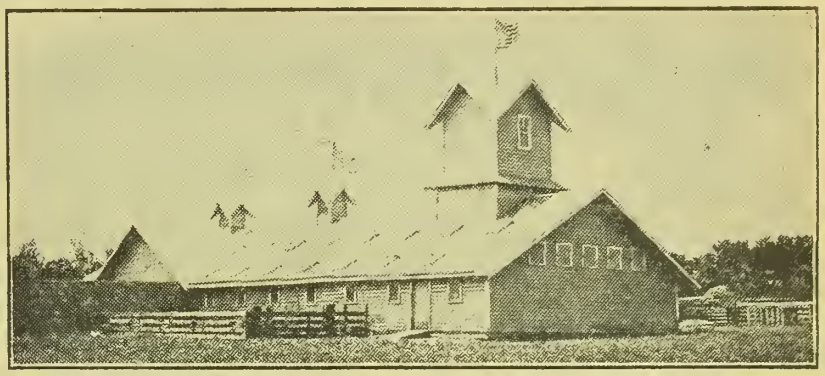
SIXTY HEAD
15 HERD HEADING BOARS
45 CHOICE GILTS

This sale will feature the get of

BIG WONDER 281929

The outstanding two-year-old son of the noted Big Bob Wonder, first in junior yearling class at Topeka and second at the National Swine Show in competition against the world, 1917.

A number of top sows mated to noted boars were purchased last winter and many of the good things from these litters go in this sale. They include sons and daughters of Eckhardt's Belmont Buster, Wagner's Bestdale Jones, Leonard's Big Jones, Caldwell's Big Bob, A Wonderful King, Big Bob Wonder, Walter's Jumbo Timm, McCord Bros.' Spooner Wonder and Harry Myers' Giant Joe.

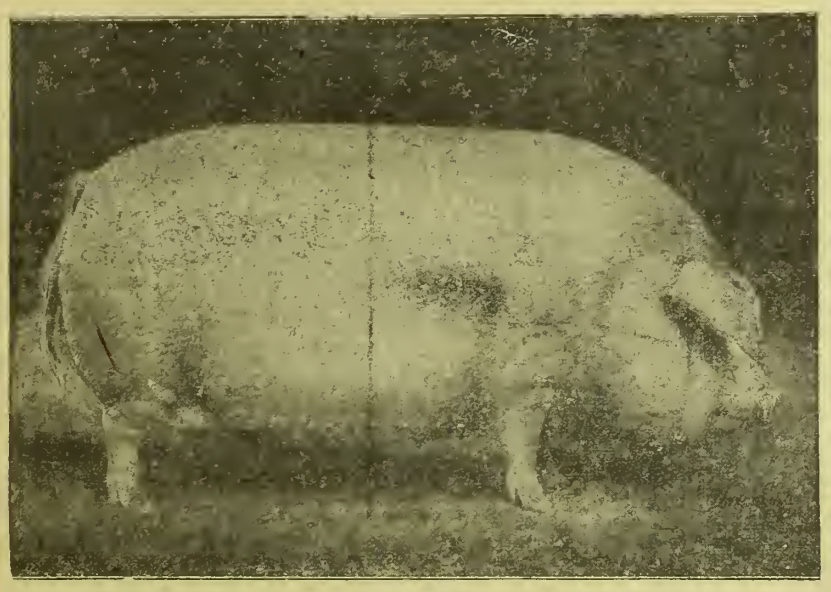


HOG HOUSE AND SALE PAVILION AT FASHIONABLE STOCK PLACE

The attraction will be the top gilt from top sow in Caldwell's winter sale. Sold with breeding privilege to my herd boar. All are immuned. We want you at this sale. Send your name for our mailing list. Inspection of herd invited, and information gladly furnished.

V. O. JOHNSON, AULNE, KANSAS

J. H. McANAW
Chester White Sale
at Cameron, Mo., October 23, 1918



45 HEAD - 25 SPRING BOARS

By Joe Wing, Combination Defender, Combination Again, King Prince and Champion 2d.

TWENTY SPRING GILTS

By same sires and the pick of my herd, including a part of my show herd. I am selling a splendid lot of boars and herd sow prospects. Please send for catalog and come to my sale. I guarantee a good offering of the most profitable farmer hog.

J. H. McANAW, CAMERON, MO.

Auctioneers—Col. Cliff Evans, Col. Thos. E. Deem

Duroc Jersey Sale

AT FARM NEAR TURON, KANSAS

October 19, 1918

45 -- H E A D - - 45

THIRTY-TWO SPRING BOARS SIRED BY KANSAS CRITIC AND CRIMSON ILLUSTRATOR



I have selected this number from my spring crop of pigs. They are a picked bunch and are real herd headers. I am not expecting high prices, but am offering real bargains.

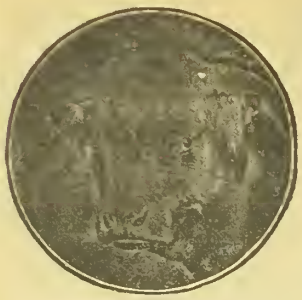
THIRTEEN SPRING GILTS BY KING ORION CHERRY

These gilts are every one good and will please anyone wanting foundation herd material.

Please send for catalog and come to my sale. I guarantee a splendid offering.

W. W. ZINK, TURON, KAS.

Auctioneer—Col. John D. Snyder



KANSAS HEREFORD BREEDERS' ASSOCIATION

Council Grove, Kansas, October 21, 1918

150 HEAD OF HEREFORD CATTLE

Our membership represents 100 herds of fashionably bred cattle, grown in the Limestone Region of Kansas. Arrange to attend sale series: **October 21,** Association Sale at Council Grove, Kansas; **October 22,** Miller & Manning, sale at Sylvan Park, Kansas; **October 23,** W. I. Bowman & Company sale at Hutchinson, Kansas.

Send for catalog and mention Kansas Farmer.

R. D. Lumley, Pres. Emporia, Kan., F. H Manning, Sec'y., Parkerville, Kan.

Anxiety-Fairfax Herefords



Sale at Ranch Near Council Grove and

PARKERVILLE, KANSAS, OCTOBER 22

Offering 100 Head 10 Bulls 90 Females

This is the greatest offering of Fairfax blood ever listed for a Kansas auction. The cows are principally of Anxiety blood lines, but they are bred chiefly to three great sons of Perfection Fairfax—**Alex Fairfax, Letham Fairfax, and Lord Fairfax.** A few are bred to Disturber Lad, Beau Stamp, Quinto, and The Monarch. Many of the cows have calves at foot. Get a catalog early. Mention this paper when writing.

MILLER & MANNING

PARKERVILLE, KANSAS

DISPERSION SALE

of 70 Head of Registered

Big Type Poland Chinas

TO BE HELD AT TURON, KANSAS

OCTOBER 16th, 1918

EVERY HOG HAS BEEN VACCINATED FOR CHOLERA, USING THE DOUBLE TREATMENT, AND SHOULD BE IMMUNE FOR LIFE

Mr. Farmer and Breeder—You will find in this herd some of the best big-type hogs of the breed—best in blood lines and best as individuals. Sows weighing in show ring condition 600, 700 and 800 pounds, sired by such boars as A Wonderful King, King Price Wonder, Big Hadley Junior, Big Bob Jumbo, and the world's champion, Caldwell's Big Bob. They have license to be big, and the spring pigs from these sows show for themselves.

This herd has made us money right from the beginning, commencing three years ago, and we couldn't be induced to part with some of these sows only for the reason that we are changing location. This will be your opportunity to get RIGHT in the hog business.

You can get foundation stock in this herd that will suit you and make money on your investment.

35-HEAD OF CATTLE-35

Including ten head grade and pure-bred Holsteins. Some cows giving milk. Write for hog catalog we will have out October 1.

TERMS OF SALE will be same as all sales of this kind—cash and settlement made before property is removed. Parties wanting credit should see the clerk or owner before sale starts.

Auctioneers
Col. John D. Snyder, Hutchinson; Col. Geo. Goodenough, Turon; Col. Fred Nucomb, Wichita
Clerk—E. E. Shive, Turon

BARKER & ALLMON

TURON, KANSAS

Poland China Sale

AT FARM NEAR

LEONA, KANSAS

October 16, 1918

40-Head Large Growthy - 40
40 - Poland Chinas - 40

Consisting of Nine Fall Boars, Eleven Spring Boars, Seven Yearling Gilts, Thirteen Spring Gilts

THE BEST LOT I HAVE EVER SOLD

They are sired by Big Bob King, he by Big Bob Wonder and Model by Jumbo by Model Big Bob. The offering is out of such valuable brood sows as Lady Ben by Big Ben; Big Osborne 5th by Chief Jumbo; Likeness Coin by Big Hadley's Likeness; Miss Mastodon D by A Wonder Price; Wonder's Queen by A A Wonder; Leona Model by Master Orphan; Lady Prince by Goliath; D Wonder by B Wonder, and other good sows.

Catalog is Now Ready to Mail Out. Please Send for One and Arrange to Come to My Sale. Address

DR. J. H. LOMAX

LEONA, KANSAS

(Sale at the Farm, 2½ Miles Southwest of Leona, Kansas)

Auctioneers—Col. P. M. Gross and Col. Chas. Foster
Clerk—A. Delaney

30.5
AF

OCT 19 1918

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 42. TOPEKA, KANSAS, OCTOBER 19, 1918. Established 1863. $1 a Year

COST OF PRODUCING WHEAT

Definite Figures Obtained on Twenty Sumner County Farms

By Wm. M. Jardine, President Kansas Agricultural College

A WHEAT yield of thirteen bushels —the average for Kansas—does not return a profit, considering the state as a whole. Based on present production costs and price of crop it requires a yield of fifteen bushels or more to make any money. These are tentative conclusions reached by an investigation of twenty farms taken at random in Sumner County this year. It is true that conditions vary somewhat in different parts of the state and in different localities within the same region. Further studies are in progress in other counties in order to obtain definite data for all the varied agricultural circumstances in the state.

The figures obtained in Sumner County, however, throw a very considerable light upon the cost of producing wheat in the state and the profit to be obtained therefrom. They are indeed the only definite figures so far obtained upon these important subjects.

Definite Figures Necessary

The importance of these figures and of the figures which will later be obtained in the state lies in the use which can be made of them in assisting the United States Government to reach a wheat price which will reasonably compensate the growers of the crop. The Federal Government again urged the farmers of Kansas to sow not less than ten million acres of wheat. While a fair proportion of this acreage will be sown in Eastern and Central Kansas, where the yield, year upon year, averages rather high, an exceedingly large proportion must be planted in Western Kansas, where the average yield runs certainly under the fifteen bushels necessary to break even and indeed even below the thirteen bushels which constitutes the average for the state as a whole. Moreover, many of the costs which are included in making up the figures will be higher during the season of 1918-19 than they were during the season of 1917-18. If the whole state shows conditions similar to those in Sumner County it seems probable that more than fifteen bushels an acre will be necessary under present wheat prices if a profit is to be made next summer.

Knowing that there has been much uncertainty about agricultural costs and profits, President Wilson has stated that he will appoint a non-partisan commission which will take up the problem of wheat prices. Such figures as are obtained in Kansas will be presented to this commission. It is possible that a regional price for wheat, varying with the cost of production in different parts of the country, will prove the most adequate solution of the problem.

The figures secured in Sumner County were obtained by Prof. W. E. Grimes, specialist in farm management for the Kansas State Agricultural College, with the efficient co-operation of W. A. Boys, county agent, and F. M. Sumpter, president of the Sumner County Farm Bureau. Farms representing as much as possihle the different localities in the county were visited, but they were not selected on the basis of good or poor or average crops; they were taken absolutely at random, except for the effort to have all parts of the county included. Part of the data were obtained from the farmers themselves and part from estimates prepared on records kept in the state for many years.

Every Item Included

Every item which can be evaluated as a part of the cost of production was included. Likewise, all credits obtainable from the crop were footed up. The figures obtained showed the cost per bushel of wheat varying inversely with the yield per acre, with some minor exceptions. For example, the farm having the lowest yield raised but nine bushels to the acre, making a cost per bushel of $3.53, or $1.53 more than what the farmer received. At the other end of the scale were two farms, each of which had a yield of twenty-five bushels to the acre. The cost per bushel on one of these was $1.28 and on the other $1.46, leaving in each case a very substantial profit for the farmer.

Sumner County on the whole is a good wheat county, much above the average of the state. On the twenty farms visited, 64.6 per cent of the cropped area had been seeded to wheat. The average yield per acre on the twenty farms was 17.84 bushels, while the net cost per acre was $30.30. With wheat selling at $2 a bushel the average farmer in this group obtained 30 cents per bushel for depleted fertility, his own managerial ability and profit. With a fifteen-bushel yield he would have about broken even; with anything less he would have been farming at a loss; with anything more he would have been farming at a profit.

The figures included in the cost of production cover seed bed preparation and seeding, the use of land, the use of buildings, harvesting and delivery to the local elevator, twine, the threshing charges, insurance, the board of the threshing crew, manure, interest on money put into seed bed preparation and seeding, and crop risk. Credited to the crop are the value of the straw and the value of the pasture.

Explanation of Figures

Certain of the figures involved in the cost of production perhaps require explanation:

USE OF LAND.—The use of land was figured at 8 per cent of the value of the land. This includes interest on the investment, taxes, maintenance of roads and fences, and other general maintenance expense on the farm, the proportionate share of which must be borne by the various farm enterprises.

USE OF BUILDINGS.—The use of buildings was figured at 10 per cent of the estimated value of the buildings as given by the farmers. This includes interest, taxes, depreciation, repairs, and upkeep.

USE OF MACHINERY.—The use of machinery was figured at one-half the cost of horse labor. This basis of estimation was obtained from complete cost accounts.

CROP RISK.—The crop risk is the farmer's compensation for expense in years of poor crops or failures. The reports of the State Board of Agriculture show that 1,372,290 acres of wheat were seeded, and 1,139,635 acres harvested, during the seven years from 1911 to 1917 inclusive. These figures were not given in the reports of the State Board of Agriculture prior to 1911. On this basis, then, there were approximately five acres seeded for every four acres harvested; in other words, the four acres must bear the expense of seed and seeding for five acres.

INTEREST. — Interest was figured on the cost of seed bed preparation, seeding, and seed for the ten months' period from October 1 to August 1 at 8 per cent. Many farmers were obliged to borrow at least part of this money, and much money is being lent this year for the purpose.

LABOR COSTS.—The labor costs were put in at current wages for hired farm labor, whether the work was done by hired help, by the farmer himself, or by members of his family. This makes no allowance for the value of the farmer's ability as the manager of the business.

The managerial ability of the farmer and the depletion of soil fertility by the crop should both be considered as parts of the cost of production. They are, however, practically impossible to evaluate; consequently, they are lumped with the profit.

Important Conclusion from Figures

It will at once be seen that the items heretofore given will vary more or less in different parts of the state. For instance, in Western Kansas, where the wheat yield is lower, the average value of the land is lower; where it is $74.50 on the Sumner County farms it probably would be in the neighborhood of $50 in the western part of the state. This would reduce the cost a little more than $2 per acre—enough to allow, however, for a decrease of but one bushel in the yield. Other possible variations may be noticed. The exact extent of these will be manifest only after figures have been obtained from all parts of the state.

From the figures so far obtained there are two conclusions to be drawn.

First, as has been heretofore stated, it is of the utmost importance to the wheat growers of the state to have definite figures to present to the Federal Government. These figures are now being obtained through the co-operation of farmers and the Agricultural College.

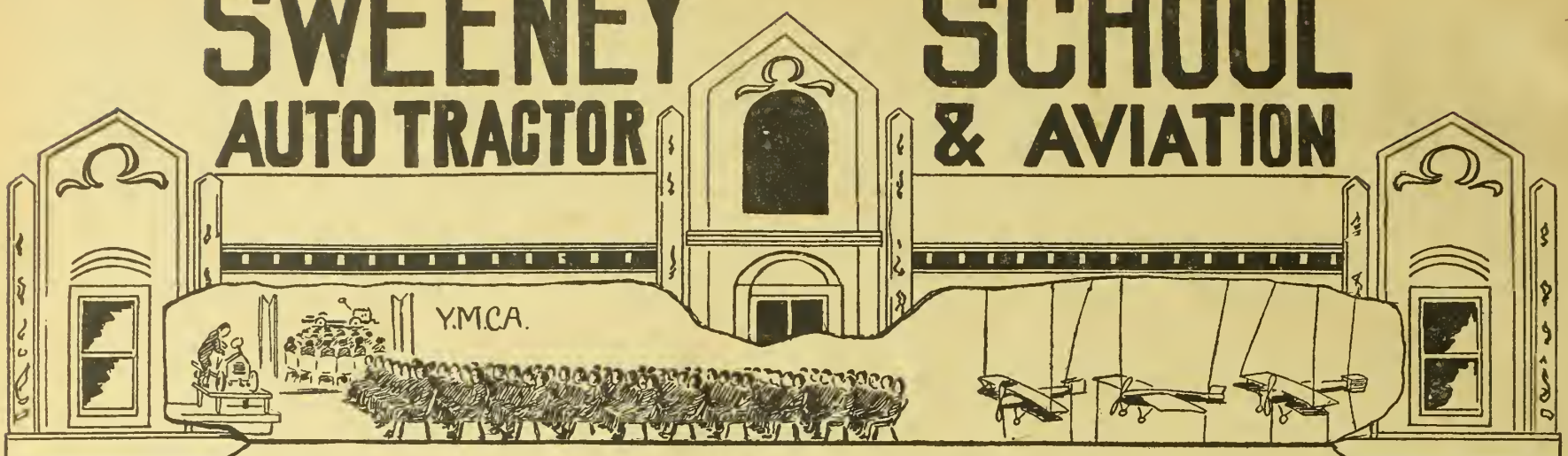
Second, the yield per acre is found to be the most important factor in determining profits. Methods which increase the yield increase the profit also. This is the opportunity of which the individual farmer may take advantage.

It's billions for defense or billions for indemnity.

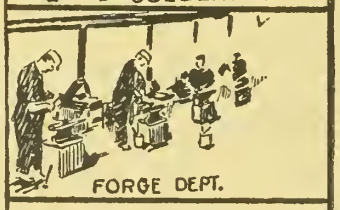
AVERAGE COST OF PRODUCING ACRE OF WHEAT ON TWENTY SUMNER COUNTY FARMS

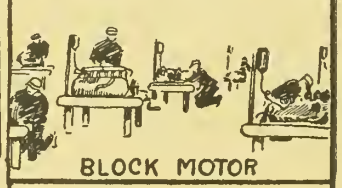
SEEDBED PREPARATION AND SEEDING—	
.496 days of man labor at $2.63	$ 1.305
2.194 days of horse labor at $2.25	4.936
Use of machinery	2.478
SEED—	
1.141 bushels at $2.096	2.391
USE OF LAND—	
Eight per cent of $74.50	5.960
USE OF BUILDINGS—	
Ten per cent of $3.48	.348
HARVESTING AND DELIVERING TO LOCAL ELEVATOR—	
.528 days of man labor at $5.49	2.899
.816 days of horse labor at $2.25	1.836
Use of machinery	.918
TWINE—	
2.58 pounds at 25.1 cents	.649
THRESHING CHARGE—	
17.84 bushels at 15.56 cents	2.775
INSURANCE—	
On growing crop and in stack and bin	.348
BOARD OF THRESHING CREW—	
Board of teams and men not furnished by farmer	.019
MANURE	.064
INTEREST—	
Figured on cost of seedbed preparation and seeding for ten months at 8 per cent	.740
CROP RISK—	
Farmer's compensation for losses in years of poor crops or failures	2.776
Total cost per acre	$30.435
CREDITS TO CROP—	
Straw, $.098; pasture, $.036; total	.134
Net cost per acre	$30.303
Average yield per acre, bushels	17.84
Net cost per bushel	$ 1.70
Approximate price per bushel received by farmers for wheat	2.00
Pay for depleted fertility, managerial ability of farmer, and profit	.30

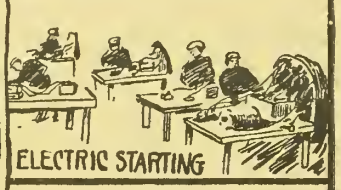
SWEENEY AUTO TRACTOR SCHOOL & AVIATION



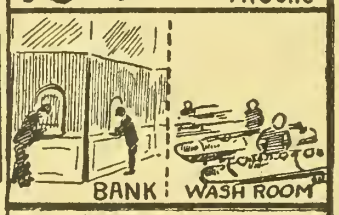


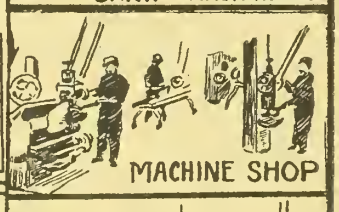














Most Practical School in the World

The man who graduates from the Sweeney Auto, Tractor and Aviation School doesn't need to worry about making a living, as some college graduates do. He comes out of this school after a few weeks' training, a full-fledged, practical auto and motor mechanic with hundreds of positions open to him at the highest kinds of salaries. He knows his business and is practical from the word "go."

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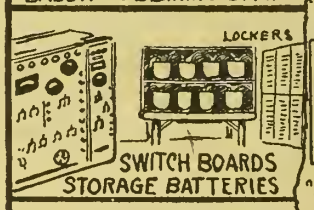

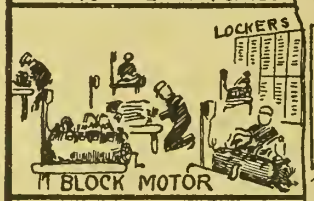

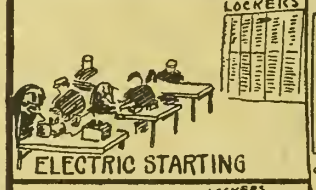

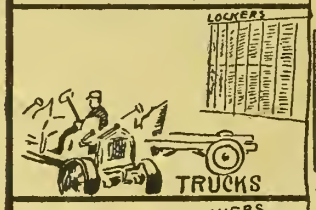



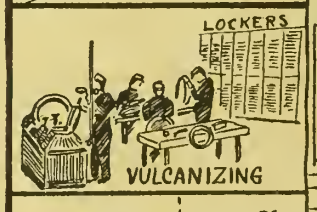

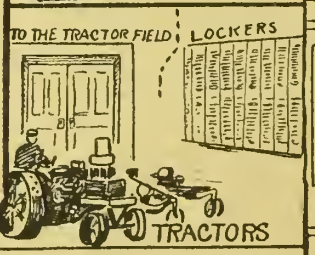



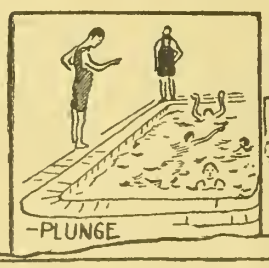

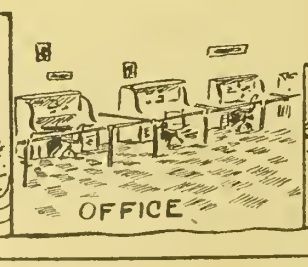

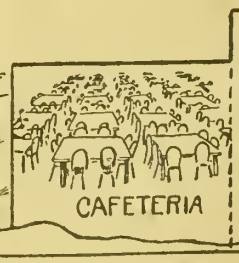

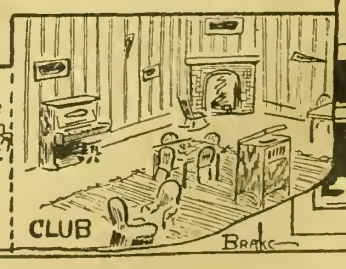

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KANSAS FARMER

THE FARM PAPER OF KANSAS

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SEED CORN FOR NEXT YEAR

This year's corn crop in Kansas is estimated to be only 38 per cent of the state's normal production. The unusual conditions last fall seriously affected the vitality of seed corn saved from last year's crop and as a result seed reserves were practically exhausted in planting the 1918 crop. We are facing a shortage of seed for next year's planting unless a far greater effort than usual is made to save seed this fall. In practically all the corn-growing sections of the state there will be found a few fields here and there from which good seed can be saved. The men who have grown this corn, however, have not been in the habit of saving more than enough for themselves or possibly a little extra to provide a safe reserve for replanting poor stands.

In view of the existing conditions, nothing short of a systematic drive for saving as large an amount of seed as possible from every good field of corn in the state will take care of the situation. This is another opportunity for the farm bureau organization of each county to perform a most necessary job. Such a movement is alread under way. We are writing these words of endorsement and encouragement in the hope that we may call attention to the importance of co-operating with the farm bureau committees as they work. It has been estimated that Shawnee County, for example, will save through the activity of these committees 17,668 bushels of seed corn for 1919. This of course implies the meeting of every pledge made by individuals or communities. All over the corn-growing sections of the state serious attention should be given to this seed corn drive. From the information available it appears that nearly a million and a half bushels of seed corn will be saved as a result of the organized drive. To make it an assured fact and to go "over the top" with perhaps an even larger amount, every man appealed to must do his part.

Seed corn quotas have been assigned in every corn-growing county with a farm bureau organization on the basis of one bushel of seed corn for every three acres of corn normally planted in the county. This quota is large enough to supply seed liberally to other counties where conditions were such that no seed can be saved locally.

INTERNATIONAL FARM CONGRESS

As we write, the indications are that the big farm congress in Convention Hall, Kansas City, will start according to schedule. It was feared the epidemic of influenza would necessitate calling it off, temporarily, at least. The program sessions of the congress will be held October 21 and 22, unless later developments in the epidemic cause a change in present plans. The very best talent in the country has been secured for these meetings. Practical farmers are taking a prominent part. The keynote of the whole congress will be "Conservation, Cultivation, Education." The United States Department of Agriculture, the War Department, the Navy Department, the Food Administration and the Department of the Interior all have given their official endorsement and active spport.

Nearly $10,000 is offered for agricultural premiums by the Soils Products Exposition which is held in connection with the Farm Congress. Fifty per cent of the cash premiums will be paid in war savings certificates and thrift stamps, exceptions being made in case of exhibitors from foreign countries.

The state competition, always very keen, is this year further encouraged by an unusually fine array of trophy cups and cash offerings. Chief of these is the big silver cup for best general display by a state, province or nation. This is a magnificent trophy nearly as tall as a man, of handsome design and valued at $500. It is offered by the Chicago Board of Trade. Other cups in this class total more than $1,200.

The counties are well taken care of, eleven cups and nearly $1,000 in cash being set aside for this class of exhibits.

Increased production of wheat is encouraged by an array of prizes unequalled by any other fair or exposition. Cash to the amount of $270 is offered in six varieties. In addition there is a special offering, for the best bushel of hard spring wheat of a $500 trophy cup by the Canadian Pacific Railway Company. The sweepstakes award is a $100 trophy cup, and one Deering or McCormick grain binder complete, or its equivalent in I. H. C. machinery, by the International Harvester Company. It is thus possible for the winning sample to net the grower $870 in cash, machinery and trophies. If the sweepstakes sample happens to be hard spring and also dry-farmed, the amount is increased to $955.

Kansans will be interested to know that their state will compete for the state trophy and it is believed has a good chance of winning first place this year. Last year at Peoria, Kansas won second place. In 1915 the Kansas exhibit won first place at the exposition in Denver and first at El Paso in 1916. The Kansas Experiment Station also will have a display booth, setting forth the work of the station. Bruce S. Wilson of the agronomy department has planned both display booths for the state. At least twelve other states will be competing for the state honors. States as far east as Ohio and as far west as Arizona will be represented.

The general plan of the Kansas display will show most strikingly the part the state is taking in agricultural production. The wall space will be divided into seven panels by means of pillars and arches covered with Turkey wheat. These will be devoted to exhibits of grain crops in the sheaf. The bench display consists of threshed grain, ear corn, vegetables, and fruit.

A most striking feature of the display is a large service flag made out of Jonathan apples and Grimes Golden apples. A large star in the center stands for the seventy-seven thousand Kansans in the country's service. This flag is guarded on either side by stacks of arms and two trench mortars, the ammunition for the mortars being in the form of rosy apples piled in pyramids.

The International Farm Congress is one of the outstanding events of the year. It has not been held in Kansas for several years and as a result our people have not been able to attend in large numbers as will be possible this year.

BEEF REQUIREMENTS MODIFIED

The Government purchases of beef for our army and navy and our allies will be on the basis of quality rather than of weight if the proper interpretation has been given to a message received at the Kansas City stock yards. The producing interests of the Southwest have contended for months that the arbitrary weight basis was illogical and unjust. The contention had been made by the buying authorities that only carcasses well covered with fat could be handled in the way beef is handled for army and navy use. It apparently was assumed that heavy animals only could be finished so as to show the desired covering. In recent years we have been steadily working toward the production of animals that would mature at light weights; in other words, "baby beef." It has been a matter of breeding to produce this kind of cattle. They are more economical to produce, and the demand has been turning to the light weight, well finished quality carcass. When properly bred they can show just as fine a quality and finish as the heavy carcasses.

The Government's change of program was made public in Kansas City last week through a telegram received by Sam H. Ray, the Kansas City representative of the Bureau of Markets at the stock yards. This message seems to settle the question as to the weight of beef carcasses purchased by the Government. It states that a unanimous agreement was reached that all future purchases of beef for the army, navy, marine corps, and our allies' armies, would be made on the basis of quality primarily and not weight as heretofore. It was agreed that the Department of Agriculture should select the meat on the basis of quality through its inspectors at the purchasing markets. It was pointed out that this course of action is in accordance with the sound principles of production and conservation advocated by the Department of Agriculture and that the other departments also have in mind the assurance of an adequate supply of beef for the future.

This plan of buying should bring about a better balanced condition in the beef industry. It does away with the discrimination against the light weight carcass. Animals of proper quality can be handled by the packers in filling Government contracts even though they do not come up to the arbitrary weight standards long held by the army and navy.

A REMARKABLE DEMONSTRATION

Most striking proof of the improving influence of the pure-bred sire was given at the meeting on Sni-a-Bar Farm, Grain Valley, Missouri, last week. It has long been recognized by experienced live-stock men that in grading up common stock the pure-bred sire of correct conformation and breeding is a great deal more than the theoretical "half the herd." This is particularly true for the first few top crosses. To demonstrate in a large way this knowledge of the few, the late W. R. Nelson put four hundred ordinary red cows on this Grain Valley farm, purchased the best of pure-bred Shorthorn bulls, and planned to continue until at least five top crosses of this kind of blood had been made on the foundation herd. He himself did not live to see the fruition of his plans, but he had carefully charged his co-workers to carry it on, and this meeting of last week, attended by 1,500 or 2,000 persons, was the first opportunity given the public to see and study the results.

On the day of the demonstration, carefully yarded and labeled were shown on the Sni-a-Bar Farm the original cows, the herd bulls, steers and heifers of the first cross, and the produce of the three-year-old first cross heifers, some of them being finished for market alongside steers of the same age from the original cows. In the comparison between these first-cross and second-cross steers was the most outstanding demonstration of the power of the sire to add to the value of the animals produced. The two lots were practically the same in age; they had grazed in the same pastures and had been given the same care and feeding. The first-cross steers averaged 850 pounds in weight and were valued on the basis of the Kansas City market the day of the meeting at $14 a hundred. The second-cross steers, the result of breeding the same kind of high-class pure-bred Shorthorn bulls to young cows of the first cross, averaged 1,060 pounds in weight and were valued at $17 a hundred. The valuations were placed by Fred Stemm, head buyer for Swift & Company at Kansas City, and E. W. Houx, president of the Kansas City Live Stock Exchange. The second-cross steers were 210 pounds heavier and were valued at three dollars more a hundred in price. One of these second-cross steers would have sold for $180.20, while a first-cross steer would have brought but $119, a difference in value of $61 in favor of one more cross of pure blood. A single animal could sire forty or fifty calves in a season. With such a demonstration before his eyes, the man who thought he could not afford a good bull quickly figured that he could not afford to do otherwise than own a good pure-bred sire.

A few calves only were shown of the third cross. Even though this demonstration had proceeded but two generations, the lesson of the pure-bred sire struck in so it will not soon be forgotten. The Food Administration, the Department of Agriculture, various live-stock record associations, the agricultural colleges of Missouri, Kansas, and Oklahoma, had official representation at this meeting so unique in its possibilities for furnishing a visualization of live-stock improvement.

A very instructive program was given which was interrupted by a most bountiful lunch at the noon hour, this being served to all present by the management of Sni-a-Bar Farm. Those who attended this meeting felt that they had taken part in a most unusual and thought-provoking event. The results of the work as it goes on for the next few years, or until the five top crosses set as the limit by Mr. Nelson have been made, will be watched with unusual interest.

HOGS AT $18 A HUNDRED

It was a matter of considerable surprise that the Food Administration reduced the average minimum on hogs for October to $18, after announcing that it would be maintained at $18.50, as we stated last week. It would look as though the Food Administration figured that there is a big supply of hogs and wished to either keep down the price or hold back hogs for later runs. The latter theory may be the explanation of this change in October price. It is evident that every effort possible is to be made to avoid extremes in prices. If prices go too high, consumption will fall off both at home and abroad. This would react and eventually cause a slump in prices.

It is difficult for the Kansas hogmen to reconcile themselves to the plan of figuring the farm price on corn and the Chicago price on hogs in maintaining the thirteen-to-one ratio. Very little pork will be produced in this state entirely from home-grown corn. This means that purchased feeds will enter quite largely into the cost of pork production. However, Kansas live-stock producers have responded nobly to the call of the Food Administration, and while this regulation is not entirely satisfactory, they will continue to do their part in meat production.

A meeting of the agricultural advisory committee has been called in Washington for October 25 to fix the average minimum hog price for November. It is evident the Food Administration is making every effort possible to keep its pledge in the matter of pork prices.

STATE FARM BUREAU MEETING

The county farm bureau organizations are taking an increasingly important part in our agricultural development. The necessity for a greater co-ordination of effort in production which has been forced upon us by war conditions is showing up the possibilities of the farm bureau as a directing force.

A state-wide conference has just been called at the suggestion of farm bureau officers and members of boards of county commissioners, to be held at Manhattan at the Agricultural College October 21 to 23. The chief topic for discussion will be "How Farm Bureaus Can Be of the Greatest Help in the Government War Program and of Most Assistance to Agriculture Immediately Following the War." The question of extending farm bureau membership to women, boys and girls will also be taken up at this meeting, states Edw. C. Johnson, dean of the extension division, as will also the subject of a budget system for all farm bureau expenditures.

This is an important meeting and we would urge that farm bureau officers and members of county boards make a special effort to be present and take part in the discussions.

Because of the diminishing of the herds, Europe will face serious food shortages for years after peace is achieved.—U. S. Food Administration.

BREEDING UP THE DAIRY HERD

Sire Must Be from Higher Producing Strain than Cows

By C. H. Eckles, from Address at Western Dairy Show, Yakima, Wash.

THE sharp advance in the price of feed within recent years makes it more than ever necessary to give the greatest possible thought to the problem of economical production of dairy products.

The cost of production is determined (1) by the amount of the products secured, (2) and the expenditures involved in securing this product.

There are two important factors which determine the amount of the production. The first is the efficiency of the machine used, in other words the dairy capacity of the cows. The essential points to be observed in getting the efficient herd is getting animals with the best possible inheritance and continually culling out those found by trial not to have the right heredity. In other words, breeding and selection, as long recognized, have to be depended upon to provide the machine with which the dairyman works.

The second factor involved in determining the amount of product secured is how skillfully the machine at hand is used, and includes feeding and management in general. My subject deals with the first only, that of getting the efficient herd and with only one part of that; namely, the breeding problem.

It is generally conceded that taking all our dairy cattle into account, at present on the average we have to raise three dairy animals to get two that are fairly satisfactory. In other words about one-third of the cows raised for dairy purposes at present are culled out when records are kept. This is an enormous expense to the dairy farmers of this country, not only in raising these unprofitable animals, but in keeping them until their worthlessness is proven and they can be culled out. I consider it time to consider very carefully what may be done in the way of increasing the proportion of good cows. I look forward to the time when three out of four will be up to standard and later even nine out of ten. I believe this should be the objective point of our breeding operations. How may a result so much to be desired be brought about, or at least how may it be advanced in that direction?

Born That Way

It seems to me that the first question that has to be settled is this:

Is the good cow or the inferior cow born what she is, or made what she is by the manner of raising and management when young? This question is one to which I have given a great deal of thought for several years. I have also spent no small sum of money in experimental work trying to learn something definite on this point. In 1906 I began an experiment which continued eight years, the object of which was to determine, if possible, the influence of the conditions under which dairy heifers are raised upon their dairy qualities when mature. We raised heifers under different conditions of feed and wide variation in age at first calving. I cannot go into detail here, but will say it was our conclusion that the high class dairy cow is born that way. She is not made what she is by manner of raising or by any special treatment. In fact, within anything like the limits of ordinary practice the manner of feeding and the management of the heifer during the growing period has little if any relation to her dairy qualities when mature. She is mostly what she has inherited.

If this is true, then the way to increase the proportion of cows from two in three to nine in ten is not along the line of any special feed or treatment when young. If the dairy cow is the product of inheritance, then the question of getting a higher proportion of good ones is a breeding problem and so I regard it.

Every dairyman who pays the least attention to the problem of economical milk production understands the importance of culling out the inferior cows. Every agricultural paper has preached it for years, every speaker urges it and the hundreds of successful cow test associations now in operation indicate that this question is in a measure receiving the attention it deserves. However, at this time we desire to consider the question of selection of the cow by records, not from the standpoint of getting an efficient herd at the present time, but from this other standpoint, that of increasing the proportion of profitable cows among those we raise for future use.

The Next Generation

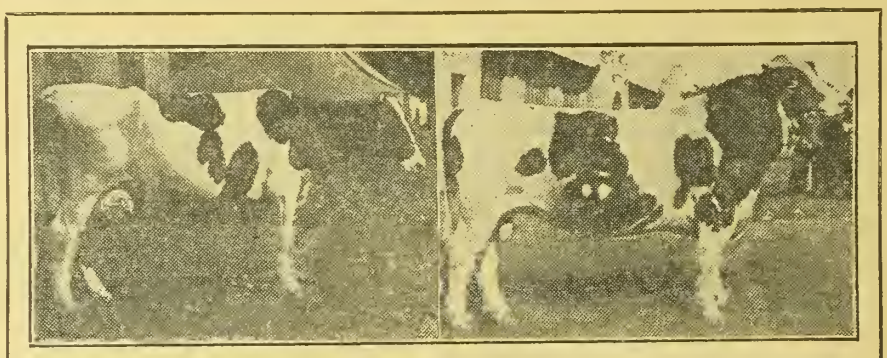
The question I desire to raise is this: Will the constant culling out of our inferior cows result in the next generation having fewer culls? The statements I am going to make I am aware are not in accordance with popular opinion, but our ideas must be modified from time to time in the light of recent scientific knowledge. I will say it is entirely possible and in fact probable that if we depend upon the elimination of poor cows alone, the next generation of cows will contain almost as many inferior ones as does this one. To make it more concrete I will say that in a herd where the animals are of much the same breeding a heifer calf from one of the best cows in the herd stands some chance, but a very small one, of being better than a heifer from one of the average cows in that herd, provided both heifers are by the same sire. I fear some who are now members of cow testing associations are going to be disappointed along these lines in the future. Those who assume that the heifers raised from the cows that are retained on account of profitable production will average the equal of their dams are due to disappointment. Unless a sire is used much better than the cows, the heifers raised will have to be culled almost as much as were their dams. While it certainly is advisable to raise the heifers from the best in preference to those from the inferior ones, this by no means solves the problem of getting a higher proportion of good producers in the coming generation. As evidence that heifers from the higher producing cows do not necessarily follow their dams in production, I submit some figures from the herd of which I have had charge for sixteen years.

Our Jersey herd is descended entirely from four cows purchased in 1887 and milk and fat records have been kept since 1892. We tabulated these records some time ago to determine what relation there is between the production of dams and that of the daughters. The results are given in groups of ten. The first group includes the ten cows highest in average milk production and the comparison is made with the records of their daughters. The figures are the average for the first two years in milk in each case. The second group includes the second ten dams in order of production and so on to the poorest.

These figures show a small tendency indeed toward better production by the daughters of the better cows. Furthermore more of this difference is in reality to be attributed to the sire. The column marked "Sire Average" gives the average records of the daughters of the sire represented in Group 1, from all kinds of cows, as 5,530 pounds. Heifers from the selected group averaged 5,707. Apparently the better dams did exert a slight influence towards improving the daughters, but surprisingly small. Bear in mind these cows were in the same herd and of much the same general breeding. Do not interpret me as saying the dam has nothing to do with the dairy quality of the daughters. I very carefully limited this statement to a group of cows of similar breeding. It would not mean at all that a heifer from one of the highly developed herds in this state has no better chance of making a good cow than a heifer from an inferior cow in a mediocre herd or strain when both are by the same sire.

Let me next apply this conclusion to the question of improving a herd by selection of cows alone. Suppose a herd without culling averaged 250 pounds of fat, but by culling the yield was raised to 300 pounds. Now suppose a bull is used whose dam had a good record, but which was the only good cow in her family; that is, the family inheritance behind her was only for 250 pounds of fat a year. In other words, the inheritance of the bull was no better than that of the cows. Will the heifers from this bull be any improvement over their dams? We believe not. Nor will we have any particular improvement if the same plan is followed for ten years.

The daughters of these selected cows will average not 300 pounds of fat like their mothers, but 250, the average of the family or strain to which their mothers belong. These selected cows retained in the herd are not typical of their inheritance, they are above it, and remember they tend to transmit not their own characteristics but the average of their family.



GRAND CHAMPION HOLSTEINS AT KANSAS FREE FAIR.—BULL, JOHANNA BONHEUR CHAMPION 2D, OWNED BY J. M. CHESTNUT & SONS, DENISON, KANSAS.—COW, ALMEDA LUECKE HENGERVELD, OWNED BY CASS FARM, SUMNER, IOWA

INHERITANCE OF MILK PRODUCTION

Group	No. Cows	Milk Per Year, Dams	Milk Per Year, Daughters	Sire Average
1	10	7,857	5,707	5,530
2	10	6,509	5,654	5,526
3	10	5,509	5,368	5,314
4	9	5,169	5,496	5,312
5	10	4,851	4,969	5,267
6	10	4,532	5,460	5,086
7	10	4,071	4,767	4,828
8	10	3,128	4,907	5,087

For explanation of table, see discussion in article.

The situation as I have presented it may look a little gloomy, but there is a way out. I have said the cow tends to transmit the average of her strain or family, not necessarily her own particular qualities if she is above the average of her family. Evidently then what we need to do to improve the average of a herd making 250 pounds of fat before any animals have been culled out is to introduce blood of a higher strain; that is, having an average inheritance of say 300 pounds.

One way out would be to dispose of all these low strain cows and replace them with cows of a strain having a high average dairy inheritance. This is not generally practical. Clearly there is only one practical way to introduce such blood in most cases, that is through a sire belonging to a higher strain, that is having a better inheritance than the dams. This brings us to the main question for discussion, namely, the selection of the sire.

Improvement Through the Sire

Every owner of live stock who has given careful thought to the breeding question realizes that the main chance for rapid improvement of a herd lies through the sire. No one would recommend the purchase of a high-class cow and the continued use of a mediocre bull as a means of developing a herd. Every animal in the herd gets half its inheritance from the sire. For example, one bull might be the sire of twenty daughters in a herd in one year. If the dams be capable of producing 200 pounds of fat each and the sire represents a strain the cows of which are capable of producing 350 pounds of fat each year, it is evident that if the daughters averaged only half way between these there would be an increase of seventy-five pounds per cow annually. It is not uncommon to find even greater differences than this in actual practice. There is therefore a sound basis for the old axiom that the sire is half the herd.

The skillful breeder of any kind of stock does not need to have it pointed out to him how important it is that the sire be properly selected. If he is a skillful breeder, it is largely because he realizes the importance of the sire and knows how to select him. The skillful breeder knows perfectly well that the future reputation of his herd is at stake when he buys a new herd bull. If he is a student of the subject he probably has learned of instances where one great sire has made a herd and its owner famous. He knows that in other cases a mistake in judgment on the part of the owner has been disastrous to a valuable herd. The great breeder of live stock no sooner has one male selected than he begins to study what to get next.

In contrast to this case in selecting the sire we find many dairymen depending for their living upon a bunch of cows no better than the herd they started with fifteen or twenty years ago. Instead of informing themselves how to get a good bull, or possibly on account of a mistaken economy, they continue to use a grade or scrub bull year after year and made no advancement whatever in the quality of their herds.

Why is it necessary to cull out about one-third of the cows we raise in order to get a satisfactory herd? It is because we are not satisfied with the cow as Nature made her. While we can only surmise what the cow was like before domestication, it is probable she produced not over 1,200 to 1,500 pounds of milk each year or barely enough to support her calf until it could live on forage. Now we are not satisfied unless we get as much or more milk in a month than the wild cow gave in a year. The modern cow is therefore largely artificial and not natural, and it is only by constant selection that this characteristic can be obtained. Unless constant selection is made, not only will no progress be made, but the tendency will be backward. To even retain the milking qualities of a good grade herd it is necessary to use a bull better than the cows.

Swat the fall flies, and you will have less swatting to do next spring.

WHAT TO FEED LIVE STOCK

New Habits in Stock Feeding May Be Necessary

NEW habits in feed for live stock may be as necessary as the changing of our ideas in regard to the human dietary. Certain sections of the country become accustomed to using certain kinds of feeds, naturally selecting those most easily obtained and which are cheapest in proportion to their nutrient value. When for any reason these commonly used feeds become scarce or abnormally high in price, live-stock men find it difficult to adjust themselves to the necessity for making a wide survey of the feeds available. We have learned the value of highly concentrated cottonseed meal, which is a product of the cotton-growing districts, and large quantities of this feed are used every year by Kansas cattlemen. Any restrictions on cotton-seed by-products, either in price or in availability, touch the cattlemen of our state at once. This is especially true in a year when other home-grown feeds are scare. For this reason it is most encouraging news to learn that J. H. Mercer, who has recently been in Washington on matters pertaining to feed for Kansas live stock, has secured a promise from the Food Administration that will help out in the matter of cottonseed products for cattlemen of this state.

The shortage of home-grown grains and mill feeds is forcing owners of live stock to look over the field to see if any feeds to which we are as yet unaccustomed can be obtained at reasonable cost. As an illustration of such feeds, molasses might be mentioned. Molasses has long been used in a limited way as a live-stock feed and quite extensively in localities where it is produced. There was a time when this by-product was turned into the streams in enormous quantities just as bran and cottonseed meal were dumped years ago because their value was not recognized. Now there is probably as much as 300,000 tons of cane molasses used annually in the United States for feeding purposes. It is simply a by-product of sugar. It contains as high as 50 per cent of sugar, which is a most concentrated form of carbohydrate. This is sugar which cannot be extracted in the crystaline form. Being so highly carbonaceous, molasses would naturally be used as a substitute for such feeds as corn. The protein necessary to balance it would have to come from alfalfa or other legume roughage or in the form of cottonseed meal which contains over 40 per cent of crude protein. Molasses contains in addition small percentages of certain natural salts which seem to have a good effect in stimulating the appetite of animals. It also has a value in making many poor grades of feed palatable.

There are many molasses feeds on the market. These consist of molasses combined with a wide range of products, among which might be mentioned alfalfa meal, cottonseed meal, milling offal of various kinds, screenings, oathulls, rice hulls, peanut hulls, etc. Since the molasses so thoroughly disguises the character of the other material, the safest plan in buying these feeds is to buy only from reliable dealers and on definite guarantees as to composition. Such feeds are regulated by the state feed control officials.

In speaking of the matter of palatability in feeds, H. B. Gurler, of Illinois, a dairy farmer of national reputation, emphasizes the importance of this point in feeding dairy cattle. He says: "The experience of many of the most successful dairy farmers has led them to believe that the most perfectly balanced combination of feeds may lack palatability to such a degree that the cow will not consume sufficient to make a profit. It matters not how much nutrient material the analysis may show a food to contain, if the cow will not eat it, what profit is to be secured from feeding it? I believe the palatability of feed is a correct basis on which to judge its digestability. How to secure palatability is a live question and one that is not half appreciated by dairymen. Remember always that your profit comes from the feed you can induce the cow to consume above what she must have to maintain herself."

G. H. Berne in the American Veterinary Review gives an interesting report of the feeding of molasses to 100 horses at heavy work, averaging 1700 pounds in weight. These horses were fed each night and morning one quart of molasses diluted with three quarts of water mixed with six pounds of cut hay, 1.5 pounds of corn meal and 2.5 quarts of coarse bran. The noon meal consisted of five quarts of dry oats and the night meal was reinforced by eleven pounds of uncut hay. This ration proved to be remarkably successful in keeping the horses in excellent health, whereas they had formerly been troubled to some extent with spasmodic colic. The horses not only performed heavy work but gained in weight during the trial. Mr. Berne says: "Molasses of a good quality is a most nutritious food for horses, easily digested and assimilated and will in many cases correct faulty digestive process; and horses will do fully as much work and at the same time remain, as a rule, in much better condition than animals fed on dry food, while the cost of feeding is reduced from 25 to 33 per cent." He calculates one quart of molasses the equivalent of three to four quarts of oats. Other experiments, both abroad and in our own country, give further evidence that molasses is a valuable food for both work horses and driving horses.

There is no better feeding authority in the country than "Feeds and Feeding," by Prof. W. A. Henry and F. B. Morrison. In this book they say: "Cane molasses, or blackstrap, the by-product of the manufacture of cane sugar, is palatable and much relished by farm animals." In reporting experiments in feeding molasses at the Massachusetts Experiment Station the following statement is made: "For facilitating the disposal of unpalatable and inferior roughage, as a tonic for horses and cows out of condition and as a colic preventative for horses, from two to three pounds of molasses per head daily is helpful. A daily allowance of three pounds of molasses per head may be advantageously fed to fattening steers, especially during the finishing period when the appetite is fickle." In this same text extensive investigations in the feeding of molasses to work animals on Louisiana sugar plantations are reported. Five thousand work animals were involved, chiefly mules, and they were fed an average of nine and a half pounds of molasses daily, the maximum being twenty-one pounds. The molasses was usually mixed with corn, ground with both cob and husks, and other concentrates or cut hay. The ration was usually balanced with legume hay or cottonseed meal. It was found that this extensive use of molasses reduced the digestive disturbances, improved the health of the animals, and effected a saving of from 10 to 50 per cent in the cost of the feed. It is pointed out that very seldom would such heavy feeding of molasses be profitable in the North because of the high price of molasses as a source of carbohydrates, although a quart a day might profitably be fed as an appetizer or tonic to horses out of condition. Henry and Morrison also report a good many feeding experiments in which molasses has been used in fattening steers. At the Indiana Experiment Station almost three pounds of molasses a day was fed to steers with shelled corn and cottonseed meal in comparison with other lots fed corn and cottonseed meal only. The molasses of course replaced an equal amount of corn. The molasses-fed steers made slightly larger gains and with corn ranging from $21.60 to $24.75 a ton and molasses at the rate of $22.50 a ton, the molasses-fed steers made slightly cheaper gains. It is also stated in connection with this experiment that molasses was especially useful in getting animals to clean up roughage which would otherwise be unpalatable.

Molasses is commonly fed by thinning it with water and sprinkling or pouring it over the hay or other rough feed. Some large feeders handle it by means of a force pump on an ordinary wagon tank. In studying the value of molasses in connection with the present feeding situation, its cost as compared with the cost of corn or other concentrates which it would replace must be considered. From the various experiments it would appear that molasses could be used in replacing corn and other similar grains when its cost per ton is not greater than the cost of the grain. As a means of increasing the palatability of low-grade roughage it probably could be profitably used at a somewhat higher cost than when directly used to replace concentrated carbohydrate feeds.

It is stated that the Government has fixed the price on molasses so that it can be obtained in the North even in less than carlots for $50 a ton. We are not familiar with the regulations which may be in effect relative to the price of molasses, but in view of the extremely high price of other feeds and the need for using our roughage with the greatest economy possible, it would seem that the feeder in the North might well investigate the possibilities of using molasses in connection with his home-grown feeds.

Better Live Stock a Necessity

By B. O. Severson, Associate Professor of Animal Husbandry, Kansas State Agricultural College

BETTER feeding methods and better breeding of cattle, sheep, and other classes of stock, will make it possible to use the crops grown to the best advantage. It does not pay to feed steers that require four or five years to mature. Steers must mature early and feeders of this kind can be produced only by using pure-bred beef bulls of the desired type. It is necessary to consider carefully the many factors which are involved in the successful and profitable production of live stock. It will pay to study conditions thoroughly and to make farming methods more businesslike and therefore more scientific. By doing this we can assist in placing live-stock production in Kansas on a higher plane of economy and profit.

For bringing about the use of more pure-bred stock, the following points are of importance:

There must be a recognition of the fact that pure-bred stock is more profitable because pure-bred animals have the heredity that will insure uniformity in the offspring.

Taking pride in live stock of merit and a devotion to stock leads to the production of better animals. This has been responsible for the great live stock development of Great Britain.

Co-operative efforts, such as cow testing association, breeders' associations, and marketing associations, are potent factors in promoting live-stock improvement. Every breed of any consequence has developed in this way.

The continued use of pure-bred sires will greatly improve the herd or flock and do it so cheaply that no man handling live stock can afford to do otherwise than use a pure-bred sire.

Familiarity with market standards is important and will lead to selling products on quality rather than quantity.

There must be a realization that live stock is necessary to a permanent agriculture. Fertility of the soil is the basis of profitable production. Surveys and experience show that farms on which the best live stock is kept yield the most profitable incomes through a series of years.

A study of local conditions to determine the kind of live stock best suited for a given section is essential and following this a community decision on a distinct breed so that all the farmers of the neighborhood can be doing the same thing. Why do you use a double team, a three-horse team, or even larger teams to pull heavy loads? It is because one horse cannot do the work. So it is if several men hitch themselves together and pull as a team. They accomplish far greater results than when working singly.



BUNCH OF HIGH-CLASS FEEDING CATTLE—THE KIND THAT COME ONLY FROM THE USE OF THE BEST OF PURE-BRED SIRES

The practice of up-to-date methods of live stock feeding and management go along with live-stock improvement. You cannot expect heredity to do it all. You must give it a chance. How long would we last if we allowed our clothes to be continually damp and lived on bread and water? We would not be giving ourselves a fair chance.

A study of economic conditions points the way to profitable production. Kansas offers great possibilities in the production of beef cattle and sheep because of its natural grazing lands in the western part of the state. This section can never become important in the production of such crops as require an abundance of rain. Live stock is more certain and especially so with the knowledge of better methods of feeding and breeding. The use of kafir and cane silage will supplement the grazing area and carry the stock through the winter periods. The development of irrigation projects will insure crops that will supplement the range; the use of alfalfa and other legumes to balance the ration properly will help in bringing about greater live-stock production in Kansas. Well bred animals that will use the feed, labor and equipment most economically and efficiently must be selected. A good herd or flock, like a good variety of wheat or corn, must be selected and maintained by men who are willing to promote and develop the agriculture of the state and the nation.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

A COMPARISON of the Federal and Minnesota standards by Dr. E. F. Ladd shows that wheat sold under the Miunesota standards will bring the farmer more money than if sold under the Federal standards. They also bring out the fact that it will require from 72 to 162 bins in an elevator to handle the three sub-grades of wheat according to Federal grades, while most elevators have less than fifteen bins. These results are given in Bulletin No. 6, Volume 5, North Dakota Experiment Station.

Velvet Beans as Feed

Velvet beans are a southern crop, but may become a factor in feeding even in the North. The Department of Agriculture has recently been making some feeding tests with these beans at the Department's farm at Beltsville, Maryland. With corn silage the beans were found to make a most satisfactory ration for fattening steers. The beans seem to compare very favorably with cottonseed meal, producing profitable gains when no other concentrate entered into the ration. It was found more profitable to feed soaked beans than the meal.

The principal object of these tests was to compare these beans in the three forms—whole, ground, and soaked—with cottonseed meal as supplements to corn silage and dry roughages. Four lots of steers were fed. The results would indicate that velvet beans at current prices produce fully as economical and satisfactory results as cottonseed meal.

Burn Wood and Save Coal

The Fuel Administration has estimated that there will be a coal shortage of fourteen million tons the coming winter. This suggests the necessity for using wood to the fullest extent possible in order to save both coal and transportation. It is claimed that farmers are now using eighty-three million cords of wood each year. A cord of wood is equivalent to from one-half to seven-eighths of a ton of coal, depending on the kind of wood. A cord of wood from osage orange or black locust has a higher heating value than a ton of coal.

On many farms there is probably an abundance of wood which could be worked up into fuel, but it is too tedious a job to do it in the old way in view of the great shortage of hand labor. It can be done rapidly and easily with a gasoline engine and saw. Such an outfit might well be kept busy this fall in neighborhoods where there is wood to be worked up for fuel. We recall that a patriotic farmer of Neosho County told us last winter of canceling his usual coal order. He said it was no hardship at all, for they had plenty of wood on the farm. It was simply a matter of getting at it and working it up into shape for use.

Trade in Stocker Hogs

The use of hog cholera serum and virus has resulted in the development of a large traffic in stocker and feeder hogs. It is estimated that more than thirty-seven and a half million pounds of pork was added to our supply in the fiscal year ending June 30 as a result of this feeder business. The present regulations favoring the handling of stock hogs through public stockyards were not put into operation until June 2, 1918.

The figures of the Bureau of Animal Industry show that for the year ending June 30, 1918, 254,731 head of hogs were inspected and immunized against cholera at public stockyards and shipped to country points for feeding and breeding purposes. The average weight of these hogs was only about a hundred pounds each. They later came back to market weighing from 250 to 275 pounds.

Just at the present time packers are not buying light hogs at all. It is rumored that this is due to a hint from the Food Administration, although this is denied. The Government man in charge of the Kansas City Stockyards knows nothing of such a suggestion to packers. It matters not, however, for the light hogs are all being handled by immunizing and sending them out as feeders and stockers. Many of these hogs are not at all suitable for slaughter and would bring comparatively low prices if sent to the block. Following the standardizing of the serum and virus treatment and the modification of the quarantine orders, a real conservation in pork production has been brought about.

In the beginning an order was issued permitting hogs to be shipped from public stockyards for feeding or breeding purposes when they had been given the standard serum-virus treatment under the supervision of a Department inspector. However, it was required that they be held in the yards twenty-one days before being shipped out. The cost of feeding the hogs during this quarantine period was so great that the traffic did not reach any considerable proportions. Later the period was reduced to fourteen days, but even this was too long. With added knowledge and experience in the control of hog cholera and the development of state laws and regulations, the Department finally decided that it would be safe to permit the shipment of treated hogs at once into states where the regulations require that they be held in local quarantine until twenty-one days have elapsed since the date of their treatment. This was the order which went into effect January 2, 1918. The traffic in stock and feeder hogs from public stockyards will undoubtedly have a steady growth and will become a most important factor in cutting out the losses incident to the old method of sending all hogs to the block, no matter what their condition might be.

Buying Cottonseed Meal

Cottonseed meal contains more protein, the chief food constituent of cotton seed, and less fiber, than does cottonseed feed. Cottonseed meal is generally recognized as a product of the cotton seed only, composed principally of the kernel with such portions of the hull as is necessary in the manufacture of oil, and as containing at least 36 per cent protein. Cottonseed feed, which may more properly be labeled "cottonseed meal and hulls," is generally recognized as a mixture of cottonseed meal and cottonseed hulls, containing less than 36 per cent protein. If to cottonseed meal, as defined above, cottonseed hulls are added, the mixture can not be labeled as cottonseed meal, under the terms of the Federal Food and Drugs Act and the food laws of many states.

Buyers should distinguish carefully between cottonseed meal and cottonseed feed. While cottonseed feed containing a reasonable quantity of cottonseed meal is a good feed, the hulls have very low feeding value as compared with the meal. The mixture having less food value should sell for a less price than cottonseed meal. Buyers in many instances, failing to distinguish between cottonseed meal and cottonseed feed, have paid as much, or nearly as much, for the feed as for the meal. This has been the case especially when the manufacturer of cottonseed feed has sold it under the designation, "cottonseed feed meal."

Save Garden Seed

Seedsmen have warned us against a shortage of garden seed for next year. It used to be the practice to save seed for the home garden from the crops grown, but of late years we have depended almost exclusively upon seed dealers. Seed will not only be scarce but higher in price, with perhaps the exception of peas and beans. It is said that radish seed may be as high as $1.75 a pound. It would be the part of wisdom this year to save seed for next year's garden as an emergency measure. Such seeds should be saved from the best plants. They should not be gathered until maturity and should be properly dried, placed in suitable containers, carefully labeled and stored in a dry place protected from insects or mice. In saving the seed of such plants as tomatoes, egg plant, and peppers, the selected fruits should be ripened in a cool, dry place, after which the seed can be removed. Tomato seed, likewise cucumber and melon seed, can be easily removed by pulping the fruits and allowing the pulp to rise to the surface. The seed sinks to the bottom. Beans are simply allowed to ripen on the vines and packed by hand when dry.

Gather Seed Corn Now

Good seed corn will be scarce in Kansas next year. The early freeze last year reduced the amount of good seed, and there is probably no reserve left over. The dry weather this year has so cut the corn crop that in many sections there will be no corn fit for seed. If you have corn that will be suitable for seed, one of the important jobs of the next few weeks is to gather a liberal supply, selecting it if possible direct from the field. Enough should be selected for two years if possible, and those having exceptionally good corn might well save enough seed for a less fortunate neighbor. The best seed is always that grown in the community in which it is to be planted.

Drying and storing the seed after it is gathered is a matter of some importance. Corn as it comes from the field may contain as high as 30 per cent water. It should be dried until the moisture is not in excess of 12 per cent in order to be safe from injury by freezing. After it has been carefully dried it should be stored in some place where it will not have a chance to re-absorb moisture.

Trap When Fur Is Prime

There is only one excuse—a poor one for all concerned—for trapping too early. The excuse is, of course, that some other trapper may get ahead of you.

But where the trapper hasn't any competition—on his own farm for instance—or where an agreement can be reached to wait, the taking of furs at the right time will bring far larger returns.

In a great many cases inexperienced trappers get out too early because they are not quite sure when the various furs are prime. Hence the following may enable no inconsiderable number of trappers to make more money out of their work this year.

Skunk are prime in the north toward the end of October; south, toward the end of November. They depreciate about the middle of March.

Mink is best during November to the end of January in the north and in December and January in the south. The fur depreciates during February.

Muskrat is fair in the fall, when trapping is, of course, easiest. But the prime fur is taken in the period from mid-winter to March. A good condition may be expected in the north up to about the first of June, while the sim-

Pure Bred Beef Cattle Situation

ONE of the most positive facts in live-stock production is the profound influence of pure blood upon efficiency in beef making. No one thing could make a greater improvement in the class of feeder cattle coming to Kansas City than the universal use of high-class pure-bred sires on the many farms and ranches producing beef cattle. The small farmer has not learned this lesson as well as has the cattlemen of the larger ranches. It is pointed out in a little pamphlet just published by the American Polled Hereford Breeders' Association that the next few years will bring a constantly increasing demand for good pure-bred cattle of beef breeds. This is a conclusion to which we are driven by a consideration of the present-day world-wide situation. Reference is made to the fact that according to the best authority available immense numbers of cattle have been slaughtered in Europe without any provision for their replacing. While these estimates are necessarily largely in the nature of guesses, there is no doubt about the great shortage of breeding stock in both Great Britain and continental Europe. It is very probable that the shortage is even greater than the estimates would indicate, since the ravages of war are usually underestimated in their effect on agricultural conditions.

This war shrinkage must be replaced from the herds of the western hemisphere, says the author of the article referred to above. North and South America will be called on for seed stock in numbers beyond our highest estimate. South America is none too well supplied at present, while the United States, Canada, and Mexico are all facing a shortage.

Following the close of the war will come the greatest demand both home and foreign that the trade has ever known. Many returning soldiers, men formerly engaged at indoor labor, will change to agriculture and stock raising on the present undeveloped lands of the country, because they will want an outdoor life. Already plans are being perfected for the colonization of vast tracts of southern lands by returned soldiers, the conditions and inducements for livestock farming being made especially attractive. Other young men will go back home to lift the burden from the shoulders of aged parents who even now would be laying aside their labors if the boys were not in the service. Many rotation systems have been temporarily abandoned in the interests of immediate increased grain production for military purposes. This means an increased acreage of grass and hay so soon as the war need is supplied and with the increased seeding must go increased live stock.

More pure-bred cattle will be the rule, for the high price of land, labor, and feed make the profitable production of beef from scrub cattle an impossibility. The past few years have demonstrated this fact so forcefully that it is accepted everywhere. No one preaches the doctrine of the scrub nowadays. Even where land is low priced and range conditions reduce labor to a minimum, cattle are being graded up as fast as possible, for the profit is so much greater with good cattle than with poor ones that the culls are being sorted out and replaced with better animals each season.

Educational influences of various sorts are making themselves felt everywhere. Agricultural colleges, extension work, agricultural high schools, farm papers, breed associations, and other agencies are all working together for the annihilation of scrub live stock of all sorts.

But the road from scrubs to pure-breds is a long one and will not be traveled quickly. Today less than one animal in a hundred in the United States is a pure-bred. It will take many years of prolific multiplication to make much progress toward adequately supplying the call for pure-bred sires for grading-up purposes. There will be need for all the good pure-bred cattle that can be produced during the ordinary lifetime of men now living. Not only so, but the increasing recognition of the value of pure-bred sires will result in an increasing appreciation of registered cattle and hold their market price at a profitable level.

We can look for a greater expansion of the pure-bred beef cattle industry within the next decade than has ever been witnessed in the history of agriculture. There has not been a better opportunity to make money with pure-bred beef cattle than is afforded right now in the United States. True, cattle are selling very high as compared with the prices obtained a few years ago, but so are shoes and eggs and clothing and lumber and a thousand other commodities. It is doubtless also true that there is no logical reason for a period of low prices. Good registered cattle will command figures that will show a generous profit to the producer and the demand will be big enough to absorb the output of American herds for years.

Buy as closely as possible, but even at generous prices good pure-bred cattle are bound to be profit-makers in the hands of intelligent, practical cattlemen.

ilar date in the south is about the first of April.

Opossum in the north becomes prime toward the middle of November and remains good until March. In the south the prime fur comes about the first of December. It depreciates somewhat earlier than in the north.

If you are after raccoon in northern territory, you will find the fur prime about November 1. The time is a little later for the south.

Fox, speaking generally, is prime in northern territory from the first of November until the middle of March. For the south the period is from the last of November to the beginning of March.

It will pay trappers handsomely to concentrate their efforts upon the periods when furs are prime. Certainly no great departures should be practiced since the result is furs which are of little value to the fur houses.

In Kansas the game law provides an open season from November 16 to March 15 for skunk, mink, raccoon, muskrat, civet cat, and opossum. Beaver and otter are protected at all times. A trapper's license for a resident costs one dollar; for a non-resident, fifteen dollars.

By having plenty of traps and making every possible preparation to work vigorously during the right season is the way to get the most out of trapping.

Navy Accepts Lighter Beef

The U. S. Navy has accepted the recommendations of the Food Administration to reduce the minimum weight limit on beef specifications until larger arrivals of prime beef later in the year. No positive minimum weight is to be specified, but beef will be marked at selected slaughter points from 850 pounds downward in weight to a sufficient minimum to secure desired supplies.

Sugar Factories Bombed

European shortage of sugar may become still more acute according to information lately received by the U. S. Food Administration. Georges Dureau, French sugar expert and statistician, reports that several beet sugar factories which had escaped the ravages of war through invasion have recently been bombed by enemy airmen. These French factories are near Abbeville, Meaux and Montereau.

Loss of considerable beet acreage during the German invasion combined with shortage of labor may make the French sugar harvest below former expectations. "Owing to these circumstances," this expert warned, "the ration of sugar may have to be reduced still further in the autumn."

"Immune" Hog Guarantee

Judge Good of the District Court of Auburn, Nebraska, has lately decided the H. J. Hoegh case, holding a catalog advertisement that hogs were "immune by the double treatment" constituted an absolute guarantee of immunity from hog cholera and that H. F. Richardt, who bought six sows that soon died from cholera, should have refunded to him the $297 paid therefor. The case has been lately appealed to the Nebraska State Supreme Court. The final outcome will be watched with interest by all stockmen.

It is being reported that some farmers are selling their wheat at less than the guaranteed price because of the railway embargoes placed against wheat shipments. These embargoes were put in effect because elevators were temporarily overstocked and the seaboard movement had not been able to keep pace with internal movement. The Food Administration promises that this condition will be improved during the next thirty to sixty days. Already mills and elevators that have taken advantage of the condition and offered less than the guaranteed price for wheat have been punished. No farmer is compelled to sell below the guaranteed price, but when caught in town with a load of wheat he is apt to accept the elevator offer rather than to haul it home. It evidently is the intention of the enforcement division of the Grain Corporation to mete out just punishment in every instance where buyers have taken advantage of such situations.

On about 5,000 representative farms scattered throughout the United States, reporting to the Bureau of Crop Estimates, the decline in the number of cattle was .8 per cent from last July 1 to August 1, 2.9 per cent in hogs, and 3.3 per cent in sheep.

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Washington, Rep. Gazette—79
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THE STRAY LIST.

TAKEN UP—BY JACOB BEYER, OF Gridley, Liberty Township, Coffey County, Kansas, on the 4th day of September, 1918, one black mare colt, white spot on forehead. Valued at $95. Geo. Bruce, County Clerk, Burlington, Kansas.

TAKEN UP—BY J. H. CRANSHAW, Route 5, Rosedale, Wyandotte County, Kansas, on October 3, 1918, one red steer, weight about 1,000 pounds. Branded on left side. Both ears trimmed. William Beggs, County Clerk.

MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Care of Light Plant Battery

FARM electric lights plants are so simplified that no one need fear that he is buying "a bunch of trouble" by having a plant installed. The battery is one of the important parts of a farm outfit. "We sometimes hear it said that the storage battery will give trouble if not taken care of," says Percy J. Friday in the American Thresherman and Farm Power. "This is true. But why not take care of it? You never forget to feed your horses and let them starve to death. And when you do feed them, you give them the right amount of the right kind of feed. When you work them you do not compel them to pull loads that are too heavy. All the storage battery needs is a little attention occasionally. There are only a few simple rules to follow in the care of storage batteries covering the rate of charge, when to charge, when to stop charging.

"Charging may be done at any time when the batteries are partly discharged. It is not necessary to wait until batteries are down to any certain point. And when the charge is started, it is not necessary to finish. Furthermore, if batteries beeome fully charged and the dynamo is allowed to run for some time, still sending current through the battery, there is no harm done. It can be seen therefore that the rules to be followed are very simple and not very stringent.

"The automobile battery sometimes gives trouble, but when we compare the abuses it receives with the care we can easily give a light plant battery, we could almost imagine the life of the latter to be unlimited.

"The type of battery cell used on nearly all plants today is the sealed glass jar. These cells are built especially for this kind of service. The plates are about twice as thick and the acid space about twice as great as in automobile batteries of the same capacity. Batteries for automobile use are made as light and as small as possible for their capacity. In the stationary type, weight and space is no object. In the auto, the battery is being charged all of the time when the car is running over ten or fifteen miles per hour, whether charging is needed or not. And sometimes the charging rate is very high, due to the speed of the car. No attention is paid to the battery as to the charge as long as it will 'crank the engine.' The vibration has a tendency to loosen active material in the plates after a time. It also may wear the insulation on the wires through on some metal part of the car, thus causing a short circuit and running the battery down. When the engine is hard to start, the battery may be called on to crank for a long time, and then perhaps the engine is not started and the electricity is not put back into the battery.

"In the automobile battery, water should be added about every two weeks. But this is not always done, due to the operator's neglect, forgetfulness, or the fact that the battery is in an unhandy place. The plant battery requires water two to four times a year. It is handier to get at and will not be forgotten in the glass jar type because the height of solution can be seen at a glance. After considering these few points we can readily see that the life or service of a plant battery can not be judged by that of the auto battery."

New Use for Autos

An Arizona county agent has converted his automobile into a twenty-four-hours-a-day convenience. During his waking hours he keeps the machine busy in traveling among his farmer clientele; at night he can use the car for sleeping quarters. He has hinged the lean back of the front seat so that it can be let down to complete a comfortable cot with the front and back seats. His ingenuity enables him to cover a larger territory with a minimum of back travel to his home or to other stopping point, while it saves him money in the way of hotel bills. Moreover, it makes him independent of difficulties due to poor hotel accommodations, or due to no accommodations at all.

Motor Cars Essential

The motor car must be classed as an essential. No one now doubts that the motor car is a necessity in business and civil life; neither is there any doubt that it is necessary in the military service of the United States, both overseas and on this side. The Quartermaster Corps, the aviation section of the Signal Corps, the Ordnance Department and other parts of the army are using hundreds of motor cars and trucks and adding great numbers to the fleets already in service here and across the Atlantic.

The Government has asked that manufacturers curtail their production of passenger cars for civilian use, but there has been no curtailment so far as military cars are concerned. Cars of this class are leaving Detroit factories in great fleets, being driven overland to army camps or to Atlantic seaports for shipment abroad. The army has taken a leaf out of the book of civilian life, and quickly learned that efficient, economical transportation of men and materials, and rapid communication between distant points, is best accomplished by motor vehicles.

It is of the highest importance to select a high grade lubricating oil in order to get good service and low cost of automobile maintenance. The oil chart furnished by the manufacturer should be followed carefully and all parts lubricated according to the instructions given. The best oils for various makes of cars have been carefully determined by manufacturers and it will pay to follow the suggestions made.

In going down a long steep hill the service brake and the emergency brake should be used alternately so as to equalize the wear on the brakes. The engine can also be used as a brake on steep grades by engaging the clutch with the throttle closed and the spark off. The car runs the engine against the compression, the engine thus acting as a brake. This saves wear on the brakes.

The Government is working out a plan for a general conservation system as regards the use of gasoline and may work out a rationing basis or request automobile users to make a certain saving in gasoline each month. It is the intention to appoint local deputies of the gasoline section of the Fuel Administration.

An excess of oil is usually more harmful to the engine cylinder than to any other part. The burnt oil causes carbon deposits which result in preignition, sticky pistons, sticky valves, dirty spark plugs, and a general loss in efficiency. A bluish, smoky exhaust is indicative of too much cylinder lubrication.

In cold weather is may be necessary to thin the grease or lubricant used in the transmission, differential, and rear axle of the automobile. These parts are lubricated with a heavy grease since their casings are not oil-tight.

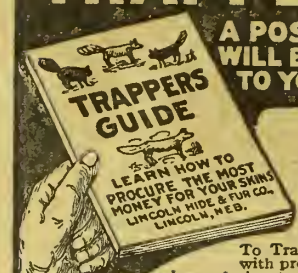
Pride Went Before a Fall

In speaking of some of his personal experiences on the battle front, Lieutenant Roberto de Violini, who recently came to the Italian consulate in Chicago on a mission for the Italian government, tells this story of the humiliation of an arrogant Hun:

The Austrian commander of a defeated division had asked his captors for a superior officer to whom he could give himself up.

"I told him," said Lieutenant de Violini, "that he would be too much honored if one of the private soldiers took him to headquarters." and said, "the shortest way to headquarters was by sliding down a glacier." The commander took this course, with the heavy hobnails of an Italian private behind him."

TRAPPERS



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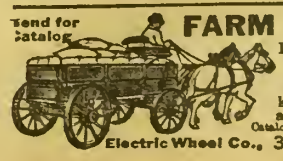

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GENERAL FARM ITEMS

IN A Riley County dairy berd a tbree-year-old heifer was first in milk and third in butter fat for the month of May in the A. R. O. tests of the Holstein Record Association. This means that no other three-year-old heifer on A. R. O. test in the United States gave as much milk in the month of May, and only two more butter fat. During April tbere were only two two-year-old Holstein cows in the United States on test that produced more butter fat than this Riley County heifer, Lady Volga Colanthus II. Sbe also has a state seven-day record of 564.2 pounds milk and 24.37 pounds of butter fat. Sbe is now on yearly test. Two other beifers in this herd have made bigh records.

Two years ago Fred Young, a senior at the Kansas Agricultural College, and Clement Young, a sophomore, started tbis small dairy for their father, George Young. Tbese young men have been specializing in dairying in their college course. One is now in tbe Students' Army Training Corps and the other at Funston.

During April Lady Volga Colanthus II produced 2,459 pounds of milk and 94.74 pounds of butter. During the montb of May sbe gave 2,449 pounds of milk—nearly double her own weigbt.

A two-year-old beifer, Lady Volga Colantbus III, a full sister to tbe tbree-year-old beifer, also made a splendid record. There were only seven heifers in tbe United States on A. R. O. test which produced more butter tban sbe did during the montb of April. Her record for this montb, wbicb was the second after fresbening, was 1,767 pounds of milk and 74.21 pounds of butter.

The third beifer of tbis berd which has made a good official record is Countess Aggie Hengerveld II. Tberc were only eight beifers on A. R. O. test in tbe United States which produced more butter than she did during ber test. She produced 1,712.3 pounds of milk and 62.7 pounds of butter.

The Poultry House Floor

A poultry house cleaned, whitewashed and provided with ventilation and a good floor tbis fall is recommended by J. G. Halpin, secretary of the State Poultry Breeders' Association, as a factor in saving fced and producing more eggs during tbe winter.

"Not necessarily a new house," says Mr. Halpin, "for no new buildings should be put up unless they are actually needed, but one with a good floor and plenty of window space and air space. The most important single factor about the rigbt kind of bouse is the right kind of floor.

"Most poultry bouses have a dirt floor, and unless tbe owner of the flock is watchful, he will find that the dirt bas been carried away, and that tbe floor is so low tbat it is damp or even wet most of the winter. The floor should be not less tban eigbt incbes higher than the surface of tbe ground outside, and where snow drifts close to tbe house, the floor should be even higber in order to keep snow water from coming in. Straw should be put on top of the dirt so tbat the hens can scratch in it for exercise.

"Unless tbe floor is dry and warm the bens will take cold and the egg production will be cut down. In one Wisconsin flock of 800 bens which laid about 360 eggs a day last winter, production in March fell off badly instead of increasing, because of a wet, cold floor."

Selling Milk Profitable

Tbe establishing of milk condenseries has given a great impetus to dairying in some sections of Kansas. W. B. Moore, a Bourbon County farmer, sold $700 worth of milk from eight cows in the five months from April 15 to September 15, or an average of $140 a month. He began selling on the day the condensery opened. Most of the cows bad freshened during the winter and not all of them were milking all tbe time. This is tbe period of the year when prices are ordinarily at their lowest. The condensery has announced a material increase in price for October, agreeing to pay $3.20 a hundred pounds for milk testing 3.5 per cent butter fat. Tbis is at tbe rate of 91½ cents a pound for butter fat, and is tbe bighest price ever paid for wbole milk in that section. Mr. Moore figures that bis herd of eight cows will average considerably more than $200 a year gross income.

Another good record is that of J. Clyde Defebaugh. A short time ago be bought nineteen Holstein cows and fourteen of them are now fresh. From these fourteen cows he was selling tbe latter part of September 500 pounds of milk daily at tbe rate of $2.80 a hundred. This is $14 a day, or $420 a month. Mr. Defebaugh believes that the milk produced will be considerably increased when tbe cows become accustomed to their new location.

A good many men in that section are planning to dispose of their beef cows and their low-producing dairy cows and buy high-grade dairy animals, converting their operations to a strictly dairy business. Some are planning to milk thirty or forty cows this winter. One difficulty witb which dairymen who sell to a condensery have to contend is that of raising calves to keep up tbe berds. If all the milk is sold, there is no skim milk for calves. The difficulty of keeping up good dairy herds by buying cows is so great that it is almost necessary to raise the good heifer calves. Some scheme must be worked out whereby this can be done. It will require the feeding of some milk, but the amount can be reduced to a minimum by resorting to calf meals, either proprietary or homemade.

An Unconquerable Spirit

A Kansas nurse at Base Hospital 15 in France writes that she and her fellow workers have found the Y. W. C. A. but at tbat point "a place of refuge and a home for 130 hard-worked and strained nurses wben they have a few minutes off duty." An incident whicb occurred at the hut sbows the unconquerable spirit witb which our boys meet tbe disasters of war. She describes it thus:

"A sixteen-year-old boy with both feet shot off was wheeled in to hear Doctor Fosdick tbe otber nigbt at the Y. W. C. A. and witb shining eyes listened as I never saw anybody listen before. When Doctor Fosdick bad finished bis 'Challenge of the Present Crisis' tbe boy looked down at bis stumps and then at Doctor Fosdick and burst out, 'Gec, I'm glad it was that part of me and not the top that got busted up!' and Doctor Fosdick, looking down at the pale face with the big eyes, said, 'You bet, for tbe man is all there.'

"For weeks," adds the nurse, "we bave been putting on dressings for the boys witb legs and arms gone and with gas burns which threaten the eyesigbt, but with just that kind of spirit."

Keep Poultry House Clean

In order that the henbouse be kept sweet and clean, tbe droppings sbould be removed frequently. The droppings are the favorite breeding place for mites. In the winter if they are removed once a week it is often enough, but in summer they should be removed eacb day. After the dropping boards are cleaned off, tbey sbould be dusted with sand to keep the droppings dry, or better still tbey should be sprinkled witb land plaster or with acid phosphate, because these chemicals unite with tbe ammonia as it is given off, and the resulting mixture makes a better fertilizer and at tbe same time keeps tbe bouse in better sanitary condition. Every effort should be made to keep the droppings dry, so that decomposition won't be carried on so rapidly, because the droppings from hens are particularly valuable now, being worth probably in the vicinity of 40 cents per bird per year, and tbat is wortb saving.

Fighting for Womanhood

I appreciate as deeply as I could appreciate anything the spirit of sacrifice on the part of our women. I know the women of America and of Kansas will do whatever it is necessary for them to do. But under God, and by the Eternal, for every woman that has to toil in America at what we deem unnatural and unfit labor, some Hun must pay the price. On a recent trip through the East I saw women clad in overalls and armed with shovels and picks, working as section bands on the railroads. We may be forced to it, but if we are, Germany must be taught that sbe cannot witb impunity so treat the womanbood of our race. German women work in the fields; I was going to say if Germany wants to treat her women that way, tbat is ber affair. But I won't say that. We can't allow Germany to set up tbat kind of a civilization in tbis world.—Dr. Edmund J. Kulp.

The Horse in the Army

An officer in our army in France writing home says:

"You may be interested to know tbat here recently a soldier, for abusing a borse, was confined on half rations for twenty-four hours, degraded, shunned and nicknamed 'The Hun' by bis comrades, wbich name will stick to bim as long as he lives. Such is the penalty imposed by Uncle Sam for abusing a dumb animal.—Our Dumb Animals.

Plow that garden plot this fall. It will be better next year.

Food is fuel for fighters. Greater production is more fuel and better fighters.

THE YEAR'S BIGGEST WAR SHOW!



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SENATE CONCURRENT RESOLUTION No. 15.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members of each house concurring therein:

Section 1. That the following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their rejection or approval:

Sec. 2. The Legislature may levy a permanent tax for the use and benefit of the state educational institutions and apportion among and appropriate the same to the several institutions, which levy, apportionment and appropriation shall continue until changed by statute. Nothing herein contained shall prevent such further appropriation by the Legislature as may be deemed necessary from time to time for the needs of said state educational institutions.

Sec. 3. This proposition shall be submitted to the electors of this state at the election for representatives in the Legislature in the year 1918. The amendment hereby proposed shall be known on the official ballot by the title "Amendment to the constitution providing for a permanent income for the state educational institutions," and the vote for and against such amendment shall be taken as provided by law.

Sec. 4. This resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 7, 1917.
Approved March 10, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 15, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

SENATE CONCURRENT RESOLUTION No. 18.

A proposition to amend section 1 of article 5 of the constitution of the state of Kansas relative to the right of suffrage.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members elected to each house thereof concurring therein:

Section 1. The following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their approval or rejection: That section 1 of article 5 of the constitution of the state of Kansas be amended to read as follows:

Section 1. Every citizen of the United States of the age of twenty-one years and upwards—who shall have resided in Kansas six months next preceding any election, and in the township or ward in which he or she offers to vote, at least thirty days next preceding such election—shall be deemed a qualified elector.

Sec. 2. That this proposition shall be submitted to the electors of the state at the general election in the year 1918 for their approval or rejection. The amendment hereby proposed shall be designated on the ballot by the following title: "The suffrage amendment to the constitution," and shall be voted for or against as provided by law under such title.

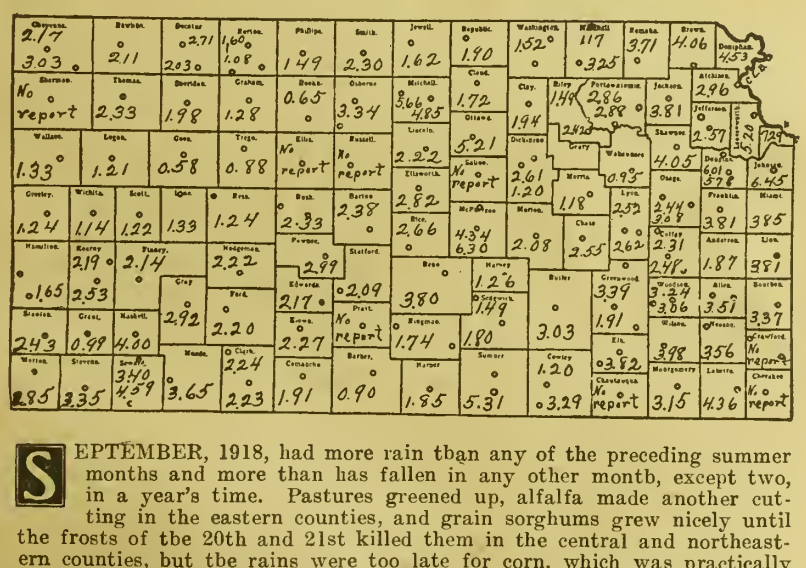
Sec. 3. That this resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 8, 1917.
Approved March 12, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 18, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

Rainfall of September, 1918

Reports Furnished by S. D. Flora, Meteorologist, U. S. Weather Bureau



SEPTEMBER, 1918, had more rain tban any of the preceding summer months and more than has fallen in any other montb, except two, in a year's time. Pastures greened up, alfalfa made another cutting in the eastern counties, and grain sorghums grew nicely until the frosts of tbe 20th and 21st killed them in the central and northeastern counties, but tbe rains were too late for corn, which was practically matured when tbe month began. The ground was in fine sbape for sowing wbeat tbe latter part, and the greater part of the crop was in and much came up the last week.

Young Man, Uncle Sam Wants to Educate You at The Kansas University of Commerce

He will pay your board, room, tuition, and $30.00 a month.

Four Schools—

School of Commerce, Finance and Business Administration
Kansas Wesleyan Business College
Auto, Tractor and Aero School
Morse and Radio School

Greatest Business and Vocational University of the West

Write for full information.

KANSAS UNIVERSITY OF COMMERCE
(A PART OF KANSAS WESLEYAN UNIVERSITY)
Salina, Kansas

Classified Advertising

Advertising **"bargain counter."** Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

REGISTERED GUERNSEY CATTLE OF high quality, one cow soon to freshen, a young bull and two heifers, priced right. J. W. Marley, Oswego, Kansas.

REGISTERED JERSEY BULL, TEN months old, R. M. breeding. A fine individual. Priced for quick sale. A. Brandly, Burlington, Kansas.

FOR SALE—REGISTERED BULL calves, sire's dam 720 lbs. butter fat, and yearling bull, sire's dam 520 lbs. butter fat. Tuberculin tested. R. C. Krueger, Burlington, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

DOGS.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

FOR SALE—A FEW HIGH CLASS COON, opossum and skunk dogs. Stamp for reply. A. F. Sampey, 317 East Mt. Vernon St., Springfield, Mo.

POULTRY.

WHITE ROCKS, SIZE AND QUALITY; cockerels only. G. M. Kretz, Clifton, Kan.

FOR SALE—BARRED ROCK COCKERels, layers and winning strain. Farnsworth, 224 Tyler, Topeka.

BARRED ROCK, WHITE WYANDOTTE, Leghorn cockerels. Geese, ducks, guineas. Emma Ahlstedt, Lindsborg, Kansas.

FREE—BARRED ROCK EGGS WITH orders for cockerels, or pullets. J. Greiner, Mena, Ark.

FOR SALE—S. C. BROWN LEGHORN cockerels, $1.25 each. J. R. Stewart, Winston, Missouri.

FOR SALE—BUFF ORPINGTON ROOSTers, $2.50 each. Mrs. Blanche Haney, Courtland, Kansas.

PURE-BRED SINGLE COMB WHITE Leghorn cockerels, two dollars each. Kate Skelley, Delia, Kansas.

LIGHT BRAHMA COCKERELS AND pullets, fine ones, from prize winning strain, $3 each. Mrs. C. H. Jameson, Anadarko, Okla.

ROSE COMB BROWN LEGHORN COCKerels. My early hatch of Kulp strain. Fine birds at $2.50 each. Mrs. Griswold, Tecumseh, Kansas.

DARK RED ROSE COMB REDS, GOOD scoring, greatest laying strain; cockerels, pullets, eggs. Satisfaction guaranteed. Highland Farm, Hedrick, Iowa.

CLOSING OUT SALE S. C. REDS. HAVE for immediate sale about 75. Tompkins cockerels and pullets. Few fine specimens of Mahood strain. Pullets, $3 to $5; cockerels, $3 to $5; on approval. Samuel H. Nite, Garden City, Kansas.

POULTRY WANTED.

THE COPES, TOPEKA, BUY ALL KINDS of poultry. They are prompt and reliable. Write for cash offers.

SHEEP.

HIGH-GRADE HAMPSHIRE RAM, weighing 500 pounds, two-year-old. Sheared 163 pounds. Priced for quick sale, $50. Earl Scott, Belvidere, Kansas.

TRACTORS.

FOR SALE—BIG BULL TRACTOR, $500. H. H. Shultz, Schuyler, Neb.

HORSES AND MULES.

FOR SALE—GOOD FOUR-YEAR-OLD jack, 14 hands. Black with white points. Quick server. Will trade for other stock. H. L. Baird, Whitewater, Kansas.

FEATHER BEDS.

NEW 36-POUND FEATHER BEDS, $13.95. A pair 6-pound pillows to match, $2.45. New, live, clean, sanitary feathers. Best ticking. Sold on money back guarantee. Write for free catalog. Agents wanted. American Feather & Pillow Co., Desk 400, Nashville, Tennessee.

HONEY.

FOR SALE—1918 CROP OF HIGH GRADE table honey direct from bees to you. Guaranteed to be absolutely pure. Can containing 60 pounds net, $15.25. On orders for two cans or more the price is $15 per can and the freight is less on shipments of 100 pounds or over. Have dark honey for table or cooking purposes also, which I can recommend as pure and good. Single 60-pound can, $13, or $12.75 each for larger lots. Prices f. o. b. Hotchkiss, Colo. All cans securely boxed and strapped. Frank H. Drexel, Crawford, Colorado.

FOR SALE—TWENTY-FIVE HEAD OF pure-bred unregistered Shropshire ram lambs; 150 blackfaced ewes, one and two-year-olds; a few registered yearlings and two year-old Shropshire rams. K. Hague, Route 6, Newton, Kan. Phone 5742 Elbing.

SITUATION WANTED.

WIDOW 41 YEARS OF AGE WANTS housework on a farm. Has son 17 years of age, a good farm hand. Address M. L. R., care Kansas Farmer.

MISCELLANEOUS.

FOR SALE—POTATOES: NORTHERN Red River Early Ohio, bushel, $1.40; Western White Stock, bushel, $1.35; Northern Cabbage, 100 pounds, $3.25; Sweet Potatoes, Yellow Jersey, bushel, $1.40; Red Onions, Northern, bushel, $1.75. Apples: New York Baldwins, bushel, $1.75; New York Greening, bushel, $1.75; Virginia, York Imperials, bushel, $1.75. Pears: Michigan Keifer Pears, bushel, $2.50. Write us. Hayes Produce Co., Topeka, Kansas.

FARMS WANTED.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 56th St., Chippewa Falls, Wisconsin.

REAL ESTATE.

SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price $10 to $15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address E. T. Cartlidge, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kan.

Real Estate For Sale

For a Farmer Who Wants to "Move In"

I am offering for sale my beautiful eight-room residence and three lots in Oakland (a suburb of Topeka), at an exceptionally low price. Fine barn with three stalls, mow, feed bins, harness closets, etc.; built-in carriage or auto shed; coal house, chicken house, etc. One block from car line; three blocks to fine high and grade school. Electric lights and gas in house. Nice floors and woodwork. A place to be proud of, and ideal for a farmer who would like to have city conveniences and yet live in a quiet district. $2,200 will buy it, with only a few hundred dollars cash. House could not be built for $4,000. Best of reasons for making sale, and not selling because of dissatisfaction with the property. Call or write

L. F. RICHARDSON - TOPEKA, KANSAS
202 Winfield Avenue

Kansas expects every health officer to do his full duty. Sick people cannot help win the war; they are an incumbrance.

Liberty bonds or German bondage.

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Developing Ideals in Child

The ideals which we wish to develop in our children are chiefly those of courage, truthfulness and unselfishness. I believe that the normal child is born brave, physically and morally, and that out of laziness or ignorance the grown people put fear into his little consciousness. He isn't allowed to climb, for instance, because his mother is afraid he will fall, and his plastic mind is filled, through stories or threats, or actual punishment, with a sense of danger and evil with which he in his helplessness cannot cope.

Many persons believe that fear is inevitable to man, that it is a race memory, but I believe that fear of the dark, of solitude, are much more likely to come from mind-pictures of terrible things which unwitting elders have discussed in the child's presence, or as a result of unwise reading or story-telling in very early childhood. This is difficult to avoid perhaps, but quite possible, if parents are willing to be sufficiently watchful. The magnificent trust with which a child thus guarded can face the world is a guarantee in itself of success in life.

Unselfishness is one of the virtues which has to be cultivated, for we are not born unselfish. We have to be taught this virtue and of course the greatest teacher of all is Love. I am inclined to think Love is the only teacher. Henderson says, "To get children interested in impersonal things is to make them unavoidably unselfish. Solitary children, only sons and daughters, are as a rule extremely selfish, for the simple reason that their lives have been so overwhelmingly personal. The way out is through group activities on the part of the whole family through pleasures as well as through service. If life is to be permanently successful, and happiness genuine and secure, the major interest must be impersonal, must have to do with something bigger than the little self, must concern itself with the abiding and universal things.

NOTE: This is from an article by Mrs. Alice Barton Harris, which is one of the articles containing suggestions for mothers issued by the United States Bureau of Education.

The Best Medicine

Isn't it fortunate that some of the most beautiful and most essential things are those which no one can "corner" and which there is no necessity for rationing! Plenty of fresh air, sunlight, and pure water are among the things within the reach of almost everyone, especially in the country, and there is nothing of more vital importance to health.

If you want to keep well at this time of the year when weather conditions are changing and colds and grippe prevalent, do not stint yourself in either of these. Live out in the open air as much as possible. Open the doors and windows and let an abundance of fresh air into the house to breathe when inside. If it is too cool to leave the doors and windows wide open, give the living rooms a thorough airing before closing them and be sure to leave at least a small opening for the entrance of fresh air to replace the oxygen absorbed in breathing. Of course sleeping rooms should contain all the fresh air it is possible to coax into them, for during sleep the body is making a special effort to repair waste tissues and restore expended energy.

Get the habit of drinking a great deal of water. Water is needed to cleanse the inside as well as the outside of the body. Don't be stingy with it. Take a drink often if you would keep an alert brain, a healthful body, and the clear complexion and bright eyes that indicate perfect physical condition. If your system is full of the waste that accumulates when the pores are clogged by a cold, wash it out by drinking even more than usual.

Which Kind?

What kind of a woman have you been? We say "have you been" because of course, if you haven't been the right kind, you will immediately set about a reconstruction.

Have you been the kind who thinks she must "cling" to her husband, depend upon him for every decision in her life, meet him with a pout and a tear—which invariably degenerates into a whine—or have you been the kind who knows that crude and boorish man prefers pork chops to poetry? He may be able to stand the poetry after he has had the chops, but he certainly can't before.

Which kind of a woman are you going to be?—American Motherhood.

Do Not Fail to Vote

Do not fail to cast your vote at this election. The right to vote is one of the most precious privileges of a democracy, and is still denied to women in many states of the Union. Show your appreciation of the compliment paid to Kansas women in giving them the ballot by a wise use of it. Voting is not only a right, but also a responsibility which should not be shirked, particularly in this critical time when so much is at stake and wise leadership is so important. Study the qualifications of the various candidates and be prepared to intelligently exercise your duty and privilege as a part of the sovereignty of the United States.

Seven Reasons for Saving

Save for your country's sake, because it is now spending millions a day and must find most of the money out of savings.

Save for your own sake, because work and wages are plentiful, and, as prices are high now, a dollar will buy more after the war.

Save, because when you spend you make other people work for you, and the work of everyone is needed now to win the war.

Save, because by saving you make things cheaper for everyone, especially for those who are poorer than you.

Save, because by going without you relieve the strain on ships, docks, and railways, and make transportation cheaper and quicker.

Save, because by saving you set an example that makes it easier for the next man to save. A saving nation is an earning nation.

Save, because every time you save you help twice—first, when you don't spend, and again when you lend to the nation. —The Commonwealth.

Tomato Picallili

This recipe is recommended by home economics experts of the extension service of the University of Missouri:

Use eight quarts green tomatoes, two or three green sweet peppers, and two hot peppers. The tomatoes may be chopped or sliced in half-inch pieces. Soak the tomatoes and chopped peppers over night in one pint of salt and water to cover. Drain thoroughly and heat until tender in the following mixture:

3 quarts vinegar
4 cupfuls sugar
1 teaspoonful ground ginger
1 teaspoonful ground cinnamon
2 tablespoonfuls mustard—whole or ground

Add one cupful of grated horseradish, heat to boiling, and seal. Allspice, cloves, and one quart of chopped onions may be added before cooking. The mixture should not be allowed to boil. If it is removed from the fire as soon as it comes to the boiling point, the vegetables will be much more crisp.

"On your honor as a woman, how much sugar do you need?"

SCHOOLS AND COLLEGES



LEARN TELEGRAPHY
Young men and women attend on credit. A practical school with railroad wires. Owned and operated by the A. T. & S. F. Ry. EARN FROM $75 TO $165 PER MONTH. Write for catalog.
SANTA FE TELEGRAPH SCHOOL
Desk F Topeka, Kansas

— OTTAWA —
Business College
OTTAWA, KANS. CATALOG FREE

Poland China Sale

Immuned Boars and Gilts

FEATURING THE GET OF

JUMBO BOB 301721, the good two-year-old son of Big Bob Wonder, dam Miss Jumbo Ex by Expansive.

MYERS' JOE ORANGE 301727, a choice yearling by Maple Grove's Black Orange by Maple Grove's Orange out of Miss Joe Wonder by Mc's Big Joe.

In the Sale Pavilion at the State Fair Grounds,

Hutchinson, Kansas
Friday, November 1

FIFTY HEAD

Twenty Spring Boars, Four Tried Sows, Five Fall Gilts, Twenty Spring Gilts

Big stretchy spring boars and real brood sow prospects in spring and fall gilts by the new sires mentioned above and out of daughters of Mellow Bob, Mc's Big Joe, Panor Ex, Columbus Defender and Maple Grove's Black Orange.

Five toppy boars and a choice gilt by Maple Grove's Big Bob out of a good daughter of Blue Valley Timm.

The massive JUMBO BOB 301721 by Big Bob Wonder sells also. A proven sire of real merit.

SPECIAL ATTRACTIONS IN FOUR TRIED SOWS

MISS WEBB, a September two-year-old by Panor Ex out of Orphan Rose by The Big Orphan.

GOLDIE, a March two-year-old by Columbus Defender, dam King's Girl by Massive King.

MISS BOB, an April yearling by Jumbo Bob out of Goldfinch by Columbus Defender.

LADY JOE ORANGE, a spring yearling by Maple Grove's Black Orange out of Miss Joe Wonder by Mc's Big Joe.

E. B. MYERS, HUTCHINSON, KAN.

Auctioneers—Cols. Price and Snyder

When writing for catalog please mention Kansas Farmer.

HEREFORD CATTLE

....SALE....

Fall River, Kansas
October 25, 1918

NINETY HEAD OF HIGH CLASS REGISTERED HEREFORDS

Forty-six head large mature cows, several with calves at foot and rebred. Twenty-two heifers, yearlings and two-year-olds. Twenty-two head of bulls, several real herd bulls ready for service.

Among the sires represented are Bonnie Brae 11th, Bonnie Brae 18th, Prince Rupert 52d, Beau Mischief 10th, Beau Donald 4th and Col. Rupert.

The offering is one of the best to be sold this year and are cattle that can go into any herd. The very best of breeding and choice individuals.

BULLS AT PRIVATE TREATY

We will have for sale at private treaty on sale day a carload of range bulls, twenty yearlings and thirty calves; good individuals, priced right for your buying.

Please send for catalog and arrange now to attend my sale. Write today to

W. J. Brown, Wilson Co., Fall River, Kan.

Auctioneer—Col. Fred Reppert

T. J. MEISNER & SON'S

SALE OF BIG PROLIFIC POLAND CHINAS

on the farm five miles northwest of

Sabetha, Kan., Wed. Oct. 23

40 HEAD—1 Fall Boar, 31 Spring Boars, 8 Spring Gilts

The Best Lot of Boars We Have Ever Offered

Sired mostly by RASTUS 85513 by Maple Grove's Timm, dam Maple Grove's Maid by Maple Grove's Orange

A Few by Erhart's Chief by Bloemendaal's Big Chief

The dams are daughters of Metal's Choice, Gold Utility by Gold Metal, Ex B by Expansive, Big Bob Wonder, Long Chief, Tecumseh Ex and Big Hadley Jr.

A Lot of Real Farmer Boars **Everything Immuned**

When writing for catalog please mention Kansas Farmer

T. J. MEISNER & SON, SABETHA, KANSAS

Cols. Kistner and Crandall, Auctioneers

Shorthorn Breeders' Sale

SELECT DRAFTS FROM TEN GOOD HERDS AT

Peabody, Kans, Nov. 8. 1918

SEVENTY HEAD—Fifty Cows and Heifers, Twenty Bulls
HIGH CLASS BREEDING CATTLE

Strong in the Blood of the Great Sires and Dams of the Breed

From the herds of O. A. Homan & Son, Peabody, Kansas; T. P. Wilson, Peabody, Kansas; S. M. Converse, Peabody, Kansas; B. F. Taylor, Peabody, Kansas; V. O. Johnson, Aulne, Kansas; J. R. Ely and A. J. Dale, Aulne, Kansas; Park Salter, Wichita, Kansas; and John Regier, Whitewater, Kansas.



Seventy Head of Choice Breeding Cattle, Cows and Heifers and a Few Young Bulls old enough for service

This sale should be of interest to all farmers and breeders of Shorthorn cattle.

Get the catalog. It is ready to mail out and is full of valuable information of the sale offering. Write at once to

O. A. Homan, Sales Manager, Peabody, Kans.

Auctioneers—Theo. Martin, Fred Graham, Boyd Newcom, Herman Lowen

(Sale in comfortable barn right in town)

FARM AND HERD.

The dispersal sale of registered Percheron horses and Shorthorn cattle advertised by R. M. Donham, of Morse, Kansas, for October 19, has been postponed until Saturday, October 26, on account of the order by the State Board of Health prohibiting all meetings during the espidemic of Spanish influenza.

Robert L. Young, of St. Joseph, Missouri, has announced October 21 for a reduction sale of his high class Jersey herd. The herd is headed by Gamboge's Western King, tracing to the great bull, Gamboge's Knight. Mr. Young is widely known among Jersey breeders and his cattle need no introduction. The herd is a producing herd and has always made a profit to the Young Dairy Farm.

W. J. Brown, of Fall River, Wilson County, Kansas, has announced October 25 for his first annual sale of Hereford cattle. Ninety head will be offered, including forty-six head of mature cows, several with calves at foot and bred again; twenty-two exceptionally fine heifers, and twenty-two head of bulls. Several real herd bulls are included in this lot. Mr. Brown is the owner of one of the best herds of Hereford cattle in Kansas. The herd is allowed the free range of the very best pastures in Kansas and is handled in a way that insures its future usefulness. The blood lines are of the very best and the entire offering will speak for themselves when led into the ring on October 25.

Adams & Mason, of Gypsum, Kansas, have announced October 31 for their first annual Poland China sale from the Gypsum Valley herd. This offering promises to be one of the best bred lots to go through a sale ring this fall. The attractions are boars and gilts sired by Caldwell's Big Bob, McGath's Big Orphan, A Big Wonder, Bob Quality, Giant Jones, Kansas Wonder, Captain Gerstdale Jones, and Mammoth Jones.

O. A. Homan & Son, of Peabody, Kansas, announce November 8 for a combination sale of Shorthorn cattle, to be held in the sale pavilion at Peabody, Kansas. On this date they will offer to the public seventy head of high class Shorthorn cows, heifers and young bulls, consigned from six good herds of Shorthorn cattle: O. A. Homan & Son, twelve head; T. P. Wilson, twelve head; S. M. Converse, twenty head; B. F. Taylor, four head; V. O. Johnson, two head; J. R. Ely, ten head, and Park E. Salter, twenty head. This is a select draft of breeding cattle and should be of interest to farmers and breeders of Shorthorn cattle.

Ransom & Kissinger, of Ransomville, Kansas, report their fine herd of registered Guernsey cattle making a fine record this year. Their Guernsey herd is one of the best in the state and is made up of individuals representing the best blood lines of the breed. A feature of their herd at this time is the choice lot of young stock, including some extra good young bulls.

R. C. Watson, of Ellen Dale Breeding Farm, Altoona, Kansas, reports his herd of Durocs doing well. Mr. Watson owns one of the best Duroc herds in Kansas and his herd is drawn upon heavily for breeding stock. Many of the good herds in the Southwest were started with foundation stock from Ellen Dale Farm.

HOLSTEIN-FRIESIAN BREEDERS' SALE

THE HOLSTEIN-FRIESIAN ASSOCIATION OF KANSAS WILL HOLD ITS SECOND SALE AT

INDEPENDENCE, KANS., FRIDAY, NOVEMBER 1, 1918

EIGHTY HEAD OF CAREFULLY SELECTED CATTLE—Seventy Head of Cows and Heifers and Ten Bulls Ready for Service

A sale full of good breeding and individuality. Read the following sale news carefully:

Rigid preliminary inspection of every animal entered in the sale by Prof. W. E. Peterson, expert dairy judge of the Agricultural College, Manhattan, Kansas.

Every animal in the sale is sold to be right in every way and every animal guaranteed to be a breeder.

Fifteen of the largest and strongest breeders in the state have consigned the good ones from their herds.

There are more 25-pound cows, more 23-pound cows, more 20-pound cows and more cattle, both males and females, with 30-pound breeding, than were ever offered before in a sale in the Southwest.

This sale is under the direction of the State Association and every precaution is taken to give both purchaser and consignor a square deal. Concerning its methods, consignors and buyers alike agree that absolute fairness and honesty are enforced by the management.

All Animals Over Six Months of Age are Tuberculin Tested.

S. T. Wood, Syracuse, N. Y., in the Box
Auctioneers—J. E. Mack, Ft. Atkinson, Wis.; J. T. McColloch, Clay Center; Boyd Newcom, Wichita; Fred Ball, El Reno, Okla.

Catalogs Are Ready to Mail. Address

W. H. MOTT, Sales Manager
HERINGTON, KAN.

JERSEY CATTLE.

REDHURST JERSEYS

FOR SALE—Noble's Jolly Actor No. 155761. Solid color, born October 14, 1916. Sire (the imported son of Golden Jolly), Golden Jolly's Masterpiece No. 86295, with six tested daughters out of Noble's Eminent Jess, a R. of M. cow whose dam is also in the R. of M. and whose sire, Noble's Oxford Sultan No. 106403, with six tested daughters, seven of Noble of Oakland's with 65 tested daughters and whose dam is in the R. of M. and since by Sultan's Oxford Lad, his great dam also in R. of M.

ALSO—Jolley's Chief No. 14948. Solid color, born September 3, 1917, the above imported son of Golden Jolly. Dam, Eminent's Lad Jess No. 255151, dam of one in R. of M. She by Em. Brown Lad with two or three tested cows, a grandson of Eminent with 80 tested daughters and whose dam is a tested cow.

REDMON & SON, TIPTON, MISSOURI

100 Good Jerseys for Sale

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.

J. W. BERRY & SON, Jewell City, Kan.

GALLOWAY CATTLE.

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

RED POLLED CATTLE.

RED POLLED CATTLE

For Sale—Four-year-old herd bull. Some extra good cows to calve in winter and early spring. A few yearling heifers.

I. W. POULTON - MEDORA, KANSAS

FOR SALE

Red Polled cows, heifers and bulls. Special price if taken at once.

W. J. HARRISON - AXTELL, KANSAS

RED POLLS, BOTH SEXES, BEST OF BREEDING.

Charles Morrison & Son, Phillipsburg, Kan.

HORSES AND MULES.

PERCHERON-BELGIAN-SHIRES



Registered mares with colts at side and bred again; registered fillies, stallions one to five years old; grown ourselves the ancestors for five generations on dam side. Sires imported.

Fred Chandler, R. 7, Charlton, Iowa
(Above Kansas City)

PERCHERON STALLIONS

Some good young stallions sired by Algare and Bosquet, two great herd sires. These young stallions are very promising and priced to sell.

D. A. HARRIS - GREAT BEND, KANSAS

GUERNSEY CATTLE.

$15 Holstein or Guernsey CALVES

From Waukesha County heavy producing stock. Write us today, we guarantee to satisfy you.

RIVERDALE FARMS, Oconomowoc, Wis.

GUERNSEY BULLS

Herd bull, Hermes of Midvale. His first two pure-bred daughters to freshen made A. R. records. A third daughter just fresh is very promising. Other young pure-bred bulls for sale, two of which are old enough for light service. Write for prices and breeding.

RANSOM & KISSINGER, Homewood, Kan.

GUERNSEY BULLS

Good individuals of serviceable age, of May Royal, May Rose, Masher Sequel, Raymond of the Preel breeding. Write or come and see them.

ADAMS FARM, GASHLAND, MISSOURI
Twelve miles from Kansas City.

GUERNSEY HEIFERS

Three registered Guernsey heifers for sale. Two due to calve in November. All well bred, one imported.

L. W. GOSS, K. S. A. C., Manhattan, Kan.

CHESTER WHITE HOGS

Frost's Big Smooth O. I. C.'s

Forty Spring Pigs, Two Yearling Boars and 100 Early Fall Pigs.

All from prize winning blood and priced for quick sale. Write us today.

S. D. & B. H. Frost, Route 2N, Kingston, Mo.

RECKARD'S CHESTER WHITES

Have raised pure-blooded Chester White hogs for fifteen years. Breeding stock for sale from prize-winning strains. Large kind and smooth.

E. M. RECKARDS - OZAWKIE, KANSAS

SHROPSHIRE SHEEP



FOR SALE

A bunch of good big Registered Shropshire Bucks, not high in price. Also registered ewes.

Howard Chandler, Chariton, Ia.



SHROPSHIRES—BRED EWES

Won 2 champions, 7 firsts and silver cup at 1918 Iowa State Fair Weight and Wool Win. Yearling rams and ewes bred to imported prize winning rams for sale at farmers' prices. C. W. & Frank Chandler, Kellerton, Ia. (80 mi. from St. Joseph)

HAMPSHIRE HOGS

REGISTERED HAMPSHIRE HOGS. Thirty spring boars, immuned. Am booking orders for fall pigs. Geo. W. Ela, Valley Falls, Kans.

BECKENDORF'S HAMPSHIRES

I AM NOW OFFERING a grand lot of big, heavy-boned boars and gilts, sired by as good herd boars as money can buy. Every hog shipped a good one or he can be returned. Inspection invited. Write or telephone at my expense.

J. E. BECKENDORF, Box 144, Walnut, Iowa

Hampshires on Approval



FOR SALE
10 SPRING BOARS
10 SPRING GILTS
Several prize winners
Few tried sows

F. B. WEMPE - FRANKFORT, KANSAS

MULEFOOT HOGS.

KNOX KNOLL MULEFOOTS

Thred sows, spring gilts and boars. Weaned August pigs. Priced for uick sale. Satisfaction guaranteed. Free catalog.

S. M. KNOX - - HUMBOLDT, KAN.

SHORTHORN CATTLE.

Pearl Shorthorn Herd

One of the oldest and strongest herds in the West, Scotch and Scotch-topped reds and roans. Twenty head young bulls ready for service. Fifteen last spring bull calves by Orange Lovel 420052, a Victor Orange bred bull; Village Heir 492857 by Imported Villager and Marengo Pearl 391962. All these calves are out of good useful cows.

C. W. TAYLOR - ABILENE, KANSAS

SHORTHORN BULLS

For Sale — Ten bulls, seven to fifteen months old; Scotch and Scotch topped. Two Scotch bulls by Type's Goods, one a Brawith Bud, the other a Duchess of Gloster. All in good condition and priced reasonably.

S. B. AMCOATS, CLAY CENTER, KANSAS
Write Me Your Wants

MARKS LODGE RED SHORTHORNS

For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

FOR SALE—GOOD REGISTERED SHORTHORN BULLS

PAUL CASHATT, OSKALOOSA, KANSAS

BREEDERS' DIRECTORY

DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
HEREFORD CATTLE
F. S. Jackson, Topeka, Kan.

When Writing to Advertisers, Please Mention Kansas Farmer

Modern Herefords

HAZFORD PLACE, EL DORADO, KANSAS

FIRST PUBLIC SALE

Cattle of my own breeding at Fine Stock Sale Pavilion, Kansas City, Missouri, on the forenoon of November 19, during the American Royal Live Stock Show.

Wm. Condell, Herdsman. ROBT. H. HAZLETT

HOLSTEIN CATTLE.

200 Head Registered and High Grade Holstein Cows and Heifers

On account of shortage of help I have decided to sell my entire herd at private sale, without reserve, consisting of **40 Registered Cows and Heifers**, mostly all with A. R. O. records up to 26 pounds in 7 days; **40 Fancy Young High Grade Cows**, exceptionally well marked, some fresh, balance will freshen in next 40 days, $115 to $135; **50 Fine Thrifty Large Two-Year-Old Heifers** due in October and November, $90 to $110; **65 Fine Growthy Yearlings** from 15 to 20 months old, bred to freshen from December to February, $65 to $80. All stock bred, in calf to registered bulls. This herd is absolutely clean and guaranteed free from abortion and tuberculosis and will be sold as represented. Will sell with purchaser's privilege of 60-day retest. Descriptive catalog on registered stock ready Oct. 1. **Magee Dairy Farm, Chanute, Kan.**

HOLSTEIN CATTLE

150 Head of Choice Two-Year-Old Grade Heifers bred to King Segis bulls, to freshen in September and October.

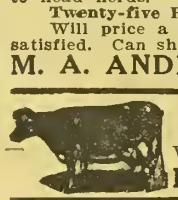
Fifty Cows in Milk, good ages.

Fifteen Registered Bulls, some are from King Segis Pontiac breeding and good enough to head herds.

Twenty-five Registered Cows and Heifers, several A. R. O. breeding.

Will price a few grade heifer calves at $30, express paid. Your money back if not satisfied. Can ship by Missouri Pacific, Santa Fe, or Rock Island. Come and see me.

M. A. ANDERSON, HOPE, KANSAS; DICKINSON COUNTY



SAND SPRINGS FARM

Registered Holsteins—The Long Distance Kind

Watch for our consignment to the State Breeders' Sale, November 1.

E. S. ENGLE & SON - ABILENE, KANSAS



LARGE SIZE IN COWS

Is favorable to economical yielding of milk. The food of support in comparison to size is much less in large cows than in small ones, and for this reason the Holstein-Friesian cow returns a greater net profit on the total amount of food consumed.

If interested in

HOLSTEIN CATTLE

Send for our booklets—they contain much valuable information.

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 114, Brattleboro, Vt.

Holstein Calves

Choice, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write

W. C. Kenyon & Sons

Holstein Stock Farms Elgin, Illinois

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

CHOICE HEIFER CALVES

Twelve heifers and three bulls, 15-16ths pure, five to seven weeks old, beautifully marked and from heavy milkers, at $25 each, crated for shipment anywhere.

FERNWOOD FARMS, Wauwatosa, Wisconsin

REGISTERED HOLSTEINS

If you want big producers, males and females, write us. All our own breeding.

Lilac Dairy Farm

Route 2 Topeka, Kansas

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

SPLENDID HOLSTEIN BULL FOR SALE—Six months old. Over half white. He is a beauty.

HENRY S. VOTH, Route 2, GOESSEL, KAN.

BRAEBURN HOLSTEINS

Service bulls; bull calves. Their heifers will outyield the dams by 10-50 per cent.

H. B. Cowles, 608 Kansas Ave., Topeka, Kan.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Helio No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

ANGUS CATTLE

Edgewood Farm Angus

I have for sale

40 REGISTERED COWS
20 REGISTERED YEARLING BULLS
2 AGED BULLS, also
3 PURE-BRED DUROC BOARS.

D. J. WHITE, Clements, Kan.

FARM AND HERD.

Paul Cashatt, of Oskaloosa, Kansas, reports their fine herd of Shorthorn cattle doing well. The Cashatt herd of Shorthorns is one of the good herds in Kansas. They have all the popular blood lines and a feature of their herd at this time is the good lot of young stock.

E. E. Carver & Son, of Guilford, Missouri, one of Missouri's oldest breeding firms, report their herds of Shorthorn cattle and Poland China hogs doing well. They have one of the best herds of Scotch and Scotch-topped Shirthorns now assembled. It is made up of choice individuals representing the best blood lines. Their herd of big-type Polands has for years been famous for size and high uality and many of the best herds of Shorthorn cattle and Poland China hogs in the country were started with foundation stock from the Carver herds.

The sale of Spotted Poland Chinas of Alfred Carlson, at Cleburne, Kansas, October 3, resulted in the disposal of forty-four head, mostly spring boars averaging $42.20. The top price was $85, paid for No. 2, which went to the good herd of Earl C. Jones, of Florence, Kansas. Two hundred farmers and breeders were present and the visiting breeders were royally entertained at lunch by the local Red Cross. After the sale a donation of $116.70 was made to the Red Cross.

Oliver and Doran Jersey Dispersion

Wednesday, Oct. 23, at Dornwood Farm, Topeka

70 Head of Registered Jersey Cattle---All Tuberculin Tested---70 Head

THE REGISTER OF MERIT SIRE

BLUE BELLE'S OWL

closely related to the $60,000 bull recently sold by the Waterloo Jersey Farms to Mr. Sharples, of Pennsylvania. Together with ten of his sons and twenty of his daughters.

One of the greatest herds in the Middle West.

J. V. Cotta, Sale Manager
Col. R. R. Baily, Auctioneer

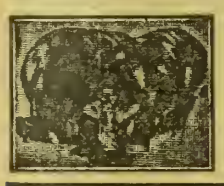


Register of Merit Cows and Their Produce

Golden Peter's Mazet	
Butter one year	689 pounds
Butter three years	1,873 pounds
Fontaine's Eminent Pet	
Butter one year	503 pounds
Butter two years	971 pounds
Rosy's Eminent Lassie 2d	
Butter one year	380 pounds
Fontaine's Orbit Coma	
Butter one year	507 pounds
Butter two years	929 pounds
Fontaine's Autumn Leaf 2d	
Butter one year	449 pounds
Fontaine's Daisy Z	
Butter one year	373 pounds
Fontaine's Brown Bess	
Butter one year	589 pounds
Sultan's Golden Minnie	
Butter one year	452 pounds
Eminent's Necklace 2d	
Butter one year	349 pounds

OLIVER AND DORAN, 604 New England Building, TOPEKA, KANS.

POLAND CHINAS.



Faulkner's Famous Spotted Polands

THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.

Pioneer Herd Poland Chinas

For Sale—Ten outstanding spring boars by A Wonderful King and Logan Price. Twenty-five farmer boars, priced reasonable. Bred sow sale February 18, 1919. Send for catalog.

F. Olivier & Son, Danville, Ks.

Erhart's Big Polands

A few fall boars ready for hard service. Can spare two tried herd boars. Have the greatest showing of spring boars we have ever raised. Some by the 1,250-pound A Big Wonder. Will make prices on pairs and trios. Write me your wants. All immune.

A. J. ERHART & SONS. NESS CITY, KAN.

Morton's Poland Chinas

For Sale—Twenty-five choice boar pigs, sired by Morton's Giant by Discher's Giant and Girstdale Jumbo by Girstdale Jones, out of my best herd sows. Priced reasonable. Write or come and see my herd.

GEORGE MORTON

Oxford : Sumner County : Kansas

Oxford Herd Poland Chinas

Herd boar, Giant Lunker by Discher's Giant out of Lady Lunker. I have 57 early spring pigs. A few choice boars. Priced to sell. Come and see me; I can please you.

Howard R. Wenrich

Oxford - - - - Kansas

H. O. Mott's Poland Chinas

For Sale—Fifteen spring boars and ten spring gilts, priced for quick sale at $35 to $50. First check gets choice. Guaranteed right or money back.

H. O. Mott, White City, Kansas
R. F. D. 4

POLAND CHINA BOAR PIGS

For Sale—Twenty choice boar pigs, sired by Model Wonder, he by Big Bob Wonder; The Giant by Hercules by Big Ben; King Ben by Giant Ben; Captain Gerstdale Jones, Big Bob Jumbo, and A Big Wonder. Several herd boar prospects.

Ross & Vincent, Sterling, Kan.

POLAND CHINA BOARS

Five and eleven months old, at a reasonable price. Pedigree with every hog.

HENRY S. VOTH, Route 2, GOESSEL, KAN.

TOWNVIEW HERD POLAND CHINAS

For Sale—Choice lot spring boars. All gilts reserved for February bred sow sale. Herd boars, King Wonder's Giant, Walter's Expansive Sid, Big Timm Joe.

CHAS. E. GREEN - PEABODY, KANSAS

LONE CEDAR POLANDS

Strictly big type March and April pigs, either sex. Nothing but tops shipped. Prices reasonable. Guarantee to please. All cholera immune. A. A. MEYER, McLouth, Kansas.

POLAND CHINAS

BIG TYPE POLAND CHINAS

Thirty Extra Nice Spring Boars ready for fall service by "Gerstdale Jones Again" and "R Wonder," $40, $50 and $60. Send check. If pig doesn't please you, will return your money. All immuned.

Riverside Farm, Route 6, Topeka, Kan.

White Oak Park Polands

Twenty Spring Boars for Sale by the 1,100-pound Missouri Jumbo and Surprise Wonder. Three of the tops at $75, the rest at $50. All cholera immuned and will be recorded in buyer's name. I have two full brothers to Northern Jumbo, the first prize and reserve grand championship pig. All sales guaranteed as represented or your money back.

HENRY KOCH - EDINA, MISSOURI

Henry's Big Type Polands

March and April pigs sired by Mammoth Orange, Smooth Prospect and Big Bob 2d, out of sows the best of big type breeding. Everything immune.

John D. Henry, Route 1, Lecompton, Kansas

LANGFORD'S SPOTTED POLANDS — Summer pigs ready to ship. Some read herd prospects. T. T. Langford & Sons, Jamesport, Mo.

HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that weigh and win. S. C. Brown Leghorn Chickens that lay. See or write

S. Y. BURKS, BOLIVAR, MO.

McCUNE'S SPOTTED POLANDS

Twenty spring boars and gilts (gilts open) well spotted, sired by Spotted Wonder and out of choice dams.

R. H. McCUNE - LONGFORD, KANSAS

DUROC JERSEYS.

IMMUNE DUROC BOARS

Duroc Boars, immune and guaranteed breeders, shipped to you before you pay for them. The big Southeast Nebraska herd bred for size, bone and length. "Eventually" you will breed the "Crocker Type." "Why not now?"

F. C. Crocker, Filley, Nebraska
Box K

WOODDELL'S DUROCS

Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

IMMUNED DUROC-BOARS

Thirty big husky Durocs, March farrow. Well grown, richly bred, Critic B, Golden Model and Orion breeding. Write me. I will please you or refund your money.

J. D. BULLER, STOCKHAM, NEBRASKA

When writing to KANSAS FARMER live stock advertisers, please mention this paper.

Poland China Sale

At Topeka Fair Grounds

Tuesday, October 29

FORTY HEAD — Twenty Spring Boars and Twenty Spring Gilts sired by such boars as H. & K.'s Big Price by the grand champion Big Price, and King Wonder 2d out of an Expansion bred dam and Big Hadley Junior boar.

These March and April pigs are large and thrifty and are a useful lot for farmers and breeders to buy. Please send for a catalog to

HILL & KING

Route 28, Topeka, Kansas

Auctioneers—Col. Jas. T. McCullough, Col. Chas. W. Crews

Please Remember Sale Will Be Held at the Fair Grounds

Wreath's Durocs Always Please

All spring boars and gilts must be sold to make room for fall litters. Critic Chief No. 241231 at head of herd. No fall sale.

L. G. WREATH, Rte. 8, Manhattan, Kan.

CONYERS HERD DUROCS

Herd boar, King Conyers by King the Col. Sows in herd by Golden Model, Graduate Chief, Cherry Chief and other good breeding. For sale, one extra good spring boar sired by Pathfinder and one by Great Wonder. Fifteen spring gilts by Royal Critic. Come and see me.

B. W. CONYERS - MARION, KANSAS

Ellen Dale Breeding Farm

Offers Duroc Jerseys of blood lines of Watson's Wonder, Ideal Pathfinder, Crimson Orion King and Joe Orion, also a one-year-old herd boar, a grandson of King the Col. Also one-year sows bred or open.

R. C. WATSON - ALTOONA, KANSAS

AUCTIONEERS.

FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. VALLEY FALLS, KANSAS

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri

FARM AND HERD.

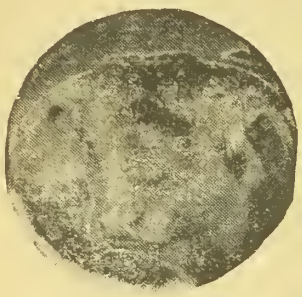
Schmitz Bros., of Seneca, Kansas, have announced November 7 for their annual fall sale of Poland Chinas, seventy head of spring boars and gilts, also a few fall yearling boars and gilts. Several real herd headers are included in this lot. One outstanding boar is Victor Bob, a litter mate to Liberty Bob, the pig that won fifth place in the senior futurity at Topeka, 1918, and sold for $500. All are immunized and in good condition.

Ketter Bros., of Seneca, Kansas, have announced November 8 for their annual sale of Poland Chinas. At the head of this herd is the great breeding boar, Orphan Ben, a boar that weighed 600 pounds at eighteen months old and will mature to a thousand-pound hog at two years old. Orphan Ben is both large and smooth and the greatest value is the kind of pigs he is siring in the Ketter Bros. herd. On the above date they will offer to the public forty head of early spring pigs—twenty-four boars and sixteen choice gilts, sired by the following herd boars: Orphan Ben, King Joe 3d, Blue Valley Timm, and Ketter Bros.' Blue Valley.

L. V. O'Keefe, of Bucyrus, Kansas, announces November 4 for his annual fall sale of Poland Chinas. On this date Mr. O'Keefe will offer fifty-five head—thirty spring gilts, twenty spring boars and five tried brood sows. The boars and gilts are mostly sired by the large husky boar, Joe Wonder, he by Giant Joe by Big Joe. This offering is a picked bunch from the entire crop of spring pigs. Among the boars are a number of real herd boar prospects out of sows by such boars as A King, Wedd's Long King, Expansion King, Big Logan Ex and other valuable boars of the breed.

Earl Bower, of McLouth, Kansas, announces November 6 for his annual fall sale of Poland Chinas. On this date Mr. Bower will offer fifty head of large husky Poland China spring boars and spring gilts. One litter will be sired by the world's grand champion Poland China boar, Caldwell's Big Bob. This family of hogs today is among the most popular of the Poland China breed, and the litter that Mr. Bower will offer is about the best ever raised from this sire.

REDUCTION HEREFORD SALE



At Marion, Kans., November 14, 1918



100 HEAD HEREFORDS 100 HEAD

SEVENTY-FIVE COWS AND HEIFERS, A NUMBER BRED TO BUDDY L.

Twenty-five Selected Herd Bulls of Serviceable Age. Two carloads of Range Bulls, two and three years old.

They are a useful lot of working cattle, farm grown, that will make good on any farm with a little care. Sale will be held right in town. Please send for catalog and come to sale. Write today for catalog to

Auctioneers—Col. Miller, Col. Garten, McLinden, Lowe and Carson

Paul E. Williams, Marion, Kansas

FIRST ANNUAL POLAND CHINA SALE OF

Gypsum Valley Herd Polands

Featuring the Get of Giant Bob by Mellow Bob, Wonder Timm by Big Timm

GYPSUM, KANSAS

Thursday, Oct. 31, 1918

An attractive bunch of Boars and Gilts by these great sires. Other attractive lots by

Caldwell's Big Bob, McGath's Big Orphan, A Big Wonder, Bob Quality, Giant Jones, Kansas Wonder, Captain Gerstdale Jones, and Mammoth Jones

An offering of splendid individuals, royally bred, for farmers and breeders wanting to improve their herds.

We want you at this sale, and solicit your attendance strictly on the merits of the offering. As we have no mailing list, we ask that you send in your name early, so the catalog will be sure to reach you. We guarantee a good offering and invite all to come. Inspection of herd invited.

EVERYTHING IMMUNED. WRITE FOR INFORMATION

Adams & Mason, Gypsum, Kan.

POLAND CHINA HOG SALE

At Seneca, Kansas, Nov. 8, 1918

FORTY HEAD

Twenty-four Spring Boars and Sixteen Spring Gilts

We are selling the pick from our spring crop of pigs.

There will be nine boars and four gilts by our herd boar, Orphan Ben. (One litter by Orphan Ben and out of the great sow, Well Wonder by Big Bob Wonder.)

Seven boars and eight gilts by King Joe 3d by King Joe, one litter by King Joe 3d and out of Blue Valley Expansion dam.

Three boars by Blue Valley Timm, he by Big Timm.

Three boars and three gilts by Valley Expansion by Ketter's Blue Valley.

Two boars and seven gilts by Sensation King by King Joe 3d.

All these pigs are well grown out. We invite all farmers and breeders that are interested in better Poland Chinas to attend our sale. Please send for catalog and arrange to attend two sales at one expense.

SCHMITZ BROS., NOV. 7. KETTER BROS., NOV. 8

Write today for catalog to

KETTER BROS., SENECA, KAN.

Poland China Sale

Seneca, Kansas, November 7

SEVENTY HEAD OF LARGE POLAND CHINAS

Consisting of one herd boar, Schmitz Bros.' Goliath, a tried sire; five fall yearling boars, all sired by Jumbo Bob, real herd headers. One is Victory Bob, a litter mate to Liberty Bob, a futurity prize winner that sold for $500. Thirty-six spring boars and twenty-six spring gilts. All immunized. We are selling the very best from our entire spring crop of pigs. They are large and growthy and will please the most critical purchaser.

Catalogs are now ready to mail out. Please send for one and arrange to attend two days' sale at one expense.

(Ketter Bros. Sell November 8 at Seneca, Kansas)

Schmitz Bros., Seneca, Kansas

Geo. M. Klusmire's Duroc Jerseys

45 20 BOARS 25 GILTS 45

ALL SIRED BY ORION ILLUSTRATOR K

And out of tried sows by Critic, Golden Rule, and Col. Sensation

Holton, Kan., Monday, Oct. 28

Write for catalog

GEO. M. KLUSMIRE, HOLTON, KANSAS

EARL BOWER'S

Poland China Sale

Wednesday, Nov. 6, McLouth, Kans.

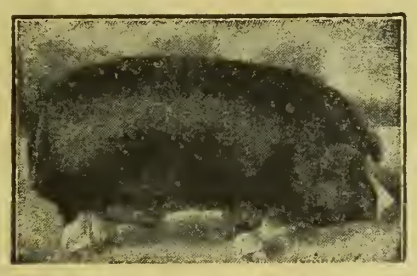
The Day After Election, We Will Sell

60 Head: 20 Boars, 40 Sows and Gilts

BIG TYPE PRACTICAL POLAND CHINA HOGS

Sired by Model Big Timm (292825), Orphan Bob (292323), Gerstdale Bob and Caldwell's Big Bob

The tried and proven sire, ORPHAN BOB, sells. His get won first and fifth in pig club exhibits this year at Topeka.
Twenty sows bred or with breeding privilege.
Twenty open gilts with individual merit and size.



SALE AT GREENFIELD FARM.

One of the Season's Best Offerings will be
FIVE HEAD—THREE BOARS, TWO GILTS
By the World's Champion, Caldwell's Big Bob

The quality kind. Every one of this litter is a great individual. Be sure to send your name for catalog giving complete descriptions and cuts of many of the lots.

Earl Bower, McLouth, Kans

In Jefferson County, Forty Miles from Kansas City or Topeka, on Northwestern and L. & T. Railways

Auctioneers—Price, Groff, Metzer.

Fashionable Stock Place
POLAND CHINA SALE
at Aulne, Kan,. Oct. 28



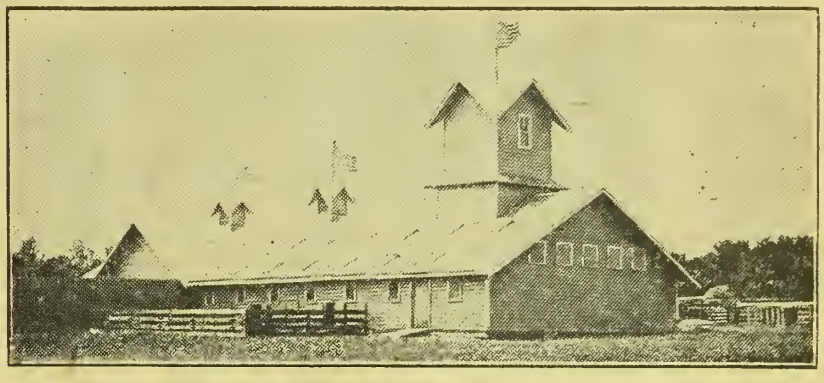
SIXTY HEAD
15 HERD HEADING BOARS
45 CHOICE GILTS

This sale will feature the get of

BIG WONDER 281929

The outstanding two-year-old son of the noted Big Bob Wonder, first in junior yearling class at Topeka and second at the National Swine Show in competition against the world, 1917.

A number of top sows mated to noted boars were purchased last winter and many of the good things from these litters go in this sale. They include sons and daughters of Eckhardt's Belmont Buster, Wagner's Bestdale Jones, Leonard's Big Jones, Caldwell's Big Bob, A Wonderful King, Big Bob Wonder, Walter's Jumbo Timm, McCord Bros.' Spooner Wonder and Harry Myers' Giant Joe.



HOG HOUSE AND SALE PAVILION AT FASHIONABLE STOCK PLACE

The attraction will be the top gilt from top sow in Caldwell's winter sale. Sold with breeding privilege to my herd boar. All are immuned. We want you at this sale. Send your name for our mailing list. Inspection of herd invited, and information gladly furnished.

V. O. JOHNSON, AULNE, KANSAS

O'KEEFE'S

Poland China Sale

AT FARM NEAR

Stilwell, Kans., Nov. 4, 1918

55 Head 55

Thirty Spring Gilts, Twenty Spring Boars, Five Tried Brood Sows



The boars and gilts are the pick from my entire crop of spring pigs. They are sired by Joe Wonder (89512) by Giant Joe and out of Queen of Wonders, A Wonder (85930), King Wonder 2d and O'Keefe's Master, and out of my best herd sows by A King, Wedd's Long King and Expansion King.

This is a splendid offering of the useful kind of Poland China that any farmer or breeder can use at a profit in their herd. I do not expect high prices. Please send for my catalog and arrange to attend my sale on farm near STILWELL, KAN. For catalog address

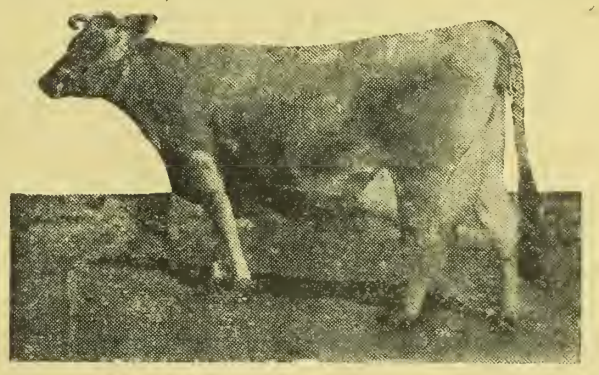
L. V. O'Keefe, R. D. Bucyrus, Kans.

Auctioneers—Col. R. L. Harriman, Col. Justic.

ROBERT I. YOUNG'S
Jersey Sale at St. Joseph, Mo.
Monday, October 21, 1918

Farm Adjoins Town, Right on Kansas City & St. Joseph Electric Line. Get Off at Young Stop, Near Farm

It was from Mr. Young that Mr. F. B. Keeney, of Warsaw, N. Y., secured the great Pogis Irene 2d, R. of M. 684 lbs. 10 ozs. in one year, commencing at the extreme age of 17 years 11 months—and she the dam of the great long distance cow, Jacoba Irene, 1,121 lbs. 2 ozs. in one year, whose blood is breeding on so successfully. .



The herd comprises seventeen daughters of Lord Larchmont 88128, son of Fontain's Eminent, sire of nine, and grandsire of Eminent's Bess, 1,132 lbs. 12 ozs. in one year.

Herd headed by Gamboge's Western King, bred at Elmendorf. Sire, Noble's Western King; dam, Gamboge Paquerette, now owned by J. A. Shanklin, of Columbia, S. C., owner of Blue Fox Eminent's Chromo, the first 1,000-pound cow in the South, who confidently asserts that he will make Gamboge Paquerette the "highest testing daughter of Gamboge's Knight." She has milked since last calving over 50 pounds daily. No. 2 cow (in sale), Nora Larchmont, is good for 800 pounds herself in experienced hands. Don't wait for catalog, come to the sale. I guarantee a splendid lot of well bred cows.

Robert I. Young, St. Joseph, Mo.

Col. D. L. Perry, Auctioneer, Columbus, Ohio
J. V. Cotta, Sale Manager, Crawfordsville, Indiana



Costly parts

War times demand that you protect them from undue wear. Three suggestions.

There is a serious shortage of automobile repair men. You are going to find more and more difficulty in getting repairs made. And you are going to pay more for repair service. Labor charges are up; prices of parts are higher and still on the rise.

Meanwhile many motorists are as unconcerned as ever about their cars. The needless wearing out of engine parts goes on.

Why? Incorrect oil — incorrect use of oil — or both.

Here are three points which should be observed by every motorist:

(*1*) ***Get the correct oil.*** You should use an oil of high quality and of the correct body to suit the lubricating requirements of your car. The use of such an oil is the first and most important step in the protection of your engine parts.

(*2*) ***Maintain at all times an adequate supply of oil in the oil reservoir.*** Lack of attention to this may result in insufficient lubrication, premature wear, and in extreme cases—burned-out bearings.

(*3*) ***Drain old oil and replenish at proper intervals.*** If your instruction book advises fresh oil every 1,000 miles, do not run 1,500 or 2,000 miles before replacing. Oil gathers impurities and thins down in use through condensation of the fuel mixture. Running on such "oil" means premature wear to parts.

It will pay you to send for the booklet, "Correct Lubrication" and read the article beginning on page 3. This book treats this and other subjects with authority and clearness in articles prepared by our Board of Engineers. Address our nearest branch.

GARGOYLE

Mobiloils

A grade for each type of motor

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If the dealer has not the grade specified for your car, he can easily secure it for you.

VACUUM OIL COMPANY, New York, U.S.A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world

Domestic Branches: Boston, Detroit, Kansas City, Kan., New York, Philadelphia, Chicago, Minneapolis, Indianapolis, Pittsburgh, Des Moines

Correct Automobile Lubrication

How to read the Chart

The four grades of Gargoyle Mobiloils, for engine lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "E"
Gargoyle Mobiloil "Arctic"

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A," "Arc" means Gargoyle Mobiloil Arctic, etc. The recommendations cover all models of both passenger and commercial vehicles unless otherwise noted.

This Chart is compiled by the Vacuum Oil Company's Board of Engineers and represents our professional advice on Correct Automobile Lubrication.

AUTOMOBILES	1918 Models		1917 Models		1916 Models		1915 Models		1914 Models	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Abbott	Arc.	Arc.								
Abbott-Detroit			Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (8 cyl)					A	A	A	A		
Allen	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	A
Apperson	A	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (8 cyl)	A	A	A	A	A	A				
Auburn (4 cyl)					A	Arc.	A	Arc.	A	A
" (6 cyl)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (6-38 & 6-39)			A	Arc.	A	Arc.				
" (6-39B)(Teetor H)	A	Arc.								
" (6-39B)(Cont'l)	Arc.	Arc.								
Autocar (2 cyl)	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Briscoe	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (8 cyl)					A	A				
Buick	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	A	Arc.
Cadillac	A	A	A	A	A	A	Arc.	Arc.	Arc.	Arc.
Case	Arc.	Arc.	A.	Arc.	A	Arc.	A	Arc.	A	Arc.
Chalmers	A	A			Arc.	Arc.	Arc.	Arc.	A	A
" (6-40)					A	Arc.				
" (6-30)			A	A	A	A				
Chandler Six	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Chevrolet	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	A	A	Arc.
" (8 cyl)	A	A	A	A						
" (F A)	A	Arc.								
Cole					Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (8 cyl)	A	A	A	A	A	A	A	A		
Cunningham							Arc.	Arc.	Arc.	Arc.
" (8 cyl)	A	A	A	A	A	A				
Dart	A	Arc.	A	Arc.	A	Arc.	A	A	A	A
" (Mod. C)			A	Arc.	A	Arc.	A	Arc.	A	A
" (2 & 3½ ton)	A	A								
Detroiter	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	A	Arc.	A	A
Dodge Brothers	A	Arc.	A	Arc.	A	Arc.	E	E		
Dort	A	Arc.	A	Arc.	A	Arc.	A	Arc.		
Empire (4 cyl)	A	Arc.	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.
" (6 cyl)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.				
Federal	A	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (Mod. S-X)	A	A	A	A						
" (Special)	Arc.	Arc.								
Flat	B	A	B	A	B	A	B	A	B	A
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	A	A	A	A	A	A	A	A	A	A
Grant	A	Arc.	A	Arc.	A	Arc.	Arc.	Arc.	Arc.	Arc.
Hal-Twelve			A	A	A	A				
Haynes	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (12 cyl)	A	A	A	A	A	A				
Hudson					Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (Super Six)	A	Arc.	A	Arc.	A	A				
Hupmobile	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Kelly Springfield	A	A	A	A	A	A	A	A	A	A
King							A	Arc.	A	A
" (8 cyl)	A	A	A	A	A	Arc.				
" (Com'l)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Kissel Kar	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (Mod. 48)					A	A	A	A	A	A
" (12 cyl)	A	A	A	A						
Lexington	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.		
Lippard Stewart	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (Mod. M)			A	Arc.	A	Arc.				
" (Mod. MW)			A	Arc.						
Locomobile	A	E	E	E	E	E	E	E	E	E
McFarlan	A	Arc.	A	Arc.	A	A	A	Arc.	A	A
Madison	A	Arc.	A	Arc.	A	Arc.	A	Arc.		
" (8 cyl)			A	A	A	A				
Marmon			A	A	A	A				Arc.
Maxwell	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Mercer	A	A	A	A	A	A	A	Arc.	A	Arc.
" (22-70)							Arc.	Arc.		
Mitchell	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" (8 cyl)					A	A				
Moline-Knight	B	A	A	A	A	A	A	A	A	A
National	Arc.	Arc.	Arc.	A	A	Arc.	A	Arc.	A	A
" (12 cyl)	A	A	A	A						
Oakland	A	A	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (8 cyl)					A	A				
Oldsmobile	A	A			Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (8 cyl)	A	A	A	A	A	A				
Overland	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Packard							A	Arc.	A	Arc.
" (12 cyl)	A	A	A	A	A	A				
" (Com'l)	A	A	A	A	A	A	A	Arc.	Arc.	Arc.
Paige (4 cyl)							A	Arc.	A	A
" (6 cyl)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.		
" (6-36)					A	Arc.	A	Arc.		
" (6-38-39)			A	Arc.						
" (6-40)	A	Arc.								
Paterson	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.		
Pathfinder			Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (12 cyl)			A	A	A	A				
Peerless	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (8 cyl)	A	A	A	A	A	A				
Pierce Arrow	A	A	A	A	A	A	Arc.	Arc.	Arc.	Arc.
" (Com'l)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Premier	A	A	A	A	A	Arc.	A	Arc.	A	Arc.
Regal	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (8 cyl)					A	A	Arc.	Arc.		
Renault (French)					A	Arc.	A	Arc.	A	Arc.
Reo	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Riker	A	E	E	E						
Saxon	E	E	E	E	E	E	E	E	E	E
Selden	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (1½ ton)			A	Arc.						
Simplex			A	A	A	A	Arc.	Arc.	Arc.	Arc.
Stearns-Knight	B	A	A	B	A	B	A	B	A	
" (8 cyl)	B	A	A	A	B	A				
Studebaker	A	Arc.	A	Arc.	A	Arc.	Arc.	Arc.	A	Arc.
Stutz	A	A	A	A	A	A	A	A	A	A
Velie (4 cyl)							A	Arc.	A	Arc.
" (6 cyl)	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (2 & 3½ ton)	Arc.	Arc.								
" (1½ ton)	A	Arc.								
Westcott	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
White	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
" (16 valve)	A	A	A	A						
Willys-Knight	B	A	A	A	B	A	B	A	A	A
Willys Six	Arc.	Arc.	Arc.	Arc.						
Wisco	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.

YOUR TRACTOR also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 43. TOPEKA, KANSAS, OCTOBER 26, 1918. Established 1863. $1 a Year

PAINT AS A PROTECTION

Saves From Deterioration and Adds to Value of Property

THE use of paint as a means of lessening the deterioration of buildings and farm equipment puts paint in the essential class. George A. Toussaint in the DuPont Magazine for September points out that in common with the laws of the universe, every material thing is constantly undergoing the process of deterioration or elimination. From creation until deterioration has made destruction complete, the battle for existence goes on. Woods decay; metals rust and corrode; brick, cement and concrete surfaces are all subject to disintegration in some degree.

This destructive agency is defined as a combination of time and the elements. Appreciative of this condition, man has devised ways and means to offset or check the action of these forces, so that the material things we possess may retain their desirability and usefulness for a longer period before having to be discarded or replaced.

Perhaps no other material has played so important a part in this conservation as paint, and yet, on the other hand, its use, while general, is comparatively small to what it should be for the manifold benefits that result. Neglect is partially responsible for this, as well as a limited knowledge on the part of the public as to what paint really does.

The knowledge that paint should be used when property becomes shabby is general, and painting is usually for improved appearance rather than preservation, while the important function of paint is to protect. In doing so, it also carries with it the ability to beautify through diversity of color.

Drive into the country and note some particularly attractive and inviting looking farm house, with barns and other farm buildings in the background. Ten to one the house was in a perfect state of preservation, and bespoke its owner's thrift and upkeep through a well-painted appearance. And the farm buildings were not only in perfect repair, but painted as well.

This illustration, which draws nothing from the imagination, is characteristic to every rural community, and is a most positive indication of prosperity. Paint plays the important role in that it takes a scene, generally lacking in attractiveness, and makes it predominate in its natural setting.

Similar illustrations may be cited of suburban homes, less conspicuous perhaps, because of smaller surroundings, where we see the commendable example of carefully painted buildings, porches, porch or lawn furniture, and even screens, surrounded by a well-groomed lawn, flowers and shrubbery—all most inviting and homelike.

Picture the contrast, with a paint-neglected house in the same setting. Which type would you instinctively select as a home, basing your selection on exterior appearances only, even though surroundings were uncared for?

We find the city resident, whose home is one of a block, liberal in the use of paint as a most satisfactory method of making his home more cheerful and attractive for himself, and a source of favorable comment by the passing public. But granting that many owners do paint, and paint timely and wisely, and that thousands of homes bear evidence of this, yet the country as a whole is not half painted.

Many would not tolerate untidy or shabby dress in the home, in the office or on the street, and yet fail to paint their homes when its appearance is perhaps more reproachful and more conspicuous than wearing apparel. This may be due either to the idea that painting is expensive, or thoughtlessness.

What is there in the idea that painting is an expense? Of course it costs more to paint now than formerly, but it likewise costs more to repair or replace. There always has been a wide margin between the cost of repairs and the cost of painting. Paint is and always will be cheaper than repairs, which in a majority of cases are made necessary by lack of paint. It is not possible to approximate what this difference is with any degree of accuracy, but it represents a substantial margin in favor of paint.

If moisture finds its way into wood, causing the porch, roof, sills, or other parts to decay and need replacement, the proper and timely use of paint would have prevented this expense, and it is easily demonstrated which course would represent the smallest cost. And finally, the surface repaired or replaced has to be painted. Why not paint first, rather than both repair and paint later?

The mind is so continually blinded by the erroneous idea that paint is only a beautifier, that it almost wholly loses sight of its preservative properties. A wooden surface that is kept painted so that moisture cannot penetrate will resist decay, and at the same time will always be attractive to the eye.

We are just beginning to learn what a wasteful nation this is in the matter of food, yet we are just as wasteful in regard to property conservation. The yearly property depreciation of this country represents a colossal sum. Paint could and would save a large portion of this if those responsible realized the wonderful preservative and protective properties of paint.

The individual who deposits his savings in a bank critically investigates its soundness. In fifteen years he expects to receive his accumulations plus interest. Often these savings are invested in a home. Paint is seldom used. In fifteen years the cost of this neglect represents a depreciation of $500. The loss is just as real as if the bank had returned his original savings, minus $500.

Through years of educative advertising and advertising propaganda, we have been taught the value of insurance as a protection when the fire demon comes, and which levies destruction in a very few hours. Decay is simply another form of destruction which works with less rapidity, but just as effectively in time. In a medical sense we might appropriately designate this as "wood consumption," and the only effective remedy is paint.

The need for paint never grows less. To postpone the painting of your property until some future time means that when you do paint, it will not only require more paint to cover the surface, but that the depreciation of your buildings will have amounted to more than the cost of several paint coatings.

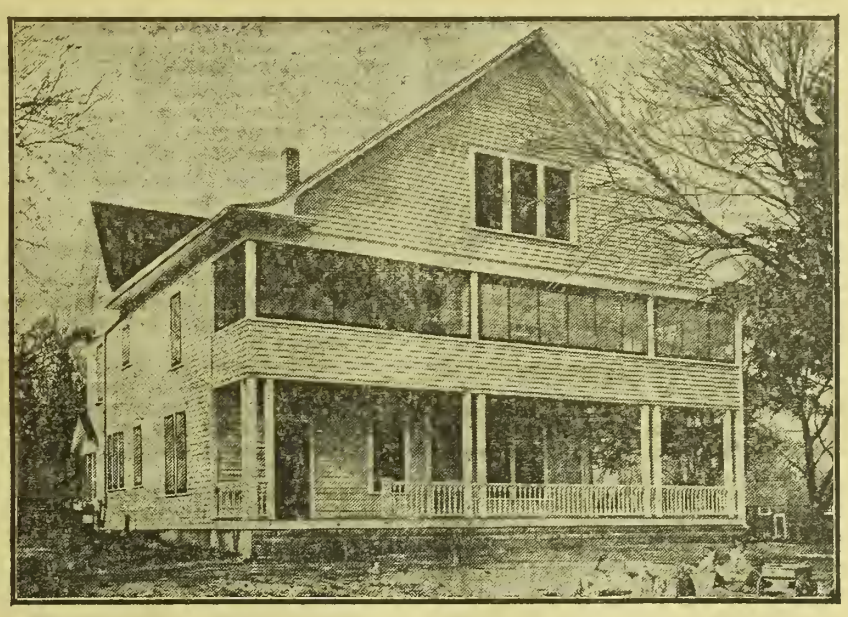
Property value is judged by appearance to some extent. When a real estate dealer offers a property for sale which shows unmistakable signs of neglect, one of the first things he does is to paint it. At an expenditure of $100, or perhaps less, he increases its sale value all the way from $500 to $1,000. This very forcibly illustrates the value of paint, simply from the standpoint of appearance—and no one ever thinks of what duty it performs otherwise.

There is likewise a personal and civic pride in the use of paint. It stands for cleanliness, sanitation and community betterment. Its use is contagious, in that many times if one owner paints, the whole neighborhood becomes imbued with the spirit, and the result is a transformation.

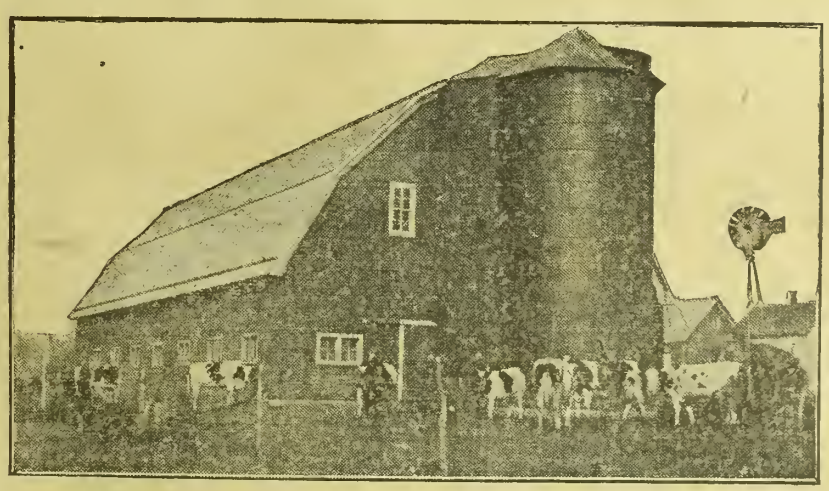
By reason of its actual value, paint is not a luxury; not for show; not entirely for appearance, but a necessity for universal property conservation, and the highest ideals of home life as applied to conditions and surroundings.

The owner who is a habitual painter generally is a desirable citizen, interested in bettering conditions, not only for himself, but others as well.

Painting is not an expense, but an investment, because it saves more than its cost. The more we delve into the paint subject as applied to its part in our home life, the more will we appreciate it as the modern preservative.



RESIDENCE ON CROTTY FARM, COFFEY COUNTY.—APPEARANCE INDICATIVE OF GENERAL THRIFT AND UPKEEP



WELL KEPT BARN AND BUILDINGS ON MOLLHAGEN FARM, RICE COUNTY

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NO need, now, to bother with old style oil lamps that smoke and flicker and are positively dangerous. Here's the **perfect home** light, that makes and burns its own gas from common gasoline and **lights with common matches.**

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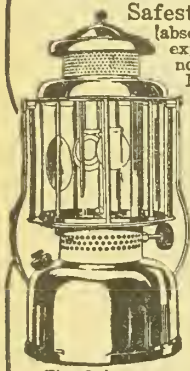
300 Candle Power. Brighter than 20 oil lamps. Far brighter than the brightest electric light and 30 times cheaper. Costs less than one-third of a cent per hour. Safer than oil lamps. Cheaper than the cheapest candles.

For sale by dealers everywhere. If yours cannot supply, write nearest office for Catalog No. 22



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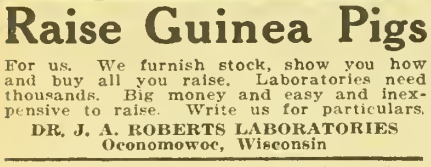

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SENATE CONCURRENT RESOLUTION
No. 15.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members of each house concurring therein:

Section 1. That the following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their rejection or approval:

Sec. 2. The Legislature may levy a permanent tax for the use and benefit of the state educational institutions and apportion among and appropriate the same to the several institutions, which levy, apportionment and appropriation shall continue until changed by statute. Nothing herein contained shall prevent such further appropriation by the Legislature as may be deemed necessary from time to time for the needs of said state educational institutions.

Sec. 3. This proposition shall be submitted to the electors of this state at the election for representatives in the Legislature in the year 1918. The amendment hereby proposed shall be known on the official ballot by the title "Amendment to the constitution providing for a permanent income for the state educational institutions," and the vote for and against such amendment shall be taken as provided by law.

Sec. 4. This resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 7, 1917.
Approved March 10, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 15, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

Real Estate For Sale

For a Farmer Who Wants to "Move In"

I am offering for sale my beautiful eight-room residence and three lots in Oakland (a suburb of Topeka), at an exceptionally low price. Fine barn with three stalls, mow, feed bins, harness closets, etc.; built-in carriage or auto shed; coal house, chicken house, etc. One block from car line; three blocks to fine high and grade school. Electric lights and gas in house. Nice floors and woodwork. A place to be proud of, and ideal for a farmer who would like to have city conveniences and yet live in a quiet district. $2,500 will buy it, with only a few hundred dollars cash. House could not be built for $4,000. Best of reasons for making sale, and not selling because of dissatisfaction with the property. Call or write

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202 Winfield Avenue

MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Gasoline and Oil Conservation

THE observance of "gasolineless Sundays" is only one of the many methods which the Bureau of Oil Conservation, of the oil division of the Fuel Administration, decided upon to save gasoline. The request, of course, was directed primarily to automobile drivers, but in general conception it was intended to convey a conservation message to every person who has to do with a gasoline motor. While the request contemplated the non-use of gasoline on Sundays, it carried a plea for the non-use of all motors whenever their services were not absolutely necessary.

The oil conservation program is particularly applicable to farmers. There are probably as many stationary gasoline motors on the farms of the country as there are automobiles or trucks in the country, and it is the duty of every person who is charged with the care of these motors to exercise the greatest care in seeing that a maximum amount of power is derived from a minimum amount of fuel.

The adjustment of stationary gasoline motors is frequently as necessary as the adjustment of automobiles. Carbon should be removed, spark plugs kept clean, carbureters adjusted often in order to keep the gasoline consumption at a minimum. Many operators permit their machinery to run under conditions that the average automobile driver would never tolerate. If the motor is taken down, thoroughly cleaned, and wornout parts replaced, it will surprise the average user to find that he will save 50 per cent on his fuel and oil bills.

In a speech delivered recently before a meeting of farmers, W. Champlin Robinson, director of oil conservation of the United States Fuel Administration, told a story about a farmer who gave all his horses to Uncle Sam for war work and installed gasoline equipment. "I find," said the farmer, "that to get the best results I've got to be as kind to my motors as I was to my horses. Gasoline horses have to be fed, groomed and bedded or else they'll go lame. A man who keeps a lame motor on his place is just as bad as the man who works a lame horse."

With the approach of cold weather the wise farmer will turn his attention to his machinery and there is no item of his equipment that demands as much attention as his gasoline motors. A new motor, which has been running all summer, requires particular attention because the "shaking down" which comes with the first year's service is generally the most telling in the life of the motor. Unless it is kept in proper adjustment after the first year's use it will lose from one-half to one-third of its power.

Here are some points to observe in the overhauling program:

Clean carbon from cylinders and plugs. Accumulated carbon is a fuel and power waster, besides the extra wear and tear on the motor.

Watch piston rings. See that they fit snugly. Badly fitting piston rings are responsible for the loss of power and the waste of gasoline and oil.

Go over the wiring system with special attention to timer and ignition.

Adjust the carbureter. During cold weather a rich mixture is needed for starting, but after the motor "warms up" it will give more power if the mixture is made leaner. Watch the exhaust and you will be able to determine whether you are wasting fuel or not. A smoking exhaust indicates that you are wasting gasoline or oil or both. A sharp, snappy explosion from the exhaust without smoke indicates that you are getting good service in the engine.

Don't fill oil cups while motor is running, because it frequently causes spilling. Every drop of oil saved counts.

When cleaning crank case, don't throw away the oil. Strain it carefully and put it back in the crankcase. Oil cans and containers should be kept tightly covered to prevent dirt getting in and in the case of gasoline to prevent evaporation. An open container attracts dirt, insects and trash, which results in great waste when using the last few gallons.

Strict supervision over farm motors is as necessary as over automobile motors. The country is badly in need of gasoline and oil for military uses. The war demands for gasoline alone are nearly a million gallons a day. These must be met. Farmers can fulfill a patriotic duty, besides putting more money in their own pockets, by observing the slogan, "Stop the leaks and save the drops."

Rated Speed Best

An engine is designed and balanced for a certain definite speed. This rated speed should not generally be exceeded. In a tractor engine, set as it is upon a frame supported by wheels, moving over soft ground the excessive vibration caused by speeds above the rated may be very destructive. In a stationary engine bolted to a solid base the vibration due to change of speed is not so noticeable.

The prevailing idea is that the power of an engine can be increased by speeding it up. While this is true to a certain extent, an engine can be speeded up until it takes all its power to keep it going. Running an engine above its rated speed should be regarded as an emergency measure only. The maker of the engine in fixing a definite speed does so because that is the speed at which the engine will most satisfactorily give constant, even power.

To Determine Engine Speed

You can easily determine the speed of a gas engine by holding your watch and counting the number of explosions for a minute. For a one-cylinder engine, multiply the number of explosions by two, because there are two revolutions to each explosion. For a two-cylinder engine the number of revolutions equals the number of explosions. For a four-cylinder engine divide the number of explosions by two. Another method is to count any one valve movement. Regardless of the number of cylinders, doubling the count of a valve movement for a minute gives the number of revolutions.

Safety Rules for Gasoline

Always remember that you must take no chances with gasoline; it is one of the most dangerous materials in common use.

It must always be kept in tightly fastened cans; never in glass bottles.

It should never be uncovered within the house, nor at any point where its fumes can travel to an open flame, a live coal, or a spark.

Do not use it for cleaning, if you can get a safe cleaning preparation.

Gasoline in quantity should be kept in underground tanks.

No one should be allowed to smoke in a garage.

No one should be allowed to smoke in an automobile while its gasoline tank is being filled.

Do not use water upon a gasoline or kerosene fire; use a chemical extinguisher, or else throw earth or sand upon it—try to smother it.

Learn the language of your engine. When it wants more fuel it pops up the intake or explodes in the exhaust; too much fuel gives a black smoke from the exhaust; when it wants water, it pounds; if it is overloaded or needs spark adjustment, it labors hard; if it seems dull, weary and listless, perhaps the compression is poor or there is something wrong with the lubrication. A blue smoke from the exhaust indicates too much lubricating oil, and a white smoke too much water with the kerosene in the case of a kerosene-burning engine. The best automobile driver, airplane man, engine or tractor operator, is the one who learns to almost unconsciously sense all these different points, for he must get the last ounce of power from the fuel used.

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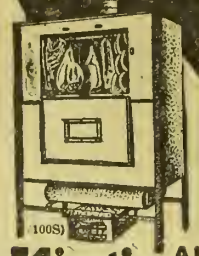

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Don't sell all your hogs and buy meat back at *double price!* It's a wanton waste! There's feasts and fortunes in home-butchering and home-smoking your own meat. Write for *free book—today.*

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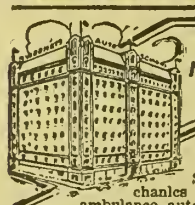

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224 W. Eighth St. - Waterloo, Iowa

SENATE CONCURRENT RESOLUTION
No. 18.

A proposition to amend section 1 of article 5 of the constitution of the state of Kansas relative to the right of suffrage.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members elected to each house thereof concurring therein:

Section 1. The following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their approval or rejection: That section 1 of article 5 of the constitution of the state of Kansas be amended to read as follows:

Section 1. Every citizen of the United States of the age of twenty-one years and upwards—who shall have resided in Kansas six months next preceding any election, and in the township or ward in which he or she offers to vote, at least thirty days next preceding such election—shall be deemed a qualified elector.

Sec. 2. That this proposition shall be submitted to the electors of the state at the general election in the year 1918 for their approval or rejection. The amendment hereby proposed shall be designated on the ballot by the following title: "The suffrage amendment to the constitution," and shall be voted for or against as provided by law under such title.

Sec. 3. That this resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 8, 1917.
Approved March 12, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 18, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

Editorial, Advertising and Business Offices, Topeka, Kansas

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KANSAS FARMER

THE FARM PAPER OF KANSAS

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S. E. COBB, Vice President — G. C. WHEELER, Associate Editor

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UNCONDITIONAL SURRENDER

Civil War veterans and students of history are reminded by Germany's request for an armistice and President Wilson's answer, of the famous reply of General Grant to a similar request from General Buckner of the Confederate army. The Confederate commander had proposed an armistice and the appointment of commissioners to settle terms of capitulation. Grant answered: "No terms except an unconditional and immediate surrender can be accepted. I propose to move immediately upon your works." It will be remembered that the result was an immediate surrender of the force under the command of General Buckner. This forceful ultimatum won for General U. S. Grant the name of "Unconditional Surrender" Grant. General Foch, the supreme strategist of the Allies, is following a similar policy. While the Hun is launching his peace offensive and striving to start a discussion of terms and conditions, Foch is striking blow after blow against the military power of Germany. He recognizes, as also does President Wilson, that the only safe and honorable peace will be an imposed peace preceded by unconditional surrender. The forces of civilization dare not accept any other kind

To accept a negotiated peace would be a base betrayal of our boys who have already given their lives in order that the world might be forever free from the horrors imposed upon it by such a military autocracy as that of Germany. This is a time for deeds, not words.

We at home have met the call of the Fourth Liberty Loan. This insures the financial support of our war-making program. Next will come even more insistently the call from the boys for the service that gives them a touch of home and keeps them fired with the determination to win. This task has been officially entrusted to the seven organizations, the Y. M. C. A., the Y. W. C. A., the National Catholic War Council, Jewish Welfare Board, War Camp Community Service, American Library Association, and the Salvation Army. The work of these great organizations has been one of the wonders of the war. Never have we had opportunity to give our money in a holier cause.

CORN AND HOG PRICES

It was agreed with the Food Administration at the last conference in Washington that the price of hogs—packers' droves on the Chicago market—should be figured on the basis of farm prices for corn in eight of the leading corn and hog states, the price of thirteen bushels of corn to equal the price of a hundred pounds of pork. In figuring the October price, the corn prices in these eight states for the five preceding months were to be considered. The November price was to be calculated on a similar basis. The price of $18.50 a hundred was announced for October with a minimum of $18. Apparently there has been some change of policy since this meeting. We referred to this editorially in last week's KANSAS FARMER. There was another change which is rather difficult of explanation. Kansas and Texas were included in the states to be used in figuring the farm basis, but later the list of states as given out by the Food Administration omitted Kansas and Texas, substituting Minnesota and South Dakota. These states are not generally included in the general term, "corn-belt" states. The average corn acreage in Kansas during the last ten years, according to the Department of Agriculture figures, has exceeded that of Minnesota and South Dakota combined. In hog production also for the past ten years the figures of the Department of Agriculture give Kansas credit for an average number of hogs only about twelve thousand lower than that of these two states combined.

The price of corn in the various states has not been the same. Therefore the value of the corn fed into the hogs sold has varied. For Kansas the Government figures give $1.60 a bushel as the average price of corn for the five months preceding October. For Minnesota it was $1.37, and for South Dakota, $1.34. It would look to the Kansas hogman as though this use of Minnesota and South Dakota figures simply lowers the farm price of corn and thus the price agreed upon for packers' droves in Chicago. Last fall hogmen generally got the impression that the corn would be figured at Chicago prices for No. 2 corn, or on the basis of cost or local selling price of the corn they themselves used. There is certainly some explanation due of this introduction of states not generally considered as in the corn belt and where the price of corn has been considerably lower during the past five months than in Kansas or Texas.

Another conference has been called with the Food Administration for October 25. J. H. Mercer, live stock sanitary commissioner of Kansas and secretary of the Kansas Live Stock Association, went to Washington to attend this meeting. Later developments in this hog price matter will be closely watched by Kansas hogmen who responded to the call for increased pork production.

ABORTION CONTROL

It is proposed to demonstrate on representative farms in Kansas that it is possible to control abortion disease of cattle by a system of sanitation and herd management and show that it is profitable for the owner to do so. Dr. George M. Potter, of the extension division of the Agricultural College, in cooperation with the United States Department of Agriculture, is in charge of the work. In farm bureau counties the demonstrations conducted will be under the auspices of the farm bureau organization.

The plan is to obtain the co-operation of the owners of dairy herds, two or three in each of eight or ten counties in different sections of the state, and a like number of owners of beef herds in four or five counties which are typical of their respective sections. The men who accept this proposition must be willing to try for a term of years the proposed plan of herd management to be followed in combating the disease. Only those who have had losses in the past and realize the necessity for adopting preventive measures will be accepted as co-operators. It will require the intelligent interest and active co-operation of the herd owner.

We heartily commend this proposed plan of demonstrating practical methods of controlling this serious disease. With such demonstrations in operation owners of other herds in the communities will soon become interested and will be able to learn at first hand exactly how to proceed in keeping their herds clean.

On another page of this issue appears an article treating of the control methods employed. This information is in large part from Circular No. 69, Contagious Abortion of Cattle, recently published by the Kansas Experiment Station. This circular gives the very best information that veterinary science and practical experience have to offer. It can be obtained free by addressing the Kansas Experiment Station, Manhattan.

We trust cattle owners of the state will gladly respond to this call for assistance by offering their herds to be used in working out the details of treatment and control and to serve as demonstrations to their neighbors.

Service to Our Soldiers and Sailors

By D. F. Houston, Secretary of Agriculture

THREE million American boys, on the battlefields in France, in the cantonments on this side, and on our great ships everywhere, are fighting the battle for democracy.

Back of them is another army—the splendid, untiring men and women on the farms of America, who have taken up the additional burden laid upon them by the absence of many of their boys, and by their toil and sacrifice have produced the crops that today are helping to feed the allied world. From you, who are the soldiers of that army, every patriotic call has had an unhesitating and united response.

Today in the name of the President of the United States another call is sent to you on behalf of your sons and brothers. They are far away from their own homes; yet through the generosity of the American people the influence of the homes which they have left still follows them. Seven great organizations have taken it upon themselves to do for the boys in camp and at the front the things which every parent would wish to do for them if he could.

These seven war agencies are the Y. M. C. A., Y. W. C. A., National Catholic War Council, Jewish Welfare Board, War Camp Community Service, American Library Association, and the Salvation Army. Together these splendid societies represent every one of the best elements in our American life. Their huts are the soldier's church, his college, his library, his club, his theater, and his gymnasium.

To provide this comfort; to make the American home follow the American flag, requires money in large amounts. These seven agencies will need more than one hundred and seventy millions to push their work forward through the forthcoming months. And, because their work is done in the same spirit, and for the same great end, they have wisely agreed to make their appeal to the public not separately but together.

That appeal, which will be made you in the week of November 11-18, will offer the American people one of the most splendid opportunities of the war to signal across the seas their united support of the boys who are fighting there. The cause is great; the total amount asked for is great; but not greater than the patriotism of the American farmers. Every house that flies a service flag will have a special interest in the success of that campaign. For every dollar means cheer and comfort to the son of such a house.

On behalf of the Administration I send you this great call. But more particularly on behalf of the boys themselves. In the chill and damp of those French villages they are waiting for your answer—waiting for you to say to them: No matter how great the sum, we promise that you shall have the comforts of life over there. The success of this United War Work Campaign is the proof that we are standing shoulder to shoulder behind you."

DOUGHNUTS FOR DOUGHBOYS

The real value of any service performed for our soldiers in France must be measured by its worth to the men themselves. No matter how good our intentions, we cannot be satisfied with the results if the soldiers are not satisfied. On the other hand, any form of service that meets a real need of the men at the front must be supported by those at home. An editorial in the Stars and Stripes, a paper published by the soldiers "Over There," shows their feeling regarding the war work of one agency:

"Well, we are all homeless over here, and every American soldier will take back with him a new affection and a new respect for the Salvation Army. Many will carry with them the memories of a cheering word and a friendly cruller received in one of the huts nearest of all to the trenches. There the old slogan of 'soup and salvation' has given way to 'pies and piety.' It might be 'doughnuts for doughboys.'

"These huts, pitched within the shock of German guns, are ramshackle and bare and few, for no organization can grow rich on the pennies and nickels that are tossed into tambourines at the street corners of the world. But they are doing a work that soldiers themselves will never forget, and it is an especial pleasure to say so here, because the Salvation Army, being much too simple and old-fashioned to know the uses of advertisement, has never asked us to."

The editor of the Chicago Tribune comments thus on this expression from the front: "These words are significant not only because they are an enconium of the work of the Salvation Army, but because they seem to give us the key to the success of that work. The Salvation Army huts are the nearest huts to the firing line. There, within the shock of German guns, the Salvation Army girls serve our boys with coffee and crullers and doughnuts. And it is all done in the simple and old-fashioned way which is characteristic of the Salvation Army."

GOVERNMENT RECOGNIZES ROYAL

The Hoover-Yancey trophies for the best six cars of yearling and two-year-old beeves or short-fed beeves shown are offered at the American Royal in Kansas City as well as at the International Stock Show in Chicago. This is a distinct recognition of the part the Kansas City territoy has taken in supplying beef for the Allies and our own fighting men. The total cash prizes offered amount to $800. The best carload of yearlings and two-year-olds will each win $250 in cash. The second prize in each class is $100, and the third, $50.

The kind of production encouraged by this offer of the Food Administration is that which comes from the short-fed, well-covered, quick-maturing animals. Such animals can come only from the use of the best strains of pure-bred beef breeds.

The date of the American Royal is November 16 to 23. It will be held this year in the stock yards, its old home.

In dairying, large production and profit go hand in hand. Breeding furnishes the most economical way to obtain large producing cows.

Your troubles are like your dreams, of no possible interest to anyone but yourself—Atchison Globe.

ABORTION DISEASE OF CATTLE

There is No Cure---Can Be Controlled by Proper Management

CONTAGIOUS ahortion is a preventahle disease. This statement is justified in view of the information just made puhlic hy the department of veterinary medicine of our agricultural college in the form of a circular.

Contagious ahortion in many ways is a more serious menace to the cattle industry of our country than the much-dreaded tuberculosis. Large numhers of cattle are coming into Kansas from the older dairy states where this disease is present to an alarming extent. Some of the most disheartening experiences in our state have resulted from buying foundation stock for a well-hred dairy herd, only to find the animals all infected with contagious abortion. Too little attention is being given to the danger of getting infected stock in making such purchases.

The authors of this pamphlet on contagious abortion point out that while much remains to be discovered concerning this disease and many points are still in controversy, enough is known to make its control possihle. Without entering into any of the controversies, all the information now available is given. Cattle owners should hy all means thoroughly inform themselves about this disease and follow every suggestion made in the light of our present knowledge.

The following summary gives very briefly the latest information on contagious abortion with suggested control measures:

1. Abortion disease is one of the most destructive of all cattle diseases and should receive most careful attention from hoth beef cattlemen and dairymen.

2. This is a contagious disease, therefore due to a specific germ rather than accident.

3. It not only causes the death and expulsion of the immature calf, but manifests itself hy retained afterbirth and sterility as well.

4. It is spread throughout the herd by the bull and hy contamination of feed, and from herd to herd by the purchase of diseased cattle.

5. There is no cure for the disease. Drugs, such as carbolic acid and methylene blue, have proved valueless, while vaccines are still in the experimental stage.

6. Abortion disease can be controlled by proper methods of herd management. Control is dependent upon three fundamental principles: (1) Preventing the spread of infection. (2) Developing herd immunity. (3) Treating affected animals to promote recovery and preserve the reproductive function.

7. Treatment of aborted cows and of retained afterhirth and sterility requires special knowledge and skill. Therefore, a graduate veterinarian should he employed if possihle.

8. Abortion disease is self-limiting, and will die down of itself if the hreeding herd is kept intact.

9. Never sacrifice valuable breeding animals because of this disease; retain and treat the aborters, and raise the normal calves to replenish the herd.

10. Results in combating abortion disease depend upon the establishment of definite plans of herd improvement and careful attention to the details of sanitation and preventive medicine.

Disease Self-Limiting

The statement that the disease is self-limiting calls for some explanation. Many are still holding to the old theory that the only thing to do when a herd becomes infected is to send every animal to the block, clean up the premises thoroughly, and begin anew. A full understanding of the development of herd immunity shows that this idea was absolutely wrong and resulted in the needless sacrifice of many highly developed breeding herds.

In discussing the self-limiting nature of contagious abortion the authors of the circular referred to state that this fact has heen repeatedly demonstrated in herds where there have been severe outbreaks attended by heavy losses. Where the owners did not become panic-stricken and dispose of their herds, the disease has often subsided as rapidly as it began, and the herds have afterward gone on reproducing with only slight loss. This happy result came about through the development of immunity in the individual animals. Investigation has shown that approximately two-thirds of the cows that ahort lose their calves but once where properly treated and thereafter they become immune. Ahout one-third ahort a second time and only a small percentage a third time. It is true that in such herds the disease may continue to manifest itself for some time by an occasional abortion, a retained afterhirth, or a case of sterility, but practically the disease may be said to he under control.

Retain Aborting Cows

Because of this tendency to become immune, the cow that has aborted and through proper treatment has been restored to health, should be retained. She is more valuable in the infected herd than a new cow, which in turn might contract the disease. Many a fine cow has becn sacrificed hecause of the mistaken idea that abortion can he controlled hy disposing of affected animals. Never sell a valuahle hreeding animal, whether cow or bull, hecause of ahortion disease. Unprofitahle and hopelessly sterile cows should be weeded out on general principles, for they require attention that should he hestowed upon the good ones. But these cows should go to slaughter. Too often they are sold into other herds, without the new owner heing aware that they are diseased. This practice of surreptitiously selling diseased animals has sprcad this and other diseases, far and wide, and it cannot be too strongly condemned.

Raise Female Calves

The vigorous heifer calves which reach maturity in spite of the disease are naturally from the more resistant cows and they seem to inherit this tolerance, consequently they are less apt to ahort in turn than cows from other sources. Raise them. They will aid in building up a herd immunity. Herd improvement can also he secured through the use of pure-brcd sires.

Do not introduce new breeding cows into the herd if possihle to do without them. Ahortion disease persists indefinitely in a herd where cows are constantly heing bought and sold. The new cow may he either infected and a spreader of disease, or free and susceptible to it. In the former case she introduces new infection, and the owner has gained nothing hy exchanging ahorters; in the latter, a new victim has been added to the herd. Ahortion disease may he likened to a fire, which, if new fuel is not constantly added, soon dies down. Herd immunity is developed, therefore, by retaining the immune cows, raising the calves, and avoiding the introduction of foreign cattle.

The foregoing practices have been found effective in preventing dissemination of infection and developing immunity to ahortion disease in dairy herds.

Control in Beef Herds

Nearly all of the investigational work in connection with ahortion disease has heen conducted with dairy cattle. It has been pointed out how dissimilar are the habits of living of heef and dairy cattle. The methods of controlling ahortion disease in the one must therefore differ from the other in detail if not in principle. To hring relief to the stricken heef herds of Kansas, methods must be adapted to their conditions. The following plan is therefore proposed:

The cows are customarily hred to calve in the spring, the hull heing put with the herd the latter part of May. A few months will suffice for breeding the herd, and the hull should then be removed. Ahortions usually occur at from five to eight months of pregnancy, so most of them will take place after the cattle have gone to the feeding grounds in the fall. There the cattle are usually under the daily observation of the owner, and they can be closely watched for evidences of ahortion. All cows threatening ahortion and all aborters should be promptly removed to a separate enclosure and appropriate treatment given. Destroy the ahorted calf, memhranes, and discharges as they are particularly dangerous. The removal of the ahorters limits dissemination of infection through the contamination of the feed. No ahorter or cow with a discharge should he permitted to rejoin the herd until all discharge has ceased and recovery is complete. By this method all the cows that are to abort will have aborted and heen eleaned up before time to go out on pasture the following spring, and no discharging cow or chronic "huller" should be permitted in the herd to contaminate the bulls.

As a result, infection is reduced in amount and virulence; susceptihle animals become immune; the outbreak subsides and reproduction approaches its normal level. It will be ohserved that the same fundamental principles apply here as in the dairy herd. Infection is limited through control of breeding and isolation of ahorters; treatment is given to avoid complications and preserve the reproductive function; and a herd immunity is developed by retaining immune cows and raising calves. This plan interferes as little as any yet proposed with present herd practice, in fact takes advantage of it, and any owner who will persistently follow the practices outlined heretofore should get results.

It is realized that it would be impossible to devise a plan suited to all sections and all conditions. The control of range abortion is so difficult because of the conditions alrcady described. Nevertheless this fact does not change the nature of the disease, and he who would suppress it must exert every effort to make his methods conform to its requirements.

Food For Our Allies

OUR allies will he even more dependent upon us for food in the coming year than they were in the year past. During the year ending July 1, 1918, we supplied them almost twelve million tons of staple foodstuffs, or almost douhle the yearly shipments for a three-year pre-war period. In the year ahead, says Mr. Hoover, we must ship approximately 17,550,000 tons, or 5,730,000 tons more than last year. These statements were made following the conference held in Europe where Mr. Hoover met with the food controllers of our allies and went over the food situation in detail. Even this program means further self-denial by the Allies next year. They are making this sacrifice in the common cause. "At the President's direction," says Mr. Hoover, "I assured them that 'in this common cause we eat at a common table,' and upon entering these conferences in Europe we promised them that whatever their war food program called for from us we should fulfill.

"If we survey our ahility to meet this definite promise to them we find that while our wheat production this year is hetter than last year, our production of other cereals is less. We have had severe losses through drouth in many sections. On halance our resources are no greater than last year. We find, however, that we can give this increase in food supplies, of 5,730,000 tons over last year, and still have a margin over the amount necessary to maintain our own health and strength.

"At best the Allied tahle will he less than ours, for the Allied peoples are denying themselves more in order to transport our soldiers. We can do no less than fill the ships they send us.

"Of our imports, we shall apparently have sufficient sugar to maintain the present consumption and take care of the extra drain of the Allies from our markets, instead of compelling them to send their ships to the Far East. We can secure in sailing vessels the coffee we need, if no one makes an over-brew. Of our own products we must secure a reduction in consumption and waste in the two great groups of, first, breadstuffs; and second, meats and fats; that is, in all bread and cereals, beef, pork, poultry, dairy and vegetable-oil products. The average consumption of our people of breadstuffs amounts to about six pounds per week and of meats and fats to four pounds a week for each person. A reduction in consumption of less than one-half pound per week per person in each of these two great groups of foods would accomplish our purpose. We wish to emphasize, however, that we do not want curtailment in the use of milk for children.

"Some of our homes by reason of limited income cannot now provide more food thau they should have to maintain health in the family. They cannot rightfully be asked to make the suggested reduction in consumption. But the great majority of our homes can do more than suggested.

"We nced even greater simplicity of living than last year amongst all that section of the community to whom foodstuffs are a secondary item in expenditure.

"We estimate that nearly nine million people eat at our public eating places—hotels, restaurants, boarding houses, cluhs, dining cars, and so forth. The food consumption in these places is larger than in the average homes. We are asking the proprietors and employes of these institutions to undertake in many particulars a more strict program than last year, and we are confident that they will willingly do this.

"This is not rationing—a thing we will never have if our people continue to support us as in the past. We are simply making an appeal to the intelligence in the homes and public eating places of America to work out for themselves the means and manner of saving.

"This year as last I believe we can accomplish the necessary ends hy voluntary action of our own people. The willingness to assume individual responsihility in this matter hy the vast majority is one of the greatest proofs of the character and idealism of our people, and I feel it can be constantly relied upon. Our simple formula for this year is to further reduce consumption and waste of all food. We have so arranged the international food program that, except for a moderate substitution of other cereals in bread, it will not, we hope, be necessary to substitute one foodstuff for another, nor to resort to wheatless and meatless days. What we need is to reduce directly our consumption of all foodstuffs, laying special emphasis on the staples. The Allies are in need of all the surplus of the great staples that we can provide.

"It is necessary that every family in the United States study its food budget and food ways to see if it cannot buy less, serve less, return nothing to the kitchen, and practice the gospel of the clean plate."

In making this statement regarding the supplying of our Allies with these enormous quantities of food, Mr. Hoover reminded us that to attain victory we must place in France three and a half million fighting men with the greatest mechanical equipment that has ever been given to any army. Therc has been considerable improvement on the western front from a military point of view since this statement was made, but even yet we have no assurance whatever of a conclusion of the war until another year has gone by. If by making one mighty drive this year all along the line we accomplish this end in 1919 we will save a million American lives that would be expended if we have to continue until 1920. To give this final hlow in 1919 we have not only to find the men, shipping and equipment for this gigantic army, but this army, the Allied armies and the Allied civil population must have ample food in the meantime if we are to maintain their strength.

"We can do all these things," said Mr. Hoover, "and I helieve we can bring this dreadful business to an end if every man, woman and child in the United States tests every action every day and hour hy the one touchstone—does this or that contribute to winning the war?

The food program is no small part of this issue. To provide ships for our army, we have not only to build all that we can but we must have the help of Allied shipping. In order that the Allies may provide this, they must take food ships from the more distant markets and plaee them upon the shorter run to the United States.

HOW TO USE PRESSURE COOKER

Useful and Economical in Home Cooking as Well as Canning

IN ORDER to use a pressure cooker intelligently, one must understand the principles on which it is based. Printed directions usually accompany each cooker, hut these will be hetter understood and applied if certain principles on which all pressure cookers are constructed are known. Some of these principles of construction are given briefly in a recent bulletin of the home economics department of the Kansas Agricultural College, entitled "Steam Pressure for Home Cooking."

"In general," says the bulletin, "the pressure cooker consists of a metal pot, whose lid can be securely fastened by means of clamps. The pot is equipped with a rack on which the food is placed for cooking. In the lid are found the devices for regulating the steam pressure; namely, the steam cock, the safety valve, and the pressure gauge. Water will never become hotter than boiling, but if its passing off as steam can be hindered, its boiling point will be raised and foods cooked in it will become tender more quickly. When water is hoiled in an ordinary covered kettle, the boiling point is raised a little more than one degree Fahrenheit above what it would be in the uncovered kettle. It will be found, too, that this slightly increased temperature may be maintained without increasing the fuel. If the cover is clamped down, the temperature will go yet higher, the time needed for cooking will be shortened, and but little more heat will be required to hold this high temperature than would he needed to keep water boiling in an open vessel."

It is important that the vessel be strong enough to withstand the pressure. Otherwise the steam will make an opening and escape with some force. The cooker must be of strong material and the cover must he clamped on. It must also have a safety valve that will allow the steam to escape before the pressure rises beyond what the vessel can, with safety, be expected to withstand. In some cookers the top is held in place by a spring which yields slightly at a given pressure, thus acting as both clamp and safety valve.

Most cookers are also provided with a thermometer to register the temperature, or with a gauge to register the pressure, so that different temperatures may be applied to different foods. These various pressures are necessary because some foods, such as apples, cook to pieces at a high pressure, and foods supposed to be leavened become dense and heavy owing to the fact that the gas formed by the soda or baking powder cannot expand under much pressure. On the other hand, the high temperature softens the fiber of cereals and makes them more light and fluffy than when they are cooked hy ordinary methods. The gauge consists of a pointer and a dial usually graduated to twenty-five or thirty pounds. As the pointer sometimes sticks, it is necessary to tap the gauge frequently to insure perfect readings.

Comparison of Temperatures

In the hulletin referred to, the authors, Miss Skinner and Miss Rigney, give an interesting comparison of the temperatures obtained in some of the different methods of cookery. In the fireless cooker the food is heated to boiling and then together with one or more heated disks is put into the cooker, a box so constructed as to retain the heat, the food being cooked by means of the heat already present. The food and disks gradually cool off, and after one and one-half hours the temperature has fallen to about 190 degrees Fahrenheit. In the double boiler, the water in the lower part is heated and the food in the upper part is cooked by the hot vapor which rises from the water boiling below. The food reaches a temperature of about 203 degrees Fahrenheit. In the ordinary kettle at an elevation of one thousand feet above sea level, foods cook at ahout 209 degrees Fahrenheit, a temperature which is raised to ahout 211 degrees Fahrenheit by the addition of a cover. In the pressure cooker the temperature may rise as high as 266 degrees Fahrenheit with a steam pressure of twenty-five pounds to the square inch.

Types of Cookers

There are various types of pressure cookers on the market at present, most of them, however, being especially designed for canning. The authors of this bulletin consider cookers with a capacity of about ten quarts best adapted for family use. The metal of which the vessel is made will determine to a large extent its initial cost. Steel is perhaps most commonly used, but its weight makes the family-size cooker difficult for a woman to handle. Aluminum makes a very light easily-handled utensil, but the cost is naturally much greater.



GIRLS USING PRESSURE COOKER FOR CANNING.—CAN BE USED IN COOKING, ALSO. SEVERAL TYPES OF COOKERS ON THE MARKET

Operation of the Cooker

"Although the operation of the pressure cooker is simple," says the bulletin, "a few points must be kept in mind. Because the safety valve is rather hard to dry, it is likely to become clogged with rust and should always be inspected before using to be sure that it is in working order. After the valve is examined, the cooker is filled with water up to the bottom of the rack. On this rack the food is placed so that it may be cooked hy the steam. The top is clamped on tightly and heat is applied. The steam cock is left open until the air is driven out by the formation of the steam. The cock is then closed, allowing the pressure to run up to the desired point. It is then necessary to lower the flame or draw the cooker to the back of the range in order to maintain that pressure. The pressure must be kept for varying lengths of time, depending on the food to be cooked. The cook would do well to use the printed time schedule furnished with the cooker until she becomes accustomed to its use and can work out her own time card. When the food is cooked, the cooker is removed from the heat, this removal causing the pressure to fall slowly to zero. The steam cock must then be opened to make sure there is no more steam in the vessel. The cover then may he unclamped and the food removed. Should the food he undercooked, as may happen until the cook learns the best time allowance, it requires but two or three minutes to run up the pressure again and finish the process. If the steam cock be opened before the pointer has fallen to zero, the sudden release of the pressure will draw any liquids from the pans or cause the foods to fall to pieces.

"Several different foods may be cooked at once without interchange of flavors. If foods are placed in pans they may he sprinkled with salt before cooking. It is somewhat difficult to season large pieces of food in the pressure cooker because the seasoning does not penetrate as it would were the food immersed in water. The loss of minerals in cooking vegetables is much less in the pressure cooker, where the foods are surrounded only by steam, than where the vegetahles are immersed in water and that water drained off or discarded."

Children and Food Saving

WE PLEDGE our heads, our hearts, and our health through food production and food conservation to help win the world war and bring world peace." This is the pledge taken by the members of the boys' and girls' clubs conducted by the State Agricultural College under the supervision of Government specialists, and it was evident to anyone viewing the exhibits of the canning clubs at the state fairs this fall that the members are living up to it. The illustration shows a part of the canning club exhibit at the Kansas State Fair at Hutchinson. In this contest the Paxico Mother-Daughter Canning Club won first prize, the St. Marys club and the one at Macon in Harvey County tying for second place.

At the Wichita Fair and Exposition held at Wichita the first of this month the canning club exhibit was even larger than at either Hutchinson or Topeka. Six prizes, ranging from $25 to $50, were offered for the best 100-quart club displays. The first was won by the Wichita cluh and the second hy Paxico. Macon and St. Marys again tied, this time for third place. The fourth prize was awarded to the Fair Oaks Club of Rice County, and the fifth to the Glenwood cluh, while the Easton and Seabrook organizations tied for sixth.



PART OF THE MOTHER-DAUGHTER CANNING CLUB EXHIBIT AT THE KANSAS STATE FAIR, HUTCHINSON

An interesting feature of the Wichita exposition was the state championship demonstration contest in canning. The best team from each of the six Kansas counties leading in canning club work contested during the first week for state championship honors and for prizes offered hy the exposition. Actual canning was done, and these timely and practical demonstrations, beginning Tuesday evening and continuing each afternoon through the week, constituted one of the most popular educational features of the fair. The presence of Mr. Benson and Miss Morton of the United States Department of Agriculture added zest to the competition. Harvey County won the state championship, carrying with it a beautiful silk banner to be kept for one year and to become the permanent property of the team winning this honor two years in succession. A baby hond was also presented to the leader and each memher of the winning team. Rice County won second honor and the team was presented with a red pennant and a baby bond for the leader and each member. The third honor went to the McPherson County team, which was presented with a white pennant and a baby bond for each member.

There are about two hundred such canning clubs in Kansas, and the total membership during the season of 1917 was 8,185. The complete figures for the season of 1918 are not yet available, but they will probably run considerably higher than this. Otis E. Hall, state club leader, says that the wave of interest in the mother-daughter canning clubs which swept over the entire state a year ago is still unchecked. There is hardly a county which has not requested the work in many communities. As a result of this widespread interest in canning scarcely any surplus products have been allowed to go to waste. Many families have been enabled to supply their tables with fruits and vegetables throughout the fall, winter and spring from their own shelves, and the demand for commercially canned goods has been on the wane, particularly in those sections where both gardening and canning clubs have been promoted.

The mother-daughter canning clubs do not limit their work to canning alone, but other community problems have been woven into the program as well. With efficient and adequate local and county leadership, mother-daughter and father-son clubs are among the most practical and useful organizations it is possible for any rural or village community to have.

Finds Houses Quaint

A former Hutchinson boy writes that the dwelling houses in which the members of his company are billeted in France are quaint buildings, mostly of rock, and probably several hundred years old. He says the towns are not laid out in blocks, but there are a group of buildings connected by rock walls generally about eight feet high. The streets are narrow and wind "any old way."

"The town crier takes a drum and beats it at certain places, then as the people gather around him he tells them the latest news. The people are intelligent, kind, and generous.

"There are a few American farm implements in use here, such as binders and mowers and fanning mills, but the cradle and flail and wooden mouldboard plow are mostly used in some parts of the country. The people wear quaint clothing and wooden shoes, but they dress well. Wine is plentiful and cheap, but the boys have found out that it doesn't pay to drink too much or be caught out after taps are sounded."

The soldier gives; you must lend.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

KAFIR and other grain sorghums are very apt to heat in the bin. Elevators storing these grains expect to move them from bin to bin as soon as heating begins. When stored on the farms the grain can be stirred by shoveling, but it is too often neglected. Kafir growers usually delay threshing until late in the season so as to have the grain thoroughly dry before attempting to store it in the bin. Various plans for ventilating storage bins have been suggested. A very satisfactory bin ventilator is that designed by George Bishop, a large kafir grower of Washita County, Oklahoma, and who is an editorial contributor to the Oklahoma Farmer and Stockman.

This ventilator is made by one-by-four pieces the length that the bin is wide, held together by one-by-two strips six inches long, covered on top and the ends with heavy fly screen. The plan of placing it is to cut a hole in the outside of the bin the size of the ventilator and even with the bottom of the bin. The ventilator is then inserted, resting on the floor of the bin, leaving the end, which is covered with the screen wire the same as the top, flush with the outside of the bin.

The cross braces, on the under side of the ventilator, are nailed onto the one-by-fours, instead of being set into them as are the braces on the top side. This is to permit the circulation of air between the ventilators on a level with the floor. These ventilators should be placed at intervals of about every other upright or every third upright in the frame of the bin.

If the grain becomes heated, the heated air naturally rises and the cool air is drawn in the ventilators and distributed through the body of the grain. If kafir bins are entirely inside of a barn, as grain bins usually are, they should be built of plain boxing plank. Neither shiplap nor tongue and groove stuff is necessary to hold grain of any kind, for that matter, and ventilation will be aided by the small cracks through which grain will not waste so long as they are horizontal.

Before filling the bin it is better to hobble the ventilators together the distance apart they are to remain, because if the grain does not fill in on them evenly, they will be pushed to one side.

The cut on this page shows the general plan of these ventilators.

Destroy Insect Pests Now

Garden insects usually are most troublesome in the spring and early summer, but many of them continue to feed and breed until frost. As many of these insects as possible should be destroyed now. Such pests as potato beetles, squash bugs, and cucumber beetles, go through the winter as adults. Others winter in immature form, as for example cutworms, cabbage worms, and grubs. Plowing or spading the garden soil exposes many of the insects. All harboring places, such as refuse tops of the crops grown, should be destroyed. A little effort along this line will go a long way toward protecting next year's garden crop.

Raising Cabbage Seed

A. E., a California reader of KANSAS FARMER, asks how cabbages should be preserved through the winter when they are to be used for seed production next year, also if the root and stem will produce good seed without the head.

For many years the bulk of the cabbage seed of practically all varieties has been grown on Long Island. As a rule it is not practical for the small gardener to grow his own seed. It can be done, however, and while the soil and climatic conditions are important factors, the skill and thoroughness of the grower count for more than favorable natural conditions.

The plants may be buried where they are grown and the covering removed the following spring, but the more approved plan is to lift the plants before there is danger of hard freezing weather and store them in a trench. This can be made by turning a furrow each way, making a trench wide enough to place three plants side by side, inclining them at an angle of about 45 degrees. Two or three inches of soil is sufficient covering at first, although no harm will be done by six inches of soil if the weather is cool. After the ground freezes several inches of manure should be added.

In raising seed, careful selection should be made of the plants, saving only those that are typical of the variety. The head is a part of the plant and cannot be removed. It is customary, however, when the plants are set out in the spring to cut across the heads so the seed shoots can push through easily.

TWO IDEALS OF WAR

The German Kaiser to His Troops Embarking for China, July 27, 1900.

When you face the enemy he will be beaten! No quarter will be given! No prisoners will be taken! Whoever falls into your hands, let him be at your mercy! Just as the Huns a thousand years ago, under their king, Attila, gained a reputation in virtue of which they still appear mighty in tradition and story, so may the name German be established by you in China in such manner that for a thousand years no Chinaman will ever again even dare to look askance at a German.—Berliner Tageblatt, July 28, 1900.

By this utterance the Hun named himself. The word, "Hun," was used by German socialists in attacking their militarists long before their enemies applied it as a term of reproach.

President Wilson to the National Army, September 3, 1917.

You are undertaking a great duty. The heart of the whole country is with you. The eyes of all the world will be upon you, because you are in some special sense the soldiers of freedom. Let it be your pride, therefore, to show all men, everywhere, not only what good soldiers you are, but also what good men you are, keeping yourselves fit and straight in everything and pure and clean through and through.

Let us set for ourselves a standard so high that it will be a glory to live up to it, and then let us live up to it and add a new laurel to the crown of America. My affectionate confidence goes with you in every battle and every test. God keep and guide you!

Wintering Mature Brood Sows

Mature brood sows can be very satisfactorily wintered on alfalfa hay with little or no grain. The best of hay should be fed to the sows, as there will be much waste if coarse, stemmy alfalfa is used. Since all grains and concentrates are scarce and extremely high in price, it is a matter of considerable importance to keep the sows over with a minimum of these more expensive feeds. This is not the only advantage, however, in wintering brood sows on alfalfa. Those who have practiced feeding mature brood sows largely on alfalfa know that sows so wintered produce the most vigorous and hearty pigs. It is really an ideal way of wintering a mature brood sow.

At the North Platte experimental substation some experiments have been conducted in feeding old sows a ration of chopped alfalfa hay mixed with an equal weight of ground grain, comparing this with feeding the loose alfalfa in a rack and shelled grain in a trough. The results favor the hay in the rack with the light grain ration.

Pits for Storing Root Crops

Potatoes, cabbages and root crops can be stored cheaply and efficiently in outdoor pits or banks if no cellar is available. Select a well-drained spot for the pit; and a shady spot is preferable. Remove the surface soil to a depth of one foot from a circular area not more than seven feet in diameter. This will allow for a conical pile of vegetables four feet high containing about fifteen bushels. If more are to be stored, make additional pits or extend the one into a long low bank.

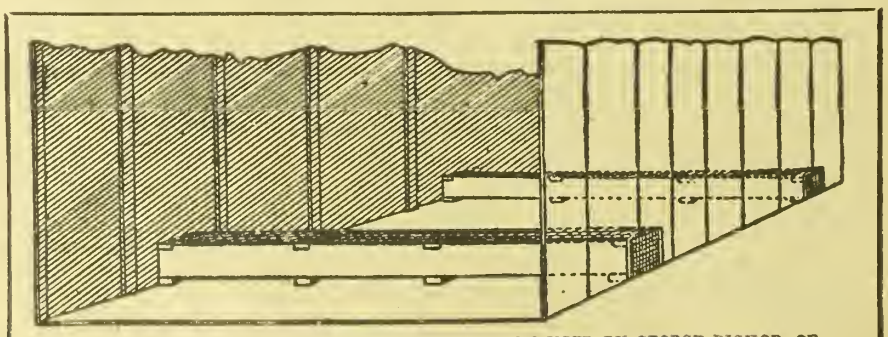
Potatoes and cabbage may be placed in the pit in direct contact with the soil, but for other vegetables it is better to line the pit with three or four inches of straw. When the vegetables are placed, cover them at once with a layer of straw, leaves or corn stalks to a depth of six inches, which will be all the protection needed until cold weather. Then a layer of earth from six to ten inches deep should be placed over the whole pile, and the ridge rounded off to shed the rain. To provide ventilation, the inner straw layer is allowed to protrude a few inches at the peak of the ridge. This should be sheltered by an inverted trough.

Large banks which are not opened until late winter or spring should be ventilated, says J. T. Rosa, Jr., of the Missouri College of Agriculture. This may be done in the way just described, or by a rough flue made by placing three or four stakes in the center of the pile and extending them to the exterior. This flue will carry off some of the moisture and gases given off by the stored vegetables. The flue must be closed in very cold weather.

Another method of storing a limited quantity of vegetables is to bury a large box or barrel in the ground. The container should be set in a hole, the edges flush with the ground, and a layer of sawdust placed between the earth and the sides of the box or barrel to serve as insulation and to absorb drainage water. If a box is used, it should have a tight-fitting cover hinged on one side, and to give complete protection a larger box can be inverted over the one buried in the ground. For storing a few home garden products for winter use a small contrivance of this sort may be very useful, especially for root crops and potatoes.

Conserve Farm Machinery

A farmer who believes that conserving farm implements is closely allied to food conservation, wrote to the Food Administration that he offered to help pull $125 worth of farm machinery into an empty shed and was told by the owner that if he didn't like the looks of things he could drive on. This is a poor spirit to show, in view of the shortage and high cost of materials and labor. The wearing out of agricultural machinery has been a serious matter in European agricultural sections. We must learn here in this country to consider wastage of machinery in a more serious light than in pre-war years. In Italy the minister of agriculture is authorized to requisition for the period of the war and for the crop year following the declaration of peace, all agricultural machinery and the materials necessary for crop production.



PLAN OF KAFIR BIN VENTILATOR SUCCESSFULLY USED BY GEORGE BISHOP, OF OKLAHOMA

Locating Improved Seed Wheat

Through the agency of farm bureaus in Kansas almost 300,000 bushels of high-yielding strains of wheat were located, inspected, and distributed for seed during the past season. This service has made no small contribution to the preparation for the Victory wheat harvest of 1919. Planting seed of high-yielding varieties is a means of increasing yields wholly dependent on the human factor. The wheat grower who is progressive and makes a special effort to plant seed that is positively known to have high-yielding capacity is doing his part.

The Kanred, pure types of Turkey, and Harvest Queen and Fulcaster of the soft wheats, have been most in demand. Farm bureaus were particularly eager to get seed of the Kanred variety which has demonstrated its superiority over all other hard wheats in Kansas. It has consistently averaged about four bushels more to the acre in all the tests that have been made. Fully 85 per cent of the Kanred seed wheat offered for sale this fall was purchased in farm bureau counties and distributed among farm bureau members. This is a significant fact and illustrates the possibilities of organization. These counties will have a practical monopoly of the Kanred wheat of the state.

Another activity of more than passing interest in connection with our preparation for next year's wheat crop was the anti-smut campaign conducted in a good many counties of the state. Eastern Kansas counties have suffered severe losses from smut. It is estimated that the losses from smut in these counties this year averaged approximately 4 per cent of the crop. In Atchison County the loss was estimated to be 5 per cent, in Doniphan County 10 per cent, Clay 4 per cent, Wabaunsee 4 per cent, and Osage 5 per cent. These figures are a fair sample of the existing condition of the wheat fields in the eastern section of the state. Excellent results were obtained from the smut campaigns which were conducted in twenty-four counties. In Johnson County, alone, there was an attendance of 320 wheat growers at the seven smut-control meetings held. A report came from Osage County that the druggists had to replenish their stocks of formaldehyde in order to supply farmers who wished to treat their seed wheat. It was reported from Wyandotte County that 95 per cent of the farmers who grow wheat treated their seed for smut this year, whereas last year less than 5 per cent of the farmers of that county treated their seed. Wyandotte County suffered severe losses last year, but the demonstration fields located here and there in the county by the farm bureau committee and the county agent had less than 1 per cent of smut this year. This outstanding example of smut prevention resulted in the treatment of almost all of the seed wheat used in the county this fall.

A Correction

In our issue of October 12 we quoted Prof. Albert Dickens as saying that where timber is in a thin belt along streams it is not uncommon to find walnut trees fifty to one hundred feet in height where care has been taken to preserve them. The statement should have been "fifty to one hundred feet apart along the streams."

Buy over here to win over there.

United War Work Campaign

By W. M. Jardine, President Kansas Agricultural College

THOUSANDS of American farm boys are already in the front line trenches. Other thousands are in the training camps or on the farms awaiting their call. American agriculture has contributed its share of the man power that is to win the fight for the world's liberty. The farm boys in the service have written home of the friendly workers of the Y or the K. of C. perhaps, that they find on every hand, and of the huts that remind them of home with their various comforts, writing materials, musical instruments, a place to play games at night, to attend religious services, or join classes in French.

Despite the ever-pressing farm work, parents have taken time from the farms to visit their sons in the camps. There they have found the hostess house where they may meet and visit with their boys in homelike surroundings. In the neighboring cities they have found agencies ready to aid them in securing suitable lodgings, and information bureaus that make confusion impossible even to the most inexperienced travelers. Farm folk know that when their boys leave for the training camp and the front, the influences that made life comfortable, safe and happy for them go with them every step of the way.

This work of safeguarding the boy physically, mentally, morally and spiritually, is under the direction of seven great affiliated, co-operating agencies that operate under an executive order of President Wilson. They are the Young Men's Christian Association, Young Women's Christian Association, National Catholic War Council, Jewish Welfare Board, War Camp Community Service, American Library Association and the Salvation Army. The budget of each is scrutinized and passed upon by the War Department; and their work is governed by a war council of nationally known men and women.

In France the soldiers are not gathered into great cantonments as they are in America. They are spread over hundreds of muddy, chilly little towns. There is no store in this town, no theater, no library, no place to write a letter or be warm or dry—until the hut comes. With it come books and writing paper, baseballs, bats and gloves, chocolate and tobacco, motion pictures, lectures and theatrical entertainments. Home comes with the hut, bringing all the love and care and cheer of the folks who have stayed behind. When the troops move, as they are doing constantly, the hut moves with them.

All this work of carrying the influences and comforts of home with the boys costs millions of dollars. Every dollar spent for the work is from voluntary contribution. The funds are exhausted now. They must be replenished. The amount necessary to carry the work forward is $170,500,000. To secure this sum the different agencies have consolidated at the request of President Wilson, in the United War Work Campaign. From November 11 to 18 the American people will have an opportunity to contribute to this fund.

In the different Liberty Loan drives, the Red Cross, the Y. M. C. A. and other campaigns, the farmers of America have demonstrated their loyalty, their staunch patriotism, and their financial strength. The United War Work Campaign is a direct appeal from the farm boys in the training camps and trenches to the farm folks at home. The comforts afforded the boys by the secretaries and the huts is the best proof we can give them that we are backing them to the limit. I am confident that the farmers of America will come forward with funds not only to take care of their own boys, but hundreds of thousands of dollars besides to aid in the general relief measures of the United War Workers.

A Real Man

"One doesn't know men," writes a captain overseas, "till he puts in a turn in the trenches with them, when the shells are turning the whole earth over, hell itself moving in by the train loads, and sees the men stand in their tracks with a set look on their faces, and a steady hand on the rifle. Then, John, is when you can pick out the real men. I've got lots of them. Come over and see for yourself—here's where you find them. Even if I never get home, I will have at least learned what a real man is made of."

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Sunday Dinner in Germany

This humorous recipe for a Sunday dinner, taken from a German paper, Chemnitz Volksstimme, indicates the extent. to which rationing of foodstuffs and other necessities has been carried in Germany:

"Take the meat card, mix it well with the egg card, and bake it with the butter card until a healthy brown crust appears. The potato card and the vegetable card should be steamed until they are tender, and then thickened with the meal card. After-dinner coffee is prepared by boiling the coffee card and adding the sugar and milk cards to the beverage. A very succulent confection is obtained by dipping the bread card into the coffee so prepared and partaking of it in small pieces. At the conclusion of the repast, you wash your hands with the soap card and dry them upon the cloth purchase permit."

Would Not Come Home Now

A Kansas boy, writing from France, tells how glad he will be to get back home when the war is over, and adds: "But I wouldn't go home now if they paid my way and kept me for the rest of my life. I hired out for a 'tough man' to come over here and help get the kaiser, and I'm going to stay here till he's got!"

The Lyons Republican comments: "And it is that sort of a spirit that will 'get' him all right."

The black brother had the right idea. A negro soldier was recently asked if he was on his way to France. He answered, "No, sah. I'se goin' to Berlin."

Interesting War Items

A YOUNG lieutenant from Nebraska sends back this description of one of the ways in which the German policy of "frightfulness' is being carried out: "You get off at a wrecked depot and wonder how far away the enemy is. You have entered one of the prettiest towns in France, a town that will live forever in American and German history. It bears all the marks of Hun vandalism. In some of the houses the pianos have been smashed with an axe, and a huge library whose volumes cannot be replaced by money are scattered through the rooms and out on the grass. The owner has been killed and freshly-made graves are labeled, 'Died for the Fatherland.' They might have added appropriately, 'and a return to barbarism.' This place was taken by surprise while the boche was in bed. The boys taught the barbarian that man power and courage still have a place in modern warfare."

Describing the German method of fighting, he says: "They tried on these American boys who one year ago were peaceful farmers and shopkeepers, every trick known in their kultur of war, without success. They sent their men across dressed as French Red Cross men. These were detected at once and shot like the dogs they were.

"Our boys have this time beaten the kaiser's picked troops. More soldiers mean more victories. After almost three weeks of battling we are having a rest. In that time we have seen the big Hun offensive checked and chased him while he ran. His boasted warfare of movements evidently hasn't been a very satisfactory movement to him, as the move has been in the wrong direction. He isn't beaten yet, but the American army is "all broke out" with the stuff it takes to beat him. I believe we have been in two of the greatest battles of this war, and our boys have shown they have improved with age since the days of 1776."

Eager to See It Through

"It is hard, of course, mother; hard for you and hard for me, but I am glad that I am where I am. I would rather be in my place tonight than be the coward who is showing his yellow colors by trying to evade the draft, by hiding behind a petticoat and being scourged, ostracised and going down into history a slacker," writes one boy from France to his mother in Kansas. Another says:

"I am glad I am here, and if I had a chance to come back to the States today I would not go, because as long as we are in this war I want to stay."

A third expresses himself even more strongly: "If need be I would gladly give ten years of my life for what I have experienced in the two short months that I have been in France, not to mention how glad I am to be here on such a mission as we all are and to know that you dear people at home are thinking and praying and staking all on us. Just a wee bit of responsibility in an enormously big job that must be done and done right, makes oh! such a difference in the effort and attitude toward the work."

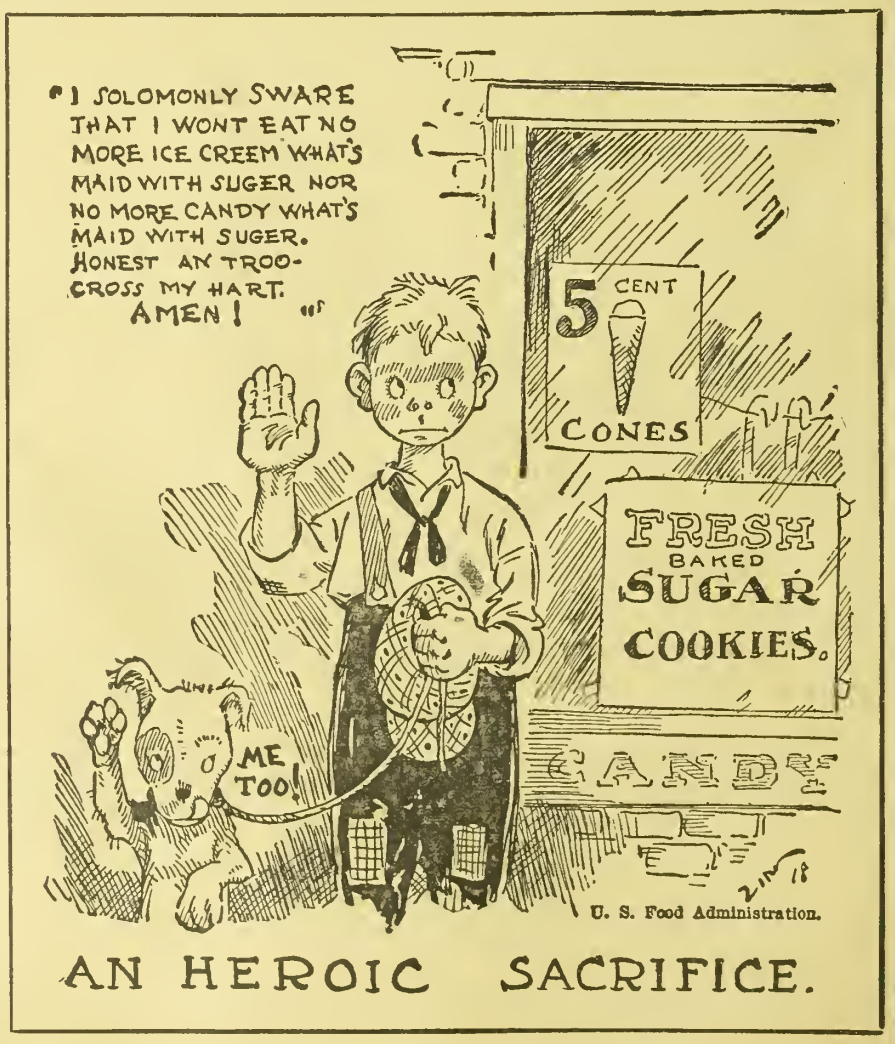
Praises Kansans for Loyalty

Fifteen months ago when we started out across the State of Kansas as Four-Minute Men to carry the message of this war to our homes and our people, we faced some moments of anxiety, for we did not know, except as a matter of confidence in the good, sound judgment of the people of Kansas, what would be the response. Our people were for a moment confused. The smoke of the battle had concealed the deep, underlying causes, and our people did not see the great issues that were at stake. One of the memories that thrill my heart as I think of the visit of the Four-Minute Men to the people of Kansas is the way in which the population of this state vindicated its reputation for loyalty.

This old state put more men into the army during the Civil War than it had voters, and, please God, if they had not said to us that some of us must stay home to do the farming, we would put more men into the army now than we have voters.—DR. EDMUND J. KULP.

In expressing to the American Bible Society his appreciation for nearly a quarter of a million copies of the Scriptures sent for distribution among the soldiers, Marshal Foch writes: "The Bible is certainly the best preparation that you can give to an American soldier going into battle to sustain his magnificent ideal and faith."

"The enemy attacks failed," a Berlin dispatch says. In other words, some of the boches got away.—Jeffersonian Gazette.



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Dept. 242 MILWAUKEE, WISC

THE STRAY LIST.

TAKEN UP—BY J. H. CRANSHAW, Route 5, Rosedale, Wyandotte County, Kansas, on October 3, 1918, one red steer, weight about 1,000 pounds. Branded on left side. Both ears trimmed. William Beggs, County Clerk.

TAKEN UP—BY G. A. HANEY, OF BURlingame Township, Osage County, Kansas, about August 25, 1918, one red yearling steer. No marks or brands. Appraised at $35. Also one red two-year-old steer, no marks or brands, appraised at $55. Wm. Hayson, J. P.

Please Write

"I am enclosing this little poem, because it is the way I feel about letters," writes John H. Nelson, who is one of our Kansas boys Over There:

A letter seems a little thing, but we may never know
The value of the written page to those who need it so—
Your soldier boy in khaki brown, your sailor boy in blue,
The boy across the street from me, the one next door to you;
The lad who marched away last week—the one who counts the days
Till peace on earth shall come again and mourning turn to praise.
Not one of these must we forget; these lads who bravely fight,
And from some trench or camp or ship, would telegraph—
"Please write."

Care of Cream Separator

THE centrifugal cream separator is an indispensable piece of equipment on farms where cows are milked. It gets practically all the butter fat, which is a matter of considerable importance when butter fat is selling at 65 cents a pound. Another thing to remember is that the skim milk from a separator can be used for feed or for human food in ideal condition. Much of the trouble in feeding skim milk before the day of the separator resulted from the fact that the milk was in a sour and spoiled condition before it reached the animal.

Like other machinery, however, the cream separator must be given the proper care. Not only must it be properly handled from the mechanical standpoint but it must be cleaned properly after use. The necessity of absolute cleanliness in caring for the separator is emphasized by Mrs. A. H. Bauer, of Wright County, Missouri, in the Ozark Countryman. She says:

"We are urged to use more skim milk as a substitute for other foods, but I find that the majority of farm people who sell cream rarely ever drink skim milk at meals, and I was at a loss to know why this was true. I was told that separated milk was seldom sweet, and was unpalatable to drink. This deterred me from buying a cream separator, as I felt that we could not afford to buy one if we could not drink the milk.

"However, finding one that cost a sum within our means, I decided to try it for one summer at least. Upon receiving it I read the instructions carefully in regard to caring for it, and have followed these instructions closely, especially in regard to washing the separator after using.

"I have found that practically every one of my neighbors leave their separators unwashed at night, simply flushing it out with warm water after the milk is separated, and running the milk through in the morning without ever taking the machine apart. Now I wash my separator at night, just as soon as we are done separating the milk, and then pour boiling water over the several parts of the cream bowl, and carefully clean every part of the machine. As a result, we have always had clean, sweet milk to drink, even in the hottest weather.

"Perhaps I am fortunate in having a machine that is simple of construction and therefore easily cleaned, but I do not find it any more trouble to wash the separator twice daily than to care for the incubator regularly in the hatching season. The milk is well worth the trouble of keeping the separator strictly sanitary."

Danish Dairy Figures

Due chiefly to shortage of feed, the number of cows in Denmark is expected to decrease by about 100,000 within the next six months. The present estimated number of cows in that country is 950,000, which is about 200,000 less than in the summer of 1917. According to reliable reports received by the U. S. Food Administration the reduction in Denmark's butter supply will exceed two million pounds during the coming year.

Facts like these should remind United States dairymen of the growing dependence of foreign populations on American dairy products. In pre-war years Denmark exported butter to the British Isles which now must look to other sources of supply.

Preparation for Calving

The cow that drops her calf in the fall is usually expected to bear the brunt of production during the long winter months to follow. In order to prepare her to best meet the strain of that period she needs a rest of several weeks' duration just prior to calving. She needs plenty of good feed to get her into the right physical condition. Liberal feeding during this season will build up and strengthen her digestive system which may be somewhat worn by the previous season's milking. The feed should be laxative and somewhat cooling in nature. Wheat or rye is ideal. However, this is not available on all farms. Silage will do very well. If any grain is used, bran is splendid on account of its laxative and cooling tendencies.

In order that the cow shall be in condition to start the winter lactation properly, she should be watched carefully at calving time. If she needs assistance, it should be given. If the afterbirth is retained it should be promptly removed. Garget should be guarded against by seeing to it that the cow is properly cared for and that she is milked out regularly. Likewise milk fever should be guarded against. To have the cow in a thrifty condition after a good rest and to take her through the calving period without mishap of any sort, will go a long way toward securing a profitable year from her.

Heather Meal for Cattle

Continued shortage of feeding stuffs in Denmark has resulted in the use of ground heather as a fodder substitute. The heather is reduced to a coarse flour and when mixed with blood from slaughter houses is used to replace peanut meal, sopra meal and other fodder which can no longer be obtained in Denmark. A mill recently erected for the manufacture of this feed now has a daily output of about 200 bags.

This development in the foreign fodder situation is mentioned by the U. S. Food Administration as showing the ability of other nations to meet difficult conditions imposed by the war. With the greater and more varied natural resources of the United States, our dairymen have the opportunity to exercise equal ingenuity in maintaining production when customary feeds cannot be secured in normal quantities. It is imperative that we prevent all waste of feed as well as of human food. This can be accomplished in large measure by storing fodder and other coarse feeds carefully to prevent loss of nutritive value through weathering.

September Cow Test Report

The Arkansas Valley Cow Testing Association is branching out in its cooperative efforts. A number of the members got together recently and ordered a carload of feed, consisting mostly of hominy feed and oilmeal. The improvement in pastures was quite marked during September and the number of forty-pound cows increased. A new member—Ross Gosney, Mulvane, owner of a pure-bred Holstein herd—was added to the association recently. This association is running strongly to Holsteins. The following table gives the names of the owners and records of the cows in the association which have produced more than forty pounds of butter fat during the period of thirty days ending September 30:

Owner—	Pounds Milk	Per Cent Fat	Pounds Butter Fat
Stubbs Farm, H.	1,806	4.1	74.046
Stubbs Farm, H.	2,130	2.9	61.770
Stubbs Farm, H.	1,761	3.2	56.352
Stubbs Farm, H.	1,431	3.5	50.085
Stubbs Farm, H.	1,698	2.7	45.846
Al Howard, H.	984	4.3	42.312
G. Regier, H.	1,350	3.5	47.250
Dr. J. T. Axtell, H.	1,218	3.6	43.848
Fred Harvey, H.	1,566	3.5	54.810
Fred Harvey, H.	1,371	3.1	42.501
W. M. Spurlock, H.	1,233	3.5	43.155
W. M. Spurlock, H.	1,176	3.5	41.160
W. M. Spurlock, H.	1,095	4.5	49.275
Chas. R. Weede, H.	1,044	5.0	52.200
Chas. R. Weede, H.	1,119	3.7	41.403
Jake Leendertse, H.	1,215	3.4	41.310
P. W. Enns, H.	1,260	3.7	46,620
P. W. Enns, H.	1,134	3.9	44.226
P. W. Enns, H.	1,164	3.5	40.740
Chas. R. Gordon, H.	1,059	3.8	40.242
Walter Craven, J.	1,008	4.5	45.360
Walter Craven, J.	903	4.5	40.635

H stands for Holstein; J for Jersey.

Safe Milk for Soldiers

All milk used by the students' army training corps in the mess halls at the Kansas Agricultural College will be pasteurized in the 100-gallon pasteurizer just installed by the department of dairy husbandry. Pasteurization is a government requirement in the case of milk used in all army mess halls.

Formerly the department here used ten-gallon cans, in which the milk was placed and heated to a temperature of 145 degrees for thirty minutes. The new method will require less work and will insure better results.

The dairy cow requires an ounce of salt a day, and while she should be given all she needs, she should not be forced to take more than she wants. It is best, therefore, to give only a small quantity on the feed, and to place rock salt in boxes in the yard.

Has Faith in President

"No, sah, you needn't think you can escape dis here draft," said colored Mose to his friend. "A man who can take all the railroads of the country in one night and turn them ovah to his son-in-law and who can steal an extra hour of daylight from the Almighty when he needs it, can get whatevah he wants, an' I tell you, niggah, if the President wants you, he's goin' t' get you."

No Peace Without Victory

The feeling of our boys in France in regard to premature peace talk is thus forcibly expressed in "The Stars and Stripes," official newspaper in France of the American Expeditionary Force:

"Let the weak-hearted who are dreaming of a compromise; let the pacifists who are talking of 'peace by agreement'; let the side-liners who have had enough of war; let the secretly-inclined pro-Germans who think this war should end without a decision; let them one and all know once for all that for the American Expeditionary Force there is no such word as 'peace' with the Huns unbeaten. The man who talks peace today, except through victory, is a traitor."

There's nothing to equal the Yankee sense of humor. One of the boys in the trenches, who has evidently been greatly troubled by cooties, says he knows now why the pictures of Napoleon always show him with his hand inside his shirt. —Detroit Free Press.





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HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

DOGS.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

FOR SALE—A FEW HIGH CLASS COON, opossum and skunk dogs. Stamp for reply. A. F. Sampey, 317 East Mt. Vernon St., Springfield, Mo.

POULTRY.

WHITE ROCKS, SIZE AND QUALITY; cockereis only. G. M. Kretz, Clifton, Kan.

FREE — BARRED ROCK EGGS, WHEN wanted, if ordered with six or more cockerels. J. Greiner, Mena, Ark.

FOR SALE—BARRED ROCK COCKERels, layers and winning strain. Farnsworth, 224 Tyler, Topeka.

BARRED ROCK, WHITE WYANDOTTE, Leghorn cockerels. Geese, ducks, guineas. Emma Ahlstedt, Lindsborg, Kansas.

FINE BLACK MINORCAS AND BUFF Orpingtons for sale at reasonable prices. Please order promptly. Frank A. Agnew, South Side, Omaha, Nebraska.

ROSE COMB WHITE WYANDOTTE cockerels, $2 up. Hens and pullets, $15 dozen. Mrs. George Rankin, Gardner, Kan.

LIGHT BRAHMA COCKERELS AND pullets, fine ones, from prize winning strain, $3 each. Mrs. C. H. Jameson, Anadarko, Okla.

ROSE COMB BROWN LEGHORN COCKereis. My early hatch of Kulp strain. Fine birds at $2.50 each. Mrs. Griswold, Tecumseh, Kansas.

DARK RED ROSE COMB REDS, GOOD scoring, greatest laying strain; cockerels, pullets, eggs. Satisfaction guaranteed. Highland Farm, Hedrick, Iowa.

BARRED PLYMOUTH ROCKS, STATE Fair winners. Thrifty farm-raised birds. Cockereis, $5, six for $25; pullets, $2.50. Guaranteed satisfactory. Hiram Patton, Hutchinson, Kansas.

CLOSING OUT SALE S. C. REDS. HAVE for immediate sale about 75. Tompkins cockerels and pullets. Few fine specimens of Mahood strain. Pullets, $3 to $5; cockerels, $3 to $5; on approval. Samuel H. Nite, Garden City, Kansas.

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THE COPES, TOPEKA, ARE PAYING 48c for eggs; turkeys, 25c; hens and springs 22c or better when this is published. Coops and cases loaned free. Prompt, reliable.

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FOR SALE — GOOD FOUR-YEAR-OLD jack, 14 hands. Black with white points. Quick server. Will trade for other stock. H. L. Baird, Whitewater, Kansas.

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NEW 36-POUND FEATHER BEDS, $13.95. A pair 6-pound pillows to match, $2.45. New, live, clean, sanitary feathers. Best ticking. Sold on money back guarantee. Write for free catalog. Agents wanted. American Feather & Pillow Co., Desk 400, Nashville, Tennessee.

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NOTICE — LEATHER TANNING REcipe. Absolute guarantee. Simple ingredients. Cheap. Does not require much labor. Tans all kinds. Eight to fourteen days. Write R. N. Gilley, Carlton, Texas.

HONEY.

FOR SALE—1918 CROP OF HIGH GRADE table honey direct from bees to you. Guaranteed to be absolutely pure. Can containing 60 pounds net, $15 25. On orders for two cans or more the price is $15 per can and the freight is less on shipments of 100 pounds or over. Have dark honey for table or cooking purposes also, which I can recommend as pure and good. Single 60-pound can, $13 or $12.75 each for larger lots. Prices f. o. b. Hotchkiss, Colo. All cans securely boxed and strapped. Frank H. Drexel, Crawford, Colorado.

SHEEP.

FOR SALE — TWENTY-FIVE HEAD OF pure-bred unregistered Shropshire ram lambs; 150 blackfaced ewes, one and two-year-olds; a few registered yearlings and two year-old Shropshire rams. K. Hague, Route 6, Newton, Kan. Phone 5742 Elbing.

MISCELLANEOUS.

FOR SALE—FANCY NO. 1 MINNESOTA Red River Ohio potatoes, $2.50 per hundred; round white, $2.25 per hundred; turnips, 90c per bushel; beets and carrots, 3c per pound; sweet potatoes, $2 per bushel; York Imperial and Ben Davis apples, orchard run, hand picked, ciders out, $1.75 per bushel basket. Buy your winter supply now. Salyer Bros., 1008-1010 North Kansas Avenue, North Topeka.

FOR SALE — POTATOES: NORTHERN Red River Early Ohio, bushel, $1.40; Western White Stock, bushel, $1.35; Northern Cabbage, 100 pounds, $3.25; Sweet Potatoes, Yellow Jersey, bushel, $1.40; Red Onions, Northern, bushel, $1.75. Apples: New York Baldwins, bushel, $1.75; New York Greening, bushel, $1.75; Virginia, York Imperials, bushel, $1.75. Pears: Michigan Keifer Pears, bushel, $2.50. Write us. Hayos Produce Co., Topeka, Kansas.

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WANTED — FIFTY WHITE ESKIMO Spitz puppies, six to eight weeks old. Brockway Kennels, Baldwin, Kan.

WANTED—NEW CROP ALFALFA SEED, Sudan, sweet clover, red clover and timothy. Mail samples to Fort Smith Seed Co., Fort Smith, Ark.

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WANTED—TO hear from owner of good farm for sale. State cash price, full description. D. F. Bush, Minneapolis, Minn.

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TIRES — FORD, $6.50. LARGER SIZES, equally low. "Lowest tube prices." Booklet free. Economy Tire Co., Kansas City, Mo.

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By Bertha L. Hempstead

THERE is no yellow in our Kansas women. No one need any longer to wonder how our American women are going to walk now when it is our time to tread the crimson lane of war.

"I won't cry and make a mess of our good-by," a young woman repeated over and over, as she waited for her young husband in the great parlor of the Camp Funston Y. W. C. A. hostess house. The husband was to leave the next day on the long journey from which he might not return. The tears made little zigzag lines on her fresh young cheeks. "I have thirty minutes," she said, "to make a complexion before he gets here."

Then a rush of feet sounded on the steps, a door was flung open, and the wife was in her husband's arms. He had taken a short cut to the hostess house and saved a half hour by running all the way. He saw her tears, and his hand shook as he picked up the suitcase at her side. Down went her face into her handkerchief, and a series of sneezes gave the appearance of verity to her assertion that hay fever was upon her.

The couple had no sooner left the house than a young man strode to the desk of the secretary, who daily stands up for hours under a barrage of interrogation points and other people's troubles. "My mother," he said, "is probably waiting in the railway station somewhere for me. I can't get away to meet her. Could you get her up here to me? I know she will sit right there until the judgment day unless someone brings her here, because I told her I would be there."

The search began for the boy's mother. She was not at the station. Telephone calls were sent up the line to the hotels in the neighboring towns, and three depots were paged for her. Then the association automobile was sent out for her, and the driver found her trudging down the track toward the camp. She had ridden on past the camp to the next station, and in order to keep her appointment with her son, had begun the long walk back.

Not a day passes at the camp hostess house but hundreds of soldiers pass through its doors, and some days thousands of visitors make the house their headquarters while they visit the boys. A sensible, comradely young woman stands behind the information desk, answers questions, directs visitors, looks up the men for their friends, and looks up friends for the men. She mends torn sweaters, she arranges for weddings to take place at the hostess house, sees after getting marriage licenses, arrays the bride and puts up festal decorations, and telephones for a minister. She comforts the homesick lads, and she breaks the news of death and wounds to mothers and wives and sisters.

The hostess house is the newest expression of a wish to help the soldier and his family—a wish that belongs to America more than to the older countries with their military traditions. In the early days of the war an American officer called into council a group of women and asked them to give him a plan for some camp arrangement where the men could meet their women and where the boys themselves could find a touch of home life. A representative of the Y. W. C. A. was sitting at that council table, and offered there the services of her association, with its professional architect and its fund in the treasury. That night a telegram was sent to headquarters to have the woman architect of the association and a business secretary sent out to the camp. Within thirteen days the first hostess house in the world was completed, at a cost of $10,000. Since that time every request that has come from camps in America has met the same prompt response. American camps now have completed, or in course of construction, 100 hostess houses, planned, furnished and "manned" by the Y. W. C. A.

In duties that require every womanly gift, from diplomacy to elbow grease, the Y. W. C. A. women are doing their part to win the war, and the hostess house is only one of half a dozen phases of their patriotic service.

American women are proving already that they have the persistent strength of their English cousins, and the idealistic, flaming courage of the French.

— OTTAWA —
Business College
OTTAWA, KANS. CATALOG FREE

Soldiers' Christmas Presents

The unrestricted sending of holiday presents to every one of the two and a half million soldiers who will be in France during the holiday season this year would result in a flood of gifts which would make the handling of them impracticable. But the War Department has made an arrangement with the Red Cross to deliver one package to each man. General Pershing is forwarding coupons bearing the name and address of each member of the expeditionary force, to be distributed to the next of kin.

These coupons must be attached to standard containers, nine by four by three inches in size, which will be provided by local Red Cross chapters upon application.

All packages must be mailed before November 15, as weeks will be required to get them to ports of embarkation, across the Atlantic and to the various places in France where men are stationed.

Care of Shoes

The following suggestions as to the care of shoes are made by the Department of Agriculture. Shoes should be oiled and greased whenever the leather begins to get hard and dry. They should be brushed thoroughly and then all the dirt and mud that remains washed off with warm water, the excess water being taken off with a dry cloth. While the shoes are still wet and warm, apply the oil or grease with a swab of wool or flannel. It is best to have the oil or grease about as warm as the hand can bear, and it should be rubbed well into the leather, preferably with the palm of the hand. If necessary the oil can be applied to dry leather, but it penetrates better when the leather is wet. After treatment the shoes should be left to dry in a warm, not hot, place.

Castor oil is satisfactory for shoes that are to be polished, for plainer footgear neatsfoot, fish oil, or oleine may be substituted. If it is desired to make the shoes and boots more waterproof, tallow may be added to any of these substances at the rate of one-half pound of tallow to a pint of oil. The edge of the sole and welt should be greased thoroughly. Too much grease cannot be applied to these parts. To make the soles more durable, pliable and water-resistant, swab them occasionally with linseed oil, setting them aside to dry over night. It is poor economy to wear shoes with run down heels. They throw the shoes out of shape, and are also likely to injure the foot.

Bread Pudding

2 cupfuls stale bread crumbs
4 cupfuls scalded milk
½ cupful sugar
¼ cupful butter—or other fat
2 eggs
½ teaspoonful salt
1 teaspoonful vanilla

Soak bread crumbs in milk, let cool. Add the sugar, butter, salt and flavoring to the eggs, which have been beaten slightly. Pour mixture into a greased casserole and bake one hour in a slow oven.

Variation—Two squares melted chocolate, raisins, currants, or chopped prunes may be added. — MIRIAM M. HAYNES, Colorado Agricultural College.

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Hens Need Fresh Air

IF THERE is any one thing that laying hens need in order to lay their maximum and be in good condition to lay hatchable eggs, it is fresh air. The hen hreathes about five times as much air per pound as any of the other farm live stock, and thus again we see the necessity of fresh air. Since the hen has no urinary organs whereby she can dispose of the surplus moisture taken into her body in food and drink, she must get rid of it some other way. And the way provided by Nature is through the air given off by the lungs. Now if there is not sufficient fresh air in the house, the air soon becomes laden with moisture, it is deposited on the walls, roof, and on the floor. The litter soon becomes damp, the birds are very apt to contract colds or roup, and their general health is greatly impaired.

The best way to get fresh air into the henhouse is through the open front. This should be on the south side, should not extend nearer than two and a half feet to the floor and should extend up to the plate. There should he one-eighth as much open front as there is floor space, and if this amount is provided, there should he no moisture in the house, and no frost in the winter. A frame on which is tacked muslin sheeting will serve to close the open front.

Poultry House Plan

A poultry house designed by the poultry department of the Missouri College of Agriculture is heing found most satisfactory for the average farm flock. It is twenty feet square. The ridge of the roof runs north and south, the roof heing of equal spans. The side walls are five feet at the eaves. It is eleven feet high at the peak. The door is placed in the middle of the south end and a window two feet by three is placed on each side of the door. The windows are high enough from the floor to afford space for a thirty-inch opening beneath, this opening heing one foot ahove the floor and extending the entire length each side of the door. It is covered with wire screen, which keeps the hens in and the sparrows out. There are two-by-three windows on the east and west sides also. In the north end is a six-light eight-hyten-inch glass window next the floor. With light from every direction the hens do not scratch the litter constantly toward the same direction.

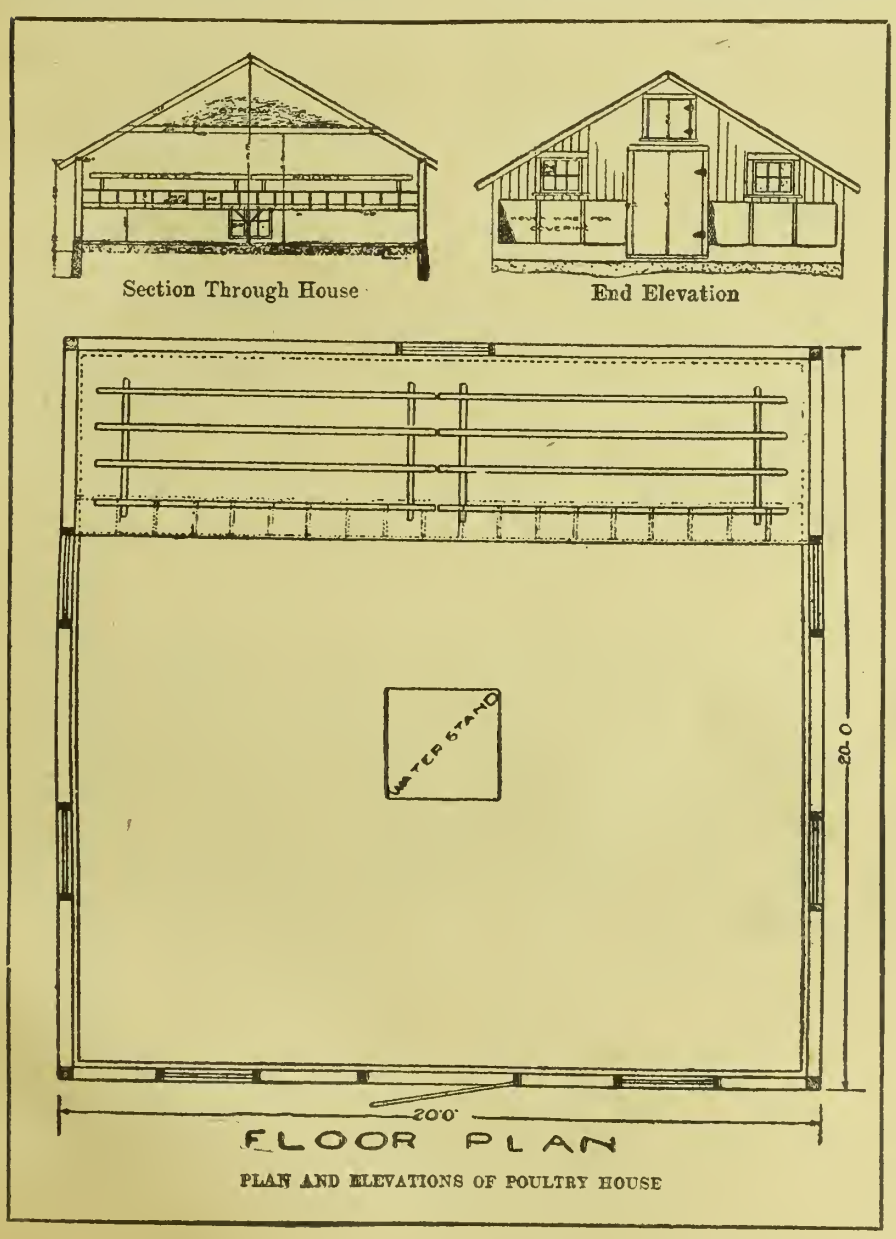
Having openings on all sides this house can be well ventilated during the summer season. In the winter time the ventilation is all through the opening under the windows in the south end.

The collar heams are just high enough to afford head room. Four-inch hoards are laid over them two inches apart. This forms a loft which can be filled with straw. The straw ahsorbs moisture and helps keep the house dry. It also makes it warmer in winter and cooler in summer. The illustrations will help to understand the plan of this poultry house.

Increased Egg Consumption

Reports on the nation's egg supplics lately received hy the U. S. Food Administration show that the numher of eggs in storage in the United States on July 1 was practically the same as on July 1, 1917. With this condition, it is interesting to note that consumption had increased ahout 17 per cent, indicating that production must also have increased in about the same degree. Imports and exports are a negligihle factor compared with the enormous size of the egg trade within the United States.

Prices received hy producers for eggs have been gratifying, according to reports from the country egg markets, and poultry markets are still short of birds, due, it is believed, to the high level of egg prices.



PLAN AND ELEVATIONS OF POULTRY HOUSE

Cure for Scaly Leg

Scaly leg is a disease favored hy foul conditions, especially foul roosting quarters. Its specific cause is one of the mites which in horing into the legs of the birds causes the scales to he raised and underneath them is deposited a crusty suhstance. The easiest remedy to apply and one of the best, is to use one part of kerosene to two parts of raw linseed oil. Put this in a pail and dip the birds' feet and legs into the liquid. The feathers should not be wet.

Poultry Tours Popular

Poultry tours are heing carried out in Kansas counties under the direction of Ross M. Sherwood, extension specialist in the Kansas Agricultural College. The purpose is to increase food production hy keeping more poultry on farms.

On recent trips in Nemaha and Washington counties much interest was taken by women who on many Kansas farms have charge of the poultry raising.

Necessity for increasing the poultry industry of the United States is emphasized hy Canadian food reports. According to a recent announcement of the U. S. Food Administration, storage holdings of fowls in Canada on August 1, 1918, were so small as to be almost negligihle. The decrease since last year exceeds 94 per cent.

FARM AND HERD.

Many stockmen familiar with the Martin Brothers Stock Farm of Marion County may not associate the Democratic candidate for Congress from the Second District with this firm. Henderson S. Martin was at one time an active member. At the time of his connection they were quite prominently known as breeders of Poland China hogs and Shorthorn cattle. They have shown hogs quite successfully at both Topeka and Hutchinson. Too seldom do we nominate men for Congress having live stock or farming interests, and almost never put up men actively engaged in farming.

W. R. Huston, of Americus, Kansas, owner of one of this state's greatest herds of purebred Duroc Jersey swine, reports his herd doing fine. This year Mr. Huston raised the best lot of spring pigs in the history of his herd and they have made a fine growth. These pigs were sired by Great Wonder 2d, one of the best sires of the breed now in service, and are out of dams by such boars as Taylor's Model, Chief Miami, winners at Missouri and other state fairs, and other great sires of the breed.

The Poland China sale advertised by Dr. J. H. Lomax for October 16 and postponed on account of the Spanish influenza epidemic, will be held at the farm near Leona, Kansas, October 29.

George S. App, of Archie, Missouri, owner of one of Missouri's high class herds of registered jacks and jennets, reports his herd doing well and young stock growing out fine. The blood lines of Mr. App's herd include the breeding of a number of famous sires, and a feature of the herd at present is the fine lot of big young jacks and jennets that have been developed in a way that insures good herd material.

H. H. Holmer, of Topeka, and A. L. Harris, of Osage City, Kansas, have announced Saturday, November 23, for their public sale of fifty head of Shorthorn cattle. The sale will be held at the fine stock pavilion at Kansas City, Missouri, on Saturday, the last day of the American Royal Stock Show. Mr. Holmes and Mr. Harris have been exhibitors at the leading state fairs for several years and they have been awarded high honors on the state fair circuit from Iowa to Oklahoma. The offering in this sale will include a part of the show herd on exhibition this year, which will consist of a very select lot of females bred to leading herd bulls or with calves at foot. A feature of the sale offering will be several outstanding young herd bulls by the noted show and breeding bull, Prince Valentine 4th, a bull successfully used in the herd of Mr. Holmes and now at the head of Mr. Harris' herd at Osage City, Kansas.

Charles Morrison & Son, of Phillipsburg, Kansas, owners of the famous Phillips County herd of Red Polled cattle, report their herd doing well. They report good pasture and plenty of feed in their locality, having had plenty of rain during the summer. Morrison & Sons' herd of Red Polled cattle was established over twenty years ago and many of the best herds in the country were started with foundation stock from their herd. A feature of their herd at this time is the choice lot of young cows and heifers and young bulls. They also have a good herd of Poland China hogs.

F. B. Wempe, of Frankfort, Kansas, owner of one of the best herds of pure-bred Hampshire hogs in the Southwest, reports his herd doing well and young stock growing out well. Mr. Wempe's herd is noted for the large number of prize winners it has produced. His show herd never fails to win a large share of ribbons at the leading fairs. This year his winnings at the Topeka Free Fair in strong competition included the silver trophy on best pair of pigs under six months and best four pigs under six months. Many of the good herds of Hampshires in the Southwest were started with foundation stock from this herd.

The Duroc boar sale of John W. Petford, Saffordville, Kansas, October 14, resulted in the dispersal of twenty-two head of spring boars at an average of $63.20. The sale was disappointing to Mr. Petford on account of the quarantine put on over the state. About thirty farmers and breeders went out to the farm and bought this number. Mr. Petford has announced February 26 for his bred sow sale. On this date sixty head of high class Duroc Jersey bred sows and bred gilts will be offered. They are richly bred and will be mated with the trio of good boars now on the Petford farm.

F. J. Moser, of Goff, Kansas, announces November 7 for his annual fall sale of Durocs. On this date Mr. Moser will offer thirty-five head of large spring boars and ten head of March and April farrow gilts. The offering will be sired by the great boars, Defender Top, Col. Highview, Chief Col., Rajah's Disturber, and Illustrator Orion King. Mr. Moser has some of the best blood lines known to the Duroc breed. The offering of boars and gilts to be sold on November 7 will be a high class lot and splendid specimens of the breed.

George W. Ela, of Valley Falls, Kansas, owner of the famous Halcyon herd of purebred Hampshire hogs, reports his herd doing well. Among the recent sales reported by Mr. Ela is the sale of fifteen choice boar pigs to the 101 Ranch. Mr. Ela will breed a large number of carefully selected sows and spring gilts for spring farrow. A feature of his herd at this time is the extra good lot of spring boars.

Herman Gronniger & Sons, of Bendena, Kansas, have announced October 30 for their annual Poland China boar sale at the farm. On this date they will offer forty head of large March and April farrow Poland China boars that are sired by the great breeding boars, Futurity Rexall, Wonder Price, Big Bob 2d, and Big Wonder Hadley, four of the well known sires of the breed.

E. D. Scott, of Udall, Kansas, has announced November 9 as the date of his dispersion sale of Polled Durham cattle. Sixteen choice cows and heifers, five heifer calves and a richly bred outstanding herd bull will be catalogued for this sale.

Charles A. Tilley, of Anasdale Farm, Frankfort, Kansas, owner of one of the high class herds of pure-bred Jerseys in Kansas, reports his herd making a good record again this year. Mr. Tilley's herd is made up of producers that are backed by records and a feature of his herd is the fine lot of record bred young stock.

Mahlon Groenmiller, of Pomona, Kansas, owner of one of the best herds of Red Polled cattle in the Southwest, reports his herd making a good record this year. The blood lines of Mr. Groenmiller's herd are the best of the Red Polled breed and many of the best herds of the breed were started with foundation stock from his herd. A feature of the herd at this time is the fine lot of young breeding stock.

M. C. Pollard, of Carbondale, Kansas, announces November 6 for his annual fall sale of Poland Chinas. On this date Mr. Pollard will offer fifty-six head of large, husky spring boars and spring gilts sired by such boars as Jumbo Bob, Giant Jones, Broadus' Expansion and other good boars. This is a choice lot—the pick from the spring crop of pigs.

S. M. Knox, of Knox Knoll Stock Farm, Humboldt, Kansas, reports his fine herd of pure-bred Mulefoot hogs doing well. Mr. Knox owns one of the largest herds of Mulefoot hogs now assembled. He now has 264 head, including all of the popular blood lines of the breed. His show herd won a large number of ribbons at the leading fairs this year and his winnings included many first prizes. A feature of his herd at this time is the extra fine lot of young stock.

T. T. Langford & Sons, of Jamesport, Missouri, owners of one of the famous herds of old original Spotted Polands, report their herd doing well and a good demand for Spotted Poland herd material. A feature of their herd at this time is the fine lot of summer pigs by the great boars in service in the Langford herd and out of their choice herd sows.

Henry Koch, of Edlna, Missouri, owner of the famous White Oak Park herd of big-type Polands, reports his herd doing well and young stock growing out fine. Mr. Koch's herd is one of the best big-type herds of Polands now assembled, and a number of the greatest sires of the breed have been used in this herd. At present he is using the 1,100-pound Missouri Jumbo and Surprise Wonder. These two boars are among the best sires of the breed in use at this time. His herd of Poland China sows has few equals, being made up entirely of daughters of the breed's greatest sires. Mr. Koch will hold his annual bred sow sale in February. The date will be announced later.

A bond slacker is the kaiser's backer.

Wonderful Egg Producer

Any poultry raiser can easily double his profits hy doubling the egg production of his hens. A scientific tonic has heen discovered that revitalizes the flock and makes hens work all the time. The tonic is called "More Eggs." Give your hens a few cents' worth of "More Eggs" and you will be amazed and delighted with results. A dollar's worth of "More Eggs" will douhle this year's production of eggs, so if you wish to try this great profit maker, write E. J. Reefer, poultry expert, 9077 Reefer Building, Kansas City, Mo., who will send you a season's supply of "More Eggs" Tonic for $1.00 (prepaid). So confident is Mr. Reefer of the results that a million dollar bank guarantees if you are not absolutely satisfied, your dollar will be returned on request and the "More Eggs" costs you nothing. Send a dollar today or ask Mr. Reefer for his free poultry book that tells the experience of a man who has made a fortune out of poultry.—(Adv.)

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ALL GOOD ONES

SIRES—High Orion, King's Pathfinder Jr., Ideal Pathfinder.
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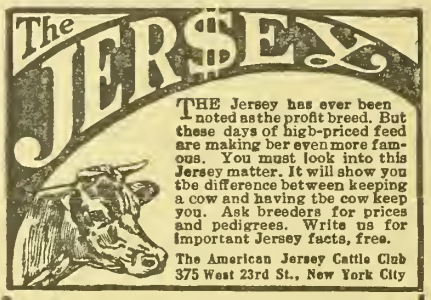

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On account of shortage of help I have decided to sell my entire herd at private sale, without reserve, consisting of **40 Registered Cows and Heifers**, mostly all with A. R. O. records up to 26 pounds in 7 days; **40 Fancy Young High Grade Cows**, exceptionally well marked, some fresh, balance will freshen in next 40 days, $115 to $135; **50 Fine Thrifty Large Two-Year-Old Heifers** due in October and November, $90 to $110; **65 Fine Growthy Yearlings** from 15 to 20 months old, bred to freshen from December to February, $65 to $80. All stock bred, in calf to registered bulls. This herd is absolutely clean and guaranteed free from abortion and tuberculosis and will be sold as represented. Will sell with purchaser's privilege of 60-day retest. Descriptive catalog on registered stock ready Oct. 1. **Magee Dairy Farm, Chanute, Kan.**

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Fifty Cows in Milk, good ages.
Fifteen Registered Bulls, some are from King Segis Pontiac breeding and good enough to head herds.
Twenty-five Registered Cows and Heifers, several A. R. O. breeding.
Will price a few grade heifer calves at $30, express paid. Your money back if not satisfied. Can ship by Missouri Pacific, Santa Fe, or Rock Island. Come and see me.
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Pearl Shorthorn Herd

One of the oldest and strongest herds in the West, Scotch and Scotch-topped reds and roans. Twenty head young bulls ready for service. Fifteen last spring bull calves by Orange Lovel 420052, a Victor Orange bred bull; Village Heir 492857 by Imported Village and Marengo Pearl 391962. All these calves are out of good useful cows.
C. W. TAYLOR - ABILENE, KANSAS

SHORTHORN BULLS
For Sale — Ten bulls, seven to fifteen months old; Scotch and Scotch topped. Two Scotch bulls by Type's Goods, one a Brawith Bud, the other a Duchess of Gloster. All in good condition and priced reasonably.
S. B. AMCOATS, CLAY CENTER, KANSAS
Write Me Your Wants

MARKS LODGE RED SHORTHORNS
For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.
M. F. MARKS, VALLEY FALLS, KANSAS

FOR SALE—GOOD REGISTERED SHORTHORN BULLS
PAUL CASHATT, OSKALOOSA, KANSAS

BREEDERS' DIRECTORY
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
HEREFORD CATTLE
F. S. Jackson, Topeka, Kan.
RED POLLED CATTLE
Mahlon Groenmiller, Pomona, Kansas.

GUERNSEY CATTLE.

$15 Holstein or Guernsey
CALVES

From Waukesha County heavy producing stock. Write us today, we guarantee to satisfy you.
RIVERDALE FARMS, Oconomowoc, Wis.

GUERNSEY BULLS
Herd bull, Hermes of Midvale. His first two pure-bred daughters to freshen made A. R. records. A third daughter just fresh is very promising. Other young pure-bred bulls for sale, two of which are old enough for light service. Write for prices and breeding.
RANSOM & KISSINGER, Homewood, Kan.

GUERNSEY BULLS
Good individuals of serviceable age, of May Royal, May Rose, Masher Sequel, Raymond of the Preel breeding. Write or come and see them.
ADAMS FARM, GASHLAND, MISSOURI
Twelve miles from Kansas City.

GUERNSEY HEIFERS
Three registered Guernsey heifers for sale. Two due to calve in November. All well bred, one imported.
L. W. GOSS, K. S. A. C., Manhattan, Kan.

FARM AND HERD.

J. D. Buller, Stockham, Nebraska, owner of one of Nebraska's good herds of Durocs, reports his herd doing fine. Mr. Buller's herd was founded eight years ago with foundation stock from the best herds in existence at that time. He now has one of the choice herds of big-type Duroc sows headed by Golden Critic, a very fine individual and one of the good sires of the breed now in service. He is a grandson of Golden Model 2d and also a grandson of Critic B. This year Mr. Buller raised a very fine lot of spring pigs. Among them are litters by such boars as Critic B, Orion Cherry King, Buller's Illustrator 2d, Golden Model 31st and Uneeda Critic B.

Updegraff & Son, of Riverside Farm, Topeka, report their fine herd of big-type Polands doing fine. They own one of the good big-type herds in this state. The herd is made up of individuals representing the greatest sires of the breed. Sows of King of All, Big Orange, and Big Bob Wonder breeding will be found in this herd. They also have a number of sows in the herd by Riverside Wonder by Big Bone Jr. and out of a Big Bob Wonder dam. A feature of their herd at this time is the fine lot of young stock, including spring boars by Gerstdale Jones Again and R Wonder and out of the choice dams of the herd.

John D. Henry, of Lecompton, Kansas, owner of one of the great herds of Poland China hogs in Kansas, reports his herd doing well and young stock growing out fine. This year he raised a choice lot of spring pigs sired by Mammoth Orange, Smooth Prospect and Big Bob 2d, and out of sows sired by the best sires of the breed. These pigs will now average 175 pounds. They are the big, growthy, easy feeding kind. The lot includes a number of choice herd boar prospects and a lot of gilts that are great brood sow prospects.

J. E. Beckendorf, of Walnut, Iowa, owner of one of the famous herds of pure-bred Hampshire hogs, reports his herd doing well and a good demand for high class Hampshire breeding stock. Mr. Beckendorf owns one of the best Hampshire herds now assembled. His show herd has been a constant winner at the leading fairs for years and many of the prize winning herds over the country were started with foundation stock from his herd.

D. S. POLLED DURHAM CATTLE SALE, NOVEMBER 9

It being necessary for me to return to Illinois, I offer my herd bull, sixteen cows and heifers, and four bull calves, at public sale. Write for catalog.

Lafe Burger, Auctioneer **E. D. SCOTT, UDALL, KANSAS**

Poland China Sale

Immuned Boars and Gilts

FEATURING THE GET OF

JUMBO BOB 301721, the good two-year-old son of Big Bob Wonder, dam Miss Jumbo Ex by Expansive.

MYERS' JOE ORANGE 301727, a choice yearling by Maple Grove's Black Orange by Maple Grove's Orange out of Miss Joe Wonder by Mc's Big Joe.

In the Sale Pavilion at the State Fair Grounds,

Hutchinson, Kansas
Friday, November 1

FIFTY HEAD

Twenty Spring Boars, Four Tried Sows, Five Fall Gilts, Twenty Spring Gilts

Big stretchy spring boars and real brood sow prospects in spring and fall gilts by the new sires mentioned above and out of daughters of Mellow Bob, Mc's Big Joe, Panor Ex, Columbus Defender and Maple Grove's Black Orange.

Five toppy boars and a choice gilt by Maple Grove's Big Bob out of a good daughter of Blue Valley Timm.

The massive JUMBO BOB 301721 by Big Bob Wonder sells also. A proven sire of real merit.

SPECIAL ATTRACTIONS IN FOUR TRIED SOWS

MISS WEBB, a September two-year-old by Panor Ex out of Orphan Rose by The Big Orphan.

GOLDIE, a March two-year-old by Columbus Defender, dam King's Girl by Massive King.

MISS BOB, an April yearling by Jumbo Bob out of Goldfinch by Columbus Defender.

LADY JOE ORANGE, a spring yearling by Maple Grove's Black Orange out of Miss Joe Wonder by Mc's Big Joe.

E. B. MYERS, HUTCHINSON, KAN.

Auctioneers—Cols. Price and Snyder

When writing for catalog please mention Kansas Farmer.

Shorthorn Breeders' Sale

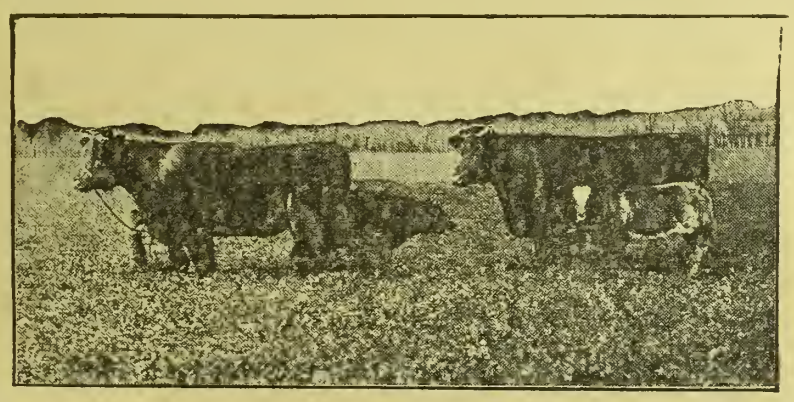
SELECT DRAFTS FROM TEN GOOD HERDS AT

Peabody, Kans, Nov. 8. 1918

SEVENTY HEAD—Fifty Cows and Heifers, Twenty Bulls
HIGH CLASS BREEDING CATTLE

Strong in the Blood of the Great Sires and Dams of the Breed

From the herds of O. A. Homan & Son, Peabody, Kansas; T. P. Wilson, Peabody, Kansas; S. M. Converse, Peabody, Kansas; B. F. Taylor, Peabody, Kansas; V. O. Johnson, Aulne, Kansas; J. R. Ely and A. J. Dale, Aulne, Kansas; Park Salter, Wichita, Kansas; and John Regier, Whitewater, Kansas.



Seventy Head of Choice Breeding Cattle, Cows and Heifers and a Few Young Bulls old enough for service

This sale should be of interest to all farmers and breeders of Shorthorn cattle.

Get the catalog. It is ready to mail out and is full of valuable information of the sale offering. Write at once to

O. A. Homan, Sales Manager, Peabody, Kans.

Auctioneers—Theo. Martin, Fred Graham, Boyd Newcom, Herman Lowen

(Sale in comfortable barn right in town)

POLAND CHINAS.

LOMAX POLAND CHINA SALE

At Farm Near Leona, Kansas, October 29, 1918

FORTY HEAD BIG GROWTHY POLANDS. This sale originally advertised for October 16 and postponed by order of State Board of Health on account of Spanish Influenza epidemic. Sale at farm 2½ miles southwest of Leona, Kansas.

DR. J. H. LOMAX

POLAND CHINAS



Faulkner's Famous Spotted Polands

THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.

Pioneer Herd Poland Chinas

For Sale—Ten outstanding spring boars by A Wonderful King and Logan Price. Twenty-five farmer boars, priced reasonable. Bred sow sale February 18, 1919. Send for catalog.

F. Olivier & Son, Danville, Ks.

Erhart's Big Polands

A few fall boars ready for hard service. Can spare two tried herd boars. Have the greatest showing of spring boars we have ever raised. Some by the 1,250-pound A Big Wonder. Will make prices on pairs and trios. Write me your wants. All immune.

A. J. ERHART & SONS. NESS CITY, KAN.

Morton's Poland Chinas

For Sale—Twenty-five choice boar pigs, sired by Morton's Giant by Discher's Giant and Girstdale Jumbo by Girstdale Jones, out of my best herd sows. Priced reasonable. Write or come and see my herd.

GEORGE MORTON

Oxford : Sumner County : Kansas

BIG TYPE POLAND CHINAS

Thirty Extra Nice Spring Boars ready for fall service by "Gerstdale Jones Again" and "R Wonder," $40, $50 and $60. Send check. If pig doesn't please you, will return your money. All immuned.

Riverside Farm, Route 6, Topeka, Kan.

White Oak Park Polands

Twenty Spring Boars for Sale by the 1,100-pound Missouri Jumbo and Surprise Wonder. Three of the tops at $75, the rest at $50. All cholera immuned and will be recorded in buyer's name. I have two full brothers to Northern Jumbo, the first prize and reserve grand championship pig. All sales guaranteed as represented or your money back.

HENRY KOCH - EDINA, MISSOURI

Oxford Herd Poland Chinas

Herd boar, Giant Lunker by Discher's Giant out of Lady Lunker. I have 57 early spring pigs. A few choice boars. Priced to sell. Come and see me; I can please you.

Howard R. Wenrich

Oxford - - - - Kansas

H. O. Mott's Poland Chinas

For Sale—Fifteen spring boars and ten spring gilts, priced for quick sale at $35 to $50. First check gets choice. Guaranteed right or money back.

H. O. Mott, White City, Kansas
R. F. D. 4

Henry's Big Type Polands

March and April pigs sired by Mammoth Orange, Smooth Prospect and Big Bob 2d, out of sows the best of big type breeding. Everything immune.

John D. Henry, Route 1, Lecompton, Kansas

LANGFORD'S SPOTTED POLANDS — Summer pigs ready to ship. Some read herd prospects. **T. T. Langford & Sons, Jamesport, Mo.**

HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that weigh and win. S. C. Brown Leghorn Chickens that lay. See or write

S. Y. BURKS, BOLIVAR, MO.

TOWNVIEW HERD POLAND CHINAS

For Sale—Choice lot spring boars. All gilts reserved for February bred sow sale. Herd boars, King Wonder's Giant, Walter's Expansive Sid, Big Timm Joe.

CHAS. E. GREEN - PEABODY, KANSAS

LONE CEDAR POLANDS

Strictly big type March and April pigs, either sex. Nothing but tops shipped. Prices reasonable. Guarantee to please. All cholera immune. **A. A. MEYER, McLouth, Kansas.**

AUCTIONEERS.

FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. **VALLEY FALLS, KANSAS**

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri

SHROPSHIRE SHEEP



FOR SALE

A bunch of good big Registered Shropshire Bucks, not high in price. Also registered ewes.

Howard Chandler, Chariton, Ia.



SHROPSHIRES—BRED EWES

Won 2 champions, 7 firsts and silver cup at 1918 Iowa State Fair **Weight and Wool Win.** Yearling rams and ewes bred to imported prize winning rams for sale at farmers' prices. **C. W. & Frank Chandler, Kellerton, Ia.** (80 mi. from St. Joseph)

HAMPSHIRE HOGS

Hampshires on Approval



Choice spring boars and gilts weighing up to 200 pounds. Two prize winning fall boars weighing 350, also fall pigs. My herd won nine champions, twenty firsts and twenty-seven seconds at the two Kansas State Fairs. Best of blood lines.

F. B. Wempe, Frankfort, Kan.

BECKENDORF'S HAMPSHIRES

I AM NOW OFFERING a grand lot of big, heavy-boned boars and gilts, sired by as good herd boars as money can buy. Every hog shipped a good one or he can be returned. Inspection invited. Write or telephone at my expense.

J. E. BECKENDORF, Box 144, Walnut, Iowa

Registered Hampshire Hogs—Sows and Spring Gilts, bred or open. Choice spring boars. Double treated. **Geo. W. Ela, Valley Falls, Kansas**

CHESTER WHITE HOGS

Frost's Big Smooth O. I. C.'s

Forty Spring Pigs, Two Yearling Boars and 100 Early Fall Pigs.

All from prize winning blood and priced for quick sale. Write us today.

S. D. & B. H. Frost, Route 2N, Kingston, Mo.

MULEFOOT HOGS.

KNOX KNOLL MULEFOOTS

Thred sows, spring gilts and boars. Weaned August pigs. Priced for uick sale. Satisfaction guaranteed. Free catalog.

S. M. KNOX - - HUMBOLDT, KAN.

GALLOWAY CATTLE.

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

RED POLLED CATTLE.

RED POLLED CATTLE

For Sale—Four-year-old herd bull. Some extra good cows to calve in winter and early spring. A few yearling heifers.

I. W. POULTON - MEDORA, KANSAS

FOR SALE

Red Polled cows, heifers and bulls. Special price if taken at once.

W. J. HARRISON - AXTELL, KANSAS

RED POLLS, BOTH SEXES, BEST OF BREEDING.

Charles Morrison & Son, Phillipsburg, Kan.

HORSES AND MULES.

PERCHERON-BELGIAN-SHIRES

Registered mares with colts at side and bred again; registered fillies, stallions one to five years old; grown ourselves the ancestors for five generations on dam side. Sires imported.

Fred Chandler, R. 7, Chariton, Iowa
(Above Kansas City)



PERCHERON STALLIONS

Some good young stallions sired by Algare and Bosquet, two great herd sires. These young stallions are very promising and priced to sell.

D. A. HARRIS - GREAT BEND, KANSAS

JACKS AND JENNETS

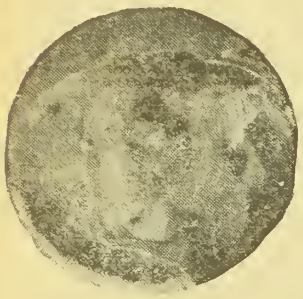
Registered Jacks and Jennets. Good individuals, good colors. Have some choice young jacks that are priced to sell quick.

GEO. S. APP, ARCHIE, MISSOURI

When writing advertisers, please mention KANSAS FARMER.

REDUCTION HEREFORD SALE

At Marion, Kans., November 14, 1918



100 HEAD HEREFORDS 100 HEAD

SEVENTY-FIVE COWS AND HEIFERS, A NUMBER BRED TO BUDDY L.

Twenty-five Selected Herd Bulls of Serviceable Age. Two carloads of Range Bulls, two and three years old.

They are a useful lot of working cattle, farm grown, that will make good on any farm with a little care. Sale will be held right in town. Please send for catalog and come to sale. Write today for catalog to



Auctioneers—Col. Miller, Col. Garten, McLinden, Lowe and Carson

Paul E. Williams, Marion, Kansas

FIRST ANNUAL POLAND CHINA SALE OF

Gypsum Valley Herd Polands

Featuring the Get of Giant Bob by Mellow Bob, Wonder Timm by Big Timm

GYPSUM, KANSAS

Thursday, Oct. 31, 1918

An attractive bunch of Boars and Gilts by these great sires. Other attractive lots by

Caldwell's Big Bob, McGath's Big Orphan, A Big Wonder, Bob Quality, Giant Jones, Kansas Wonder, Captain Gerstdale Jones, and Mammoth Jones

An offering of splendid individuals, royally bred, for farmers and breeders wanting to improve their herds.

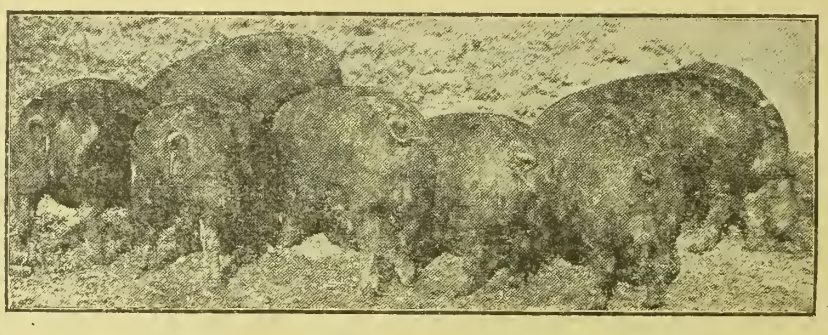
We want you at this sale, and solicit your attendance strictly on the merits of the offering. As we have no mailing list, we ask that you send in your name early, so the catalog will be sure to reach you. We guarantee a good offering and invite all to come. Inspection of herd invited.

EVERYTHING IMMUNED. WRITE FOR INFORMATION

Adams & Mason, Gypsum, Kan.

Poland China Sale

Seneca, Kansas. November 7



SEVENTY HEAD OF LARGE POLAND CHINAS

Consisting of one herd boar, Schmitz Bros.' Goliath, a tried sire; five fall yearling boars, all sired by Jumbo Bob, real herd headers. One is Victory Bob, a litter mate to Liberty Bob, a futurity prize winner that sold for $500. Thirty-six spring boars and twenty-six spring gilts. All immune.

We are selling the very best from our entire spring crop of pigs. They are large and growthy and will please the most critical purchaser.

CATALOGS ARE READY TO MAIL OUT

Please send for one and arrange to attend two days' sale at one expense.

Ketter Bros. Sell November 8 at Seneca, Kansas

Schmitz Bros., Seneca, Kansas

POLAND CHINA HOG SALE

AT SENECA, KANSAS, NOVEMBER 8, 1918

FORTY HEAD

Twenty-Four Spring Boars and Sixteen Spring Gilts

We are selling the pick from our spring crop of pigs. There will be nine boars and four gilts by our herd boar, Orphan Ben (one litter by Orphan Ben and out of the great sow, Bell Wonder by Big Bob Wonder). Seven boars and eight gilts by King Joe 3d by King Joe. One litter by King Joe 3d and out of Blue Valley Expansion dam. Three boars by Blue Valley Timm, he by Big Timm. Three boars and three gilts by Valley Expansion by Ketter's Blue Valley. Two boars and seven gilts by Sensation King by King Joe 3d.

All these pigs are well grown out. We invite all farmers and breeders that are interested in better Poland Chinas to attend our sale. Please send for catalog and arrange to attend two sales at one expense.

Schmitz Bros., November 7. Ketter Bros., November 8

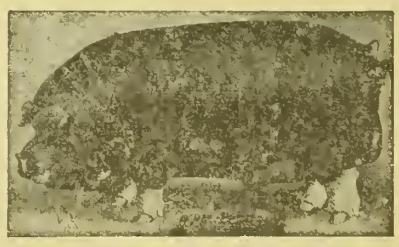
Write today for catalog to

KETTER BROTHERS - - SENECA, KANSAS

GRONNIGER & SON'S POLAND CHINA SALE

AT FARM NEAR DENTON, KAN.,

October 30, 1918



Forty Head of Large Spring Boars, March and April Farrow

The best lot of boars we have ever offered. We do not expect high prices. A lot of farmer and breeding boars sired by Futurity Rexall, Wonder Price, Big Bob 2d and Big Wonder Hadley. All recorded, immuned and right in every way. Don't wait for catalog, but come to sale at farm near Denton, Kansas.

HERMAN CRONNIGER & SONS, BENDENA, KANSAS

EARL BOWER'S
Poland China Sale
Wednesday, Nov. 6, McLouth, Kans.

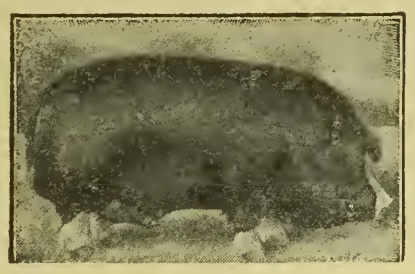
The Day After Election, We Will Sell

60 Head: 20 Boars, 40 Sows and Gilts

BIG TYPE PRACTICAL POLAND CHINA HOGS

Sired by Model Big Timm (292825), Orphan Bob (292323), Gerstdale Bob and Caldwell's Big Bob

The tried and proven sire, ORPHAN BOB, sells. His get won first and fifth in pig club exhibits this year at Topeka.
Twenty sows bred or with breeding privilege.
Twenty open gilts with individual merit and size.



SALE AT GREENFIELD FARM.

One of the Season's Best Offerings will be
FIVE HEAD—THREE BOARS, TWO GILTS
By the World's Champion, Caldwell's Big Bob

The quality kind. Every one of this litter is a great individual. Be sure to send your name for catalog giving complete descriptions and cuts of many of the lots.

Earl Bower, McLouth, Kans

In Jefferson County, Forty Miles from Kansas City or Topeka, on Northwestern and L. & T. Railways

Auctioneers—Price, Groff, Metzer.

POLLARD'S
Poland China Sale
AT FARM NEAR
CARBONDALE, KANSAS
Wednesday, November 6

FIFTY-SIX HEAD POLAND CHINAS



I am offering the best lot of Spring Boars and Gilts I have ever sold. They are by Frazer's Jumbo and out of Big Maid and Frazer's Giant Jones and out of Big Lady 5th. Have litters by Broadus' Expansion, Giant Jones and Jumbo Bob.

FARMERS AND BREEDERS WANTING A GOOD BOAR OR GILT WILL FIND THEM AT THIS SALE

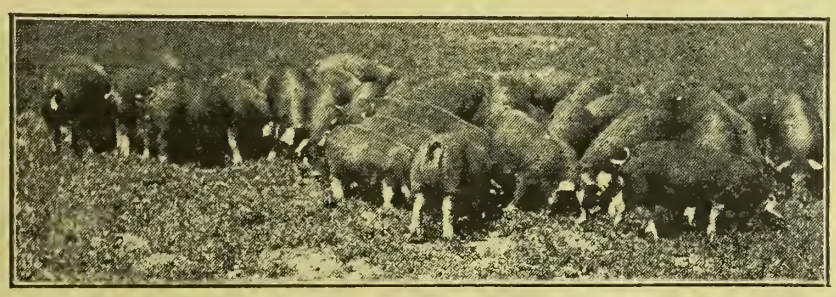
They are not loaded with fat, but are well grown out and in fine condition.

Please send for catalog and arrange to attend my sale. Free conveyance from Carbondale to farm. For catalog write

M. C. Pollard, Carbondale, Kansas

O'KEEFE'S
Poland China Sale
AT FARM NEAR
Stilwell, Kans., Nov. 4, 1918
55 Head 55

Thirty Spring Gilts, Twenty Spring Boars, Five Tried Brood Sows



The boars and gilts are the pick from my entire crop of spring pigs. They are sired by Joe Wonder (89512) by Giant Joe and out of Queen of Wonders, A Wonder (85930), King Wonder 2d and O'Keefe's Master, and out of my best herd sows by A King, Wedd's Long King and Expansion King.

This is a splendid offering of the useful kind of Poland China that any farmer or breeder can use at a profit in their herd. I do not expect high prices. Please send for my catalog and arrange to attend my sale on farm near STILWELL, KAN. For catalog address

L. V. O'Keefe, R. D. Bucyrus, Kans.

Auctioneers—Col. R. L. Harriman, Col. Justic.

FIRST ANNUAL
POLAND CHINA SALE

From the Herd of Jones Brothers, Hiawatha, Kansas

Saturday, Nov. 9th, 1918

A Great Offering of Young Boars and Gilts Sired by Jones' Jones by Gerstdale Jones; Jumbo Bob 2d by Big Bob Wonder; with two exceptional litters by

GERSTDALE JONES AND BIG BOB WONDER

The dams of the offering are daughters of Big Bob Wonder, Equal's Ox, A Kansas Wonder, Orange Wonder, Superba, Big Bone's Son, Gritter's Longfellow, Long Jumbo 2d and Expansion's Son.

A selected offering of tops for farmers and breeders wanting new blood in their herds.

SEND YOUR NAME FOR CATALOG

We want you to attend our sale. Write today to

JONES BROTHERS
HIAWATHA, - - KANSAS

The Government's Call for Income Tax Statements Makes it Certain that

YOU NEED THIS BOOK

GET STARTED RIGHT

There is no better time than right now to begin keeping Farm Records so that you will have the required information ready to make your income tax statement next year. No doubt you are already keeping your records. You want the most simplified and easiest way. Get this book. It's FREE.

PRACTICAL ACCOUNT BOOK

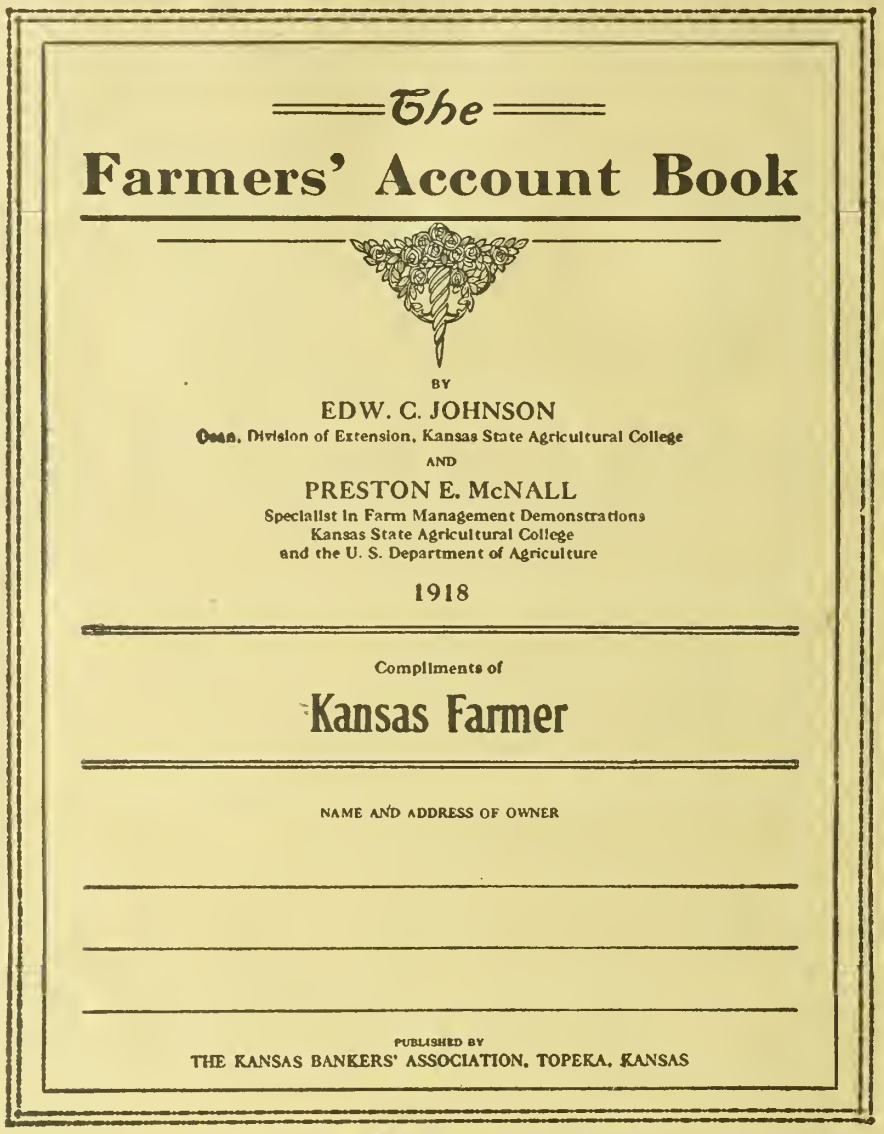
This book is a PRACTICAL Farm Account Book which has been developed under the direction of the United States Government men, working in co-operation with hundreds of farmers in Kansas. It is not merely theoretically correct, but has been prepared to fill the needs as shown by practical use on farms in this state.

THIS BOOK WILL MAKE YOUR WORK EASIER

Keeping accurate records of farm business is becoming more and more popular, not only because it is practically necessary for the income tax statement, but also for the value of the records to the farmer. The most important thing, however, is to secure and keep the information desired with the least amount of work and time; that is, in the simplest way.

The book which KANSAS FARMER is offering on this page, FREE to subscribers, is gotten up with the idea of keeping all the information necessary and valuable with the smallest amount of work. The book is a one-year record. It is small and convenient to keep. It contains full but simple instructions on how to keep the records required, with sufficient blanks for all entries.

ONE-HALF ACTUAL SIZE



ACTUAL SIZE OF BOOK, 8 x 11 INCHES

A PRACTICAL BOOK NOW IN USE BY FARMERS

The book is published by the KANSAS BANKERS' ASSOCIATION. It has been prepared by Dean Edwin C. Johnson and Preston E. McNall, both of the Extension Division of the Kansas Agricultural College, who have done their work on the book in co-operation with the United States Government.

This book has been used in Farm Management studies on hundreds of farms in Kansas where owners have heartily co-operated and offered many valuable suggestions for making it thoroughly practical and suited to actual farm conditions. These suggestions have been incorporated in this latest edition.

CONFORMS WITH REQUIREMENTS OF THE GOVERNMENT

It is the ultimate object of the Internal Revenue Office to adopt a uniform method of computing farmers' incomes. This includes farm inventories, farm receipts, and farm expenses, and follows very closely the book which is given by KANSAS FARMER to its subscribers. From year to year there may be a few slight changes made. For this reason it is best to buy a one-year book in order that each year your book will conform to the Internal Revenue rulings for that year.

FARMERS' ACCOUNT BOOK GIVEN FREE

HOW AND WHERE TO GET THIS BOOK

KANSAS FARMER desires to assist its readers in getting a book which will meet all their requirements at the least possible expense. The book described on this page is adapted to your needs and can be obtained FREE from many banks in Kansas, or KANSAS FARMER will give the book FREE with a subscription. Read our offer below and send today.

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We will mail you ABSOLUTELY FREE and postpaid one of these Account Books for your renewal subscription to KANSAS FARMER at $1.00. Send us your order today and get your accounts started in such a way as will be easy to keep and which you know will be correct.

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To subscribers whose subscriptions are already paid in advance we make the following offer: Send us one new subscription to KANSAS FARMER for six months at 50 cents and we will send you one of the books FREE AND POSTPAID. This offer is open only to subscribers whose subscriptions are paid in advance, and the subscription MUST be a NEW ONE; that is, for someone not taking KANSAS FARMER at the present time.

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KANSAS FARMER, TOPEKA, KANSAS.

GENTLEMEN: Inclosed please find $1.00, for which renew my subscription for one year and send me the Farmers' Account Book as per your offer.

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Town..... State.....

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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 44. TOPEKA, KANSAS, NOVEMBER 2, 1918. Established 1863. $1 a Year

WINTERING FARM HORSES

Cannot Give Full Service If Poorly Feed While Idle

IT IS easy to overdo in trying to winter idle work horses as economically as possible. There will be a greater temptation than usual this winter to economize too closely because of tbe extremely high price of all feeds. Every year there are hundreds of work horses that are fed and cared for so poorly during tbe idle season as to be unfit for hard work when spring comes. Next year tbere will be need for maximum power on our farms if we are to repeat the production of this year or increase it as is hoped. Our man power will be even more limited than it was this year and tbat will make it increasingly important to get the largest possible return from the man power available. Labor will without doubt be the most important factor in determining the size of next year's crop.

"Three things are necessary in tbe wintering of work horses satisfactorily," says J. L. Edmonds, specialist in horses at the Illinois College of Agriculture, "sufficient exercise, proper shelter, and the right amount of feed. Naturally in their efforts to provide these some horse owners may use more high priced feed or spend more on care and shelter than is needed for the best results. Except in the case of growing animals and breeding stock which require the food materials needed for growtb of bone and muscle, idle horses can be satisfactorily carried through the winter to a large extent on such coarse roughages as oat straw, corn stover, sorghum hay, and similar feeds. These feeds are commonly spoken of as carbonaceous roughages. They furnish mainly heat and relatively little bone- and muscle-forming material."

It is a common practice to pasture stalk fields, but considerable risk is involved. In fact some farmers consider the risk entirely too great. If stalk fields are pastured in cases where there is considerable feed it is a mistake to assume that they will furnisb all that is necessary to maintain the idle horse. The exercise and fresh air may be beneficial to the horses, but often tbe value of the feed obtained, says Mr. Edmonds, especially in a season when tbe ground is likely to be soft, is more than offset by the damage done to the field by the tramping of tbe animal.

When used with good judgment there is nothing better for wintering horses than some kind of legume hay. To keep the work horse in good, healthy condition it is advisable wherever possible to give at least one feed a day of some such hay as coarse alfalfa, clover, sweet clover, or soy bean or cowpea hay where these are grown. Mr. Edmonds suggests giving this feed of legume hay in the evening, allowing the horses free access to the straw or otber cheaper roughages during the day. If no legume hay of any kind can be fed, at least a small amount of grain must be given to supplement tbe low-grade carbonaceous roughages suggested. This is necessary to keep the animals in good, healthy condition. Ear corn and oats are standard grains for mature borses, but oats are preferable when the rough, carbonaccous rougbages are used exclusively. Sometimes serious results follow the use of damaged corn. Blind staggers in borses, wbich is usually fatal, has been traced directly to the feeding of corn which is mouldy. If damaged corn of this kind must be fed, it should be shelled and tben put in a tub of water. The sbelling blows out much of tbe worm powder and mould and tbe water floats off damaged kernels.

The amount of grain necessary to keep an idle borse in good condition during the winter will depend to a great extent upon the kind and quality of rougbage fed. If alfalfa or some other good legume bay is used, little, if any, grain is needed. The legume hays supply the nutrient material needed and also keep the bowels in good condition. The general condition of tbe borse as to flesb and thrift is the best guide to the feeder.

Mr. Edmonds advises one or two bran mashes a week for tbe horse tbat is being wintered largely on coarse, carbonaceous feeds. He calls this practice "cheap health insurance." Tbe Food Administration recognizes tbe value of bran in tbis connection by making tbe use of one bran mash a week one of the exceptions in the pledge it is exacting having for its purpose the limiting of tbe use of bran as mucb as possible to tbe feeding of dairy animals. To make this bran mash, mix three or four pounds of dry bran with hot water, allowing it to cool to feeding temperature in a covered pail. These bran mashes belp to prevent much sickness and death due to impaction of the digestive organs, "straw colic" and similar trouble. A handful or two of linseed oil meal a day may take tbe place of the bran mashes. The bran mash or oil meal can be recommended as tbe best remedies that can be used as conditioners for horses. They are much cheaper than condition powders and medicated stock foods and when properly used will improve the general tbrift of the horse being wintered on the cbeap rough feeds of tbe farm.

Succulent feeds, such as roots and corn silage, have not been used in tbis country to any great extent for horse feeding. Of the root crops, carrots are considered best for borses. Although low in food value when compared with grains, they have a high value as a conditioner. Tbe serious objection to their extended use is the large amount of labor required in their production. Careful feeders have secured good results in feeding moderate amounts of good corn silage to horses that are being carried through the winter. Such silage should be madc from well-matured corn, put up in a good air-tight silo. Enough water should be added to insure its packing solid and excluding all air. If tbe corn is fairly dry when put into the silo, enough water should be added to insure its packing solid. Ten to fifteen pounds of good silage fed in connection with legume hay or carbonaceous roughage will usually give fairly satisfactory results. The greatest care must be exercised in feeding silage to horses, bowever, as any mold eitber in the silo or in the feed troughs is almost sure to cause trouble, and frequently death. Naturally, more risk may be taken with cbeap horses than with high-class, valuable ones.

Exercise is necessary to good health. Probably the best place to provide this is a blue grass or other tame pasture which has been allowed to grow up somewhat during summer and fall, wbere not only exercise may be had, but considerable good picking as well. Small lots and straw yards, unless used in connection with a larger area, are not satisfactory because horses do not move about enough. In some instances, stacks, yards, and protected wood lots furnish sufficient shelter. Under most conditions, however, it is more satisfactory to get up the horses in tbe evening and give them some feed and a dry bed in tbe barn.

A few other items of good care should not be neglected. Digestive troubles are sometimes caused by bad teeth. Experience shows the importance of having the horses' teeth gone over once a year by a competent veterinarian. This applies particularly to borses with some age. Feet sbould be carefully leveled with a hoof rasp once a month. The edge of the wall should be rounded somewbat to prevent its chipping or breaking off irregularly.

Good, clean drinking water should be supplied liberally. In cold weatber a tank heater should be used to keep tbe water trougb free from ice. Salt should also be provided, either througb free access or regular salting once a week or oftener.

We should ever keep in mind that every gain in horse power means a saving of man labor when the rush of next season's field work is on. It is neither economical nor wise to starve a good work horse through the winter by giving too little feed or poorly selected feed. A horse cannot be expected to do full work after being wintered in this fashion, even though given plenty of feed when he is put to hard work in the spring. It will be of the greatest importance next spring to have every work horse in prime condition to do a real horse's work. Time and effort spent in giving the idle work horses every necessary attention will yield a good return.



KANSAS-bred colts in winter quarters growing into money. These colts are being wintered on alfalfa and corn fodder with a grain ration consisting of seventy parts corn, twenty-five parts bran, and five parts oil meal by weight. Growing colts must have a more liberal grain ration than idle mature horses. Too often well-bred draft colts are wintered on the same feed as is given to the idle work horses.



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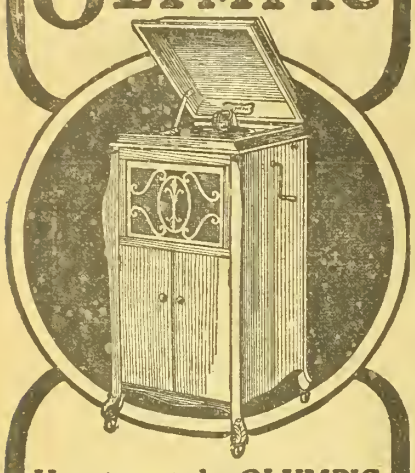

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Things to Be Saved

Put out unnecessary electric and gas lights and save the fuel.

Don't travel unless you need to. Let the Government use the railroads for war purposes.

Save gasoline and rubber. Both are important in war work.

Save clothing. Buy only those things that will wear well, and wear them as long as they last.

Cut down on amusements. If you have been going to the movies twice a week, go but once and save the money.

Save tin foil, wrapping paper, newspapers and twine; all can be sold.

When you buy anything, carry it home if you can and save the labor that would be used in delivery.

Save all the time you can which can be used for war knitting or Red Cross work.

Save your health in every possible way. There is work to do for all well persons. If you are sick, there is a waste of energy.

Economy in Use of Fuel

MUCH fuel can be saved in heating our houses this winter by a careful attention to a few details such as are enumerated in a recent bulletin from the Engineering Experiment Station of our Agricultural College. It is stated that a temperature of 68 degrees is the best for health and comfort, providing the air is kept moist. It takes 10 per cent more fuel to keep a room at a temperature of 75 degrees.

In firing a furnace, says the bulletin, keep the fire burning evenly over the whole surface of the grate and free from bright spots. The fuel bed should be kept free from clinkers.

Excessive shaking of grates should be avoided, in order to prevent loss of fuel to the ash pit.

Ashes should not be allowed to accumulate in the ash pit. The accumulation of ashes below the grate will interfere with the draft and may result in warping or even burning out of the grate bars.

The fire box should be kept well filled with fuel during the cold weather. In moderate weather a layer of ashes on the grate and below the active fuel bed will prevent the fuel from burning too rapidly.

Every effort possible should be made to keep the air moist. When a dwelling is heated with dry air the rapid evaporation of moisture from the bodies of persons in the room produces a feeling of cold. Very dry air, therefore, must be kept at a higher temperature in order to insure comfort. Very dry air also cracks the furniture and woodwork.

Registers, radiators, and heating surfaces should be kept clean. Dust, dirt, fine ashes, and soot should not be allowed to accumulate on the inside of cold air ducts, smoke pipes and chimneys.

In using very fine coal care must be exercised to avoid having fuel wasted by sifting through the grates into the ash pit.

It is a bad practice to build chimneys with offsets. A chimney should extend at least two feet above the highest point of the house. Chimneys should always be provided with a soot pocket at the bottom and have an opening from which the accumulated soot can be removed.

Soft coals are used almost entirely in Kansas for heating purposes. They require more air while burning than hard coals. When soft coal is put on a fire a large volume of gas is given off. In order to burn this gas, air must be admitted above the fire. This can be done either through the openings in the fire door or by opening the air-blast door if the furnace is provided with one. From ten to twenty minutes should be allowed for this process, after which the air blast should be closed, as otherwise the excess air will produce a chilling effect in the combustion chamber, and this will result in a loss of fuel. In firing soft coal the entire fuel bed should never be covered, as this may result in an explosion on account of the gases which will accumulate over the fuel bed. The best method is to heap the coal on the front portion of the fuel bed, leaving the back uncovered. This will coke the coal and cause the gases to be ignited as soon as they are given off, thus lessening the danger from explosions and utilizing the heating value of the gases. When the back portion of the fuel bed becomes thin and burned out, a large portion of the live coals from the front is pushed to the back portion of the grate and fresh coal is heaped on the front part.

The fire pot should be kept full at all times, at least during the cold weather period. Poking the fuel bed should be reduced to a minimum, but the fire should be kept free from clinkers, as clinkers reduce the intensity of the draft. The tendency of a caking coal to interfere with the draft should be overcome by occasional poking, but a coking bituminous coal should be disturbed as little as possible.

As a general rule, the smaller-sized coal will be found more economical than the large lump coal.

Economy of fuel will be obtained by keeping the rate of burning uniform, instead of forcing the fire for a short period and then checking it. In moderate weather fuel can be saved by having a layer of ashes under the active fuel bed. Ashes can also be used to advantage in retarding combustion during the night when the rooms do not have to be maintained at comfortable temperatures.

In banking a fire for the night, the draft should be opened wide for a few minutes before putting in any coal. Heap the coal just in front of the fire door, care being taken not to cover the entire fuel bed. Leave the draft open for about ten or fifteen minutes, or until the gases have become thoroughly ignited; then close the draft door and open the check draft—that is, the damper on the smoke connection between the furnace and the chimney.

The practice of wetting coal decreases the fuel economy, as heat from the fuel must be used for evaporating the moisture and for heating the steam thus produced to the flue temperature. Calculations indicate that for every ten per cent of moisture in the coal, one per cent of the heating value of the fuel is thus lost.

With very fine coal, and particularly when the grates are not designed for fine fuel, it may become necessary to moisten the coal, in order to reduce the loss of fuel through the grate.

The bulletin, "Economical Use of Fuel in the Home," from which the above information is taken, can be obtained free by addressing Engineering Experiment Station, Manhattan, Kansas.

Compression Important

Without proper compression of the mixture of fuel and air the internal combustion engine cannot give its maximum power. Some fuels require more compression than others. The compression in various types of engines ranges from forty-five to five hundred pounds to the square inch. From sixty to seventy pounds to the square inch is the rule in most tractor engines. In kerosene burning engines using water the most economical results come from a compression of from seventy-five to eighty-five pounds to the square inch.

Leaky valves, and particularly the exhaust valve, are a common cause of poor compression. The exhaust valve is subjected to extreme heat, being the vent through which all the burned gases and the carbon must be forced by the piston on the exhaust stroke. To detect valve or piston leaks, turn the engine over on the compression stroke. If it requires less than the usual amount of strength, there is a leak somewhere, either through a valve or from poorly fitting piston rings. Oftentimes deposits of carbon cause valve leaks. This prevents the valve closing properly. This can usually be remedied by turning the valve on the seat with a pair of pliers or a wrench. This crushes the deposit and it can be removed by tapping the valve off the seat.

If the leak is not caused by carbon deposit or other foreign substance resting on the seat, it will be necessary to regrind the valves.

Safety Rules for Electricity

Remember that the human body is a conductor; do not touch wires, rails, or anything else which may be charged with electricity.

Do not have wiring done or connections made by any one but an expert and careful electrician.

Never leave an electric device, even for a moment, without making sure that the current is turned off.

Never use electric light bulbs for warming beds or for drying clothes.

The valves of a tractor motor must be looked after carefully because the motor is working hard practically all the time it is running. This is more especially true if kerosene is used. To keep the motor in time, wear on all exposed parts must be taken up. When exposed cams become badly worn, the valves do not open sufficiently.

Much power is lost when a tractor is run with badly worn cylinders. New cylinders should be put on or the old ones rebored and fitted with new pistons and rings.

It does not pay to overload a tractor any more than it does to overload a horse. Three plows behind a two-plow tractor will cover only a little more ground, as a rule, than will two plows, because the tractor usually will travel a little slower partly because the motor is overloaded and it does not maintain its proper speed and partly because the drive wheels will slip more with a load heavier than the machine was designed to pull. As a result delays on account of small holes or slight grades will be more common, as will also mechanical difficulties.—Farmers' Bulletin No. 719, U. S. Department of Agriculture.

Lubrication will not maintain compression if the piston rings are poorly fitted. Piston rings are very important parts of an internal combustion engine. Only when there is a proper fit between the piston and rings and the cylinder walls can lubrication do its part in retaining proper compression.

How to obtain large production most economically is the great problem of every dairyman. Economical production depends primarily on selection, breeding, and feeding, care and management. It requires that all unprofitable cows be eliminated, that the remainder be bred to first-class bulls, and that each cow in the herd be fed a properly balanced ration according to production. It also requires the intelligent feeding, care, and management of calves and young stock.

Boys can't go to war now with their fathers as they did in the wars of old. But they can give a fine service just the same by earning and giving to the funds to make the soldiers' lives easier. Victory boys and Victory girls are unselfish.

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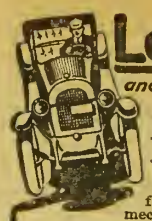

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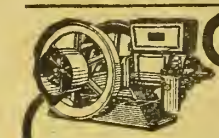

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HOG PRICES FOR NOVEMBER

On another page of this issue we print the official announcement of the Food Administration on stabilizing hog prices for the month of November. This statement was received just as we were going to press. Mr. Mercer, who as far as we know was the only representative of the producing interests in attendance at the conference from Kansas, has not returned at this writing.

Apparently the Food Administration has given up the thirteen-to-one plan which was proposed last fall, as unworkable under existing conditions. The Food Administration plainly admits that it is unable to make good on its promises, apparently charging it to lack of authority to regulate the price of corn. The proposition agreed to by the packers definitely provides for prices within rather narrow limits, but they point out that in case of lack of co-operation on the part of producers, such as causing abnormal runs of hogs, they cannot make good.

We hope this plan will be more satisfactory than that tried for the month of October. When our Kansas representatives return we will endeavor to get more light on the proposition as it was worked out at this Washington conference.

KANSAS WINS HONOR

Seven trophy cups were won by Kansas at the International Soils Products Exposition. For the state display as a whole, Kansas and Nebraska tied for first place and two cups of equal value were awarded. Manitoba was given the third prize and Missouri the fourth. Kansas also won first for its display of small grains, with Manitoba second. Second prizes were won by Kansas on corn, fruit, sorghums, experiment station display, and artistic arrangement of booths.

The Farm Congress and International Soils Products Exposition has had a rather unique experience. During the entire eleven-day period set for holding the exposition and the meeting of the congress, the closing order on account of the influenza epidemic was in force in Kansas City and the doors were not open to the public. Large collective exhibits illustrative of the agricultural and other resources of a dozen states had arrived and most of them had been placed in position. The combined exhibits of the United States Government, the official British war exhibit, and many other special exhibits, as well as entries by more than five thousand individual farmers throughout the United States and Canada, were on hand. The doors were never officially opened and very few people were permitted to witness the displays made. The Farm Congress, which was scheduled for a three-day session at which some of the big men of the country were to speak, was also prevented from meeting. Fully five thousand delegates and members were expected, but only a thousand put in an appearance, and following a brief session just before the closing order went into effect final adjournment was taken.

At the united request of all the exhibitors, the Board of Governors decided to proceed in placing the awards simply on the basis of ribbons and trophies. Kansas made a most enviable record in winning the seven trophy cups. This is a record by far the highest ever made by any state. Bruce Wilson, of the Agricultural College, who prepared the exhibits, is entitled to a great deal of credit for the showing made.

The International Farm Congress, which is a result of joining the Dry-Farming Congress and the Irrigation Congress, is planning to carry out more aggressively than ever the work of these two organizations from which it springs. It has placed itself squarely behind the problem of land reclamation, settlement, and development following the war. This includes not only irrigation projects and the development of dry-farming areas, but swamp lands, overflow lands, cut-over timber lands, and all other waste places. Secretary Franklin K. Lane of the Department of the Interior has called the attention of the entire country to the need of a comprehensive plan of reclamation and settlement of waste lands and has asked the co-operation of the Farm Congress organization in carrying out such a plan. The International Farm Congress maintains general offices at Kansas City.

Your Work and Mine

THE money asked for in the big seven-in-one drive to begin November 11 will go to provide a thousand and one comforts for the boys in camp and on the firing line. Never in history has such a service been rendered to fighting men as is being performed by the seven organizations for which the money is asked.

If you have a boy in the service, you will need little urging to give all you can to this great cause which means so much to the men in the uniform of our country. The possibility of peace lessens not in the slightest the need for the many services rendered. They will perhaps need the strengthening hand of these great organizations even more in the period of reconstruction and demobilization following the peace than when busily engaged on the firing line.

If no member of your family is in the service, you are spared that special solicitude and worry which only a mother or father can feel for a boy given to the great cause, and this is all the more reason for making a liberal contribution to the fund. Somebody else's boy is standing and fighting for you and you owe a debt which no money contribution can pay.

The $170,500,000 asked for is a minimum for meeting the budget of these seven organizations for the next nine months. There should by all means be a generous over-subscription. The minimum amounts to about one dollar a week for each soldier for the nine months' period. How many of these men will you finance with the service given so freely by the brave, self-sacrificing secretaries and other workers who are taking cheer and comfort and every possible form of helpfulness to these boys of ours? You will be called upon during the week of November 11 to 18 for a contribution unless you beat the solicitor to it and volunteer your subscription before he reaches you.

G. C. Wheeler.

NEW LIVE-STOCK MEN

Animal husbandry work at the Kansas Agricultural College is to go forward on a high plane. It is a most important part of our college and station work. Numerous changes have taken place in the personnel of the department during the past year, but it starts the year's work with an exceptionally able group of men in charge of the various lines.

Dr. C. W. McCampbell, who heads the department, is so well known in the state that he needs little introduction to KANSAS FARMER readers. He is a native Kansan and has been a member of the animal husbandry department for eight years. He holds three degrees from the Kansas Agricultural College—in general science, veterinary medicine, and agriculture. He will devote a considerable portion of his time to beef cattle investigations in addition to his duties as head of the department.

F. W. Bell, associate professor, is a new man. He is a graduate in animal husbandry of Cornell University and studied in Ohio State University. For six years he was associate professor in animal husbandry at the Texas Agricultural and Mechanical College. Professor Bell is widely known as a skillful judge of live stock and is thoroughly familiar with live-stock conditions throughout the corn belt and the Southwest. He will have charge of the horse work at the college and will act as secretary of the State Live Stock Registry Board and also have charge of the student stock-judging teams.

E. F. Ferrin is another new man with the title of associate professor, a graduate of the Iowa State College and a member of the faculty of that institution for the past seven years. Professor Ferrin is a splendid judge of live stock, is an instructor of unusual ability, and has written many practical articles on agricultural subjects. His special work will be with the hogs at the Kansas college and station.

Associate Professor B. O. Severson is a graduate of the University of Wisconsin and holds a master's degree from the Pennsylvania State College. He has spent eight years with the Pennsylvania college and has been associated with some very valuable experimental work in live-stock feeding, including the maintenance of beef cattle and sheep. He has also made a special study of the problem of breeding, having done special work along this line at the University of Illinois during the past year. He will have charge of investigations in animal breeding and also teach this subject in the college course.

A. M. Paterson, assistant professor, has been with the Kansas college several years and is perhaps best known over the state for his special work in sheep breeding and feeding. He is particularly interested in sheep for Kansas, feeling that there is a great need for more of these profitable animals on the farms of the state. He has also given a great deal of attention to the home curing of meats, teaching courses in killing, cutting, and the curing of meats, and has been striving to get more people in Kansas to cure their own meat. Mr. Paterson was reared on one of the historic live-stock farms of America and has a Scotchman's instinctive love for live stock. His training and experience make him an unusually valuable man. He received his college training at the University of Minnesota and at the Kansas Agricultural College.

J. W. Crumbaker is assistant farm manager and superintendent of live stock in the department. He is a recent graduate of the Kansas college and has had considerable experience in breeding and marketing live stock. G. C. Ware, who graduated in 1918, is an assistant in the department. As a student he displayed exceptional ability. He is assisting in the swine and cattle experimental work.

AMENDMENTS TO CONSTITUTION

Two important amendments to the constitution of Kansas are to be voted on next Tuesday. As a rule voters pay too little attention to proposed amendments and come to the polls without sufficient knowledge about them to vote intelligently. Considerable publicity has been given to the two amendments referred to and voters should be able to vote intelligently when they come to the polls. They are printed in full on page eight of this issue.

The first has to do with protecting the right of suffrage in the state by making it impossible for anyone to vote until fully naturalized as a citizen. The other proposes to put our state educational institutions upon a more permanent basis of support. As now maintained, each legislature must make appropriations for the support of these institutions, and as funds cannot be voted for a greater period than two years, the institutions come to the end of each two-year period with absolutely nothing to be sure of in planning for the work of succeeding years.

There can be no question as to the merit of the first amendment. It should pass overwhelmingly. There may be differences of opinion on the plan to make more permanent levies for the educational institutions, but it certainly seems more businesslike to give these institutions something more definite to depend on in planning their work. Senator Thompson comments as follows on these two amendments:

"I can think of no better thing that the people of Kansas could do than to preserve the usefulness and sacredness of the ballot to the loyal and patriotic citizenry, provided by the first amendment; and, in securing in a scientific manner the permanent support and maintenance of the state educational institutions and holding the money raised for education sacred for such purpose as provided by the second amendment."

Senator Curtis says: "The proposed change to provide funds for the maintenance of the state educational institutions is a wise one and I hope it may receive the support of the voters of Kansas. Our educational institutions are a great success and have done and are doing splendid work and they are entitled to have an ample maintenance fund.

"It is only fair and right to the citizens of Kansas that the franchise should be withheld from those who have not taken out their final citizenship papers. No person should be allowed to vote until he or she can become a full fledged American citizen.

"I hope they both may be adopted by an overwhelming vote."

W. C. Lansdon says: "I am in hearty sympathy with the movement to secure the adoption of the two amendments to the state constitution and shall use all my influence to secure favorable action on them."

Governor Capper expresses himself as follows: "Kansas voters are alive to their duty, and it ought not to be necessary to do more than direct their attention to the suffrage amendment. . . .

"I look upon the plan proposed in the second amendment as the most practical way to raise funds for the support of your state schools. For years the heads of these institutions have had laid upon them the unpleasant necessity of coming down to Topeka during every session of the legislature and begging support for their schools. It ought not to be so. I believe the permanent income plan will solve the problem and I am glad to endorse it."

We would urge every voter to consider these amendments carefully and duly record his vote next Tuesday.

DRAFT BOARD ADVISERS

The agricultural advisers appointed by the Department of Agriculture to assist district draft boards are not members of these boards, but they should be most helpful in connection with furnishing the boards full information on farm labor requirements not only of their own districts but of the whole country.

W. J. Tod, Maple Hill, Kansas, is agricultural adviser to District Board No. 1, which has its headquarters on the second floor of the Smith Building, Topeka. W. T. Edwards, Wichita, Kansas, is the agricultural adviser to District Board No. 2, having headquarters on the third floor of the Federal Building in Wichita. These men are both eminently qualified for these positions. They can make independent investigations and many requests for deferred classification on the grounds of agricultural employment will be referred to these advisers.

Every producer, every distributer and every consumer is individually responsible for maintaining a never-failing flow of the best quality of food from America to our troops in France.

IRRIGATION IN EASTERN KANSAS

Profitable to Pump Water For Standard Farm Crops

AN additional profit of $2,000 was made this year by each of two farmers in Washington County who supplied water to their crops t the critical period by pumping. The rop irrigated was corn iu each case. 'he equipment for irrigation on one arm cost $1,000 and on the other $1,907. 'his information was obtained by Edw. . Johnsou of the Agricultural College n the course of an investigation cover- ng the operations of fourteen practical rrigators in Washington, Sedgwick, hawnee, and Cherokee Counties. The vidence shows that, while supplemental rrigation is in its infancy in Eastern ansas, it has great possibilities. The acts as gathered were presented by Dean ohnson at the recent meeting of the rrigation Congress in Garden City.

There has been much interest in irri- ation throughout the state largely as a esult of what has been accomplished in rrigation in Western Kansas and in ome Central and Eastern counties where upplementary irrigation has been prac- ced for a number of years. Various ethods of irrigating have been urged— indmill irrigation, the construction of ams in surface streams, and irrigation y pumping.

For the supplementary irrigation in astern Kansas irrigation by pumping robably is the only method that will e used. Rainfall in this section varies om twenty-five to thirty-five inches, more, but often is unseasonable. Wa- r for irrigation is plentiful in many the valleys and can be secured from e rivers or streams or by pumping at pths of eight to thirty-five feet.

Dean Johnson stated in the course of s address that the acreage for which upplementary irrigation is possible is ry large, but there are no figures on hich accurate estimates can be based the present time. The fourteen prac- cal irrigators in Washington, Shawnee, dgwick, and Cherokee Counties who ere interviewed, with two exceptions l favored supplementary irrigation id would not farm without it where w located. The crops irrigated and commended for irrigation by these actical men, are alfalfa, corn, potatoes, ples, and truck and garden crops such melons, cantaloupes, sweet potatoes, bbage, and tomatoes. Two of the ir- gators who have had considerable ex- rience do not favor irrigation of po- toes, however, inasmuch as they can oduce good crops anyway and often af- r irrigating the potato crop a rain mes and there is too much water for e crop. The majority favor the irri- tion of alfalfa and corn.

Orchard crops, truck crops, and garden ops for the home can be irrigated to eat advantage, but with these crops own commercially, particularly the uck and garden crops, overproduction easily possible, especially where there e no large cities to furnish the ready arket. If there is to be any large de- lopment in irrigation in Kansas it ust be with standard crops such as al- lfa and corn and apple orchards. This the conclusion drawn from present ex- rience and information.

The best example of supplementary rigation on general diversified farms Central and Eastern Kansas is found Washington County, around Hanover, here at least five farmers practicing versified farming have used irrigation r two years, four years, and one of em for twenty-three years. The area rigated by these farmers varies from n acres of corn on one farm, to forty- ve acres on another, with an average rigated area of twenty-seven acres. l five irrigate corn primarily, with po- toes as a side line. The cost of the ants on these farms varies from $140 $250 where the pump alone is consid- ed, up to $2,000 on the farms where mps and engines are provided. Where e pump alone is considered usually ere is a farm tractor or stationary en- ne which is used for pumping.

Near Wichita, also, is a large farm here 155 acres of alfalfa and corn are rigated, the cost of the plant being out $3,300. At Belle Plaine is a large chard of 200 acres irrigated by a plant at cost $5,000.

The cost per acre of irrigation, as giv- on the five farms in Washington unty, ranges from $3.10 to $6.87 e latter figure being for 1918, with an



ALFALFA GROWN UNDER IRRIGATION—SCOTT COUNTY.

average of $5.50 per acre. The capacity of the plants ranges from 35 to 100 acres. Usually only one irrigation is given during the year—sometime in July or early August, as the season demands. Some give two irrigations. Where two irrigations for corn are given the amount of water applied is estimated at two or three inches per irrigation, or until the "soil is soaked." Several state that six inches of water were applied at one irrigation, and one reports that on alfalfa he uses ten to fifteen inches.

The increased crop due to irrigation is variously estimated. On the general farm where corn is irrigated the increase is given as 20 to 65 bushels of corn per acre in 1917, and 25 to 50 bushels of corn and 75 bushels of potatoes per acre in 1918. The increased yield of irrigated orchards is estimated by the owners as 25 to 50 per cent in both quality and quantity.

One of the Washington County men reports a profit of thirty-five bushels of corn per acre on ten acres, and another reports fifty bushels of corn per acre on twenty-five to thirty acres. The last mentioned irrigator states the irrigation plant means the difference between a half crop and a full crop one year with another.

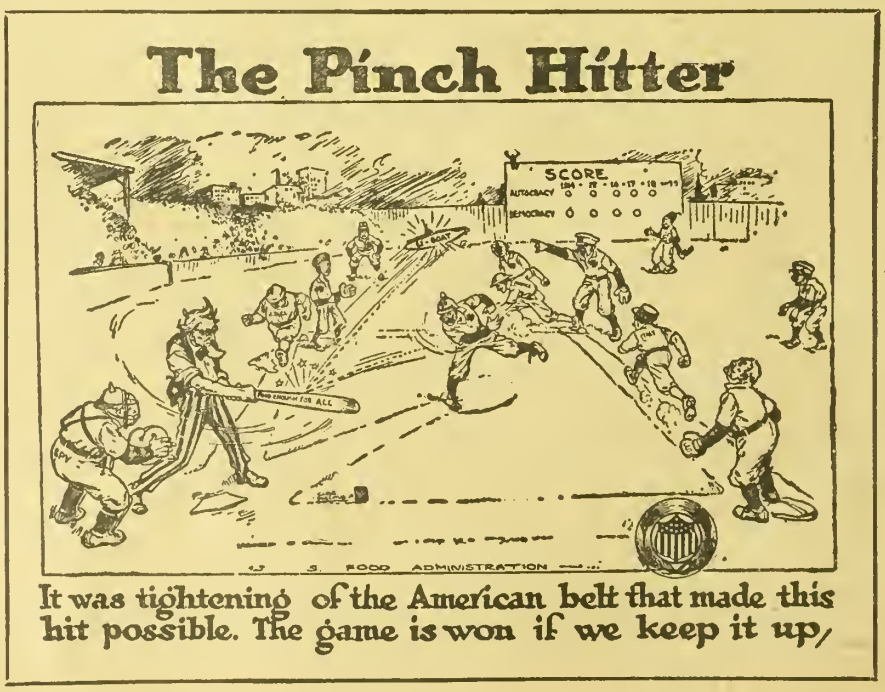
Two potato growers in the Kansas Valley east of Topeka have irrigation plants installed but after using them a little while they discontinued their use, and grew their crops of 1917 and 1918 without irrigation. In 1918 one of these potato growers raised 250 bushels of potatoes per acre without irrigation.

Near Columbus, Kan., two irrigators use the "Skinner" system of irrigation for truck crops, one irrigating six acres and the other irrigating two and one-half acres. The original cost of the plants was $1,200 in the one case, and $350 in the other. Both these men used the city water from Columbus, the cost of the water being fifteen cents per 1,000 gallons. Both irrigators estimate that the increase in production due to this irrigation, over the average production without irrigation, is 50 to 75 per cent. While one of these men considers his plant still in the experimental stage, the other says he would not do truck farming without irrigation.

One of the most enthusiastic irrigators interviewed was Schuyler Jones of Wichita, who irrigates 155 acres, having practiced irrigation since 1914. He has a plant which cost about $3,300 and is irrigating out of four wells. He estimates that he raises one-third to one-half more on every acre as a result of irrigating. The distance to water is twenty-one feet and his wells are sixty-three feet deep. The water level in the well is lowered fourteen to sixteen feet when pumping at the rate of 2,000 gallons per minute. Mr. Jones states: "I have never missed a crop of alfalfa or corn since I put in my irrigation plant. I cannot say too much for irrigation; if I had forty farms in the Arkansas Valley I would have forty irrigation plants."

Most of the irrigators in Kansas complain about the shortage of labor, this being one of the chief drawbacks to supplementary irrigation during the war period. It is the consensus of opinion of those who irrigate, the potato growers excepted, that irrigation will pay and will pay well on corn and alfalfa and on fruit and truck crops where there is a good market for these crops.

The limiting factors now in irrigation development are material and labor. Much development in irrigation can be expected in the valley lands of the central and eastern parts of the state after the war when labor and materials become more plentiful. This development should consist largely of the irrigation of alfalfa, corn and apple orchards. Orchards can be overdone, so can potatoes and truck crops. Corn and alfalfa supplement each other as feeds, however, and since it has been demonstrated that irrigation will pay on these crops there is no doubt that as the population increases and the call for land becomes more insistent there will be much development of irrigation in connection with dairying and hog farming and in the feeding sections of the state.



Winter Stores for Bees

Great care should be exercised this year in making certain that all colonies of bees have sufficient stores to carry them through the winter. Sugar is very scarce, with no prospect of there being any increase in the amount on the market. As honey can be substituted for sugar in almost every instance, it is vitally necessary that every step be taken to insure as good a honey crop next year as possible. If bees are not properly prepared for the winter, they will not live through to do their part in gathering this surplus honey which is so much needed today. Ordinarily, in Kansas, there is enough of a fall flow of honey to carry the bees safely through the winter, but during this season, owing to the fact that we had a severe drought in the summer, and then an early frost this fall, the nectar supply was cut short, and the bees were not able to store enough honey to carry them through until next year's work begins. In many cases, even where sufficient honey was left in the hives, the bees have consumed the greater part of this, so that now in spite of the fact that the beekeeper may think his bees have sufficient stores for wintering they may have eaten up the honey to such an extent that they are really deficient. In order to successfully pass the winter and be in good shape next spring, bees should have at least thirty pounds of stores per colony. If the bees have not this required amount, then they should be fed sugar enough to bring the amount of stores up to thirty pounds.

The Food Administration has authorized the beekeeper to secure 100 per cent of the sugar he may need. The application should be first made through the local food administrator. He will furnish blanks marked "A" and "B." Disregard blank "A" on the sheet, and fill out blank "B." Place a check mark opposite the words "Feeding Bees," or, "Honey for Feeding Bees," which describe the use to which you intend to put this sugar. The blank calls for statements as to whether or not you have used sugar during the year. If you have, put in the amount, if not, disregard it. When the blank is filled out, it should be taken before a notary, or some official who can administer an oath. After it has been sworn to and signed, it should then be sent to the Sugar Division of the U. S. Food Administration.

If any beekeepers have not yet extracted their honey, they should be very careful not to extract too closely. They should leave an abundance of honey in the hives to carry the bees through the winter. In no case should a beekeeper extract honey and sell it because it is high priced, and then feed sugar because it is cheaper. This would be a clear case of profiteering, and such a practice should be discouraged.

J. H. MERRILL, State Apiarist.

It is impossible to over-produce any line of essential food.—U. S. Food Administration.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

THE basic soil facts in our state, as shown by careful experimental investigation, are that many soils are becoming very deficient in organic matter and that phosphorus is the element of plant food frequently low in quantity. Some soils are also found to be acid or sour. This is corrected by the application of ground limestone.

The soil is our heritage and every effort should be given to maintaining its fertility. The use of acid phosphate, or some other form of phosphatic fertilizer, and the returning of organic matter to the soil through the medium of home-grown crops, particularly legumes, and barnyard manure, will result in building up the soil and thus increasing crop yields.

Save Fall Pigs

With pork selling at present high prices, the loss of a pig or two is quite an item in reducing the net return from a brood sow and litter. The brood sow with only three or four pigs is an expensive machine in these days of high-priced feed. Such a sow is not profitable even under ordinary conditions. No effort should be spared to make every sow work at full capacity. Oftentimes the man is to blame for the small litter.

Be sure to give the brood sow plenty of exercise while she is carrying her pigs. Watch for signs of farrowing and plan to give undivided attention to the sows at this time. A single pig saved will pay for the time so spent. If the pigs come in cold weather be sure they do not become chilled and help them to find the teats and get their first meal. Bed sows lightly at farrowing time. A guardrail about six to eight inches from the floor around the sides of the farrowing pen will save many pigs, as they can slip under the rail when the sow lies down quickly. If possible give the sow and litter the run of some wheat or rye pasture. It will reduce the cost of their ration and will make the pigs more thrifty. Keep alfalfa hay where the sow and litter can get at it at all times. Alfalfa is a wonderful feed for building bone and tissue.

Name on Mail Box

A clean roadside, well-painted farm buildings, and the name of the farm and its owner plainly printed on the mail box cannot fail to attract the attention of one traveling through the country. Having the name on the box or on a neat board is a good means of advertising. This is particularly true if the farm is devoted to pure-bred live-stock of any kind or to any special crop. One of the agricultural agents of Southern Kansas, while inspecting seed wheat to be purchased for farmers of the county, traveled through a community near Arkansas City where every mail box in the neighborhood had the name of the owner painted on it in big, black letters. Such a practice speaks well for the community.

Plow Under Vegetation

"Make fertilizer on your own farm," says H. J. Bower, soil specialist at the Agricultural College. Commercial fertilizers are attracting wide attention in eastern Kansas. This is due to the fact that such a large acreage of land has been cropped continuously for thirty to thirty-five years without any attention being given to methods of maintaining soil fertility. This system of farming has lowered the humus content about 40 per cent. Humus was stored by nature with a long-time process of green manuring. This has furnished most of the available supply of plant food for the crops. Now as this most active supply of available plant food of nature's has been depleted, the farmer's recourse is either to buy the expensive plant foods, or utilize those that heretofore have gone to waste on most Kansas farms, namely, weeds, corn stalks, wheat straw, and barnyard manure.

The early September rains have produced a good growth of weeds. Each weed as it decays adds humus to the soil. This is one of nature's ways of adding plant food and keeping up soil fertility. It is a slow process, but if only given a chance will do much to keep up the supply of organic matter without which a soil soon becomes unproductive.

Too often the practice is to burn up such vegetation. If we would avoid depleting the soil fertility, we must seize every opportunity to work organic matter of various kinds into the soil. Why not utilize the rank growth of weeds this fall, turning it under before winter sets in? If the growth is too heavy to turn under, drag it into some ditch where it will catch soil and eventually decay.

United Front at Home

President Wilson asked them to get together—the Y. M. C. A., the Y. W. C. A., the Knights of Columbus, the Jewish Welfare Board, the War Camp Community Service, the American Library Association and the Salvation Army. They promptly got together, decided what each should have and do, and they are going to work together as never before for the good of those who are fighting for the best country on earth and the greatest cause that ever stirred the souls of men. Their first work is to raise money with which to 'carry on." This is to be done in the United War Work Campaign during the week beginning November 11.

There are several advantages in this plan of united work. All of us know that all of these organizations are doing great things—but most of us have never contributed to all of them. Now we can do so at one time, and our contribution will be divided among them—the Y. M. C. A. of course getting the most of it, almost 60 per cent. Or if we prefer, we may still contribute to any one organization, but these days all patriots look good to us, and all organizations working for "the boys over there" are worthy of support. Not merely our money, our hearts should go along with our cash.

I am asked whether I will not urge farmers to support this United War Work movement. I will do better than that—urge everybody to support it, work for it and with it during the week of November 11, and other weeks. Every good American will want to do his share, and if he is a real good American, he'll find some way to do it.—E. S. BAYARD, editor National Stockman and Farmer.

Save the Manure

The time is approaching when much of the stock will be kept in barns and sheds more or less of the time. Preparations should be made to take care of all manure that accumulates during the housing season. Too often manure is pitched out of the barns and exposed to the winter rains. Where manure is leached in this way the most valuable part of the fertilizer constituents is carried away to the streams and lost to the farm. When the manure is removed from the stalls it should be placed in a covered shed or pit and packed down so as to prevent leaching and fire-fanging, or it should be spread upon the fields where it can be plowed in immediately or applied as a top dressing for grasses.

Overheard in the Garden

"Yes," said the old gardener, "I have always done that way. I burn all of this rubbish during November while the weather is dry. In that way I keep the cabbage worms, cucumber beetles, and squash bugs from wintering in my garden. These old squash vines and tomato vines harbor many insects. The cabbage stumps containing the lower leaves furnish ideal winter shelter. Here are some chrysalids of the cabbage worms which you see are fastened to these fall-en cabbage leaves. The cabbage butterflies will come from these next spring and lay eggs to produce the worms. These tiny black objects you see on this cabbage leaf are eggs of the cabbage aphis. Hatch? Yes, they would hatch next spring but—makes a fine blaze, doesn't it?"

Clean Threshing Saves Grain

Cleaner harvesting and threshing in the United States have come to stay, according to reports received by the U. S. Food Administration from threshermen, farmers and local representatives in grain growing states. The so-called "blanket test" has shown thousands of grain producers how to determine when a threshing machine is operating properly, and has been especially impressive. Other methods of farm conservation have resulted in further large savings of marketable grain.

Of thirty-three grain states where efforts toward cleaner threshing were centered, two-thirds have already reported an aggregate saving of 16,000,000 bushels of wheat. Many of the other states, although not prepared to make estimates, reported greatly reduced harvest losses. In addition to wheat, at which the clean threshing campaign was especially aimed, there have been corresponding savings of other grains which are harvested and threshed in much the same manner as wheat and usually with the same machinery. An average of several thousand tests showed that raking shock rows saved about one bushel of grain per acre. In the past this operation has been an infrequent practice.

Threshing is still progressing in some of the northern states, and final returns are expected to swell the savings already reported. But the saving of 16,000,000 bushels already reported represents wheat cargoes of 30,000 bushels each for 500 food ships.

To complete the season's work in a thorough manner, owners of threshing machines, binders and all grain handling equipment are now asked to put them in readiness for next season. Emphasis is placed on ordering repair parts at once. Implement factories have informed the Food Administration of heavy demands for raw material, shortage of labor in their plants, and pressing war contracts. An additional advantage in ordering repairs and extra machinery parts this fall, is the exact knowledge of what is needed. Next spring, some of the repairs needed may be overlooked, with consequent danger of mishap and delay when every hour will count heavily.

The Seriousness of Sneezing

Let the innocent bystander beware of the careless or ignorant individual who takes no precaution to cover the nose and mouth when sneezing. Such carelessness should be resented as you would resent the dangerous habit of spitting.

When you sneeze, a spray of the secretions from the mucous membrane of the respiratory tract and the throat is thrown into the air for quite a distance about you. This spray often carries the germs of disease. From certain forms of leprosy and tuberculosis thousands of germs capable of producing these diseases are breathed by those who are standing within the zone of the spray.

Many of the influenzas or so-called colds are communicated from one person to another in the same way. Some apparently healthy people have disease-producing organisms that are sneezed out. If taken into the respiratory tract of others who have less resistance they will cause whatever special disease the particular inspired germ produces.—Pennsylvania Health Bulletin.

Worth Remembering

Here are a few gems from "the jewel casket" of the Wisconsin Agriculturist:

A noble life leaves its fiber in the fabric of the world.

If you can't be a sun, don't be a cloud, especially a thunder cloud.

Have a heart that never hardens, a temper that never tires and a touch that never hurts.

Never give way to melancholy. Every grief has twenty shadows, and most of the shadows are of our own making.

In a few simple words Christ gave the world the only rule to live by—The Golden Rule.

The most trivial tasks can be done in a noble, gentle, regal spirit, which puts aside all petty feeling and which elevates all things.

Look up and not down, look forward and not back, look out and not in, and lend a hand.

Do not whine. Do not hypnotize yourself with the thought that you are being kept down. People will only laugh at you. Only one thing can keep you down and that is yourself.

Our Individual Part

Some observers think that the most characteristic thing about the American soldiers in France, something which astounds the enemy and excites the admiration of our Allies, is the capacity of the American soldiers to do individual thinking and fighting. The German fights successfully only in mass formation, in organized bodies, while every American soldier has an initiative and independence of action which gives him remarkable efficiency in open fighting. They are not senseless cogs, but each is an individual working unit in a great fighting machine.

Every American at home should feel an individual responsibility and do his or her individual part in winning the war. There is not an American citizen who cannot help in some way, and our soldiers and the cause for which they are fighting deserve the fullest support from the people at home.

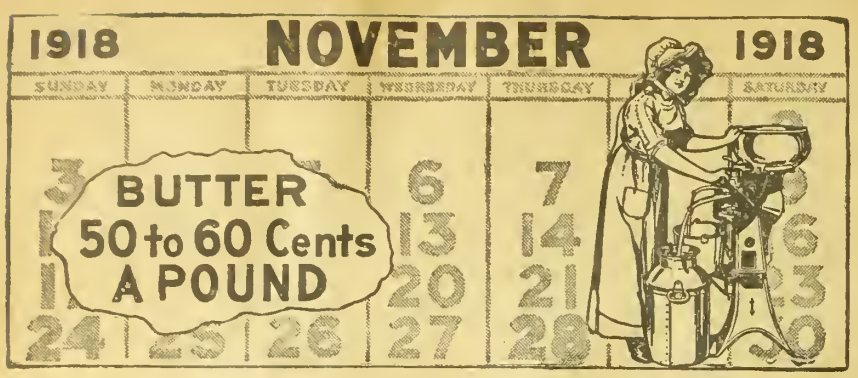
Just Americans--All Pull Together

By BRUCE BARTON.

THE war has taught the people many lessons they needed very much to learn. It has made possible many things that were impossible, and there is scarcely a man or woman in America who has not in some degree been lifted by it out of his old prejudices to a higher, broader plane of thought. We shall see the truth of that statement splendidly demonstrated the week of November 11-18 when seven agencies engaged in war work for our soldiers and sailors are to unite in a great campaign for funds with which to continue their ministry. Of these seven agencies two are Prodestant, the Y. M. C. A. and the Y. W. C. A., one, the National Catholic War Council, embracing the Knights of Columbus, is Catholic; the Jews are represented by the Jewish Welfare League, and the other three, the American Library Association, the War Camp Community Service, and the Salvation Army, have no denominational affiliation. According to the almost general conception these organizations could not be consolidated. But when President Wilson suggested that they get together the impossible was done in a single day. What years of discussion and convention had failed to bring about, the larger spirit, which the war has engendered was achieved without an effort.

The sum sought by the seven agencies is immense, $170,500,000, the largest single gift ever asked of any people at one time. Yet compared with the figures to which the war has accustomed us, it is small. Measured against the huge total which we shall pay to keep our boys under arms next year, this sum which is to provide for their comfort and cheer, becomes almost insignificant. It is less than ten cents a day for each boy—less than the average man spends for cigars.

It will be raised—not grudgingly, but in a spirit of splendid enthusiasm. The country will go over the top for the Big Seven as it has gone over the top for the Liberty Loan and the Red Cross.



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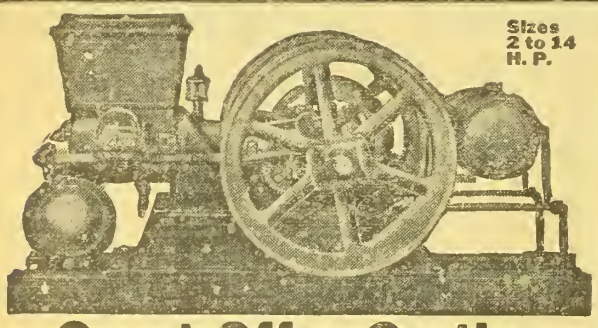

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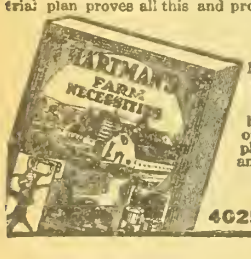

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"My Majestic 5H.P. Engine runs better than engines costing more for same H. P." J. HOENSHEL, Wisconsin.

"My Majestic engine is a little corker. It runs 28-inch saw for pole wood up to 6-inch wood in fine shape." J. E. HANNIBAL, New York.

"Best and most durable engine I ever used. Use my 3 H. P. Majestic on large fodder cutter. Saw wood with 24-inch saw with ease. More satisfactory than any other 4 H. P. Engines." W.C.FITZSIMMONS, Pennsylvania.

"My little Majestic runs 24-inch saw, cuts wood 8 inches thick and never logged once in zero weather." MRS. WOODGATE, Michigan.

"The Majestic is a dandy. Cut 3500 feet of pine in ten hours and ten minutes. It only takes 6 gallons gas per day on this hard work." C. MORROW, Minnesota.

"Received Majestic O. K. Best for pumping water I ever saw." J. CLEMMONS, Montana.

Canada Commandeers Butter

In response to an urgent appeal from the British Ministry of Food for increased shipments of butter from Canada the Canadian Government has commandeered all creamery butter made in the provinces of Alberta, Saskatchewan, Manitoba, Ontario and Quebec between September 30th and November 9th inclusive, and put Canadian consumers on an allowance of two pounds of creamery butter per person per month.

Great Britain and the Allies have been short of butter for many months, and although an Englishman's allowance is only one-half pound of butter and one pound of oleomargarine a month, the government finds it difficult to maintain this meagre ration. The principle of the "common table" is the basis of this order limiting the consumption of creamery butter in Canada. If tonnage permitted greater shipments of butter, Canada would, no doubt, limit home consumption still further in order to supply a fairer ration for the English table.

Farming in Enemy Countries

THROUGH information secured by the U. S. Food Administration, it is now possible to describe with reasonable accuracy the extent to which German farmers, and those in other enemy countries, are maintaining production and their attitude toward government regulations.

There is abundant evidence of rigid official supervision which to the American mind would seem intolerable. For instance, the Bavarian State Office has adopted severe measures to maintain the milk supply even to the extent of taking farmers' churns and butter casks from them to prevent butter-making on farms. As a result, milk deliveries in some districts have increased tenfold and are now practically as large as in peace times, though of course at the expense of butter production.

Naturally this was not accomplished without some friction, but considering the great number of food regulations affecting producers, of which this instance is typical, opposition has been surprisingly small.

In Hungary, fat and eggs are very scarce, but in midsummer vegetables were plentiful and were in the markets in large quantities. Peas were so abundant that instead of costing twenty-four cents a pound, the maximum price, they were sold at fifteen cents. The exact condition of Hungary's poultry industry cannot be clearly defined, but it is known that exports of eggs from the country were stopped by the Food Bureau in order that it might not be said of agrarian Hungary that she had no eggs in June. The price of eggs is reported at from fourteen to sixteen cents apiece and they are commonly sold in pairs rather than by the dozen.

Farmers are now accustomed to the policy (which has prevailed in most European countries since the beginning of the war) of government requisitioning. All bread grains and fodder are taken from farmers at harvest time, leaving them only sufficient amounts for feeding their own families and livestock and for seed purposes in the year to come.

This system has sometimes resulted, as for instance in Russia, in peasants withholding and hiding for their own use large quantities of their produce. But among the Central Powers the farmers to a large degree have come forward willingly and have given up their produce without hesitation. In one district in Bulgaria, following an extensive campaign in which food needs were pointed out, as much as 440,000 pounds of wheat and 44,000 pounds of corn were received in one day as voluntary contributions. The population as a whole has given its surplus stocks willingly and the requisition system has had most satisfactory results. Requisitioning thus amounts to a system of comprehensive purchasing to meet government needs, rather than an indication of hoarding or resistance by farmers to their government.

As a further means of increasing their agricultural resources, the Central Powers have stimulated production and assisted farmers in various ways. The Agrarian Bank of Bulgaria, acting in accordance with the policy of the Ministry of Agriculture, has distributed some hundred truckloads of agricultural implements. The Ministry of Agriculture has also decided to open in Old Bulgaria 250 stud farms. To expedite the 1918 harvest, military agriculturists were instructed to take all measures necessary. The system of labor organization included the employment of the able-bodied town residents between the ages of fourteen and sixty who were not engaged on their own behalf.

Farmers are believed to have benefitted to a considerable degree by the systematic though drastic government measures.

Here in the United States, let us hope, we shall never be subject to the discipline to which German farmers submit, for it is inconsistent with our democratic ideas. But we should realize that:

Farmers in the enemy countries are supporting their governments.

Certain kinds of food are still fairly abundant.

The Central Powers are using every possible means to maintainn agricultural production.

Isolated cases of food shortage are not necessarily typical of large areas.

Reports that farmers are slackening in their efforts bear the earmarks of German propaganda.

When we realize that the peasants in the enemy countries, who occupy a very lowly place as compared with farmers of this country, are patient under very rigid regulations and are willing to give up food which they have worked hard to produce in order that their armies may be fed, it should make us understand better the great task ahead for American farmers. We cannot well do less than these peasants in the enemy countries. With our vast acreage and our greater individual enterprise, man for man, we must overcome the Prussian system.

The U. S. Food Administration points out in the case of meat that if every suitable freezer in the world were packed to the roof that supply of meat would last our population and the Allies only a few days. The 30,000 000 cases of condensed milk canned last year in this country represent only about two and one-half per cent of this country's annual milk supply. Crops that are growing and the meat animals that are developing on farms and all food supplies constantly coming to market are the dominant factors in the food situation for the United States and the Allies. Our producing areas constitute our greatest reserves.

Profitable Butter Fat

The essentials in producing butter fat profitably are enumerated by H. H. Kildee of Iowa State College as follows:

Proper shelter in a warm, light, well ventilated barn. The leeward side of a barbed wire fence is an expensive shelter for milk cows.

A knowledge of the herd through the use of milk scales and the Babcock test.

Corn silage and clover or alfalfa hay as patriotic, profitable, palatable feeds.

A grain ration in proportion to milk and butterfat produced.

Full calving as a means of increasing production as well as a price at a time when more labor is available.

A bushel of grain fed before calving rather than two fed afterward. Prepare the cows for the milking period.

Water of moderate temperature. Ice water is not conducive to greatest milk production.

A milking machine in case of labor shortage.

Co-operation with the neighbors in organizing cow-testing associations and purchasing feed in carload lots.

Food Value of Skim Milk

Few persons realize the nutrient value of skim milk. The following figures are suggestive:

From 100 pounds of skim milk 15 pounds of cottage cheese may be made, with a protein value equal to 22.5 pounds of pork. In other words, a quart of skim milk makes more than a third of a pound of cottage cheese. When a hundred pounds of skim milk is fed to a pig the skim milk is converted into about 4.8 pounds of dressed pork, when combined with other feeds to the best advantage. For every hundred pounds of skim milk fed to pigs instead of used for human food in the form of cottage cheese, there is a food loss equivalent to the protein in 17.7 pounds of meat. That is not all; after the manufacture of cottage cheese, the whey remains and is available for stock feed. From 100 pounds of skim milk made into cottage cheese there is a residue of about 80 pounds of whey, which is regarded as having a feeding value of about half that of skim milk, and on that basis, when properly combined with other feeds, will produce 1.9 pounds of pork. So, by making cottage cheese and feeding the whey to pigs, the human food produced from 100 pounds of skim milk has the same protein value as 24.4 pounds of meat, or 19.6 pounds more than when all the skim milk is fed to pigs.

The price of sugar in Petrograd during July, 1918, ranged from $3.31 to $3.55 per pound, according to information lately secured by the Food Administration through sources considered reliable. Sugar prices were approximately three times as great as butter prices.

Safe food reserves are the only insurance against food disasters.

Farmers Hold Front Trenches

OUR farmers were prepared and ready for action when the U. S. entered the war. It may truly be said that the farmers of this country held the front line trenches in 1917.

By producing one thousand million bushels more food crops than usual, the American farmer kept the Allies from famine and defeat, and thus saved civilization," said Mr. Vrooman in a recent address at a farmers' meeting in Illinois. "This fact is not generally realized, even by well-informed city people, for the simple reason, as stated by Secretary Houston, that 'farmers are not spectacular performers. They do not furnish sensations and headlines. They work in season and out of season, from early morning until dusk, but they do not work in the limelight.'

"I sometimes wonder what percentage of our urban population realize that America's greatest contribution to the allied cause, during our first year of war, was not men, nor munitions, nor even money, but the part of our gigantic emergency feed crop we were able to ship abroad. It may sound strange to those who have not taken pains to look into the matter, but the truth is, if this nation had been able to lay the foundation of military preparedness as thoroughly as it had those for agriculture, it would have been able to mobilize its fighting men and its industrial resources more rapidly and would have been able promptly after entering the war to have furnished millions rather than hundreds of thousands of thoroughly equipped men for the assistance of the Allies.

"Three Federal departments were in position quickly to mobilize for war—the Navy department, the Treasury department, and the Department of Agriculture. This was because these were the three departments for which Congress had enacted the most effective 'preparedness' legislation before the war.

"I would not think of intimating that the farmer is any more patriotic than the city dweller, but it is only fair to say that recent events have demonstrated that the farmer is as patriotic as the best, and that when the storm broke he was better prepared for actual war work than was any other class of citizens.

"In truth, the day after war was declared, when as yet we had only 200,000 soldiers, and while the Navy was still on a peace basis, 6,000,000 farmers and their families were mobilized in the fields and furrows of America, where they have been fighting from dawn until dark every working day since.

"Our billion bushel increase in food crops was brought about in spite of the fact that when war was declared many of the crops already had been planted, and all of them had been decided upon and prepared for. Moreover, this grandiose harvest was not due to unusually favorable weather conditions. The wheat crop, owing to droughts in the wheat belt, wheat diseases, and the largest percentage of loss by winter killing ever recorded, was almost a failure; while the corn crop was nearly undone by a late spring, an excessively moist and almost sunless summer, and early frosts nearly everywhere in the corn belt.

"Our phenomenal food crop last year was due primarily to the patriotism, sweat, and 'pep' of the American farmer, who from April until November had the undying honor of constituting America's first line of defense, of occupying the front line trenches of America's slowly forming battle line.

"Nor was this brilliant quasimilitary achievement gained without a casualty list. It is true that no farmers risked or lost life or limb in this victorious food drive, but hundreds of thousands of them, by increasing their acreage and extending their crop beyond the danger point, risked bankruptcy, and thousands of them, owing to droughts, early frosts, and other adverse conditions, 'went broke.' But like the patched-up wounded at the front, these unconquerable 'hayseed patriots' today are all practically back on the food firing line, perhaps heavily mortgaged, or working as hired men, but each and all doing their utmost to produce the food which is to keep the armies of civilization strong for battle, as they fight their way to victory and peace by way of Vienna and Berlin.

"This year's American food crops, especially wheat, are larger than last year's by a comfortable percentage. All varieties of live stock, likewise, have greatly increased in numbers. In spite of heavy exportations of horses and mules, the number remaining in this country increased by nearly half a million; milk cows increased 390,000, while other cattle increased nearly 2,000,000 Sheep increased 1,300,000 and swine increased 4,000,000.

"For the incomparable showing made by American agriculture the farmer himself by all means deserves first credit. But in all his efforts he has been constantly stimulated, aided, and abetted by the President, the Congress of the United States, the Federal Department of Agriculture, the state agricultural colleges and experiment stations, the state departments of agriculture of the various states, the various farm organizations throughout the country, and an active, intelligent, and highly patriotic agricultural press."

Milling Regulations

The license regulations affecting millers of mixed flours were revised late in September. The present rules are designed to fully safeguard the handling of wheat from the time it leaves the producer until it is ready for export or home distribution. The following regulations, which are now included in the system of control, will be of interest to wheat growers:

The storage space in all warehouses, elevators and other plants used for the storage of wheat or its products is at the command of the U. S. Food Administration when the use of such space is deemed necessary for Governmental purposes.

Wheat millers must not use more than 264 pounds of 58-pounds-per-bushel or heavier clean wheat in making 196 pounds (one barrel) of flour. This results in a milling extraction of about 74 per cent.

Wheat must not be used for feeding, nor may wheat or wheat flour be used in manufacturing or mixing feed unless it is unfit for human consumption. Such unfit wheat may be used to the extent of 10 per cent for poultry or pigeon feed. Wheat which is unfit for human consumption and also unfit for poultry and pigeon feed may be used for other feeding purposes.

The use or sale of wheat flour for other purposes than human consumption is prohibited, except with the written permission of the Food Administration.

Wheat millers must not subject wheat to any treatment that will result in waste of wheat from which flour fit for human consumption can be made.

Wheat flour, mixed flour and feed must be sold at a reasonable advance over the cost of wheat and packages. So-called "fair price schedules," which must be conspicuously displayed, are the basis for determining what charges are reasonable.

Wheat mill feeds must not be mixed with other feeding stuffs in any greater percentage than in 1917.

The wheat miller who receives wheat from farmers' wagons and grinds such wheat on a toll or exchange basis shall not charge more than 35 cents per bushel for each sixty pounds of cleaned wheat. This must be paid in cash, but there is no objection to the farmer selling some portion of his wheat at an agreed price and using the purchase price to cancel the charge per bushel made for milling. The miller is also required to return to the farmer flour and feed in accordance with a specified schedule.

To provide uniformity in flour and wheat-feed contracts, the Food Administration requires that a prescribed form must be used. All transactions are subject to investigation by authorized Food Administration representatives.

Mill feeds may be sold for certain feeding purposes only. The permissible uses are specified in the pledge of honor which purchasers of such feeds are required to sign. The purpose of this rule is to insure a wider and more equitable distribution of wheat feeds and to prevent their careless use.

Mills are required to distribute their mill feeds on the same basis as in 1917, except in the drouth areas of Montana, Colorado, New Mexico, Nebraska, Kansas, Oklahoma and Texas.

The foregoing special license regulations are in addition to the general milling regulations promulgated early in May of this year. The penalty for violations may be revocation of license, fine or imprisonment, or it may be a combination of these consequences. In acquainting American farmers with the developments in milling control outlined, the Food Administration believes that producers will have a clearer conception of the methods used to prevent speculating and profiteering in wheat and its by-products.

South Africa Conserves Wheat

The far-reaching effects of war on remote parts of the world may be seen in efforts to safeguard the wheat supply of South Africa. According to the Wheat Conservation Act, recently enacted, standard flour is to contain not less than 75 per cent of the wheat berry, and 83 per cent of standard flour is to be mixed with 17 per cent of meal, barley, rye or other regulation substitute.

This South Africa ratio is noticeably similar to the 80-20 plan of wheat conservation now in force here in America and in the Allied countries.



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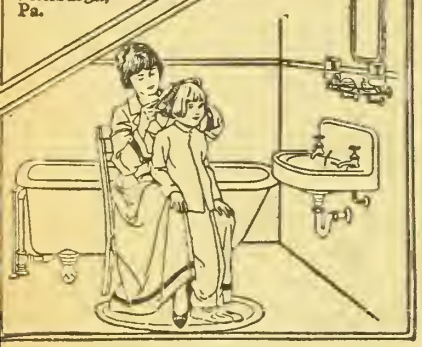

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SENATE CONCURRENT RESOLUTION No. 18.

A proposition to amend section 1 of article 5 of the constitution of the state of Kansas relative to the right of suffrage.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members elected to each house thereof concurring therein:

Section 1. The following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their approval or rejection: That section 1 of article 5 of the constitution of the state of Kansas be amended to read as follows:

Section 1. Every citizen of the United States of the age of twenty-one years and upwards—who shall have resided in Kansas six months next preceding any election, and in the township or ward in which he or she offers to vote, at least thirty days next preceding such election—shall be deemed a qualified elector.

Sec. 2. That this proposition shall be submitted to the electors of the state at the general election in the year 1918 for their approval or rejection. The amendment hereby proposed shall be designated on the ballot by the following title: "The suffrage amendment to the constitution," and shall be voted for or against as provided by law under such title.

Sec. 3. That this resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 8, 1917.
Approved March 12, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 18, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

THE STRAY LIST.

TAKEN UP—BY J. H. CRANSHAW, route 5, Rosedale, Wyandotte County, Kansas, on October 3, 1918, one red steer, weight about 1,000 pounds. Branded on left side. Both ears trimmed. William Beggs, County Clerk.

TAKEN UP—BY G. A. HANEY, OF BURlingame Township, Osage County, Kansas, about August 25, 1918, one red yearling steer. No marks or brands. Appraised at $35. Also one red two-year-old steer, no marks or brands, appraised at $55. Wm. Hayson, J. P.

Hog Price Plans for November

HOG prices for November are to be on the basis of a $17.50 minimum for packers' droves and the Food Administration hopes that the average will be $18. Packers' droves are to include "throw-outs," which are defined as pigs under 130 pounds, stags, boars, thin sows and "skips." No hogs are to sell at less than $16.50. The text of the announcement follows:

"The conference between the live stock subcommittee of the agricultural advisory board, including special members representing the swine industry and of the Food Administration, held on October 23-25, has, after consideration of the present situation of the pork and hog market, reached the following conclusions: The entire marketing situation has so changed since the September joint conference as to necessitate an entire alteration in the plans of price stabilization. The current peace talk has alarmed the holders of corn, and there has been a price decline of from 25 cents to 40 cents a bushel. The fact that the accumulations of low-priced corn in the Argentine and South Africa would, upon the advent of peace, and liberated shipping, become available to the European market, has created a great deal of apprehension on the part of corn holders. This decline has spread fear among swine growers that a similar reduction in the prices of hogs would naturally follow. Moreover, the lower range of corn prices would, if incorporated in a thirteen-to-one ratio, obviously result in a continuously falling price for live hogs.

"In view of these changed conditions many swine producers anticipated lower prices and as a result rushed their hogs to market in large numbers, and this oversight has added to and aggravated the decline. The information of the Department of Agriculture indicates that the supply of hogs has increased about 8 per cent, while the highest unofficial estimate does not exceed 15 per cent increased production over last year. On the other hand, the arrival of hogs during the last three weeks in the seven great markets has been 27 per cent more than last year, during the corresponding period, demonstrating the unusually heavy marketing of the available supply. In the face of the excessive receipts some packers have not maintained the price agreed upon last month. On the other hand, many of the packers have paid over the price offered to them in an endeavor to maintain the agreed price. The result in any event has been a failure to maintain the October price basis determined upon at the September conference and undertaken by the packers.

"Another factor contributing to the break in prices during the month has been the influenza epidemic; it has sharply curtailed consumption of pork products and temporarily decreased the labor staff of the packers about 25 per cent.

"The exports for October are 130 million pounds of pork products as compared with about fifty-two million pounds in October a year ago, and the export orders placable by the Food Administration for November amount to 170 million pounds contrasted with the lesser exports of ninety-eight million for November, 1917. The increased demands of the Allies are continuing and are in themselves proof of the necessity for the large production which the Food Administration asked. The increase in export demands appears to be amply sufficient to take up the increase in hog production but unfavorable market conditions existing in October afford no fair index of the aggregate supply and demand. It must be evident that the enormous shortage in fats in the Central Empires and neutral countries would immediately upon peace result in additional demands for pork products which, on top of the heavy shipment to the Allies, would tend materially to increase the American exports, inasmuch as no considerable reservoir of supplies exists outside of the United States. It seems probable that the present prospective supplies would be inadequate to meet this world demand with the return to peace. So far as it is possible to interpret this fact, it appears that there should be even a stronger demand for pork products after the war, and therefore, any alarm of hog producers as to the effect of peace is unwarranted by the outlook.

"In the light of these circumstances it is the conclusion of the conference that attempts to hold the price of hogs to the price of corn may work out to the disadvantage of pork producers. It is the conclusion that any interpretation of the formula should be a broad-gauged policy applied over a long period. It is the opinion of the conference that in substitution of the previous plans of stabilization the live stock subcommittee of the agricultural advisory board, together with the specially invited swine representatives, should accept the invitation of the Food Administration to join with the Administration and the packers in determining the prices at which controlled export orders are to be placed. This will be regularly done. The influence of these orders will be directed to the maintenance of the common object, namely, the stabilization of the price of live hogs so as to secure as far as it is possible fair returns to the producer and the insurance of an adequate future supply. These foreign orders are placed upon the basis of cost of hogs to the packers. As the result of long negotiations between this body and the packers' committee, representing the forty-five to fifty packers participating in foreign orders together with the Allied buyers, all under the chairmanship of the Food Administration, the following plan has been proposed by the packers:

"In view of the undertakings on the part of the Food Administration with regard to the co-ordinated purchase of pork products, covered in the attached, it is agreed that the packers participating in the orders will undertake not to purchase hogs for less than the following agreed minimums for the month of November, that is a daily minimum of $17.50 per hundred pounds on average of packers' droves including throw-outs to be defined as pigs under 130 pounds, stags, boars, thin sows and skips. Further, that hogs of any kind shall not be bought, except throw-outs, at less than $16.50 per hundred pounds. The average of packers' droves to be construed as the average of the total sales in the market of all hogs for a given day. All the above to be based on Chicago. We agree that a committee shall be appointed by the Food Administration to check the daily operations in the various markets with a view to supervision and demonstration of the carrying out of the above. The ability of the packers to carry out this arrangement will depend on there being a normal marketing of hogs based upon the proportionate increase over the receipts of last year. The increase in production appears to be a maximum of about 15 per cent and we can handle such an increase. If the producers of hogs should, as they have in the past few weeks, prematurely market hogs at such increasing numbers over the above, it is entirely beyond the ability of the packers to maintain these minimums, and therefore we must have the co-operation of the producer himself to maintain these results. It is a physical impossibility for the capacity of the packing houses to handle a similar overflood of hogs and to find a market for the output. The packers are anxious to co-operate with the producers in maintaining a stabilization of price and to see that producers receive a fair price for their products.

"The plan embodied above was adopted by the Food Administration and it has appointed a committee comprising Thomas E. Wilson, chairman of the packers' committee; Everett Brown, president of the Chicago Live Stock Exchange; Major Roy, of the Food Administration, and Louis D. Hall, of the Bureau of Markets, to undertake the supervision of the execution of the plan in the various markets. Commission men are asked to co-operate in carrying out the plan embodied in the packers' agreement. It must be evident that offers by commission men to sell hogs below the minimum established above is not fair, either to the producer or the participating packers. Mr. Brown has undertaken on behalf of the commission men in the United States that they will loyally support the plan.

"It is believed by the conference that this new plan based as it is upon a positive minimum basis will bring better results to the producer than average prices for the months. It does not limit top prices and should narrow the margins necessary to country business in a more variable market. It is believed that the plan should work out close to an $18 average. Swine producers of the country will contribute to their own interest by not flooding the market, for it must be evident that if an excessive over-percentage of hogs is marketed in any one month, price stabilization and control cannot succeed, and it is certain that producers themselves can contribute materially to the efforts of the conference if they will do their marketing in as normal a way as possible. The whole situation as existing at present demands a frank and explicit assurance from the conferees represented, namely, that every possible effort will be made to maintain a live hog price commensurate with swine production costs and reasonable selling values, in execution of the declared policy of the Food Administration to use every agency in its control to secure justice to the farmer.

"The stabilization methods adopted for November represent the best efforts of the conference, concurred in by the Food Administration and the live stock sub-committee of the agricultural advisory board, together with special swine members, and the representatives of the packers, to improve the present unsatisfactory situation which has unfortunately resulted because of the injection of uncontrollable factors. We ask the producer to co-operate with us in a most difficult task."



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SENATE CONCURRENT RESOLUTION No. 15.

Be it resolved by the Legislature of the State of Kansas, two-thirds of the members of each house concurring therein:

Section 1. That the following proposition to amend the constitution of the state of Kansas is hereby submitted to the qualified electors of the state for their rejection or approval:

Sec. 2. The Legislature may levy a permanent tax for the use and benefit of the state educational institutions and apportion among and appropriate the same to the several institutions, which levy, apportionment and appropriation shall continue until changed by statute. Nothing herein contained shall prevent such further appropriation by the Legislature as may be deemed necessary from time to time for the needs of said state educational institutions.

Sec. 3. This proposition shall be submitted to the electors of this state at the election for representatives in the Legislature in the year 1918. The amendment hereby proposed shall be known on the official ballot by the title "Amendment to the constitution providing for a permanent income for the state educational institutions," and the vote for and against such amendment shall be taken as provided by law.

Sec. 4. This resolution shall take effect and be in force from and after its publication in the statute book.

Passed the Senate February 28, 1917.
Passed the House March 7, 1917.
Approved March 10, 1917.

I hereby certify that the foregoing is a true and correct copy of original Senate Concurrent Resolution No. 15, now on file in my office.
J. T. BOTKIN,
(Seal) Secretary of State.

Interesting War Items

A Minneapolis boy writing home after his arrival in France is quoted by the Messenger as saying that while on board ship he had six meals a day, three down and three up.

How a Gas Mask Feels

This is the way an American soldier describes a gas mask in familiar terms to his family at home:

"If you want to know how a gas mask feels, just take a garden hose and shove it into your mouth, put a clothespin on your nose, and then tie a rag around your head and over your face real tight and hang the working part of the carpet sweeper, minus the handle, around your neck, and you will get some idea of how it works."

Collecting Insurance

If an enlisted man dies, his relatives who are entitled to compensation, insurance, or burial expenses, either or all, that the enlisted men may have taken under the war-risk insurance law, should promptly notify the Bureau of War-Risk Insurance, as follows:

Pvt. John Howard Smith, deceased, April 12, 1918, Serial No. 85634, formerly of Co. I, 125th Infantry, American Expeditionary Force.

Bureau of War-Risk Insurance, Attention of Compensation and Insurance Claims Section, Treasury Department, Washington, D. C.

Gentlemen: On or about April 12, 1918, my son, the above-named enlisted man, died in the service. He leaves a widow, Mrs. Elizabeth Brown Smith, and two children, John Howard Smith, Jr., ten years old, and Elizabeth Smith, five years old. Their address is 84 Buchanan Street, Topeka, Kansas.

His father, Joseph Walter Smith, and myself live on R. F. D. 2 from McPherson, Kansas. We were both dependent upon him for support to the extent of $10 per week jointly for the last three years. He also leaves one brother and two sisters, as follows:

Henry Smith, 1430 Pierre Street, Manhattan, Kansas.

Kate Higgins Smith, R. F. D. 1, Marysville, Kansas.

Jane Smith Porter (Mrs. William Townsend Porter), 625 Taylor Street, Topeka, Kansas.

There are no other members of his own immediate family.

Will you please furnish the necessary forms upon which to file claims for compensation, insurance, and burial expenses?

Very truly yours,
MARY HUNTER SMITH
(Mrs. Joseph Walter Smith), Box 25, R. F. D. 2, McPherson, Kansas.

It should be clearly understood that the giving of information concerning members of the family other than the widow, child, dependent mother, or dependent father does not mean that these other persons are entitled to compensation. Information concerning these other persons is included merely because they may be beneficiaries of any insurance out.

The Army "Y"

Some of the things which the army Y. M. C. A. furnishes to the soldiers are:

Stationery, pens, ink, blotters and dssks for use in writing home.
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Musical entertainments, readings, etc.
Athletics in and out of the building.
Phonograph and records.
Religious meetings, interviews, and Bible classes.
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Postage stamps.
Money orders.
Delivery and phone calls from relatives to boys in the barracks.
Wrapping paper and twine.
Shipping tags.
Weighing up parcels post.
Motion pictures.

Pickles for Soldiers

The men of the army, in camps, cantonments, and in the overseas forces, are apparently fond of pickles. The War Department announces that there is a shortage in the sizes of pickles specified by the army specifications. For the 230,000 gallons required for overseas, the subsistence division of the Quartermaster Corps has received bids on less than 100,000 gallons. This situation will be relieved by the use of larger pickles until after the new crop is in.

The subsistence division is now studying the advisability of using vinegar made from watermelons. It is found that there is a large wastage of the watermelons grown in the South, and the vinegar manufactured from them is a splendid product. The cost of producing this vinegar is less than that of cider vinegar.

Boys Feel It a Privilege

"While I cannot write you any very exciting news, yet we are furnishing news galore to the papers, and it is really wonderful to see the optimistic spirit manifest among all the people here," writes Frank Neff, formerly a Hutchinson pastor, now a Y. M. C. A. worker in France.

"The boys, as a rule, seem eager to get into the line, feeling that it is a great privilege, even if they should fail to come out alive.

"With that kind of a spirit there is no wonder that our wonderful fellows are going through the 'boche' lines about every time they make any kind of an effort. We are surely proud of them over here and suppose that you are the same at home."

A Change of Heart

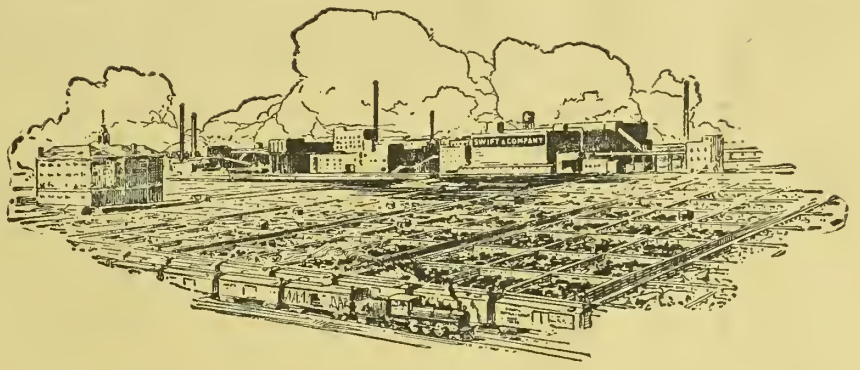
Dr. G. F. Abrahams calls our attention to the peculiar changes that are brought about by the American melting pot. Forty-eight years ago Doctor Abrahams, as a German soldier in the Franco-Prussian War, helped to take Alsace-Lorraine away from France. Now Doctor Abrahams' son, Louie Abrahams, is fighting side by side with the French to take it back. And Doctor Abrahams hopes they will do it.—Downs Times.

A Trying Ordeal

In a delightfully frank letter published in the South Kansas Tribune, First Lieutenant Guy S. Williams, who commanded a machine gun company in the battle of the Marne and in consequence is "laid up for a time" in a base hospital in France, "but in no serious condition I assure you," writes:

"I might as well admit that this dope about a heroic young Lute climbing over the top with all the gay-souled, light-hearted serenity of a medieval knight scaling a ladder of love to kiss the neatly manicured finger tips of his lady, and cantering over to meet Fritz, singing or whistling as he gallops, was all wrong in my case. I was about as chee ful in those strenuous days as a on armed pianist or a blind man at a bu lesque. But somehow we all live through even the most trying ordeals, don't we? And the Hun is falling back toward the land of suds and inlaid pretzels, instead of leaping and bounding joyously, like a cleansed leper, toward the outskirts of Paris. Horrid things! They have a lot of nerve to want Paris! Where do they think we go on permission?"

Lieutenant Williams does not seem to have permanently lost his "gay-souled, light-hearted serenity."



How the packers have helped to develop good stockyards

—and how this has benefited you as a producer

WHOSE job is it to provide and maintain stockyards, or markets, for the open buying and selling of cattle?

Who shall see that these markets have good pens where your stock can be properly watered, fed and taken care of until sold?

Stockyards, in early days, were not efficiently managed, and were not financially attractive to investors, except in the largest markets.

As the packers built their big-capacity plants at the various live-stock centers, they naturally became interested in helping to develop adequate stockyards facilities, where stock raisers could ship their animals.

The present high efficiency of most of the principal stockyards is due largely to the time, the effort, and the money the packers have put into them.

All stockyards, including those in which packers are interested, are conducted as *public* market places for the benefit of all.

They are open to all—to producer, commission man, dealer, speculator, the packer's buyer—and with exactly the same rights to each.

Packer-ownership gives no special advantages to the packer and no control over live-stock prices.

These spot-cash markets have been a factor of very great importance in promoting the growth of the live-stock industry.

If stockyards efficiency can be increased by Government ownership and operation, all well and good. Swift & Company is content to stand on its record of having helped the live-stock industry by the part it has played in developing these market places.

Swift & Company, U. S. A.

A nation-wide organization owned by more than 22,000 stockholders



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Taylor has dealt with the country's trappers for 48 years on the basis of honest, conscientious grading, highest prices, prompt cash returns and complete mutual satisfaction. Deal where you can **know** every advantage is yours. Choose from these great

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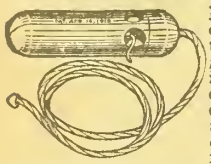
Taylor Smoke Torpedo



For smoking animals out of dens. Employs the *only correct principle.* Torpedo is pushed to back of den on flexible wire cable, thus forcing animals *forward* and *out*—instead of suffocating them in den as when smoke is forced in through entrance with ordinary smoker. Uses smoke cartridge which lights instantly. No trouble—no fuss. Weight only 1 pound—easy to carry. Outfit complete comprises the torpedo, 10 feet flexible cable and 12 smoke cartridges. Price complete postpaid.....$2.00

Waterproof Match Box



Absolutely water and moisture proof. Always easy to open. Lasts a lifetime. Heavily nickeled to prevent rusting. Convenient size. A dry match when you want it—sure. Price, postpaid.....25c

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Please Send Me Your FREE Book of Traps Showing American Fur Bearing Animals in Color

Name.....

R.F.D.....Box.....

Town.....State.....

Government Pays for Cattle

THE Federal Government is to pay part of the value of the animals slaughtered as the result of testing for tuberculosis in establishing accredited herds. This will greatly encourage prevention and control work. The 1919 agricultural appropriation bill just passed by Congress contains an item making provision for the work of eradicating tuberculosis among cattle and swine. The Department of Agrieulture from the funds provided is to pay one-third of the difference between the appraised value of the cattle and the salvage value of the slaughtered animals, providing that the state, county, or municipality in which the cattle are kept is co-operating in the tuberculosis work and pays at least an equal amount to the owner. The bill provides that in no case shall the Federal Government pay more to the owner than is paid by the state, county or municipality, and no payment by the Federal Government is to be more than $25 for any grade animal or more than $50 for any pure-bred animal. In order to obtain payment, it is also necessary for the owner to comply with all quarantine regulations.

This provision should remove much of the opposition among cattle owners that has hindered tuberculosis eradication work. Through it the Federal Government, the state, county or municipal governments and the owners of eattle will share in the loss resulting from slaughtering infected animals for the protection of other animals not infected.

Another important development expected to hasten tuberculosis eradication was the unanimous adoption by breeders and live-stock sanitarians of national reputation of regulations for accrediting pure-bred herds of cattle. This action, taken last December, marked the co-ordination of efforts of individuals and the State and Federal governments for the suppression of tuberculosis in pure-bred animals.

On July 1, the Department issued its first list of herds officially accredited as free from tuberculosis. The herds numbered on that date approximately 240. The list also named herds that had passed one successful test. They must pass another annual test successfully before being placed on the accredited list.

The annual loss from tuberculosis among eattle and hogs is reckoned at $40,000,000 in the United States. The Federal campaign to eradicate the disease is of comparatively recent beginning. It has been divided into three well-defined projects. The first project is the eradication of tuberculosis from individual herds of pure-bred cattle; the seeond is the eradication of cattle tuberculosis from circumscribed areas; the third is the eradication of tuberculosis among swine.

It is estimated by officials in elose toueh with available records that 15 per cent of pure-bred cattle in this eountry are affected with tuberculosis. In grade cattle and swine the pereentage of infection is gradually increasing, as shown by post mortem records in establishments where meat inspection is maintained. Infected animals are not only dangerous to other animals but may transmit the disease to mankind through milk and flesh.

Percherons to Great Britain

Few breeds of live-stock have been honored by exportations to Europe. Breeding stock has all moved to America, and there are but few cases on record where Europeans have bought breeding stock in America. Such shipments have heretofore beeu small.

Percheron breeders in America should therefore be particularly gratified over the recent sale and shipment of twenty-six Percheron fillies and one stallion to Great Britain. These are already on the way overseas. They were purchased by Hon. Alexander Parker, who spent some time in America as a purchasing officer in the British Remount Service. While here he visited Geo. Lane's Bar-U ranch twice, and the present exportation grew out of his favorable impressions of the Percherons seen there, and the admitted superiority of the breed in war service. British officers galore have testified that no horses have given such outstanding service with respect to endurance, docility and activity as have the grade Percherons from America. The founding of a number of Percheron breeding establishments in Great Britain has occurred in the last year.

Many Percherons have been bought in France for this purpose. Now we have purchases in America. Additional shipments are sure to follow and our American Percheron breeders will undoubtedly exert themselves to build up a favorable export trade not only in Europe, but with Australia and New Zealand.

Do Not Breed Ewe Lambs

The beginner with sheep will probably be tempted to breed the ewe lambs this fall. It is one of the serious mistakes of sheep husbandry to breed the young ewes before they are fully matured. The lamb makes its best growth during the first twelve months of its life. If it is bred under one year of age its growth is retarded and dwarfing will of necessity follow. Frank Kleinheinz, probably one of the best authorities on sheep in the United States, says:

"The practice of breeding ewe lambs, even if well developed, leads to destruction of the flock. The size of the individual is checked, constitution is lessened, weight of fleece is greatly reduced, and the percentage of lambs raised from ewe lambs is generally only about 50 per cent of that of the older ewes. Nature has not as yet provided the lamb with the necessary qualities to become a mother at this early age. No intelligent sheep raiser, no matter if he owns a large or small flock, will breed ewe lambs, knowing that a healthy, vigorous flock of strong constitution can only be established by breeding the lambs the second fall and not the first. In order to have sheep raisers successful and elevate sheep husbandry to a higher level, the breeding of ewe lambs should be discouraged wherever possible. I have seen many flocks that were once big, strong, robust sheep, but which were later degenerated by breeding ewe lambs."

Heifers Better Than Mothers

The second eross three-year-old heifers by pure-bred bulls shown at the Sni-a-Bar Farm demonstration are worth from $25 to $35 more than heifers of the type of the original cows. The original cows were purchased by W. R. Nelson on the Kansas City market. They were good-sized cows, showing evidence of beef ancestry and were good milkers. A representative group of these cows were shown at the meeting on the farm last month. Mr. Nelson, in starting this demonstration, had in mind proving that five successive crosses of pure blood would eliminate practically all the influence of the inferior ancestry.

Twelve coming three-year-old heifers with calves at their sides were shown at the farm meeting to represent the second cross by the pure bred bulls. Although these heifers were scarce three years old and had suckled calves, they were almost as big as their mothers and had two years yet to grow. They were closer to the ground than their mothers, had broad backs, more refined heads, and were decidedly superior to either heifers or steers of the first cross. While one eross of good blood is good, two or more crosses work that much more improvement with each cross. This fact was most forcefully demonstrated at the Sni-a-Bar Farm meeting.

Reducing Horse Expense

The maintenance of unnecessary horses on the farm is a costly practice at any time. It is doubly so now, because of the high prices of feeds. On the average farm, horses and mules work an average of less than five hours a day throughout the year. Any other income they can create will reduce the cost of operations. There are two main methods of increasing the revenue from horses and mules, says E. A. Trowbridge of Missouri College of Agriculture. First, brood mares raising colts besides doing farm work. If the mares are of the right kind they are a valuable asset. Second, much farm work can be done with young horses and mules that have not yet reached the age at which they are most valuable. Such animals as these can well be used for farm work.

Horses, other than brood mares which are producing colts, and horses and mules which are not increasing in value, should be considered seriously as property for sale. It is possible to overstock a farm with horses. The equipment should be studied carefully to see that this is not done. By no means, however, should farm horse stock be so depleted as to cripple farming operations. Good, strong horses and mules are essential for maximum production.

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THIS BOOK WILL HELP YOU

To Trap and Hunt, with profit. It shows *when* and *where* to trap, and how to prepare skins, to make the most money from them. *The Boys and Older Men at Home Will Have Control This Year.* There is *Big Money* to be made. There is a great shortage of skins. Prices will be very high. *The War* has shut off foreign shipments. Our house is situated to pay you all your skins are worth. We will grade them honestly, and give you a *Square Deal.* We have standing orders that we cannot fill. *Send name and address,* for the Book. *Hides* wanted, write for Price List.
LINCOLN HIDE & FUR CO., 1072Q Street, Lincoln, Neb.

Wheat Pasture

Wheat pasture means much to the live stock industry of our state. In most sections the weather has been especially favorable and wheat has made a fine growth. We have seen wheat in Eastern Kansas fully six inches high. In some places where the corn was a total failure the return from pasturing the wheat will more than make up for the loss of the corn crop. Where the conditions have been favorable for the wheat to make such luxuriant growth it is an advantage to the crop to have it pastured down, provided the stock is not allowed to run on it when the surface of the ground is wet.

Wheat pasture is a great help to the dairymen of the state. Thousands of dollars can come from converting this rank growth of wheat into milk and eream. Cows on good wheat pasture produce as well and as economically as on June grass. Very little grain or other feed is necessary when cows can run on a good wheat pasture.

When pasturing wheat provision always should be made to feed the stock on days when it is not best to turn them out. On farms having silos the silage can be fed during such periods, and the cows will not be affected seriously by the change.

In the Civil War the death rate from disease was fifty for each thousand people. In our Spanish-American War it was twenty-seven for each thousand. In the Franco-Prussian War it was for Germany twenty-five for each thousand. For us in this war it is eight for each thousand. This is because we help give our boys substantial food, proper recreation, and some comforts in sanitary camps.

Five dollars will provide a lot of good things for your boy at the front.

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Let the Turkeys Grow

THE turkey is still a wild bird. All the efforts of the farmer and breeder have failed to domesticate this wanderer into a barnyard dependent that puts on fat at the whim of the owner. A chicken will put feed into fat at almost any age and at any time the crop is kept filled with the right kind of feed.

The young turkey, however, is a long-legged bug hunter until the winter thatch of feathers is put on and Nature suggests that it is time to store up a reserve for rigorous weather. Turkeys will put on weight rapidly and economically at that season and raisers should take advantage of it.

This, too, is the season when fields provide plenty of feed that would otherwise go to waste and, in the case of weed seeds, would do damage to future crops.

Now, when we have need for every ounce of food that can be put into form for human consumption, whether ground by mills or gizzards, it is the soundest economy to let the young turkeys live through the fall bug-and-seed-hunting season.

A young gobbler that weighs ten pounds in October will weigh twelve or thirteen pounds sixty days later if given a little extra feed along towards the end of that period. A hen in the same time will fill out from seven pounds to nine or ten. Such satisfactory gains can be made at no other time in the bird's life. It is the season when Nature is preparing for winter. The turkey hasn't learned to depend on the farmer's grain bins.

The U. S. Food Administration suggests that in order to take advantage of this favorable season for putting on gains that no young turkey hens weighing less than six pounds dressed should be marketed. Young gobblers should be of sufficient size to dress at least eight pounds before being sold. Let the turkeys develop and grow fat.

How to Select Layers

In culling the flock a knowledge of how to select the good layers is highly important in these days of high-priced feed. In a new circular from the Agricultural College of Oregon, James Dryden, one of our leading authorities on poultry, gives a few timely suggestions. The selections for the winter laying flock should be made before the middle of December. First, look for hens that show incomplete moult, red combs and wattles, and bright eyes; second, those with well spread pelvic bones, good depth from pelvic bones to keel bone, and soft abdomen; third, those with pale shanks and beak among breeds that have naturally yellow skin and shanks.

"To make the selection with the greatest accuracy use all three tests," says Professor Dryden. "The high price of feeds and added expense of labor, along with other items that enter into the cost of producing, makes necessary a careful culling of the laying flock if a profit is to be made by the producer. High producing hens are making a better profit at the present prices of eggs than before the war. On the other hand, poor layers that made little or no profit in the period of cheap feed, now show a greater loss than ever on the food they eat."

Few Pullets Marketed

Rapid development of the poultry industry in central and southern states is evident from field observations by the Food Administration. W. F. Priebe, its poultry specialist, has just returned from a trip through Kentucky, Tennessee, Missouri and Illinois, and in all of these states poultry is taking its place among the more important farm operations.

Women especially have signified their desire to keep large flocks for egg production to show they are good "soldiers" in the Food Administration army. Farm prices for poultry and eggs are unusually attractive and these are largely due to an improved quality resulting from better care and compulsory egg candling regulations. This summer the price paid farmers for eggs in Central Tennessee was about seven cents nearer the New York wholesale market than last year.

Such conditions support the well-recognized fact that liberal prices to producers may be secured by eliminating waste and the consumer also will benefit next year as a result of increased production. The probable large egg and poultry crop in 1919 is expected to move at prices which will compare favorably with those of other foods of equivalent nutritive value and palatability.

An Easy Way to Pick Ducks

A duck is the most difficult of all fowls to pick, and yet there is hardly a more delicious dish than roast duck. Probably many more ducks would be raised and eaten if it were not for the difficulty of picking them. Mrs. Eugenia G. Benn, of the Pennsylvania Department of Agriculture, says that the feathers may be easily removed by rubbing into the skin finely powdered resin until the roots of the feathers are well covered with it, then scalding and picking. She suggests the following method of preparing the duck for the table:

Dress the duck, wash and cleanse thoroughly, then prepare a stuffing, using potatoes rather than bread. The reason for this is that duck meat is naturally dry and the potato stuffing lends to the meat moisture, while bread stuffing absorbs from the meat what little moisture there is in it. Season the potato stuffiing with onion, sage, salt, pepper, etc., to suit your taste, and place inside the duck. Let it set until the next day, then place in the roaster and roast slowly until it is browned beautifully and it is one of the best fowls we can choose for our tables.

Buy Cockerels Early

Cockerels for breeding purposes next year should be purchased early. The demand for breeding stock is strong and the supply is limited. Delays in buying mean higher prices and the possibility of being disappointed in not getting the stock wanted. Those who have breeding stock for sale will cull closely and not carry over very much stock to sell next spring.

Co-operative Marketing

Six farmers in a southern state, residing conveniently close together, and with telephone connections in their homes, sell their dressed poultry, eggs, and garden vegetables direct to select customers in the nearby city via parcel post. Their methods are described by a writer in the Southern Agriculturalist. Their customers ordinarily put in their orders either by telephone or by postal card. The orders are all sent to one address and they are then distributed equally among the six farmers.

It sometimes happens that they have to co-operate in order to fill orders for some kinds of produce but they are always filled promptly. The price is about 10 per cent above what they would receive for the products marketed in the usual way, plus the postage.

They settle every two weeks at one bank with all their customers, thus saving much valuable time.

The extra profit these farmers are getting above the market price is being invested in war stamps and given to the Red Cross.

Food Pledges to Allies

Under the agreement of the U. S. Food Administration with the food controllers of the Allied nations, our breadstuffs export program for the coming year will aggregate 409,320.000 bushels, which is equivalent to more than sixty bushels for every farm in the United States.

The poultry department of the Nebraska College of Agriculture has found that hens that moult late are the best layers. Therefore, it follows the practice of saving the late moulters for breeding purposes. A hen that moults in July and August is not considered profitable. She is usually a slacker and as such should go to the chicken buyer or be put into a can for table use during the winter.

According to German estimates, the use of all drying apparatus in that country would dehydrate about 184,000,000 bushels of potatoes. The German potato harvest, which this year is fairly satisfactory, constitutes one of the principal food resources.

Under regulations published by the Berne Cantonal Government, egg merchants must have a special trade permit from the Food Supply Office, Justice and Police Departments. The maximum retail price of eggs has been fixed at seven cents apiece and small eggs must be sold at lower rates. Infraction of the regulations are punishable by fines varying from $40 to $2,000 or by 60 days' imprisonment.

"Some things don't taste nearly so good without sugar." Who said they did? Hardtack for bread and tomatoes for water may not be quite so good, either, but the men in the trenches find them possible.

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America's Leading Fur House

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Furs will be higher than they have ever been in the history of the fur business and the Abraham Fur Co. will again be the leaders in paying trappers more money for their furs than they can get from any other fur house in the World.

We were the only large fur house in the United States that made a gain in number of shipments received last year; all others showed a decline. Why? **Because trappers everywhere have found out that it pays and pays big to ship furs to Abraham Fur Co.**

Anybody can tell you how high furs are but we will show you with real money. Send us furs you have on hand now.

For many years we have made a specialty of handling early caught furs and we can pay you a better price for this class of furs than ever before.

We will pay you more than you can get at home—more than you can get from any other fur house and more than you expect yourself—that's going some, but **we are in a position to beat all price records for furs and we are going to do it.**

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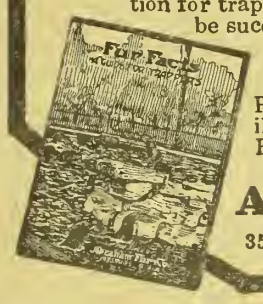
—the most complete catalogue of trapper's supplies carried by any house in the United States—quality of goods guaranteed to be as represented and prices the lowest possible. Most valuable information for trappers ever published—will show beginners how to be successful on the trap-line, giving rules and methods for trapping that never fail, contains information for old timers that will surprise them.



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Send today for advance information on the fur market, price list of raw furs and Free Catalog of Trappers' Supplies at Low Factory Prices.

FREE *The "Trappers' Exchange"* Greatest Trappers' Magazine published, subscription free to anyone interested. Tells all secrets of trapping. Full of pictures, Diagrams, etc. **Write at once.**

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E. W. BIGGS & CO. 433 Biggs Bldg. Kansas City, Mo.





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He will pay your board, room, tuition, and $30.00 a month.

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Kansas Wesleyan Business College
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SITUATIONS WANTED ads, up to 25 words, including address, will be inserted free of charge for two weeks, for bona fide seekers of employment on farms.

HELP WANTED.

FARMERS WANTED — MEN - WOMEN - girls. $95 month. U. S. Government jobs. Short hours. Pleasant office work. Common education sufficient. Write immediately for list positions now obtainable. Franklin Institute, Dept. Y-82, Rochester, New York.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

DOGS.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

FOR SALE—A FEW HIGH CLASS COON, opossum and skunk dogs. Stamp for reply. A. F. Sampey, 317 East Mt. Vernon St., Springfield, Mo.

POULTRY.

FOR SALE—BARRED ROCK COCKERels, layers and winning strain. Farnsworth, 224 Tyler, Topeka.

BARRED ROCK, WHITE WYANDOTTE, Leghorn cockerels. Geese, ducks, guineas. Emma Ahlstedt, Lindsborg, Kansas.

ROSE COMB WHITE WYANDOTTE cockerels, $2 up. Hens and pullets, $15 dozen. Mrs. George Rankin, Gardner, Kan.

PURE-BRED S. C. BROWN LEGHORN cockerels, $1.50 each. J. W. Warner, Rush Center, Kansas.

PURE-BRED WHITE WYANDOTTE cockerels, $1.50 each. I. B. Pixley, Wamego, Kansas.

DARK RED ROSE COMB REDS, GOOD scoring, greatest laying strain; cockerels, pullets, eggs. Satisfaction guaranteed. Highland Farm, Hedrick, Iowa.

BARRED PLYMOUTH ROCKS, STATE Fair winners. Thrifty farm-raised birds. Cockerels, $5, six for $25; pullets, $2.50. Guaranteed satisfactory. Hiram Patton, Hutchinson, Kansas.

CLOSING OUT SALE S. C. REDS. HAVE for immediate sale about 75. Tompkins cockerels and pullets. Few fine specimens of Mahood strain. Pullets, $3 to $5; cockerels, $3 to $5; on approval. Samuel H. Nite, Garden City, Kansas.

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THE COPES, TOPEKA, WANT YOUR Thanksgiving turkeys and other fowls. Write for coops and prices today.

FOR SALE

FOR SALE—HOLLAND CABBAGE, $3.00 per cwt.; $2.25 cwt. 1,000-lb. lots or more. The Copes, Topeka.

HORSES AND MULES.

FOR SALE — GOOD FOUR-YEAR-OLD jack, 14 hands. Black with white points. Quick server. Will trade for other stock. H. L. Baird, Whitewater, Kansas.

WANTED

WANTED, TO BUY A BIG YOUNG JACK. J. H. Howard, Radium, Kansas.

WANTED — FIFTY WHITE ESKIMO Spitz puppies, six to eight weeks old. Brockway Kennels, Baldwin, Kan.

MISCELLANEOUS.

FOR SALE—FANCY NO. 1 MINNESOTA Red River Ohio potatoes, $2.50 per hundred; round white, $2.25 per hundred; turnips, 90c per bushel; beets and carrots, 3c per pound; sweet potatoes, $2 per bushel; York Imperial and Ben Davis apples, orchard run, hand picked, ciders out, $1.75 per bushel basket. Buy your winter supply now. Salyer Bros., 1008-1010 North Kansas Avenue, North Topeka.

HONEY.

FOR SALE—1918 CROP OF HIGH GRADE table honey direct from bees to you. Guaranteed to be absolutely pure. Can containing 60 pounds net, $15.25. On orders for two cans or more the price is $15 per can and the freight is less on shipments of 100 pounds or over. Have dark honey for table or cooking purposes also, which I can recommend as pure and good. Single 60-pound can, $13, or $12.75 each for larger lots. Prices f. o. b. Hotchkiss, Colo. All cans securely boxed and strapped. Frank H. Drexel, Crawford, Colorado.

FARMS WANTED.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 56th St., Chippewa Falls, Wisconsin.

REAL ESTATE.

FOR SALE—FORTY-ACRE NICELY IMproved poultry farm, $2,450. Terms. 2½ Mt. Grove. Newly equipped for 1,500 hens. Views Harpster, Mountain Grove, Missouri.

BUNGALOW—7-ROOM, 5 LOTS, ALL IN fruit, double poultry house, 2 runs, best of water, 2 short blocks to car line, 2 blocks to church, 6 blocks to school. 448 Wabash Ave., Oakland, Kansas.

SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price $10 to $15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address E. T. Cartlidge, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kan.

SCHOOLS AND COLLEGES

LEARN TELEGRAPHY



Young men and women attend on credit. A practical school with railroad wires. Owned and operated by the A. T. & S. F. Ry. EARN FROM $75 TO $165 PER MONTH. Write for catalog.

SANTA FE TELEGRAPH SCHOOL
Desk F Topeka, Kansas

OTTAWA
Business College
OTTAWA, KANS. CATALOG FREE

Removing Ink Stains

Ink stains may often be removed from white cotton or linen material by soaking them in either sweet or sour milk for a day or two. The application of lemon juice and salt to the stain and then placing it in the sunshine will often dissolve the stain so that it can be easily washed out. If neither of these methods is effective, the stain may usually be removed by applying a saturated solution of oxalic acid. A convenient way to do this is to place the material containing the spot over a shallow dish and pour the solution through the stain. The material should be left only a minute or two in the solution and then be thoroughly rinsed in clear water containing a little ammonia. If blue stain still remains, the material may be placed in javelle water for a few minutes. It should then be thoroughly rinsed in several waters.

It is almost impossible to remove an ink stain from colored goods without at the same time taking out the color.

Dodging the "Flu"

Don't spit, don't crowd, don't cough, don't sneeze;
Use goose-grease every time you wheeze;
Eat solid food and sleep some, too;
And you'll never die of Spanish "flu."
—Kansas Industrialist.

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Hominy

Have we forgotten some of the best foods we once knew? Are you using hominy? Why not follow the example of our forefathers and use much of this good corn product? The first settlers of America learned from the Indians how to prepare the Indian corn for use. They removed the hulls from the dry grain by pounding it in a mortar with a pestle. The cracked corn they called by the Indian name "hominy." Hominy became one of their staple foods without which they would often have gone hungry. They cooked it in huge iron kettles hung over the blazing logs in the open fireplace.

They also learned to remove the germ and hull from the corn by boiling the grain with lye and then washing thoroughly. They sometimes called this product "hulled corn" but it is now more often called "lye hominy."

There are several kinds of hominy on the market. The coarse hominy, samp, or pearl hominy is much like the samp the pioneers used. The grain is split to remove the germ, hulled, and polished by machinery. It is much used, particularly in the Central and Eastern States.

The fine hominy or hominy grits is made by grinding the coarse hominy. Grits are excellent served as a vegetable much as rice is used. Grits are also used in many parts of the country as a breakfast food.

Lye hominy is made at home by many and also made commercially by boiling the grain in lye or potash until the germ will come out and then washing out the lye. To make lye hominy, select sound white corn. To every gallon of corn use one tablespoonful of concentrated lye. Cover the corn with water. Boil slowly until the skin comes off easily and the dark tips on the grains begin to come out. Wash thoroughly. Let it soak, preferably over night, in cold water; drain; return to the kettle and boil in plenty of water until tender. Put into a stone jar and set in a cool place and it will keep for several days. It may be canned or dried and kept as long as desired.

Soda may be used instead of lye for making hominy. Cover the corn with water. Add one tablespoonful of baking soda for each cupful of corn. Boil until the hulls are softened and may be removed easily. Drain off the soda water and wash in cold water. Rub between the hands to remove any hulls. Wash repeatedly till all the hulls are gone. Add boiling water to the corn and boil until thoroughly cooked.

There Is No Substitute

The value of butter and milk in the diet of children or sick people was recognized for years before the reason was understood. It was observed that milk seemed to be "the natural feed for the young," and doctors learned by experience that milk and butter and eggs were necessary to build up a run-down constitution long before Doctor McCollum of Johns Hopkins University discovered in them certain growth-promoting substances commonly called vitamines and which we now know to be necessary to the growth of young bodies or the repairing of waste in the old. Doctor McCollum supplied the explanation, but others are aware of the facts, even though they may not have known the exact cause.

"The other day I stopped a local physician on the street, with the query, 'Doc, what do you know about butter?'" said E. W. Simons at the recent dairy conference at Des Moines, Iowa, according to the Creamery Journal.

"'I know a lot more than I did a few weeks ago,' says Doc. 'I had children in three different families under my care who were not doing well. Nothing specific the matter with them, but they were not growing, not developing the way they should. In the first case I prescribed certain medicine, and knowing that the child had not been drinking milk, also told the parents to give her plenty of milk and butter. There was such a decided change in the child within a week that I made up my mind that it was not the medicine that was responsible. On investigation I found that the child previously had been eating butter substitutes, and I decided that the butter and milk caused the improvement. I then told the parents of the other children to spend their money for butter instead of medicine and doctor's fees, for in other cases I found that they had been using butter substitutes also.'

"'And then,' said Doc, 'you ought to have seen those kids two weeks later.'"

The abundance of testimony to the same experiences establishes the fact that the dairy industry is an essential one in time of peace and in time of war.

Waste by Careless Cooking

One of the most inexcusable wastes of perfectly good food is that which comes from careless cooking. Fortunately carelessness in preparing food is not as common as it once was. A more general knowledge of the principles of human nutrition has led housewives to see more and more the need of selecting only the best material for building up the bodies of the members of their families and of preparing it in the most wholesome way.

In this time of food shortage, however, we should take particular care to make the very best use of every particle of food. The woman who allows her biscuits or her toast or cakes to burn so that they cannot be eaten is destroying that amount of wheat just as effectually as if she were one of the kaiser's paid "fire-bugs." If meat is overcooked or cereals undercooked so that they are indigestible, they are worse than wasted. If you occasionally serve greasy, cold fried eggs or watery poached ones with broken yolks, or soggy potatoes that no one cares to eat, you might as well have thrown them away. Don't do it. Don't allow yourself to get so busy with anything else that you are careless in the matter of food preparation.

Women Study Balanced Ration

The readjustment of eating habits made necessary by the food shortage has had at least one good result, in the opinion of Mrs. Mary McFarlane, director of home economics in the extension division of the Kansas Agricultural College; it has caused patriotic women to study rationing. In the past wives have too often fed husbands what they wanted rather than what they needed. The successful farmer knows what is good for his stock, but many housewives fail to provide a balanced ration for humankind. Children have been especially unfortunate. Because mothers have failed to provide ample foods, a child's appetite is no longer a safe guide for feeding.

"The little pig is more fortunate," says Mrs. McFarlane, "for the farmer knows how much protein, how much carbohydrate, and how much of other foods should be given, and the appetite of a pig or a cow is kept under control.

"The soldier gets a balanced ration. That together with the outdoor life of our boys in the army accounts for their looking so well after a few months in camp. We have been eating too much meat and other concentrated foods because we like the taste. The Food Administration program is a health program. We are asked to save foods which we have been eating in too great abundance. If we take Mr. Hoover's advice we will not only help win the war, but we will also help ourselves.

Potato Loaf

2 cupfuls mashed potatoes
4 tablespoonfuls minced onion
2 tablespoonfuls green pepper or pimento pepper
½ cupful canned tomatoes
1 egg
1 teaspoonful salt
⅓ cupful ground peanuts

Mix the ingredients well together. Turn the mixture into a buttered baking dish. Brush it over with melted butter or drippings. Bake it in a moderate oven for twenty-five minutes.

Everything wasted means that some one has to work just that much more for you.

Dispersal Sale of Registered Hornless Shorthorns, Thursday, November 7

Johnson County, Kansas, fourteen miles Southeast of Olathe, or three miles Northwest of Stilwell. This is about 25 miles Southwest of Kansas City.

10 Cows
3 Bulls, 7 to 13 months old
1 White Bull, 2 years old
6 Heifers, 15 to 19 months old
4 Heifers, 5 to 10 months old

ALL ARE DOUBLE REGISTERED and carry breeding of such noted sires as Roan Hero, Tippecanoe 53rd, Belvedere, Golden Monarch, Miami Model, The Confessor, Cruickshank, etc. PAPERS FOR EACH ANIMAL.

Also General Farm Sale. **J. T. LEWIS, BUCYRUS, KAN.**

JERSEY CATTLE.

REDHURST JERSEYS

FOR SALE—Noble's Jolly Actor No. 155761. Solid color, born October 14, 1916. Sire (the imported son of Golden Jolly), Golden Jolly's Masterpiece No. 86295, with six tested daughters out of Noble's Eminent Jess, a R. of M. cow whose dam is also in the R. of M. and whose sire, Noble's Oxford Sultan No. 106403, with six tested daugbters, seven of Noble of Oakland's with 65 tested daugbters and whose dam is in the R. of M. and since by Sultan's Oxford Lad, his great dam also in R. of M.

ALSO—Jolley's Chief No. 14948. Solid color, born September 3, 1917, tbe above imported son of Golden Jolly. Dam, Eminent's Lad Jess No. 255151, dam of one in R. of M. Sbe by Em. Brown Lad with two or three tested cows, a grandson of Eminent with 80 tested daughters and whose dam is a tested cow.

REDMON & SON, TIPTON, MISSOURI

100 Good Jerseys for Sale

We are offering some fine young cows and heifers, now freeh or to freshen in May and June. The best blood lines and good individuals.

J. W. BERRY & SON, Jewell City, Kan.

For Sale—Reg. Jersey Bull

Thirteen months; sire, Aquosa's Lost Time; dam, 600-pound show cow.

CHAS. A. TILLEY, FRANKFORT, KAN.

DUROC JERSEYS.

IMMUNE DUROC BOARS

Duroc Boars, immune and guaranteed breeders, shipped to you before you pay for them. The big Southeast Nebraska herd bred for size, bone and length. "Eventually" you will breed the "Crocker Type." "Why not now?"

F. C. Crocker, Filley, Nebraska
Box K

DUROC BOARS

For Quick Sale — 25 Head of Large Spring Duroc Jersey Boars, of March and April Farrow

Sired by Illustrator Orion 3d, Pet's Great Wonder and Cherry King Disturber. Priced reasonable and guaranteed right in every way or your money back. Write me your wants.

JOHN W. PETFORD
Saffordville - - - Kansas

WOODDELL'S DUROCS

Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

HIGHVIEW DUROCS

Home of Repeater by Joe Orion King and Golden Reaper by Pathfinder. For sale—spring boars and a few bred gilts. I guarantee satisfaction or your money back.

F. J. MOSER - - - GOFF, KANSAS

CONYERS HERD DUROCS

Herd boar, King Conyers by King the Col. Sows in herd by Golden Model, Graduate Chief, Cherry Chief and other good breeding. For sale, one extra good spring boar sired by Pathfinder and one by Great Wonder. Fifteen spring gilts by Royal Critic. Come and see me.

B. W. CONYERS - MARION, KANSAS

Ellen Dale Breeding Farm

Offers Duroc Jerseys of blood lines of Watson's Wonder, Ideal Pathfinder, Crimson Orion King and Joe Orion 5th, also a one-year-old herd boar, a grandson of King the Col., and one-year sows bred or open. Also Shorthorn bulls.

R. C. WATSON - ALTOONA, KANSAS

HUSTON'S DUROCS

Forty Double Immuned Big Rugged Herd Heading Boars, sired by Great Wonder 2d and out of dams mostly by Taylor's Model Chief, winner at Missouri and other fairs. Buy them cheap now.

W. R. HUSTON - AMERICUS, KANSAS

IMMUNED DUROC BOARS

Thirty big husky Durocs, March farrow. Well grown, richly bred. Critic B, Golden Model and Orion breeding. Write me. I will please you or refund your money.

J. D. BULLER, STOCKHAM, NEBRASKA

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CLAIM SALE DATES.

Jacks and Jennets.
March 25, 1919—H. T. Hineman & Sons, Dighton, Kan.

Herefords.
Nov. 14—Paul E. Williams, Marion, Kan.
Nov. 14—Paul E. Williams, Marion, Kan.
Nov. 19—Robert H. Hazlett, El Dorado, Kan. Sale at Kansas City, Mo.
Nov. 23—J. O. Southard, Comiskey, Kan.

Shorthorn Cattle.
Nov. 8—Shorthorn Breeders' Sale, Peabody, Kan. O. A. Homan, Peabody, Kan., sales manager.
Nov. 23—H. H. Holmes and A. L. Harris. Sale at Kansas City, Mo.

Polled Durham Cattle.
Nov. 9—E. D. Scott, Udall, Kansas.

Poland Chinas.
Nov. 5—Moore Bros., Gardner, Kan.
Nov. 6—Earl Bowers, McLouth, Kan.
Nov. 6—M. C. Pollard, Carbondale, Kan.
Nov. 7—Schmitz Bros., Seneca, Kan.
Nov. 8—Ketter Bros., Seneca, Kan.
Nov. 9—Jones Bros., Hiawatha, Kan.
Feb. 18, 1919—F. Olivier & Son, Danville, Kan. Bred sow sale.

Duroc Jerseys.
Jan. 28—W. R. Huston, Americus, Kan. Duroc dispersion and general farm sale.

Spotted Poland Chinas.
Dec. 17—Geo. Akens-Failer & Miller, Rossville, Kan.

Chester Whites.
Feb. 11—Arthur Mosse, Leavenworth, Kan.

The sale of Durocs of W. W. Zink, Turon, Kansas, October 19, resulted in the disposal of forty-four head of spring boars and gilts at an average of $49. The top price of $117.50 was paid for No. 22 in the catalog, which went t o Frank McCasker, of Turon. The prices were not high, but the returns were very satisfactory to Mr. Zink, and he invited all the farmers and breeders present to attend a bred sow sale on next February 14. On this date he will offer a choice lot of bred gilts and bred sows.

T. R. Maurer & Company, of Emporia, Kansas, have announced November 12 as the date of their public sale of Holstein cattle. On that date they will sell sixty-five head of registered and high grade Holsteins. The offering will include thirty registered females from yearlings to matured sows, and a select lot of high-grade springer cows and heifers, also a few choice young bulls.

The sale of Poland Chinas of E. O. Allman, Turon, Kansas, October 16, resulted in the disposal of sixty-seven head of Poland China sows, including a lot of June and July pigs, at an average of $57.50. The top price of $262.50 was paid for the brood sow Katie Harper, bred by the well known firm of Olivier Bros., Danville, Kansas. The sow was sired by the champion boar, A Wonderful King. She was purchased by E. S. Davidson, St. John, Kansas. Nothing sold high, but the returns for the offering were very satisfactory to Mr. Allman.

D. J. White, of Edgewood Farm, Clements, Kansas, owner of one of the very best herds of Aberdeen-Angus cattle, reports his herd doing well. The blood lines of Mr. White's Angus herd are the best of the breed. He has the low-down beefy type and a feature of his herd at this time is the great lot of young stock of the type and breeding that make choice herd material.

J. T. Lewis, of Bucyrus, Kansas, has announced a sale of Shorthorn cattle to be held November 7. On that date Mr. Lewis will offer a choice lot of cows, heifers and young bulls that carry the blood lines of such bulls as Roan Hero, Tippecanoe 53d, Belvidere, Golden Monarch, Miami Model, The Confessor, Cruickshank, and other noted sires.

Forty-five cows and heifers in the Oliver & Doran dispersion sale of Jerseys averaged $170. A number of quite young heifers are included in this average. The top was $400 paid for Eminent's Design of Dornwood by Mr. Doran, who bought a number of the best cows in the sale. The next highest cow was Eminent's Mazet of Dornwood, which went to A. L. Churchill, of Vinita, Oklahoma. C. L. Kendall, of Kansett, Arkansas, purchased a number of the younger heifers and heifer calves. Several quite young calves were sold, among them a heifer barely a month old to R. A. Gilliland of Mayetta for $100. This heifer was out of the top cow of the sale and by the Dornwood herd bull, Bluebell's Owl. The young bulls sold slow and draggy and a number of buyers picked up bargains. Prof. Albert Dickens of Manhattan bought a fine bull calf for $95. Mr. Doran bought enough of the good cows to form a splendid foundation for the continuation of the Dornwood herd.

Disease-producing germs live mainly in dust, decaying food, soiled clothing, dirty pots and pans, and garbage pails. Destroy their breeding places.

65 Registered and High Grade Holsteins

At Public Auction

EMPORIA, KANSAS, ON TUESDAY, NOVEMBER 12, 1918

Thirty Registered Females

From yearlings to matured cows, all with high class breeding. Also a few young bulls, and a choice lot of high-grade springer cows and heifers. All stock offered is extra large, handsomely marked and the heavy-producing kind.

For further particulars write

T. R. MAURER & COMPANY, OWNERS, EMPORIA, KANSAS
Wood & Crouch Auctioneers. Farm Located One Mile Out, on West Sixth Avenue

D. S. POLLED DURHAM CATTLE SALE, NOVEMBER 9

It being necessary for me to return to Illinois, I offer my herd bull, sixteen cows and heifers, and four bull calves, at public sale. Write for catalog.

Lafe Burger, Auctioneer E. D. SCOTT, UDALL, KANSAS

Modern Herefords

HAZFORD PLACE, EL DORADO, KANSAS

FIRST PUBLIC SALE

Cattle of my own breeding at Fine Stock Sale Pavilion, Kansas City, Missouri, on the forenoon of November 19, during the American Royal Live Stock Show.

Wm. Condell, Herdsman. ROBT. H. HAZLETT

MAXWELL JERSEY SALE

At Farm Near Topeka, Tuesday, November 12, 1918

Seventy Head Registered and High Grade Jerseys. This sale was originally advertised for October 14 and postponed by order of State Board of Health on account of Spanish Influenza epidemic. Sale at farm one mile south of Country Club.

W. H. MAXWELL : ROUTE 2 : TOPEKA, KANSAS

HOLSTEIN CATTLE.

200 Head Registered and High Grade Holstein Cows and Heifers

On account of shortage of help I have decided to sell my entire herd at private sale, without reserve, consisting of 40 Registered Cows and Heifers, mostly all with A. R. O. records up to 26 pounds in 7 days; 40 Fancy Young High Grade Cows, exceptionally well marked, some fresh, balance will freshen in next 40 days, $115 to $135; 50 Fine Thrifty Large Two-Year-Old Heifers due in October and November, $90 to $110; 65 Fine Growthy Yearlings from 15 to 20 months old, bred to freshen from December to February, $65 to $80. All stock bred, in calf to registered bulls. This herd is absolutely clean and guaranteed free from abortion and tuberculosis and will be sold as represented. Will sell with purchaser's privilege of 60-day retest. Descriptive catalog on registered stock ready Oct. 1. **Magee Dairy Farm, Chanute, Kan.**



SAND SPRINGS FARM

Registered Holsteins—The Long Distance Kind

Watch for our consignment to the State Breeders' Sale, November 1.

E. S. ENGLE & SON - ABILENE, KANSAS

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

REGISTERED HOLSTEINS

If you want big producers, males and females, write us. All our own breeding.

Lilac Dairy Farm
Route 2 Topeka, Kansas

BRAEBURN HOLSTEINS

Service bulls; bull calves. Their heifers will outyield the dams by 10-50 per cent.

H. B. Cowles, 608 Kansas Ave., Topeka, Kan.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Heilo No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

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One and two-year-olds. High-grade, well marked, from heavy producers. Fifty head priced right for immediate sale. Write or come and see them.

W. C. KENYON & SONS
Holstein Stock Farms, Box 33, Elgin, Illinois

HIGHLY-BRED HOLSTEIN CALVES

Beautifully market, twelve heifers and two bulls from heavy producing dams at $25 each, crated for shipment anywhere. Safe delivery guaranteed. Write

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30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

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FIVE COWS YIELDED 11.58 LBS.

Butterfat in 24 hours and 25.65 lbs. of solids, not fat.

These were the Holstein-Friesians that won the Sweepstakes Prize of the Ohio Agricultural Society. The nearest competitor made 10.05 lbs. fat and 14.34 lbs. solids not fat.

The Holsteins always lead in production.

If interested in

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SEGRIST & STEPHENSON, HOLTON, KANSAS
Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

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$15 Holstein or Guernsey CALVES

From Waukesha County heavy producing stock. Write us today, we guarantee to satisfy you.

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GUERNSEY BULLS

Herd bull, Hermes of Midvale. His first two pure-bred daughters to freshen made A. R. records. A third daughter just fresh is very promising. Other young pure-bred bulls for sale, two of which are old enough for light service. Write for prices and breeding.

RANSOM & KISSINGER, Homewood, Kan.

GUERNSEY BULLS

Good individuals of serviceable age, of May Royal, May Rose, Masher Sequel, Raymond of the Preel breeding. Write or come and see them.

ADAMS FARM, GASHLAND, MISSOURI
Twelve miles from Kansas City.

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H. C. LaTourette, Route 2, Oberlin, Kan.

HEREFORD CATTLE
F. S. Jackson, Topeka, Kan.

RED POLLED CATTLE
Mahlon Groenmiller, Pomona, Kansas.

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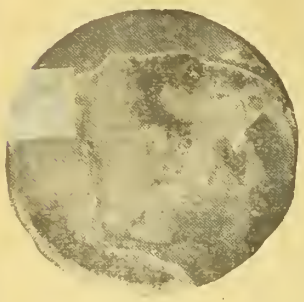
REDUCTION HEREFORD SALE

At Marion, Kans., November 14, 1918



100 HEAD HEREFORDS 100 HEAD

SEVENTY-FIVE COWS AND HEIFERS, A NUMBER BRED TO BUDDY L.

Twenty-five Selected Herd Bulls of Serviceable Age. Two carloads of Range Bulls, two and three years old.

They are a useful lot of working cattle, farm grown, that will make good on any farm with a little care. Sale will be held right in town. Please send for catalog and come to sale. Write today for catalog to



Auctioneers—Col. Miller, Col. Garten, McLinden, Lowe and Carson

Paul E. Williams, Marion, Kansas

POLAND CHINA HOG SALE

AT SENECA, KANSAS, NOVEMBER 8, 1918

FORTY HEAD

Twenty-Four Spring Boars and Sixteen Spring Gilts

We are selling the pick from our spring crop of pigs. There will be nine boars and four gilts by our herd boar, Orphan Ben (one litter by Orphan Ben and out of the great sow, Bell Wonder by Big Bob Wonder). Seven boars and eight gilts by King Joe 3d by King Joe. One litter by King Joe 3d and out of Blue Valley Expansion dam. Three boars by Blue Valley Timm, he by Big Timm. Three boars and three gilts by Valley Expansion by Ketter's Blue Valley. Two boars and seven gilts by Sensation King by King Joe 3d.

All these pigs are well grown out. We invite all farmers and breeders that are interested in better Poland Chinas to attend our sale. Please send for catalog and arrange to attend two sales at one expense.

Schmitz Bros., November 7. Ketter Bros., November 8

Write today for catalog to

KETTER BROTHERS - - SENECA, KANSAS

POLAND CHINAS.



Faulkner's Famous Spotted Polands

THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.

Pioneer Herd Poland Chinas

For Sale—Ten outstanding spring boars by A. Wonderful King and Logan Price. Twenty-five farmer boars, priced reasonable. Bred sow sale February 18, 1919. Send for catalog.

F. Olivier & Son, Danville, Ks.

Morton's Poland Chinas

For Sale—Twenty-five choice boar pigs, sired by Morton's Giant by Discher's Giant and Girstdale Jumbo by Girstdale Jones, out of my best herd sows. Priced reasonable. Write or come and see my herd.

GEORGE MORTON

Oxford : Sumner County : Kansas

White Oak Park Polands

Twenty Spring Boars for Sale by the 1,100-pound Missouri Jumbo and Surprise Wonder. Three of the tops at $75, the rest at $50. All cholera immuned and will be recorded in buyer's name. I have two full brothers to Northern Jumbo, the first prize and reserve grand championship pig. All sales guaranteed as represented or your money back.

HENRY KOCH - EDINA, MISSOURI

Oxford Herd Poland Chinas

Herd boar, Giant Lunker by Discher's Giant out of Lady Lunker. I have 57 early spring pigs. A few choice boars. Priced to sell. Come and see me; I can please you.

Howard R. Wenrich

Oxford - - - - Kansas

Henry's Big Type Polands

March and April pigs sired by Mammoth Orange, Smooth Prospect and Big Bob 2d, out of sows the best of big type breeding. Everything immune.

John D. Henry, Route 1, Lecompton, Kansas

LONE CEDAR POLANDS

Strictly big type March and April pigs, either sex. Nothing but tops shipped. Prices reasonable. Guarantee to please. All cholera immune. A. A. MEYER, McLouth, Kansas.

POLAND CHINAS

ERHART'S POLAND CHINAS

Have a great lot of spring boars for sale. Some by the 1200-pound, A Big Wonder. Will make prices on pairs and trios not related. All immuned. Write your wants. Bred Sow Sale Feb. 19, 1919.

A. J. ERHART & SONS

NESS CITY, KANSAS

H. O. Mott's Poland Chinas

For Sale—Fifteen spring boars and ten spring gilts, priced for quick sale at $35 to $50. First check gets choice. Guaranteed right or money back.

H. O. Mott, White City, Kansas

R. F. D. 4

LANGFORD'S SPOTTED POLANDS — Summer pigs ready to ship. Some read herd prospects. T. T. Langford & Sons, Jamesport, Mo.

HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that weigh and win. S. C. Brown Leghorn Chickens that lay. See or write

S. Y. BURKS, BOLIVAR, MO.

TOWNVIEW HERD POLAND CHINAS

For Sale—Choice lot spring boars. All gilts reserved for February bred sow sale. Herd boars, King Wonder's Giant, Walter's Expansive Sid, Big Timm Joe.

CHAS. E. GREEN - PEABODY, KANSAS

AUCTIONEERS.

FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. VALLEY FALLS, KANSAS

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri

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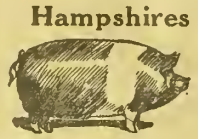
HAMPSHIRE HOGS

Hampshires on Approval



Choice spring boars and gilts weighing up to 200 pounds. Two prize winning fall boars weighing 350, also fall pigs. My herd won nine champions, twenty firsts and twenty-seven seconds at the two Kansas State Fairs. Best of blood lines.

F. B. Wempe, Frankfort, Kan.

BECKENDORF'S HAMPSHIRES

I AM NOW OFFERING a grand lot of big, heavy-boned boars and gilts, sired by as good herd boars as money can buy. Every hog shipped a good one or he can be returned. Inspection invited. Write or telephone at my expense.

J. E. BECKENDORF, Box 144, Walnut, Iowa

Registered Hampshire Hogs—Sows and Spring Gilts, bred or open. Choice spring boars. Double treated. Geo. W. Ela, Valley Falls, Kansas

RED POLLED CATTLE.

RED POLLED CATTLE FOR SALE

Young bulls and some extra good young cows to calve in early spring. A few yearling heifers.

I. W. POULTON, MEDORA, KANSAS

FOR SALE

Red Polled cows, heifers and bulls. Special price if taken at once.

W. J. HARRISON - AXTELL, KANSAS

RED POLLS, BOTH SEXES, BEST OF BREEDING.

Charles Morrison & Son, Phillipsburg, Kan.

Value of Manure

A light application of two and one-half tons of manure applied annually as a top dressing for wheat during the winter gave an average increase yield of a little over seven bushels to the acre on the Kansas Experiment Station farm from 1911 to 1917. These tests show the value of manure to be more than $2.50 per ton, when wheat is marketed above the two-dollar mark.

The best and cheapest way to handle manure is to draw the manure directly to the field. It is estimated that one-half of the value of the manure on Kansas farms is lost lying in the barn lots. The Liberty wheat crop, this winter, offers an opportunity and place to save loss by top dressing with fresh manure, any time from November 1 to March 1.

Assistant Secretary Vrooman of the United States Department of Agriculture has stated that "our billion dollar manure waste is the world's greatest economic leak." The value of the manure produced in Kansas has been estimated at over $91,500,000. Thus if one-half of this value is allowed to go to waste it will mean about $45,000,000 lost in the Liberty wheat harvest by letting our farm manures waste in our barn lots.

An exceedingly large acreage of wheat is now seeded in eastern Kansas. The Liberty wheat harvest will show an extra acreage of wheat for this section. Undoubtedly as time permits and as most farmers are equipped with manure spreaders in eastern Kansas, the same patriotic spirit that seeded the large acreage of wheat will also move the manure from the barn lots to the wheat fields during the idle time of this winter.

A carload of Holsteins was brought into Anderson County during July by the county farm bureau. The county agent and a local farm bureau member were sent to Michigan where they purchased the cattle in the famous Holstein section around Howell.

HORSES AND MULES.

PERCHERON-BELGIAN-SHIRES

Registered mares with colts at side and bred again; registered fillies, stallions one to five years old; grown ourselves the ancestors for five generations on dam side. Sires imported.

Fred Chandler, R. 7, Charlton, Iowa
(Above Kansas City)



PERCHERON STALLIONS

Some good young stallions sired by Algare and Bosquet, two great herd sires. These young stallions are very promising and priced to sell.

D. A. HARRIS - GREAT BEND, KANSAS

JACKS AND JENNETS

Registered Jacks and Jennets. Good individuals, good colors. Have some choice young jacks that are priced to sell quick.

GEO. S. APP, ARCHIE, MISSOURI

ANGUS CATTLE

LOOK HERE, ANGUS BREEDERS!

I want to reduce my herd of registered Angus cattle consisting of cows, bulls and heifers. Attractive prices for early buyers. If you want the best kind of low-down, beefy Angus, come at once.

D. J. WHITE, - CLEMENTS, KANS.

SHORTHORN CATTLE.

Pearl Shorthorn Herd

One of the oldest and strongest herds in the West, Scotch and Scotch-topped reds and roans. Yearling bulls and well grown last spring calves. Mostly sired by Marengo Pearl 391962 and Orange Lovel 420052.

C. W. TAYLOR, - ABILENE, KANS.

SHORTHORN BULLS

For Sale — Ten bulls, seven to fifteen months old; Scotch and Scotch topped. Two Scotch bulls by Type's Goods, one a Brawith Bud, the other a Duchess of Gloster. All in good condition and priced reasonably.

S. B. AMCOATS, CLAY CENTER, KANSAS

Write Me Your Wants

MARKS LODGE RED SHORTHORNS

For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

MULEFOOT HOGS.

KNOX KNOLL MULEFOOTS

Thred sows, spring gilts' and boars. Weaned August pigs. Priced for uick sale. Satisfaction guaranteed. Free catalog.

S. M. KNOX - - HUMBOLDT, KAN.

CHESTER WHITE HOGS

Frost's Big Smooth O. I. C.'s

Forty Spring Pigs. Two Yearling Boars and 100 Early Fall Pigs.

All from prize winning blood and priced for quick sale. Write us today.

S. D. & B. H. Frost, Route 2N, Kingston, Mo.

SHROPSHIRE SHEEP



FOR SALE

A bunch of good big Registered Shropshire Bucks, not high in price. Also registered ewes.

Howard Chandler, Chariton, Ia.



SHROPSHIRES—BRED EWES

Won 2 champions, 7 firsts and silver cup at 1918 Iowa State Fair. Weight and Wool Win. Yearling rams and ewes bred to imported prize winning rams for sale at farmers' prices. C. W. & Frank Chandler, Kellerton, Ia. (80 mi. from St. Joseph)

Opportunity Shorthorn Sale

A Select Draft From Two Good Herds

At Kansas City Fine Stock Pavilion

Saturday, Nov. 23, The American Royal Week

50 HEAD SCOTCH and SCOTCH TOPPED SHORTHORNS

The equal of any draft of cattle ever consigned to a public sale, including a part of the 1918 show herd that includes the Crystal Maid cow that was first in class at three State Fairs and SENIOR CHAMPION FEMALE AT KANSAS STATE FAIR, 1918.



CRYSTAL MAID

A large part of this offering will be bred to Prince Valentine 4th, a bull that needs no introduction to Shorthorn breeders, having won honors in five state fairs, first in class as calf, first as yearling, first as two-year-old, undefeated for Junior Champion honors, except at the American Royal, where he stood second.

The female end of this offering are all regular producers, having produced a calf each year. All the females of breeding age either have calves at foot or showing heavy in calf. They are in good breeding condition. The mature cows average 1450 pounds, of strictly good colors and heavy milkers. Catalogs ready to mail out November 1st. Please send for one and arrange to attend our sale. We guarantee a good offering. Write for catalog to

H. H. HOLMES, or **A. L. HARRIS,**

Route 28, Topeka, Kan. **Route 2, Osage City, Kan.**

Auctioneer, COL. P. M. GROSS, Kansas City, Mo.

POLLARD'S Poland China Sale

AT FARM NEAR

CARBONDALE, KANSAS

Wednesday, November 6

FIFTY-SIX HEAD POLAND CHINAS



I am offering the best lot of Spring Boars and Gilts I have ever sold. They are by Frazer's Jumbo and out of Big Maid and Frazer's Giant Jones and out of Big Lady 5th. Have litters by Broadus' Expansion, Giant Jones and Jumbo Bob.

FARMERS AND BREEDERS WANTING A GOOD BOAR OR GILT WILL FIND THEM AT THIS SALE

They are not loaded with fat, but are well grown out and in fine condition.

Please send for catalog and arrange to attend my sale. Free conveyance from Carbondale to farm. For catalog write

M. C. Pollard, Carbondale, Kansas

Shorthorn Breeders' Sale

SELECT DRAFTS FROM TEN GOOD HERDS AT

Peabody, Kans, Nov. 8. 1918

SEVENTY HEAD—Fifty Cows and Heifers, Twenty Bulls
HIGH CLASS BREEDING CATTLE

Strong in the Blood of the Great Sires and Dams of the Breed

From the herds of O. A. Homan & Son, Peabody, Kansas; T. P. Wilson, Peabody, Kansas; S. M. Converse, Peabody, Kansas; B. F. Taylor, Peabody, Kansas; V. O. Johnson, Aulne, Kansas; J. R. Ely and A. J. Dale, Aulne, Kansas; Park Salter, Wichita, Kansas; and John Regier, Whitewater, Kansas.



Seventy Head of Choice Breeding Cattle, Cows and Heifers and a Few Young Bulls old enough for service

This sale should be of interest to all farmers and breeders of Shorthorn cattle.

Get the catalog. It is ready to mail out and is full of valuable information of the sale offering. Write at once to

O. A. Homan, Sales Manager, Peabody, Kans.

Auctioneers—Theo. Martin, Fred Graham, Boyd Newcom, Herman Lowen

(Sale in comfortable barn right in town)

FIRST ANNUAL

POLAND CHINA SALE

From the Herd of Jones Brothers, Hiawatha, Kansas

Saturday, Nov. 9th, 1918

A Great Offering of Young Boars and Gilts Sired by Jones' Jones by Gerstdale Jones; Jumbo Bob 2d by Big Bob Wonder; with two exceptional litters by

GERSTDALE JONES AND BIG BOB WONDER

The dams of the offering are daughters of Big Bob Wonder, Equal's Ox, A Kansas Wonder, Orange Wonder, Superba, Big Bone's Son, Gritter's Longfellow, Long Jumbo 2d and Expansion's Son.

A selected offering of tops for farmers and breeders wanting new blood in their herds.

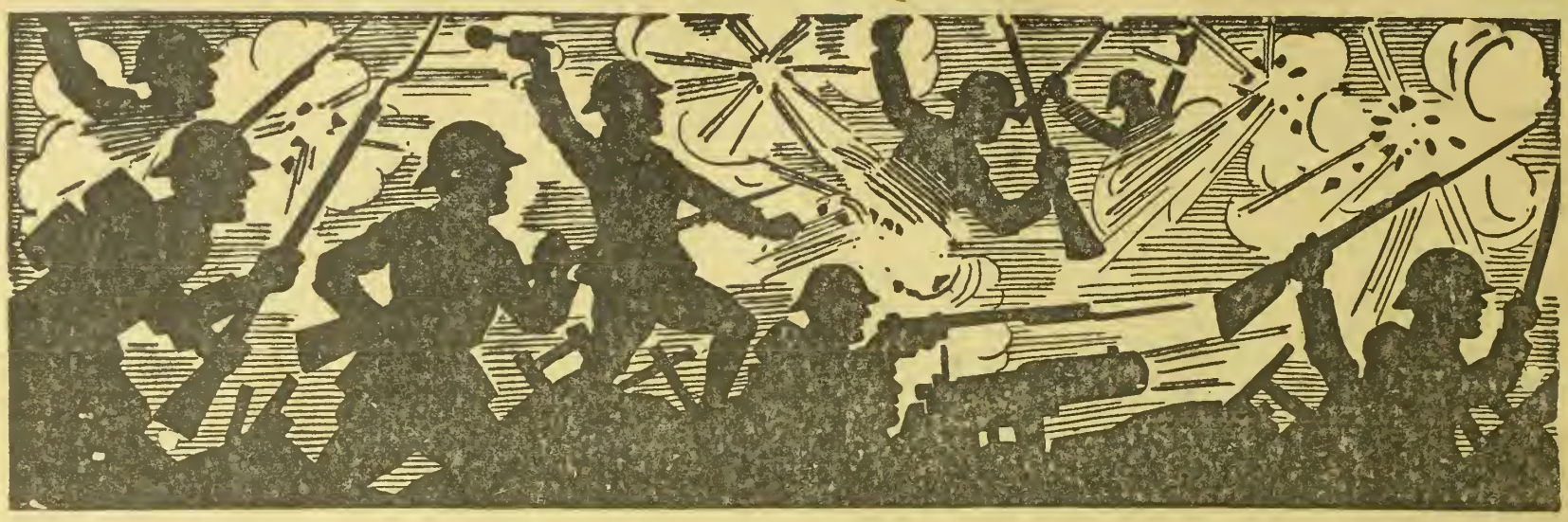
SEND YOUR NAME FOR CATALOG

We want you to attend our sale. Write today to

JONES BROTHERS

HIAWATHA, - - KANSAS

BIG, NEW
ATLAS OF THE WAR



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NOTICE TO SUBSCRIBERS

The War Industries Board of the United States Government has ordered that we

"DISCONTINUE ALL SUBSCRIPTIONS IN ARREAS OVER FIVE MONTHS ON NOVEMBER 2, 1918"

Kansas Farmer will obey this order promptly on November 2

IF YOUR SUBSCRIPTION IS IN ARREARS, RENEW TODAY IN ORDER TO HAVE YOUR PAPER CONTINUE WITHOUT INTERRUPTION

BIG SPECIAL OFFER

OUR NEW ATLAS OF THE WORLD'S WAR has gained praise from all who have secured one. It contains

1. War Maps of every Battle Front, in colors.
2. Large size Map of Western Battle Front.
3. Pictures illustrating new devices and instruments of war.
4. Many pages of interesting reading about the war.
5. An immense fund of data showing the resources of the different warring countries.
6. President Wilson's address calling for action, April 2, 1917.
7. Causes and progress of the war.
8. Statistics of populations of countries and cities of the world.

IT IS A BOOK YOU WILL WANT ALL YOUR LIFE

If your paper is stamped with an expiration mark, we will be compelled to stop it November 2 in order to comply with the above order, unless you renew.

Do not pass up this opportunity to get this fine Atlas FREE. We can make this liberal offer on account of a large and fortunate purchase we made of these Atlases in order to supply our subscribers. We can sell the Atlases separately at twenty-five cents each.

OUR $1.00 OFFER — ONE YEAR

Send us $1.00 and we will credit your subscription one year and send you one of the War Atlases ABSOLUTELY FREE and PREPAID.

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Kansas Farmer, Topeka, Kansas:

Enclosed find $1.00, for which please send me KANSAS FARMER for one year, and your War Atlas.

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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 45. TOPEKA, KANSAS, NOVEMBER 9, 1918. Established 1863. $1 a Year

ANGUS CATTLE RANK HIGH

Promoters of All Breeds Should Unite Against Scrub

MORE good blood in all our herds, should be the slogan of the beef production industry. Extreme breed arguments engender hard feelings and exhaust energy that is badly needed in the fight against the scrub, the common foe of all breeds. This thought was brought out by C. D. Lowe, southern field representative of the Angus Breeders' Association in an address at Gainesville, Florida.

"While I appear before you as a representative of the American Aberdeen-Angus Breeders' Association," said Mr. Lowe, "I want to make it plain at the outset that I am not unmindful of the merits of the rival breeds of beef cattle. At the same time I am certain that I love the Aberdeen-Angus breed as much as any one can love a breed of live stock.

"The paramount demand of today, with a hungry world depending upon us for sustenance, is more beef, regardless of breed so long as it is an economical production. Perhaps each breed has its points of individual strength and certainly all have their imperfections. It is those qualifications that all breeds have in common that need more support, to the end that greater progress may be made in the campaign for the elimination of the 'scrub.'

"Much less than 5 per cent of the cattle population of this country, including both beef and dairy breeds, is registered, leaving 95 per cent of scrubs and grades. These scrubs are a strong and worthy foe and able to withstand for many years the advances of a united front made up of all worthy breeds. Why longer delay concerted action in this direction while we waste time on comparative trifles?

"To my mind the largest task confronting the pure-bred beef cattle industry of the nation today is in furnishing the bulls for this work as rapidly as the ticks are banished.

"In the South this is a work of no mean proportion. If a call were to go out today for enough beef bulls, regardless of breed, so that one would be available for every twenty-five native females, in Florida, the order could not be filled.

"How to meet this growing demand for these bulls at reasonable prices is undoubtedly of far greater importance to the live stock industry of the nation than how many animals of a breed have sold for over $1,000 each. We are more apt to have our attention called to the millionaire who invests some of his surplus wealth in registered cattle merely as a 'hobby' than we are to the far more constructive work of making available serviceable bulls for the 'grading up' of native cattle.

Bull Experiment in Alabama

"No one realizes more than I that even after the ticks are gone better blood alone will not put our cattle to the forefront. Better feed and attention will also be a big factor; however, it should be interesting to study some figures based on an experiment of an Alabama cattleman to determine the value of the better blood alone. He divided his forty head of native cows into two uniform lots, breeding half of them to a registered bull. The entire forty cows were given identically the same treatment until the calves were ready for sale at weaning time. The owner was able to get $13.65 more per head for the calves sired by the registered bull and the only additional expense on them was the $250 expended for the bull, and he was far more valuable at the end of the year than he was at the beginning.

"In order to put before you the particular merits of the Aberdeen-Angus breed for the work at hand I want to present to you some indisputable records and quote an unquestioned authority. First, bear clearly in mind that the value of any beef breed can be estimated solely by what they do on the butcher's block. Breeds without the ability to stand this test may be maintained by wealthy individuals or faddists because of some personal fancy, but in this present age of efficiency those that do not measure up to the standard in this particular are destined to early oblivion.

International Show Records

"Now for records. At the world's greatest live stock show, the International Live Stock Exposition at Chicago, the Aberdeen-Angus breed has won more championships in interbreed contests than all of their competitors combined. In single steer classes the record stands ten championships for Aberdeen-Angus and six for all other breeds; in car lots of steers it is thirteen grand championships for Aberdeen-Angus cattle and three for all other breeds and in carcass contests the Aberdeen-Angus has won fifteen out of the sixteen grand championships.

"Someone says: 'Who judged these contests? He must have been an Angus man.' But, no, such was not the case. These contests are judged by the most expert judges of 'what is under the hide' in the world; the men who buy the cattle each day in the year for the big packers. They care not what breed wins these contests, because they are cold-blooded business men and when they decide one of these contests one may fully believe that the award was made because they saw in the winner more edible product, or in other words more beef and less waste.

Department of Agriculture's Rating

"The authority which I wish to quote is the United States Department of Agriculture. In discussing the merits of the different breeds of beef cattle they state regarding the Aberdeen-Angus as follows:

'The breed is extremely valuable for grading up native cattle. This breed is very early maturing, and has a tendency to fatten well at any age; hence, their popularity for producing baby beef. In general form they are different from the Shorthorn and Hereford. The body is more cylindrical in shape, and they are smoother throughout than either of the breeds named. The Angus responds quickly to good treatment, and because of their readiness to fatten, early maturity, exceptional vigor, high quality, general smoothness and uniformity, and the high percentage of valuable meat produced, it is the most popular of all beef breeds among cattle feeders. They usually dress out a higher percentage of marketable meat than any other breed, and their merit has been shown by the repeated winnings they have made in the show ring and on the block.

'They stand either heat or cold well, and are popular in the South as well as in the corn belt. Because of their reputation for finishing smoothly and filling out well they are very popular in the corn belt and neighboring states where much feeding is done.

'The quality of the animal is unsurpassed, as shown by the soft, pliable, mellow skin, and fine hair. The meat is fine-grained and of the highest quality. The constitution and vigor of this breed as indicated by well-developed chest and good heart girth are worthy of mention. For grading up native stock and for crossing, they hold an enviable record.

"It must be admitted that these are strong words from a source that dares only to remain conservative.



SHOW HERD OF PRIZE-WINNING ANGUS STEERS

Southern Cattle Market Records

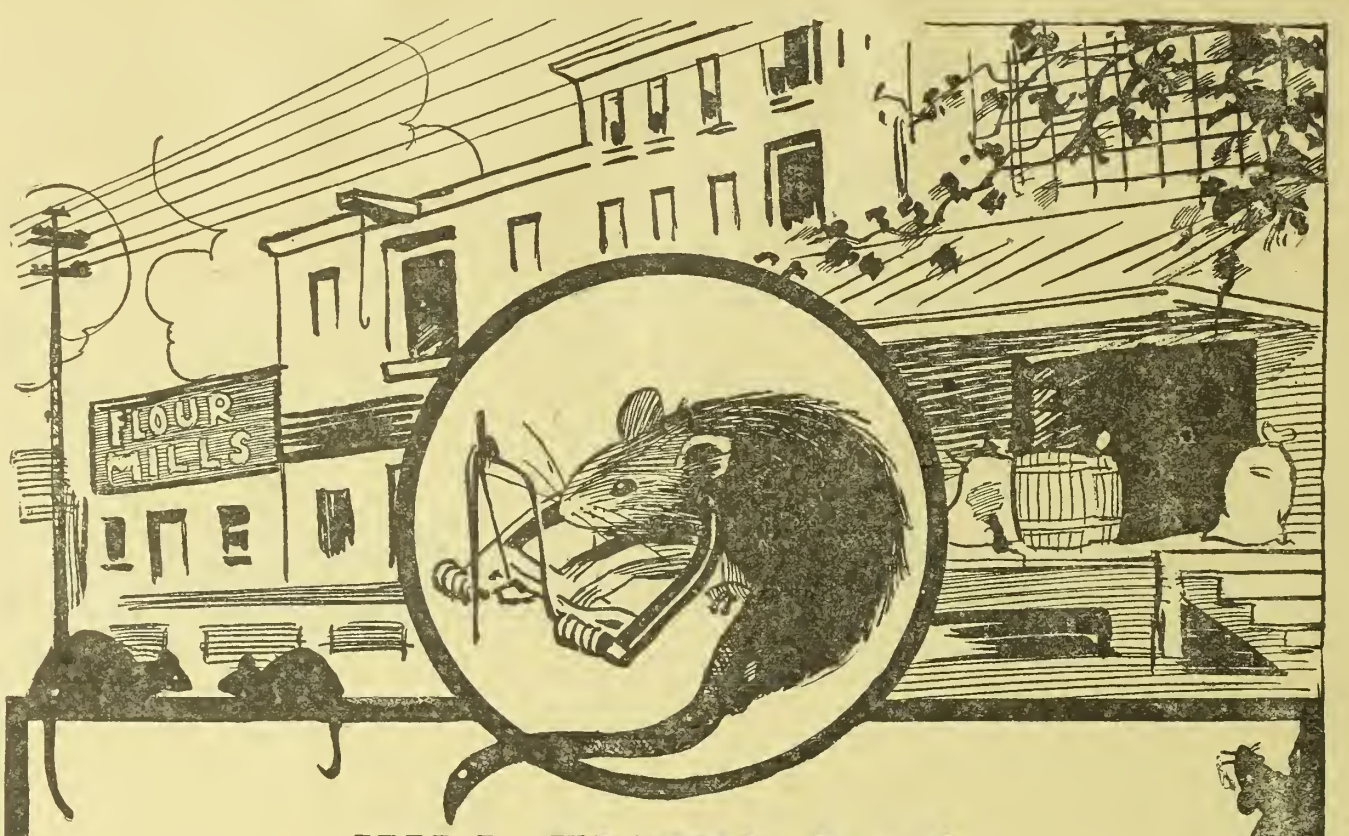
"Naturally you will be interested in knowing what this wonderful breed has done closer home, and I therefore call your attention to some very recent records made in your neighboring states of Alabama, Mississippi and Tennessee. In April the McQueen-Smith Farming Company of Alabama marketed two carloads of steers on the St. Louis market, one load was grade Angus and the other grade Herefords. The Angus brought $15.60 per hundred and the Herefords only $15.50 on the same market. In June, Mr. Williams of Dyer County, Tennessee, marketed a load of Angus on the same market at $16.10 per cwt. These were both record southern prices, but the real record-breaking performances were yet to come. In July, Hurdle Brothers, of Mississippi, marketed sixty-eight head of steers sired by registered Angus bulls and out of native cows at $17.25 per hundred, and in the same month Joe J. King, also of Mississippi, put an all-time all-section 'top' on the same market by selling nineteen head of grade Aberdeen-Angus steers averaging 1,285 pounds at two years of age, at $17.70 per hundred. In spite of the fact that bulls of rival breeds are in wide use throughout the South in the big work of 'breeding up' the scrubs, their 'get' has in no instance sold for the prices here quoted. These statistics prove that the Aberdeen-Angus are finding it easy to lead in southern beef production, as has always been the case in every other section or country.

"In addition to their ability to 'put more beef' into our native cattle, they are at the same time breeding off the horns and giving a uniform color to their offspring. Calves from horned native cows and Aberdeen-Angus bulls will almost without exception have smooth heads and be solid black in color. These additional advantages are of the utmost importance and mean many extra dollars income.

"Perhaps a few words further as to the specific characteristics of the breed would not be amiss. In size they are medium, being living examples of the fact that 'the best things do not come in large packages.' Matured bulls weigh from 1,800 to 2,200 pounds on an average, when properly cared for, and cows from 1,250 to 1,800. They are exceedingly hardy and if forced to do so will do well on short and sparse grass. We, however, do not encourage these 'endurance contests' with any breed of cattle and say to the man who expects to make the most out of his cattle by such methods that he will be sadly disappointed. They equal in rustling ability any breed, and this quality undoubtedly comes from the fact that the breed was developed under most adverse natural conditions on the rocky shores of Scotland. Someone always asks, 'How much milk do they give?' To which the answer is: 'They are beef cattle and are bred only to give milk enough to properly nourish the calf. Milk in excess of that amount is undoubtedly at the expense of beef. No cow can be expected to excel in both milk and beef production, as is plainly noticeable in some of our so-called dual-purpose types. This type is practically identical with a pure dairy type and produces little, if any, more beef and much less milk.'

"To make a long story short, get into your mind's eye an ideal beef type and you will have an idea of a typical Aberdeen-Angus. The best beef types of rival breeds are those which most nearly approach the Angus in conformation, and we consider that this imitation is sincere flattery.

"In closing, I want to leave with you just two thoughts: First, clean up the ticks and then provide enough good beef-type bulls to mate with your native females, and if you care for them your success in the cattle business is certain."



KILL EVERY RAT

Rats Menace Health and Destroy Property

RATS have caused more deaths than all the wars in history. They have brought bubonic plague into the United States several times within the last twenty years. They constantly spread scarlet fever, septic pneumonia and contagious jaundice, and are suspected as carriers of infantile paralysis. They are the most dangerous and destructive pests in the world.

Every year rats destroy food and property in the United States to the value of more than $200,000,000 (two hundred million dollars). Farmers are the principal sufferers. On one rice plantation in Georgia 30,000 rats were destroyed in one season. On an Illinois farm 3,435 rats were killed in one month.

Exterminate rats and you guard against loss that may easily equal the full amount of your taxes. Poison, trap, and hunt rats. Clean up trash piles where rats breed. Make your basements and foundations rat-proof.

Organize to rid your community of rats.

Detailed instructions are published in a Farmers' Bulletin (No. 896,) entitled, "House Rats and Mice," and helpful suggestions also are contained in an article in the 1917 yearbook, entitled, "The House Rat: The Most Destructive Animal in the World." These Publications may be obtained free by addressing the

U. S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D. C.

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KANSAS FARMER COMPANY, TOPEKA

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KANSAS FARMER

THE FARM PAPER OF KANSAS

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GAS MASKS FOR SOLDIERS

The gas attack against which the unprotected soldier is so helpless was expected hy Germany to overwhelm her opponents hy reason of its horrihleness and wholesale slaughter. They soon found, however, that their slogan of "Gott Mit Uns" did not always work, for sometimes the wind changed and rolled the deadly fumes back upon the German lines. They also failed to reckon with the courage and resourcefulness of the Allies. Protected with the best gas masks that can be made, the Allied soldiers do not fear a gas attack, and for every gas shell sent over by Germans ten are sent hack.

Gas is the most horrihle and the most feared of all the means of attack employed in this war, and the possession of a gas mask that is known to be infallihle has a wonderful influence on the morale of our fighting men. There is no more important piece of equipment in modern warfare than the gas mask. Every soldier, every stretcher hearer, every amhulance driver, every Red Cross nurse, and in fact every person in the war zone must have one and must be carefully trained in its use.

The mask devised hy the Gas Defense Division of the War Department depends for its effectiveness upon high grade carbon such as is produced from nut shells and fruit pits. The absorbing substances, of which carbon is by far the most important, are in the cannister which the soldier carries upon his hreast and through which the air he hreathes passes when the mask is in place. Five hundred tons, or a million pounds, of the nut shells are needed every day in the manufacture of these masks. Every man, woman and child in the United States must help if our soldiers are to have the hest masks that can he made.

Miss Marion Mateer, assistant hoys' and girls' club leader for Kansas, tells on another page of this issue what some of the Kansas cluhs are doing in collecting material for gas masks. Here is what can he used. Peach, plum, apricot, prune and olive pits, date seeds, hickory nuts, walnuts, hutternuts, or the shells of these nuts (not the outer husks or hulls).

Every home should have its receptacle for saving these nut shells and pits. The Red Cross in each eommunity has or should have full instructions as to making shipments.

VICTORY BOYS AND GIRLS

A challenge to the younger generation will ring out through the land during the week of Novemher 11 to November 18, which is set aside for raising the budget of $170,500,000 for the seven war work organizations. The call to the boys is to enroll as Victory Boys under the slogan, "A Million Boys Behind a Million Fighters," and the girls as Victory Girls, with the slogan "Every Girl Pulling for Victory." Every hoy and girl who enrolls will pledge to earn and give something to help maintain the morale of our fighting men and to provide them with comfort and cheer. Every five dollars earned and given to the cause will provide our fighters with the full service of the seven organizations for five weeks.

Kansas is expected to enroll twenty-one thousand boys and girls under the banner of the Victory Boys and Victory Girls. We feel sure the boys and girls of Kansas will not fail the managers of the campaign. A. H. Tehben, 613 New England building, Topeka, is the state secretary in charge of the campaign for the hoys. The state is organized into twelve district divisions and thirty-eight county divisions. Mr. Tehben's latest report indicates that there will he a hearty response from the men of the state and he says: "I have every confidence that the challenge is going to be met in a splendid way hy the hoys."

The district managers working under Mr. Tebben are as follows: George W. Kidder, Pittsburg; A. W. Franks, Iola; Rev. Frank Jennings, Lawrence; Harry Tooley, Atchison; O. W. Hascall, Topeka; Guy T. Gebhardt, McPherson; W. H. Leask, Wichita; R. E. Wilson, Hutchinson; J. B. Crary, Salina; John R. Williams, Marysville; Caleh W. Smick, Oherlin; J. L. Renner, Scott City.

For War, Not Self

DR. ALONZO E. TAYLOR

WE HEAR entirely too much of the civilian point of view toward the conduct of the war and maintenance of the forces of the nation in war. There is too much individualistie selection of the work that each must do, and the conditions of its fulfilment. The hoys who go abroad become mobilized units in a national program. Shall you and I be less? Thc soldier accepts what is offered him in pay, clothes, food, toil, danger, instruction, and pension. Have I the right to stipulate the exact terms on which I will support him? In a smaller sense, does not each of us share with the soldier the privilege of service, fidelity and sacrifice? We risk so little and stipulate so much, he risks so much and stipulates so little. When it falls to the lot of your hoy to go over the top or to carry on, he does not look to the right or to the left to see what others are doing. Across the sea, from the Vosges to the plains of Flanders, American hoys face the east, face the enemy. They do not look back at us, they trust us, hehind their hacks, to do our part. Our part is to work for war and not for self. Force, force to the uttermost for them; work, work to the uttermost for us.

HOG MINIMUM IN OPERATION

The new plan of regulating hog prices is now in operation. There is considerahle difference of opinion on the methods of stabilizing hog prices. The thirteen-to-one theory, now given up, sounded good, hut the way it worked last month did not suit the hogmen in Kansas and the Southwest where corn is practically a failure and purchased hog feed at central market prices is being fed in finishing hogs for market.

The plan adopted now of a definite minimum agreed to by the packers, the Foor Administration, and representatives of the producers, at least seems more certain of working. Hogmen can figure approximately on the price to expect for the month of Novemher at least.

The administration of the plan on the Kansas City market has been placed in eharge of a committee consisting of Sam H. Ray for the Bureau of Markets of the United States Department of Agriculture; Bowers Bridgeford for the Kansas City Live Stock Exchange, and a representative elected by the packers operating on the Kansas City market. The minimum for Kansas City will he 40 cents lower than the Chicago minimum of $17.50, according to the announcement recently issued by the committee. This is claimed to he the difference in freight rates of Chicago and Kansas City to New York City on export pork.

RESULTS OF SEED WHEAT LOAN

More than half a million acres of wheat have heen seeded in Kansas through the agency of the seed grain loans. It is a matter of considerable satisfaction to those who have taken part in this work to learn how successful it has been. While the final figures are not availahle, Dr. Leon M. Estabrook, who has had charge of the fund for the Government, states that in Kansas the prohahle numher of applications for loans will amount to 3,700, or ahout $985,000, of which approximately 3,200, or $860,000, will he approved.

There was so much delay in getting the details of the plan worked out that the greatest of haste was necessary in order to get the money in the hands of the men needing it in time to do them any good. In a letter written to President W. M. Jardine of the Agricultural College, Doctor Estahrook pays a high tribute to the patriotism and unselfish work done by the voluntary committee of farm bureaus, county councils of defense, and particularly the county agents, in carrying out the co-operative work of rushing the applications through with such rapidity. He says: "These men gave freely of their time and experience in the inspection of fields and the verification of seed loan applications without any reward hut a consciousness of puhlic duty well performed in time of war and feeling that they were co-operating with the Government in helping their neighhors in making a suhstantial increase in the acreage of winter wheat which otherwise would not have been sown."

The State Board of Agriculture and the State Bank Commissioner's office should not be overlooked in giving credit for what has been accomplished in ohtaining this fund and getting it promptly into the hands of the men in the western section of the state who had exhausted their credit and could not otherwise have sown wheat this fall.

From present indications Kansas has seeded a record-hreaking acreage of wheat this fall. The extra planting in the West made possihle hy the seed grain loans and the large acreage increase in the eastern counties of the state have contrihuted no small part to the desired result.

THE HARVEST FESTIVAL

The old "feast of the ingathering" has heen revived in Kansas communities. In some instances this harvest festival is being conducted through the churches, which unite in a two or three days' series of meetings of a social and religious nature in honor of the agricultural activities of the community. Portis, Kansas, recently conducted such a festival, becoming for the duration of that event the center of an agricultural community sixty miles in diameter.

The department of rural service of the Agricultural College, of which Walter Burr is director, is offering to co-operate in conducting local harvest festivities by securing speakers, illustrated lectures, and other helpful facilities.

Mr. Burr is also scheduling speakers for community forums in places where local reorganization is sought in such matters as rural finance, schools, and co-operative organization.

The Community Forum consists of four events, one each month during the winter season. A specialist in each subject treated presents the facts and conducts a discussion as to how the local eommunity may reorganize to meet new needs.

CONTINUE FEDERAL INSURANCE

Beneficiaries of soldier or sailor insurance are wondering why they do not receive the policies or some evidence that the insurance is in force. It has been reported that some are dropping war risk insurance hecause of a fear that since no certificates have heen received, premiums are being paid for insurance that is not in force. This is a mistake. Urge your soldier or sailor boy to continue his payments by all means. If proper application is made and the premiums are being paid, the insurance is in force whether you receive a certificate or not. We can take Uncle Sam on faith in this matter.

Handling war risk insurance has heen a tremendous undertaking. Approximately a billion dollars of insurance is heing recorded each week, and the Bureau of War Risk Insurance now has on record approximately thirty-five billions of insurance. The certificates are being mailed as rapidly as possihle. To date two and a half million certificates have been forwarded, hut the certificate is not essential to the validity of the insurance. It is not necessary to write to Washington asking for a certificate. It will come in the eourse of time, and meanwhile all that is necessary to keep the insurance in force is to pay the premiums.

PROF. L. E. CALL TO FRANCE

L. E. Call, professor of agronomy at the Agricultural College, has heen invited to go to France in connection with the educational work heing conducted overseas with our soldiers. This is just one phase of the great work heing done by the Y. M. C. A. Thousands of men will have weeks and months of idleness when they could employ themselves at various educational and vocational tasks although not physically fit for fighting service.

Professor Call is to become specialist in grain crops in the work among our men in France which is being conducted hy the Army Overseas Educational Commission. His duties would comprise choosing teachers among the soldiers, prescribing textbooks, and exercising general supervision over all the work in his field.

Our boys iu their letters comment on some of the old-fashioned methods of agriculture followed in France, but there are many things in French agriculture which might well be systematically studied. Many of the men who are interested in agriculture will have the opportunity through this educational service to come home hetter fitted to take up work on the soil than when they went into the army.

WORDS AND WORKS

"By their works ye shall know them."

This is sound doctrine to apply in forming our opinions of those who profess to be doing their best in helping our nation to win the war.

"We know a man from whose eloquent mouth flows many professions of patriotism," says the editor of the National Farmer and Stockman in a recent issne of that puhlication, "hut wherever he goes he spreads the hlack doctrine of discontent. He finds something to criticise in every policy, some injustice to farmers, some discrimination against them, some comparison to their disadvantage, some affront to their intelligence. As a result wherever he has spoken there is a certain lack of full and hearty co-operation with our Government's plans to produce food enough to make sure of winning the war. This gifted vocalist does not openly or directly counsel active or passive resistance to our Government's plans, nevertheless resistance of some kind, or failure to help, is the effect of his speaking. Let him and others like him turn to the Book of Daniel and there read the verdict of real Americans in his case even as Daniel interpreted it at the feast of Belshazzar."

Show your soldiers they're not forgotten at home. Suhscrihe to the United War Work Campaign November 11-18.

NON-PARTISAN LEAGUE FACTS

Men at Helm of the Movement Open to Grave Suspicion

MUCH has been written and said about the organization known as the Non-Partisan League, which originated in North Dakota and has spread over the whole Northwest. In some states the election contests this fall, the results of which will be known before this is read, were centered around the fights between candidates endorsed by the league and those opposed to it. It would appear that the organization has as its avowed purpose the creation of a political party out of a class of our population.

Lack of effective organization is a weakness of agriculture as an industry. This is realized most keenly by thinking men. The realization of this need is sure to give birth to many theories for solving the difficulties and overcoming the handicaps of producers. In such times safe and sane leaders are needed. The times call for clear thinking for a multitnde of ideas, some good and some bad, are sure to come up in the reconstruction days before us. There has never been a time when it has been more important for farmers as a class to keep their feet on solid foundations and scrutinize keenly proposed plans and ideas affecting agricultural progress and conditions.

Regarding the Non-Partisan League and its bearing on the developments of the times, the estimate of Oliver W. Stewart, of Ohio, associate editor of The National Enquirer, is well worth a careful reading. Mr. Stewart is a keen observer and has a broad view of national problems. Following a careful study of this organization in all its phases he wrote in part as follows:

"During the last two years—or a little more—the Northwest has seen an upheaval among its farmers, not so much agrarian as socialistic or communistic. With the sudden sweep of water, breaking a dam and inundating the country, the Non-Partisan League has captured state governments and inaugurated a regime which has alarmed some and inspired horror among others, who believe the very foundation of the republic is threatened.

"When questions turn on mental states or conditions, it often happens that facts must give way to surmise, and conclusions have to be based upon presumptions in accord with the observed facts and tested experiences of life.

"Is the Non-Partisan League loyal? There are those who insist that it is not; others vehemently assert that it is, while some, who are not of it, state their belief that, in its rank and file it is, but, in its leaders, or a few of them, it is not. Thus, by the last, a middle course is steered which probably comes more nearly the line of justice and fairness.

Discredited Leaders

"Once and for all let it be said that men highest in the council of the League were guilty of utterances about the time of our entry into the war, which bordered closely on disloyalty. That shortly after they desisted from unpatriotic speech, at least in most cases, and have been more careful, is conceded generally. It is to be expected that men who see in the League a menace to free institutions and republican form of government, doubt the genuineness and sincerity of the later patriotic words of suspected leaders.

"Some of the men who direct its affairs have been hand-in-glove with the present Socialist party leaders and with the I. W. W.—good reasons both for condemnation. The less said about the latter the better, for its treasonable conduct has been established in court to the satisfaction of all fair-minded people. The former, by its St. Louis platform and its pro-German leadership, has placed itself beyond the pale of respectability. It sold its birthright in America for a mess of international 'potash' and got the 'ash.' Gompers, who has stood like a rock for his country and for democracy, will have more influence after peace among the Germans themselves than will Berger and the other lickspittle Socialists who thought to placate the Teutons and thus make their own international standing sure.

"That League leaders have affiliated with either of the unsavory classes just mentioned is a disgrace which has put them and their organizations on the defensive, and, as General Foch stated it, no war is ever won by defensive battles.

"It is not unusual in the Northwest to find those who stand up for the League while they excuse, apologize for or reject its leadership. It is a peculiar situation, but can have but one result; for as certainly as the apodosis of a conditional sentence must depend upon what has gone before, so must the standing of the League, in the minds of patriotic people who are not partisans, depend upon the utterances and character of its leaders.

"That opponents have made much—too much, perhaps—of this weakness doubtless is true; but the entire membership hardly could be indicted on that score.

The Membership

"What about the membership?

"That is the important question. If the membership is all right, the organization will get right or die. Is the membership all right?

"Answering the question by coming around on the other side, one may say that, if the membership is all wrong, heaven help the country. Its fate is sad indeed if there is doubt of the patriotism of the millions—or even the thousands in the League—who battle with Nature to produce food for the world—the hardy pioneers, ever on the outskirts guarding the nation from starvation and want.

"Patriotism should come naturally to the farmer. His nearness to the soil gives him an attachment to the country not so quickly or easily felt by those whose stake in it is, or seems to be, less. He would have more to fear from an invasion than those unattached citizens who can pack their few belongings and move out ahead of the oncoming foe. Not for nothing have the farmers been looked upon as the very backbone of the country and its mighty rock of defense.

"But he has found himself ground between upper and nether millstones. He has been whirled about among the combinations, which buy his products, sell him goods, and furnish transportation both ways. It is to his credit that he organized; only a dullard would not. Farmers, organized, are at a disadvantage not suffered by those in labor unions. They are widely scattered. During busy seasons they can not so easily get together; conditions compel them to take leaders more on faith and less from exact knowledge.

A Natural Result

"For these and other reasons every movement of farmers has been afflicted with the leadership of demagogues and mountebanks. Preyed upon and swindled by the smooth oily rascals who often come their way, it is no wonder they frequently put their political trust in some member of their organization because of the patches on his clothes, his ungrammatical speech and lack of education and training for public service, feeling, in desperation, that they would rather be misgoverned by ignorance and pretense than by cultivated unfriendliness.

"The Socialists quickly saw in the League a fertile soil for their seed. No sooner had the United States entered the war—indeed before—they began their chatter about this being nothing but an economic struggle. All the old Socialist formulæ about class contests were repeated, with emphasis on the need of farmers and laborers all over the world standing together.

"The economic interpretation of history never had the truth in it the Socialists thought they saw, and it is being shot to pieces in this war. They were not the only ones utterly to misconceive the spirit of the American people. William Hale Thompson, mayor of Chicago, was another who thought he could ride into power on a wave of war unpopularity.

Loyal Rank and File

"Whatever may have been or is in the hearts of the leaders of the League—and they are open to suspicion—the members, in the main, soon found themselves. How could it be otherwise? Their boys are fighting at the front; they know now this is a war for all we hold precious. It is true they talk much about war profiteers, not forgetting to accept the highest price they can get for all they have to sell; and they are not to be blamed for that, nor should it blind our eyes to conditions which are wrong and must be—and will be—changed; or stop our ears to appeals to end industrial situations which permit the manufacturing of a flock of millionaires while loyal people give their all—precious lives included—to the country.

"If a bit of prophesy may be permitted, it is that the league will not have a long life. It is an autocracy and such organizations will not be popular very long.

"Desired reforms will come; divisions among its members will appear; distrust will be engendered; great national problems will demand attention, and the organization, built up of men whose purposes were good, seemingly having served its day, will pass.

"Those who comprise it, true to form and instinct, will answer to and thrill to—are already answering to and thrilling to—the higher call.

"The farmers are not a menace to the country."

Save Material for Gas Masks

By Marion Mateer, Assistant in Boys and Girls' Club Work, K. S. A. C.

ONE thousand two hundred and fifty gas masks in one month! This is the record of seven small Kansas communities. How's that for backing up the army "Over There?" Just a collection of 8,752 pounds of fruit pits and nuts which otherwise would have been wasted. Here is your chance to do one thing more to help win the war. Are you willing?

The Government needs 500 tons of such material daily. This call came during the summer and what has so far been accomplished was undertaken by the county agents, home demonstration agents and county club leaders. These people co-operated with the boys and girls of their various communities with the above result.

No doubt other localities are willing to help as soon as they know what is expected. This is but a small example of what a farm bureau and county agent can do for a county. On one hand they work directly with the people, while on the other they co-operate with the extension division of the state agricultural college in combination with the U. S. Department of Agriculture.

Why do they always receive first hand instructions on such matters as food and supplies? Because they belong to the government just as truly as the soldiers, and when an order comes to move forward, they organize their forces and move.

During the month of November a regular campaign for collecting nuts and pits is to be conducted all over the state. Boys and girls everywhere will be busy with wagons, boxes, and sacks. Every nut and pit will help. This campaign will be carried on by the extension division through the farm bureaus, county agents, and boys' and girls' clubs in various local communities. Seven pounds of nut shells or two hundred peach pits will make one mask. How many masks can you supply the army?

All nuts and pits are acceptable so long as the hard shells have not begun to decay. This material is being assembled at the two carbonization plants of the gas defense division of the Chemical Warfare Service, U. S. A., where it is immediately being made up into available form.

This is a task in which each true American should be interested. Your county agent is willing to do his part. Will you back him up? If we can send our boys a gas mask apiece we will be a silent section of the firing line. Let's collect enough nuts and pits to reach all the way from Kansas to Berlin.

The strongest, purest life is not the one that always has been sheltered and never known temptation, but the one which has been tempted and tried in fire, and, like the three men in the fiery furnace, has come out of the battle without even the smell of smoke on it.—Newton Kansan.



THESE BOYS AND GIRLS OF THE OTTAWA GARDEN CLUB BELIEVE IN WORKING FOR UNCLE SAM THE YEAR ROUND. GARDEN WORK IS NOT TAKING THEIR SPARE TIME NOW, SO THEY SET OUT TO HELP SUPPLY THE MATERIAL FOR GAS MASKS TO PROTECT OUR SOLDIERS. THEY ARE HERE SHOWN DELIVERING THEIR COLLECTIONS OF PITS AND NUT SHELLS OF THE KINDS REQUIRED TO MAKE THE HIGH-GRADE CHARCOAL REQUIRED FOR THE GAS MASKS WHICH PURIFY THE AIR BREATHED DURING A GAS ATTACK BY ABSORBING THE POISONOUS GASES

Fight Grasshoppers by Disking

Grasshoppers have been very prevalent the past season and have done a great deal of damage, particularly in the western counties. These grasshoppers have now deposited their eggs in the fence rows, turning rows and along the roadside. Every egg, and their number is legion, is a potential grasshopper to injure next year's crops. Why not organize your community or township and have a disking bee before the ground freezes up, turning all the egg cases, or capsules, out to be exposed to the winter weather? They will not survive this treatment and if it is persisted in along with the poisoning during the growing season, there should be a decrease in the grasshoppers in a few years. The eggs will be found in the hardest of ground and probably a very large proportion of them will be found in comparatively narrow limits, so the job of disking will not mean the covering of very much ground.

Rats destroy $200,000,000 worth of food and property every year. Destroy the rat.

GOVERNMENT LOANS ATTACKED

Federal Loan System Striking Shackles from Ten Million Farmers

THE farmer is by some strange error regarded hy many city people as more or less of a fool, and is often referred to as a "rube" or a "hick." The best proof of this queer fact lies in the vicious attacks recently made by the Farm Mortgage Bankers' Association, through its secretary and mouthpiece, E. D. Chassell, on the Federal Farm Loan Act. These gentlemen seem to he ignorant of the fact that the farmer is ahout as skillful as the next man in seeing the nigger in the woodpile or finding the hug under the chip.

These money-loaners are much pained hecause Federal Farm Loan Bonds are free of taxation both as to principal and income. In an article hy E. D. Chassell entitled "More Than Six Dollars for One," all sorts of misstatements are made. It is assumed that all huyers of these honds, the men whose money is loaned to the farmers, are "multimillionaire tax slackers." As a matter of fact the first $30,000,000 of this cheap money to farmers was furnished, according to the figures of the Federal Farm Loan Bureau, hy small investors in the main, the average purchase being about $5,000. These bonds may be had in the denominations of $25, $50, $100, etc. Figures for later issues are not yet available.

"Friends of the Federal Farm Loan system" says Mr. Chassell, "claim that the tax exemption feature of the law henefits the farm borrower an average of one-half of 1 per cent, or $5 a year on a thousand dollar loan." This is not the claim made by the friends of the system, but the admission of its enemies. As a matter of fact the Federal Farm Loan System could not exist without the tax exemption. The farm mortgage hankers are not out merely to add half of 1 per cent to the farmers' interest rate, but to destroy the Federal Farm Loan System. No matter what they say, this is their ohject.

Any tax on these honds will be paid hy the farmer, and not hy the bond buyer. The interest rate will have to go up or the honds will not sell.

If the benefits to the farmer were only half of 1 per cent a year, these money loaners would let Congress handle the matter without any help from them. But the Federal Farm Loan System costs the farm mortgage hanker much more than half of 1 per cent a year. That is the hug under the chip. In every state in the Union interest rates have gone down to the farmers under the competition of the Federal Farm Loan Act. Fedcral Farm Loan Bonds, untaxed, can he sold at a low interest rate. The money can he loaned to the farmers at a low rate. The result is that for the first time in our history farmers are ahle to horrow money on land mortgage at as low an interest rate as that paid hy industrial corporations. The days of 8 and 10 and even 12 per cent, with commission mortgages on top of this, are over forever for the American farmer, and he can get money on his own time and pay it off gradually. This costs the "12 per cent patriots" a good deal of money, but how they can expect to wheedle the farmers into lining up with them against it is a mystery, unless they think the farmers are fools.

The farmers have received loans to the extent of about $125,000,000 under this system; but there are over 3,000 National Farm Loan Associations chartered, which almost cover the farming regions of the country, and which stand ready to serve farmers with long-time, amortized, low-interest loans in the place of the short-time higher-interest loans of these gentlemen who are worrying about the tax-exempt character of the farmers' honds. Therefore if they can destroy this competition they will save for themselves much "more than six dollars for one" of the amount they are spending in this attack.

It is perfectly safe to say that if it had not been for the Federal Farm Loan System, interest rates to farmers would have heen going up and up all through this war. The Federal Farm Loan System has saved the farmers, whether they horrow through it or not.

This result in keeping interest down is hought at a mighty small cost hy the Government in the amount of tax lost. "Food will win the war," and food is heing produced on a lowered interest scale. No governmental agency has done more to save the farming situation for all the farmers than the Federal Farm Loan System.

I am interested in cheap money to the farmer. I have heen active in the New York Patriotic Farmers Fund which gives personal credit to farmers. I know of nothing more necessary to the strength of this nation in war than cheap money to farmers. I aided the Federal Farm Loan Bureau in selling its bonds last summer, acting as a volunteer without pay, because by so doing I was serving my country. I am writing this to warn the people of the country that in this attack on the Federal Farm Loan System hy the money loaners there is danger to the very existence of the system and a peril to the nation.

The tax exemption has worked exactly as Congress intended it to work. It has given the farmers cheap money. Tax the honds and you destroy this great system whieh is taking over the farmers' indebtedness at the rate of ahout $10,000,000 a month, and will go on doing so if these attacks fail. The existence of a hundred million dollars or so of tax-free Federal Farm Loan Bonds is a mighty small matter when it strikes the shackles from ten million farmers. And where it costs the Government ten dollars it costs Mr. Chassel's employers a hundred. That is the nigger in the woodpile.—H. H. CHARLES.

EDITOR'S NOTE.—The Mr. Chassell referred to by the author of this article is secretary of the Farm Mortgage Bankers' Association. The article in question was given wide puhlicity through the Agricultural Puhlishers' Association, this organization sending coppies, at Mr. Chassell's request, to all the papers in its membership. It attacks the tax-free feature of the honds issued hy the Federal Farm Loan Bank and attempts to show that this enahles the rich income-tax slacker to profit at the expense of the farmers. The fallacy of some of the arguments advanced is shown up hy Mr. Charles.

AMERICA CANNOT FAIL

Last ycar the American people by their voluntary action made it possihle to send eleven and three-fourths million tons of food overseas.

But the test is not over. The task before us is even greater than the task achieved.

We must send the Allies and our own soldiers and sailors overseas seventeen and one-half million tons of food this year.

Each of us is individually responsihle for the ohligation our Country has assumed. We have now to make our supreme effort.

Our lines must hold—America cannot fail.

Money to Keep Our Fighters Fit

NEXT Monday the joh of raising the money for the United War Work hudget will hegin. The campaign will end Monday, November 18. The American people are expected to give or pledge during that time a minimum of $170,500,000 for helping the seven organizations help our boys to win the war. About 35 per cent of this is expected from farmers. No one who has watched the conduct of farmers through the Liberty Loan campaigns has any douht as to their meeting and even exceeding the expectations. The farmers know all ahout the uses to which the money is put and fully appreciate the value of the work being done. Their own hoys are writing home in every letter and telling of the comforts that have come to them through some one of the seven organizations.

We have told the story of what is heing done for the welfare of our soldier hoys many times in KANSAS FARMER, and we have urged the importanee of continuing all this war work until the hoys are back home. The hudgets of at least three of the organizations in the coming campaign were based on information at hand last spring when it was generally thought that there would not he more than a million soldiers in France hy Novemher 1. The numher actually there was two million. It was also thought when these hudgets were made that we would not have more than three million men in uniform on both sides of the Atlantic hy next summer. In order to forcé a quick and victorious ending to the war, the plans were greatly enlarged and an army of four or five million is now contemplated.

From seventy thousand men at the beginning of the war, our navy has increased until we have more than six hundred thousand sailors and marines and the number will be still further increased.

It is the purpose to follow the soldiers and sailors from the time they leave their homes, while they are in transit, while they are at the training camps large and small, while they are on their way to the ports of embarkation, as well as at these ports, while they are on the sea, during their stay at the ports of deharkation, during their experiences in further training overseas, in the zone of combat including the front line trenches, while they are at leave resorts or in the hospitals or in the prison camps, and then all the way back to their homes.

This is not only the amhition and purpose of the great organizations to which we are to give our money next week, hut they are making good at the joh. The money needed necessarily increases in volume with the steady enlargement of our fighting forces.

The farm homes from which hoys have gone will gladly welcome this chance to send a bit of home cheer and comfort to the loved ones wherever they may be on land or sea, in some home camp or on the battlefield in Europe. If we hut provide the money, the organizations united in this campaign for funds will go with them all the way.



Silage from Fodder

It looks wasteful to the average livestock man to fill a silo with a crop containing a good yield of grain. Although it has heen shown that the grain in the silage is just as effective in fattening cattle or giving gain as when fed separately, it goes against the judgment of many stockmen to put corn worth $1.50 to $1.75 a bushel into a silo. The silo is essentially a means of getting maximum returns from the fodder part of the crop, and stockmen would welcome any practical plan for getting the forage part of the plant made into good silage and at the same time harvesting the grain separately so it could he sold at the prevailing high prices. Under such conditions making silage out of dry fodder will without doubt he tried on a good many farms.

Some interesting results with silage from which the ears had heen removed were described by Professor Grindley of Illinois University at the annual meeting of the American Chemical Society in Cleveland, Ohio. He reminded his audience that the corn plant does not contain its maximum nutrient value at the time it is usually put into the silo. Where silage is to be used simply in wintering cattle, it can be put into the shock at the proper time and after the corn has been husked and sold the fodder can he made into silage. On such silage, fed with one pound of oil meal daily, yearling cattle increased in weight and the same feed furnished a good maintenance ration for a hreeding herd. The cost of wintering cattle on this ration is only ahout seven cents a day as compared with approximately twenty-one cents when the silage is made from the entire plant. Less than half the corn stover is used when it is pastured in the field, and, as it is less palatahle than silage properly made from dry fodder, it does not produce as good results.

Using dry fodder for silage makes it possihle to keep the silo full all the time and have silage to feed during the late spring and into the summer. The dry fodder, if properly stored, can be used to fill emptied silos even into the spring.

Filling silos with this chopped fodder does not differ from the usual method of silo filling except that plenty of water must he added in order to have the material packed solidly enough to exclude air. Silage made in this way should be thoroughly tramped and there should be no question as to the supply of water. It takes practically a ton of water to a ton of dry forage to make good silage. Unless it is thoroughly wet and tramped there will he air pockets and moldy silage will result.

The food problem is a perpetual challenge to the idealism and husiness efficiency of America.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

EVERYWHERE fertilizer has been applied the crops seems to have done much better this year and in many cases fields of grain sorghums which have been fertilized have matured seed where other fields have failed. This seems to be the case where either barnyard manure or commercial fertilizer has been used. And have you noticed that if any kafir matures in a field it is along the draws or low places in the field, where the fertility has washed from the slopes? Many claim that the kafir gets later maturing every year. Perhaps this is due to the fact that our soils are getting thinner each year, and are unable to mature the crop. What do you think?

More than ever farmers have been using fertilizer this fall. It has been difficult to get commercial fertilizer. Why not get a carload of manure from Fort Riley stables and top dress the wheat this winter? Applied at the rate of three tons per acre, it will increase the yield and in addition will add humus to the soil, something commercial fertilizer cannot do.

"Clabber" will not raise a crop, and Mr. Bower's statement, "Granddad got the cream, dad got the skim milk and son gets what is left—"clabber"—is only too true.—H. L. POPENOE, Agricultural Agent, Lyon County.

Sudan Grass Production

Sudan grass, which has earned the title "the alfalfa of the uplands," is becoming an important forage crop in all the South Central States and especially Texas and Oklahoma. It is also rapidly coming into prominence in Kansas, where its value as a forage and hay crop is being widely recognized. Large amounts of fine quality seed are also being grown in the state. The rapid increase in the acreage devoted to Sudan grass in our state is shown in the figures given out by the Kansas State Board of Agriculture. This year farmers planted 79,166 acres, compared with 26,731 in 1917 and 31,386 acres in 1916—the first year in which statistics on the crop were secured by the Kansas Board of Agriculture.

All sections of the state planted Sudan in 1918; eleven counties having more than 2,300 acres each. Eight of these eleven are located in the south central part of the state, close to the Oklahoma border, Sumner leading with 3,918 acres, followed in order by Ford 3,226, Meade 3,141, and Gray 3,002 acres respectively. More than 36,000 acres, or 45 per cent of the state's Sudan area, are in nineteen counties of the south central section where the sorghums made an encouraging showing, having withstood well the dry weather that prevailed during the season. In this part of the state, too, there has as yet been only light frosts, and an excellent seed crop matured.

Clay, Cloud and Ottawa counties, in the north-central part, each had from 2,300 to 2,800 acres of Sudan, which has aided materially in providing the much-needed hay and forage for live stock, which is also true of other portions where Sudan was grown. It is doubtful whether Sudan in the northern part of the state matured much seed this year. Where grown for hay only it is possible to secure two and sometimes three cuttings during a season, and where a seed crop is harvested a cutting of hay usually follows in due time.

The feeding value of Sudan grass has been found by the Texas Agricultural Experiment Station to be equal to the feeding value of oat hay, sorghum, millet, timothy and Bermuda, with the possible exception of Bermuda. Having but light stems or stalks and being of a very leafy nature, it is more easily cured than "cane" and the other sorghums and is more readily eaten and digested by all classes of live stock.

Description of Hessian Fly

While most wheat growers are familiar with the damage done by the Hessian fly, many probably have never seen the fly itself.

Many kinds of tiny, active, pale greenish and yellowish colored insects known as leaf-hoppers may be found in swarms in the wheat fields during the fall of the year. They are often mistaken for the Hessian fly because they are found in the wheat fields in great numbers in September and October when the fly often does serious injury to the wheat. T. J. Talbert, extension entomologist of the Missouri College of Agriculture, points out the differences between these two insects.

The adult leaf-hoppers differ from the Hessian fly in that they are larger, exhibit a greater variety of colors, have two wings on either side of the body and are provided with short legs, the hind pair of which being very strong enables them to jump quickly and take wing readily. They also differ from the fly in their type of growth and development. The eggs hatch into young leaf-hoppers which at first are much smaller than the adults, and have no wings. The young or nymphs after molting several times finally develop wings and attain full growth. The leaf-hoppers winter in trash and litter as adult insects.

The Hessian fly is a tiny long-legged two-winged gnat-like insect resembling a mosquito more than perhaps any other insect. It does no damage to the wheat in the adult or flying stage. The adult fly lives about a week, during which time the females deposit their eggs in the grooves of the wheat leaves. These eggs hatch in two or three days and the tiny maggots work their way down between the leaf sheath and the stalk where they feed on and injure the plant. The maggots develop and pass into the flaxseed or resting stage for the winter from which they emerge as adults in the spring.

The leaf-hoppers may be numerous enough to fly up in clouds when disturbed by a person walking through the wheat field. If this abundant, the pest may do considerable injury to the wheat by sucking out the juices of the leaves through their tube-like mouth parts. In most cases, however, the pest does no material damage to the wheat and its injury is not really so severe as that of the Hessian fly.

The wheat growers of Missouri and Eastern and Central Kansas may be assured that two of the most injurious pests of wheat, the Hessian fly and the chinch bug, are well under control due to the effective measures adopted and put in practice. Therefore, so far as the control of the most injurious insects is concerned, the prospects for a bumper wheat crop next year were never better.

Substitute Hog Feeds

Substitutes for corn will have to be used in feeding hogs both for market and breeding stock. Hominy feed, a by-product of corn flour, is a substitute for corn that is very nearly equal to it in feeding value. "Barley will make a very good substitute where it can be bought for half a cent a pound less than corn," says R. W. Kiser, extension specialist in live stock at the Agricultural College. Barley is being shipped into Kansas for feeding purposes. We understand the Farmers' Union of Riley County is making co-operative shipments and distributing the barley feed to its members over the county. This is probably barley that would have been used for beer and other grain drinks if the Food Administration had not put a stop to this sheer waste of feed.

To get the best results, barley should be soaked or ground and fed in a mixture supplying enough protein for a proper balance. Alfalfa or alfalfa meal can be substituted for brown shorts. It should be ground or chopped on the farm if possible.

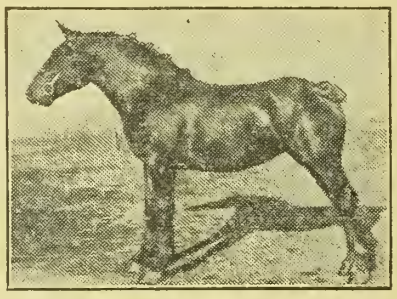
"Tankage is now the cheapest feed on the market," says Mr. Kiser. "It is now selling for about $105 per ton. Your profit in feeding it lies in using cheaper feeds and balancing the ration. For fattening hogs use the following substitutes: Barley, 74 per cent; alfalfa meal, 20 per cent; tankage, 6 per cent. Mix and feed wet. For brood sows in winter the following ration will do very well. Barley, 50 per cent; alfalfa meal, 47 per cent; tankage, 3 per cent. Mix with warm water or slop during cold weather. Every farmer should carry his brood sows during the fall on rye pasture as it is the cheapest and best. It will also make good winter pasture for pigs as well as brood sows. The shorts situation may continue as in the past."

Raise Horses of Better Quality

Undesirable, mediocre horses are being dumped on the market in large numbers this fall to save feed. This has created an over-supply of horses of this type, and as a result prices are unusually low. This might lead horse producers to feel discouraged over the future prospects. The thing to do, however, is to raise horses of better breeding and quality. The supply of desirable-quality heavy draft horses or animals suitable for artillery or cavalry purposes is below the demand, while the prices of such animals are correspondingly high.

In view of both the domestic and foreign demand during and after the war for quality horses, the thing to do is to begin now to stock up the farms with horseflesh of the desirable type. Under existing conditions feeding stuffs for work animals are extremely high in price. On this account it is imperative that only work stock of the useful, most efficient and valuable type should be wintered. One heavy draft horse will perform the work of practically two under-sized, inferior plugs, while such an animal can be fed at about the same cost for maintenance as for one of the plugs.

There is no difficulty in finding a market for heavy horses of quality and good breeding where an inferior horse can be disposed of only at a sacrifice.



NO mistake was made by J. J. Moxley, of Osage City, in purchasing the fine filley here shown as a foundation animal for a pure-bred herd of horses. This young man after consulting with horsemen in whom he had perfect confidence accepted their wise counsel and bought one good one instead of splitting his money and buying two inferior animals. Nemesis was sired by Hector, the champion Percheron stallion at the Topeka Free Fair in 1917, bred and shown by William Branson of Overbrook. She was winner of first place at the Free Fair this year in the yearling class.

Feed Laws of Kansas

L. A. Fitz, state feed inspector for Kansas, calls attention to the fact that the prices of cottonseed cake and meal have been definitely fixed by the Food Administration as follows: For cake carrying 43 per cent protein f. o. b. Texas mills, $57 a ton; 40 per cent protein cake f. o. b. Oklahoma mills, $54; 36 per cent protein cake from mills in other states, $53 a ton.

The cottonseed crop is light and the amount produced will be reduced as a result. It is necessary to distinguish between cottonseed meal and cottonseed feed. Cottonseed feed is a product made by mixing hulls with low-grade meal. It is often improperly quoted and sold as 20 per cent cottonseed meal. According to Professor Fitz, if a mixture of this kind does not analyze 36 per cent protein or better, it should be regarded as cottonseed feed. Cold pressed cottonseed cake should not be confused with prime cake or meal. In this cake the oil is extracted by a process which leaves the hull and some fiber with the resulting cake.

Professor Fitz also states that a number of cottonseed product manufacturers persist in packing their feed products guaranteed ninety-nine pounds net. The Kansas law requires that a sack of cottonseed products must contain one hundred pounds net before it can be sold within the state without special contract regarding weights. When you buy a ton of cottonseed cake or meal you should receive two thousand pounds net of the product. Hence the weight of the sack should not be included.

You frequently have difficulty with shipments being short in weight or not analyzing equal to guarantee for protein. Consumers should protect themselves by having a written contract specifying weight and protein content and also that the sacks will be labeled to show net weight and guaranteed quality. When such product is shipped in interstate commerce without any label showing guaranteed quality, it is practically impossible for you to take action under the United States Food and Drugs Act, while if the shipment is labeled it enables us to secure prosecution.

Buyers should be sure to keep copies of contracts, invoice, freight bills and all other papers connected with purchases.

It is our understanding that the county agricultural agents are being appointed as special feed inspectors. This gives them authority to take official samples of feed which will be analyzed free of charge. If you are buying feed in any quantity, it would pay you to report to the county agent and have him take the necessary samples. Do not forget, however, that in the case of carlots bought under contract there must be someone who can swear that the feed in question is the feed shipped under the bill of lading in your possession.

Deferring Farm Labor

The administration of our selective draft law requires something more than merely filling out the questionnaire to get deferred classification. Provost-Marshal General Crowder says in emphasizing this point, "Someone must indicate that the individual case is one that should arrest the attention of the draft board in respect to the registrant's occupational status. What happens to the registrant neglecting to state his claims for deferred classification? If he does not put them down in his questionnaire and no one else puts them down, the claim can not be considered. It is the duty of any employer, which includes farmers and managers of farms, to aid his necessary employes in a necessary occupation in presenting their cases to the board."

This statement shows that it is someone's duty to see that proper claims are made based on the essential character of the work being performed by the registrant. There will be slackers who will seek deferred classification to which they are not entitled, but on the other hand there will be many men doing most essential work who will not themselves make claims for deferred classification and could not be expected to do so. They cannot consistently be judges of the essential or non-essential character of the work they themselves are doing. It should be assumed as a duty by patriotic farmers in every community to see that the necessary claims are made for farm labor and also to see that slackers who attempt to be deferred without just claim be prevented from doing so. The agricultural advisers named for the district draft boards—W. J. Tod, Board No. 1 with headquarters at Topeka, and W. T. Edwards for Board No. 2 with headquarters at Wichita—are the men assigned to the task of helping out in the classification of agricultural labor in such a manner as to avoid crippling the industry by making too heavy demands on its labor supply.

Before me, even as behind,
God is, and all is well.
—John Greenleaf Whittier.

Hominy Feed to Replace Corn

SHORTAGE of home-grown grain and other commonly used feeds is leading to increased interest in many of the lesser known by-products. In a recent issue of The County Agent it is pointed out that, due to the large amounts of corn meal and corn flour being manufactured to meet the wheat shortage, hominy feed has been produced in large quantities.

In spite of the prejudice which still exists against the feeding of by-products, here is a good illustration of the benefit to be derived from that procedure. Hominy feed is the by-product of the manufacture of corn meal. The corn kernel is broken into two parts—one part consisting of the horny gluten, the other part consisting of the soft, white stareh, the germ and the hull. It is this second part which is called "hominy feed."

It must not be confused with corn feed meal which is often sold as hominy feed.

In some feeding tests hominy feed has given results superior to corn, while in other tests it has proved to be not quite so good as corn. But, taking it all in all, it has about the same feeding value pound for pound.

The feed manufacturers utilize every cereal to its best advantage, mixing them with other ingredients so that the proper amount of nutrients will be supplied without waste.

This is something that the farmer cannot do with one or two ingredients. Indeed, in most cases, the farmer will overfeed certain nutrients which the animal cannot assimilate and the result is a wicked waste.

"Let us for the sake of argument suppose that mixed feeds and whole grains are equal in price and availability. Labor on the farm is the scarcest commodity. When the feeds are ready mixed the farmer has saved his own labor. This in itself is a sufficient argument for the use of mixed feeds.

If you still have the mental reservation that the mixed feeds may not be up to standard, all you have to do is to ask your agricultural college about any brand and they will give you the facts.

They may advise you to use bran or linseed meal, which is often profitable. But suppose that the ingredients in question are not to be had, you may thank your lucky stars that the feed manufacturers are on the job. You certainly would be up against it for feed if you could not rely upon them to scour the earth for cereal by-products which will make a proper ration.

In some counties there is a surplus of local feeds of one kind or another, but in the great majority of counties live stock would starve were it not for the manufacturers of mixed feeds.

We are fortunate that we are not in the position of the German pig or cow.

We know we would not care to be a human being on the continent of Europe—living in constant fear of being caught in a brawl started by some pig-headed kingling with a self-inflicted predestination for world domination. Now, in addition, we are quite sure we wouldn't even care to be a cow or a mule if we had to live there. The Food Administration tells us that many countries of Europe are hard put to find forage for their stock. To replace the usual fodder material "there are numerous substitutes, some of which are most ingenious." Likewise, tasteless and unpalatable, we suspect. Pine and fir needles have been used in Sweden, potato tops in Norway, hazel catkins have been dried and used as a sort of fodder flour in Germany, and in Austria-Hungary stinging nettles were being resorted to last January. Perhaps the strangest fodder substitute of all, however, is cockchafers, a kind of beetle, which are being collected throughout Germany and Austria by school children as food for pigs and poultry.

Recipe Book Frauds

If someone tries to sell you an official Food Administration recipe book for a high price, you ean set him down as a fraud. It is reported that such books are being sold, some as high as $4.75 in price. The Food Administration for Kansas has issued the following statement:

"All Government publications are given away or sold at cost. In some instances books have been issued by reputable publishing companies which have had the approval of the Food Administration. The only cook book issued with the approval of the Food Administration for Kansas was sold at the Patriotic Food Show for 5 eents on the cash and carry plan and 10 cents by mail.

"This book, containing 338 recipes, is sold below cost. This booklet is still being sold at the Food Administration offices in Wichita, but the sale will be discontinued as soon as the present stock is exhausted. None of these booklets are sold by agents.

"For use in colleges and in public schools the Food Administration has approved the sale of a text book, the most expensive of which sells for 80 cents.

"When agents selling high-priced books represent themselves as having the approval of the Government, they should be prosecuted under the laws forbidding false representation."

Boys Make Money Trapping

Perhaps the farm boys of the country—their elders, too—have not put two and two together enough to realize that there has never before been a time when trapping promised such big results as this coming season.

The reason is plain. Thousands of men who have trapped other years are now with Uncle Sam's fighting forces. That means a shortage of furs and a shortage means high prices.

Almost any farming section of the United States affords fine opportunities for profitable trapping. It isn't necessary to go off into the wilds to trap fur bearers whose skins bring good prices. Aren't there mink, muskrat, opossum, skunk, fox, weasel, badger, raccoon—or some of them—right at hand? Of course there are—and they sell as readily as skins from the interior of Alaska or the wilds of Canada. Here is safe, profitable sport.

This is a hint in time—to farm boys and others who either haven't trapped at all, or who have only gone at it with indifferent effort. A whole lot depends on being ready beforehand. The successful trapper begins looking over trapping grounds weeks before the first trap is set. He sees to it that his old traps are in good condition. He buys new traps early, in order that he may bury them to destroy the scent of steel and iron before trapping begins.

Write to the big fur houses and ask them for their catalogs and booklets. Many of these contain valuable information obtained from "old timers" about their methods and the habits of animals. Ask for the names of good, practical books on trapping. See what you can find out from those you know who have trapped. In other words, be energetic in looking up all the information you can.

The best part of it is that any intelligent boy can quiekly learn trapping. It isn't mysterious. And it is both great sport and one of the best ways to make a considerable sum of money. Trapping isn't like working hard for small pay in spare time and maybe doing work that is distasteful. The boy who traps is his own boss and doing something that stirs the blood with exercise and excitement as well as with the big financial reward which is sure to come as a result of real, conscientious effort. Be a trapper this year.

Stover Silage

H. P. Rusk of the Illinois College of Agriculture writes as follows about the tests on stover silage being made by the Illinois Experiment Station:

"After preliminary tests, the Illinois Experiment Station put up four silos of stover silage. All of the corn that could be removed by the husking machine was taken out. The fodder stood in the shock until the latter part of December, when three silos were filled. Water was piped up the outside of the silos and delivered to the top of the distributor and added in the following proportions:

"First silo—Eight pounds of water to twelve pounds of stover.

"Second silo—Ten pounds of water to twelve pounds of stover.

"Third silo—Twelve pounds of water to twelve pounds of stover.

"About the middle of February a fourth silo was filled with equal parts, by weight, of water and dry stover, and one-half of one per cent blackstrap molasses.

"Forty head of breeding cows were used in an experiment to determine the relative value of these silages and normal corn silage in winter maintenance rations.

"A detailed discussion of the results would require too mueh space to include here. A few of the most important observations, as I see them, are that this silage made a palatable feed, and when fed ad libitum with one pound of linseed meal per head daily, more than maintained the weight of the experimental cows until they calved. All lots lost some weight, due to the faet that the experiment carried them through the calving period. The largest loss, 88 pounds per head, occurred in the lot receiving our standard winter maintenance ration of forty pounds of normal corn silage and one pound of linseed oil meal per head daily. The normal silage came from the same field that produced the stover put in the first three silos. It contained 7.35 bushels of corn per ton and cost $10.92 per ton as fed. On the basis of this value and 3 cents per pound for linseed oil meal, our standard winter maintenance ration cost us 24.8 cents per cow per day. On the basis of $1.50 per ton for the stover silage and 3 cents per pound for linseed oil meal, the feed cost in the stover silage lots ranged from 7.2 cents to a little over 8 cents per head daily, or approximately one-third of the cost of maintenance with normal corn silage. We hope to have the complete data published in bulletin form some time in the near future."

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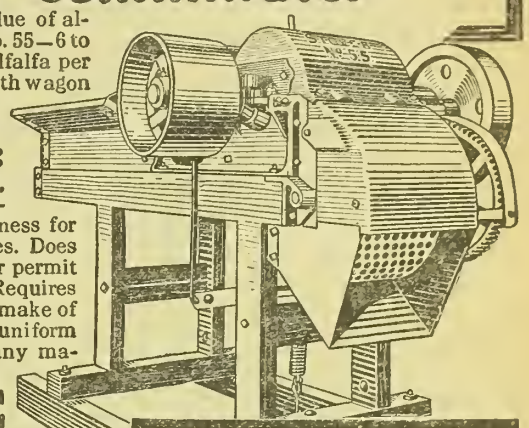
—and double the feeding value of alfalfa. Made in two sizes: No. 55—6 to 12 h.p. Capacity 3 to 5 tons alfalfa per day. No. 56—12 to 20 h. p. with wagon box and sacking elevator. Capacity 8 to 15 tons per day.



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I and my hired man laid a feeding floor for my hogs, 24x24, in one day; also put floor in my cow barn. My neighbor liked it so well I am not able to keep it at home.—ANDREW CHRISTENSEN, Hancock, Minn., Rt. 1.

We have used the mixer during past year for putting in cement foundations for a complete set of farm buildings, including silo, and like it very much.—DANA WEIGHT, Jamestown, N. D.

Last year I bought a cement mixer from you with which I am well satisfied. It did not take long for it to pay for itself and I surely can recommend it to anyone needing a *big mixer at a small price.*—WM. PARKS, Marston, Ill.

I am more than busy with my Sheldon Concrete Mixer. Have more work than I can do. *I get $10 a day when I work out.*—JESSE L. WITTER, Wellsville, N. Y.

The machine works fine. Have already *got the job* of mixing concrete for the bridges in this township.—JOHN ROSE, Spartansburg, Pennsylvania.

Last spring we purchased of you a set of castings to make a concrete mixer. It was constructed per the plans furnished and it *surely worked great.*—D. M. BRUBAKER, Freeport, Ill.

FREE PLANS

Make your own concrete mixer. You can do it at a cost so low you can not afford to mix concrete by the shovel method. Along with our iron parts we send Free Plans and permit for making your own machine. A good way to get a practical mixer at a small expense. Or, we will sell you the complete machine, ready built.

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If you buy a Sheldon Mixer for your own use, you can make many times its cost in a season by renting it to your neighbors. Or, if you want to go out with the mixer on contracts, you can easily earn $3 to $20 a day. Our customers are doing it right now. The jobs go to the man with a Sheldon Mixer every time.

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National Catholic War Council (K. of C.)—$30,000,000.

Jewish Welfare Board—$3,500,000.

The War Camp Community Service—$15,000,000.

The American Library Association—$3,500,000.

The Salvation Army—$3,500,000.

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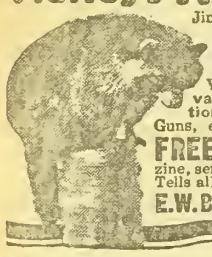

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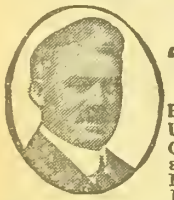

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The Gold Star

Parents or widows of soldiers who lose their lives in the war will be supplied free with mourning brassards by the American Red Cross. The brassards, to be worn in lieu of general mourning, were suggested and designed by the Woman's Committee of the Council of Defense and indorsed by President Wilson. The brassard, a band of broadcloth three inches wide with a regulation military star embroidered in gold thread, is to be worn on the left sleeve, midway between elbow and shoulder.

Interesting War Items

IN THE October number of The Outlook appears a very interesting article in which William L. Stidger relates some of his experiences in hospital work in France. One of the stories he tells is that of a lad who had gone through the fighting in Bellieu Woods and whose face was terribly wounded. Mr. Stidger says: "He was ugly to look at, but when I talked with him I found a soul as white as a lily and as courageous as granite.

"'I may look awful,' he said, 'but I'm a new man inside. What I saw out there in the woods made me different somehow. I saw a friend stand by his machine gun with a whole platoon of Germans sweeping down on him and he never flinched. He fired that old gun until every bullet was gone and his gun was red hot. I was lying on the grass, where I could see it all. I saw them bayonet him. He fought to the last against fifty men; but, thank God, he died a man; he died an American! I lay there and cried to see them kill him; but every time I think of that fellow it makes me want to be more of a man. When I get back home I'm going to give my life to some kind of Christian service. I'm going to do it because I saw that man die so bravely. If he can die like that, in spite of my face I can live like a man.'"

"And so it is all over France," says Mr. Stidger. "As I worked in some twenty hospitals, from the first-aid dressing stations back through the evacuation hospitals to the base hospitals, I have found that the reaction of wounds and suffering is always a spiritual reaction, and I know, as I know no other thing, that the boys of Ameriea are to come back, wounded or otherwise, a better crowd of men than they went away. They are men reborn.

"I have seen boys come out of battles made new men. I have seen them go into the line sixteen-year-old lads and come out of the trenches men. The boys in the trenches live a year in a month, a month in a week, a week in a day, a day in an hour, and sometimes an eternity in a second. No wonder it makes men of them over night. No wonder they come out of it with that 'high look' that John Oxenham writes about.

"Back of their wounds are their immortal, undying, unflinching souls. . . . America must learn to . . . see beyond the wounds into the soul of the boy; to see beyond the blinded eyes, the scarred faces, the legless and armless lads, into the glory of their new-born souls, for no boy goes through the hell of fire and suffering and wounds that he does not come out new-born. The old man is gone from him, and a new man is born in him. That is the great eternal compensation of war and suffering."

Village Life in France

Although the American soldiers are not allowed to include in their letters any military information, there is much they can tell of their surroundings which is of interest to friends at home. The following details of village life in France are given in one letter:

"The main roads here are all made of rock and cement and are bordered by nice trees. There are no farm houses, but everybody lives in villages. The houses are made of stone and as a rule have tile roofs. Everything, even the people, has a picturesque aspect because of these ancient houses, the occasional wooden shoes, or two-wheeled carts drawn by oxen. There is an ancient woman in the village where I am quartered who appears to be over ninety years old, so I guess the climate is good for anyone. We have cool nights and in many places have fine spring water. The cities are nice, so you see the country is all right. The people are very nice, too, and will do anything in the world to accommodate any soldier. Few of us can talk French but we get along all right anyway."

Farming Methods in France

A Colby boy, W. E. Passell, in army railroad service in France, tells of farming methods in that country in a letter published in the Smith County Journal. He says:

"Although the boys in the trenches have more excitement than we do, I still think we are in position to see and study the country and people better than they. Running through the country as we are all the time, we get to see their methods of farming and living, and I must say that some of them seem rather crude to us. At present they are putting up hay all along the road and while some of them have mowers and hay rakes the same as we have, the majority cut it with a scythe and rake it into bunches with a fork. They are very painstaking in making their stacks, the stacker never using a fork, but takes each bunch pitched to him in his arms and tramps it down before he takes any more. It is very slow work but when they do get it done it is well done. I am waiting now for their grain to ripen so I can see how they go about harvesting."

This letter was written in July.

Perfectly Reasonable

The colored soldier told of by the Smith County Journal must have read Benjamin Franklin's remark that the chief advantage in being a reasoning creature is that one is able to find a reason for almost anything he wishes to do. He was one of a company of raw troops who were being drilled in various exercises intended to loosen up their muscles. Among the exercises was one where the men were instrueted to lie on their backs and keep their feet going as if they were pedaling a bicycle. The captain looked over the bunch of men and notieed that one had suddenly stopped the motion. Going over to where he was, the captain asked sharply: "What's the matter here? Have you quit?" "No, Massa Cap'n," said the negro, "I hain't quit; I'se jes' coastin' a little."

A Visit from Pershing

An inspiring visit of General Pershing to the 137th Infantry is described by Milton Hale of Formoso in a letter printed in the Smith County Journal. He says:

"General Pershing himself inspected us a short time ago. He was dressed very plainly, with no bright colors nor deeorations. Some English staff officers were with him and with their shining red braid and gold, looked much more dressed up than our General. But under the plain service cap that he worc was one of the strongest fighting faces I ever hope to see. To look at Pershing is to have confidence in his ability as a fighting leader. And you should have seen the men stand at attention as if they were statues. Not a sound but an occasional muffled cough, and the tread of the inspecting officers.

"I didn't know what the rest felt like, but when I saw the General come around the end of the linc—all unexpected—I had to hold myself to keep from cheering. You see, we were all at our regular drill when we were called into mass formation on the drill ground. No one even expected that Pershing was in this part of France. We saw the closed car draw up, but I could not see who got out. The first intimation I had that Pershing was there was when he stepped around the corner of that silent block of men, only a dozen feet, facing me. It was some surprise party."

Standing Back of Them

The knowledge that the people at home are with them heart and soul means more to the soldiers at the front than any material comforts which may be furnished, welcome as these may be. A soldier writes:

"One thing is sure, we all appreciate the way the people at home are sticking with us. Each one is helping to kick the props from under autocracy and the job will be finished eventually."

Supplies for Red Cross

Something of the wide scope of the Red Cross work at the front is shown by the equipment purchased. The War Council of the American Red Cross has authorized the purchase of military and hospital equipment to cost $1,999,200. The equipment was asked by the Red Cross commissioner to France and includes requirements to January 1, 1919. The purchase will include 500,000 sheets, 250,000 pairs of ward slippers, 50,000 bathroom slippers and 300,000 shirts.

Fight with Concrete

¶ The way is open

The War Industries Board recognizes farm buildings as necessary to increased food production. No permit is needed for a farm improvement not exceeding $1,000 in cost.

¶ Concrete is the way

Bull's-eye hits against fire, rot, disease, rats, cyclones, expensive upkeep and insurance, are fired by such concrete weapons as *feeding floors* and *barnyard pavements, milkhouses, hog houses, manure pits, granaries, fruit and vegetable storage cellars and dipping vats.*

¶ You build once only with Concrete

You save labor, transportation, and with one stroke increase production and defeat waste.

Put up that necessary building now. Cold weather need not stop you.

Write for Bulletins 115 and 137, which will tell you how you can use spare hours to

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Variations in Fat Test

VARIATIONS in the fat test of milk are often hard to explain. While the butter fat test of a cow is an individual characteristic and not suhject to any great variation when whole lactation periods are considered, many minor variations occur. "One of the least understood causes and yet the most important is the seasonal variation," says N. F. Judkins of the Connecticut Agricultural College in discussing the causes of variations in butter fat test.

"It has been known for some time that milk tests lower in warm weather than in cold weather. The following table taken from Storrs Bulletin No. 94, just off the press, shows up this point very clearly:

Seasonal Variation by Months for Four Dairy Breeds, January 1915 to January 1916

Month	Jersey Per cent Fat	Guernsey Per cent Fat	Ayrshire Per cent Fat	Holstein Per cent Fat
January	5.5	4.77	4.28	3.51
February	5.21	5.25	4.77	3.53
March	5.41	...	4.35	3.10
April	5.36	4.62	4.40	3.09
May	5.02	4.27	4.04	3.45
June	4.72	3.94	3.88	3.16
July	4.73	3.93	3.76	3.17
August	4.91	4.15	3.88	3.28
September	5.28	4.59	4.11	3.18
October	5.55	4.60	4.23	3.64
November	5.66	4.62	4.41	3.43
December	5.79	4.73	4.26	3.47
Average	5.19	4.32	4.09	3.33

"These figures are based on tests made three times per month for each cow of the four breeds in the college herd. It will he noted that the Jersey test falls from 5.5 per cent in January to 4.72 per cent in June, the Guernsey from 5.25 per cent in February to 3.76 per cent in July, and the Holstein from 3.53 in February to 3.09 in April and 3.17 for June and July. It is in the month of April that the test begins to go down and in September when it recovers. The farmer should not therefore blame the dealer or the system if his test is lower in April or May than in January, February, or March.

"Another important factor connected with the seasonal factor is the stage of lactation of the cow. If a cow is fat at calving time, her milk will test higher for three to five weeks. This explains why in the case of the Holstein herd for the month of May the test was 3.45 per cent higher than for April. A number of good plump Holsteins freshened in this month. Cow's milk tests higher during the latter part of the lactation period. If it so happened that a man had a herd nearly all of which freshened in March or April, he would get lower tests for the summer than if the herd freshened in the fall. To see how lactation and season may work with or against each other, two lactation periods of a Guernsey cow were tabulated and studied:

Effect of Seasonal Variations in a Short and Long Lactation Period

Fresh April, 1915—	April	May	June	July	Aug.	Sept.
Pct. fat...	4.46	4.40	4.66	4.19	4.26	4.78
	Oct.	Nov.				
Pct. fat...	4.80	4.90				
Fresh April, 1911—	April	May	June	July	Aug.	Sept.
Pct. fat...	4.01	3.83	3.92	4.76	4.69	4.53
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Pct. fat...	4.22	4.67	4.76	4.73	4.83	4.76
	April	May	June	July	Aug.	Sept.
Pct. fat...	4.63	4.51	4.83	4.59	4.99	4.83
	Oct.	Nov.	Dec.			
Pct. fat...	5.07	5.35	5.76			

"Here is a cow freshening in April two different years, once milking eight months and once twenty-one months. In the short lactation the test shows a decided drop in July and August and increases rapidly in the fall, due to advancing lactation and season working in the same direction. In the long lactation period, for some unknown reason, the cow showed a relatively high test in July, August, and September, dropping off in October and going up higher than ever in the fall when advancing lactation and season operate together again. This data seems to indicate that the tendency for milk to test low in fat during the hot months is greater than the tendency of prolonged lactation to raise the test, since the fat test drops to 4.51 per cent in May after the cow has milked for twelve months, a little more than the normal length of a lactation period."

Dairying a Permanent Industry

In spite of the phenomenally high prices for butter, one of the surprises of the market has been the continued demand for butter of table grade. This is information of real value to those who are milking cows and equipped to continue in the business. It is proof that consumers want butter and are going to have it as long as they can afford to buy it. "And this demand is growing," says the Chicago Dairy Produce. "Butter not only makes its own demand because it gives satisfaction; but we are learning more rapidly than ever before about values and necessary foods.

"Nohody who can afford butter will be satisfied with any of the so-called substitutes. We have that fact illustrated with every change of the market. Some of the trade is driven from butter when prices go too high; but just as soon as prices come back, the lost trade is back, demanding hutter. It is a question of price; and, with all labor employed at good wages, as is the case at present, the price limit is at its highest point.

"Quality makes demand and the demand will increase as we improve quality and the volume of high quality butter. When we add to this fact the growing knowledge of the necessity of hutter in the diet, we do not need to give a thought to the possibility of overproduction of good butter."

Those who are in the business of producing milk, butter, or cheese, can safely give their energies to increased production without worrying for fear there will be an oversupply of these most necessary products. There will of course be dull spells in the market with variations in prices, but milk and its products have passed out of that condition when the price was a matter of habit and have passed into a condition where the price is governed by the supply and demand of a most valuable and essential food. Dairying can be accepted as an enduring industry more likely to increase than to decrease in importance in the years to come.

Butter for Home Use

Butter may reach a dollar a pound by the end of the winter, but whether it reaches this price or not, it is not going to be any lower. It will save money and perhaps avoid the necessity of going without butter for home use on some farms if a supply is stored for winter use. On some farms there is likely to be a period when hutter will not be made and the family must either go without or buy it at prevailing high prices.

It is easy to keep butter. Butter for home storage should be made from sweet or only slightly sour cream. All utensils coming into contact with the cream or butter must be carefully scalded. Salt the butter as usual and pack solidly in small one- or two-pound crocks, wrapping each crock with a piece of muslin that has been boiled. Place these small crocks of butter in a large jar and cover with brine strong enough to float an egg. For every three pounds of salt used in the brine add a pound of sugar and one-fourth of a pound of salt peter. The brine mixture should be boiled, skimmed, and allowed to cool before using. These directions for the home storage of butter are those given by W. D. Combs of the dairy department of the Missouri Agricultural College.

Cream Ruling Explained

The new rule of the Food Administration specifying that cream sold for direct consumption shall not contain more than 20 per cent hutter fat in no way affects the handling of cream used for butter making, ice cream making or other manufacturing purposes. Its only purpose is to conserve fat by cutting out the unnecessary use of cream by those who can afford the "double cream" or "whipping cream," as it is called.

A rich cream, 30 to 40 per cent butter fat, is more desirable for butter making. It is a matter of conservation to skim a thick cream, since buttermilk is saved on the farm for feeding calves and pigs.

A considerable quantity of milk has been skimmed to supply this luxury cream trade, and the new rule will release milk which will go to supply the regular town or city trade.

Roosevelt Speaks Out

Roosevelt's fearless editorials in The Weekly Kansas City Star are arousing wide attention. Readers who want to follow the comments of Roosevelt may do so by sending fifty cents to Department 31 of The Weekly Star at Kansas City, Mo., for one full year's subscription. This special low rate applies only to residents of Kansas, Missouri, Iowa, Oklahoma, Arkansas and Nebraska.—(Adv.)

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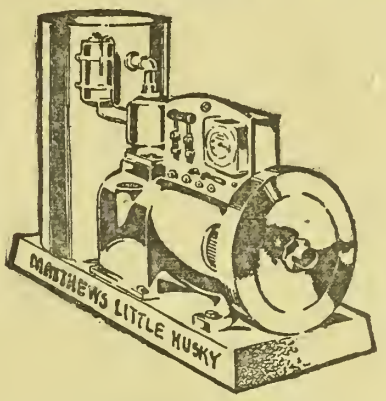

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"LITTLE HUSKY" gives all the light and power needed by the average home—15 to 20 lights or their equivalent in power. It will pump 120 gallons of water an hour or run the washing machine, churn, etc. It is the plant the world has been waiting for—a small automatic. And the price only $395.00.

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Then There's No Overcharge—No "stewing" of the battery. The special control board, with its electrical brains, takes care of charging the battery, saving a lot of money in fuel and battery repairs. Fully Equipped, is the "LITTLE HUSKY" even to the Stewart-Warner Vacuum Fuel System, and there's a big battery, all ready to operate, that anyone can connect up by following the simple instructions given.

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The volume of orders received from established dealers convinces us that our production schedule must be increased. This is being done. Meanwhile orders will be filled in the rotation of their receipt.

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SITUATIONS WANTED ads, up to 25 words, including address, will be **inserted free of charge for two weeks,** for bona fide seekers of employment on farms.

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120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

DOGS.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c, W. R. Watson, Box 128, Oakland, Iowa.

FOR SALE—A FEW HIGH CLASS COON, possum and skunk dogs. Stamp for reply. A. F. Sampey, 317 East Mt. Vernon St., Springfield, Mo.

POULTRY.

ROSE COMB WHITE WYANDOTTES, $3 each. A. H. Fry, Paxico, Kansas.

PURE ROSE COMB WHITE LEGHORN cockerels, beauties, $1.50 straight. J. M. Jarvis, Newton, Kansas.

CHOICE BROWN CHINA GEESE. EXtra high quality, $5 each, either sex. Earl Scott, Belvidere, Kansas.

SINGLE COMB BUFF LEGHORN COCKerels, $1.50 and $2 each. Satisfaction guaranteed. Alf Johnson, Leonardville, Kan.

CHOICE WHITE ROCK COCKERELS, $2 and $3. Mrs. C. B. Clutz, Route 5, Troy, Kansas.

NARRAGANSETT TURKEYS, CLOSING out our choice breeders. Act quick. Sarver's Poultry Farm, Hastings, Nebraska.

"RINGLET" BARRED ROCK COCKERels, $3 and $5 each. Mrs. C. N. Bailey, Lyndon, Kansas.

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FOR SALE—BARRED ROCK COCKERels, layers and winning strain. Farnsworth, 224 Tyler, Topeka.

BARRED ROCK, WHITE WYANDOTTE, Leghorn cockerels. Geese, ducks, guineas. Emma Ahlstedt, Lindsborg, Kansas.

ROSE COMB WHITE WYANDOTTE cockerels, $2 up. Hens and pullets, $15 dozen. Mrs. George Rankin, Gardner, Kan.

PURE-BRED S. C. BROWN LEGHORN cockerels, $1.50 each. J. W. Warner, Rush Center, Kansas.

PURE-BRED WHITE WYANDOTTE cockerels, $1.50 each. I. B. Pixley, Wamego, Kansas.

DARK RED ROSE COMB REDS, GOOD scoring, greatest laying strain; cockerels, pullets, eggs. Satisfaction guaranteed. Highland Farm, Hedrick, Iowa.

BARRED PLYMOUTH ROCKS, STATE Fair winners. Thrifty farm-raised birds. Cockerels, $5, six for $25; pullets, $2.50. Guaranteed satisfactory. Hiram Patton, Hutchinson, Kansas.

AN EXTRA LOT OF PURE-BRED Partridge Wyandotte (Doolittle Wolverine strain) pullets and cockerels. April and May hatch. Will be sold in lots to suit purchasers. Pullets will be laying soon. R. F. Ayers, Box 220, Route 5, Independence, Missouri.

POULTRY WANTED.

THE COPES, TOPEKA, ARE PAYING 25c for turkeys, 22c for hens and springs. Coops loaned free. Prompt. Reliable.

WANTED

WANTED — FIFTY WHITE ESKIMO Spitz puppies, six to eight weeks old. Brockway Kennels, Baldwin, Kan.

THE STRAY LIST.

TAKEN UP — BY J. H. CRANSHAW, Route 5, Rosedale, Wyandotte County, Kansas, on October 3, 1918, one red steer, weight about 1,000 pounds. Branded on left side. Both ears trimmed. William Beggs, County Clerk.

MISCELLANEOUS.

CHOICE WHITE SWEET CLOVER, REAsonable. Sow on wheat and let snows cover. John Lewis, Madison, Kansas.

FOR SALE—FANCY NO. 1 MINNESOTA Red River Ohio potatoes, $2.50 per hundred; round white, $2.25 per hundred; turnips, 90c per bushel; beets and carrots, 3c per pound; sweet potatoes, $2 per bushel; York Imperial and Ben Davis apples, orchard run, hand picked, ciders out, $1.75 per bushel basket. Buy your winter supply now. Saiyer Bros., 1008-1010 North Kansas Avenue, North Topeka.

REAL ESTATE.

DAIRY, 230 ACRES, HOUSE, BARNS, cows, mules. Milk, 40 cents wholesale. $8,000. Terms. H. M. Anderson, Wesson, Mississippi.

FARMS WANTED.

WANTED—TO hear from owner of good farm for sale. State cash price, full description. D. F. Bush, Minneapolis, Minn.

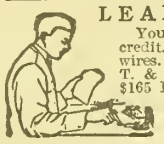
FARM LANDS

YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

HONEY.

FOR SALE—1918 CROP OF HIGH GRADE table honey direct from bees to you. Guaranteed to be absolutely pure. Can containing 60 pounds net, $15.25. On orders for two cans or more the price is $15 per can and the freight is less on shipments of 100 pounds or over. Have dark honey for table or cooking purposes also, which I can recommend as pure and good. Single 60-pound can, $13, or $12.75 each for larger lots. Prices f. o. b. Hotchkiss, Colo. All cans securely boxed and strapped. Frank H. Drexel, Crawford, Colorado.

SCHOOLS AND COLLEGES



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OTTAWA, KANS. CATALOG FREE

What is claimed to be the first rural fire department in the United States has been put in service at Hollansburg, Ohio, fifteen miles northeast of Richmond, Indiana. The company is to serve farmers of Wayne County, Indiana, and Darke County, Ohio, living within a redius of five miles of Hollansburg. An automobile truck of the latest style and equipment has been bought by farmers and will be maintained by annual dues of the membership. If the department is called to extinguish a fire at the home of a member, no charge is made. If the call comes from a farmer who is not a member, the service will cost the caller $50. The truck is provided with two large chemical tanks, small chemical extinguishers and 200 feet of hose. The machine can make a run within its territory in ten minutes.—Safety Engineering.

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Judging Hens for Egg Production

JUDGING hens as layers from appearances is as difficult as to judge of a cow's milk and butter fat capacity simply by looking at her. Certain rules have been formulated, however, which are helpful. We give below the methods and rules adopted and approved at Cornell University last summer by the American Association of Instructors and Investigators in Poultry Husbandry:

In order to lay well a bird must have a sound body. As a first consideration a bird must be vigorous and healthy if it is to be able to lay well. Vigor and health are shown by a bright, clear eye, a well set body, a comparatively active disposition and a good circulation.

Further, the bird must be free from physical defects such as crooked beak, excessively long toe nails, eyelids that overhang so that the bird cannot see well, scaly leg or anything else that would keep the bird from seeing or getting an abundance of food.

A laying fowl uses up the surplus fat in the body, especially it removes the fat from the skin. In yellow-skinned breeds this loss of fat can readily be seen by the loss of the yellow color. The different parts of the body tend to become white, according to the amount of fat stored in the body and the amount of circulation of blood through that part. The changes occur in the following order:

The vent changes very quickly with egg production so that a white or pink vent on the yellow-skinned bird generally means that the bird is laying, while a yellow vent means that the bird is not laying. It should be recognized that all yellow color changes are dependent on the feed, coarseness of skin and size of bird. A heavy bird fed on an abundance of green feed or other material that will color the fat deep yellow will not bleach out nearly as quickly as a smaller or paler colored bird.

The eyering, that is, the inner edge of the eyelids, bleach out a trifle slower than the vent. The earlobes on Leghorns and Anconas bleach out a little slower than the eyering, so that a bleached earlobe means a little longer or greater production than a bleached vent or eyelid.

The color goes out of the beak beginning at the base and gradually disappears until it finally leaves the front part of the upper beak. The lower beak bleaches faster than the upper but may be used where the upper is obscured by horn or black. On the average colored, yellow-skinned bird, a bleached beak means heavy production for at least the past four to six weeks.

The shanks are the slowest to bleach out and hence indicate a much longer period of production than the other parts. The yellow goes out from the scales on the front of the shanks first and finally from the scales on the rear. The scales on the heel of the shank are the last to bleach out and may generally be used as an index as to the natural depth of yellow color of the bird. A bleached out shank usually indicates fairly heavy production for at least fifteen to twenty weeks.

The yellow color comes back into the vent, eyering, earlobes, beak and shanks in the same order that it went out, only the color returns much more quickly than it goes out. A vacation or rest period can sometimes be determined by the outer end of the beak being bleached and the base being yellow.

A laying hen has a large, moist vent showing a dilated condition and looseness as compared with the hard, puckered vent of a non-laying hen.

The whole abdomen is dilated as well as the vent so that the pelvic arches are widespread and the keel is forced down, away from the pelvic arches so as to give large capacity. The more eggs the bird is going to lay the following week the greater will be the size of the abdomen. The actual size of the abdomen is, of course, influenced by the size of eggs laid and by the size of the bird.

Heavy production is shown by the quality of the skin and the thickness and stiffness of the pelvic arches. Fat goes out from the skin and body with production so that the heavy producers have a soft, velvety skin that is not underlaid by layers of hard fat. The abdomen in particular is soft and pliable. The sternal processes are very prominent and are generally bent outward. The thicker and blunter the pelvic arches and the greater the amount of hard fat in the abdomen, the less the production or the longer the time since production.

One of the finer indications, but yet one of the most valuable in picking the high layer is the fineness of the head and the closeness and dryness of rethering. The head of a high layer is fine. The wattles and earlobes fit close to the beak and are not loose and flabby. The face is clean-cut. The eye is full, round and prominent, especially when seen from the front. The high layer is trimmer; that is, the feathers lie closer to the body and after heavy production the oil does not keep the plumage relatively as slick and glossy but the plumage becomes worn and threadbare.

The comb, wattles and earlobes enlarge or contract, depending on the ovary. If the comb, wattles and earlobes are large, full and smooth, or hard and waxy, the bird is laying heavily. If the comb is limp the bird is only laying slightly but is not laying at all when the comb is dried down, especially at molting time. If the comb is warm it is an indication that the bird is coming back into production.

When a bird stops laying in the summer she usually starts molting. The later a hen lays in the summer or the longer the period over which she lays, the greater will be her production, so that the high producer is the late layer and hence the late molter. The length of time that a hen has been molting or has stopped laying can be determined by the molting of the primary feathers. It takes about six weeks to completely renew the primary feathers and an additional two weeks for each subsequent primary to be renewed.

A good layer is more active and nervous and yet more easily handled than a poor layer. A high layer shows more friendliness and yet elusiveness than a poor bird. A low producer is shy and stays on the edge of the flock and will squawk when caught.

While the characters discussed have dealt specifically with the current year's production, it should be borne in mind that a high producer one year is generally speaking a high producer in all other years.

Provide Dust Bath

The dust bath to the fowl is what the wash bowl is to the individual. With the dust bath the hen cleanses her body. She comes as regularly to dust herself as she does to feed, instinct teaching her that it is the best method for ridding herself of lice. If she has free range where there is plowed ground or soft earth, she will find a place to dust herself, but if confined in pens she must be provided with a place and material wherewith to dust herself. Some provide ashes of either hard or soft coal, some use dry road dust. If you will see that the hen has proper material wherewith to dust herself, she will avail herself of the means, and thus solve, in great part at least, the lice problem.

The poultry house should be cleaned thoroughly. If it has a dirt floor, remove the top from four to six inches and replace with fresh sand or loam. This should be done every year. The house should be whitewashed or sprayed with some good disinfectant, being sure to go over the roosts and the nests inside as well as outside.

Chickens Sick or Not Doing Well?

An Extraordinary Offer: Germozone is a standard remedy everywhere for chicken troubles, roup, colds, cholera, swelled head, bowel complaint, chicken pox, canker, not doing well, non-laying, etc. Now our proposition: If no dealer there handling Germozone and you will agree to use it and pay if satisfied, we will send you a 75c package without a cent in advance. No pay if not satisfied. Can we do more? And we will send free 5 poultry booklets. Write today.
Local dealers handling Germozone will do the same.
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THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Fire Prevention in Schools

IS YOUR school meeting the requirements of the State Fire Marshal law which provides for a fire drill at least once each month and at least one lesson each quarter of the school year with reference to the causes and dangers of fire? The Kansas law is modeled after that of Ohio which in ten years reduced the fire waste in that state 48 per cent. The board of education or board of trustees of the school is held responsible for seeing that the provisions of this law are carried out.

While four lessons on fire prevention during the school year will meet the requirements of the law, a weekly period of fifteen minutes devoted to this subject would be far better. Material for these lessons is provided in the bulletin published by the State Fire Marshal which may be obtained free of charge by addressing the State Fire Marshal, Topeka, Kansas.

"Safeguarding the Home Against Fire" is also a practical little fire prevention manual prepared for the school children of America by the National Board of Fire Underwriters at the request of the United States Bureau of Education. This booklet gives common causes of destructive fires and tells how they may be prevented. It may be purchased at the exact cost of quantity production.

Pupils may be asked to clip from newspapers all notices about fires that occur and discuss during the lesson period the probable causes of these fires and what might have been done to prevent their start. This adds interest to the study of the regular lesson and shows to the pupil its practical value.

For the Expectant Mother

Expectant mothers are urged by the State Board of Health to enroll in the Mothers' Confidential Registry, Division of Child Hygiene, Kansas State Board of Health, Topeka, giving name and address and date of expected confinement. They will receive, without charge, a series of nine helpful prenatal letters and the valuable pamphlet, "Prenatal Care," issued by the Children's Bureau of the National Department of Labor.

When the birth of a baby is reported, a blank certificate and a copy of the "Kansas Mothers' Book," prepared by the Division of Child Hygiene, will be sent if the mother has not already received one. This book contains practical information regarding child-bearing and child-rearing in simple and concise language. It discusses also the public-health phases of child hygiene and welfare, so that the mother may understand and co-operate with the various agencies of the state to which she may appeal for service.

Expectant mothers and mothers of children are also invited to write the Division of Child Hygiene regarding the many perplexing questions associated with child-bearing and child care. This service is entirely free and brings to any Kansas mother the expert advice and counsel of specialists.

For many years the United States Government and the State have helped the farmer with his crops, cattle, and pigs. They are now trying to help with the children. The Division of Child Hygiene was organized to help babies and mothers of babies. Avail yourself of every aid it can give you.

Girls Like to Darn Hose

While endeavoring to interest the girls of the garment-making clubs of the state in conserving clothing, Miss Lottie Milam, assistant state club leader, says that an unusual interest has been aroused in the prosaic task of darning hosiery. In each of the three years of the club work the darning of a pair of hose is a part of the work required, better work naturally being expected each year. The work of the club members, girls ranging in age from ten to eighteen years, is entered in competition for prizes during Farm and Home Week at the Agricultural College each year as well as at the state fairs, and the friendly rivalry resulting from these contests has awakened a real desire for practice in this useful art. "Parents have not hesitated to express their appreciation of the work of the clubs, particularly in this line," says Miss Milam. "We count this as one of the biggest things the clubs have done."

If You Would Keep Well

A few simple rules for keeping in health, familiar to us all but often neglected, and of special importance in a time when sickness is general, are brought to mind by the New York Globe:

"Don't crowd. Don't jam the entrances of railways, theaters, and other places of assembly.

"Don't put unclean things into your mouth. Don't eat or drink in dirty places. Don't eat without first washing the hands.

"Don't expose yourself to cold or wet. Don't over-exert. Avoid all excesses.

"Don't go out if feeling unwell. Take care. Keep fit.

"Don't forget to use your handkerchief, covering mouth and nose when coughing or sneezing.

"Don't worry."

To Remove Shine from Wool

Many a discarded wool suit or dress or separate skirt might be brought back to service if it were not for the shine it has acquired. The nap of the material may be pulled up again and the shine removed, according to home economics workers at the Iowa State College, in either of the following ways:

Press wool material through a wet woolen cloth. The nap of the pressing cloth will pull up the nap of the garment.

Press wool material with a piece of wet crinoline over it (white for white materials, black for dark materials). The crinoline will stick to the wool and will pull up the nap.

Press wool material through heavy wet cotton cloth. Iron until cotton cloth is dry, wet the cloth again, place it over the material, rub the iron over it. This removes the shine, but does not take out the press.

Good War Substitutes

Economy—for Waste.
Co-operation—for Criticism.
Performance—for Argument.
Service—for Sneers.
Perishable—for Preservable Foods.
Conservation—for Conversation.
Common Sense—for Common Gossip.
Production—for Pessimism.—Ex.

Soldier or Slacker?

Are you a soldier or a slacker? Ask yourself the question and answer it in all honesty. Are you giving a few minutes each day to some kind of war work, or are you giving every single minute that can be spared from absolutely essential duties? Are you going without the things you LIKE with a cheerful spirit, glad to help, or with a grouch? Do you stop to think whether our boys LIKE to stay in a military training camp all this summer weather? Or, whether they would LIKE to come home? Or whether they LIKE to go into front line trenches and face the enemy's guns.

It is pretty near time we stopped talking about what we LIKE and buckle down to see what we can DO.—American Motherhood.

Nourishing Soups

Since soups offer an excellent way of utilizing odds and ends of vegetables, and especially leftovers and parts which otherwise would be wasted, the use of vegetable soup is often a real economy. The fact that soups can be given so many and so varied flavors, are so easily made, so generally relished, and make such palatable combinations with large quantities of bread and crackers, shows that they are very useful additions to the diet.

Some recipes for wholesome, nourishing soups follow:

Potato Soup

3 potatoes, medium size
4 cupfuls skim milk
1 small onion
4 tablespoonfuls butter or other fat
2 tablespoonfuls flour
1½ teaspoonfuls salt
¼ teaspoonful celery salt, or
1 stalk of celery cut in inch pieces
⅛ teaspoonful chopped parsley.
A little cayenne pepper or paprika.

Scotch Broth

2 pounds mutton
2 tablespoonfuls pearl barley
2 tablespoonfuls minced onion
2 tablespoonfuls minced turnip
2 tablespoonfuls minced carrot
2 tablespoonfuls minced celery
2 tablespoonfuls salt
1 teaspoonful pepper
1 tablespoonful minced parsley
3 quarts cold water

Remove the bones and all the fat from the mutton, cut the meat into small pieces, and put it into a stewpan with the water, chopped vegetables, barley, and all the seasoning excepting the parsley. It will be found convenient to tie the bones in a piece of thin white cloth before adding them to the other ingredients. Bring the stew to a boil, quickly skim it, and allow it to simmer for three hours, thicken with the flour, and add the chopped parsley.

Dried Fish Chowder

½ pound salt fish
4 cupfuls potatoes, cut in small pieces
2 ounces salt pork
1 small onion, chopped
4 cupfuls skimmed milk
4 ounces crackers

Salt codfish, smoked halibut, or other dried fish may be used in this chowder. Pick over and shred the fish, holding it under lukewarm water. Let it soak while the other ingredients of the dish are being prepared. Cut the pork in small pieces and fry it with the onion until both are a delicate brown, add the potatoes, cover with water, and cook until the potatoes are soft. Add the milk and fish and reheat. Salt if necessary. It is well to allow the crackers to soak in the milk while the potatoes are being cooked, then remove them, and finally add to the chowder just before serving.

The Greatest Woman

"Who is the greatest woman in America?" This question was recently submitted to 150 Arizona school teachers. In view of the sincere and sometimes frenzied efforts of women to do their part in these troublous days, the answer is of greater significance than in normal times. The reply considered best by the judges reads:

"The wife of a farmer of moderate means who does her own cooking, washing, ironing, sewing, brings up a family of boys and girls to be useful members of society, and has time for intellectual improvement."

All Needed

And who shall say whose service was best,
When Humanity's war is won—
The nurse who served on the battle field,
The woman who served in the business world,
Or the mother who served at home?
—Selected.

Cookery means the knowledge of Medea and of Circe and of Helen and of the Queen of Sheba. It means the economy of your grandmothers and the science of the modern chemist; it means much testing and no wasting; it means English thoroughness and French art and Arabian hospitality.—RUSKIN.

Dirty dish cloths, dish towels, scrub cloths, brushes, and brooms are not only untidy but they attract flies and collect germs which are scattered when these are used. When you have finished using them, wash them in hot soapsuds, rinse, dry and air.

A cheerful mind and the determination to make your small sacrifice are the best possible sweeteners.



The value of baking powder is based on its *leavening strength.* You can't judge it by the size of the can—or by the *amount* you get for your money. You must estimate it by the amount of baking powder *used* in each baking and the *results* you get.

CALUMET

is the greatest value ever offered in Baking Powder—it has greater raising *"force"*—it *goes* further than most of the other brands. You use only a rounded or heaping teaspoonful where others call for two teaspoonfuls or more.

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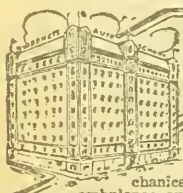

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70 a. in cult. in wheat, balance pasture and meadow; good soil; in oil belt. Good house and barn. Price $55 per a., worth $75. Splendid investment.
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I am offering for sale my beautiful eight-room residence and three lots in Oakland (a suburb of Topeka), at an exceptionally low price. Fine barn with three stalls, mow, feed bins, harness closets, etc.; built-in carriage or auto shed; coal house, chicken house, etc. One block from car line; three blocks to fine high and grade school. Electric lights and gas in house. Nice floors and woodwork. A place to be proud of, and ideal for a farmer who would like to have city conveniences and yet live in a quiet district. $2,500 will buy it, with only a few hundred dollars cash. House could not be built for $4,000. Best of reasons for making sale, and not selling because of dissatisfaction with the property. Call or write
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202 Winfield Avenue

FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

Getting Proper Belt Feed

ONE of the problems which both the farmer and the machinery maker have to solve is the proper speed at which the machines should be operated. It is quite evident that the speed at which a machine is operated has a great deal to do not only with the amount of the work it does, but with the quality of the work that is done. With cream separators, for instance, we are constantly being reminded that unless a certain range of speed is maintained we are losing a valuable portion of the cream. Devices are being invented to enable the hand-turned cream separator to give a signal when it is at the proper speed, but there are no such signals to be secured from the feed grinder, the silage cutter, the threshing machine, etc. The only warning signal we get usually from incorrect speeds of such machines is the smaller amount of work that we find has been done at the end of the day, or the poorer sort of work we notice the machine has turned out.

Take the case of a feed grinder. According to the data sheet of the National Gas Engine Association, the power required to grind a given capacity of feed, assuming the grain to be in moderate or fair condition, is as follows:

Speed R. P. M.	H. P. Required	Bu. Ground Per Hour
550	1.9	10
670	2.19	15¾
800	3.	20
920	3.40	21¾
1150	4.54	30

Picking out a machine and an engine, purely by chance, we find that a certain feed grinder is rated to run at 800 to 1,000 r. p. m. (revolutions per minute) and has a 10 x 6 pulley, giving a rated capacity of twenty to thirty-five bushels per hour and requiring "four to eight h. p." A certain make of engine is rated at five h. p., 325 r. p. m., and pulley 18 x 6½. Let us see how these two machines would fit together if we were to buy them indiscriminately and without making any advance comparisons as to whether or not they were properly related to each other. To do this we must figure out the speeds from the engine, etc.

The common method of figuring out speeds is by using the formula DXR = dXr, or D, the diameter of one pulley, multiplied by R, its speed, equals d, the diameter of the other pulley, multiplied by r, its speed. If you have three of the items you can easily figure the fourth.

In the above mentioned ease we have an engine with 18-inch pulley running at 325 r. p. m., and the diameter of the pulley on the feed grinder is ten inches. What will be the speed at which the engine will actually operate this feed grinder pulley? Using the above formula, we have:

$$18 \times 325 = 10 \times r \text{ or } 10r = 5850$$
$$\text{or } r = 585.$$

In other words, if we put this engine onto that feed grinder it is going to turn the feed grinder pulley 585 r. p. m., whereas the manufacturers recommend that it be run at from 800 to 1,000 r. p. m. As it is going to be run at but little more than half the reckoned speed, we can naturally assume that it will take care of but ten to eighteen bushels per hour instead of the expected twenty to thirty-five bushels.

Or, if we have these same machines and we wish to know what size pulley should be on the grinders to give the right speed, we have the formula as follows:

$$18 \times 325 = d \times 1000 \text{ or } 1000\,d$$
$$= 5850 \text{ or } d = 5.8, \text{ or nearly}$$
6 inches.

The feed grinder, therefore, should have about a six-inch pulley if it is going to produce the correct speed from this engine, instead of the ten-inch pulley with which it is regularly equipped. —Tractor Field Book.

Motor Truck and Parcels Post Mail

The movement to establish rural motor express lines had its birth in Washington. The idea was conceived by Government authority.

The Council of National Defense adopted the following resolution on March 14, 1918: "The Council of National Defense approves the widest possible use of the motor truck as a transportation agency, and requests the State Council of Defense and other state authorities to take all necessary steps to facilitate such means of transportation, removing any regulations that tend to restrict and discourage such use." And the Highways Transport Committee of the Council of National Defense saw the necessity of such a movement, if the nation was to have food and food was to be moved for our Allies. Suddenly hurled into the greatest war in history, the nation faced many problems, and among them was the problem of moving foodstuffs, the railroads at the very beginning of the war becoming engulfed with a burden too great for them to cope with.

Thus came into being Rural Motor Express, to move the foodstuffs of the nation.

The movement has been endorsed by the Department of Agriculture, Department of Labor, the Railroad Administration, and the Postoffice Department has asked for an appropriation to establish Rural Motor Express routes in different sections of the country to carry the parcels post mail. It has also been endorsed by practically every State Council of Defense, Chamber of Commerce, and civic body in the nation—in fact, the Government, federal and state, is behind it.

The following is a letter from Hon. James I. Blakslee, Fourth Assistant Postmaster General:

"Relative to the establishment of motor vehicle mail routes. Under authority of Congress, there are now in operation fifteen motor vehicle mail routes extending from Portland, Me., via Hartford, Conn., and New York, Philadelphia, Baltimore and Washington, to The Plains, Va.; also routes from Columbia, S. C., Savannah, Ga., to Statesboro, Ga., and from Columbus, Ohio, to Zanesville, Ohio; from Indianapolis, Ind., to Cincinnati, Ohio, and from Indianapolis, Ind., to Louisville, Ky. These routes are mainly connecting or trunk line routes and those in the south and middle west will ultimately be connected up with those in the east.

"These routes are laid out through producing territory to important market centers, and the purpose is to demonstrate the practicability, utility and value of this method of transportation in bringing the farmer into immediate touch with the consumer, by giving a direct, expeditious and reliable service at a reasonable charge for carriage, thus relieving other congested avenues of transportation and preventing wastage at the farm, thereby conserving other less perishable needed food products and encouraging increased production at the same time, insuring a reliable market to the producer and giving the eonsumer the advantage of better and fresher products at less cost.

"It is intended ultimately to extend these trunk line routes to the Pacific coast and connect with them feeder or lateral routes from contiguous producing territory.

"Owing to the limited amount of the appropriation it will hardly be possible to do more this fiscal year than connect up the routes in Ohio with those terminating at McConnellsburg, Pa., thus giving a through rate to Portland, Me., to extend the service south from Louisville, Ky., possibly to New Orleans, La., and thence connecting up with the service in Georgia, and also connecting service with that now in operation southwest from Washington.

"On the fifteen routes now in operation there are employed sixty trucks of from 1 to 1½ tons capacity, including reserve trucks, and fifty drivers. These routes cover 2,311.06 miles, involving a daily travel of 2,622.20 miles, or about 2,000,000 miles per annum.

"Some of these routes have been in operation sufficiently long to demonstrate not only their value and utility to the producer and to the consumer, but to demonstrate the fact that they are not only self-sustaining, but that they are large postal revenue producers.

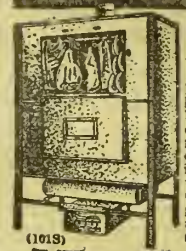
"A tabulation of the postal receipts and cost of operating eight of these routes from January 1, 1918, to May 31, 1918, a period of five months, show gross total receipts of $152,237.74, with operating expenses of $27,130.98, a net profit of $125,069.40, an average of about $3,000 per route per month.

"The service which it is proposed to give to patrons is similar to that afforded by commercial express trucks, within the limit of weight prescribed by law, that is to say, 70 pounds for a distance of 300 miles of the point of mailing and 50 pounds beyond 300 miles, and commodities such as eggs in crates, butter, crates or baskets of fruit will be accepted if presented prepared just as they usually are for shipment by express, and where a shipment warrants it, they will be delivered direct from the consignor to the consignee."

Evidence was presented in support of a joint resolution in Congress permitting the Post Office Department to expend 50 per cent of the gross earnings of the motor parcels post business in the building of post roads throughout the United States. It was estimated that such a system of roads would cost in the neighborhood of $200,000,000. It was asserted that the establishment of the motor parcels post would help to relieve the transportation difficulties of the country, and that such a system of roads, bringing the motor express directly to the door of the farmer, would greatly increase production by allowing him to work during the time which he would otherwise have to use in going to market. Thus, this service would help greatly in winning the war, it was asserted.

If your automobile engine starts but stops after a few revolutions or will not run for any length of time, look for faults due to carbureter adjustment, a stuck float, or a clogged feed pipe. There may be too much oil in the crank case or water may have entered the cylinders through cracks. Perhaps lack of oil or water is causing the motor parts to be seized and held.

Can't Burn Up Meat! Can't Burn Down Buildings!



Don't take **chances**—wood smoke houses are liable to burn up and destroy your meat—and burn down your buildings **any minute.** They frizzle the flavory juices out of meat. Get a Kirstin all-steel, **fireproof** smoke house and **be safe!** Have sweeter, milder smoked hams, bacons, sausage.

SMOKE MEAT FREE!

(1013)

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Don't throw them away. Save them and ship to us. We'll pay you HIGHEST MARKET PRICE. Get your neighbor to ship his bags with yours. Established 1870.

FULTON BAG & COTTON MILLS
590 S. Seventh St. St. Louis, Mo.



BOVEE FURNACES
Pipeless and with Regular Piping

Sold at Manufacturer's Prices. 24 years on the market. Last longer. Use less fuel. Easy to install. Send for full catalog and prices.

BOVEE FURNACE WORKS
224 W. Eighth St. - Waterloo, Iowa

Complete
Battle Front Map

ALSO MAPS OF KANSAS, THE UNITED STATES, AND THE WORLD

We have just received several hundred three-sheet maps, printed in colors. The first sheet shows France, Belgium and Germany and the western battle front as it is today. It shows just what territory has been taken by the Germans during the present drive. The rivers, railroads, and even the smallest towns are shown. All indexed. Without a doubt it is the best War Map published.

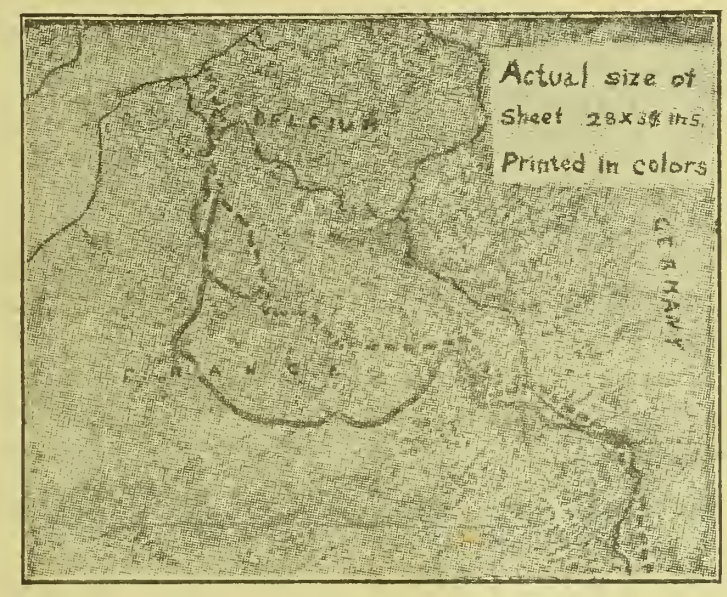
THE KANSAS MAP

The second sheet contains a large map of Kansas, showing all roads, railroads and towns, with complete census figures.

THE UNITED STATES AND THE WORLD

The third page shows the United States and the World. War pictures and an immense amount of valuable statistics are also contained in this three-page chart.

Three Large Pages of Maps and General Information



These Maps Are Provided with Metal Tops and Hangers

This miniature of the War Map is too small to show the names of towns. The map you will receive shows plainly the names of all towns and even the smallest villages.

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We want every one of our subscribers to have one of the maps. They are of the greatest present-day interest as well as of immense historic value. KANSAS FARMER subscribers may have the maps FREE. Just pay your subscription to KANSAS FARMER for one year and we will send you yours, postage prepaid and without one cent extra charge. Use the coupon below.

SPECIAL OFFERS

Send $1.50 and we will credit your subscription two years and send you the maps.
Send $2.50 and we will credit your subscription five years and send you the maps.

COUPON

Kansas Farmer, Topeka, Kansas.

GENTLEMEN: Enclosed please find $.....for which send KANSAS FARMER for..... years to the following:

Name .....R. F. D.....
Town..... State.....
Send map to..... Address .....

YOU CAN TELL JUST WHERE THE BOYS ARE FIGHTING ON THIS ELEGANT MAP

Opportunity Shorthorn Sale

A Select Draft From Two Good Herds

At Kansas City Fine Stock Pavilion

Saturday, Nov. 23, The American Royal Week

50 HEAD SCOTCH and SCOTCH TOPPED SHORTHORNS

The equal of any draft of cattle ever consigned to a public sale, including a part of the 1918 show herd that includes the Crystal Maid cow that was first in class at three State Fairs and SENIOR CHAMPION FEMALE AT KANSAS STATE FAIR, 1918.



CRYSTAL MAID

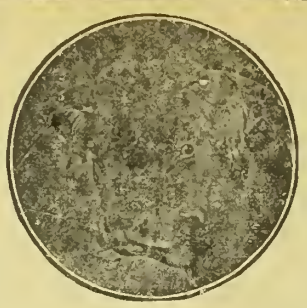
A large part of this offering will be bred to Prince Valentine 4th, a bull that needs no introduction to Shorthorn breeders, having won honors in five state fairs, first in class as calf, first as yearling, first as two-year-old, undefeated for Junior Champion honors, except at the American Royal, where he stood second.

The female end of this offering are all regular producers, having produced a calf each year. All the females of breeding age either have calves at foot or showing heavy in calf. They are in good breeding condition. The mature cows average 1450 pounds, of strictly good colors and heavy milkers. Catalogs ready to mail out November 1st. Please send for one and arrange to attend our sale. We guarantee a good offering. Write for catalog to

H. H. HOLMES, or **A. L. HARRIS,**

Route 28, Topeka, Kan. **Route 2, Osage City, Kan.**

Auctioneer, COL. P. M. GROSS, Kansas City, Mo.



The New Dates Are Nov. 16 and 18

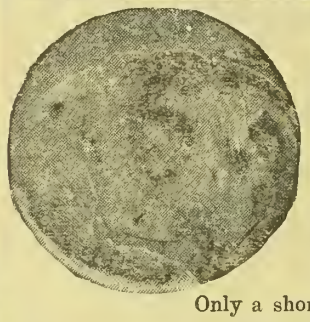
In response to the call of the Governor and the State Board of Health, the management of the two big Hereford sales set for Council Grove and Parkerville on October 21 and 22 called these sales off in order to assist in checking the epidemic of influenza. **To do this every consignor has made a financial sacrifice—but the public good has been served.** We therefore ask the co-operation of everyone interested in good Herefords for the success of our sales on the new dates.

The Kansas Hereford Breeders' Association Sells 100 Herefords at Council Grove, Kansas, November 16, 1918

The catalog of this offering stands just as issued. Do not fail to come. The annual meeting of the association and the banquet will be held on the evening of the sale, Saturday, November 16.

F. H. MANNING, Secretary.

Auctioneers—Miller and Garten.



MILLER & MANNING

Sell on Sylvan Park Farm
NOVEMBER 18

(The day before Hazlett's Sale at the American Royal Live Stock Show)

At PARKERVILLE, KAN.

Only a short distance from Council Grove

100 ANXIETY-FAIRFAX HEREFORDS

Their catalog, likewise, stands as issued for the earlier sale. Visitors en route to the American Royal or staying over from the Association Sale on Saturday, are more than welcome.

MILLER & MANNING, - PARKERVILLE, KANSAS
Auctioneers: Fred Reppert and Others.

Remember that 200 Representative Herefords will sell in the above two sales.

POLAND CHINAS.



Faulkner's Famous Spotted Polands

THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.

Pioneer Herd Poland Chinas

For Sale—Ten outstanding spring boars by A Wonderful King and Logan Price. Twenty-five farmer boars, priced reasonable. Bred sow sale February 18, 1919. Send for catalog.

F. Olivier & Son, Danville, Ks.

White Oak Park Polands

Twenty Spring Boars for Sale by the 1,100-pound Missouri Jumbo and Surprise Wonder. Three of the tops at $75, the rest at $50. All cholera immuned and will be recorded in buyer's name. I have two full brothers to Northern Jumbo, the first prize and reserve grand championship pig. All sales guaranteed as represented or your money back.

HENRY KOCH - EDINA, MISSOURI

Oxford Herd Poland Chinas

Herd boar, Giant Lunker by Discher's Giant out of Lady Lunker. I have 57 early spring pigs. A few choice boars. Priced to sell. Come and see me; I can please you.

Howard R. Wenrich

Oxford - - - - Kansas

Townview Herd Poland Chinas

Ten Rugged Spring Boars, weight about 175 pounds, at $50 each. Eight March and April Boars, weight 135 to 150 pounds, $40 each. These boars are immune, heavy-boned and ready for business. Send check and get hog guaranteed to please you.

CHAS. E. GREENE, PEABODY, KANSAS

Henry's Big Type Polands

March and April pigs sired by Mammoth Orange, Smooth Prospect and Big Bob 2d, out of sows the best of big type breeding. Everything immune.

John D. Henry, Route 1, Lecompton, Kansas

HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that weigh and win. S. C. Brown Leghorn Chickens that lay. See or write

S. Y. BURKS, BOLIVAR, MO.

LANGFORD'S SPOTTED POLANDS — Summer pigs ready to ship. Some read herd prospects. T. T. Langford & Sons, Jamesport, Mo.

POLAND CHINAS

ERHART'S POLAND CHINAS

Have a great lot of spring boars for sale. Some by the 1200-pound, A Big Wonder. Will make prices on pairs and trios not related. All immuned. Write your wants. Bred Sow Sale Feb. 19, 1919.

A. J. ERHART & SONS

NESS CITY, KANSAS

H. O. Mott's Poland Chinas

For Sale—Fifteen spring boars and ten spring gilts, priced for quick sale at $35 to $50. First check gets choice. Guaranteed right or money back.

H. O. Mott, White City, Kansas

R. F. D. 4

LONE CEDAR POLANDS

Strictly big type March and April pigs, either sex. Nothing but tops shipped. Prices reasonable. Guarantee to please. All cholera immune. A. A. MEYER, McLouth, Kansas.

AUCTIONEERS.

FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. VALLEY FALLS, KANSAS

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri

LIVE STOCK AUCTIONEER — Fifteen years' experience. Wire for date.
JOHN D. SNYDER, HUTCHINSON, KAN.

MULEFOOT HOGS.

KNOX KNOLL MULEFOOTS

Thred sows, spring gilts and boars. Weaned August pigs. Priced for quick sale. Satisfaction guaranteed. Free catalog.
S. M. KNOX - - HUMBOLDT, KAN.

DUROC JERSEYS.

IMMUNED DUROC BOARS

Thirty big husky Durocs, March farrow. Well grown, richly bred. Critic B, Golden Model and Orion breeding. Write me. I will please you or refund your money.
J. D. BULLER, STOCKHAM, NEBRASKA

Jersey Dispersal Sale

November 12, 1918

Seventy head registered and high Grades. This herd has been making good at the pail in a Retail Dairy for the past ten years and is a selection of the best cows during all that time. Brookside Babe Torono 141180, a herd farm bull is at the head of the herd. He has more butter in his pedigree than any bull in Kansas. He is a great sire for some one.

At Dairy one mile south of Country Club on Topeka Ave road. Catalog at sale.

W. H. Maxwell, R. R. 2, Topeka, Kas.

Auctioneer, D. M. PERRY.

IMMUNE DUROC BOARS

Duroc Boars, immune and guaranteed breeders, shipped to you before you pay for them. The big Southeast Nebraska herd bred for size, bone and length. "Eventually" you will breed the "Crocker Type." "Why not now?"

F. C. Crocker, Filley, Nebraska

Box K

DUROC BOARS OF QUALITY

Choice March boars, sired by the great herd boar, Reed's Gano, first prize boar of Kansas and Oklahoma State fairs. Also Illustrator 2nd and Golden Model. Fine growthy boars, well built and nice color. All immuned. Priced to sell quickly.
JOHN A. REED & SONS, LYONS, KANSAS

WOODDELL'S DUROCS

Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.
G. B. WOODDELL, WINFIELD, KANSAS

Ellen Dale Breeding Farm

Offers Duroc Jerseys of blood lines of Watson's Wonder, Ideal Pathfinder, Crimson Orion King and Joe Orion 5th, also a one-year-old herd boar, a grandson of King the Col., and one-year sows bred or open. Also Shorthorn bulls.
R. C. WATSON - ALTOONA, KANSAS

DUROC BOARS

For Quick Sale — 25 Head of Large Spring Duroc Jersey Boars, of March and April Farrow

Sired by Illustrator Orion 3d, Pet's Great Wonder and Cherry King Disturber. Priced reasonable and guaranteed right in every way or your money back. Write me your wants.

JOHN W. PETFORD

Saffordville - - - Kansas

HIGHVIEW DUROCS

Home of Repeater by Joe Orion King and Golden Reaper by Pathfinder. For sale—spring boars and a few bred gilts. I guarantee satisfaction or your money back.
F. J. MOSER - - - GOFF, KANSAS

CONYERS HERD DUROCS

Herd boar, King Conyers by King the Col. Sows in herd by Golden Model, Graduate Chief, Cherry Chief and other good breeding. For sale, one extra good spring boar sired by Pathfinder and one by Great Wonder. Fifteen spring gilts by Royal Critic. Come and see me.
B. W. CONYERS - MARION, KANSAS

HUSTON'S DUROCS

Forty Double Immuned Big Rugged Herd Heading Boars, sired by Great Wonder 2d and out of dams mostly by Taylor's Model Chief, winner at Missouri and other fairs. Buy them cheap now.
W. R. HUSTON - AMERICUS, KANSAS

JERSEY CATTLE.

JERSEYS

THE dollar mark is part of a Jersey because she is a real money maker. Costs less to keep than any other cow and her milk is worth more. She gives the prosperous touch to your farm. Compare Jersey butterfat records with any other breed and you will not be satisfied with anything but Jerseys—the profit breed.

Ask Breeders for prices and pedigrees and let us send you valuable facts, free.

THE AMERICAN JERSEY CATTLE CLUB
375 West 23rd Street New York City

JERSEY AUCTION

I will sell at my farm three miles southwest of Blue Springs, Mo., Friday, November 15, at 10 o'clock, my entire herd of purebred Jerseys, consisting of seventeen cows in milk, seven yearling heifers, five heifer calves three to six months old, and my herd bull, Beauty's Raleigh, by Raleigh's Fairy Boy.

Dr. Geo. H. Combs
BLUE SPRINGS MISSOURI

REDHURST JERSEYS

FOR SALE—Noble's Jolly Actor No. 155761. Solid color, born October 14, 1916. Sire (the imported son of Golden Jolly), Golden Jolly's Masterpiece No. 86295, with six tested daughters out of Noble's Eminent Jess, a R. of M. cow whose dam is also in the R. of M. and whose sire, Noble's Oxford Sultan No. 106403, with six tested daughters, seven of Noble of Oakland's with 65 tested daughters and whose dam is in the R. of M. and since by Sultan's Oxford Lad, his great dam also in R. of M. Also a few calves and yearlings of like breeding. The home of the only living son of Golden Jolly in America.

Redmon & Son, Tipton, Mo.

TESSORO PLACE

OWL INTEREST FINANCE JERSEYS
(Register of Merit)

Buy a bull from a R. of M. cow and be more certain in your herd building. Every cow in milk in our herd has a year's test or one now on. Our two-year-olds will average 400 pounds of butter. Write for prices and other information.

R. A. GILLILAND, MAYETTA, KANSAS

LONGVIEW JERSEYS

(Register of Merit Herd)

Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.

Longview Farm
LEE'S SUMMIT - - MISSOURI

BROOKSIDE JERSEYS

REGISTERED JERSEY BULLS, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.

THOS. D. MARSHALL, SYLVIA, KAN.

100 Good Jerseys for Sale

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.

J. W. BERRY & SON, Jewell City, Kan.

J. B. PORTER & SONS, Mayetta, Kansas
Breeders of Pure-Bred Jersey Cattle

A small but select herd of producing cattle, rich in blood of Gamboge, Oxford Lad, Golden Fern's Lad, Leda's Fern Lad, etc. Write for prices on young stock.

ALLEN CENTER STOCK FARM

Registered Jerseys from choice cows. Sire's dam is the highest producing cow in Kansas. Prices reasonable.

TREDWAY & SON, LA HARPE, KANS.

RED POLLED CATTLE.

RED POLLED CATTLE FOR SALE

Young bulls and some extra good young cows to calve in early spring. A few yearling heifers.

I. W. POULTON, MEDORA, KANSAS

FOR SALE

Red Polled cows, heifers and bulls. Special price if taken at once.

W. J. HARRISON - AXTELL, KANSAS

RED POLLS, BOTH SEXES, BEST OF BREEDING.

Charles Morrison & Son, Phillipsburg, Kan.

HAMPSHIRE HOGS

Hampshires on Approval



Choice spring boars and gilts weighing up to 200 pounds. Two prize winning fall boars weighing 350, also fall pigs. My herd won nine champions, twenty firsts and twenty-seven seconds at the two Kansas State Fairs. Best of blood lines.

F. B. Wempe, Frankfort, Kan.

BECKENDORF'S HAMPSHIRES

I AM NOW OFFERING a grand lot of big, heavy-boned boars and gilts, sired by as good herd boars as money can buy. Every hog shipped a good one or he can be returned. Inspection invited. Write or telephone at my expense.

J. E. BECKENDORF, Box 144, Walnut, Iowa

Registered Hampshire Hogs—Sows and Spring Gilts, bred or open. Choice spring boars. Double treated. Geo. W. Ela, Valley Falls, Kansas

SHORTHORN CATTLE.

Pearl Shorthorn Herd

One of the oldest and strongest herds in the West, Scotch and Scotch-topped reds and roans. Yearling bulls and well grown last spring calves. Mostly sired by Marengo Pearl 391962 and Orange Lovel 420052.

C. W. TAYLOR, - ABILENE, KANS.

SHORTHORN BULLS

For Sale — Ten bulls, seven to fifteen months old; Scotch and Scotch topped. Two Scotch bulls by Type's Goods, one a Brawith Bud, the other a Duchess of Gloster. All in good condition and priced reasonably.

S. B. AMCOATS, CLAY CENTER, KANSAS
Write Me Your Wants

MARKS LODGE RED SHORTHORNS

For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

FARM AND HERD.

J. A. Reed & Sons, of Valley View Stock Farm, Lyons, Kansas, owners of one of the best herds of Duroc Jersey swine in the Southwest, report their herd doing well. This year they raised one of the best lots of spring pigs in the history of their herd. These pigs were sired by such boars as Reed's Gano, Illustrator 2d and Crimson's Golden Model. They weigh around 800 pounds in breeding condition and Reed's Gano was first prize winner at Kansas and Oklahoma state fairs. They have a choice herd of richly bred sows weighing from 500 to 700 pounds.

Geo. A. Dietrich, of Carbondale, Kansas, owner of one of the high class herds of Aberdeen-Angus cattle, reports his herd doing well. Mr. Dietrich started his herd several years ago with foundation stock of the best breeding and individuality and at this time he has one of the very high class herds of Angus cattle in this state. A feature of the herd at this time is the fine lot of young stock of the best blood lines of the breed.

The sale of Poland China boars and gilts of V. O. Johnson, Auline, Kansas, October 28, resulted in the disposal of forty head at an average of $58. The breeding of the premier boar, Big Wonder, was a strong factor in attracting representative breeders. While no sensational prices figured in the auction, the average was very fair. Mr. Johnson is one of the public-spirited men of Marion County and is doing a great work in the way of furnishing better hogs and cattle for this section of the country. He has announced January 28, 1919, for his annual bred sow sale. On this date he will offer 100 head of choice sows bred to the great sensational boar, "Over There," by the world's champion, Caldwell's Big Bob.

Dr. George H. Combs, of Blue Springs, Missouri, has announced November 15 as the date of his Jersey dispersion sale. On that date his entire herd consisting of a choice lot of cows, heifers and heifer calves will be dispersed. He will also sell his herd bull, Beauty's Raleigh by Raleigh's Fairy Boy.

The catalogs are out announcing the Shorthorn sale of H. H. Holmes of Topeka and A. L. Harris of Osage City, Kansas. This sale will be held at the fine stock pavilion at Kansas City, Missouri, on Saturday, November 23, the last day of the American Royal. The offering is a high-class lot and the catalog gives a complete history of the herd and sale offering.

The Kansas Hereford Breeders' Association sales, formerly advertised to be held October 20 and 21, will be held on November 16 and 18. The Association sale will be on November 16 at Council Grove, Kansas, and 150 head will be dispersed. The Miller & Manning sale will be held at the farm near Parkerville, Kansas, on November 18, and 100 head of high class Hereford cows will be offered.

The Kansas Holstein Association sale held in Independence November 1 was most successful. Eighty head of carefully selected animals were sold, representing consignments from fifteen of the best breeders of the state. The average price was about $270. The top was $75, two cows bringing this price. Boness 7th Topsy Clothilde consigned by J. T. Axtell of Newton and sold to Mr. Harold of Columbus and Fairmount Victoria Ormsby, a yearling heifer consigned by A. S. Neale of Manhattan to O. S. Holmes of Garnett. On account of the influenza epidemic the banquet in the evening could not be held as planned. A number of the breeders present got together and ate supper, however, and of course did some talking for the good of the cause. It was decided to accept Topeka's invitation to hold the annual meeting and next association sale in the capital city next spring.

C. M. Albright, of Overbrook, Kansas, owner of one of the high class herds of double-standard Polled Durham cattle in Kansas, reports his herd doing well. Mr. Albright has the popular blood lines of the breed in his herd and a very fine lot of individuals. A feature of his herd at this time is the fine lot of young stock, including outstanding young bulls.

Charles E. Green, of Peabody, Kansas, owner of Townview herd of big type Polands, reports his herd doing well. Mr. Green has succeeded in building up one of the choice herds of big type Polands in Kansas. His herd is made up of representatives of the breed's greatest sires. This year he raised an extra fine lot of spring pigs that have grown out fine.

J. P. Mast, of Scranton, Kansas, owner of the famous Butter Bred Holstein herd, reports his herd doing well and making a great record this year. Butter Bred Holstein herd is one of the best of the breed in Kansas. From the foundation up it has been bred for production and the yearly records of the herd show that as a profit producer this herd has few equals. A feature of the herd at this time is the fine lot of record bred young stock.

W. H. Maxwell, of Topeka, Kansas, has announced November 12 as the date of his dispersion sale of Jersey cattle. This sale was originally advertised for October 14 but was postponed by order of the State Board of Health on account of the influenza epidemic. Mr. Maxwell will sell seventy head of registered and high grade Jerseys in this sale.

Modern Herefords

HAZFORD PLACE, EL DORADO, KANSAS

FIRST PUBLIC SALE

Cattle of my own breeding at Fine Stock Sale Pavilion, Kansas City, Missouri, on the forenoon of November 19, during the American Royal Live Stock Show.

Wm. Condell, Herdsman. **ROBT. H. HAZLETT**

HOLSTEIN CATTLE.

Holsteins at Auction, 65 - Registered and High Grade - 65

Maurer's Holstein Farm, Emporia, Kan., Tuesday, November 12

Thirty registered females, from calves to matured cows, with exceptionally high-class breeding. A number of cows and heifers with good A. R. O. records themselves, or from good record dams. Herd includes granddaughters of Pontiac Korndyke; cows bred to and daughters of Cantrilla Hillside Pietje, a 31pound bull; a number of cows and heifers bred to Canary Mercedes Sir Wadnah, whose dam and sire's dam average 1,151 pounds butter each in one year; and a number of good unbred heifers. Four registered bulls, from five to eighteen months old, with extra good breeding; one registered Guernsey bull; and a select lot extra good high-grade springer cows and heifers. All stock is extra large, handsomely marked, and the real dairy type. Come early and look them over. Sale begins promptly at 12 o'clock.

COLS. WOOD & CROUCH, Auctioneers. **T. R. MAURER & CO., OWNERS**

Farm Located One Mile Out, on West Sixth Avenue. Tell Your Neighbors and Friends, and All Arrange to Come.

200 Head Registered and High Grade Holstein Cows and Heifers

On account of shortage of help I have decided to sell my entire herd at private sale, without reserve, consisting of 40 Registered Cows and Heifers, mostly all with A. R. O. records up to 26 pounds in 7 days; 40 Fancy Young High Grade Cows, exceptionally well marked, some fresh, balance will freshen in next 40 days, $115 to $135; 50 Fine Thrifty Large Two-Year-Old Heifers due in October and November, $90 to $110; 65 Fine Growthy Yearlings from 15 to 20 months old, bred to freshen from December to February, $65 to $80. All stock bred, in calf to registered bulls. This herd is absolutely clean and guaranteed free from abortion and tuberculosis and will be sold as represented. Will sell with purchaser's privilege of 60-day retest. Descriptive catalog on registered stock ready Oct. 1. **Magee Dairy Farm, Chanute, Kan.**



SAND SPRINGS FARM

Registered Holsteins—The Long Distance Kind

Watch for our consignment to the State Breeders' Sale, November 1.

E. S. ENGLE & SON - ABILENE, KANSAS

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

REGISTERED HOLSTEINS

If you want big producers, males and females, write us. All our own breeding.

Lilac Dairy Farm
Route 2 Topeka, Kansas

BRAEBURN HOLSTEINS

Service bulls; bull calves. Their heifers will outyield the dams by 10-50 per cent.

H. B. Cowles, 608 Kansas Ave., Topeka, Kan.

SEGRIST & STEPHENSON, HOLTON, KANSAS
Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

HIGHLY-BRED HOLSTEIN CALVES

Beautifully market, twelve heifers and two bulls from heavy producing dams at $25 each, crated for shipment anywhere. Safe delivery guaranteed. Write

FERNWOOD FARM
Wauwatosa - - - - - Wisconsin

Holstein Calves

Choice, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write

W. C. Kenyon & Sons
Holstein Stock Farms, Box 33, Elgin, Illinois

BUTTER-BRED HOLSTEINS

Three choice registered Holstein bulls, ready for light service, and some bred heifers to a 32-pound sire.

J. P. MAST. - SCRANTON, KANSAS

HORSES AND MULES.

PERCHERON-BELGIAN-SHIRES

Registered mares with colts at side and bred again; registered fillies, stallions one to five years old; grown ourselves the ancestors for five generations on dam side. Sires imported.

Fred Chandler, R. 7, Charlton, Iowa
(Above Kansas City)



PERCHERON STALLIONS

Some good young stallions sired by Algare and Bosquet, two great herd sires. These young stallions are very promising and priced to sell.

D. A. HARRIS - GREAT BEND, KANSAS

JACKS AND JENNETS

Registered Jacks and Jennets. Good individuals, good colors. Have some choice young jacks that are priced to sell quick.

GEO. S. APP, ARCHIE, MISSOURI

CHESTER WHITE HOGS

Frost's Big Smooth O. I. C.'s

Forty Spring Pigs, Two Yearling Boars and 100 Early Fall Pigs.

All from prize winning blood and priced for quick sale. Write us today.

S. D. & B. H. Frost, Route 2N, Kingston, Mo.

GUERNSEY CATTLE.

$15 Holstein or Guernsey CALVES

From Waukesha County heavy producing stock. Write us today, we guarantee to satisfy you.

RIVERDALE FARMS, Oconomowoc, Wis.

GUERNSEY BULLS

Herd bull, Hermes of Midvale. His first two pure-bred daughters to freshen made A. R. records. A third daughter just fresh is very promising. Other young pure-bred bulls for sale, two of which are old enough for light service. Write for prices and breeding.

RANSOM & KISSINGER, Homewood, Kan.

GUERNSEY BULLS

Good individuals of serviceable age, of May Royal, May Rose, Masher Sequel, Raymond of the Preel breeding. Write or come and see them.

ADAMS FARM, GASHLAND, MISSOURI
Twelve miles from Kansas City.

BREEDERS' DIRECTORY

DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.

HEREFORD CATTLE
F. S. Jackson, Topeka, Kan.

RED POLLED CATTLE
Mahlon Groenmiller, Pomona, Kansas.

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SHROPSHIRE SHEEP



FOR SALE

A bunch of good big Registered Shropshire Bucks, not high in price. Also registered ewes.

Howard Chandler, Chariton, Ia.



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Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

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LOOK HERE, ANGUS BREEDERS!

I want to reduce my herd of registered Angus cattle consisting of cows, bulls and heifers. Attractive prices for early buyers. If you want the best kind of low-down, beefy Angus, come at once.

D. J. WHITE, - CLEMENTS, KANS.

Dietrich's Aberdeen-Angus

Aged bulls, fifteen choice spring bulls. Females, all ages.

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DUPONT BALLISTITE SCHULTZE

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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 46. TOPEKA, KANSAS, NOVEMBER 16, 1918. Established 1863. $1 a Year

SHORTHORNS ARE IN DEMAND

Bulls Needed for Grading and to Head Small Pure-Bred Herds

THE times are demanding more well-bred beef cattle. In The Shorthorn in America W. A. Cochel states that excessive prices for feeds during recent years has been largely responsible for the increased demand for pure-bred Shorthorns. Farmers find that a profitable beef cattle industry cannot be maintained by producing inferior individuals. They demand cattle of more size, better quality, and natural fleshing tendencies as well as the ability to produce milk in such quantities that calves will be fat at weaning time. The Shorthorn meets these conditions better than any other.

A number of counties in the South are soon to be released from quarantine against tick fever. These counties are at present fully stocked with native and scrub cattle. They have constitution and rustling qualities to a high degree. They are undersized, variegated in color, light in the hind quarters, deficient in muscle over the back, loin, and ribs, and inferior in milking qualities. The use of good strong Shorthorn bulls on such females is the quickest and best method of improving their offspring for market purposes. Other breeds have been used to some extent for this purpose, but all fail to combine sufficient size, quiet disposition, development of heavy hind quarters, thickness of flesh, and liberal milking qualities. The demand in those sections where the average cattle are most inferior is for relatively cheap bulls, ranging in price from $150 to $250 delivered. They do not want highly fitted bulls, but those that are able to maintain themselves under prevalent conditions. These communities when properly organized will handle bulls in carload lots, but they must be distributed through some central organization to individuals who are to use them. It is impractical for each purchaser to visit pure-bred herds and make his selections on account of the expense involved.

Another opportunity for the sale of bulls is among the small farmers throughout the farming sections of the entire country. This class has, if not usually, to a large extent been using grade bulls showing some evidence of an infusion of beef blood. As a general rule their herds are small in number, usually running from five to ten females. They realize the advantage of using a pure-bred bull, but to secure one of better individuality than the grade now used requires an investment of from $200 to $300. Such farmers can as a rule be induced to co-operate with their neighbors in the purchase of bulls, but this requires that the stimulus be given by a third party. This is being done in many sections by county farm agents. In a few localities progressive breeders are selling bulls just old enough for limited service to small farmers in their immediate neighborhood, agreeing to take them back at the end of one year at the purchase price. Such arrangements are usually limited by an agreement as to method of feeding and management which will assure the return delivery of the bull in saleable condition. When assured of the treatment which the bull will receive, this method really results in the farmer using a better bull than he could otherwise secure and in the breeder having his bulls maintained and developed one year without expense.

This field offers the greatest opening for increasing the use of Shorthorn bulls and should be studiously considered by breeders. In nearly every section where pure-bred herds are maintained the chief thought among the breeders is of a method by which they can find an outside demand for their surplus. In many instances the home demand is just as great as could be found elsewhere, but needs a little cultivation to develop it. Each breeder should feel it his duty to see that every scrub and grade bull on the farms adjoining his is replaced with a pure-bred Shorthorn. This would not only be a benefit to his neighbors, but would also help him materially in disposing of bulls in the future, for a man who has once used a good pure-bred Shorthorn bull will nearly always be in the market for a better one to succeed him.

The next demand is for bulls to head herds of small breeders. Such bulls usually sell for $300 to $500. They must be of good individuality and of most acceptable breeding. As a rule the demand is for better bulls than the small breeder feels justified in buying. Too frequently he will sacrifice individuality for pedigree and reputation. What he usually wants is a bull which is intrinsically worth $1,000, but cannot make himself feel that he can afford to pay that price. If he has a herd of sufficient size to produce 100 calves from the use of a bull during his period of usefulness each $100 invested in the bull will add $1 to his service fee. Under such conditions he will pay $5 for each calf sired by a $500 bull and $10 for each calf sired by a $1,000 bull. It is then only a question as to his ability to sell calves from the $1,000 bull for $5 more per head than those from the $500 bull. Ordinarily the very fact that he has paid $1,000 for a bull will be worth the difference from an advertising standpoint.

The greatest demand of all for bulls is found among those men who are able and willing to pay above $1,000 for proper breeding, character, individuality, and type to head the best herds of pure-bred Shorthorns. There is scarcely a breeder who is not on the lookout either for a herd bull or a youngster to develop for the purpose of replacing his present herd bull. This demand is confined to bulls of decidedly superior excellence and can only be filled by those who have made a recognized success as breeders.

The demand for females of all sorts was never better. I doubt if it was ever equalled. New herds are being established in every section of the country. Small herds are being improved by the addition of females of popular breeding and approved individuality.

The general feeling among all breeders is that the demand for pure-bred Shorthorns will not only continue, but will be materially improved for the next few years. This is based upon the extremely high prices being paid for market cattle, the desire — the necessity — to improve cattle stocks generally and the acute scarcity of good cattle.

Improved blood is essential to success when present values of feeds are taken into consideration. Cattle of greater capacity, early maturity and quality require less time to develop into desirable market individuals.

The general prosperity of farmers together with shortage of labor is also a decided factor in stimulating cattle demand. While present prices seem high as compared with those prevailing ten years ago, the thinking farmer realizes that he has to sell less corn, hay and other farm products to secure the purchase price of pure-bred cattle than he did at that time. When considered in relation to general values of other commodities pure-bred cattle are as cheap as ever. Many there are who predict that the demand will be intensified at the close of the war rather than diminished.

A Herd from One Cow

GETTING a herd of superior breeding animals in five years' time from a single cow is the record illustrated in the cut here shown. These cattle are all the offspring or direct descendants of the red cow in the center of the group. It demonstrates the possibility of quickly building a high-class herd from a very few well-chosen foundation animals. This cow, Sultan's Blossom, cost $250 five years ago. She has produced five calves, all heifers, and three of them have produced two calves each. The first, Combination Blossom, is the mother of the two young bulls at the extreme left in the cut. Crescent's Blossom, her next offspring, now four years old, has a yearling heifer and a young bull calf in the group. Sultan's Blossom 3d, a three-year-old heifer, has produced a heifer now a year old and has a heifer calf six months old. Favorite's Blossom, a heifer two years old last January, is bred to calve next February. Her fifth calf is a heifer one year old. The value of this produce for the five years is conservatively estimated at $5,200.

This cow and her produce were yarded in a small paddock at the Sni-a-Bar Farm meeting held October 10. While the central feature of the demonstration was the result of breeding common cows to pure-bred sires, this family group of pure-bred cattle attracted a great deal of attention. Seeing these animals served to emphasize the statement frequently made by experienced breeders that most high-quality herds will be found to trace to a few foundation cows.

There was nothing remarkable about this cow Sultan's Blossom. She is not large, but is of good type and one is impressed with her refined, feminine appearance and outward indications of quality. A study of this and similar instances would indicate that perhaps we have been too often misled in selecting foundation cows and have not given sufficient importance to the distinctly feminine characteristics. Many show ring animals that have had unusual careers from the standpoint of winning in the ring would not bear too close inspection of their producing records.

At the Sni-a-Bar meeting in an adjoining yard was shown Maple Sunbeam, a large white cow, and three descendants, these being her only offspring retained in the herd. This cow has evidently not been a regular breeder and her produce was inferior. Her record, as posted on the fence, showed one bull calf sold, a bull calf retained for development, a heifer calf sold, and a young cow with a bull calf at foot.

The twenty-years breeding experiment in which the United States Department of Agriculture is co-operating, started at the Kansas Experiment Station while Prof. W. A. Cochel was head of the animal husbandry department, will afford opportunity for making careful study along the line of the comparisons between these two groups shown at the Sni-a-Bar Farm at the demonstration meeting. This study in heredity which has now been under way at the Kansas station for several years, does not have as its purpose the development of a strain of milking Shorthorns, as has been frequently stated by those who do not appreciate and understand the aim of those who planned this long-time experiment. Consideration was given to the milking qualities of the foundation cows and milk records are being kept of all the cows, but it is for the purpose of studying the cows as breeders as influenced by the essentially feminine characteristics.



SULTAN'S BLOSSOM AND DESCENDANTS.—OWNED BY SNI-A-BAR FARM

Ice! Harvest a crop in mid-winter! No seed or fertilizer needed. The United States Department of Agriculture has a bulletin that tells how to bring in this natural crop and store it.

Today's Gasoline

Less volatile product raises a new lubricating problem

PRESENT-DAY gasoline is less volatile than that formerly sold. It does not readily saturate the air in carburetion. Combustion of the explosive mixture is less complete.

This risk results: Liquid gasoline may be drawn into the cylinders and combustion chambers. The use of the carburetor choker valve to start the engine aggravates the trouble.

Once in the cylinders and combustion chambers, the gasoline tends to thin out the lubricating oil. As the pistons move up and down the gasoline tends to cut away the oil film on cylinders, pistons and piston rings.

On the compression stroke this liquid gasoline is forced down past the piston rings—into the crank-case.

The amount of gasoline which reaches the crank case and mixes with the lubricating oil depends largely upon the correctness of the lubricating oil used. Oil must form and maintain a thorough piston-ring seal to prevent the escape of the fuel charge and liquid gasoline past the piston rings into the crank-case.

To withstand the cutting effect of present-day gasoline, your lubricating oil must be of the highest quality and of the correct body. The Chart below specifies a grade of Gargoyle Mobiloils for your car which fills both these requirements. The use of the correct grade of Gargoyle Mobiloils will give you scientific protection against premature thinning out of oil in your crank-case.

If you have not read the article on pages 19 and 20 of the booklet "Correct Lubrication," it will pay you to send today for a copy. This book contains valuable data in authoritative articles prepared by our Board of Engineers.

Address our nearest branch.

GARGOYLE

Mobiloils

A grade for each type of motor

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If the dealer has not the grade specified for your car, he can easily secure it for you

CORRECT AUTOMOBILE LUBRICATION

How to read the Chart:

The four grades of Gargoyle Mobiloils, for engine lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A" **Gargoyle Mobiloil "E"**
Gargoyle Mobiloil "B" **Gargoyle Mobiloil "Arctic"**

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A," "Arc" means Gargoyle Mobiloil "Arctic," etc.

This Chart is compiled by the Vacuum Oil Company's Board of Engineers and represents our professional advice on Correct Tractor Lubrication.

AUTOMOBILES	1918 Models		1917 Models		1916 Models		1915 Models		1914 Models	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Abbott	Arc	Arc								
Abbott-Detroit			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)			A	A	A		A			
Allen	A	Arc	A	Arc	A	Arc	A	Arc	A	A
Apperson	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A					
Auburn (4 cyl)				A	Arc		A	Arc	A	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (6-38 & 6-39)			A	Arc	A	Arc				
" (6-39B) (Tractor H)	A	Arc								
" (6-39B) (Com'l)	Arc	Arc								
Autocar (2 cyl)	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Briscoe	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (8 cyl)					A					
Buick	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
Cadillac	A	A	A	A	A	A	Arc	Arc	Arc	Arc
Case	Arc	A	A	Arc	A	Arc	A	Arc	A	Arc
Chalmers	A	A			Arc	Arc	Arc	Arc	A	A
" (6-40)					A	Arc				
" (6-36)			A	A	A					
Chandler Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	A	Arc
" (8 cyl)	A	A	A	A						
" (F A)	A	Arc								
Cole					Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A	A	A		
Cunningham							Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A					
Dart	A	Arc	A	Arc	Arc	Arc	Arc	A	A	A
" (Mod. C)			A	Arc	A	Arc	A	Arc	A	A
" (2 & 3½ ton)	A	A								
Detroiter			Arc	Arc	Arc	Arc	A	Arc	A	A
Dodge	A	Arc	A	A	A	A	A	A		
Dort	A	Arc	A	Arc	A	Arc	A	Arc		
Empire (4 cyl)	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc				
Federal	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod. S-X)	A	A	A	A						
" (Special)	Arc	Arc								
Fiat	B	A	B	A	B	A	B	A	B	A
Ford	E	E	E	E	E	E	E	E	E	A
Franklin	A	A	A	A	A	A	A	A	A	A
Grant	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Hal-Twelve			A	A	A	A				
Haynes	A	Arc	A	Arc	A	Arc	A	A	Arc	A
" (12 cyl)	A	A	A	A	A					
Hudson				Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Super Six)	A	Arc	A	Arc	A	A				
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Kelly Springfield	A	A	A	A	A	A	A	A	A	A
King						A	Arc	A	A	A
" (8 cyl)	A	A	A	A	A	A	Arc	Arc		
" (Com'l)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Kissel Kar	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (Mod. 48)					A	A	A	A	A	A
" (12 cyl)	A	A	A	A						
Lexington			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Lippard Stewart	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod M)			A	Arc	A	Arc				
Lippard Stewart (Mod MW)			A	Arc	E	E	E	E	E	E
Locomobile	A	E	A	Arc	A	Arc	A	Arc	A	E
McFarlan	A	Arc	A	Arc	A	Arc	A	Arc	A	A
Madison	A	Arc	A	Arc	A	Arc	A	Arc		
" (8 cyl)			A	A	A					
Marmon	A	A	A	A	A	A	A	Arc	A	Arc
Maxwell	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Mercer	A	A	A	A	A	A	A	Arc	A	Arc
" (22-70)							Arc	Arc		
Mitchell	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (8 cyl)					A	A				
Moline-Knight	B	A	A	A	A	A	A	A	A	A
National	Arc	Arc	Arc	Arc	A	Arc	A	A	A	A
" (12 cyl)	A	A	A	A	A	A				
Oakland	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)					A	A				
Oldsmobile	A	A			Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Overland			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Packard							A	Arc	A	Arc
" (12 cyl)	A	A	A	A	A					
" (Com'l)	A	A	A	A	A	A	A	A	Arc	Arc
Paige (4 cyl)							A	A	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
" (6-36)					A	Arc	A	Arc		
" (6-38-39)			A	Arc						
" (6-40)	A	Arc								
Paterson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Pathfinder			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (12 cyl)			A	A	A	A				
Peerless	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Pierce Arrow	A	A	A	A	A	A	Arc	Arc	Arc	Arc
" (Com'l)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Premier	A	A	A	A	A	Arc	A	Arc	A	Arc
Regal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)					A	A	Arc	A		
Renault (French)					A	Arc	A	Arc	A	Arc
Reo	A	Arc	A	Arc	A	Arc	A	A	A	Arc
Riker	A	E	E	E						
Saxon	E	E	E	E	E	E	E	E	E	E
Selden			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (¾ ton)			A	Arc						
Simplex			A	A	A	A	Arc	Arc	Arc	Arc
Stearns-Knight	B	A	A	A	B	A	B	A	B	A
" " (8 cyl)	B	A	A	A	B	A				
Studebaker	A	Arc	A	Arc	A	Arc	Arc	A	A	Arc
Stutz	A	A	A	A	A	A	A	A	A	A
Velie (4 cyl)							A	Arc	A	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (2 & 3½ ton)	Arc	Arc								
" (¾ ton)	A	Arc								
Westcott	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
White	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (16 valve)	A	A	A							
Willys-Knight	B	A	A	A	B	A	B	A	A	A
Willys Six			Arc	Arc						
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc

YOUR TRACTOR

also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

VACUUM OIL COMPANY, Rochester, N. Y., U.S.A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world

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MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Starting a Cold Engine

ANYONE who has had experience in trying to start a cold gasoline engine, especially one so large that one man can barely turn it over and that has no aids for starting other than a priming cup, will appreciate that it is no small task. It seems the gasoline just will not vaporize and the engine will not start. For these occasions many different schemes have been used.

The engine can sometimes be persuaded to go if it is primed well with gasoline of very high test. This gasoline is so volatile that it will vaporize much more readily than the ordinary product, and it can be depended upon to make an explosive mixture at quite low temperatures. But this gasoline is expensive and hard to get, as very few towns will have it in stock.

Ether is often used to prime a cold engine; it will make the engine start all right, but a lot of care must be exercised in using it. An instance is related of a garageman who, in using ether to start an automobile motor, blew all four of the spark plugs out of the engine and tore things up in general. He used the pure ether and he used too much. Ether is a very volatile substance and very explosive, and this must be kept in mind when it is used. The author, in using ether to start a cold engine, makes a mixture of about equal parts of gasoline and ether in a small oil can and primes the engines with a little of this mixture. This gives the best results and uses the least amount of ether.

Any scheme to heat the air and fuel entering the cylinder will aid in starting the motor. Hot water poured over rags wound around the inlet pipe is often resorted to very effectively. The same result is obtained with less muss and sloppiness if the inlet pipe is heated with a blow torch. It is surprising how effectively a blow torch can be used in this way. Needless to say, the open blow torch flame should not be allowed too close to exposed oil or gasoline.

Farm Auto Not a Luxury

"The value of an auto on the farm can hardly be estimated in dollars and cents," says J. B. Hosford, a Minnesota farmer, in Farm, Stock and Home. "One can keep a record of the expenses to operate a machine such as the cost of gasoline, oil, batteries, repairs and depreciation and by keeping a record of the miles driven can tell what it costs in dollars and cents to run the auto during the season.

"I have an auto that I have used on my farm the past two years. The first year I did not keep a record of my expenses, but last year I did. It cost me for the year as follows: Gasoline, $28.50; cylinder oil, $8.50; batteries, $4.50; repairs, $45.90—total, $87.40.

"I drove the auto about 1,800 miles, as near as I could estimate it without a speedometer, making a cost per mile of about four and three-fourths cents for the season. This is what it cost me per mile, as I had three and sometimes four besides myself on long drives, which cuts the rate per mile per passenger to almost nothing compared with the railroad or with a team.

"So much for the cost, now the usefulness of an auto on the farm. I have hauled grain to the elevator, taken my cream, eggs and poultry to market with it. In the summer I work all of my horses and if we needed any groceries I would eat my dinner quickly and go to town with the machine, get my groceries and get home and go to work as soon as my neighbors, thus losing no time.

"In the spring I had a shipment of trees. I worked all day in the field, did my chores, then got my auto and went to town—six miles—got 500 pounds of flour and the trees, and was home at 9:30 o'clock. To have used a team would have cost me half a day's work.

"A word for pleasure: One hot June day I was cultivating corn, and finished my field about four o'clock. It was about 90 in the shade that afternoon and when I came home from work, tired and hot, I took care of my team, then went for a ride in the auto with the wife and babe. I drove about eighteen miles and got home in time to do my milking, and felt like a new man.

"What value can you put on a drive like that? In the hot days of June, July and August, a drive can be made a pleasure if one uses an auto, whereas if he were to drive a team, the team would have to walk much of the time and the riders would have to take in the heat and dust. With an auto one can go fast enough to get a breath of fresh air and be cool."

Farm Machinery Inventory

Difficulty in obtaining new parts makes ordering months ahead of the time they will be needed a wise plan to follow. It will save time and expense to make an inventory of machinery before the first of the year and order new parts and any new machinery that will be needed, without waiting for spring. It may be three months before orders can be filled.

Tractors in Wisconsin

It is reported that one out of every forty-four Wisconsin farms of more than a hundred acres used a tractor last year. It is claimed that the tractor was one of the factors in the $250,000,000 increase in Wisconsin agricultural products in 1918. The question this year, says E. R. Jones of the agricultural engineering department at Madison, is to supply operators for the 2,000 tractors now in the state, and for the others with which farmers are going to help out the labor shortage in 1919.

It sometimes happens in the few cars in which the water piping is not flexible between the pump and the cylinders, and the cylinders and radiator, that it is almost impossible to keep the joints tight. It may be that the heat from the engine so expands the exhaust or other heavy manifold as to cause the joints to separate slightly, or it may be that the trouble is caused by the vibration. In either case a remedy may be effected by sawing a short length of the pipe out and inserting a length of heavy canvas hose, firmly bolted on.

The mysterious tapping sound which is sometimes heard in a presumably perfectly cared for engine is apt to be put down as valve trouble, even though the valves are known to be compression-tight. As a matter of fact, it is nothing of the kind, merely a very slight case of premature ignition, caused probably by incandescent carbon deposit in the cylinder, which should be cleaned out with kerosene.

To supply the requirements of the recently organized motor transport corps, the War Department has let contracts for motor equipment, including trucks, tractors, passenger cars and motorcycles, amounting to approximately 130 million dollars. The order is the largest ever issued by the Government for such equipment.

No convenience adds more to the comfort and well being of the family on the farm than a good system of running water. Many farmers feel the need of a water system and realize its value, but think that it is too expensive. They are overlooking the fact that there is a successful and practical water system which is within the reach of every farmer. It need not be elaborate, in fact the simplest and least expensive systems are often the best.

To be a thoroughly equipped scientific farmer probably requires a higher education, certainly a more complete scientific education, than any of the learned professions, with the possible exception of medicine. — THOMAS NIXON CARTER.

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KANSAS FARMER

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AMERICAN ROYAL OPENS

With the influenza epidemic under control and the ban against public gatherings lifted, nothing stands in the way of the American Royal Live Stock Show, which is scheduled to open Saturday, November 16. The arrangements for handling this great show are as nearly ideal as it is possible to make them. The most approved sanitary precautions have been provided. There will be adequate ventilation of all buildings and ample heating facilities and all the other necessary adjuncts for successfully and safely handling big crowds. This great food production show will be open to the public all of next week. It is expected that the showing of pure-bred cattle will include the largest number of prize-winning animals ever gathered under one roof. There will be numerous side attractions, including a food conservation demonstration under the supervision of the United States Food Administration. Moving pictures will be shown of live-stock feeding and rapid meat production. There will be sales of pure-bred live stock during the week, the selections for which have been most carefully made. The Royal this year should be an epoch-making event in demonstrating the developments that have taken place in live-stock improvement and food production.

GENERAL PERSHING TO FARMERS

General Pershing sends a message of appreciation to American farmers through the agricultural committee of the Department of Agriculture which has just returned from Europe, where a careful study was made of the food and live-stock conditions:

"Will you please convey to farmers of America our profound appreciation of their patriotic services to the country and to the allied armies in the field? They have furnished their full quota of fighting men; they have bought largely of Liberty bonds; and they have increased their production of food crops both last year and this by over a thousand million bushels above normal production. Food is of vital military necessity for us and for our allies, and from the day of our entry into the war, America's armies of food producers have rendered invaluable service to the allied cause by supporting the soldiers at the front through their devoted and splendidly successful work in the fields and furrows at home."

The importance of the farmer is thus recognized by the head of our expeditionary forces in France. But the farmer is of equal importance in the reconstruction days that are to follow. Organized farmers as a class should have a great deal more to say in the days to come than they have in the past. After peace is declared, patriotism will not be as strong a motive in the hearts of men, and the voice of farmers, who have ever led in the working out of democratic ideals, is needed in the world reconstruction to follow the cessation of warfare.

FARM BUREAU CONFERENCE

The important state-wide meeting of representatives of the farm bureaus of Kansas which was to have been held a month ago will be held at Manhattan next week, November 21 to 23. The county farm bureau as an organization has found itself through the necessary war activities of the great farming industry. The movement has a great future before it. Boards of county commissioners are also invited to this conference, as well as the farm bureau members and officers.

Agriculturists have a great work to perform in the days ahead. The chief topic for discussion as announced a month ago was "How Farm Bureaus Can Be of Greatest Help to the Government in the War Program and of Most Assistance to Agriculture Following the War." The latter part of this topic will have taken on added importance in the light of the events of the past few days, for agriculture must not only take steps to protect its own interests, but it must have a large part in completing the job of the armies which have now obtained the necessary military victory. Other questions of vital interest to the farm bureau work will be taken up at this conference, which will be presided over by Edw. C. Johnson, dean of the extension division of the agricultural college.

PEACE ON EARTH: GOOD WILL TO MEN

THE WAR IS OVER!" is the joyful cry that is ringing around the world as we write. The armistice has been signed by Germany's envoys, and the last shot of the great world war has been fired. Its terms, dictated by the military authorities under the leadership of Marshal Foch of France, are such as to make it absolutely impossible for Germany to continue the fight if she so desired. It is the consummation of what our people soberly but passionately willed—that no peace could come until a conclusive military victory had been achieved. When President Wilson, the spokesman of this great nation, made it clear that unconditional surrender on the part of the autocratic German government must come, the die was cast. Events have moved more rapidly than many of us dared hope, and now the last of the world's autocrats has succumbed to the inevitable.

The Hohenzollerns, bag and baggage, from William, the former kaiser, on down the list, are out. Under their rule Germany as a nation has made one of the collosal failures of history. They have deceived their own people and through the violation of every law of justice or humanity, written or unwritten, brought the German nation into everlasting disgrace.

When President Wilson in his decisive reply of October 14, quoting from his Mount Vernon address of July 4, said, "The destruction of every arbitrary power anywhere that can separately, secretly, and of its single choice disturb the peace of the world; or if it cannot be presently destroyed, at least its reduction to virtual impotency"—the death knell of the Hohenzollerns' rule by divine right was sounded. With ultimate military defeat staring them in the face, the truth could no longer be kept from the people. The awakening has come.

The signing of this armistice is to the whole world what the signing of the Declaration of Independence July 4, 1776, was to the thirteen colonies of America. It is fitting and appropriate that this event be celebrated in the most joyous manner possible throughout all lands. It not only means that the boys on the battle line in France need no longer bare their breasts to the tyrant's steel, but it means the beginning of a new epoch in history.

This great struggle has been a people's war, and now we are to begin the task of drawing up a people's peace, a task even greater and more difficult of achievement than the military victory which has resulted in the signing of the armistice. Justice demands that the real criminals be punished. The individuals comprising the military autocracy responsible for this awful cataclysm should not be permitted to end their days in peace and enjoyment of the private loot they have accumulated. A lasting peace based on the idea of good will to all men should be the crowning event of this struggle for world democracy. Unless such a peace can come out of the council chamber of the people's representatives, we will have failed in the final victory to the end that "liberty shall not perish from the earth."

G. C. Wheeler.

Double Money Offering to Our Boys

OUR BOYS are all coming home. In no more fitting manner can we show our joy and thankfulness than by doubling our offering to the splendid organizations which are serving our soldiers and helping them in so many ways to come back morally clean and better fitted to take up the tasks of civil life than when they went in.

It will be many months before the last shipload of our soldiers can be returned to their native land. These will be trying months, for without the stimulus of fighting there will be relaxation of ideals and moral standards and time will hang heavily on their hands. It is here that the great program of the Y. M. C. A., the Knights of Columbus, the American Library Association, and the other war organizations steps in and gives wholesome social and educational service.

It may not be generally known that these war work organizations are about to launch a great educational campaign which will last through the whole period of demobilization and reconstruction. Two thousand and more professors and teachers from our American colleges are already lined up for this service. British and French universities will help. It is estimated that at least eight million dollars will be needed for text books and reference books the coming winter. This program did not enter into the budget of $170,500,000 which was to go for more immediate needs. It can be readily seen why there should be a great over-subscription to the United War Work fund.

As a special thank offering, what would be more appropriate than to add another generous gift to what has already been given to the support of this work that means so much to our boys during the long, tedious waiting period before them.

THE NEW SUGAR RATION

The sugar situation has changed and the Food Administration has increased the monthly household allowance to three pounds per person. The new regulations also permit the purchase at one time of the monthly allowance for the entire family.

Patriotic conservation on the part of households and the cutting down of the allowance to manufacturers have helped to make the increased ration possible. Then, too, the new crop of beet and cane sugar is moving rapidly and railway conditions have improved.

DEHYDRATION OF VEGETABLES

Enormous losses of vegetables occur in the United States every year. In New York City alone about eight million pounds of Irish potatoes which had been frosted and rotted in transit were "thrown to the dump" last January. There is no food to waste now, and loss of perishable products in storage or in shipping must be eliminated this winter in so far as possible.

The drying, or dehydration, of surplus vegetables of various kinds as a conservation measure is to be taken up by the United States Department of Agriculture, which has recently been granted an appropriation of $250,000 for work along this line. Mr. Lou D. Sweet, who has been handling similar work for the Food Administration, will have charge of dehydration for the Department of Agriculture, remaining a member of the Food Administration and acting as its representative. A campaign to increase the use of dehydrated fruits and vegetables will be inaugurated.

The value of dehydrated produce has already been recognized by the War Department. Last spring the army ordered and used fourteen million pounds of dehydrated foodstuffs costing about three million dollars, and during the past few weeks orders have been placed with Canadian and American dehydrating plants for more than forty million pounds to be delivered between now and July 1. This represents an expenditure of about ten million dollars. These orders have included chiefly dried potatoes, carrots, onions, and a small supply of soup mixtures. The soup mixtures comprise eight different vegetables.

The success of this campaign by the Department of Agriculture will depend upon the attitude of the individual consumer. If we can adapt ourselves to changed conditions and learn to use dried products when our own supply is exhausted instead of the fresh ones which we have been accustomed to buying, we shall not only conserve space in shipping but shall also help to create a market for products which might be wasted if they were not preserved in this way.

PASTURING CORNSTALKS

The amount of feed in the average cornstalk field is not enough to warrant the risk involved in turning in the stock. What little feed remains in a stalk field is of doubtful value, and the risk of losing stock is great. Last year a good many animals were lost, and the conditions this fall have been such as to lead to a repetition of the experience of a year ago. Live stock is too valuable to lose in an effort to save a little feed such as that found in a cornstalk field. Pasturing down the cornstalks is an antiquated method which should be discarded in these days of feed conservation. The silo is the place to put the cornstalks. Prussic acid poisoning seldom if ever occurs from feeding material that has been stored as silage.

OUTLOOK OF THE CATTLE TRADE

Quality, Not Weight, Must Rule in Beef Purchases of Future

WHAT is to be the future of the cattle business? This is a question in the minds of many who have been engaged in the handling and feeding of cattle in the years past. S. P. Houston, of Malta Bend, Missouri, who gave a most able address at the Sni-a-Bar Farm meeting last month, is inclined to be optimistic as to the future. Mr. Houston is one of the leading cattle feeders of Missouri and president of the Missouri Live Stock Producers' Association. His observations on the future of the cattle business are well worthy of consideration. He said in part:

"The present situation of the cattle industry presents many new angles, and the limiting factors both in production and consumption must be taken into account in making an analysis of the condition today.

"This being the season of the greatest volume of liquidation ever known to the industry, one would naturally infer that there was no prospect of a scarcity of either breeding or feeding stock, only in the remote future. But this very condition is fraught with grave possibilities, and we may well pause to consider the present and speculate somewhat as to the future.

"From available sources the information is available to the effect that not to exceed 60 per cent of last year's crop of cattle will be put in the feed lots during the coming fall and winter months—in this connection it is well for us also to remember that the demand has more than doubled as compared with a year ago. Hence with an increased consumption both at home and abroad, it looks like a safe guess that the present level of prices will be easily maintained, whether peace is a near reality or a far off dream.

"On the side of production, we find that a widespread drouth has had the effect of seriously depleting the breeding herds of the West and men best posted estimate that the calf crop this year will be 1,000,000 short, and that by reason of unusual liquidation now the crop next year will be 2,000,000 less—and to this condition must be added the fact that in our large and extensive feeding districts no beef will be produced until the grass season another year. These are facts which we will do well to ponder before we make definite plans for the future.

"On the other hand the extreme high prices prevailing have been a very potent factor in limiting consumption, and it is not unreasonable to suppose that further advances in prices will be reflected in a decreased demand for that commodity both at home and abroad.

"Just now the British government as an economic policy has decided to slaughter 70 per cent of their remaining herds and thus conserve their food value and at the same time release the shipping facilities for the use of America in the shipment of men, munitions and foodstuffs.

"As to present needs, it may be interesting to know that during the first seven months of this year we shipped more than fifty times as much beef abroad as we did during the entire year 1914. Of beef and pork we shipped more than 350,000,000 pounds for the month of July and subsequent months have not been any less. So as the months go by the requirements will be increased and next year when we have 3,000,000 men in battle line we may well consider when and how the meat requirements are to be met. For if we are to be the deciding factors in this world conflict, men, munitions and foodstuffs must go from our land in a constant and ever increasing stream.

"It is said that by reason of decreased production incident to crop conditions and the war, the world is but sixty days from starvation, and that the bulk of the surplus food is in the remote corners of the earth, where the limited shipping facilities are unable to reach it. Hence the responsibility of feeding both the civil and military population of the world is largely our own.

"On a recent visit to Washington upon the invitation of the advisory committee of the agricultural department, which has in charge the shaping of the policy of the government with reference to meat production, the facts disclosed before that committee indicated that there was but scant possibility of an overproduction during the coming months. High priced foodstuffs and the extra hazards of the business incident to war conditions has temporarily, at least, put many men out of the business. Another proposition which must be met by every producer the coming year is the fact of much higher prices demanded for feeder cattle. At present the government requirements are such that packers are taking practically all of the weighty feeder cattle at a price for slaughter that virtually prohibits the conservative feeder from getting in the game, hence another year we must expect to see lower weight carcasses, and if the present regulations still maintain a wider discrimination in price. The antiquated notion of the army and navy, that no beef is good unless heavy, is running counter to all the economic and scientific principles of beef production, both from the standpoint of the producer and consumer, and as a matter of conservation and economic policy the advisory committee recommended that all future specifications be based on quality, regardless of weight or sex. This policy, if adopted, would furnish an outlet for millions of pounds of good edible beef, which under present conditions is selling at a price out of proportion to its food value and likewise economic production.

"The policy of the government is to discourage long feeding periods and no producer ought to figure to go beyond 120 days with cattle in fair flesh at the beginning. The outlet for overfat animals will be limited and the experience and pride in producing them will no doubt be costly. Supplies of cattle going to the country indicate that average weights will be lower another year, hence a greater number will be needed to make up the necessary requirements.

"The natural hazards incident to the business, the added expense incurred and the possibility of the food administrator circumscribing profits by reason of regulations will no doubt cause many men to decide to play safe and thus lay out of the business the coming year, but no one ever made a profit from an empty feed lot. It is not a safe rule to follow the crowd, and I imagine that this year the fellow who goes against the current will find attractive prices awaiting him in the end.

"Optimist that I am, I feel that all of the good things of life are not behind us—on the contrary, I believe that better days are still ahead and no matter what the duration of the war may be, when peace comes and the seven seas are again open to the commerce of the world, the products of our feed lots and farms will be more in demand than in the troublesome days of the past.

"To mobilize a nation's resources in so short a time is a task almost beyond human comprehension. Men, munitions, clothing and foodstuff must be assembled and transported to the scene of action, and if we fail to produce the requisite amount of food, then all of our efforts will come to naught. Our job during these tempestous days is to feed the world. Under ordinary conditions the simple routine of such a task and such a life may seem dull, commonplace, selfish and monotonous, measured by dollars and cents, but doing the same things as an important and necessary adjunct to the preservation of our national life and the liberties of the world lends a new impetus and charm to our labors and whether or not the present situation looks rosy as the future looks gloomy, we must rise to the level and possibility of the big things before us and meet the demands of the world in the spirit of patriotism and sacrifice which has made civilized mankind one and the same today."

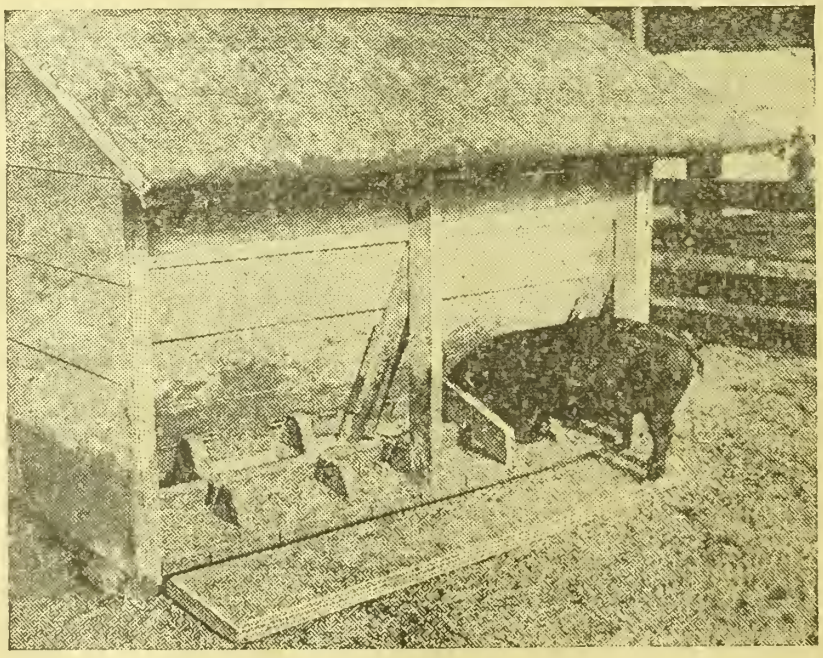
Let Hog Feed Himself

WITH farm help scarce, the efficient farmer will endeavor to remove "hog feeding" from his list of chores. The hog can feed himself as well as, if not better than, the most expert feeder can do it if given the chance. The chance is offered by the self-feeder—a device by which the hog can choose from a variety the feeds best suited to his needs. Hogs, like persons, require a variety of feeds to take care of their bodily wants. Also, one hog requires more of a certain feed than does another.

It is certain that the self-feeder method of feeding is more efficient than the hand method and that it will save a great deal of time and labor. Instead of feeding two or three times a day, all that is needed is to see that the feeders are not empty and that the hogs have plenty of water.

There are several types of self-feeders for hogs, but they all employ the same principle of letting the hog do the work. Some of them consist of just one compartment and are nothing more than a box with one side slightly altered. Others have several compartments with means of adjusting and regulating the opening to accommodate different kinds of feed and regulate the flow. They vary in size from a small box to whole corn cribs turned into self-feeders. The kind and size that a farmer will want depend on the size of his herd and his inclination in the matter.

The feeder here shown is one designed and very successfully used by the Kansas Experiment Station. A Riley County KANSAS FARMER reader who was in our office a few days ago spoke of how successfully he had been using a self-feeder patterned after the one used by the experiment station in feeding his hogs. The plan is generally being adopted as a labor-saving device. The extension division of our agricultural college will send plans and details of the construction of this feeder on request. Missouri Experiment Station Bulletin 144, "Self-Feeder for Fattening Swine," describes several kinds of self-feeders with directions for constructing them. "The Self-Feeder for Hogs," Farmers' Bulletin No. 906 of the United States Department of Agriculture, can be obtained free by writing to the Division of Publications of the Department, Washington, D. C.



THE PIG IS SELECTING AND BALANCING HIS OWN RATION.—AN ECONOMICAL AND PROFITABLE METHOD OF FEEDING

When Peace Is Reached

There need be no apprehension of materially lower prices for live stock when Europe goes on a peace basis. In the case of grains, the situation is somewhat different. An immense wheat acreage and an accumulation of grain in the southern hemisphere, which will automatically become available, are likely to be reflected in the future scale of prices.

However, there is no meat surplus in sight anywhere, not even during the next half decade. Only in the case of hogs is a bare sufficiency likely.

The bare shelves of European larders must at least be replenished and this task will naturally devolve on the United States.

The mission of the International Live Stock Exposition at this crisis is to stimulate production of beef, pork and mutton on the most economical basis, to instruct breeders and feeders in recent development, to inspire ambition to excel and demonstrate that live stock raising is profitable, otherwise it could not prosper.

Europe after the war will need American stock cattle. It must come to this market for cows for breeding purposes and for seed stock of all the species and breeds.

There never has been a more opportune moment for renewed endeavor in the sphere of animal husbandry, and the International Live Stock Exposition, which will this year be held from November 30 to December 7, is the chief exponent of the industry.

War Garden at Camp Dix

A war garden at Camp Dix in New Jersey as a demonstration of the possibilities of gardening at army camps produced crops the past season valued at $25,000. The work was done by men not quite ready for military duty, the light work in the open air proving just the right prescription for men who needed a little building up.

Some two thousand men passed through the farm garden work division during the summer. In addition to providing fresh vegetables for use in the camp, 581,000 pounds of hay and enough broom corn for a thousand brooms were produced. The work has already been undertaken in other army camps and it is probable that next summer each cantonment will have its own war garden.

Plans for Portable Granary

The Division of Rural Engineering of the Bureau of Public Roads, United States Department of Agriculture, has plans for a portable wooden granary, ten by fourteen feet, ninety-four inches high, with a capacity of 660 bushels. Any farmer can build the granary from the plans, which will be furnished upon request. It is built on skids and can be moved around to threshing machine, corn sheller, or feed lot, as needed. The high price of galvanized material caused the bureau to go back to the wooden granary.

CAN FARMERS GO IT ALONE?

Attempt Being Made to Unite Farmers' Organizations

CAN farmers get together and stick in an organized way? This question is usually answered in the negative. This is given as the reason agriculture as an industry has so often been compelled to sit at the second table and be satisfied with the leavings in the management of affairs touching on the selling and handling of farm products. We have plenty of farmer organizations, perhaps too many, and most assuredly too many of the kind largely controlled and managed by those not primarily and vitally interested in farm affairs. The National Board of Farm Organizations has attempted to federate or unite the various organized activities of farmers and some of those interested in the attempt are most enthusiastic as to the prospects of something worth while coming from this reorganization which now maintains a permanent office at 615 Woodward Building, Washington, D. C., with Charles A. Lyman as secretary in charge. A. C. Davis of Gravette, Arkansas, secretary-treasurer of the National Farmers' Union, has written most enthusiastically of the conference of this organization held in Washington last August. He says:

"It has been my good fortune to attend some hundreds of conventions during the past twelve years. Many of them have been invaluable links in the chain of farm progress which is steadily being welded. Some of them have done little; a number of men make speeches, a few resolutions are passed and the people adjourn, go home and forget. But of all conventions whose deliberations are of far reaching importance to the future of American agriculture, none can remotely compare with the great conference held August 27-29, in Washington, D. C., under the auspices of the National Board of Farm Organizations.

"The leaders and a number of the laity were there representing every national farm organization of any consequence in this country. The speakers were men of nation-wide repute as leaders of advanced thought in their particular line of agricultural endeavor. The resolutions adopted touching upon the necessity for remedial legislation, or upon the hundred and one things which directly or indirectly affect agricultural interests, testified to the fairness and patriotism of the American farmer. The spectacular was entirely lacking. The fire-eater who wants to demolish things with a club was not there. Questions touching upon our economic conditions, and especially referring to agriculture, were handled in a statesmanlike manner, quietly yet determinedly. There was no shirking. The convention was not afraid to speak out clearly and distinctly so that there can be no doubt as to the position taken upon public questions.

"The manner in which the convention went about its work was most noticeable. Everything was done decently and in order. Here was a group of competent men charged with the duty of protecting American agriculture, tackling farm problems without pomp or show, but with an energy which can mean but one thing and that ultimately the farmer will be recognized and treated as the head of a great business and not merely a hewer of wood and a drawer of water.

"The American farmer has just reason to feel proud of the personnel of this convention which represented him, and the National Board of Farm Organizations is to be congratulated upon the manner in which it initiated and conducted this second conference of farm organizations.

"Two resolutions were unanimously agreed upon which will forever mark this conference as a history-making convention. To one of these I desire to call special attention at this time. This resolution provided for the appointment of a committee composed of a chairman and forty-eight members, one from each state in the Union, whose duty it shall be—

"First: To ascertain whether or not the farmer, who represents nearly one-half of our population, is represented in the proper ratio to other business interests, in Congress, upon boards of control, upon advisory committees, etc., which now have much to do with our economic welfare.

"Second: To outline a public national and international policy upon agricultural and economic questions upon which the farmer may base his demands for recognition at the peace conference when the Hun has been defeated.

"Like all true Americans, the members of the convention agreed that the business of the hour is to whip the enemy. To this end every energy of America will be bent. The farmer is now fighting in the trenches and behind the plow, and will continue to do so until victory is won. That there is to be a great change in world affairs after the war is over is conceded by everybody. Possibly our entire system of economics will be remodeled. Certain it is that many weaknesses in the business life of our nation have come to light within the past two years which must be remedied. This is true of other nations as well. Many innovations of government are being tried out as war measures. People are studying closely the relationship of individuals, groups and governments. The world has never been so well prepared to base the settlement of great questions upon democratic ideals as it will be at the conclusion of this war. Just how far-reaching the readjustment will be no one is wise enough to foresee, but it is safe to assume that every vocation in life will be affected. Leaders of farm organizations, through which the farmer must speak, because there is no such thing as the individual farmer being heard, would be derelict to duty should they not take some steps to make the farmers' influence felt in that momentous hour.

"The committee selected a sub-committee to get in touch with agricultural organizations in other countries to ascertain what steps have been taken by them relative to this general subject. We hope to have considerable valuable data collected before we meet again for general discussion. In the meantime each member of the committee will endeavor to reach the farmers of his state by some means so as to lay before the body the gist of the farmer's thought upon public questions.

"The idea will be to formulate a policy based upon the current thought of our great body of patriotic American farmers, rather than upon the visionary dream of an idealist, or the pet hobbies of a few individuals. That it is possible for farmers to agree upon the fundamentals touching agricultural life, there can be no doubt.

"We have often been charged, and rightly so, by the general public with a lack of solidarity and unity. However, the close association brought about through the National Board of Farm Organizations is proof positive that the farmer has enough of the give and take spirit in his makeup to make a true co-operator when so minded.

"There is a great field of work before this committee of forty-eight. Let every farmer take a personal interest in its work and see to it that the organization with which he is connected enters heartily into this movement to unite the various organizations upon a solid policy for the general good.

"To the unorganized farmer we have little to say. In fact there is little to be said. He is not a recognized factor. He is reckoned with only when it is necessary to speed production. Aside from the very useful work of the field, his activities are unknown. This is an age of organization. Labor, business, professions, everything, speak and act through organizations. Has the farmer a right to assume that because he is an important cog in the world's business, the world will stop to hear his individual tale? If this is the view of the unorganized, they will have to guess again.

"If there ever was a time when strong organizations were necessary among farmers, that time is now. Whatever may have been the necessities for organizations in the past, these are multiplied now many fold. For agriculture to occupy its proper place and receive the recognition due the fundamental industry of the world's business in the reconstruction soon to come, will require the combined wisdom and energy of all organized farmers."

Milo B. Campbell, of Coldwater, Michigan, president of the National Milk Producers' Association, one of the federated organizations, has spent a large part of his time in Washington the last year, representing the interests of milk producers as well as serving on the agricultural advisory committee of the Food Administration and as a member of the general board of the National Board of Farm Organizations. Mr. Campbell has had some experiences during these months showing the need for concerted action on the part of farmers and producers. In speaking of what is happening, he says:

"In Washington right now there is a continuous hearing going on with the Food Administration upon the price to be paid for butter and butter fat for the next six months or year ahead. This will be followed upon other milk products.

"The manufacturers and dealers are interested, organized and on deck to look after their interests. They are protected by sure profits fixed by the government, but are chiefly interested in the amount of business they do—lower prices giving them a larger volume of business and consequently greater profits. The government is interested in getting these products as low as possible for the army and navy and for allied governments, thus leaving the farmer to stand the brunt of low prices.

"The farmers, except through their organizations, are not represented at these hearings.

"The government maintains that because farmers have not gone out of business during the last year, therefore their business has been prosperous and that last year's price should prevail notwithstanding recent advances. The government maintains that feed is cheaper and conditions no worse for dairying, etc.

"The representatives of milk producers who are here and have been struggling for a price that will give to farmers at least their cost for milk and butter fat, feel the need of a general organization of milk producers over the entire country.

"If the industry is to succeed or survive it must organize. Farmers can no longer "go it alone" in these days. The National Milk Producers' Federation now comprising all the greater associations of the country with hundreds of thousands of members, covering every branch of the industry from New England to the Pacific Coast, propose to extend these organizations for the protection of all of their members and if possible preserve the industry.

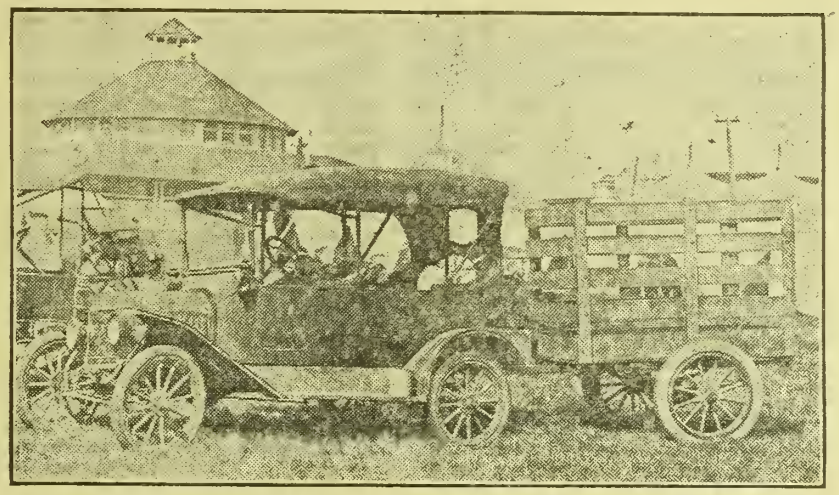
"They believe that farmers should form locals everywhere, no matter whether they sell whole milk, cream, butter, or cheese. Milk producers should send to the National Milk Producers' Association for a form for organization and get into the game. This is not a money-making scheme; it is solely protective.

"The National Milk Producers' Federation is attempting to save farmers from the evils that are being inflicted upon them through the sale of worthless and deleterious products which are mixed with feeds and are being sold at excessively high prices by certain mixed feed dealers. It strongly favors the enactment of suitable legislation to remedy this situation.

"This organization is acting in co-operation with the Department of Agriculture in making its plans for further organization.

"The secretary-treasurer is George Brown, Sycamore, Illinois. All communications should be addressed to Charles A. Lyman, Assistant Secretary, 615 Woodward Building, Washington, D. C."

We give the statements of these men in order that our readers may be informed of what is going on in connection with promoting a greater unity of action on the part of the organized farmers of the country.



EVEN THE HOGS CAME TO THE FAIR ON PNEUMATIC TIRES.—TRAILER ADDS GREATLY TO UTILITY OF CAR

Balance Corn for Hogs

Corn is wasted when fed alone to hogs. This conclusion has been drawn from practically every experiment station test and the observations of many practical feeders. Corn, while so generally considered essential to the fattening of hogs, is deficient in protein and mineral matter and must be supplemented with other feeds rich in these necessary nutrients. The Ohio Experiment Station, after conducting a number of tests to determine the efficiency of different supplements, recently announced that from one-fourth to one-half more pork can be made from a bushel of corn properly supplemented as fed than from corn alone.

In the tests made, eighty-pound pigs fed on corn alone in dry lot returned a little more than nine pounds of pork for each bushel of corn fed; a similar lot of pigs, however, when given 5.5 pounds of tankage, returned thirteen pounds of pork for each bushel of corn with tankage. The pigs fed on corn alone gained a little more than one-half pound per day while the tankage-fed swine gained more than one pound per day.

When skim milk was used as the protein feed, even more profitable gains were secured, although younger pigs were used in the experiment. In this case twenty-one pounds of pork were produced from each bushel of corn when 168 pounds of skim milk was fed with it. Comparative tests with the skim-milk-fed hogs shows a return of only a little more than eleven pounds of pork to the bushel when corn alone was fed.

Rations which may be more profitably used than corn alone for hogs are: Corn nine parts, tankage one part; corn five parts, linseed oilmeal one part; corn one part, skim milk three parts. Green pasture crops are comparatively high in protein, in which corn is deficient, and may be used to reduce but cannot entirely supplement the use of some nitrogenous concentrate.

America and the Allies have pooled food resources, and it is now up to every American to put more in the pool and take less out—no spillways are wanted.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

IN too many farms machinery will be left in fence corners or under trees all winter long. These places make poor substitutes for a good machinery shed. This kind of storage greatly decreases the life of the machinery. The life of all farm machinery can be lengthened by protecting it in the winter, frequent oiling, and prompt attention to necessary repairs. It pays to store farm machinery in the fall where it can be overhauled and put in shape for the next season's work. It is always expensive to wait until a piece of equipment is needed before putting it in repair.

Barley for Hogs

Farmers who have never fed anything but corn to hogs as a fattening ration will almost of necessity be compelled to consider substitute feeds. Barley is a feed which has been very little fed in Kansas. Owing to the rulings of the Food Administration, much barley which has formerly been used for the brewing of beer is now released for feeding purposes. Feeders will be interested in learning the results of feeding barley to hogs. The Minnesota Experiment Station has just called attention to the fact that they have found five hundred pounds of barley meal about equal to four hundred pounds of shelled corn in feeding hogs. They figure that with barley selling at 75 cents a bushel a hundred pounds is worth $1.56 and adding to this 10 cents a hundred for grinding or soaking, the five hundred pounds will be worth $8.30. The four hundred pounds of corn, which is seven and a half bushels, upon this basis would be worth $1.16 a bushel for feeding hogs under the conditions stated. These figures will give hogmen of Kansas perhaps some idea as to the relative value of these two feeds as compared with their market prices.

In feeding barley, as in feeding corn, the best and most profitable gains will be made only when some protein supplement is used such as tankage, skim milk, or bright leafy alfalfa hay fed in a rack.

Live Stock Extension Men

The extension division of the agricultural college is adding to its force men having special training and experience in various lines of live stock production. Charles F. Johnson, of Leonardville, has recently been appointed for special work in hog production. Mr. Johnson owns and lives on the Riley County farm where he was born and reared. He has made a business of raising pure-bred Poland China hogs and Hereford cattle. His practical experience and training as a live stock farmer make him an especially valuable man for the emergency work as related to improving the pork production methods of the state.

Carl G. Elling, who has been devoting his time to various live stock problems, will specialize more in sheep, although he will continue to give some attention to hog production problems. Mr. Elling is also a practical live stock farmer and a graduate of the agricultural college. For a number of years he was district agricultural agent in Southeast Kansas. We would suggest that people interested in sheep confer with Mr. Elling, addressing him through the division of extension of our agricultural college at Manhattan.

R. W. Kiser is another extension man whose practical knowledge of live stock problems makes his services and suggestions of special value to the farmers of the state.

Judges at Royal

Several of the most eminent men in the entire live stock field in America will come to Kansas City this year to make the awards in the beef breed cattle sections of the American Royal Live Stock Show which will be held at the Kansas City Stock Yards November 16 to 23.

In the Shorthorn section the awards will be made by Dean C. F. Curtis, head of the animal husbandry department of the Iowa Agricultural College, Ames, Iowa, one of the most distinguished breeders of Shorthorns in America and a man who has made the awards in several of the most notable foreign shows from time to time. The state herd of Shorthorn cattle at Ames is one of the best in the Union and Dean Curtis, who owns perhaps the finest small Shorthorn herd on his private farm, has made the Ames herd the notable one that it is.

In the Hereford sections the awards will be made by Prof. E. A. Trowbridge, head of the animal husbandry department of the Missouri Agricultural College, Columbia, Mo.; Prof. John Burns, of the animal husbandry department of the Agricultural College of Texas, College Station, Texas, and Prof. H. F. Garrigues, head of the animal husbandry department of the Agricultural College of Connecticut, Storrs, Conn.

In the Aberdeen-Angus section the awards will be made by John B. Brown, a noted judge of this breed, whose home is at Waterloo, Iowa.

A notable series of events connected with the American Royal this season is the Hereford and Shorthorn Association sales to be held in the Fine Stock Pavilion of the Kansas City Stock Yards Company. The cattle in the American Hereford Breeders' Association Royal sale have been carefully selected by Secretary R. J. Kinzer of that association and are among the very best representatives of the breed in America, if not the entire world. In the American Shorthorn Breeders' Association sale the cattle have been selected by W. A. Cochel, formerly head of the animal husbandry department of the Kansas State Agricultural College, now an official of the American Shorthorn Breeders' Association. None but the best animals will be offered in this sale.

The American Royal Hereford sale will be held on November 22 and the American Royal Shorthorn sale will be held on November 21. Both sales will be held in the forenoon and will bring buyers from every section of the country to secure the animals offered.

Indications are that the competition for the Hoover-Yancey trophies in the short-fed car lot sections will be keen in the extreme. These trophies aggregate $800. They are the inducements held out by the United States Food Administration for the production of beef particularly fitted for rationing our fighting Yanks and their brave allies.

County Agent Work in China

A delegation from China, in this country to inspect the work being done by county agents and home demonstration leaders, recently made a tour through Connecticut, visiting various extension-work organizations and collecting information which might be valuable in introducing this work in their home country.

Get behind the country's agricultural war program—the U. S. Department of Agriculture; the State Agricultural College; the County Farm Bureau.

Increase Honey Production

By J. H. Merrill, State Apiarist, Manhattan, Kansas

HONEY as a food supply can be increased without doing damage to any one, because honey is gathered by the bees from the flowers in the fields. If this nectar is not gathered by them, then it is wasted. The gathering of nectar brings about cross-pollination, and in so doing benefits the plants which yield the nectar. In order to increase the honey supply then, more bees must be properly kept to take advantage of this food supply which is open to all.

Honey was commonly used as a sweet before cane sugar was introduced. Since then, owing to the fact that sugar is more easily procured in large amounts, and usually lower in price, it has dropped into the background. Another reason for honey losing favor was the fact that it could be so easily adulterated with cheap syrups, and was put on the market in this form. The passage of the pure food act, however, has eliminated the practice of selling compounds as honey, and thus all extracted honey on the market today is pure honey.

In early times honey was gathered from hollow trees and crevices of rock. Later, when the bees were kept by man, the conditions under which they lived were not a great deal improved over those existing in the wild state. When the honey harvest was gathered, comb, dead bees, and honey were all put into a cloth and strained, hence the name "strained honey" which holds even today.

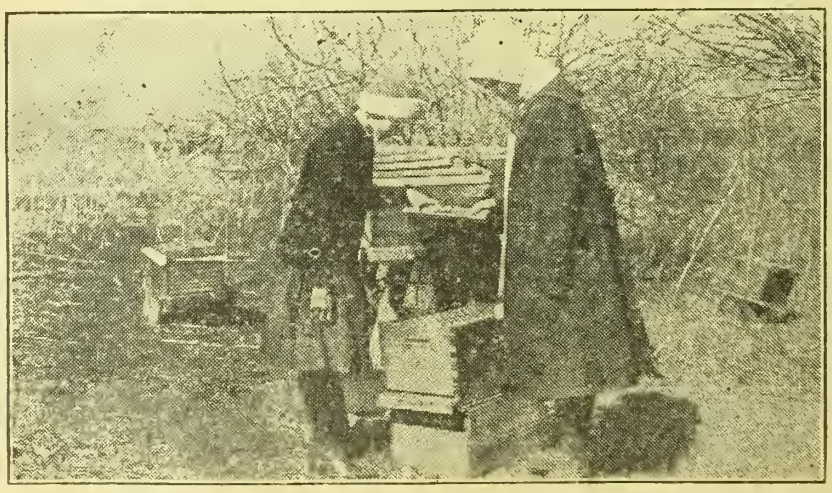
In modern beekeeping the bees are induced to deposit their honey in straight combs which are fastened into movable frames. When this honey is ready to be harvested, the frames are removed, cappings cut off, and the frames then placed in the baskets of a honey extractor. In this extractor the baskets are rapidly whirled, and the honey is thrown out by centrifugal force. This honey is as clean as could be desired, and practically all honey in liquid form on the market today is prepared by this process.

Since the outbreak of the war in Europe the supply of sugar has been greatly decreased, and it has been necessary to find some substitute to be used in place of it. Of all the various substitutes tried, honey has proved to be the most satisfactory. The sugar content of honey is very high, and when used for sweetening purposes at the table it may be substituted almost measure for measure in place of sugar. In cooking, a slightly increased amount of honey will be necessary, but honey has other qualities which offset the fact that more of it must be used. Pies, cakes, or cookies, when prepared with honey, have a superior flavor, and remain moist much longer than if prepared with sugar.

The Domestic Science Bureau of the Department of Agriculture, as well as the Home Economics Bureau of the Food Administration, is doing everything possible to teach housewives the value of honey, and how to use it. If more honey were available in this country, its use would be more generally recommended by the Food Administration even now. Ordinarily we produce about 300 million pounds, and import a great deal from Cuba, Porto Rico, and South America. This year very little honey will be imported, as most of the southern countries will send theirs direct to Europe, where there is an unprecedented demand for it. The export demand for honey in the United States has been greater than ever before. Several ships with cargoes made up exclusively of honey have left New York for Italy. This is the first time in the history of this country that a ship has cleared from any of its ports with a cargo consisting entirely of honey. Before the war we shipped very little honey to Great Britain, but now vast quantities are sent over.

The energy contained in sugar is more quickly available than any other form of food. Honey, on account of the fact that it has such a high sugar content, and due to the fact that its sugars are predigested, is an excellent form in which to serve sugar to men undergoing physical strain, such as is necessary in the armies.

While it would be too much to say that honey will again take its place as a sweet and force sugar from the market, yet it will be safe to say that the increased demand and the greater number of uses to which it has been put has acquainted people with the advisability of using honey as a food, and this demand will probably continue even after the war is over.



MEMBERS OF A BEE CLUB IN LYON COUNTY MAKING THEIR SPRING EXAMINATION OF COLONIES OF BEES.—BEE WORK INTERESTS BOYS AND GIRLS

Barley for Feeding

The abundance and relative cheapness of barley as a feed for live stock is being pointed out by the Food Administration. It is held that the plentiful supplies of this grain, if utilized freely, should partly compensate for the shortage of wheat mill feeds occasioned by the artificially low price and the consequent abnormal demand.

An additional reduction of nearly one million tons of feed annually is now brought about by the higher milling extraction which diverts this feed into flour. Distillers' and brewers' grains are practically off the market and soon after December 1 when the breweries stop operation this source of feeding stuff will be closed entirely.

Barley is an excellent feed, but except for poultry should be ground to obtain best results. Farmers may assist in solving their feed problems by urging dealers to put in liberal supplies of ground barley or of the whole grain in case facilities exist for grinding it on farms.

The Food Administration points out the desirability of farmers keeping in touch with changing conditions imposed by war and adapting themselves accordingly as in this case. The principle of using a less familiar feed to take the place of another of which there is a shortage is similar to readjustments which have already been made in human food.

Order Fertilizer Now

If you expect to use any fertilizer next year, the order should be given now. A great deal of difficulty was experienced in filling fertilizer orders last spring and manufacturers report that the situation will be even worse next season than it was last year. The labor supply has been curtailed 30 to 40 per cent. Shipping and handling fertilizer has largely been a seasonal business, calling for a large amount of labor during a short period of time. It is evident this labor will not be available for handling shipments as they have been handled in the past. It will largely be a matter of "first come, first served." Therefore orders should be given early and early shipments should be accepted.

Dairying Conserves Fertility

DAIRYING lends itself to soil-building, and well conducted dairy farms can be expected to increase in fertility and capacity to produce crops. This is a statement that is so frequently made that perhaps many do not realize and fully appreciate exactly why it is so. Simply bringing dairy cows to a farm will not cause that farm to increase in fertility. That is expecting too much of the dairy cow, economical as she is in converting home-grown feeds into highly valued products. It is true, however, that the productive power of the soil responds to no other type of farming more surely and certainly than to dairying.

While it is true that selling butter fat from the farm removes a very small amount of plant food, yet in the handling of the crops and the manure the cow produces, unavoidable losses take place and it is impossible to return to the soil as much fertility as it required to grow the crop. It has been estimated that when manure is carefully conserved and the best methods possible are adopted to prevent leaching and losses through fermentation, 60 per cent of the fertility required to grow the crops fed to cows can be returned to the soil. The table on this page, which is from Hoard's Dairyman, shows the amount of fertility used, the quantity lost, the amount that can be returned to the soil, and that which must be purchased or obtained by growing legumes, in the production of a thousand pounds of milk from which the cream is sold. In this table pre-war prices are used in figuring the market value of the fertilizing elements. It will be noted from this table that in the production of a thousand pounds of milk from which the cream is sold, $1.38 worth of nitrogen is lost, 31 cents' worth of phosphoric acid, and 36 cents' worth of potash. The nitrogen, which is the most expensive element of the three, can be obtained from the air. There is no way to replace the phosphorus and potash except to purchase it. In most Kansas soils potash is present in abundance. Phosphorus, however, is in many instances on soils that have been farmed a good many years becoming a limiting element in production.

Elements—	In Milk and Manure, Pounds	Returned to Soil by Skim Milk, Pounds	Returned to Soil by Manure, Pounds	Total Returned	Total Loss	Total Value of Fertilizer Lost
Nitrogen.	21.2	2.5	9.5	12.0	9.2	$1.38
Phosphoric acid	19.0	.92	10.3	11.22	7.8	.31
Potash.	18.0	.87	9.8	10.67	7.3	.36

The losses of potash and phosphorus in selling cream are so small that it would take years before the lack of these elements would be noticed on a dairy farm, but the true farmer will wish to replace as much fertility as is lost each year. It is possible to do this in dairying largely through the purchase of concentrated feedstuffs. Where this is done the farm can easily be made to increase in fertility and productive capacity. If no outside feeds of any kind are brought to the farm, however, it is impossible to so handle the crops and the manure as to increase the fertility of the soil.

Dairying thus builds up soil fertility because it furnishes a profitable market for a great deal of the rough feed of the farm and in feeding this rough feed to a good dairy cow the profits can be increased by combining with it purchased concentrates. Every pound of bran, cottonseed meal, or other concentrated feed fed on a dairy farm in addition to being converted into dairy products which can be sold at a profit adds its quota of fertilizing material to the farm. Gradually the dairy farm, properly handled, will increase in its capacity to produce the ordinary farm feeds and thus increase its capacity to carry live stock.

Cost of Milk Production

Production costs are essential factors in almost any successful business. It is very difficult, however, to work out production costs for farm products. The dairymen of New York State through the action of the directors of the Dairymen's League of the state have recently adopted what is known as the Warren formula for figuring the cost of producing milk. The principle of the formula is that on the average it takes the following factors to produce 100 pounds of milk testing 3.8 per cent: 33.79 pounds of grain, 43.3 pounds of hay, 10.8 pounds of other dry forage, 102.5 pounds of silage and other succulent feed, 3.02 hours of labor and 25 per cent of the cost of the above factors for miscellaneous factors such as pasture, depreciation, etc.

If the market values of the above factors are obtained, the sum will be the average cost of production of 100 pounds of 3.8 per cent milk. But, of course, it costs more to produce milk in some months than it does in others. To care for this variation and to find the cost of production for any particular month, the average monthly price as obtained above must be multiplied by a percentage factor to give the proper variation for each month. This factor will be more than 100 per cent in winter and less in summer.

The directors did not determine the October cost of production, but left it to be found by the executive committee, using the formula and the present costs of each factor in the formula.

Butter Prices Too High

A committee was recently appointed by the Food Administration to co-operate with other advisory committees in the matter of prices for dairy products, and particularly butter. Milk and butter are two most essential food products, and careful consideration must be given to the factors affecting their production. At a recent conference of Food Administrator Hoover with some fifty leading representatives of the dairy interests of the country, including members of the Agricultural Advisory Board, the present situation in dairy products was considered. It was the unanimous opinion of the meeting that in view of the large army, navy, and allied demands there was a temporary shortage of dairy products in the market, especially butter.

It was also agreed that the present prices of butter not only bear hardly upon the consumer but are not in the best interests of the producer, as they tend to diminish consumption and to stimulate permanently the increased consumption of oleomargarine, which is about one-half the price. It was agreed that these conditions would sooner or later produce a collapse in butter prices to a point possibly below the cost of production. It was considered essential for stable condition of the industry, that when such a fall did occur the government purchases should be used to support the market at a reasonable level.

The new committee appointed adjourned to meet again at a later date, in the meantime investigating as fully as possible the many factors involved.

Overrun in Butter Making

The overrun in butter making is sometimes a confusing point to those unfamiliar with the exact composition of butter and the processes of making it. Overrun means merely that one pound of butter fat when churned into butter will produce more than a pound of butter, just the same as a pound of flour when mixed with yeast, milk, salt and water will make more than a pound of bread—or overrun. Just so with butter. When the cream tests 25 per cent it requires four pounds of such cream to contain one pound of butter fat. After the removal of the butter fat by churning it is washed to remove the buttermilk, then salted to suit the market. The composition of average butter is as follows: Butter fat, 82.5 per cent; water, 14 per cent; casein, 1 per cent; mineral matter, 2.5 per cent.

In the process of making butter, the constituents naturally would vary the same as in bread, depending upon the skill of the maker. In both cases the water would vary the most so is responsible for the greatest variation in overrun. Yet it would be impossible to make either bread or butter containing no water. In fact all food products, whether of vegetable or of animal origin, contain more or less moisture and this element is one of the things that makes our food wholesome. Again the mineral matter in the butter, which is salt largely, varies from none at all to 4 per cent according to market demands. The amount of casein left in the butter has the least effect upon overrun for it occurs in small amount depending upon how well the buttermilk is removed from the butter.

The method of calculating the percentage of overrun can be most readily explained by assuming and working out a problem. For example, suppose we have seventy pounds of butter made from two hundred pounds of cream containing sixty pounds of butter fat. Subtracting the weight of the butter fat from the butter leaves ten pounds, the overrun, and dividing this by sixty pounds, the original weight of the butter fat, gives us the percentage, or sixteen and two-thirds per cent.

Milking Machines Save Labor

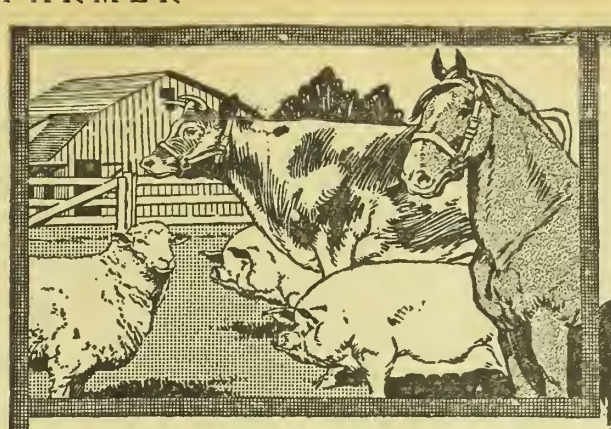
It may be that the dairyman, while labor is scarce, will have to rely on the milking machine. Milking machines have been on the market more than twenty-five years, but most of them have not been successful. Machines are now on the market that are past the experimental stage and are giving the best of satisfaction in the hands of many users, although others soon discard them. The successful use by the many shows that the machine is all right when properly used. The milking machine saves a great deal of hand labor, making it possible for one man to milk twenty-five to thirty cows in an hour, although extra time is required for cleaning the machine. The machine does not injure the cow in any way and animals prefer machine to hand milking. It is a question whether the cows milked with a machine hold up in milk toward the end of the milking period quite as well as when hand-milked. It is possible that the yield for the year may be a little less. Apparently, the machine will do better work than poor hand milkers, but it is not quite equal to skilled hand milkers.

When the machine is properly handled the quality of the milk with reference to its sanitary condition is better than when hand-drawn. If the machine is not properly cleaned, then the milk is not in as good condition as that drawn by hand.

C. H. Eckles suggests that a farmer who expects to purchase a machine will do well, first of all, to visit some one using a machine of the kind he is considering, and see it in operation so that he may decide for himself whether he wants it. In buying a milking machine use the same common sense that would guide the buying of any machinery. It is safer to get a make that has been in use for some time, preferably three years at least, in order that defects may have been corrected.

It is doubtful whether a milking machine is practical for fewer than thirty cows. The cost of an outfit for this many cows will vary from $150 to about $450, but if it does its work successfully it is well worth the price.

After the ground freezes cover the strawberry plants with a mulch of a couple of inches of straw, waste hay cut before it ripened seed, or coarse manure with the fine portion shaken out. Do not use vegetable rubbish containing weed seeds, because these seeds will grow next year and cause a lot of work to keep the weeds cleaned out. The mulch protects the ground from sudden thawing and freezing which "heaves out" plants not protected.





Don't Let Your Stock Lose their Summer's gain through November neglect

Your animals are now going on dry feed—hay and grain. It's a big change from the succulent, nutritious grasses of summer pastures which supply the needed laxatives and tonics.

Keep your animals' bowels open and regular—drive out the worms—keep their blood rich—keep their digestive apparatus in order—by feeding Dr. Hess Stock Tonic.

A Conditioner and Worm Expeller

Don't allow your stock to "get off feed" and in a rundown condition. Dr. Hess Stock Tonic eliminates waste and gives appetite, good health and good digestion. It enables animals to get the most benefit out of their feed.

Buy Stock Tonic according to the size of your herd. *Here's a suggestion for your guidance:* Get from your dealer 2 pounds for each average hog, 5 pounds for each horse, cow or steer, to start with, feed as directed and then watch results.

Why Pay the Peddler Twice My Price?

You buy Dr. Hess Stock Tonic at an honest price from a responsible dealer in your own town who guarantees it, and who refunds your money if it does not do as claimed.

25-lb. Pail, $2.25; 100-lb. Drum, $7.50

Except in the far West, South and Canada

Smaller packages in proportion

DR. HESS & CLARK, Ashland, Ohio

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Dr. Hess Poultry PAN-A-CE-A

Will Start Your Pullets and Moulted Hens to Laying

Dr. Hess Instant Louse Killer Kills Lice



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Lights With Common Matches

NO need, now, to bother with old style oil lamps that smoke and flicker and are positively dangerous. Here's the **perfect home** light, that makes and burns its own gas from common gasoline and **lights with common matches.**

The **Coleman**

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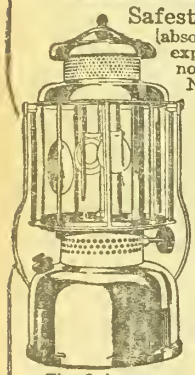

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300 Candle Power. Brighter than 20 oil lamps. Far brighter than the brightest electric light and 30 times cheaper. Costs less than one-third of a cent per hour. Safer than oil lamps. Cheaper than the cheapest candles.

For sale by dealers everywhere. If yours cannot supply, write nearest office for Catalog No. 22

The Coleman Quick-Lite Lantern—same principle, greatest portable out-door light in the world.

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U. S. Food Administration.

Arter de wise ol' owl spit on de bait he say, sez ee—"I gwine ter sprize you all wid a mess er fishes 'cause you alls mus' save de meat en eat sumpin' else instid en jes git out dat ol' game bag en make it work, too," sez ee. Den he kotch a big fish and say, sez ee, "t-hoot—t-hoot—t-suh-sti-toot," sez ee. W'en he say dat he means dat when you alls make riz biscuits jes don't make 'em—use corn meal ter save wheat flour fer de sojers.

United War Work Campaign

$170,500,000 November 11 to 18, 1918

Participated in by

National War Work Council of Y. M. C. A.—$100,000,000.

War Work Council of the Y. W. C. A.—$15,000,000.

National Catholic War Council (K. of C.)—$30,000,000.

Jewish Welfare Board—$3,500,000.

The War Camp Community Service—$15,000,000.

The American Library Association—$3,500,000.

The Salvation Army—$3,500,000.

A fall clean-up in the garden is important in the control of insect pests and diseases next year. Removing and burning the trash will destroy cucumber beetles, cabbage worms and squash bugs. Plowing the garden this fall will destroy potato bugs, grub worms and wireworms. Burning off the trash will also serve to remove the cause of many plant diseases.

GOVERNMENT CROP REPORT

Leavenworth County Leads in Average Acre Yield with Twenty-Six Bushels---Jewel Leads in Total

THE average acre yield of corn in Kansas this year was only eight bushels, says Edward C. Paxton, field agent for the Bureau of Crop Estimates of the Department of Agriculture in his report issued last week. The state's total yield of corn is only 49,045,296 bushels, which is about one-third of an average Kansas crop. With the exception of 1913, it is the smallest crop Kansas has produced in over forty years. Revised estimates on acreage based on the returns of the assessors to the Kansas State Board place the total acreage planted in the state this year at 6,130,662. Of this total 744,000 acres are estimated as having accrued to corn from wheat acreage abandoned last spring and later devoted to this crop. Leavenworth County is credited with the largest average yield, twenty-six bushels, and Jewell with the largest total production, 2,380,470 bushels. In point of production the larger producing counties rank iu the following order: Jewell, Nemaha, Brown, Smith, Marshall, Jackson, Phillips, Doniphan, Jefferson, Atchison, Reno, Stafford, Leavenworth, Shawnee, Cheyenne, Sedgwick, Butler, Marion, and Riley. These nineteen counties produced more than half of this year's crop, or over 24,000,000 bushels. Husking from the field is well advanced; the quality is of fair average; the ears small, but the grain well matured and moisture content comparatively low.

The average yield for the state of milo, kafir and feterita is rated at 9.3 bushels per acre and the state's production at 19,040,000 bushels. Stevens County takes easy honors this year as the banner grain sorghum producer with a total of 1,562,000 bushels. Her only close rival is Seward with a little over a million. Good yields where the acreage is of any moment, are confined to the southwest, and milo has far outranked all other sorghums in returns of grain. The Southwest escaped the frosts of September and enjoyed a longer maturing season than the rest of the state. Kafir and feterita produced sparingly and much of their grain is immature. In addition to the grain, Kansas grain sorghums will this year supply a large quota of the stock roughage. The total production of grain sorghum forage is estimated at 4,503,000 tons.

Kansas potato production this year is placed at 4,240,000 bushels compared with 4,446,000 last year. This is an average yield of fifty-three bushels for the state as a whole. The average yield in the Kaw Valley commercial section is estimated at eighty-two bushels per acre. The general farm and garden crop was very light to near a failure, but the strictly commercial acreage yielded better than last year. The crop has practically all been marketed. The average quality is rated at 70 per cent of normal. The estimated sweet potato yield is eighty bushels, twelve bushels less than a year ago and thirteen bushels less than the average. Though the yield was lighter than usual, prices for sweet potatoes have been good and the cash returns above average.

Kansas' apple crop this year was almost strictly confined to the well-cared-for commercial orchard. The commercial production is estimated at 35 per cent of a full crop or 364,000 barrels. Last year's crop was 700,000 barrels. The quality of this year's apple crop is rated at 63 per cent of normal. The low quality is attributed to worms, blotch and to the drouth of the summer followed by fall rains which caused unnatural late growth. Prices have been the highest ever received by Kansas growers.

Kansas this year produced 470,000 gallons of sorghum to supplement the sugar shortage. The average yield of syrup per acre is only slightly one-half the normal reported, but the acreage harvested for syrup is 43 per cent larger than last year. The September frost interfered with the normal development of the cane and the saccharine content was subnormal.

Sugar beets in the Garden City section have made remarkable development in the past month and the condition is rated at 88 per cent at time of harvest. A long, mild season for maturity, so essential for increasing size and sugar content, was experienced. The sugar output for Kansas this year bids fair to be more than double that of 1917.

The month of October was ideal for wheat growth and development. Cold and snow in the west toward the end of the month abated the grasshopper nuisance. In some localities the loss of acreage from hoppers was serious, but much of this acreage has been resown. Seeding was delayed in the western counties on account of the hoppers and is still continuing in full blast. Conditions for seeding could scarcely be better. Fly is reported from Neosho and Wilson counties, but not serious. White grubs have done considerable damage locally. From the wide viewpoint wheat outlook has not been as good since the fall of 1913. Considering the fact that more than half the crop in 1913 was fly-infested to a greater or less degree, the outlook may be considered better than then. There is some danger in the eastern two-thirds of the state that wheat will attain too large a growth-producing jointing which makes the crop more subject to winter killing. Heavy pasturing of wheat at this time is desirable, where the soil is not too moist, and is being generally practiced by farmers who have sufficient live stock.

Rules for Measuring Hay

In the measurement of hay there are two points to be considered. These are the number of cubic feet required to make one ton and the method of determining the number of cubic feet in a stack.

The following table gives the number of cubic feet required to make one ton of alfalfa at various seasons of settling, these figures being accepted as fair amounts to allow for a ton:

Days in Stack	Cubic Feet per Ton
30	560
60	540
90	512
120	485
Late winter	450

Native hay packs more closely, the usual figure being 422 cubic feet for one ton in a well-settled stack.

There are three general methods of arriving at the number of cubic feet in the stack. All three methods require the width, length, and over-measurement. The latter is the distance from the ground on one side, straight over the top to the ground on the other side. Where stacks are irregular, it is best to secure a number of measurements for width and length and the over-measurement, and use the average.

RULE I. — One-fourth of the "over" multiplied by the width, then multiplied by the length and divided hy the required number of cubic feet to make one ton. This rule gives accurate figures on small squat stacks when the width is from one-third to one-half of the "over."

Last fall the Colorado Experiment Station bought 98.55 tons by the use of this rule, and when weighed out it weighed 98.18 tons.

RULE II (Colorado Rule). — Subtract the width from the over. Multiply one-half the result by the width; multiply the product by the length; divide by the number of cubic feet required to make one ton. This rule is most accurate when the width exceeds one-half the over.

RULE III (Government Rule).—Width plus "over," divided by four and squared, then multiplied by length and divided by the number of cubic feet required to make one ton. This rule is satisfactory for large tall stacks of twenty-five to forty-five tons, and favors the seller with ordinary small squat stacks.

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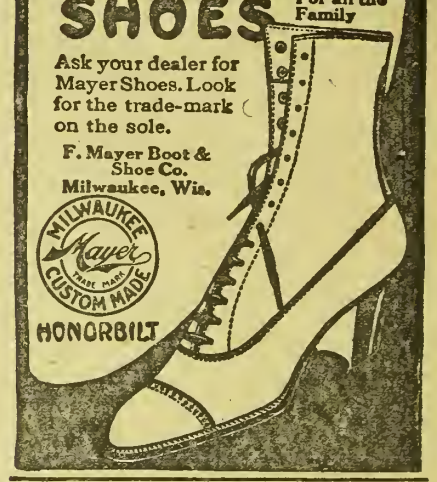

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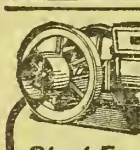

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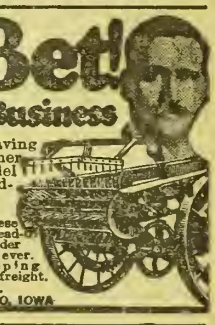

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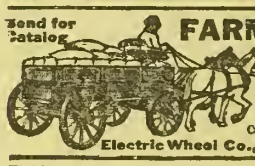

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One of the best combination stock and grain farms west of the Mississippi River, for quick sale at a low price, easy terms. Write owner.

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THE STRAY LIST.

TAKEN UP—ON THE FIRST DAY OF November, 1918, by Geo. Holter, 1208 Shawnee, Kansas City, Kansas, one red cow with white face, weight about 900 pounds; appraised at $50. William Beggs, County Clerk, Wyandotte County, Kansas.

One famous commercial brand of preserves and jellies is made by using honey entirely, instead of sugar.

Feeding Starving Europe

IT HAS taken food to win the war, but now that it is won, the obligation to feed the starving peoples of Europe is even heavier upon us. The Food Administration is essentially a war organization, but peace is bringing food problems quite as great or greater than those of war. How we shall solve these new problems is for the President, Congress and the public to decide.

In a statement sent out by the Food Administration just before the armistice was signed by the German envoys, it was pointed out that the need for food conservation and the elimination of all waste by the American people was never so great as at the present time.

Last year the Food Administration's requests were very largely for the substitution of one food for another. This year's actual saving is required on all foods. Before the war, with normal reserves and normal conditions prevailing, with plenty of agricultural labor, our exports to the allied countries averaged 5,533,000 tons of food per year. Last year we were able to export to them 11,820,000 tons, and this year we have assumed the burden of sending them a minimum of 17,550,000 tons.

Unfortunately, the common belief throughout the country seems to be that the 1918 crop was a phenomenally large one, and that in consequence there exists in this country a great plentitude of food, and the time for saving has therefore passed. This rather universal belief can be understood when it is remembered that last year wheat received the greatest emphasis in the pleas for food saving, so that quite naturally public attention generally centered around the condition of the then forthcoming wheat crop.

When the harvest time was reached and the crop assured, showing an increase of more than 250,000,000 bushels, conditions of other crops indicated that they also would show phenomenal increases. Then followed adverse weather conditions that cut down production in other crops, but the opinion accepted at that time by the country at large that plentitude was to prevail has not been changed.

Actual production conditions, as shown by the figures of the Department of Agriculture for October 1, show that the 1918 crop as compared with that of 1917 is as follows:

INCREASE

	Bushels
Wheat	268,000,000
Barley	27,000,000
Rice	5,000,000
Rye	17,000,000
Buckwheat	2,000,000
Beans	3,000,000
	322,000,000

DECREASE

	Bushels
Corn	442,000,000
Oats	52,000,000
Potatoes	52,000,000
Sweet potatoes	2,000,000
	548,000,000

The apparent loss, however, is counterbalanced by the fact that the nutritional value of the corn this year will be very much higher than that of last, and there will be less spoilage. Also a portion of last year's crop, in the form largely of an increased number of hogs remaining on the farms, adds to our resources. It seems fair, therefore, to assume that our actual food resources in life-sustaining value are about the same as those of last year.

The increase of 50 per cent in exports to the allied nations to which we have pledged ourselves is a minimum. It is based upon the lowest measurement of necessities for those countries. Any change in food conditions that can possibly occur will add to our obligations with no possibility of subtraction, as there will be 180,000,000 people looking to the United States for food in addition to the 120,000,000 allied population as well as our own.

The increase to which we have pledged ourselves as a minimum is based upon shipping conditions and relates to the transportation to and maintenance of American soldiers on the battle front. From New York to Liverpool is 3,036 miles, as compared with 6,258 miles from Buenos Ayres, 10,680 from Bombay and 11,890 from Australia. The shipping of the world at the beginning of the war, with no heavy drafts upon it for the transportation of troops, was none too large to meet the world demands. It then totaled about 48,500,000 tons. On August 1, 1918, the estimate of sinking was placed at about 15,000,000 tons, so that with shipping, as with food, an increase in demand must be met with a decreased supply. This curtailment of shipping has made imperative the maintenance of the straight line across the sea.

Predominance in man power was essential under the changed conditions of war, which allowed open fighting to be be forced, and the existing food program gave this advantage to the allied forces, by the addition of the American troops allowed to be sent over, through the saving it made in shipping. Recent military results have fully justified all the food sacrifices this plan entailed upon our people and the people of the allied countries.

Before the war, with normal conditions prevailing in production, our exports to the allied countries were sufficient to ration completely about 6,000,000 men per year. Last year our exports to them were complete rations for about 22,000,000 men, and this year our minimum plans were for complete rations for 33,000,000 men, added to by the burdens coming from the conquest of territory.

The coming of peace will not add one pound of food to our supply. On the contrary it enormously increases our food obligations because it allows us to reach with food the people of Poland, Roumania, Serbia, Armenia, European Russia and others who have been without food enough to keep their people alive. The total number of these peoples has been estimated at 180,000,000, some of whom have partial food resources and some of whom are now literally in a starving condition.

Summarized then, our food condition is as follows: Our food resources are about the same as those of last year. The food needs will be enormously added to by the coming of peace.

It should not be forgotten that the United States has more than 2,000,000 men overseas. An immediate peace problem will be to get these men transported back. It has been estimated by the military authorities that this will take at least two years.

Because of extraordinary demands to be made on shipping for the conveyance of food with the coming of peace, it seems probable that hope for the immediate transportation home of our troops will lie in being able to supply ships bringing troops with food supplied to carry back. That there will be an imperative demand, especially on the part of the mothers of the country, for the quickest possible bringing home of the soldier boys, there can be no question. This means maintenance of the straight line of shipping for some time after the war.

Just what provision we may feel necessary to make to supply Germany with food or what safeguards are to be imposed in order that Germany will receive food only after the people overseas who have been our friends and associates are provided for, is a question for the future and for Congress.

A most casual survey of the situation immediately convinces one that the necessity for America's supervision of food exports will be greater in the months immediately following the coming of peace than at any time during the war.

There must be no relaxation in the program laid out for the American people. The prevalent belief that with the coming of peace the old order of plenty will be restored, is a dangerous one. Recent market events have shown that this belief is very widespread, and it is doubly unfortunate when accepted by the producers of the country, whose burdens will become heavier than ever with the coming of peace.

For the wheat crop of 1917 the farmers of this country received an average price of $2.05 per bushel; for 1916, $1.44; for 1915, 98 cents; 1914, 99 cents; 1913, 79 cents, as estimated by the Bureau of Crop Estimates. In the past year state averages (excluding states producing less than 1,000,000 bushels) ranged from $1.83 per bushel in Utah to $2.66 in South Carolina.

The 1918-1919 food program is both a national and a personal obligation. The nation has never failed to meet all obligations and the individual must not.

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We will pay you more than you can get at home—more than you can get from any other fur house and more than you expect yourself—that's going some, but **we are in a position to beat all price records for furs and we are going to do it.**

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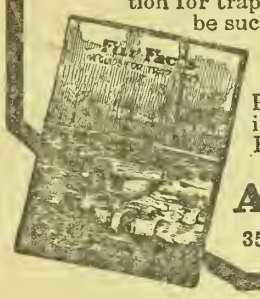
—the most complete catalogue of trapper's supplies carried by any house in the United States—quality of goods guaranteed to be as represented and prices the lowest possible. Most valuable information for trappers ever published—will show beginners how to be successful on the trap-line, giving rules and methods for trapping that never fail, contains information for old timers that will surprise them.



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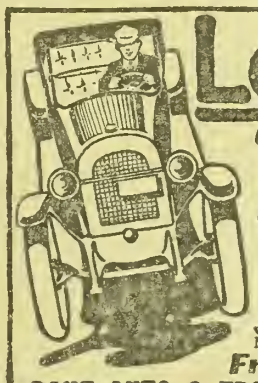

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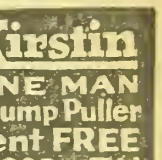

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Iowa Boys Raise Baby Beeves

At the recent Iowa State Fair 111 excellent baby beeves were exhibited by ninety-nine members of the boys' and girls' clubs of the state. Charley Ryan, of Irwin, with his grade Angus steer "Reddie," was awarded the championship, while this same calf also won the premier honors in the grade Angus division. Charles' prize money amounted to $75. After the show the baby beeves were sold at auction, the animals averaging 967 pounds in weight and selling for an average price of $18.30 a hundredweight. Each calf brought an average of $177.08, or a total for the lot of $16,823.73. At the Sioux City Interstate Fair thirty-nine baby beeves were exhibited by thirty-five members of boys' and girls' clubs. These animals were sold at auction for an average price of $187.49, the top price being $26 a hundredweight. Watson Davis, of Castana, won first place with a grade Angus steer and captured second honors with another steer in the fat Hereford class. Earl R. Buckland, of Mapleton, who won the championship on baby beeves in 1917, exhibited four calves and won second, ninth, and eleventh places in the special class and first, second and the championship in the fat Shorthorn class, making his total winnings $85. These results indicate that the coming generation will uphold the honor of the Hawkeye State in banner beef production.

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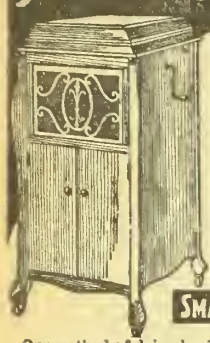

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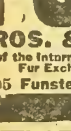
Send at once for Funsten 3-in-1 Book, FREE, Game Laws, Trappers' Guide, Supply Catalog, listing lowest prices on traps, market reports, guns, smokers, etc. A postal brings it.

Every indication points to bigger money to trappers this year than ever before. Furs are the rage, many trappers have been left behind—greater opportunity for *you*. Write for this book and Fur Price List.





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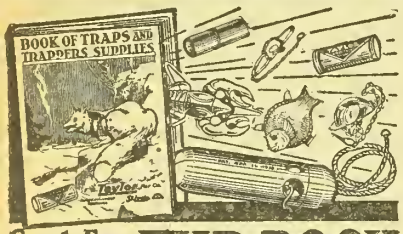

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Interesting War Items

Airedales are superior to the German police dogs for war work, in the opinion of signal corps experts. Lieut. William L. Butler, stationed at Chicago, says Airedales have the brains and courage needed in warfare. They carry messages when pigeons cannot fly true, they stand bad weather well, and their color is a natural camouflage. They have a genius for going through barbed wire entanglements without a scratch. The signal corps also wants some skilled dog-handlers.

At S. A. T. C. Headquarters

A rookie had an important request to make at headquarters. He carefully formulated and rehearsed the speech he would make in presenting the request and timidly entered the office. The lieutenant on duty looked up from his desk and roared:

"Stand at attention!"

The rookie straightened himself and slapped his hands to his sides.

"Put your heels together!" roared the lieutenant.

"Now salute!" ordered the officer.

The rookie saluted.

"Now, what do you want?" the officer queried.

"I don't know," said the rookie.

A Cheery Letter Helps

"I may not be able to write as often as I did, but please write to me often, for you know I am thinking of you always and a cheery letter from home helps a whole lot," writes one of our fighting men. Your own soldier lad undoubtedly has the same feeling.

Chasing the Hun

Sergeant Sidney F. Dafforn writes to his parents at Hutchinson:

"Possibly it would surprise you if I'd tell you I am sleeping in a German dugout occupied by them no longer than two nights ago. This is also some German stationery, both paper and envelopes, and this very minute I am sitting in this German den. Quite a fine place indeed."

German Morale Low

"Everything is coming along nicely," says a letter from the front. "Every day brings good news and of course all that strengthens the morale of the allied troops."

The effect on the German soldiers is naturally just the opposite, as indicated by the following extracts from recent letters of American soldiers:

"I think this show will close before very long, but if it doesn't we will have most of the German army over here in prison camps, as their soldiers are getting tired of it and give up every chance they get."

"They run like the devil when our boys go after them and I sure do not call them good fighters, unless they have the advantage."

In describing an attack, another writes: "The resistance was very weak, and only the ones farthest advanced had any fighting to do."

The French Soldier

Courteous in civil life, brave in battle, tender in ministering to the sick or wounded, and patient in suffering—small wonder that the French soldier is loved by those who fight beside him. An American soldier writes: "A wounded Frenchman is about as quiet and uncomplaining as a man could be. We have them on hospital trains quite often and they never cry out, no matter how badly they are wounded or how much the train jerks or jolts. Once in a while you will hear one moan, but if you look at him and ask how he feels he will smile and say 'C'est la guerre' (it is all the war). And that is all you can get out of him."

Red Cross Home Service

The War Council of the American Red Cross has just made public a section of a report concerning the use of the first Red Cross war fund of $100,000,000. It deals with the home service section and states that the Red Cross has aided more than 1,000,000 persons. Reports on other activities will be made shortly. Other striking statements in the report follow:

More than 300,000 families of American men in service have been relieved of money troubles, legal difficulties and family worries by the Red Cross.

An expenditure of more than $400,000 a month has been made in spreading a doctrine of intelligent substantial neighborliness on behalf of the fighter's families.

Although money has proved the least valuable contribution of home service, expenditures have amounted to $1,500,000 for the first six months of the present year and probably will exceed $4,000,000 for the second half. By January 1, 1919, the Red Cross will have spent a total of $6,000,000 in home service and will be carrying a burden of nearly $1,000,000 a month.

Nursed by Sioux Indian

Sergeant Harry Hone, formerly a Salina linotype operator, sends back from a hospital in France this description of the battle in which he was wounded:

"We moved from our pretty little play-ground to the 'big noise.' It was not very many hours before we were in the big boche smash of July 15. I will never forget that terrific duel. Men, horses, towns flying in every direction. Airplanes overhead like bees, fighting, dropping bombs, signaling, the sky ablaze with rockets and lights. Then they came—the women-killing bunch of hedevils came over—one hundred yards, two hundred yards, on and on. And then French and Americans side by side let loose. Machine guns mowed down the Huns like a wheat field is cut. They stopped. Again they tried and failed. Not an inch did we give, and again the ——th division had won.

"Some time during the fight an aviator dropped a wrench from his plane or a high explosive shell slipped up behind and hit me on the leg and I was taken to a hospital.

"My nurse is a six-foot South Dakota Sioux Indian. He had not slept for many hours.

" 'Chief, I said, 'lie here beside me and rest.'

" 'Huh,' he would answer, 'me no sick. You sick. Me watch. You sleep.' For hours he watched, without moving, chin in hands, waiting."

Preparing for the Worst

The Outlook surmises from a matrimonial advertisement in the Neue Zurcher Zeitung, quoted by Simplicissimus, that forehanded young Germans are apparently preparing for the time when the Allies will be dominant and are seeking to "make friends with the mammon of unrighteousness." The following is a translation of the advertisement appearing in the German paper:

"A doctor of philosophy, twenty-seven years old, highly educated, dashing, impressive, masculine appearance, desires acquaintance looking toward matrimony with a wealthy daughter or childless widow friendly to the Allies."

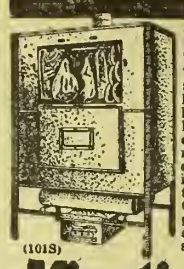
Patriotic Home Service

The Alton Empire tells of the way the farmers of that town are looking after the interests of those who have left to join the army. When the home guards were assembled for their weekly drill one Thursday evening a few weeks ago a call was made for volunteers to go out and stack the wheat belonging to Clyde Winland, which was still in the shock and spoiling. The following Sunday afternoon about fifty men left town in autos for the field and the number was gradually increased by neighbors until about ninety men were at work. Neighboring farmers furnished sixteen barges and racks and teams, and by 5:30 every bit of wheat from the sixty-acre field was in the stack. "Never, perhaps, was wheat handled so fast before," says the Empire, "in this part of the country at least. Every man made himself useful in some way. A chicken house which was twisted off the foundation during the tornado last May was lifted bodily and placed where it belonged."

Pictures were taken of the men at work to be sent to the owner of the wheat, who in the words of the editor "is now baring his breast to German bullets and steel for those who participated in Sunday's work."

Speak out in acts; the time for words
Has passed, and deeds alone suffice.
—Whittier.

Can't Burn Up Meat! Can't Burn Down Buildings!



(1018)

Don't take chances—wood smoke houses are liable to burn up and destroy your meat—and burn down your buildings any minute. They frizzle the flavory juices out of meat. Get a Kirstin all-steel, fireproof smoke house and be safe! Have sweeter, milder smoked hams, bacons, sausage.

SMOKE MEAT FREE!

Kirstin ALL-STEEL FARM **Smoke House**

Smoke positively permeates to bone without frizzling out flavory juices—because smoke is air cooled. After smoking use for meat storehouse! Lasts longer and is better than wood. Costs much less! Use in basement, kitchen or porch. If satisfied after 30 days' trial, keep it. If not, return at our expense. You don't risk a penny! Four easy ways to pay. Write for free book and Special Agents' Offer.



A. J. KIRSTIN COMPANY
401 Wells Street ESCANABA, MICH.

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THIS BOOK WILL HELP YOU

To Trap and Hunt, with profit. It shows *when* and *where* to trap, and how to prepare skins, to make the most money from them. *The Boys and Older Men at Home Will Have Control This Year.* There is *Big Money* to be made. There is a great shortage of skins. Prices will be very high. *The War* has shut off foreign shipments. Our house is situated to pay you all your skins are worth. We will grade them honestly, and give you a *Square Deal.* We have standing orders that we cannot fill. *Send name and address,* for the Book. *Hides* wanted, write for Price List.
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Eat Less—Waste nothing
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AMERICA MUST FEED 120,000,000 ALLIES

Hog Feeding Test Shows Profit

SKILLFUL balancing of rations and careful attention to minor details are essential if hogs now being finisbed for market are to return a profit. Feeding of corn alone is certain to result in loss. Some may hold tbat losses are inevitable with present prices of pork, no matter how skillfully the bogs are fed or how carefully the rations are balanced. It is certain there can be no lowering of the market price of pork in December and the months following if the hogs now being fed are to pay expenses and a profit. A feeder in Washington County, Kansas, is finisbing a bunch of hogs under the direction of R. W. Kiser, animal husbandry specialist of the Agricultural College, and farmers of that section are watching with keen interest the results of the test.

An average daily gain of one and two-tbirds pounds at a cost of 13 cents a pound was made by this lot of demonstration hogs during the month of October. There are 332 hogs in the lot. It is a farm bureau project. Frank Godfredson, of Greenleaf, is feeding the hogs. He started witb a mixed lot of 337 hogs. They weighed in at an average of 124 pounds on October 1, and were placed on a ration of corn and tankage in a self-feeder, free choice, wbich was supplemented by a slop of crushed barley and linseed meal in the following proportions: Barley, 180 pounds; linseed meal, 60 pounds.

Mr. Godfredson purchased all the feed consumed, paying the following prices: Corn, $1.70 a bushel; tankage, $5 a hundred; linseed meal, $63 a ton; and barley, 2½ cents a pound.

The bogs were purchased in Washington County. Tbe Kansas City market on October 1 quoted hogs of tbis quality at $18.25 per cwt., and on November 1 this class of hogs was quoted at $17.50.

During the month the net gains of the lot amounted to an average of 49.41 pounds, or approximately one and two-thirds pounds per day. This figures out gross returns of $8.75 per hog for gains made. The feed cost and interest on the investment was $6.74 per hog, giving net returns of $2.01.

During the month five hogs were taken out of the lot. Four of these were piggy sows, so they were weigbed out and the feed credited. The otber hog died and its loss was charged up to tbe risk account of the feeding operation.

The hogs will be kept on feed till December 16, when they will be weigbed out and shipped to market.

Iu the cost computations the cost of labor of feeding of tankage and corn is included in the original price, since tbe corn and tankage were purchased delivered to the self feeder, but the labor of slopping, etc., is not. Overhead and a few other minor items are not included. The risk is, since losses were charged direct to the feeding operations, and the hogs were all immunized before being purchased.

This is but one of many hog-feeding demonstrations being conducted over the state in farm bureau counties, which are being watched with considerable interest by stockmen. Seventeen feeders watched the hogs weighed in on November 1 in Washington County, and each man was so well impressed that he volunteered to bring back several neighbors on December 16, when the demonstration will be concluded and the final results announced.

Hog Tonic Formula

Mrs. N. B., Jewell County, asks for the formula giving the quantity of wood ashes, copperas and sulphur to mix together for hogs to keep them free from worms. She states that this is a remedy her husband successfully used when he was living, but she does not know in what proportions he mixed tbese ingredients.

Hogs at all times require mineral supplements to their regular feed. In all probability the minerals suggested will not destroy worms, but where such a tonic is kept constantly before hogs the intestinal worms will be kept in check to some extent. A formula which bas been very widely used is as follows: Charcoal, one bushel; bardwood ashes, one bushel; salt, eight pounds; air-slaked lime, eight pounds; sulphur, four pounds, and pulverized copperas two pounds. Mix thoroughly tbe lime, salt, and sulphur, and then mix with tbe charcoal and ashes. Dissolve the copperas in two parts of bot water and sprinkle over the whole mass, mixing it thoroughly. Keep this tonic mixture in a box before the hogs at all times.

Eradication of Tuberculosis

A bill has recently been passed by botb bouses of Congress and signed by tbe President which provides for an appropriation of $500,000 to be used by tbe Bureau of Animal Industry in the eradication of bovine tuberculosis. While this sum represents but 1½ per cent of the estimated annual loss due to the ravages of tuberculosis in the United States, it is a start in the right direction and will undoubtedly lead to still larger appropriations in the future for this important work.

According to the records of the Meat Inspection Division of the Bureau of Animal Industry, the equivalent of fifty-three trains of forty cars each filled with cattle and hogs were condemned as inedible at the seven leading Middle West markets during the fiscal year ending June 30, 1917. The official number of cattle slaughtered at all establishments in the United States where Federal inspection is maintained was 19,938,287 head during the fiscal year ending June 30, 1918. Of that number 222,787 head were found on post mortem to be affected with tuberculosis, of whicb 40,792 entire carcasses were condemned as inedible. Out of a total of 35,449,247 head of swine slaughtered under Federal inspection during the fiscal year ending June 30, 1918, 3,493,188, or nearly 10 per cent, were retained for tuberculosis and of that number 59,740 entire carcasses of hogs were condemned as inedible because of this disease.

This new legislation also authorizes the Bureau of Animal Industry to pay partial indemnity up to $25 for grades slaughtered and $50 for pure-breds, the states to pay at least an equal amount.

The general feeling among Congressmen was tbat tbe owners of reacting cattle should stand one-third of the loss. It would seem tbat with state appropriations to duplicate or exceed the government funds, the inducements would be such as to cause all owners of pure-bred herds to have their animals tuberculin tested annually, which work is done free of charge, to make such herds eligible for certification as tuberculosis-free accredited herds. When certified as such the owner is permitted to make interstate shipments without special tests and is not held up by various state regulations requiring the sixty or ninety-day retest. A clause in the bill makes it possible to return to owner interstate any breeding animal which reacts on retest.

Bovine tuberculosis is causing greater annual loss to the cattle and hog industry than any other disease. If it can be eliminated from cattle it will automatically disappear in hogs, as the latter animals get the infection through the milk and droppings of diseased cattle. While tuberculosis is very prevalent throughout the country, it is not highly contagious and can be easily controlled if proper measures are taken. It is more prevalent in dairy sections because cows used for dairy purposes are often crowded together in poorly ventilated buildings. The disease, however, is more commonly spread by animals drinking from the same tank or from a number being fed together, making it possible for one diseased animal to infect a large quantity of food by slobbering over it.

By the use of the tuberculin test wbich is the only accurate means of finding those animals which have the disease, it is easily possible to segregate or slaughter such and by the use of proper methods of sanitation, eliminate entirely the disease from any herd in a comparatively short time.—H. R. Smith.

By-Products of Trapping

The carcasses of fur-bearing animals from whicb tbe pelts have been removed can profitably be fed to poultry. This can be looked upon as a by-product of trapping. Cooked and ground up meat is recognized as an excellent poultry feed, but one which can only be used in a limited way wbere the supply is obtained from domestic animals, for while some are used for human food, many are simply thrown away. This is an economic waste, and rather an intensified one at that, since such meat is especially effective. On farms where it is the practice to cook, grind and feed it to poultry, egg production has been increased rather remarkably. Hens have been found to keep on laying during off seasons when other hens, not so fed, were not producing.

Considering that this feed costs nothing, the extra eggs are clear profit. And speaking of fur bearers and trapping, it will be found exceedingly profitable to get after skins this year with the utmost vigor. On the one hand there is a greatly increased demand for all kinds of furs. On the other hand there is an acute shortage, due to the fact that so many former trappers have gone to war. The result is prices higher than ever before and an inescapable further increase as time goes on.

Fur bearers are to be found in most farming communities — for instance, skunk, mink, muskrat, opossum, coon and fox—and a rich harvest of dollars awaits the farmer or farm boy who will trap them. The conditions undoubtedly warrant the outlay for a goodly number of traps, and as much time as can be given to the work. The market for tbe skins is absolutely assured and the trapper will find every pelt he takes snapped up at most satisfying prices.

SHIP FURS TO HILL GET THESE HIGH PRICES

Be WISE—don't wait—bundle up every fur you have on hand and ship to Hill Bros. Fur Co.—the old reliable house where you are sure of correct grading, highest prices and a square deal every time. Read these EXTRA HIGH PRICES we are paying if you ship your furs AT ONCE.

NO COMMISSION CHARGED. You get ALL your money—not one cent deducted for commission or handling.

KANSAS FURS

	Extra Large	Large	Medium	Small	Unprime
SKUNK—BLACK. . . .	$10.50 to $9.00	$9.00 to $8.00	$8.00 to $7.00	$7.00 to $6.00	$5.00 to $ .90
SHORT. . . .	8.00 to 7.00	7.00 to 6.25	6.25 to 5.50	5.50 to 4.50	4.00 to .70
NARROW. . . .	6.25 to 5.25	5.25 to 4.50	4.50 to 3.75	3.75 to 3.00	3.00 to .50
BROAD. . . .	3.50 to 2.50	2.50 to 2.00	2.00 to 1.50	1.50 to 1.25	1.25 to .25
MUSKRAT. . . .	2.90 to 2.30	2.30 to 2.00	1.70 to 1.40	1.10 to .90	1.25 to .10
OPOSSUM. . . .	3.25 to 2.70	2.50 to 2.10	1.75 to 1.50	1.00 to .75	1.20 to .05
MINK—DARK. . . .	9.50 to 8.25	7.75 to 6.75	6.00 to 5.00	4.50 to 3.50	4.25 to .40
ORDINARY. . .	8.75 to 7.25	6.75 to 5.75	5.00 to 4.25	3.50 to 2.75	3.75 to .30
RACCOON—HEAVY. . .	8.00 to 6.75	6.50 to 5.50	4.75 to 4.00	3.25 to 2.60	3.75 to .60
ORDINARY .	6.75 to 5.75	5.25 to 4.60	4.00 to 3.40	3.00 to 2.30	3.00 to .50

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Magnitude of Dairy Industry

The magnitude and importance of the dairy industry of this country was most eloquently set forth by H. C. Adams, member of Congress from Wisconsin some twenty years ago, in the following lines written for the Breeders' Gazette:

"If all the milk produced in the United States were turned into a single channel it would undoubtedly equal in volume and be superior in color to the Missouri River. Cream enough rises from it every year to float all the battleships of Europe. Calves enough are born every twenty-four hours to feed all Africa for a week. The butter product of tbe United States for a year, rolled into a ball and dropped into Lake Michigan, would displace it. If all the cows in the country were placed in single file they would encircle the globe. The dairy product of the United States is worth fifteen times its silver and twenty times its gold product. The capital invested is more than the capital of railroads, banks, express and telephone corporations. It is the only farm interest today that is breathing the breath of healthy and prosperous life. Dairy counties are rich counties. Dairy states are rich states. Cows and corn are the sheet anchors of American agriculture. There is something about dairying tbat tends to make men sensible. The hair-brained political crank seldom milks; be thinks it an indication of subservience to a cow monopoly."

Scientific Agriculture

"Yes," said Simpkins, "I want to do my bit, of course, so I thought I'd raise some potatoes."

"Well, I thought I would do that," said Smith, "but when I looked up the way to do it I found tbat potatoes have to be planted in hills, and our yard is perfectly flat."—Nebraska Farmer.

Fire Extinguishers on Farm

It seems rather strange that more farmers do not keep the chemical fire extinguishers about their homes, barns and other outbuildings. A large percentage of the serious fires could be prevented by their use. We have four on our place—one in the barn, one in the garage, and two in the house. At least twice these have been used to advantage in smothering fires that might have been serious otherwise. Sometimes water is hard to get to a farm house. In such a case an extinguisher would be of more value.—R. E. D., in Des Moines Farmer.

State Horticultural Meeting

The date of the fifty-second annual meeting of the Kansas State Horticultural Society is December 17-19, 1918. There will be interesting papers and discussions along progressive horticultural lines. The event and program is worthy of the attention of all borticulturists, who are urgently requested to be present. At the horticultural round table there will be given an opportunity for each one to give of his knowledge tbat information may be received by all.—O. F. Whitney, Secretary.

Historically True to Form

Noah had just reached the dairy animals, during the loading of the Ark.

"Shem," he remarked, "a word to the wise is sufficient; put the milk cows in last and not far from th' dinin' salon. I want cream with my coffee mornings."

"All right, Captain," answered Shem, as he continued with polishing tbe new separator.—Hoard's Dairyman.

Boy Makes Fine Record

A seventeen-year-old boy, Darold E. Bussell of Greeley County, Nebraska, has made a fine record in hog production. Last January Darold purchased a sow by Sensation Wonder the Second, winner of tbe grand championship at tbe Nebraska State Fair in 1916. He raised nine pigs from this sow, six gilts and tbree boars. At the Greeley County fair he won first prize, second prize, and sweepstakes. His total winnings amounted to $34.50. He sold the three boar pigs for $210. The sow cost him $203 and he has six gilts left for which he has refused $60 each and he now has a second litter of pigs from tbe sow.

An occasional oiling of the automobile clutch will insure the free shifting of gears. Sometimes engine oil mixed with graphite is used for oiling the clutch.

Complete List of Killed

As a part of its war service The Weekly Kansas City Star publishes each week the names and addresses of tbe men from Kansas, Missouri, Iowa, Oklahoma, Arkansas and Nebraska who bave been killed or wounded in service. If you live in any of these six states send 50 cents to Dept. 32. The Weekly Star, Kansas City, Mo., for a full year's subscription. —Adv.

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The Kansas University of Commerce announces that in order to help meet the urgent demands of present business conditions and of our Government for stenographers a special course is offered.

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AGENTS—MAKE A DOLLAR AN HOUR. Sell Mendets, a patent patch for instantly mending leaks in all utensils. Sample package free. Collette Manufacturing Co., Dept. 103, Amsterdam, N. Y.

HELP WANTED.

FARMERS WANTED — MEN - WOMEN - girls. $95 month. U. S. Government jobs. Short hours. Pleasant office work. Common education sufficient. Write immediately for list positions now obtainable. Franklin Institute, Dept. Y-82, Rochester, New York.

DOGS.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

FOR SALE—A FEW HIGH CLASS COON, opossum and skunk dogs. Stamp for reply. A. F. Sampey, 317 East Mt. Vernon St., Springfield, Mo.

POULTRY.

ROSE COMB WHITE WYANDOTTES, $3 each. A. H. Fry, Paxico, Kansas.

PURE-BRED WHITE WYANDOTTE hens, $1.50 each. I. B. Pixley, Wamego, Kansas.

SINGLE COMB BUFF LEGHORN COCKerels, $1.50 and $2 each. Satisfaction guaranteed. Alf Johnson, Leonardville, Kan.

CHOICE WHITE ROCK COCKERELS, $2 and $3. Mrs. C. B. Clutz, Route 5, Troy, Kansas.

NARRAGANSETT TURKEYS, CLOSING out our choice breeders. Act quick. Sarver's Poultry Farm, Hastings, Nebraska.

"RINGLET" BARRED ROCK COCKERels, $3 and $5 each. Mrs. C. N. Bailey, Lyndon, Kansas.

FOR SALE — EARLY-HATCHED BOURbon Red toms, $8. Mrs. Frank O'Connor, Hartford, Kansas.

S. C. WHITE LEGHORN COCKERELS, Farris strain, $2 and $3 each. Ray Heel, Manchester, Okla.

FOR SALE—PURE-BRED S. C. BROWN Leghorn cockerels, $1.25 each. J. R. Stewart, Winston, Missouri.

FOR SALE — PURE-BRED BLACK Langshan cockerels of good laying strain. Joe O'Brien, Route 3, Zurich, Kansas.

PURE-BRED S. C. BROWN LEGHORN cockerels, $2 each; six for $10. Mrs. L. H. Hastings, Thayer, Kansas.

THOROUGHBRED SINGLE COMB Brown Leghorn cockerels, prize winners, $1.50. Philip Zimmerman, Hays, Kansas.

FOR SALE—BARRED ROCK COCKERels, layers and winning strain. Farnsworth, 224 Tyler, Topeka.

BARRED ROCK, WHITE WYANDOTTE, Leghorn cockerels. Geese, ducks, guineas. Emma Ahlstedt, Lindsborg, Kansas.

PURE-BRED WHITE WYANDOTTE cockerels, $1.50 each. I. B. Pixley, Wamego, Kansas.

FOR SALE — ONE ROSE COMB AND several S. C. Brown Leghorn cockerels, two to five dollars each, and eight hens, $1.25 each. L. D. Speenburg, Belleville, Kansas.

PURE-BRED S. C. WHITE LEGHORN cockerels from Yesteriald pullets and Young strain of cockerels, $1.50 each. L. J. Cianin, Randall, Kansas.

SILVER WYANDOTTE COCKERELS, $2, $3 and $4 each. Experienced breeder. Ralph Sanders, Springdale Stock Farm, Osage City, Kansas.

DARK RED ROSE COMB REDS, GOOD scoring, greatest laying strain; cockerels, pullets, eggs. Satisfaction guaranteed. Highland Farm, Hedrick, Iowa.

ONE THOUSAND FINE SHOW AND breeding birds for sale in November. Barred Rocks, Brown, White, Buff, Silver and Black Leghorns, Langshans, Cochins, Brahmas, Polish, Bantams. Ducks and geese. Best bargains ever offered. Write today for prices on what you need. Modlin's Poultry Farm, Route 7, Topeka, Kan.

POULTRY WANTED.

THANKSGIVING PRICES ON POULTRY will probably be 25c on turkeys, ducks 17c, geese 14c, H. hens 22c, L. hens 19c, springs 21c, pigeons dozen 90c, guineas dozen $5. Write for coops and confirmation. The Copes, Topeka.

WANTED

WANTED — FIFTY WHITE ESKIMO Spitz puppies, six to eight weeks old. Brockway Kennels, Baldwin, Kan.

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TIRES — FORD, $6.50. LARGER SIZES, equally low. "Lowest tube prices." Booklet free. Economy Tire Co., Kansas City, Mo.

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120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

FOR SALE — REGISTERED JERSEYS, two choice bull calves, their dams are Financial Countess and Brown Bessie breeding. Both calves sired by Owl's Pogis Torono, his dam's yearly record 764 pounds butter, his sire's dam 816 pounds. Also a few young cows, fresh. R. O. McKee, Marysville, Kansas.

MISCELLANEOUS.

CHOICE WHITE SWEET CLOVER, REAsonable. Sow on wheat and let snows cover. John Lewis, Madison, Kansas.

FOR SALE—FINE LARGE EARLY OHIO potatoes, 90 cents per bushel; car lots. Wickham Berry Farm, Salem, Neb.

WANT A BELT POWER TRANSMITTER for your Ford? Don't pay more than $12.50 for it. Buy the Simplex. Simplest, handiest, most practical. Write for circular. Frank R. Weisgerber, Salina, Kansas.

FOR SALE—FANCY NO. 1 MINNESOTA Red River Ohio potatoes, $2.50 per hundred; round white, $2.25 per hundred; turnips, 90c per bushel; beets and carrots, 3c per pound; sweet potatoes, $2 per bushel; York Imperial and Ben Davis apples, orchard run, hand picked, ciders out, $1.75 per bushel basket. Buy your winter supply now. Salyer Bros., 1008-1010 North Kansas Avenue, North Topeka.

REAL ESTATE.

SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price $10 to $15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address E. T. Cartlidge, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kan.

FARMS WANTED.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 56th St., Chippewa Falls, Wisconsin.

HONEY.

FOR SALE—1918 CROP OF HIGH GRADE table honey direct from bees to you. Guaranteed to be absolutely pure. Can containing 60 pounds net, $15.25. On orders for two cans or more the price is $15 per can and the freight is less on shipments of 100 pounds or over. Have dark honey for table or cooking purposes also, which I can recommend as pure and good. Single 60-pound can, $13, or $12.75 each for larger lots. Prices f. o. b. Hotchkiss, Colo. All cans securely boxed and strapped. Frank H. Drexel, Crawford, Colorado.

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Two bushels of corn, a bushel of wheat—that isn't much on a farm, is it? Think of the joy the money would take to a soldier's camp!

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

How to Feed for Eggs

BEEF scrap, skim milk, mangels or beets and cabbage are almost necessary in feeding hens during the winter season if they are to lay any eggs. "The whole philosophy of successful feeding for eggs," says William A. Lippincott, professor of poultry husbandry in the Kansas Agricultural College, "consists in the substitution of something which will take the place of the bugs and worms of the spring and summer and of the green food which is available then. Either commercial beef scrap or skim milk may be substituted for the bugs and worms.

"Commercial beef scrap is a product cooked from the trimmings of the packing houses," continued Professor Lippincott. "It may seem high in price, but so are eggs.

"Skim milk should always be fed sour as the milk sugar contained in sweet milk cannot be digested by chickens. After this sugar has been changed to lactic acid, however—which is the case when milk sours—it is then available for food. Besides furnishing protein for the birds, sour milk acts as a corrective and helps to keep the digestive tract in good tone.

"Nothing seems fully to take the place of actual green feed for the hens. Where possible, sprouted oats, mangels, or cabbage should be fed during the cold months. If this cannot be done, among the best substitutes are silage, leaves of alfalfa hay cured green, or steamed cut alfalfa. Once a day the birds should be given all the green feed that they will clean up in a half hour."

Mr. Lippincott recommends for laying hens a mash to be kept in hoppers placed in the hen house, the hoppers being opened at noon so that the hens will have access to them during the afternoon. The mash consists of sixty pounds of corn meal, sixty pounds of wheat middlings or shorts, fifty pounds of meat scraps, thirty pounds of wheat bran, ten pounds of linseed oil meal, ten pounds of milled alfalfa, and one pound of salt.

This mash is to be fed in connection with a scratching feed consisting of two parts of wheat, two parts of corn, and one part of oats, all by weight. A small handful of this feed should be scattered in the litter in the morning for six birds in the pen. About 4:30 o'clock in the afternoon the dry mash hoppers should be closed and twice as much grain should be scattered in the litter as in the morning.

Grit, oyster shell and charcoal should be kept before the hens at all times. The grit is necessary to the grinding of the food in the gizzard, the charcoal keeps the system in good condition, and the oyster shell supplies the necessary lime for making the egg shell. In cold weather lukewarm water should be given to the chickens in preference to cold water.

If the birds are kept busy scratching all the time and care is taken that they are not being overfed, you will be sure to get eggs during the winter months. Watch the fowls closely, advises Professor Lippincott. If they do not run to meet you when you come to feed them it is a sure sign that they are being overfed. Cut down on the feed immediately and await results.

Fighting Poultry Diseases

Poultry raisers who wait until disease appears in the flock and then prepare to make a defensive attack are likely to be successful only in rare cases. By far the best plan, say poultry specialists of the United States Department of Agriculture, is to care for the flock in such a way that disease will not appear. The aim in controlling the diseases of poultry is, they add, to learn how to prevent them rather than how to cure them. To enlighten poultry owners as to the characteristics of the more important diseases in order that they may intelligently use the most improved methods of combating them, Farmers' Bulletin 957, "Important Poultry Diseases," has recently been published by the Department. The causes, symptoms and treatment of poultry ailments, from aspergillosis (brooder pneumonia) to worms, are given in this publication.

As all poultry is susceptible to many diseases, some of which are highly infectious and resist all efforts of treatment, the bulletin suggests that when birds become sick it is often the best plan to kill them. The greater the number of birds kept upon any farm or plot of ground, and the more they are crowded together, the more important are the measures for excluding, eradicating and preventing the development of the causes of disease.

When disease appears among poultry the fowls should be removed from the poultry yard and a good coating of freshly slaked lime be applied to the entire surface of the ground, according to the bulletin. After a few days it should be plowed and then cultivated three or four times at intervals of a week and finally sowed with oats, rye or other grain. It is best to leave the ground unoccupied by fowls until the winter has passed. After the fowls have been returned the premises must be frequently cleaned and occasionally disinfected.

The drinking fountains and feed troughs must be washed every week with boiling water or other disinfectant, and if any lice or mites are found on the birds or in the house, the roosts and adjoining parts of the walls should be painted with a mixture of kerosene one quart and crude carbolic acid or crude cresol one teacupful. The house may be whitewashed with freshly slaked lime or sprayed with kerosene emulsion. In case of an actual outbreak of a virulent disease it is well to add to each gallon of the whitewash six ounces of crude carbolic acid. Good disinfectants destroy the germs of contagious disease, the external parasites such as lice and mites, and in some cases the eggs of parasitic worms, and should be used frequently in and about the poultry house.

Keep Hens Busy

The flocks of hens that are kept busy scratching do not contract the vices peculiar to those fowls that have nothing to do, and they keep fresh and in good health. The bright red comb, clean plumage and plenty to do on the part of the hens, indicate that egg foods are unnecessary and eggs plentiful. But if the hens are kept in small, crowded houses, there is no room for them to run around and scratch and keep busy. They will mope around or huddle together until disease and death come and take them away. In connection with every well appointed poultry house should be a scratching shed for the fowls to wallow in if they desire, or for them to hunt for their food among the litter in the shed. All the feeding in the world will do no good if the hens are over-crowded. But give them a good, roomy scratching shed, apart from their roosting place, and they will soon pay for its cost in the extra eggs they will furnish the proprietor.

Children Raise 18,000 Chicks

That the 735 poultry club members of Missouri raised 18,152 chickens, will be shown in the annual report of the boys' and girls' club work for that state. The value of these chickens was $13,614, the cost of production $4,438, and the net profit was $9,176.

This poultry-club project of the extension service of the Missouri College of Agriculture requires club members to raise at least one brood of chickens, giving attention to selection of eggs for setting, care of young chicks, diseases, sanitation, and culling the flock.

To keep up a nice balance of work and wear, and to come out a little ahead each day, is good religion. No man has any right to wear himself out.—DOCTOR KELLOGG.

Chickens Sick?—Use Germozone
Roup, colds, bowel troubles, sore head, limber neck, etc. At dealers or postpaid 75 cts. with 6 book Poultry Library.
GEO. H. LEE CO., Dept. 415 . OMAHA, NEB.

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Our New Food Line

During the past year in spite of weather and submarine we put the food across. There were great emergencies to be met and we met them. For 1918-1919 we have a clear-cut, business-like program that calls for steady marching and hard campaigning.

We have pooled food resources with the Allies and planned to distribute the food to meet the needs of the hour. That means to keep in full health and strength the Allies, the armies, and our people at home; and at the same time to build up safe food reserves in this country.

We know now how much food there is, where it is needed and just how much can be shipped. The program agreed to calls for 67 per cent more meat and fat, 52 per cent more breadstuffs, and 21 per cent more sugar than was shipped last year.

This is a stiff program and it means a steady saving along all lines and no let up. There will be no sudden dashes and deeds of valor, only the hard drive of disciplined troops. The army of women, trained by a year of food saving in the United States, must forge ahead relentlessly and sweep all laggards with them.

To Make a Button Stay On

If there is to be much strain on a button it is well to take extra pains to sew it on securely. Charlotte E. Carpenter, of the Colorado Agricultural College, recommends stitching a strip of the material or a tape to the under side of the hem or band in such cases, placing it so it will come inside the fold. Have the eye of the needle large enough so it will carry the thread easily and there will be no unnecessary friction when the thread is pulled through the material. Use a strong double thread, and take a small stitch on the right side of the garment directly under the button. Miss Carpenter says that the stitches should be parallel to the edge of the hem so that they are at right angles to the strain. Put the needle through the first hole in the button and down through the second, carrying the thread over a pin which is laid across the top of the button. For the four-hole button the thread may be carried parallel on both the upper and under sides or crossed on the upper side and parallel on the under side. Take six or eight stitches, keeping the threads of uniform tension, and then bring the needle up between the material and the button. Remove the pin, pull the button away from the material and wrap the threads tightly four or five times with the working thread, forming a thread shank for the button. This lessens the strain and increases the durability. Carry the thread to the under side, take three or four buttonhole stitches over the under threads and finish with two or three back stitches.

Give Body a Square Deal

You cannot expect your body to be a faithful servant unless you treat it fairly. Don't think that because you are young and strong you can disregard the laws of health with impunity. None of us is so strong that our health may not be broken down, and it is certain to be impaired, at least, by neglect. Good health is too precious a possession to imperil for any temporary gain.

It is not enough to eat wholesome food. Be careful how you eat it. Never hurry through a meal. If you cannot take time to chew your food properly, it is better not to eat at all until you have opportunity for an unhurried meal. Don't worry, or if you must worry, do not do it at meal time. When you are nervous your food simply does not digest. Don't overtax your strength by too heavy or too long demands upon it, and especially do not do heavy work immediately after eating. These are all simple rules but rules which no one can long violate without eventually paying the penalty in sickness or in premature old age.

Feeding Children

"We are apt to think during war times that children will 'just grow,' like Topsy did," says Mrs. Eugenia G. Benn, adviser on home and community interests for the Pennsylvania Department of Agriculture, but it is one of our most serious duties to see that children are cared for properly.

"We are so apt to feed the little ones what they cry for, thereby giving them credit for judgment which no child has, and few grown people have. Because a nine-months-old child cries for a slice of beautiful red tomato is no sign we should give it to him. Mothers should remember that every time they give their children under two and one-half years any adult food they are doing that child an injury. When you feed children under five years meat diet you are doing them an injury. Their little digestive organs are not developed to take care of noodles, meat, coarse vegetables and peanuts any more than their hands are ready to hold the plow handle.

"A little mother was so disturbed about her nine-months-old bady the other day because he was so cross he would not lie down or go to sleep while she did her work. She was nursing him, but he was not getting nourished. She had more sense than to feed him potatoes and gravy, but we soon worked out a food of oatmeal cooked for two hours modified with cream or milk to suit the digestion of the child, which, together with graham crackers and a little finely scraped apple or orange juice, fitted him up so nicely that I had a letter from her telling me how much better natured he was.

"Mothers, have a care about the feeding of your children if you would have stalwart sons and girls whose natural complexions neither needs ruse nor treatment for pimples."

Every Patch a War Saver

To arouse interest in clothing conservation and to pass on helpful ideas, an Oregon home demonstration agent held an exhibit of remodeled garments, which had been loaned to her by the school of home economics of the Oregon Agricultural College. Following this exhibit the women called on her by phone for pointers and suggestions and brought their materials and problems to her office, having overcome their hesitancy to let their neighbors know they are patching up their old clothes. Records were kept of the cost of remodeling the garments and an estimate has been made of the money saved and war textiles conserved.

Little Ways of Saving Fats

Use bread and butter plates—yes, even if you do your own dishes. Every bit of left-over butter or margarine can be saved in this way. It can't be, or isn't always, if put on the dinner plate.

Taboo all recipes which say "fry in deep fat."

Save rinds from bacon, ham and other meats and fry them out.

Before washing butter jar, or any other dish that has held fat, set it on the stove. Particles clinging to sides and bottom will melt and can be poured off.

When you use nuts in any way, consider them fats and don't duplicate with other fats.

Don't grease your pancake griddle. Cakes can be baked without fat on just an ordinary griddle if it is the right heat.

When serving gravy with mashed potato, don't put any butter in potatoes. Simply beat them up light with milk.

Don't serve gravies and meat soups too rich. Skim off some of the fat for another day.

Don't put butter or other fat in dressing for poultry. If it is a fowl worth buying, it has fat enough of its own to season dressing.

Save oiled wrappers around bread, butter, etc., and use them to line cake and cooky tins.—American Cookery.

Laundering Handkerchiefs

The laundering of handkerchiefs is one of the most repulsive parts of the family washing, and if carelessly done is a means of spreading the germs of colds, catarrh, influenza and kindred diseases. The method used by Mrs. Frank E. Eckel of Boulder, Colorado, is both easy and sanitary. She describes it as follows in News Notes, a publication issued weekly by the Colorado Agricultural College:

"At this time when the 'flu' is so distressing, I thought my way of laundering handkerchiefs might be of some value to others. Having used this method for ten years, I find it very satisfactory.

"Put the handkerchiefs into a laundry pail; cover with cold water; add two tablespoonfuls of some good washing powder, also cut in a few pieces of soap. Place pail on gas or stove: boil for twenty minutes, stirring quite often. After boiling handkerchiefs set pail under cold water faucet and rinse thoroughly, then blue and they are ready to dry. By this method you do not touch with your hands until they are ready to blue. But the greatest of all is, the infected handkerchiefs do not come in contact with the rest of the laundry."

To Clean an Oiled Mop

An oiled mop which has become dirty and caked with dust may be washed in strong, hot suds, but this can be done much better if the mop is first washed in gasoline to cut the oil. Gasoline which has been used for cleaning may be saved for this purpose. After the mop is well washed in gasoline let it dry, then wash in suds. Then when thoroughly dry, oil it again and it is as good as ever.

The best way to apply the oil is to pour a little in the tin box the mop comes in, and put the mop with the strings down into the can, letting it remain for a few days to evenly absorb the oil.

The board of health solemnly urges the public not to sneeze, spit, cough, nor kiss. "Heavens!" exclaims an exchange, "What a mess of manifestations to coop up together in one's system!"

Mexican Rice

¾ cupful rice
2 tablespoonfuls fat
1 cupful tomato sauce
½ cupful grated cheese
½ teaspoonful salt

Cook rice in water until tender. Heat a frying pan very hot, add fat, and when melted, add rice. Cook until rice is slightly browned, stirring lightly with a fork. Put in a hot serving dish, pour over it tomato sauce, and sprinkle with grated cheese, lifting rice with fork that sauce and cheese may coat each kernel.

For a tomato sauce to be used with Mexican rice, take

2 tablespoonfuls fat
1 slice onion
1 tablespoonful cornstarch
1 cupful stewed and strained tomatoes
¼ teaspoonful salt
A few grains of paprika

Cook fat with onion until slightly browned, add cornstarch, and when well browned pour on tomatoes gradually, stirring constantly. Bring to the boiling point, add seasonings, and strain.

Reverence for Personality

MANY times and in many different ways it has been said that in this war we are fighting not against a people nor even against a king, but against a system of government which strives to subject the world to the authority of an absolute sovereign ruling by claim of absolute right without restriction. The American idea of government is exactly the opposite of this. We believe in the sacredness of the rights of the individual.

While our men across the water are giving their lives that this monstrous thing may not be thrust upon us, we on this side of the world may well see to it that the spirit of autocracy does not gain entrance here. "One who rules by undisputed sway in any company or relation" is an autocrat, according to the International Dictionary.

In our homes we must be watchful lest the natural tendency on the part of parents to guide and protect those dependent on their care lead them to arbitrarily decide questions affecting the lives of the children, denying them the right of choosing for themselves. From the honest desire of the wife to help her husband springs the temptation to dictate to him in business affairs or in personal matters, while the husband, on the other hand, may feel justified in insisting that the entire family follow his judgment in making purely personal decisions. Sometimes it is a son and perhaps more often a daughter who assumes this dictatorship in the home, directing the affairs of all with the blind confidence of youth in its own untried judgment.

In the neighborhood, in clubs, associations, and societies, even in the church and school, the same self-imposed authority may be exercised. Leaders we must have, but an autocrat is always undesirable, even though his motives may be the best.

Each of us has his own distinct individuality. What is best for one may be far from the best for another. We cannot all eat exactly the same kind of food; we cannot all specialize in just the same lines of study or work; neither can we live our lives in just the same way. This age, more than any preceding it, stands for reverence for the personality of the individual and for his right to live his own life and make his own mistakes. There is room for much loving guidance and wise counsel in our homes, but there is no place in them for an autocratic spirit.

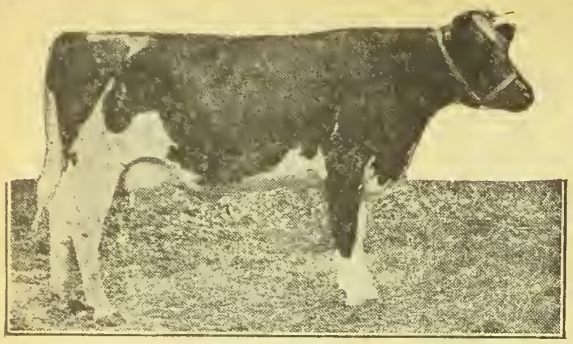
Ethel Whipple.

FASHION DEPARTMENT

All patterns, 10 cents.



No. 9015 — Child's One-Piece Box-Plaited Dress—Cut in sizes 2, 4, 6 and 8 years. The dress has a square yoke at front and back, and the fastening is to be found on the left shoulder. Two box plaits at front and back come from under the yoke, but they are crossed and held in place by the narrowest of sash ends, which tie loosely under each arm. **No. 9027 — Misses' and Small Women's Dress**—Cut in sizes 14, 16, 18 and 20 years. No. 9027 has a plain waist which is semi-fitted, and the lower edge at the front may be cut either in shaped or straight outline. The neck is cut in V-shape. The one-piece straight gathered skirt may be made with or without the trimming bands. **No. 9036—Ladies' and Misses' Two-Piece Skirt**—Cut in sizes 16 and 18 years and 26, 28, 30 and 32 inches waist measure. The panels may be either at the front and back or at the sides, whichever may be preferred. There is a deep tuck and also a deep hem at the lower edge of each panel.



PUBLIC SALE OF CHOICE

Pure Bred Holstein Cattle

135 HEAD---TWO DAYS

LINWOOD, KANSAS, FRIDAY AND SATURDAY, NOV. 29 AND 30, 1918

The Greatest Opportunity of the Year to Secure High Class Pure-Bred Holstein Females.

On Friday, November 29, beginning at 12 o'clock, noon, the **Linwood Boys' and Girls' Pure-Bred Holstein Club** will sell forty-eight of heifers, just old enough to breed. This is one of the classiest and best bred lots of heifers ever put into a sale in the Central West. Every one of them is sired by a well-bred bull and out of high-producing dams. The very best producing families of the breed are represented. Anyone in the market for foundation stock cannot afford to overlook this opportunity.

ON SATURDAY, NOVEMBER 30, BEGINNING AT 10 O'CLOCK, A. M., THREE CONSIGNMENTS WILL BE SOLD.

A. S. NEALE, OF MANHATTAN, KANSAS, will sell forty head selected from his herd of 250 head. This is not a consignment of culls, but includes some of the very best young cows and heifers in the herd. Those of breeding age are in calf to either a bull whose dam made over thirty pounds of butter in seven days, or to one whose dam has a record of 27,844 pounds milk and 1,159 pounds butter in a year. Everything in this lot guaranteed to be right in every way. Not an old cow, or one with unsound udder, in the lot.

ELLIS & BECK, OF OMRO, WISCONSIN, two young breeders who are engaged in war activities, will sell their entire herd of thirty-two head, half of which are of milking age. This is a herd of good ones and could not be bought were not both owners with the colors. Only high-class females were selected as foundation cows, and these were mated to choicely-bred bulls. Do not miss the chance to get some of these excellent cattle.

THE UNITED STATES DISCIPLINARY BARRACKS, OF LEAVENWORTH, KANSAS, will sell a few well-bred bulls.
All animals over six months of age tuberculin tested by approved veterinarians.

Linwood is twenty miles west of Kansas City and can be reached by either the Union Pacific Railroad or the Kaw Valley Electric. Hourly service to Kansas City and Lawrence.

Remember the dates and plan to attend both days. For catalog address

Auctioneer, J. E. MACK, Ft. Atkinson, Wis.

A. S. NEALE, Sale Manager, Manhattan, Kansas.

Opportunity Shorthorn Sale

A Select Draft From Two Good Herds

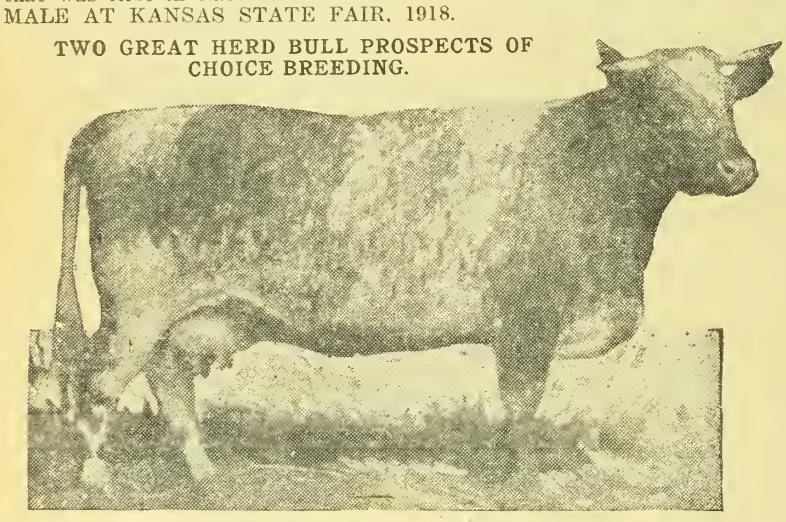
At Kansas City Fine Stock Pavilion

Saturday, Nov. 23, The American Royal Week

50 HEAD SCOTCH and SCOTCH TOPPED SHORTHORNS

The equal of any draft of cattle ever consigned to a public sale, including a part of the 1918 show herd that includes the Crystal Maid cow that was first in class at three State Fairs and SENIOR CHAMPION FEMALE AT KANSAS STATE FAIR, 1918.

TWO GREAT HERD BULL PROSPECTS OF CHOICE BREEDING.



CRYSTAL MAID

A large part of this offering will be bred to Prince Valentine 4th, a bull that needs no introduction to Shorthorn breeders, having won honors in five state fairs, first in class as calf, first as yearling, first as two-year-old, undefeated for Junior Champion honors, except at the American Royal, where he stood second.

The female end of this offering are all regular producers, having produced a calf each year. All the females of breeding age either have calves at foot or showing heavy in calf. They are in good breeding condition. The mature cows average 1450 pounds, of strictly good colors and heavy milkers. Catalogs ready to mail out November 1st. Please send for one and arrange to attend our sale. We guarantee a good offering. Write for catalog to

H. H. HOLMES, Route 28, Topeka, Kan. **or A. L. HARRIS,** Route 2, Osage City, Kan.

Auctioneer, COL. P. M. GROSS, Kansas City, Mo.

POSTPONED

J. T. Lewis' Public Sale Will Be Held

WEDNESDAY NOVEMBER 20, 1918

POSTPONED ON ACCOUNT OF RAIN FROM THURSDAY, NOVEMBER 7

TWENTY-FIVE REGISTERED HORNLESS SHORTHORNS

PAPERS FURNISHED.

Ten cows. Six heifers fifteen to nineteen months. Four heifers five to ten months. Three bulls seven to thirteen months. One bull two years old. Also general farm sale.

LOCATION—1½ miles west and 1½ miles north of Stilwell; one mile west, 4½ miles south of Stanley; ten miles southwest of Belton, Missouri, in Johnson County, Kansas, fourteen miles southeast of Olathe.

COLS. ANDY JAMES AND ED CALLAHAN, AUCTS.
P. H. KELLOGG, CLERK.

J. T. LEWIS

POLAND CHINAS.

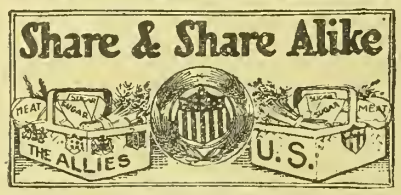


Faulkner's Famous Spotted Polands

THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.



FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

Address All Communications to Kansas Farmer, and Not to Individuals

Personal mail may have to be held for several days, or be delayed in forwarding, and Kansas Farmer cannot assume any responsibility for mistakes occurring thereby

CLAIM SALE DATES.

Jacks and Jennets.
March 25, 1919—H. T. Hineman & Sons, Dighton, Kan.

Holsteins.
Nov. 29—Boys' and Girls' Pure-Bred Holstein Club at Linwood, Kansas. A. S. Neale, Manhattan, sale manager.
Nov. 30—Consignment sale, Linwood, Kansas. A. S Neale, Manhattan. sale manager

Herefords.
Nov. 19—Robert H. Hazlett, El Dorado, Kan. Sale at Kansas City, Mo.
Nov. 23—J. O. Southard, Comlskey, Kan.

Shorthorn Cattle.
Nov. 23—H. H. Holmes and A. L. Harris. Sale at Kansas City, Mo.

Poland Chinas.
Feb. 18, 1919—F. Olivier & Son, Danville, Kan. Bred sow sale.

Duroc Jerseys.
Jan. 28—W. R. Huston, Americus, Kan. Duroc dispersion and general farm sale.

Spotted Poland Chinas.
Dec. 17—Geo. Akens-Faller & Miller, Rossville, Kan.

Chester Whites.
Feb. 11—Arthur Mosse, Leavenworth, Kan.

The Schmitz Brothers Poland China sale at Seneca, Kansas, on November 7, resulted in the disposal of fifty-three head of March and April pigs at an average of $61.75. The top price of $120 was paid for No. 6 gilt, going to the good herd of Moore & Walkington, Bartley, Nebraska. Had the weather conditions been favorable the average would have been much higher. The results received for the offering were very satisfactory to the Schmitz brothers, who announced a March 4 bred sow sale, at which time they will have a splendid offering.

POLAND CHINAS

ERHART'S POLAND CHINAS

Have a great lot of spring boars for sale. Some by the 1200-pound, A Big Wonder. Will make prices on pairs and trios not related. All immuned. Write your wants. Bred Sow Sale Feb. 19, 1919.

A. J. ERHART & SONS
NESS CITY, KANSAS

H. O. Mott's Poland Chinas

For Sale—Fifteen spring boars and ten spring gilts, priced for quick sale at $35 to $50. First check gets choice. Guaranteed right or money back.

H. O. Mott, White City, Kansas
R. F. D. 4

LONE CEDAR POLANDS

Strictly big type March and April pigs, either sex. Nothing but tops shipped. Prices reasonable. Guarantee to please. All cholera immune. **A. A. MEYER. McLouth, Kansas.**

LANGFORD'S SPOTTED POLANDS—April boars ready to ship; also summer pigs.
T. T. LANGFORD & SONS, Jamesport, Mo.

White Oak Park Polands

Twenty Spring Boars for Sale by the 1,100-pound Missouri Jumbo and Surprise Wonder. Three of the tops at $75, the rest at $50. All cholera immuned and will be recorded in buyer's name. I have two full brothers to Northern Jumbo, the first prize and reserve grand championship pig. All sales guaranteed as represented or your money back.

HENRY KOCH - EDINA, MISSOURI

Oxford Herd Poland Chinas

Herd boar, Giant Lunker by Discher's Giant out of Lady Lunker. I have 57 early spring pigs. A few choice boars. Priced to sell. Come and see me; I can please you.

Howard R. Wenrich
Oxford - - - - Kansas

Townview Herd Poland Chinas

Ten Rugged Spring Boars, weight about 175 pounds, at $50 each. **Eight March and April Boars,** weight 135 to 150 pounds, $40 each. These boars are immune, heavy-boned and ready for business. Send check and get hog guaranteed to please you.
CHAS. E. GREENE, PEABODY, KANSAS

Henry's Big Type Polands

March and April pigs sired by Mammoth Orange, Smooth Prospect and Big Bob 2d, out of sows the best of big type breeding. Everything immune.

John D. Henry, Route 1, Lecompton, Kansas

HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that weigh and win. S. C. Brown Leghorn Chickens that lay. See or write

S. Y. BURKS, BOLIVAR, MO.

America can ship 50 per cent more food this year if we are all 50 per cent better Americans.

JERSEY CATTLE.

REDHURST JERSEYS

FOR SALE—Nobis's Jolly Actor No. 155761. Solid color, born October 14, 1916. Sire (the imported son of Golden Jolly), Golden Jolly's Masterpiece No. 86295, with six tested daughters out of Noble's Eminent Jess, a R. of M. cow whose dam is also in the R. of M. and whose sire, Noble's Oxford Sultan No. 106403, with six tested daughters, seven of Noble of Oakland's with 65 tested daughters and whose dam is in the R. of M. and since by Sultan's Oxford Lad, his great dam also in R. of M. Also a few calves and yearlings of like breeding. The home of the only living son of Golden Jolly in America.

Redmon & Son, Tipton, Mo.

100 Good Jerseys for Sale

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.

J. W. BERRY & SON, Jewell City, Kan.

SHORTHORN CATTLE.

Pearl Shorthorn Herd

One of the oldest and strongest herds in the West, Scotch and Scotch-topped reds and roans. Yearling bulls and well grown last spring calves. Mostly sired by Marengo Pearl 391962 and Orange Lovel 420052.

C. W. TAYLOR, - ABILENE, KANS.

SHORTHORN BULLS

For Sale — Ten bulls, seven to fifteen months old; Scotch and Scotch topped. Two Scotch bulls by Type's Goods, one a Brawith Bud, the other a Duchess of Gloster. All in good condition and priced reasonably.

S. B. AMCOATS, CLAY CENTER, KANSAS
Write Me Your Wants

MARKS LODGE RED SHORTHORNS

For Sale—Bulls 12 to 14 months old, Sired by Double Diamond by Diamond Goods. Dams by Cholce Lancaster. Priced for quick sale, $150 up. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

RED POLLED CATTLE.

RED POLLED CATTLE FOR SALE

Young bulls and some extra good young cows to calve in early spring. A few yearling heifers.

I. W. POULTON, MEDORA, KANSAS

FOR SALE

Red Polled cows, heifers and bulls. Special price if taken at once.

W. J. HARRISON - AXTELL, KANSAS

RED POLLS, BOTH SEXES, BEST OF BREEDING.

Charles Morrison & Son, Phillipsburg, Kan.

HAMPSHIRE HOGS

Hampshires on Approval



Choice spring boars and gilts weighing up to 200 pounds. Two prize winning fall boars weighing 350, also fall pigs. My herd won nine champions, twenty firsts and twenty-seven seconds at the two Kansas State Fairs. Best of blood lines.

F. B. Wempe, Frankfort, Kan.

BECKENDORF'S HAMPSHIRES

I AM NOW OFFERING a grand lot of big, heavy-boned boars and gilts, sired by as good herd boars as money can buy. Every hog shipped a good one or be can be returned. Inspection invited. Write or telephone at my expense.

J. E. BECKENDORF, Box 144, Walnut, Iowa

Registered Hampshire Hogs—Sows and Spring Gilts, bred or open. Choice spring boars. Double treated. **Geo. W. Ela, Valley Falls, Kansas**

AUCTIONEERS.

FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. **VALLEY FALLS, KANSAS**

W. B. CARPENTER Live Stock Auctioneer
Write or wire for date.
818 Walnut Street Kansas City, Missouri

LIVE STOCK AUCTIONEER — Fifteen years' experience. Wire for date.

JOHN D. SNYDER, HUTCHINSON, KAN.

MULEFOOT HOGS.

KNOX KNOLL MULEFOOTS

Thred sows, spring gilts and boars. Weaned August pigs. Priced for uick sale. Satisfaction guaranteed. Free catalog.

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Frost's Big Smooth O. I. C.'s

Forty Spring Pigs, Two Yearling Boars and 100 Early Fall Pigs.

All from prize winning blood and priced for quick sale. Write us today.

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A gasoline engine will not stand much overload, therefore be sure to select an engine large enough to do the required work. An engine lacking in power is a constant source of aggravation.

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Duroc Boars, immune and guaranteed breeders, shipped to you before you pay for them. The big Southeast Nebraska herd bred for size, bone and length. "Eventually" you will breed the "Crocker Type." "Why not now?"

F. C. Crocker, Filley, Nebraska
Box K

DUROC BOARS

For Quick Sale — 25 Head of Large Spring Duroc Jersey Boars, of March and April Farrow

Sired by Illustrator Orion 3d, Pet's Great Wonder and Cherry King Disturber. Priced reasonable and guaranteed right in every way or your money back. Write me your wants.

JOHN W. PETFORD
Saffordville - - - Kansas

DUROC BOARS

For Sale—A few choice spring boars, selected from forty head. Sired by a son of Great Wonder, a son of Illustrator and Cherry King Disturber. A few gilts, same breeding, priced bred or open.

W. A. Wood, Elmdale, Kansas

HIGHVIEW DUROCS

Home of Repeater by Joe Orion King and Golden Reaper by Pathfinder. For sale—spring boars and a few bred gilts. I guarantee satisfaction or your money back.

F. J. MOSER - - - GOFF, KANSAS

CONYERS HERD DUROCS

Herd boar, King Conyers by King the Col. Sows in herd by Golden Model, Graduate Chief, Cherry Chief and other good breeding. For sale, one extra good spring boar sired by Pathfinder and one by Great Wonder. Fifteen spring gilts by Royal Critic. Come and see me.

B. W. CONYERS - MARION, KANSAS

HUSTON'S DUROCS

Forty Double Immuned Big Rugged Herd Heading Boars, sired by Great Wonder 2d and out of dams mostly by Taylor's Model Chief, winner at Missourl and other fairs. Buy them cheap now.

W. R. HUSTON - AMERICUS, KANSAS

DUROC BOARS OF QUALITY

Choice March boars, sired by the great herd boar, Reed's Gano, first prize boar of Kansas and Oklahoma State fairs. Also Illustrator 2nd and Golden Model. Fine growthy boars, well built and nice color. All immuned. Priced to sell quickly.

JOHN A. REED & SONS, LYONS, KANSAS

WOODDELL'S DUROCS

Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

Ellen Dale Breeding Farm

Offers Duroc Jerseys of blood lines of Watson's Wonder, Ideal Pathfinder, Crimson Orion King and Joe Orion 5th, also a one-year-old herd boar, a grandson of King the Col., and one-year sows bred or open. Also Shorthorn bulls.

R. C. WATSON - ALTOONA, KANSAS

FARM AND HERD.

W. A. Wood & Son, of Elmdale, Kansas, have built up one of the good herds of Durocs in Kansas. They have at the head of the herd a son of Great Wonder and a son of Illustrator and Cherry King Disturber, three boars that have stood out in the limelight for years. A feature of the Wood & Son herd at this time is a choice lot of March and April spring boars and gilts.

The L. V. O'Keefe fall sale of Poland Chinas held at the farm near Bucyrus, Kansas, on Monday, November 4, resulted in the disposal of forty-four head, mostly March and April pigs, at an average of $46.65. The top price for males was $80 and the top price for females was $160. This was considered one of the good sales of the season. While no sensational prices figured in the auction, the averages were very fair.

The sale of Poland China spring boars and gilts of Adams & Mason, of Gypsum, Kansas, on October 31, resulted in the disposal of fifty-five head at an average of $70. The offering was one of the best to pass through a sale ring and there is much credit due Messrs. Adams and Mason for the splendid sale arrangements and the presentation of their sale offering.

The Poland China sale of Jones Bros., Hiawatha, Kansas, was held on November 9 as advertised. A large crowd of farmers and breeders was present and the bidding was spirited and snappy all the way through. Forty head of spring boars and spring gilts sold for $2,876, or an average of $71.40. While no sensational prices figured in the auction, the averages were very fair. The Jones Brothers are the owners of one of the good herds of Poland Chinas of Kansas and they have claimed March 4 for a bred sow sale. On this date they promise to have an attractive offering of Poland China sows of choice breeding.

The Linwood Boys' and Girls' Pure-Bred Holstein Club Sale to be held at Linwood, Kansas, November 29, will be one of the big events in Holstein circles this season. The Boys' and Girls' Club has catalogued forty-eight head of very high-class pure-bred heifers just at breeding age, every one sired by a well-bred bull and out of high-producing dams. The best producing families of the breed are represented in the offering. The Calf Club sale will be followed November 30 by a consignment sale of pure-bred Holsteins from the herds of A. S. Neale, Manhattan; the United States Disciplinary Barracks, Leavenworth, and Ellis & Beck, Ormo, Wisconsin. Mr. Neale will sell forty head selected from his great herd of 250 head. Ellis & Beck will sell their entire herd of thirty-two head, and the United States Disciplinary Barracks will offer a number of choice bulls. The sale will be under the management of A. S. Neale, Manhattan.

The sale of Poland Chinas of Ketter Bros., Seneca, Kansas, on November 8, resulted in the disposal of thirty-nine head catalogued at an average of $52.50. The top price of $80 was paid for gilts Nos. 28 and 38. No record prices were made, but the returns for the offering were very satisfactory to Ketter Brothers. The Ketter Brothers breed a uniform type that any farmer or breeder can add to his herd with good results.

The Poland China pig sale of Earl Bowers, McLouth, Kansas, November 6, resulted in the disposal of fifty-two head at an average of $55. While no sensational prices figured in the auction, the averages were very fair. The sensational litter by Caldwell's Big Bob was an attraction and sold for good prices to breeders of good herds. The top of the sale was $140 paid for No. 4, a Caldwell's Big Bob gilt going to Alva McNee, McLouth, Kansas. The threatening weather conditions probably kept many breeders from a distance away, but the local support was good and the total returns for the offering were very satisfactory to Mr. Bowers.

Modern Herefords

HAZFORD PLACE, EL DORADO, KANSAS

FIRST PUBLIC SALE

Cattle of my own breeding at Fine Stock Sale Pavilion, Kansas City, Missouri, on the forenoon of November 19, during the American Royal Live Stock Show.

Wm. Condell, Herdsman. **ROBT. H. HAZLETT**

HOLSTEIN CATTLE.



SAND SPRINGS FARM

Registered Holsteins—The Long Distance Kind

Watch for our consignment to the State Breeders' Sale, November 1.

E. S. ENGLE & SON - ABILENE, KANSAS



ARE YOU A MEMBER?

The Holstein-Friesian Association of America—the organized breeders of cattle of that name, was organized in 1885, then having 275 life members. Today it has nearly 12,000 members, and is recording 80,000 Holstein-Friesian cattle per year, giving employment to 150 clerks, and has a reserve fund of nearly a quarter of a million dollars. It spends nearly $50,000 per year for publicity and extension work, promoting the interests of its membership. The Holsteins are prosperous and popular.

If interested in

HOLSTEIN CATTLE

Send for our booklets—they contain much valuable information.

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 114, Brattleboro, Vt.

Registered Holsteins

King Segis breeding, bulls four to six months old, $45 to $65. Few bred heifers at $165 to $250. Seven heifers fresh in July. One yearling bull. First check of $1,050 takes the eight head.

S. E. STOUGHTON
HUTCHINSON KANSAS

For Sale—Thrifty Holstein-Friesian Calves

Either sex. Practically pure-bred, from registered bulls and high producing dams. $25 crated, f.o.b. Chanute. Safe delivery guaranteed. Six registered bulls from two to ten months old. These are beauties, $75 to $100. Also thirty registered Duroc-Jersey pigs, either sex, three to five months old, $30.

MAGEE DAIRY FARM, CHANUTE, KAN.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

REGISTERED HOLSTEINS

If you want big producers, males and females, write us. All our own breeding.

Lilac Dairy Farm
Route 2 Topeka, Kansas

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Service bulls; bull calves. Their heifers will outyield the dams by 10-50 per cent.

H. B. Cowles, 608 Kansas Ave., Topeka, Kan.

HIGHLY-BRED HOLSTEIN CALVES

Beautifully market, twelve heifers and two bulls from heavy producing dams at $25 each, crated for shipment anywhere. Safe delivery guaranteed. Write

FERNWOOD FARM
Wauwatosa - - - - - Wisconsin

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Choice, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write

W. C. Kenyon & Sons
Holstein Stock Farms, Box 33, Elgin, Illinois

HOLSTEIN CATTLE.

BUTTER-BRED HOLSTEINS

Three choice registered Holstein bulls, ready for light service, and some bred heifers to a 32-pound sire.

J. P. MAST, - SCRANTON, KANSAS

SEGRIST & STEPHENSON, HOLTON, KANSAS

Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

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$15 Holstein or Guernsey CALVES

From Waukesha County heavy producing stock. Write us today, we guarantee to satisfy you.

RIVERDALE FARMS, Oconomowoc, Wis.

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Good individuals of serviceable age, of May Royal, May Rose, Masher Sequel, Raymond of the Preel breeding. Write or come and see them.

ADAMS FARM, GASHLAND, MISSOURI
Twelve miles from Kansas City.

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H. C. LaTourette, Route 2, Oberlin, Kan.

HEREFORD CATTLE
F. S. Jackson, Topeka, Kan.

RED POLLED CATTLE
Mahlon Groenmiller, Pomona, Kansas.

POLLED DURHAMS
C. M. Albright, Overbrook, Kan.

SHROPSHIRE SHEEP



FOR SALE

A bunch of good big **Registered Shropshire Bucks,** not high in price. Also registered ewes.

Howard Chandler, Chariton, Ia.



SHROPSHIRES—BRED EWES

Won 2 champions, 7 firsts and silver cup at 1918 Iowa State Fair **Wsight and Wool Win.** Yearling rams and ewes bred to imported prize winning rams for sale at farmers' prices. **C. W. & Frank Chandler, Kellsrton, Ia.** (80 mi. from St. Joseph)

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GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

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LOOK HERE, ANGUS BREEDERS!

I want to reduce my herd of registered Angus cattle consisting of cows, bulls and heifers. Attractive prices for early buyers. If you want the best kind of low-down, beefy Angus, come at once.

D. J. WHITE, - CLEMENTS, KANS.

Dietrich's Aberdeen-Angus

Aged bulls, fifteen choice spring bulls, Females, all ages.

GEO. A. DIETRICH, CARBONDALE, KAN.

HORSES AND MULES.

PERCHERON-BELGIAN-SHIRES

Registered mares with colts at side and bred again; registered fillies, stallions one to five years old; grown ourselves the ancestors for five generations on dam side. Sires imported.



Fred Chandler, R. 7, Chariton, Iowa
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PERCHERON STALLIONS

Some good young stallions sired by Algare and Bosquet, two great herd sires. These young stallions are very promising and priced to sell.

D. A. HARRIS - GREAT BEND, KANSAS

JACKS AND JENNETS

Registered Jacks and Jennets. Good individuals, good colors. Have some choice young jacks that are priced to sell quick.

GEO. S. APP, ARCHIE, MISSOURI

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YOU NEED THIS BOOK

GET STARTED RIGHT

There is no better time than right now to begin keeping Farm Records so that you will have the required information ready to make your income tax statement next year. No doubt you are already keeping your records. You want the most simplified and easiest way. Get this book. It's FREE.

PRACTICAL ACCOUNT BOOK

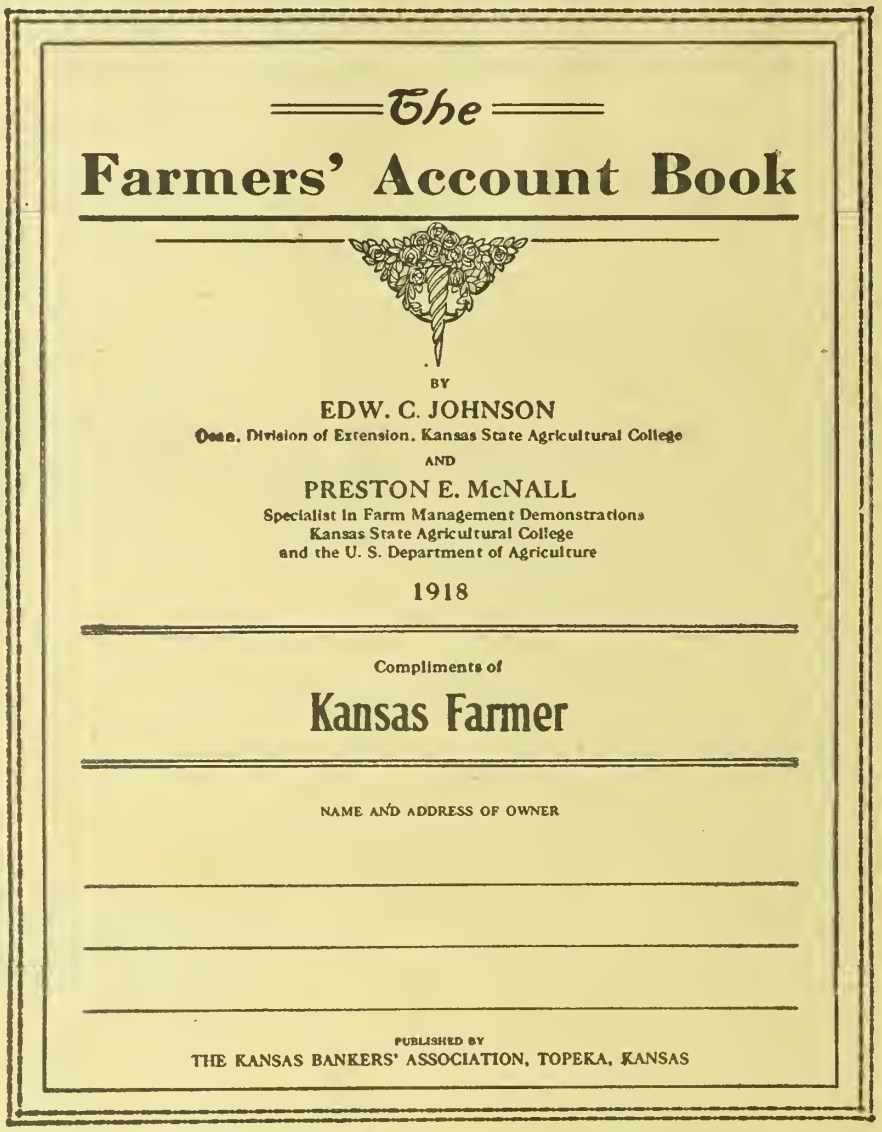
This book is a PRACTICAL Farm Account Book which has been developed under the direction of the United States Government men, working in co-operation with hundreds of farmers in Kansas. It is not merely theoretically correct, but has been prepared to fill the needs as shown by practical use on farms in this state.

THIS BOOK WILL MAKE YOUR WORK EASIER

Keeping accurate records of farm business is becoming more and more popular, not only because it is practically necessary for the income tax statement, but also for the value of the records to the farmer. The most important thing, however, is to secure and keep the information desired with the least amount of work and time; that is, in the simplest way.

The book which KANSAS FARMER is offering on this page, FREE to subscribers, is gotten up with the idea of keeping all the information necessary and valuable with the smallest amount of work. The book is a one-year record. It is small and convenient to keep. It contains full but simple instructions on how to keep the records required, with sufficient blanks for all entries.

ONE-HALF ACTUAL SIZE



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A PRACTICAL BOOK NOW IN USE BY FARMERS

The book is published by the KANSAS BANKERS' ASSOCIATION. It has been prepared by Dean Edwin C. Johnson and Preston E. McNall, both of the Extension Division of the Kansas Agricultural College, who have done their work on the book in co-operation with the United States Government.

This book has been used in Farm Management studies on hundreds of farms in Kansas where owners have heartily co-operated and offered many valuable suggestions for making it thoroughly practical and suited to actual farm conditions. These suggestions have been incorporated in this latest edition.

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It is the ultimate object of the Internal Revenue Office to adopt a uniform method of computing farmers' incomes. This includes farm inventories, farm receipts, and farm expenses, and follows very closely the book which is given by KANSAS FARMER to its subscribers. From year to year there may be a few slight changes made. For this reason it is best to buy a one-year book in order that each year your book will conform to the Internal Revenue rulings for that year.

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NOV 23 1918

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 47. TOPEKA, KANSAS, NOVEMBER 23, 1918. Established 1863. $1 a Year

LINWOOD DAIRY CALF CLUB SALE

Club Calves Have Made Fine Growth and Development

THE pure-bred Holstein heifer calves distributed to the Linwood Pure-Bred Dairy Calf Club last spring have responded wonderfully to the care given them by the boys and girls of the club during the past season. Many of the heifers have doubled in weight since March 30, the day of the distribution. These calves were all furnished by A. S. Neale of Manhattan and are of unusually good breeding. Most of them are daughters and granddaughters of some of the most noted of Holstein sires. Many pure-bred herds will probably be started with these heifers as foundation animals.

We spent a day recently with I. N. Chapman, county agent of Leavenworth County, and in the course of the day visited a dozen or more of the calf club members and saw their calves. Last spring when the youngsters came into possession of these calves they were given some good wholesome advice about caring for pure-bred animals. They were told how important it was to give them the best of care and feeding so that they would develop as they should. It takes more than well-bred cattle to make success in dairying, and the boys and girls were told that it was up to them to make the most of these calves that had come into their possession. If they fed them well and brought them back to the sale which was to be held in the fall showing proper development and in good thrifty condition, they could count on buyers being present who would bid up on these heifers even to double their cost in the spring, which would mean a fine profit to the club members.

As we went from farm to farm in the fine dairy country around Linwood, we were impressed with the generally good work being done by members of this club. In almost every instance the heifers were so gentle that their proud young owners could go up to them in the pasture and pet and handle them. The calves themselves gave evidence of the care and feed they had received. Oats and corn chop seemed to have been a favorite grain ration and all the calves we saw had been given some grain all summer. Some were grazing on blue-grass pasture and some on wheat. Wheat is being extensively grazed by all kinds of stock in this section, and it is saving thousands of dollars in feed. The club heifers had that air of contentment always found in well-kept dairy herds. At the time of distribution they were not in the best of condition. In fact some of them were very thin. Orville Hughey, whose heifer weighed 420 pounds the last time he had her on the scales, which was some time ago, said she was almost skin and bones when he got her last spring, but he had been feeding her oats and corn chop all summer and now she was nice and fat and at least twice as big as she was in the spring. Orville and his brother Harold, who also is a club member, were in school, but we stopped and picked them up at the schoolhouse, asking their teacher to excuse them long enough to show us their calves, which were in a near-by pasture.

The next calf we saw was a beautiful heifer belonging to Hazel Parry, who lives only a short distance from Linwood. She calls her calf Josephine, although that is not her real name in the Holdstein herd book. She had made a fine growth, and will tempt some good judge of dairy cattle on sale day, but Hazel says she will not let anyone buy her, no matter how high they may bid. She had fed her heifer about two pounds of oats and a little oil meal daily in addition to good pasture all summer and fall. When we left Hazel at the schoolhouse she got permission to bring out her notebook, in which she had recorded the weights of the heifer. October 16 she weighed 580 pounds; July 26, 455; and May 23, 345. She had no earlier weights.

When the club members gave their notes to Mr. Martin, the Linwood banker, they agreed to keep account of the feed given their calves and its cost. Blanks were furnished for the purpose by Mr. Chapman. They also agreed to come to a meeting in Linwood the third Saturday in each month, which was to be in charge of the county agent. At one of these meetings Mr. Chapman gave them an illustrated lecture on the different breeds of dairy cattle. Many questions were asked about feeding and care. On June 8 they went on a tour, visiting the farms of the different club members. There were fifty-six in the party that day, members of the club and their families and friends. Captain Fisk of the United States Disciplinary Barracks at Leavenworth was with the party and gave some good dairy talks at the various stopping places. It perhaps is not generally known that one of the finest pure-bred Holstein herds in Kansas is that kept in Leavenworth by the Federal Government. Here on this farm delinquent soldiers by the thousands are taught how to handle dairy cattle and perform other farm tasks as a part of the disciplinary work. Uncle Sam is not satisfied to simply punish soldiers who do wrong, but is trying to teach them useful things during the process. These meetings of the club have been profitable not only to the boys and girls, but to their parents, in arousing interest in better dairy cattle methods. Leavenworth County is in a fair way to become a real dairy center. Conditions are favorable for dairy farming, and in all probability the organization of a county Holstein breeders' association will be the next step in dairy development.

The members of this calf club have not been allowed to get careless with their records. Not all have been equally faithful in this part of the work, but they have been given fair warning that in awarding the prizes on the day of the sale the records kept and sent in to Mr. Chapman each month will be given consideration by the judges. The best heifer will not necessarily win unless the boy or girl owner has kept account of the feed and regularly furnished the required reports.

We looked over the records as they are filed in the county agent's office. We will give some of the facts and figures found in the reports of Henry Burdorff to show the kind of work the boys and girls have been doing. Henry reports on only two weeks in the first statement filed. He fed two and a half pounds of bran daily and two pounds of oats, the bran costing 74 cents for the two weeks and the oats 61 cents. He charged 30 cents for pasture. The weight of the calf was estimated at 325 pounds. He asked in the blank space for questions if currying the calf would keep the skin healthy and help it otherwise. We presume Mr. Chapman answered in the affirmative, for we heard him give careful instructions to every boy and girl we saw on the day of our drive about brushing and cleaning the calves up, trimming the hair on their legs and tails, polishing their horns, and giving other little attentions designed to make them look their best on sale day. Henry also made the following notation on his first report:

"My calf was eight months old at the start of the contest and was in very good condition, but had several ringworms on her head and neck. I applied tincture of iodine with a swab of cotton to the affected parts, which cured them. For the first week I kept her in the barn and fed her hay and grain. The second week I turned her out in the lot where there was some grass, but still fed her hay and grain."

From May 18 to June 15 he fed one and a half pounds of bran daily, costing 74 cents for the month, and one and a half pounds of oats daily, costing for the period $1.05, with pasture valued at 50 cents, or a total feed cost for the month of $2.29. This report shows the actual weight of the heifer May 23 as 415 pounds. On the next report he wrote that she was developing a little lump on her jaw which he feared was lumpy jaw and said he would have a veterinarian examine it at once. Lumpy jaw can be cured in the early stages quite easily, but if neglected gets into the bone and then it is too late and the animal must be sacrificed. Beginning September 21 he began feeding three pounds of bran, three pounds of oats, and three pounds of corn daily, and charged one dollar for hay and pasture for the four-week period following. The total feed bill for the month was $6.67. We did not see this calf, but we feel sure it will look well at the sale with such liberal feeding.

Every boy and girl in the club will get a prize on sale day. The calves were grouped in six classes when they were distributed and the first prize in each class is a silver trophy cup. The second prize is a watch, and all others will get a gold-handled pen knife. These gifts and trophies, which are all appropriately engraved, have been furnished by the Kaw Valley Railroad Company. They are now in the hands of H. B. Browning, who is a member of the committee that helped distribute the calves. The committee has in addition $25 from Mr. Neale to be used as prize money. The sale will be held on Mr. Browning's farm.

We feel sure these calves will sell at a sufficient advance over what they cost last spring to return a good profit. We saw heifers that would cost $250 to $300 if purchased from the herds of established breeders of Holstein cattle. Some of the heifers will not be permitted to leave the farms where they have been given such good care the past summer, but will be kept and bred to become foundation animals in pure-bred herds. The boys and girls are to have the privilege of placing a bid on their heifers when they are put up for sale.

This sale of the Linwood Pure-Bred Dairy Calf Club may turn out to be the forerunner of regular annual sales of good dairy stock in Leavenworth County. This is an outcome that would bring the greatest satisfaction to those who have given so generously of their time and energy in making the club a success.



SCENES ON DAY CALVES WERE DISTRIBUTED

MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Cooling of Gas Engine

IT IS necessary to maintain a temperature within the cylinder of internal combustion engines which will permit proper lubrication. Unless some system of cooling is employed, the engine parts would reach a red heat. Red hot parts cannot be lubricated, for the oil would be destroyed before it could perform its function. Every engine, therefore, must have some sort of cooling system. The following description of different cooling methods is from "Internal Combustion Enginess and Tractors," a pamphlet published by the International Harvester Company:

"**Air Cooling System.** — By furnishing the cylinder and head with fine or projecting ribs of iron, we are able to create a large radiating surface to carry away the heat.

"If a sufficient supply of air reaches these ribs, by fan or rotation of the engine itself, continuous operation of this kind of engine is possible. This system of cooling is used on small engines intended for short or intermittent work, on flying machines and often on cheap engines.

"**Hopper Cooling System.** — In this method a quantity of water standing in a hopper which surrounds the cylinder is depended upon to carry away the surplus heat by evaporation, so as to maintain satisfactory lubrication within the cylinder. The hopper requires replenishing at intervals depending upon its size. Care is necessary never to expose any part of the cylinder wall above the water, and also when refilling to pour in the cool water slowly, in order not to strain the cylinder by rapid chilling. An outside continuous water supply fed to the hopper, which will maintain a constant level, is preferable where available.

"The hopper cooling system is very useful in climates where freezing is likely to occur, as by proper shaping of the hopper any ice which may form can be given a chance to expand without injury to the engine.

"**Thermo-Syphon Cooling System.** — This method is extensively used, as it enables the cylinder temperature to rise rapidly to the desired or boiling point and automatically starts the water circulating through the cooling system.

"The basic idea of this system is the fact that hot water weighs less per gallon than cold water. For example, water about to freeze at 34 degrees F. weighs 62.4 pounds per cubic foot. Water at 212 degrees F., or just ready to boil, weighs 59.8 pounds per cubic foot. This difference in weight causes the heavy cold water to push up the lighter hot water. The regulation of the desired temperature is obtained by the height of the pipe above the cylinder. For low cylinder temperatures, this height is low. For high temperatures, the height is greater. The height of the pipe above the cylinder should never be more than will permit water to flow when the jacket reaches boiling temperature, otherwise steam only will come off. In any case, the water from the tank must keep the water level above the top of the cylinder.

"The chilling effect of a rapid supply of extra water is not as immediate with the thermo-syphon system as with the hopper. This system is very simple and effective.

"**Controllable Temperature Cooling System.**—Under certain circumstances it may be desirable to have a control over the temperature surrounding the cylinder. For example, an engine operating on gasoline will work well at cylinder temperatures ranging from 160 degrees to 180 degrees F., while kerosene requires for best results a higher range, say from 200 degrees to 212 degrees F.

"By a suitable arrangement the water from the pump can go through a short path by the opening of a valve or around and through the cylinder to the tank. As the path through the valve is shorter and with less friction, most of the water will circulate this way unless diverted by partly closing the valve.

"By regulating this valve any proportion of the flow can be circulated through this short line or around the cylinders with a corresponding change of temperature in the cylinder water jacket, which becomes cooler as more of the water goes around the cylinder.

"**Impulse System of Cooling.** — With the increasing use of the lower grades of fuels, the maintenance of uniform high jacket temperature became more necessary. The impulse system of cooling which achieves this result is the most satisfactory system of any for kerosene engines.

"By this device the pump keeps up a constant circulation from and into the tank. A large part takes the short circuit. The long circuit through the cylinders is fed by a small pipe. This small pipe is under the pump pressure, as is the large pipe, but the resistance through the cylinder and the loop at the top adds enough friction to the line so that no water flows in this direction until the cylinder heats up the water to a boiling temperature. When the water tries to rise above this temperature, steam is formed, which ejects on impulses a quantity of water over the loop and permits the entry of a supply through the small pipe. If the engine works under a light load, a few impulses are made; if it works under a heavy load, many are made, hence we have an automatic constant regulation of the temperature to or about the boiling point of water. This uniformity works a high efficiency in fuel consumption.

"**Pump, Fan and Radiator System.**—This system carries the water from the radiator through the pump and into the engine and back of the radiator for cooling.

"**Combined Pump, Fan, Radiator and Thermo-syphon.** — The thermo-syphon system is used entirely for the cooling of the cylinder, maintaining a constant temperature of the cylinder wall. The pump, fan and radiator is an independent system. The pump draws the water from the tank into the radiator, where it is cooled by the fan, and returns it through the tank where it is subject to the thermo-syphon action for cooling the engine.

"**Selecting the Water Supply.**—In all water cooling systems use clean rain or soft water, because hard waters deposit lime and similar sediments which incrust metal surfaces and prevent the heat from coming through to the water. When dirty water must be used, strain it. Hard waters are those which usually come from some depth and have absorbed certain mineral products, just as sugar is taken up by water. These substances are usually soluble in cold water, but are set free when the water is heated.

"Boiler compounds satisfactorily used with local waters may be used to remove the scale. Better, however, by far, prevent its formation by arranging for a supply of soft water.

"**Oil Cooling.**—Fluids other than water are seldom used in the cooling system, but oil has been used to some extent. If a light oil be used, such as kerosene or distillate, there is danger of fire; if heavy oils are used, such as fuel oil, they tend to congeal or solidify at low temperatures. In warm weather there is the disadvantage that oil can carry away only 45 per cent as much heat as water, so the cooling system must circulate the oil more than twice as fast around the cylinder to carry away the same amount of heat in a given time, and the cooling surface must be correspondingly larger to give up the heat to the air.

"As weight is an important factor, and easy, quick starting desirable, the disadvantages of oil cooling are considered greater than its advantages for tractors and even for stationary work."

Tractor Production in the U. S.

An investigation of the tractor situation in this country recently was completed by the Office of Farm Equipment Control, United States Department of Agriculture. It was desired to obtain accurate information regarding the status of the farm tractor industry in order to determine what action would be necessary to facilitate an adequate and equitable distribution of tractors throughout the country. The investigation was made pursuant to the President's proclamation of May 14, 1918, relating to the farm equipment industry, which was issued under authority of the Food Control Act of August 10, 1917. In connection with this investigation a report was received from every tractor manufacturer in this country concerning the number of tractors manufactured and their distribution between January 1, 1916, and July 1, 1918.

A summary of these reports is given below:

Number of Tractors Manufactured	
1916	29,670
1917	62,742
January 1 to June 30, 1918	58,543
Total for 1916, 1917, and first half of 1918	150,955
Number of Tractors Sold	
To users—	
1916	27,819
1917	49,504
To exporters—	
1917	14,854
1918, first six months	15,610
Number of tractors on hand, in transit, or in hands of dealers at time of report (August, 1918)	11,388

Housing a Tractor

Why is it that a man no sooner spends a thousand dollars for an automobile than he spends an additional five hundred or more for a garage to protect it. And then the same man will spend another thousand dollars or more for a tractor and allow it to repose in the feed-lot fence corner exposed to all the elements of the weather.

Just because a tractor has no upholstered tonneau or a piano-finished body is no reason why it should not be protected from rain, snow, dust or dirt. It has, however, like the automobile, a carefully adjusted motor, carbureter, magneto and many other parts, any of which can be quickly or easily ruined by rust or neglect.

Millions of dollars of farm machinery are allowed to go to waste each year because of neglect to house it properly. And nothing will keep the tractor in better condition than proper handling and a good garage. Tell your customers to house their tractors in the same kind of a shed they would put a first-class automobile. A roomy well lighted garage with cement floor will soon pay for itself in the upkeep of their tractor.

"When the boys come home" the tractor is going to have a good many thousand more competent chaperons in the field than it has now. Battalions of them are being taught how to take the tractor completely apart, put it together again and make it perform every function that a tractor is sold to perform. Great days are not only here now; they are also ahead.

Rules for Machinery Care

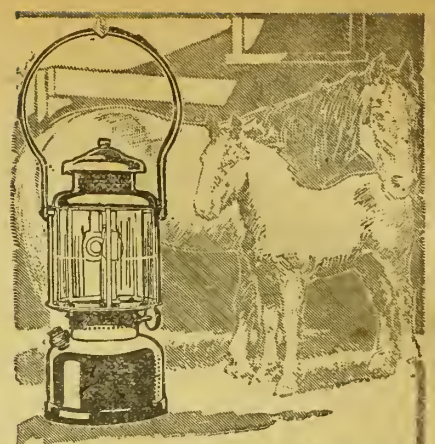
1. Learn every adjustment and its purpose.
2. Oil all hearings, gears, shafts, etc., where there is friction.
3. Keep all bolts and nuts tight and snug.
4. Keep all machinery housed and give each implement a coat of paint at least every two years.
5. Grease all landsides, moldboards, shares, cultivator shovels, and disks, when they are to be left out of use for more than a day or so.

What Would He Say?

What would a man say to his wife if she were to leave her fifty-dollar sewing machine out over night in the yard in a rainstorm? Well, he would do aplenty if she persisted in leaving it out in the weather. And yet the same lord of creation has left his farm machinery standing in the fence corner.—Oklahoma Farmer-Stockman.

Four Stirring Novels

The four novels which appear serially in The Weekly Kansas City Star every year if bought in book form would cost $5.40. You may enjoy these novels and the other excellent features of the Weekly Star by sending fifty cents to Dept. 33, The Weekly Star, Kansas City, Mo., for a full year's subscription. The publishers announce that this offer applies only to Kansas, Missouri, Iowa, Oklahoma, Arkansas and Nebraska.—Adv.



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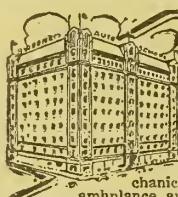

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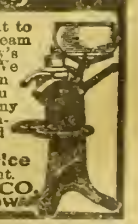

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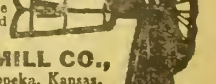

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Our National Thanksgiving

THAT our National Thanksgiving day should closely follow the great victory is most appropriate. There will be no need this year to search for and remind ourselves of reasons for thankfulness. The one thing for which we are all overwhelmingly grateful is the glorious fact that righteousness has triumphed and the world is once more to have peace. The great peril that threatened civilization has been averted. Right has proved itself stronger than might. And underneath and through it all is the personal rejoicing that our boys are safe and will soon be home again with their task accomplished.

It has been generally recognized that the war which is just ended was a struggle for the spiritual ideals of the race. In an hour when the present looked dark and the future seemed uncertain, the nation at the request of President Wilson observed a day of special prayer for victory. The custom of spending a few minutes at the noon hour in prayer has also become quite general. The thought in this has not been the old-time belief in a tribal god who would always go with US to battle and help to overcome our adversaries, but a confidence that the ideals for which we were fighting—justice, truth, and righteousness—are eternal realities which cannot be permanently defeated, and a conviction that the race must not go backward, but must always advance. It is fitting that our thanksgiving shall be as general and as heartfelt as our petitions.

Thanksgiving day has endeared itself to multitudes especially as a family gathering and harvest festival, but in many instances it has been diverted from its real object and the religious observance has fallen into disregard. There is every reason at this particular time why the day should be kept sacred to its original purpose and observed not as a holiday and time of feasting only, but as an occasion for deep, sincere, nation-wide THANKSGIVING.

DESTROY CHINCH BUGS THIS FALL

Last spring there were so few chinch bugs in the wheat that we scarcely noticed them when they made their usual migration to the corn, kafir and cane at harvest time. There were enough for seed, however, and in some sections of the state a good many bugs were observed at corn-cutting time. If no precautions are taken to control their increase, they can very quickly, perhaps even by next year, become numerous enough to do serious damage. The increased wheat planting in sections of the state where wheat has not been so generally grown will favor the increase of the bugs. Wheat gives the mature bugs plenty of food when they come out of winter quarters and under these favorable conditions every female will lay as many as five hundred eggs next spring. Half of the bugs hatched from these eggs will be females. A little figuring will show that the offspring of a single female chinch bug getting through the winter safely, including the second generation, will be 125,000, and that many bugs can do a lot of damage.

The time to act is now. The bugs make their winter quarters in clumps of grass which are near last season's corn, kafir or cane. If bugs are found in these clumps of grass, burn them this fall when the grass is dry so it will burn down to the crown. Burn with a back fire, or against the wind, so as to burn these winter homes of the bugs close to the ground.

Here is what E. G. Kelly, extension entomologist of the Agricultural College, says about the chinch bug situation:

"Investigations done by the college during the last serious outbreak gave evidence that 90 per cent or more of the bugs will be found, in fall, in the clump-forming grasses growing along roadsides, in waste lands in pastures, and along ravines. This grass will burn readily in November and December of ordinary years. Did you every try it? Well, burn out the grass along the roads, clean up the ravines, and see how many of your neighbors will brag on the clean appearance of your farm. Careful burning in the fall or early winter is always the most effective, for if the grass is burned off and a few bugs are missed they will die during the winter. If you do not know whether you have chinch bugs in your grass, just you go out, pull a bunch apart and look. If you find them, make ready for a big round-up—invite your neighbors to the feast and watch the fire.

"The great advantage of burning the bugs in the winter is that you protect both your wheat and your corn, and when the community co-operates in this wholesale destruction of the pest they have little or no trouble the following year."

THE FARMER IN RECONSTRUCTION

Now that we are to begin building a new world on the ruins left by the great war which has involved almost every nation in the world, farmers should be awake to the issues before us and claim their rightful place in the affairs of the reconstruction period. Already the great business interests of all kinds are reaching out and preparing for the profits they expect to harvest in the near future. Agriculture must develop with other lines of business if we are to build permanently. As an industry it must be as remunerative and as satisfying to those engaged in it as are other occupations. Farmers must meet the vast organizations being created for trade development with a united voice and be prepared to present their claims in a way that will command attention.

Charles A. Lyman, secretary of the National Board of Farm Organizations, in a statement issued October 28 points out that packers, millers, manufacturers, processors, dealers and vendors of foods and feeds have been called to Washington frequently to determine policies affecting the financial condition of every farmer in the United States. The same thing is true of the War Industries Board, the Fuel Administration, and other governmental agencies. The past year has called for the patriot and found him fighting on land and sea and in the air and unquestionably on the war boards. The national danger has stirred men's nobler impulses. With few exceptions the representatives of business who have sat on the war boards have sought to protect the public interests as they understood the meaning of the term.

Few if any farmers have been asked to become members of these boards. There are a number of men in the Food Administration who own fine farms. But ownership of land does not make a city man a farmer. His business connections and instincts throw him into sympathetic association with the urban trend of thought whenever it conflicts with that of the farmer. The farmer's part in determining policies has been largely negative. A small handful of wealthy and influential farmers have been called into consultation at Washington from time to time. Several leaders of farm organizations, among them members of the National Board of Farm Organizations, are consulted in times of emergency. The job of the National Food Administration has been to get sufficient food at the lowest cost to the non-producers of food at home and abroad. Farmers believe they are entitled to what is fair and rightfully theirs. They are still asking that they be assured the cost of production for wheat, live stock, milk, and other products. Whatever concessions have been made to the farmers have been made slowly, reluctantly, of necessity, and from fear that the food program would fall down.

Military necessity alone justified such a policy, in the carrying out of which captains of industry have directly or indirectly had a hand. Working patriotically for a dollar a year on the government boards, some of these people have secured an insight into trade conditions and human psychology which at the close of the war may be capitalized for countless millions by the interests these men represent.

The farmers of America should know and consider these facts and be ready to protect themselves. Nobody else will do it for them half so well. There is talk of continuing these boards after the war. Then patriotism will not be so strong a motive in men's hearts. Farmers are not wholly unselfish. They are but human. But the structure of their plan for co-operative business is sound and democratic. It is based on the principle of "self-help through mutual help." It is a more altruistic conception than that of the modern business world and as one of the builders of true democracy its voice should be heard in the reconstruction.

BARLEY AND BREWING

With the closing of the breweries of the United States December 1, large quantities of grain will be released for feed. The country will easily absorb the entire barley crop ordinarily devoted to brewing purposes, and this will mean increased amounts of milk, meats, flour, poultry products and other important foods instead of a product which steals men's brains and makes them less efficient wherever they may be employed.

The booze interests made a bitter fight to prevent this order being given. In the face of all the figures and arguments, these interests had the nerve to insist that the saving would be inconsequential. Mr. Hoover himself stated at one time last summer that if we stopped the manufacture of beer and wine we would face an orgy of drunkenness on whisky from reserve stores and that "the loss in food is entirely secondary to the moral and physical danger." According to Mr. Hoover's own figures given at that time, four and a half million bushels of grain a month were being used in the manufacture of beer, and only 30 per cent of this could be recovered as cattle feed, leaving a net loss of 3,150,000 bushels a month. Food demands became so insistent, and particularly for live stock feeds, that the order was finally given, and unless the signing of the peace armistice is used as an excuse for rescinding it, all brewing of beer and other grain drinks will cease December 1. The purchase of grain for brewing purposes ceased following the issue of the order, or about October 1. Breweries have since been running on the grain which had already been started in the process.

This order was given because of the great shortage of grain for live stock feeding, and Kansas farmers are taking advantage of the opportunity to buy barley for feeding purposes. Only last week we were on the farm of H. B. Browning, Leavenworth County, and saw a carload of good northern barley on the siding of the Kaw Valley electric road which had cost Mr. Browning $1.01 a bushel f. o. b. Kansas City. There are over two thousand sheep on this farm and barley will be used in fitting the bunch for market. Sheep will do well on this grain and at the price it is considerably cheaper than corn. Barley is being shipped into various sections and used for hog feeding in the place of corn.

In view of these facts we were surprised to see in a recent issue of a local paper published in Johnson County a statement credited to an official of the Food Administration of Kansas to the effect that closing the breweries was a factor in the feed shortage. Under the head, "Why Feed is Scarce," this official is quoted at some length. He refers to the low price of mill feeds, which resulted in an unusual demand, as one factor in the feed shortage; second, the fact that whole wheat is being shipped to Europe to hasten loading of ships and save labor, and "in the third place, breweries and near-beer manufacturers have been forbidden to malt grain. The output of their factories has stopped. Formerly they used to sell the by-products of their breweries to the dairies. This supply is being curtailed. The dairies must now buy bran and shorts."

We wonder who this official is who knows so little of feed conditions and the relationship of the breweries to our feed supply. All over Kansas barley is being shipped in, and we must confess that we have never visited a dairy in Kansas where brewers' malted grains were being fed. By the brewers' own figures only 30 per cent of the grain they use can be recovered as stock feed in the by-products. Kansas feeders and Kansas people generally are rejoicing that 100 per cent of the grain is now available for feeding purposes. It is hard to refrain from charging the booze interests of this country with disloyalty to the cause for which we have so willingly sacrificed. These interests have been allies of the Hun, and should be branded as such. Never again should the booze interests of this country be permitted to attain a position of power and influence.

VETERAN BANKER DIES

It is with sincere regret that we learn of the death of Peter Shiras, the veteran banker of Ottawa, which occurred November 5. His banking career covered forty consecutive years, and he was one of the best known and most highly esteemed bankers in the state. Although a banker, Mr. Shiras never forgot that agriculture is the basic industry of this state and nation, and was always found backing every movement having for its purpose the betterment of agricultural conditions. One of his hobbies was to offer cash prizes for agricultural accomplishments, and particularly for the work of boys. He had a standing offer for a number of years at least of a large cash prize for the Franklin County boy growing 100 bushels of corn on a measured acre.

We carried the 1918 objectives—wheat, meat, fat and sugar—and now we are settling down to a steady push all along the line.

We cannot administer the food problem on the basis of the present food shortage. We must prepare for long continuance of this shortage.

CONTROL OF HOG CHOLERA

Great Increase in Amount of Anti-Cholera Serum Being Used

MORE anti-hog cholera serum was manufactured last year than in any previous year, despite a decrease in the amount of hog cholera, according to statistics gathered by the United States Department of Agriculture. The increased demand for anti-hog cholera serum is ascribed to the greater value of hogs, with the consequent greater loss when one dies, and to the fact that hog raisers are becoming more appreciative of the value of using serum manufactured under federal supervision.

Hog raisers are warned against the indiscriminate use of medicines or proprietary preparations other than serums, as experience has shown that nothing except serum, properly prepared and administered, is effective. Medicines other than serums are worse than useless, because they not only fail to cure or prevent disease, but allow the loss of the animals they are advertised to save, thus taking money from the farmer and meat from the nation's suply.

Antitoxins, serums, and other biological products for the treatment of domestic animals must be prepared in establishments operated under licenses issued by the Secretary of Agriculture before they may be marketed legally in interstate trade. Products of licensed establishments are prepared under the supervision of trained veterinarians and their assistants of the Bureau of Animal Industry of the Department. Sixty-eight veterinarians, in addition to forty-one inspectors and clerks, are now engaged in this work and are located in eleven states.

Federal regulations require that all animals used in the preparation or testing of anti-hog cholera serum and hog cholera virus, both of which are used in the treatment of hogs in the prevention of hog cholera, be procured direct from farms and not transported through stock yards or similar places where they might be exposed to contagious diseases. As an additional safeguard all animals must not only be inspected by bureau veterinarians at the time they are presented for admission to licensed establishments, but each animal is carefully inspected at the time of inoculation as well as immediately before bleeding for the production of either virus or serum.

Veterinary biological products, after being properly prepared, are tested by laboratory methods and upon animals to determine whether they are free from contaminating organisms and will accomplish the object for which they are intended.

Federal inspectors, as well as employes of establishments, are required to keep satisfactory records relative to the inspection and manufacture of all products. In the year 1917, 250,041,290 cubic centimeters of anti-hog cholera serum were collected in licensed establishments. Of this amount 1,867,106 cubic centimeters were destroyed as unfit for use.

The practice of buying hogs from public stock yards for feeding and stocking purposes, a custom which has been intensified in this war emergency, has to a large degree complicated the work of controlling hog cholera. In many cases, owing to improper equipment for the treatment and disinfection of hogs, new centers of infection have been introduced in communities previously free from the disease, and the movement of hogs from public stock yards having no supervision by state or federal authorities and where treatment for the prevention of cholera is not compulsory, is a serious handicap in the fight to prevent the spread of infectiou. A menace still exists when hogs are bought at local stock yards where hog cholera infection is present the year round and where a system of disinfection and immunization is either unknown or disregarded.

Some losses have resulted from shipments of stocker hogs even when originating at public stock yards having government inspection, particularly in the early beginning of extensive movements of these animals for feeding purposes Several factors were responsible, such as improper equipment for immunization and disinfection, insufficient doses of serum for hogs exposed to infection, the application of treatment promiscously by anyone chosen by the buyer of the hogs, and the use of the serum-alone treatment, which produces an immunity of very short duration. These are proofs positive that "haste makes waste," but these objectionable features are being overcome. Where proper equipment is being installed, dosage of serum increased and the treatment placed in the hands of competent veterinarians, losses occurring in shipments of this character have been reduced to a minimum.

There is reason to believe that with the various agencies in each state, such as county agents and farm bureaus, interested in the increased production of meat animals, a system of exchange could be established to bring together farmers with a surplus of hogs and no feed and those having more feed than hogs, with a view of having the transfer of these animals effected locally and avoid the long and dangerous journey to a public stock market and back to farms oftentimes in the same community. In fact, such exchanges or clearing houses have proved of great benefit in getting buyer and seller in closer touch without the medium of a public stock yard, thereby avoiding commissions, heavy freight charges, danger of infection and consequent losses.

The danger of shipping sick hogs to market is, of course, obvious. Farmers and others who knowingly endanger their neighbors' property through the marketing of diseased stock instead of properly disposing of such animals on the farm and disinfecting the premises are guilty of wrong-doing and should be restrained or punished by the proper authorities. Such men retard the work that is being done by state and federal agencies to eradicate cholera and to make the swine industry a profitable investment.

Conservation is necessarily the basis of increased production, and until farmers are fully advised not to patronize infected localities, to shun stock yards having no federal or state supervision when purchasing stockers or feeders, and to immunize against infectious and contagious diseases of live stock, particularly hog cholera, efforts at stimulating increased production of meat will be seriously hampered. To buy hogs from infected districts, whether stock yards, feeding lots or farm, without the proper precaution of immunization and disinfection, not only halts production, but establishes a likely chance of introducing hog cholera on elean farms and destroying the susceptible animals already on the premises.

Kafir grains are increasing in production in this country with astonishing speed. The crop of 53,858,000 bushels in 1916 increased to 75,866,000 bushels in 1917 and the prospect for 1918, based on the conditions of July 1, is a crop of 110,005,000 bushels, or more than twice the crop of two years ago.

Tractors in Kansas

DURING the year ending March 1, 1918, Kansas farmers bought 910 tractors, there now being 5,414 tractors owned in the state. These figures are obtained by the State Board of Agriculture through the county assessors. Twenty per cent more tractors were purchased during this year than in the year previous and more than twice as many as the total number shown by the board's first tractor census of 1915.

Just as the tank has revolutionized methods of warfare, so too are "tanks" — tractors — changing the methods of farming in Kansas wherever they are used, and this new development is doubtless in its infancy.

Of course the so-called "wheat belt" has been the most popular home of tractors in Kansas, and more are found in that section than elsewhere. Reno County, where wheat fields extend from border to border, had this year 198 tractors compared with 138 in 1917. McPherson is second with 182, followed by Pawnee with 179, Sumner 162, and Harvey with 142. All counties having more than one hundred tractors with the exception of one—Ford County—are located in the central third of the state, commonly known as "the great wheat belt of Kansas."

Tractors in Kansas have been made to do their part in full measure in winning the war, and they have been driven hard without mercy. Their increased numbers and efficient use not only contributed to increased crop areas but to an important degree made good the serious shortage of farm labor resulting from the war's inroads on the state's man power. The tractor has a wide adaptability under Kansas conditions, and in the hands of competent operators is proving a benefaction in our agriculture.

The table gives by counties the number of tractors in use on the farms of Kansas March 1 of this year:

Number of Tractors in Each Kansas County

Allen	32	Greeley	10	Osborne	84
Anderson	41	Greenwood	26	Ottawa	57
Atchison	31	Hamilton	15	Pawnee	179
Barber	60	Harper	62	Phillips	34
Barton	137	Harvey	142	Pottawatomie	59
Bourbon	12	Haskell	17	Pratt	84
Brown	35	Hodgeman	39	Rawlins	47
Butler	44	Jackson	40	Reno	198
Chase	13	Jefferson	38	Republic	46
Chautauqua	14	Jewell	28	Rice	59
Cherokee	51	Johnson	55	Riley	41
Cheyenne	52	Kearney	4	Rooks	70
Clark	33	Kingman	75	Rush	111
Clay	43	Kiowa	63	Russell	60
Cloud	62	Labette	64	Saline	87
Coffey	50	Lane	20	Scott	25
Commanche	51	Leavenworth	44	Sedgwick	115
Cowley	70	Lincoln	53	Seward	29
Crawford	38	Linn	15	Shawnee	35
Decatur	28	Logan	17	Sheridan	39
Dickinson	135	Lyon	46	Sherman	26
Doniphan	20	Marion	110	Smith	34
Douglas	54	Marshall	39	Stafford	53
Edwards	59	McPherson	182	Stanton	9
Elk	22	Meade	66	Stevens	21
Ellis	103	Miami	41	Sumner	162
Ellsworth	43	Mitchell	46	Thomas	85
Finney	21	Montgomery	61	Trego	47
Ford	125	Morris	34	Wabaunsee	63
Franklin	31	Morton	21	Wallace	11
Geary	27	Nemaha	30	Washington	61
Gove	36	Neosho	38	Wichita	4
Graham	19	Ness	58	Wilson	41
Grant	3	Norton	17	Woodson	15
Gray	60	Osage	47	Wyandotte	6

Rations for Hogs

Properly balancing rations for hogs is more necessary this year, perhaps, than ever before. Feed is too high in price to be wasted as a result of feeding it in poor combinations. The following are some good mixtures for pigs getting forage of some kind: Corn nine parts, shorts three parts, and tankage one part; or corn six parts, shorts two parts, and linseed oil meal one part; or hominy feed nine parts, shorts three parts, and tankage one part. A good grain ration for the brood sow is: Corn ten parts, shorts five parts, bran three parts, linseed oil meal two parts, and tankage one part. Another is eorn four parts, shorts four parts, and tankage one part. For fattening hogs such combinations as the following give good results: Corn ten parts, shorts two parts, tankage one part; or corn ten parts, tankage one part. The corn may be hogged down and tankage fed in self-feeders; or corn, shorts and tankage together can be fed in self-feeders, the hogs eating at will from the different feeds in separate eompartments of the feeder. Hominy feed, barley, or sorghum grain can be substituted for corn. The hominy feed is very similar to eorn in composition, but is more bulky, as it contains a little more fiber but has more fat than corn. It is a by-product coming from mills making corn flour and other corn foods for human consumption. It consists of a mixture of the bran coating, the germ, and a part of the starchy portion of the corn kernel.

Tankage may seem exceedingly high in price, but there is nothing on the market that will equal it as a protein substitute. It is probably no higher in price proportionately than corn. Linseed oil meal makes a good protein supplement, but it requires nearly twice as much to furnish as much protein as the tankage. Shorts should always be fed if it is possible to get it and the price is right in proportion to corn. Under the prices fixed by the Grain Corporation of the Food Administration, shorts is cheaper in proportion than corn. The biggest use possible should be made of pasture. The hogman with a good patch of rye or some tame grass that has been permitted to make a good fall growth is especially fortunate. These pastures help wonderfully in saving grain. The finer parts of the alfalfa hay or fourth-cutting hay saved especially for the hogs will give the best of results and save grain. Breeding hogs should always have all the alfalfa they will eat.

Colt's First Winter Important

Neglect during the first winter has spoiled many a well-bred colt by preventing its developing as it should. The first winter is an important period in a colt's life. If it goes into the winter thin and in poor condition, it has far less chance to winter well than the colt that goes into winter quarters in thrifty condition. Too often colts are allowed to go down at weaning time. This will be avoided if they have been taught to eat hay and grain before it is necessary to take them from their mothers. If they have been properly taught to eat hay and grain they can be weaned and gain in weight during the process. The Missouri College of Agriculture tells of having colts gain twenty pounds a week during the week they were being weaned from their mothers.

After colts are weaned there is no better place for them than a good bluegrass pasture inclosed by fences on which the colts cannot injure themselves. They should always have plenty of good fresh water and a daily grain ration. This, with satisfactory shelter, should carry colts up to the time winter sets in in the best of condition. Good feeding and proper care during this period can easily make the difference between a good yearling and an inferior one.

RELATION OF YIELD AND PRICE

Large Yields Are Not Always the Most Profitable

THAT large yields are always profitable and that the best farmer is the one who raises the most per acre is generally assumed without argument by writers and speakers on agricultural topics," says Eugene Davenport, director of Illinois Experiment station in Fruit and Produce Marketer, also "that large yields are a natural antidote for the high cost of living.

"That when prices are low the farmer should raise his yields to protect his income.

"That everybody is suffering because of the 'slipshod and wasteful methods of the American farmer.'

"That we should now copy the intensive methods of older countries, and that more capital is needed for the best results.

"As a matter of fact, there is truth in all these propositions, but it is mixed with an amount of error and of misconception concerning the economic laws governing agricultural production that is dangerous both to the farmer and to the consumer.

Cheap Feed and Low Yields

"We are just emerging from a pioneer agriculture, in which land had little value, because it was abundant, and labor was the principal element in the cost of production. If the American farmer has been wasteful of fertility it is because he has had it to waste, but he has been exceedingly economical of labor, which was costly, and has produced the cheapest food the world has ever eaten, or ever will eat, though the yields per acre have been little more than half those of older countries. Our question has been not how much per acre but how much per man, and in this the American farmer has been right even though his average yields have been low.

"We are, however, approaching old-country conditions. Land is growing scarce, and therefore costly, so that elements other than labor have begun to enter into the cost of production and food is necessarily higher.

"Under pioneer conditions the highest yields have been the most profitable because they were the result, not of expensive methods of farming, but of especially rich spots of land or of favorable seasons, costing nothing extra beyond the increased expense of harvesting. It is still true that high yields are profitable if they can be cheaply produced, but the general principle is that the higher the yield the greater the cost, not only per acre, but per bushel.

"This natural operation of the economic law of diminishing returns in farming is best illustrated by an experiment begun many years ago by Lawes and Gilbert at Rothamsted, England the oldest experiment station in the world. They applied, every year for twelve years, different amounts of complete fertilizer to adjoining fields of wheat, with the following results:

Fertilizer Applied	Average, 12 years	Increase	Increase per 200 lbs.
None	18.4 bu.		
200 lbs.	28.4 bu.	10.0 bu.	10.0 bu.
400 lbs.	36.4 bu.	18.0 bu.	8.0 bu.
600 lbs.	38.0 bu.	19.6 bu.	1.6 bu.

"By this we see (fourth column) that as an average of the twelve years the first 200 pounds of fertilizer returned ten bushels, but that a second 200 pounds increased the yield only eight bushels above the first, and that a third 200 pounds but a little over a bushel and a half above the double dose, showing that increased outlay is not always followed by correspondingly increased yields.

"The experiment was continued, and at the end of fifty-two years the results were as follows:

Fertilizer Applied	Average, 12 years	Increase	Increase per 200 lbs.
None	14.8 bu.		
200 lbs.	23.9 bu.	9.1 bu.	9.1 bu.
400 lbs.	32.8 bu.	18.0 bu.	8.9 bu.
600 lbs.	37.1 bu.	22.3 bu.	4.3 bu.

"These figures for half a century show the same principle of diminishing returns in a modified form. Due to soil exhaustion, the yields from the unfertilized land decreased during the fifty-two years. On account of a few bad seasons the average effect of the first dose (200 pounds) was slightly decreased. Owing to the accumulation of residues of fertilizer, the effects of the second and third doses were relatively larger than for the twelve-year period, though subject to the same law of diminishing returns. That is to say, the last dose of fertilizer was less than half as effective as the first; or, what is the same thing, the last increment of increase cost more than twice as much per bushel as the first.

Prices and Yield

"In the more intensified agriculture that is just ahead of us, the question is, therefore, not how much the farmer can produce per acre, but how much he can afford to produce. His yield must depend, not mainly upon his knowledge of production, but upon the price of the product.

"For example, in the tables quoted, each 200 pounds of fertilizer cost $7.50. With wheat at a dollar a bushel, a little computation will show that both the single and the double applications would pay, but that the triple application would swallow all the profits and more. At 80 cents a bushel, only the first dose would make money; while at 50 cents a bushel none of the treatments would pay, and both the farmer and the public would have to be contented with the lower yields from untreated land until such time as the consumer was willing to pay a higher price for his food. In this way is yield dependent upon price, and it is the natural way in which supply adjusts itself to demand as expressed in price.

"Of the same tenor is the experience of the university, which is producing corn yields varying from twenty-six bushels per acre on continuously unfertilized land, to an average of ninety-three and a maximum of 120 bushels per acre on land which is excessively fertilized. It is making no money on either extreme; in the one, because the yield is not sufficient to pay the labor; in the other, because the fertilizers are so costly as to swallow all the profits. The problem of the farmer, therefore, is to determine at what point between these extreme yields he must aim to fix his average yield, and in determining this point he must take into consideration the value of his land, the cost of labor, the cost of fertilizer, and the probable price he will receive for his product.

"From this we see the impossibility of 'doubling yields without increased expense," and also that when prices drop, the income of even the best farmers must decline, for extreme yields are profitable only with high prices. It must be clear that we cannot recklessly increase the yield per acre.

"On the other hand, we cannot continue the old-time wasteful methods of soil exhaustion, cheap and effective though they were in their day, because they are resulting in decreasing yields in the face of increasing demands. If our declining yields, due to soil exhaustion, are to be arrested and turned into even a slight increase to meet the growing demands, it is clear that new methods must be employed, but the object must be a moderate increase in yield by economic methods and not extreme yields, which are bound to result in loss to the farmer or in prohibitive prices for food, or both.

"Our farming is now in a transition stage between the 'extensive agriculture' of the pioneer, in which fertility is disregarded and there is no investment but labor, and the 'intensive agriculture' of old and densely populated countries, in which the main question is yield per acre, resulting either in high cost of food or in poorly paid labor. (China produces the most per acre but pays its laborers the least.)

"Our present yields are below what the climate and the general situation ought to produce, owing mainly to certain adverse conditions that can be cheaply and easily corrected, and money put into this channel will well repay the investment because it will increase the yield without being subject to the law of diminishing returns. This is where our present duty and opportunity lie in establishing the foundations of a permanent agriculture. It must be remembered that we have not yet reached the intensive stage, where it will pay either the producer or the consumer to attempt maximum yields on American land.

Rational Procedure

"In this transitional stage, in which our yields are kept down by certain adverse conditions, the first step in a rational procedure is the correction of these conditions by relatively inexpensive methods, such as the use of lime to correct acidity, the application of cheap forms of phosphorus or of potassium to balance fertility, keeping nitrogen always the limiting element, a better adjustment of crops to soil and to locality, and the organization of more economic systems of farming, with special attention to live stock, the distribution of labor, and the investment of capital. All the advice given out by the University of Illinois at this juncture is based upon this principle, because investments of this character, whether of labor or of capital, are certain to increase the yield with relatively slight expense. Having done what we can in this way, we may await with confidence the intensive stage, the coming of which will be characterized by a permanent rise in prices.

Handicap of Small Farmer

"The greatest hazard in farming is the season, against which improved methods are only a partial protection. The farmer with little or no capital must confine himself to practices that will pay every year, while the man with considerable means is free to follow those more expensive methods which pay best in the long run, even though an adverse season now and then might show a loss. This lack of capital cannot be remedied by short-time loans to the small farmer, nor by loans of any kind to the farmer whose yields are limited by bad cultivation or to the one incapable of managing his business upon the more complex and, to him, more dangerous basis that will be at once established when he attempts to increase his yield by a larger use of capital.

Farming on Credit

"It is commonly said that not enough floating capital is invested upon American farms, and it is doubtless true, but it must be remembered, both in extending credit and in making loans, that the American farmer has had little experience in handling capital. Manifestly, therefore, when he borrows, both he and the lender must be satisfied that the loan will be judiciously used, or it may result disastrously.

"The student of agriculture cannot fail to see the danger of over-capitalization in attempts to secure abnormally high yields, a danger which increases as the practice spreads, for although one man may safely increase his yields without depressing the price, if all farmers were to follow his example the price would drop and all would lose money. Under this principle a few farmers will always be practicing methods not practicable for the mass. By this we see that in the long run the chief results of better farming will be realized by the consumer rather than by the farmer. All attempts to hold down production with the purpose of raising the price are as unavailing as they are unwarranted The world wants food, and the principles herein presented are the ones that will guarantee its cheapest production.

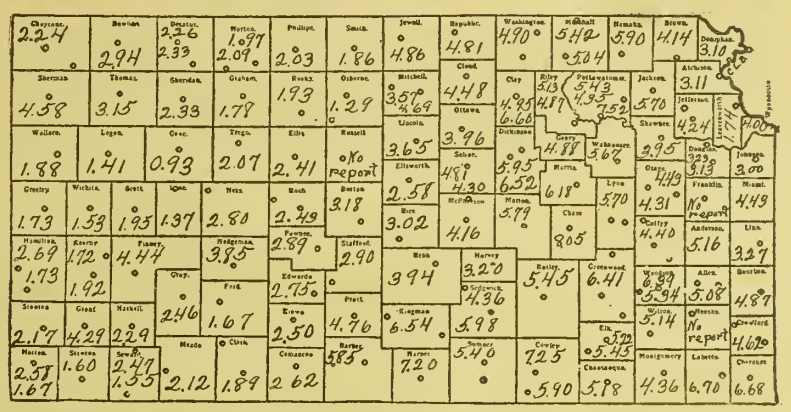
Conclusion

"It is relatively safe, therefore, to invest capital freely upon the farm for the sake of correcting abnormal conditions and raising the yield to the normal, but beyond that point it will pay only when prices rise. As we approach this point by reason of increased population with its increased demands, either the cost of food must rise or labor be greatly degraded, else the farmer cannot afford to produce the increase needed. As population increases, therefore, but one alternative will present itself—each human unit must become more efficient in production, or it must deny itself much of what is now enjoyed.

"This is not as an argument for poor farming nor for the continuance of old-time methods, but points out that we are not to step at once and blindly into expensive forms of intensive agriculture. We should ascertain and practice those relatively inexpensive methods belonging to a transition stage that correct bad conditions and thereby considerably increase the yield without seriously raising the price, so that the results may be profitable alike to the farmer and to the public whom he serves. In this good work there is no danger of doing too much."

Rainfall of October, 1918

Reports Furnished by S. D. Flora, Meteorologist, U. S. Weather Bureau



THIS was the wettest October in the history of Kansas, with almost three weeks of mild weather of the Indian summer type that were ideal for wheat. In the eastern two-thirds of the state wheat was generally reported to be in the best condition ever known at this time of the year and had made a rank growth that promised fine winter pastures. In the western third considerable damage resulted from grasshoppers, but the cold weather with which the month ended destroyed them and seeding was again resumed vigorously.

In practically every county there was enough moisture in the ground when the month ended to insure a good growth of wheat all winter.

Stay By the Cows

Milking cows, hauling feed, and cleaning out stables may be unpleasant work, but a good deal depends upon what one's interest is in the job. To forsake the cows now would be to join the ranks of the slackers. The live dairyman is doing his best to hang on until the boys return. Many of them will be glad to take up the burden of the dairy work, which will probably seem light to them after what they have endured as soldiers.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

SUBSCRIBER H. N. O., Sedgwick County, asks us for information about penitentiary twine. He wishes to put in a neighborhood order for next year. J. K. Codding, warden of the Kansas penitentiary at Leavenworth, should be addressed in writing about penitentiary twine. We were informed this week, however, by State Business Manager Kimball that contracts have already been made taking the complete penitentiary output of twine for next year. The state plant cannot produce more than about one-tenth of the twine needed in binding an average year's crop in Kansas. Probably a good many will be disappointed in not being able to get the penitentiary twine.

Learn to Cut and Cure Meat

If you do not know how to kill and cure your own meat, you will have a chance to learn this fall, providing you live in a farm bureau county where meat curing demonstrations are to be given. A great deal of meat is probably lost every year because of poor methods and then many have to buy at high prices because from lack of knowledge of how to handle meats at home they dare not make the attempt.

Killing and curing the meat needed on the farm is a real conservation measure and something that should be done a great deal more than it is. In the twenty or more counties where the work is planned, actual cutting and curing will be done on the farms. If you want to learn how to kill, cut and cure your own supply of meat, get in touch with your county agent. The United States Department of Agriculture will furnish free for the asking Farmers' Bulletin No. 913, which gives the most explicit instructions on killing hogs and curing pork. Probably your county agent has copies of this bulletin, but if not you can get it by writing to the Division of Publications, Department of Agriculture, Washington, D. C.

Pasturing Wheat

It is not generally considered to be desirable for wheat to reach the jointing stage before the winter weather sets in, as it is more apt to winter kill. The unusually favorable weather conditions during the present fall have caused an extremely rapid and vigorous growth of wheat, and in many places there is danger that it will joint before winter. A great saving in live-stock feed can be effected where there is wheat to pasture, and it is generally advised to graze down this unusually rank growth as a means of benefiting the wheat. As a rule more harm than good results to the wheat from pasturing, although in a great many instances the value of the pasture is more than enough to make up for the slight reduction in yield of the wheat. The later growth of wheat does not seem as vigorous as the first, which is apparently the cause of reduced yield. There is also the damage from the tramping of stock and especially if the animals are allowed on the wheat when the ground is soft.

Even when pasturing wheat to prevent its jointing, some judgment must be used. Ordinarily cattle are not so apt to damage wheat as sheep, because they do not graze it so closely, but when the ground is soft, sheep rather than cattle should be turned in, because they will do less damage by tramping. Under no conditions should wheat be pastured after it begins its growth in the spring.

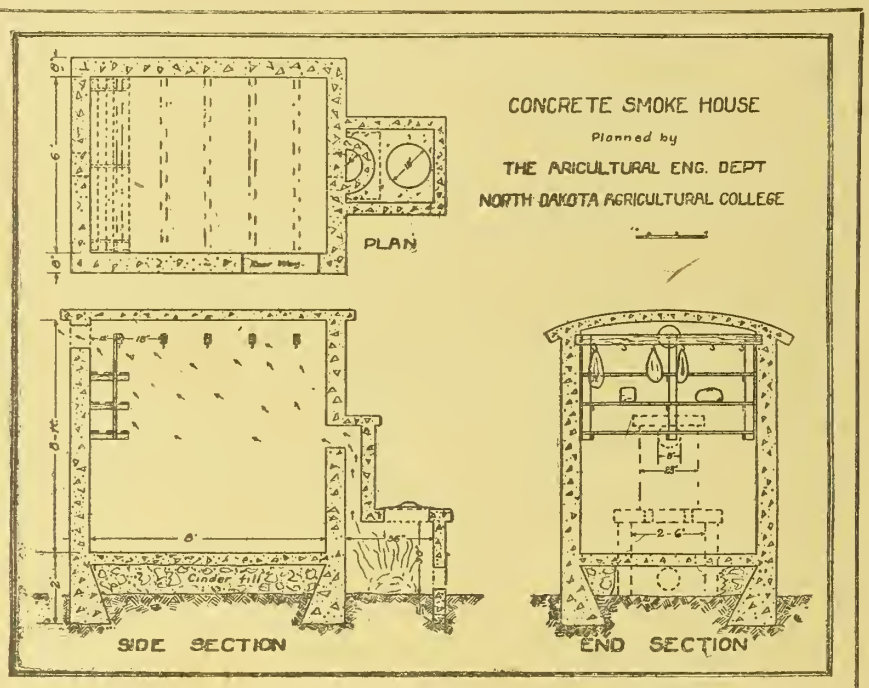
Will High Finish Pay?

Cattle feeders are asking if it will pay to put a good finish on their cattle before marketing them. Grain is too high in price to be fed heavily into beef cattle. This is a time to make all the beef possible from roughage and sell the cattle after a short feed. Probably the greatest profit will come from starting feeders at eight hundred or a thousand pounds and marketing them at 1,150 to 1,250 pounds in weight. This amount of gain will not make prime beef, but it is good beef and does not require much grain. Feeding for small rapid gains will give beef plenty good for the army and navy demands as well as for industrial centers, and the cost will be much less than where cattle are brought to a high finish. This will be especially true in feeding well-bred cattle. Putting a high finish on cattle is always expensive, for the fatter the animal gets, the higher the cost of the gain and the larger must be the proportion of grain in the ration.

It is a good plan to use corn silage extensively in fattening beef cattle under the present conditions. Give the steers all they will eat and in addition give them three pounds daily of old process linseed oil cake or high grade cottonseed meal. As dry roughage, feed clover or alfalfa hay or oat straw if these are not available. Good gains can be made without the feeding of any corn, although the premium paid for somewhat better finish may justify the use of some corn for the last thirty or forty days of the feeding period.

Canning the Jackrabbits

A canning company in the East has offered fifteen cents apiece for two million jack rabbits. It offers twelve cents apiece for cottontails. Some twenty western counties are planning regular jackrabbit drives this coming winter.



NO FARM should be without a good smokehouse. The plan here shown is of a building absolutely fireproof and one that will last a lifetime. Meat can be successfully smoked with very simple arrangements. Even a barrel can be made to serve as a smokehouse for a small quantity of meat. It will pay, however, to build a permanent structure. The one here shown will require forty-eight sacks of cement, six yards of sand, eighteen yards of crushed rock, one door, two 2 x 8 x 12-foot pieces for the door frame, and three 2 x 4 x 14-foot pieces for hook supports. Lumber will be needed for forms also. The same general plan can be used in building a smokehouse of wood, but the floor, foundation and fire pit should be of concrete if possible.

Thousands of dollars' worth of damage is done by the rabbits, and two birds can be killed with one stone by making this organized war on them as is planned. In several of the counties it is proposed to donate the proceeds of the drives to the Red Cross.

Conserving Barnyard Manure

Kansas farmers can learn some valuable lessons in manure-saving and conservation by studying the methods followed by farmers of Pennsylvania. We are being confronted with the problem of maintaining soil fertility and cannot afford to ignore the fertility produced in the handling of live stock. Eastern Pennsylvania farmers have through long years of experience developed methods of manure conservation which have given the best of results in adding to their crop yields. These methods are described in Farmers' Bulletin 978 of the United States Department of Agriculture. For over a century it has been the custom in this region to store stable manure in a walled manure yard, partly or wholly covered, in which the stabled animals are allowed to exercise during the day. Manure thrown into such a yard and thoroughly tramped by stock, according to the department's bulletin, loses much less through heating and leaching than does manure piled in the open.

Nearly all manure produced on the farms in the region to which the bulletin refers accumulates in the manure yards. All cornstalks, straw, and other roughage not used as bedding are added as needed to take up excess liquids. In this way the covered portion of the barnyard not only affords a dry and comfortable shelter for the live stock during the winter months, but it protects the manure so that no leaching occurs. In some instances the corn fodder is run through a cutter, which increases its power of absorption and makes the manure easier to handle. The tramping of the stock packs the manure, so that an even temperature is obtained, which seems to favor proper fermentation, as is evidenced partly by the strong odor of ammonia in the vicinity when the manure is being removed, and partly by absence of dry combustion, or "firefang," so common in manure piles exposed to the weather.

Occasionally a farmer is found who sprinkles land plaster on the manure at intervals, the amount ranging from one to two tons a year, applied at the rate of a bushel a week. Disintegrated feldspar rock, common in the vicinity, has been used with good effect, but as a general thing the manure is not treated with chemical fertilizers.

The manure is hauled to the fields twice a year on the majority of farms. Many farmers apply it during the winter when the ground is frozen and hauling is easier and when there is more time for this work, but this should not be done on hillside land or where there is danger of the manure being washed away when the snow melts and before the ground is sufficiently thawed to allow the soluble material to sink in. In general practice the sod is usually manured in the early spring at the rate of eight to ten tons an acre and is immediately plowed and rolled. In the fall manure is applied to oats and corn stubble land. The barnyard is so arranged that the team and spreader can be driven into any part of it, including the covered portion, where loading can be done directly.

The bulletin describes in detail the crop rotation plan and methods of handling manure on ten Chester County farms, on each of which the yield of corn is maintained at seventy-five bushels or more an acre and where high yields are being made at no sacrifice of profit. These farms offer good examples of the way in which manure should be handled and utilized to secure the greatest possible returns.

Commission Returns

The agricultural commission headed by Dr. W. O. Thompson, president of Ohio State University, and composed of trained agriculturists, has just returned from its study of food and production conditions in Europe. This commission was sent abroad by the United States Department of Agriculture for the purpose of obtaining information which would be useful in making plans for next year's agricultural production in this country. Secretary Houston is now urging that steps be taken to secure better organization of the agricultural forces of the United States and especially of the local farm bureaus in preparation for the production of 1919. He points out the special need for increasing production of beef and fats. For a considerable period of time the world will demand a larger supply than normal of live stock and especially of beef and fats. All plans for the future should include the growing and storing of plenty of feed for stock and the eradication and control of all forms of live-stock diseases.

"Two things seem to be clear," says Secretary Houston. "One is that, for a considerable period the world will have need particularly of a larger supply than normal of live stock, and especially of beef and fats. We should not fail, therefore, to adopt every feasible means of economically increasing our live-stock products. As a part of our program we should give due thought to the securing of an adequate supply of feedstuffs and to the eradication and control of all forms of animal disease.

"The other is the need of perfecting the organization of our agricultural agencies for the purpose of intelligently executing such a program as may seem wise. We should not only have the best possible organization and co-operation of the Department of Agriculture, the agricultural colleges, the state departments of agriculture, and farmers' associations, but we should especially strengthen the local farm bureaus and other organizations which support so effectively the extension forces and assist them in their activities. The perfecting of this organization is highly desirable not only during the continuance of the present abnormal conditions but also for the future. The local as well as the state and federal agencies are of supreme importance to the nation in all its activities designed to make rural life more profitable, healthful, and attractive, and, therefore, to secure adequate economic production, efficient distribution, and necessary conservation.

Sweet Clover on Roadside

Sweet clover is no longer looked upon as an unsightly roadside weed. Now that its real value as a feed is known, it is even being sown along the roadsides in Finney County as a means of eliminating dust and the unsightly weeds of the average roadside. Several miles were seeded this fall by the county surveyor and the Finney County farm bureau. It will become profitable to keep the roadsides mowed when a good crop of hay can be taken off each time it is necessary to mow.

Determined to Live

The officer in charge of the receiving of the colored boys at an army camp was asking one of them the many questions necessary. About the last question to be asked was, "Where do you wish your remains sent?" The colored trooper replied: "I'll tell you, boss. I was kind of figurin' on totin' 'em around myself."

Justice to Farmers of America

By GIFFORD PINCHOT

THE farmers of America, I believe, do not begin to realize that what they have done is the greatest and most splendid patriotic service rendered by any class of our people in the great war. Without adequate labor, credit, or farm supplies, neglected by the Government, misunderstood and abused by the city press, nevertheless the farmers produced the food we had to have. When it seemed to those who really knew that human strength could not suffice, American farmers grew the two great crops without which we would have lost the war.

Their wonderful achievement was accomplished in the face of difficulties that were wholly unnecessary.

Three great blunders were made in dealing with food production while we were at war. The first was in giving our prineipal attention to the conservation of what food we had instead of to the production of more food. If even a small part of the effort and exhortation which have been devoted to saving food had been given to growing more food, there would have been vastly more food available, and most of the painful need for saving would have been done away with.

The second blunder was in failing to make it possible for the farmer to get enough labor, farm supplies, and credit to give him a reasonable chance to raise the crops the nation and the world required.

The third blunder was in excluding the farmer from partnership in the conduct of the war, and especially from that part of it which had to do with food supply. Yet according to the United States census a full half of all our people live in the country and in small villages and towns, which are for the most part dependent on farming for their prosperity, and which have the same interests and the same outlook as the farming communities which lie about them.

In spite of all these blunders, needless, dangerous, and exasperating as they were, the farmers went ahead and won out. There has been nothing finer outside of the conduct of our men at the front.

Although the guns are silent at last, for the American farmers the war is not yet ended. They have been fighting the Germans by sending men abroad and raising food at home. But now that our own splendid boys, side by side with the wonderful fighters of our Allies, have beaten the German into submission, the farmers of America can not lay down their fighting tools. Two great enemies are still to be defeated. One is world-famine, which can be prevented only if the farmers of the United States keep up their marvelous record. The other is the persistent refusal of common justice and a fair share in our Government to the men who feed us all.

Our farmers have seen their Government advancing hundreds (if not thousands) of millions of dollars to help other industries, but not to help them. They have seen a limit set on the price of what they have to sell, but not on the price of what they have to buy. Their own problems were decided for them, and very often wrongly decided, without their being consulted. Their legitimate demands for a share in the management of the war, voiced again and again through the National Board of Farm Organizations, were persistently denied. But looking beyond the ignorance and shortsightedness of officials, in the presence of the nation's need, they forgot everything but their duty as Americans, and they brought to pass what seemed altogether impossible.

All honor to the men who set patriotism above party, disregarded abuse and neglect, turned their backs upon selfishness and resentment, and in the face of the greatest difficulties accomplished what the safety of our country and the world absolutely required.

Every farmer knows that since the Civil War this nation has been managed by city men for the advantage of city people. Laws and policies have been, and are still, in city hands. For example: There are today in Congress 531 members of both Houses; and only eight of them even claim to be farmers. One-third of our people live on the farm; and all of our people are dependent on the farm; yet only one and one-half per cent of our lawmakers are farmers. If an exact proportion were possible or practicable which it is not, no less than 178 of our Congressmen would be farmers.

It goes without saying that the farmers of America have no desire to deprive other classes in our population of the proper influence and just representation which is their due. Conditions which are unfair in the case of the farmers would be equally unfair if applied to others. What the farmers want is justice all around.

Every farmer knows that ever since the Civil War what the Government has done to help the farmer has been done still more to help the city man. Even in the matter of food production, the city man's point of view has been in control. What the city man wanted was cheap food. Therefore what was done for the farmer was directed almost without exception toward helping or indueing him to grow cheap food. But what the farmer got for himself and his wife and family out of what he produced was a wholly different matter.

A good example of the hostile city mind is supplied by the Baltimore Evening Sun of November 7. In enumerating the causes behind the recent election it says:

"Possibly a still more potent influence was the farmers, who were sore because the Government would not allow them to 'charge all the traffic would bear' for their wheat and limited them to twice the normal price and more instead of allowing them to gouge America and her Allies to the limit. The farmers pay far less than their share of the income taxes and are reaping a rich harvest on their crops, including wheat, but they apparently strike at Wilson because he would not give them a free hand at profiteering."

All this is wrong and ought to stop. That is why the National Board of Farm Organizations has undertaken, through its nation-wide Agricultural Reconstruction Committee, to find out just what the farmers of America believe they are entitled to in the reconstruction after the war. To find out just what you want is the first step toward getting it. When a farmers' plan of reconstruction, thus formulated, has been criticized, corrected, and adopted by the organized farmers of America, there will be a real chance that justice for the farmer can be brought out of the great changes which must follow the conclusion of peace. But the whole united power behind it of one-third of our people, the farming third, will be none too much to change the old bad order and begin the new.

There ought to be a change. If the farmers of America make up their minds to get that change they can have it. To get it they must go after it all together. If they continue to scatter their forces the city mind will continue to dictate and decide for another fifty or one hundred years.

World's Biggest Fur Auction

Over six million dollars' worth of furs were sold in a fur auction held in St. Louis recently. Buyers were there from twenty-seven countries, and in all three and a half million pelts were sold. The United States Government was represented both as a consignor and as a buyer. Seal and fox skins owned by the Government were sold to the value of $161,169 in two hours' selling. A large part of the cheaper skins sold, such as are suitable for lining aviators' coats or coats for soldiers serving in Russia or Siberia, were purchased by Government buyers.

The demand for all kinds of furs was unprecedented during the entire week, a demand that was voiced by dealers from all parts of the world and from every class of trade, and many varieties sold for record prices. Muskrat, a fur that sold a few years ago for a few cents a pelt, sold as high as $2.25, while a record price of $11 for skunk was reached.

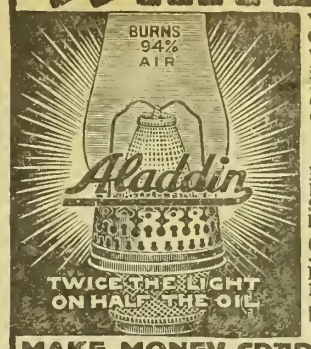
The results of this sale explain the extreme activity of all buyers handling furs and trapping supplies. Trapping has never been so profitable as now since the days of the pioneers.

Extravagant use of fuel will result from using a gasoline engine too large for the work it has to do. It is frequently better to buy two small engines than one large one. A six- to ten-horsepower engine can be used for the heavier work, such as feed grinding or wood sawing, and a little one- or two-horse engine for such light jobs as pumping and running the washing machine or cream separator. This would be more economical than using the larger engine for light work.

The wheat harvest is encouraging but the demands are many and wheat conservation must be maintained.

What the world is for us depends on what we are ourselves.—Lewis G. Janes.

WHITE LIGHT FROM KEROSENE Beats Gas or Electric



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GET YOURS FREE! We want one user in each locality to whom we can refer customers. In that way you may get your own without cost. Write quick for 10 DAY FREE TRIAL OFFER and learn how to get one FREE.

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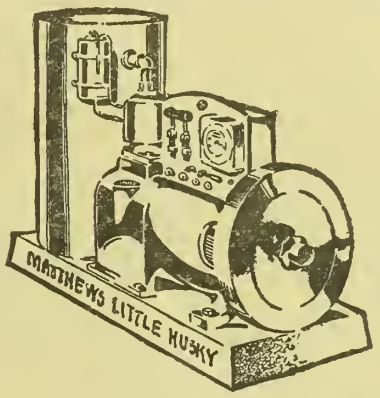

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"LITTLE HUSKY" gives all the light and power needed by the average home—15 to 20 lights or their equivalent in power. It will pump 120 gallons of water an hour or run the washing machine, churn, etc. It is the plant the world has been waiting for—a small automatic. And the price only $395.00.

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Then There's No Overcharge—No "stewing" of the battery. The special control board, with its electrical brains, takes care of charging the battery, saving a lot of money in fuel and battery repairs. Fully Equipped, is the "LITTLE HUSKY" even to the Stewart-Warner Vacuum Fuel System, and there's a big battery, all ready to operate, that anyone can connect up by following the simple instructions given.

"THE LITTLE HUSKY" is built for strenuous service year after year. It is a real machine, completely standardized, not a "toy," nor a possible "orphan." Of course, it is not as big as others in the Consolidated Line, designed for greater service.

The volume of orders received from established dealers convinces us that our production schedule must be increased. This is being done. Meanwhile orders will be filled in the rotation of their receipt.

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Iowa State Council of National Defense, says
As a means to the increased conservation of feed and labor and increased production of meat and milk products, the Government is now urging through its official representatives, the purchase and use of silos.



Shipments made from 12 plants, having 91 kilns, located on 48 railroads. *Large reserve stock. Prompt delivery and low freight.*

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2, 3, 4, 6, 8, 12, 16, 22 and 30 h-p.—Direct from the Largest Exclusive Engine Factory in the world, selling by mail. Money Back if Not Satisfied on my new 90 Day offer. 5-Year Guarantee. Fuel cost **one-half less** using kerosene. Write for new book (copyrighted) "How To Judge Engines", printed in colors and fully illustrated, showing how I can save you $15 to $200—sell you on practically your own terms—Cash, Payments or No Money Down.—Ed. H. Witte.

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Better Dairymen Needed

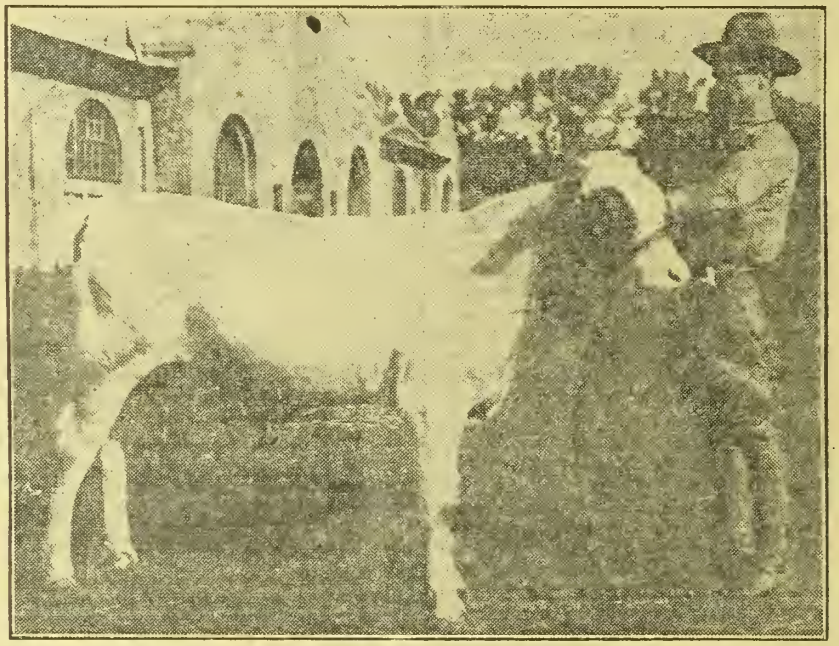
KANSAS FARMER has repeatedly pointed out that better feeding and better care is as essential to increased dairy production as is better breeding. In fact, without the introduction of real dairy methods the purchase of better bred dairy cattle will result in failure.

"Heavier feeding and extra care of cows will pay in more than half of the dairy herds of Ohio," says Professor Hayden of the Ohio State Experiment Station, after making a careful study of the management of Ohio dairy herds. Professor Hayden might just as well have included the other states in his conclusions, and for that matter the rest of the world where cows are kept for milk production, comments the editor of the Pacific Dairy Review. Nature made the cow to secrete enough milk to nourish her calf until it is able to subsist on the same kind of food that its mother eats, continues our western contemporary. This requires a very small amount of milk and at five or six months she is through with the nursing job.

Some men, wiser than others, have taken the native wild cow and, by careful breeding and skillful handling, have vastly developed and increased her capacity to give milk. What the modern dairy cow yields in excess of what her calf requires is, therefore, an artificial factor in her makeup and, like most other artificial things, is unstable, and the tendency in the cow is for her milking function to revert to its native state. It is by artificial methods, so to speak, that the specialized milking function is maintained.

It is a mistake to think that once bred into animals, it remains. It may persist in a given cow for a while or for a generation, but it would soon be lost. If we were asked to give a definition of what constitutes a dairyman, as distinct from a mere cow-keeper, we would say that it is in a person's ability to maintain this artificial nature of the modern highly specialized dairy cow. It means not only to breed her for it, but care in feeding and management to coax out the limit of her milking capacity. Her ration must be right in composition, ample in quantity, and palatable. She must be tempted to eat enough to make a good flow of milk and you might say, generally coddled.

We have little patience with that class of cow-keepers who are eagerly looking for the hardy cow, the rugged cow, the cow that needs little care and that, despite these qualities, gives a large flow of milk, and so on, or to those who put these things forward as a characteristic of their favorite breed. Such a cow exists only in the imagination of shiftless, would-be dairymen, and not on our cattle ranges. There is small efficiency in a rusty, leaky, weather-beaten and generally neglected locomotive. The more efficient it is, the more complicated and delicately adjusted is its mechanism and the more brains it takes to run it. A dairy cow is even a more complicated and delicate piece of machinery and one that requires brains and skill to keep it going at its greatest efficiency.



A MOST PROMISING HOLSTEIN BULL CALF OWNED BY THE U. S. DISCIPLINARY BARRACKS, LEAVENWORTH, BEING DEVELOPED FOR USE IN THE HERD

Danish Dairy Figures

Due chiefly to shortage of feed, the number of cows in Denmark is expected to decrease by about 100,000 within the next six months. The present estimated number of cows in that country is 950,000, which is about 200,000 less than in the summer of 1917. According to reliable reports received by the United States Food Administration the reduction in Denmark's butter supply will exceed 2,000,000 pounds during the coming year.

Facts like these should remind United States dairymen of the growing dependence of foreign populations on American dairy products. In pre-war years Denmark exported butter to the British Isles which now must look to other sources of supply.

Value of Pure-Bred Sire

Thomas O'Toole, a prominent beef cattle man in Western Kansas, who has been using registered bulls for a good many years, once remarked that he sold his calves at weaning time for from $10 to $12 per head more than neighbors who used scrub bulls. These registered bulls required practically the same amount of care and feed and yet they increased the value of each calf $10 to $12.

This is a statement made by W. A. Boys, agricultural agent of Sumner County, in a news letter to farm bureau members of that county. He says that Sumner County needs more pure-bred bulls to increase the returns from the cows now on the farms. We might greatly enlarge the territory included and say that there is hardly a community in Kansas where more pure-bred bulls could not be profitably used.

It is a part of the farm bureau program to encourage and assist in improving the live stock of the county. Those interested in getting better stock can get valuable help by calling on their county agent and talking the matter over.

Consumers Like Butter

There seemed to be a feeling of confidence as to the future of the dairy business among the best posted dairymen in attendance at the recent Dairy Cattle Congress and the National Dairy Show. These men did not seem to be worried because of the unfounded fears expressed by some that the high prices of butter would permanently change butter consumers into consumers of oleomargarine.

"Most of those who quit buying butter because they feel that prices are out of their reach will be back at the butter counter again when prices go down some," is the way these men express it. "There is no substitute for butter," they add. "It fills a need in the human diet that nothing else can supply. Those who give up butter for any reason do it merely as a temporary step and they expect to come back to butter again as soon as they believe they can. Butter is assured of continued demand after we win the war as well as now."

Uncle Sam's faith in butter is shown in the fact that he buys and uses more butter for feeding his army than he does of substitutes. The American army is now using butter at the rate of 1,250,000 pounds a month, as against 700,000 pounds of substitutes. In this country the army uses about five times as much butter as it does of substitutes; in France the proportions are about even, because of the greater difficulty in securing high grade butter in Europe.

Fall Feeding of Cows

As the pasture season comes to an end and the weather gets colder, dairy cows must be given extra attention and feeding or they will suffer a serious drop in milk yield. It pays to feed liberally at this time. Cows which are not well fed at this period go into the winter thin in flesh and with a reduced milk flow. It will not be an easy matter to get them back to their normal production after they go onto regular winter rations. A little extra rough feed and some grain at this time will not only give good immediate returns but will influence the milk flow for the whole year by putting the cow in good condition to go through the winter.

Cows which go into the winter period in good, hearty condition and with undiminished milk flow are the ones which will be in the best shape to use high-priced feeds during the winter period. There is no better roughage for use at this time than good silage and alfalfa or clover hay.

If a cold rain comes, keep the cows in the barn except for exercise and water. The first cold storms of the fall or winter have a serious effect on a herd of milk cows if they are not properly sheltered. It will pay to keep up the flow during this period of the year, even though it does require a little extra attention and feeding in advance of the regular winter feeding period.

Bull Association Results

The bull association cannot give you something for nothing, but it gives you the right to the use of a first class pure-bred bull for several years at an initial cost of about $50. These bulls can not increase the production of the cows you already have, but they may double the production of the daughters. The daughters of association bulls and grade cows can never be registered, but in every other respect they may be the equal of pure-breds. The bull association can not compel you to join, but if you do join you will soon own a better herd, and as a result become a more successful farmer.

Field Mice in Orchards

Field mice do a great deal of damage to young orchards unless protective measures are taken. Where the rubbish and grass is left around the trees the mice work under cover and frequently girdle the trunk. During the fall or early winter all weeds and rubbish should be hoed away from the trees, leaving the soil clean and well firmed about the trunks to a distance slightly beyond the spread of the branches. A slight rise of soil around the trunk of the trees is an additional advantage.

Rural schools and churches, even more than homes, should restore the old wood pile and make themselves sure of warmth this winter. Every building used during only part of the day or on one or two days a week should burn wood.



Make America Chemically Independent

ONE of the most inspiring results of the war is the way in which the chemical industries of the nation have awakened to their responsibilities and proceeded to make America chemically independent of the rest of the world. Very shortly we can add to this by saying that America is on the verge of being independent from a plant food standpoint — that the strangle monopolies on potash and on nitrate have been broken up.

It was a great achievement when the sulphuric acid manufacturers of the country, faced by inability to obtain Spanish pyrites, developed resources on such a scale as to save both the fertilizer industry and the munitions industries—for had this not been done the United States must have failed in its part in the war. It will also be an equally great achievement when the development of the by-product coking industry, and the erection of great plants for the fixation of atmospheric nitrogen, shall once and forever make us independent of Chilean nitrate.

Co-important with these developments is that of the American potash industry. Indeed, such rapid strides have been made in utilization of domestic sources of potash that today we can say that for 1919 there is already produced and in sight enough potash to more than satisfy the most pressing needs for this important plant food. When peace negotiations are fairly under way there will be no complications due to a fear of the German monopoly. This monopoly is broken, definitely and forever.

Perhaps the most marked progress this past year has been made by the Nebraska producers. Their 1918 production will be very close to, if indeed it does not exceed, the production from all sources in 1917. We can say that for the potato, tobacco and cotton crops of 1919—crops which respond to potash in marked degree, and crops which are injured by deficiency of this plant food element—there is now in sight a sufficient quantity of American-made potash to satisfy the need.

Preparing Furs for Market

Wrong methods of skinning, stretching and drying pelts cause the loss of thousands of dollars to trappers every year. The right methods to follow are just as easy if you know them—and here they are:

Skinning methods are of two kinds, "casing" and "open." Casing means peeling the skin off whole. Open means ripping the skin down the belly.

Animals which should be cased are the following: Mink, marten, weasel, opossum, fox, fisher, skunk, civet, muskrat, wildcat, otter, lynx, wolf and wolverine. Open skinning should be used with coon, badger, beaver, bear and cougar.

The following skins, before they become too dry, should be turned fur side out for shipping: Fox, lynx, fisher, wolf, marten, wolverine and wildcat. Leave the others, which are cased, pelt side out.

To case a skin, cut from the root of the tail down the inside of each hind leg to the foot. Then pull the skin carefully over the body and head. The tail should be skinned and the bone removed, except for muskrat and opossum. These two can be cut off, as they are worthless. Skinning is made easier by suspending the carcass from something, doing this by means of a strong cord tied around the hind legs. Draw the skin from the front legs. Cut off the ears—downward toward the head. Cut the skin loose about the nose and eyes.

In using the open method, cut from point of jaw to vent, also down back of hind legs and inside of front legs. Lynx, mountain lion, bear—which are valuable for rugs or mounting—should be skinned on the legs clear to the toes, leaving the claws attached. Smaller animals, valuable only as furs, may have the legs cut off.

Be sure to clean every bit of flesh and fat from the skins, using extreme care to avoid cutting.

Steel stretchers, which can be had in just the right shape for different skins, give the best results. If you do not use these, and do not know from experience the shape and size to make board stretchers, by all means write to one of the big fur houses for information. Improper stretching may make skins almost valueless.

When the skins are on the stretchers, put them in a cool, dry place—never in the sun or near the fire. Dry them just enough to prevent shrinking and wrinkling. If you find that a skin has become too dry to turn, soften a little with a damp cloth. But be sure to let the dampened spots dry out before shipping.

Do not use patented preparations for curing—just the natural drying.

This matter of preparing skins is extremely important and it will mean many more dollars in your pocket to secure some trapping book which goes into full detail about it. Or, as suggested, write to a fur house for information. They are interested in getting furs in perfect condition and will be glad to tell you how.

Do Not Sell Liberty Bonds

The wide distribution among millions of American citizens of Liberty loan bonds makes our Liberty loans, according to Secretary of the Treasury McAdoo's expressed opinion, the soundest of national financing. That these bonds be kept widely distributed amongst the American people is of great importance to the nation and to the individual holders of the bonds.

United States Government bonds in the past have gone above par, as high as $139 for a $100 4 per cent bond. That Liberty bonds will go well above par when peace comes is very probable. Holding one's Liberty bonds, therefore, is wise as well as patriotic.

Every holder of a Liberty loan bond should heed the caution to hold to his or her bonds, because there are going to be great efforts by shrewd and unscrupulous people to buy or secure at inadequate prices these bonds from holders who are not well informed as to stock and bond values.

Worthless or near-worthless stock or stock of only speculative value—"wildcat stocks" they are called—are going to be offered for Liberty bonds. Some will be urged not to sell or exchange their Liberty bonds, but to buy the stock and give the Liberty bonds as security for the purchase price. This is a camouflaged attempt to get Liberty bonds in exchange for the stock of their companies.

If every holder of a Liberty bond will consult a bank before he disposes of it, the get-rich-quick concerns will not prosper, but the individual bondholders will, and the American people as a whole will be benefited.

Teaching Farming in France

An agricultural college extension course with a faculty of half a dozen picked men has been organized among our soldiers in France and by a Kansas man. J. F. Vance, a Y. M. C. A. secretary, writes as follows of the enterprise, in Wallace's Farmer:

"It is a far cry from 'the embattled farmers' who stood against the invading foe at Concord and Lexington and 'fired the shot heard round the world' in the cause of human liberty in American Revolutionary days—a far cry from that to Yankee soldiers in France today, studying agriculture during the spare hours, under the auspices of the Y. M. C. A., in anticipation of the oncoming days when we shall all return from the battlefields of Europe to the fertile prairies of the 'good old U. S. A., otherwise known as the New World—the land of promise and fulfillment, flowing with milk and honey.

"But our educational department has just set up at 'The Ice Plant Hut,' somewhere in France, an agricultural college extension course with a faculty of half a dozen picked men from the ranks of our enlisted soldiers, who are university trained leaders, and with an initial enrollment and attendance of sixty-five in the class. I believe this piece of work is entitled to the distinction of being the first of its kind put on amongst our American troops in France. The credit for organizing this pioneer enterprise is due to Prof. William Edgar Ringle, in charge of the department of biology and nature study as applied to agriculture, in the Kansas State Manual Training Normal College, at Pittsburg, Kansas.

"The humble part of the writer was simply to visit a few of the cow stables in the Chateau district of France, and dicker with the milkmaids for the loan of a cow to be used by the lecturer to demonstrate from a living model the good and bad points of milk and beef cattle. We found some difficulty about leading the cow to the class, and decided to take the class to the cow about milking time.

"The interest in this practical educational feature is both surprising and exceedingly gratifying. The course of instruction is to include lectures on dairy and beef cattle, judging and breeding; dairy feeding, balanced rations, silos; dairy products, cow testing, etc.; feeding and raising hogs; horses, types, care and breeding; horticulture, fruits and berries; budding, grafting and pruning; soils and fertilizers; grains, grasses and forage crops; farm mathematics and mechanics; insect friends and enemies; vegetable gardening and landscaping; home sanitation; roads and road building; forestry.

"The following men constitute our faculty: D. R. Collins, graduate of the Iowa Agricultural College; Orson Morse, graduate of the University of Wisconsin; G. R. Skinner, graduate of the University of Missouri; A. N. Bissell, graduate of the Daver School of Tree Surgery, Kent, Ohio; Roy M. Loughren, graduate of the University of Idaho.

"Perhaps no better place could be found amongst our boys in France than here in the service of the supply department, where the food products of American farms are concentrated for distribution, and where thousands upon thousands of men are strenuously employed in getting subsistence and ordnance supplies to the battle fronts."

Keep Breeding Ewes Thrifty

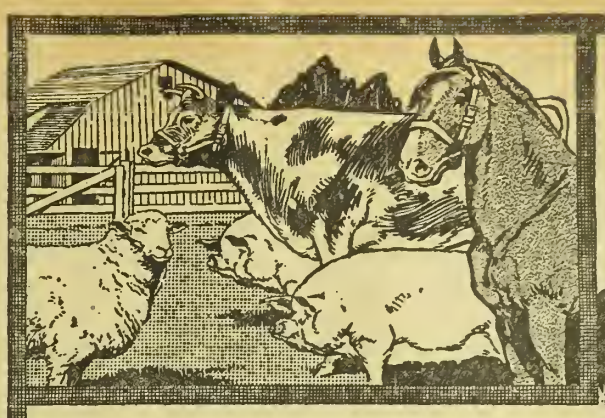
Breeding ewes should not be allowed to get too thin before the winter sets in. On some farms where the pastures were short during the late summer—and this was common everywhere — ewes that raised lambs may be in very thin and unthrifty condition. If the ewe flock is uneven in growth and development, it would be a good plan to separate the young, growing ewes and those that are very thin and unthrifty from the mature ones that are in good condition. Unless they have the run of very good pasture, the old thin ewes and the young ones should be given from a fourth to a half pound of grain daily. It will be easier to get them in condition while they are still running out on pasture than to wait until the winter sets in and they are being fed in the racks. Oats is a splendid grain for putting ewes into condition.

If the ewes go into the winter in good condition, about all the feed they will need until about a month before lambing will be good bright corn fodder and alfalfa or clover hay. Good clean silage may be substituted for the fodder. Only the very young or extremely thin ewes will need grain all winter. It is a mistake to get breeding ewes too fat. It wastes feed and also results in the dropping of weak lambs. The most favorable conditions are to have the ewes in ordinary thrift and having plenty of exercise every day. This should result in a high percentage of good strong lambs.

A little Cherokee Indian girl, not yet six years old, who lives in Okemah, Oklahoma, was asked by her aunt what she wanted for a birthday present. Juanita's modest request, says the Indian Leader, was for "knitting needles." The needles were given to her and she is now knitting industriously.

When Death, the Great Reconciler, has come, it is never our tenderness that we repent of, but our severity.—ELIOT.

When the boys are home and back into civilian garb we can cease working for them. But not before.





Don't Let Your Stock Lose their Summer's gain through November neglect

Your animals are now going on dry feed —hay and grain. It's a big change from the succulent, nutritious grasses of summer pastures which supply the needed laxatives and tonics.

Keep your animals' bowels open and regular—drive out the worms—keep their blood rich—keep their digestive apparatus in order—by feeding Dr. Hess Stock Tonic.

A Conditioner and Worm Expeller

Don't allow your stock to "get off feed" and in a rundown condition. Dr. Hess Stock Tonic eliminates waste and gives appetite, good health and good digestion. It enables animals to get the most benefit out of their feed.

Buy Stock Tonic according to the size of your herd. *Here's a suggestion for your guidance:* Get from your dealer 2 pounds for each average hog, 5 pounds for each horse, cow or steer, to start with, feed as directed and then watch results.

Why Pay the Peddler Twice My Price?

You buy Dr. Hess Stock Tonic at an honest price from a responsible dealer in your own town who guarantees it, and who refunds your money if it does not do as claimed.

25-lb. Pail, $2.25; 100-lb. Drum, $7.50

Except in the far West, South and Canada

Smaller packages in proportion

DR. HESS & CLARK, Ashland, Ohio

DR. HESS STOCK TONIC

Dr. Hess Poultry PAN-A-CE-A

Will Start Your Pullets and Moulted Hens to Laying

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Horse Blanket

The strongest, warmest and longest wearing medium-priced square blanket made. Size 84 by 90 inches. Beware of imitations. Make sure of getting the genuine by looking for the 5A trademark.

Ask your local dealer.

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Also a superior line of 5A Motor Robes

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Our wonderful book reveals old trappers' favorite methods, where and how to trap, best baits to use, how to prepare skins, little kinks that will increase your profits. Mailed FREE. Also includes Game Laws, and big list of Trappers' Supplies at rock-bottom prices—Steel Traps, Guns, Smokers, Baits, etc. Our market reports free!



Trappers are going to make heavy profits this season, due to bigger demand for skins, and so many trappers in army. Write at once for above book and fur price list so you will be ready.

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Don't Crowd

In a hamlet near Ashford, boasting only nine inhabitants, the following notice has been posted up by the authorities: "In the event of an air raid do not collect in a crowd."—New York Sun.

Chasing the Hun

"During the last drive the Jerries—Germans—retreated so fast we wore out most of our horses trying to keep up with our guns," writes Louis J. Collister, according to the Manhattan Nationalist. "The batteries were in the same fix. They would arrive at a place, set their guns, get the range, and then before they could fire a shot be ordered to move two or three miles farther forward."

Interesting War Items

Why Soldier Is Thankful

In the South Kansas Tribune, Ellsworth Marsh gives in a very readable letter a number of reasons this soldier found for thankfulness even before the signing of the armistice which brought peace.

"First," says the writer, "we are thankful we are over here. Now how do you suppose we manage to find the fact that we are over here and in the fight a source of comfort?

"I fit in, as do all the other men who are over here, exactly; and I like my job. I am as contented as are the men back home who are following the various lines of pursuit. So if a fellow is satisfied with his surroundings, why shouldn't he be glad that he is where he is?

"I cannot operate a typewriter with sufficient dexterity and accurateness to meet the demands of a government official, nor have I the genius to fill the coffers of the American Red Cross Society with coin. Naturally, I am constrained to do the thing which I can do. So I am glad I am over here.

"We are thankful that you people back home are not over here. Oh, no; it isn't because we shudder at the thought of an occasional meeting with you and a friendly handshake. It isn't because we feel that we require no real friendship. It isn't because there is a feeling of ease and comfort arising from our knowledge of the fact that some three or four thousand miles lie end to end between our bunks and those homes back in America. No, there are other reasons.

"Quite frequently I find myself gazing at the beautiful hills covered with pine trees and sniff the cool breeze from the shady depths and think how fine it would be if some of those loved ones back home were only with me.

"Suddenly there is a whir, an explosion. A shell, sent on a deadly mission by the boche, explodes a hundred feet away. Stones, earth, and even small trees are thrown in all directions. Suddenly a whistling sound reaches my ears and I realize that shrapnel from anti-aircraft guns is falling. I must not run, because I have no conception of which direction I should go. 'Thud!' the nose of a French '75' buries itself in the earth near a log ten or twelve feet away. We are then so glad you are not over here with us."

After expressing his appreciation of the Y. M. C. A. canteen service and the work of the Red Cross, this soldier says: "I looked away to the north, fixing my gaze upon the North Star, the same North Star that you would see if you were to go out some night and allow your eyes to follow the imaginary line made by two particular stars in the Big Dipper. Those few thousand miles seemed to shrink and America drew near. I felt its nearness and was preparing to shout across and tell you how thankful we are to you all for doing the good things you do for us—when a military police placed his hand on my shoulder and told me it was time to 'turn in.'

"Yes, we are glad we are over here, and glad, oh, so glad, you good people are over there."

A Young Hero

The battle had ended. For a little while the guns of both the Germans and the Allied forces were silent. From the open space between the lines in No Man's Land came calls for water—the short, sharp cries of men who have not long to live.

"Something must be done," said a lieutenant in the American trenches. "We can't allow that. Who will volunteer to go out and bring in the wounded?"

Among the men who responded was a boy of seventeen who said eagerly, "I want to go; let me go."

"All right," consented the officer, "I choose you. Take several others with you and go out after those men."

They ran a truck out over the field and returned safely, bringing in a full load of wounded without loss. The trip was repeated and another load was rescued. As they returned for the third time a shell burst above the volunteer and he was badly wounded. He was taken back to the lines and the general, who had seen the whole thing, bent over the young hero. "That was a brave act, my boy, an heroic deed," he said; "but the doctor tells me you have only a few minutes to live. Is there any request you would like to make or any message you would like to leave?"

"Yes," was the answer, "I would like to ask one question: Do you think I did my duty?"

"Indeed, you did!" the general assured him.

"Then I'd like to ask you to write to my mother and tell her I died doing my duty." And so the brave young life passed out, having already accomplished more of real unselfish service for his fellows than is given most of us to perform in the course of a long lifetime.

Naughty Boys!

"Y. W. C. A. hostess house?" inquired a boyish voice over the telephone at Camp Funston the other day. "I have been off my feed for several days and I seem to need something different from this army grub. I just wondered if you wouldn't fix me up something like my mother used to."

"Of course we will," replied the sympathetic secretary. "What would you like to have?"

"Well, if it isn't too much trouble," said the soldier diffidently, "I would like a poached egg and some milk toast."

"Come right on over," was the hearty response from the other end of the line; "we'll have it ready for you."

The secretary slipped out to the kitchen and did her best to prepare for the homesick lad a lunch "like mother used to fix." In a few moments in walked, instead of the one sick boy she expected to see, six big stalwart soldiers, all "off their feed" and needing a diet of poached eggs and milk toast.

The St. Mihiel Drive

The significance of the American army's success in the St. Mihiel drive is outlined by Frank H. Simonds, authority on military affairs, as follows:

More Americans fought side by side in this battle than in any other battle in our history.

More men were engaged on both sides than in any battle in which an American army under an American general ever fought.

A larger uninterrupted advance was made in one day in this battle than in any one day of the four years of war on the west front.

More prisoners were taken than in any twenty-four hours of the war on the French front.

A larger area of French territory was liberated than in any equal period since the lines stabilized in 1914.

"In our own national history, as in world history, the battle of St. Mihiel," he says, "will have an enduring place. To the world it announced the arrival of America in her appointed place in the battle line of civilization: to Americans it means a reassertion of the fundamental unity and solidarity of the American people."

The Highest Compliment

Could anything better be said of the spirit of our boys, inquires Association Men, than this, coming from Lieutenant Wray of the University of Glasgow: "Wounded soldiers who fought beside your soldiers praise them greatly. One lad said to my sister: 'The Yanks are great. They are far ower better fighters than the English and French. They are nearly as good as oorsel's.'"

From a Colored Soldier

A negro lieutenant, quoted in Association Men, writes: "The deportment of our regiment has been excellent and we have had few, very few offenders. Our morale is still at the peak and we have every confidence that we will hold our own against the boche when we meet him. We have received a most wonderful reception everywhere we have gone, and I am most proud to relate that very, very few of the men have violated our confidence in their attitude towards the inhabitants. I love the French. We have entered into their most intimate affections and we won't violate their trust. . . .

"I would be happy to have millions of colored soldiers over here fighting to preserve the dearest and highest valued thing on earth to the nations of the world and to future generations—Liberty. Death is nothing, for I love my race more than life itself."

Their Christmas Presents

These young American sergeants of the signal corps could not send presents home on Christmas, so they had a Christmas by proxy. Each one of them sought out "a little French kid," bought him a suit of clothes, gave him a big Christmas dinner and a lot of presents. It is a question whether the host or the boy was the happier. One sergeant, a boy of twenty-two, wrote: "It is the biggest Christmas I ever had."—Association Men.

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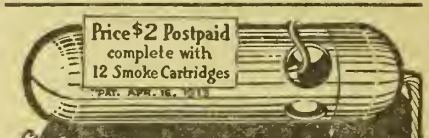

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THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

O GIVE thanks unto Jehovah, call upon His name;
Make known among the people His doings.
Sing unto Him, sing praises unto Him;
Talk ye of all His marvelous works.
Glory ye in His holy name;
Let the heart of them rejoice that seek Jehovah. . . .
He is Jehovah, our God;
His judgments are in all the earth. . . .
Praise ye Jehovah! —105th Psalm.

How to Sweeten Cranberries

Cranberries are now in the markets. They find a ready place on the table. They always are associated with Thanksgiving and Christmas dinners. This year the scarcity of sugar may cause many to hesitate to use them. Cranberries may be served without emptying your sugar bowl.

Because of the acid content of cranberries, sweeteners such as sorghum, cane or corn syrup may be used even more successfully than with other fruits. Cranberries may be combined with other fruits which are sweet, such as apples, figs, and raisins, either to extend or modify the cranberry flavor or to add sweetness to it.

Cranberries may be dried to extend their season. They are valuable in giving color to sauces and desserts. Add a few to puddings and sauces to improve flavor and color.

Cranberries are a valuable food because of the acid they contain. Many like the acid flavor while others acquire a taste for it. The recipes suggested use sugar savers:

CRANBERRY SAUCE
1 quart cranberries
1 cupful raisins or figs or cocoanut
3 cupfuls water
½ cupful sorghum or cane syrup

Inspect and wash cranberries. Prepare raisins, cut in small pieces, and add to cranberries and other ingredients, and cook until tender.

CRANBERRY SAUCE
1 quart cranberries
3 cupfuls water
½ cupful sorghum or cane syrup

Cook cranberries with water and sweetening until soft, about twenty minutes.

CRANBERRY JELLY
2 quarts cranberries
1 quart water
1 to 1½ cupfuls light syrup

Cook cranberries in the water twenty minutes. Put through a sieve. This amount would make about one quart of juice and pulp. Add sweetening and cook about ten minutes, or until it will give a jelly. Turn into molds.

CRANBERRY PUDDING SAUCE
1 cupful cranberry juice
¾ cupful syrup
½ cupful water
2 tablespoonfuls flour
1½ tablespoonfuls lemon juice

Mix flour with cold water. Add to juice and sweetening and bring to a boil. Cook five minutes, stirring constantly. Add lemon juice and serve hot. Use on vanilla, cornstarch or steamed puddings.

CANDIED CRANBERRIES
1 cupful cranberries
½ cupful syrup

Choose large red cranberries and prick each one three or four times. Drop them carefully into the boiling syrup and allow them to cook slowly for five or six minutes. Remove from the fire and allow to stand over night. Reheat and allow them to stand another night if possible. Then remove the berries from the syrup, while hot, and drop on well oiled paper or plate to dry. These may be used in the place of candied cherries for decorations. — U. S. Food Administration.

Possibilities of Hash

Hash is an ancient and honorable dish which has fallen into disrepute in some sections because in the hands of an unscrupulous cook "boarding-house hash" furnishes so ready a disguise for "comebacks," or bits of meat left on the plate at mealtime. Prepared in the home, however, from wholesome ingredients, it is an appetizing and healthful food.

The small potatoes may be boiled in their skins, then peeled and used in this dish. Cold meats may also be used, but hash is at its best when made from meat that has lost none of its juices or tenderness by previous cooking. The cheaper cuts may be utilized in this way. A little chopped onion adds piquancy and improves the dish for many people.

Use only a little fat in the pan, warm it, then add the meat, onion, and previously cooked potatoes, chopped fine. If your meat contains plenty of fat, no additional fat will be needed. Season with salt and pepper and cook slowly until the meat is almost done, then brown it over a quick fire. If the meat requires a long time to cook, it will be better to add the potatoes after it has cooked a few minutes. If the potatoes get too dry in cooking, a little water may be added. Hash may be baked instead of being fried, beginning with a moderately slow oven and gradually increasing the temperature. Served southern style with a poached egg on top of each helping, it is delicious. It may also be served on toast with or without gravy.

An Extra Pound of Sugar

The new sugar ration of three pounds per person each month went into effect just in time to permit us to accumulate a little extra sugar for Thanksgiving and Christmas. The extra pound will also help in taking care of the apples and cranberries now available or in sweetening the sugarless fruit canned through the summer. While the increased amount available eases the household situation, it permits no extravagance with the sugar spoon.

Chapped Hands

In winter the frequent changes of temperature in which the hands of the housewife must work, with the tenderness which comes from having them much in water, make it necessary to give the hands some special care to keep them from becoming rough and red or perhaps chapped and sore. Taking care to wipe them thoroughly dry after washing is a wise precaution. Some oil, such as melted tallow or glycerin, may be rubbed into the hands at night. A mixture of glycerin and bay rum is liked by many people for this purpose. Rubbing the backs of the hands after wiping is also helpful, as it brings out the natural oil of the skin. Avoid the use of strong soaps which irritate the skin.

If the hands are badly chapped, pour boiling water over bran or rolled oats, let it stand until a thick porridge is formed, and use this for washing the hands.

To Make Woolens Last

Conservation of clothing is as necessary as conservation of food, especially conservation of woolen clothing. Not the least danger to flannels, sweaters, and other woolen garments is poor laundry work.

The home economics department of the University of Wisconsin recommends the following method for washing woolen clothing, especially flannel shirts and sweaters:

Soak the garment for at least an hour in cold or luke warm soap suds. It may be soaked as long as ten or twelve hours. Then agitate it very lightly in the water, using plenty of water. Do not rub out on washboard. Rinse in water of the same temperature. Wring out carefully and hang up immediately to dry. In the summer, hang it in a shady place; in the winter, hang in the sun.

Never use water warmer than lukewarm in any part of the washing. Do not boil. Do not rub, wring, or twist garments roughly or tightly. Release the pressure on the wringer. Do not use strong soaps or washing powders.

This stock soap solution is recommended for washing both silks and woolens:

One small-sized cake of good neutral soap cut or shaved into small pieces, one quart of water heated until the soap chips are dissolved, one cupful of borax. Use enough cold water to cover; let the garment stand over night in the suds.

Timely Tongue Twisters

"Saving sugar saves shipping space for sending soldiers and supplies" is an alliterative tongue-twister for children suggested by a correspondent to the Farmer and Stockman of Kansas City. If youthful tongues need further loosening, this might be tried: Patriots' poultry products play a prominent part in preventing the progress of the Prussian peril.

One Carping Critic

Much of the human attitude toward things in general was expressed by a North Side matron who said she would like to oblige the Government and eat more fish except for the fact that "fish tastes so economical."—Chicago News.

Peace on Earth

Blow, bugles of battle, the marches of peace,
East, West, North, and South, let the long quarrel cease;
Sing the song of great joy that the angels began,
Sing of glory to God and of good will to man. —Whittier.



Mincemeat Without Sugar

Clever cooks are experimenting to find some way to make mincemeat for Thanksgiving without sugar or with little sugar. A number of substitute sweeteners have been suggested, among them boiled apple juice, boiled cider, molasses, and corn syrup.

A recipe which has been tried with satisfactory results at our Agricultural College comprises these ingredients:

1 cupful chopped meat
3 cupfuls chopped apples
1½ cupfuls raisins
1½ cupfuls currants
1½ cupfuls corn syrup
1 cupful apple juice
⅛ cupful molasses
1 cupful meat juice
2 teaspoonfuls salt
2 teaspoonfuls cinnamon
½ teaspoonful each cloves and nutmeg
1 lemon, grated
½ cupful boiled down cider

Another recipe which uses a small amount of brown sugar follows:

1 cupful chopped apple
½ cupful of raisins
½ cupful currants
¼ cupful butter
⅓ cupful molasses
⅓ cupful corn syrup
½ cupful brown sugar
1 teaspoonful cinnamon
½ teaspoonful cloves and nutmeg
1 teaspoonful salt
1 cupful chopped meat

Oatmeal Macaroons

1 tablespoonful fat
6 tablespoonfuls corn syrup
2 tablespoonfuls sugar
1 egg
1½ cupfuls oatmeal
¼ teaspoonful salt
½ teaspoonful baking powder
1½ tablespoonfuls flour
2 tablespoonfuls almond extract, if desired.

Combine the melted fat and the sugar and syrup, add the beaten egg and stir in the other ingredients. Drop from a teaspoon on greased baking sheets or pans and bake in a moderate oven for about fifteen minutes.

This makes twenty-five to twenty-eight cookies about two inches in diameter.—U. S. Food Administration.

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ROSE COMB BROWN LEGHORN COCKerels for sale, $1.50 each. Leonard Applewhite, Piedmont, Kansas.

S. C. WHITE LEGHORN COCKERELS, Farris strain, $2 and $3 each. Ray Heel, Manchester, Okla.

FOR SALE — PURE-BRED BLACK Langshan cockerels of good laying strain. Joe O'Brien, Route 3, Zurich, Kansas.

PURE-BRED S. C. BROWN LEGHORN cockerels, $2 each; six for $10. Mrs. L. H. Hastings, Thayer, Kansas.

STANDARD BRED R. C. RED COCKERels, $2 and $3 each. Mrs. B. F. Weigle, Winfield, Kansas.

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FOR SALE—BARRED ROCK COCKERels, layers and winning strain. Farnsworth, 224 Tyler, Topeka.

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FOR SALE — ONE ROSE COMB AND several S. C. Brown Leghorn cockerels, two to five dollars each, and eight hens. $1.25 each. L. D. Speenburg, Belleville, Kansas.

SILVER WYANDOTTE COCKERELS, $2, $3 and $4 each. Experienced breeder. Ralph Sanders, Springdale Stock Farm, Osage City, Kansas.

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ONE THOUSAND FINE SHOW AND breeding birds for sale in November. Barred Rocks, Brown, White, Buff, Silver and Black Leghorns, Langshans, Cochins, Brahmas, Polish, Bantams. Ducks and geese. Best bargains ever offered. Write today for prices on what you need. Modlin's Poultry Farm, Route 7, Topeka, Kan.

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REGISTERED SHROPSHIRE RAMS from imported stock. Registered Shorthorn bulls. Western Home Farm, St. John, Kan.

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120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

RED POLL BULL CALVES, HIGH grade, weighing about 500 pounds each, at $50 each. Earl Scott, Belvidere, Kansas.

HOLSTEIN BULL, REGISTERED, 20 months old; good one. $175. O. T. West, Hartford, Kan.

FOR SALE—EIGHTY HEAD OF REGISTered Holsteins, cows and heifers, fresh and springers. Bulls ready for service. Calves and heifers. Prices almost as low as good grades. Frank Bock, Route 9; Vernon Walling, Route 1, Wichita, Kansas.

FOR SALE—KORNDYKE FINNEY LAD, grandson of state champion cow, two years old. Papers go with him. Price, $150. Also twenty head high grade Holstein heifers one year and under. C. F. Schaaf, Deerfield, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

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HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Poultry Club Stories

ALL over Kansas boys and girls did fine work the past season in poultry raising. Members of poultry clubs were required to write stories telling of their experiences. "The Barred Rocks are the best for the farm, because they are good layers and get fat quicker than some other kinds do," said Elsie Marshall, a member of the Glenwood Poultry Club in Leavenworth County, in beginning her story. "The best kind of a house to use for housing chicks is a medium-sized house with a large door on the east and a small door on the west for letting out the little chicks. There should be about four windows on the south side so they can have the sunshine on them almost all day.

"The best house for housing old hens is a large house with three rooms in it, one on each end for the laying room and the room in the middle for a roosting room. The two laying rooms should have two rows of nests on each side of both rooms. The hen house should be located where it will have good drainage and where it can get the sunshine from the south.

"The chicks should not be fed for forty-eight hours after they are hatched. After the chickens are weaned I would feed them the same as I did when they were weaned.

"The mother hen should be kept with the chicks when small so she will help them to learn to hunt bugs and eat their food.

"The coops and brood houses should be cleaned every week so as to keep down the mites and lice.

"The eggs produced on the farm should be infertile for table use, so if they are kept two or three days they will not have the chickens started to grow in them. They will be better for market, too.

"Part of my chicks were eaten by a hog."

Helen Timmons is another member of the Glenwood Club who has done good work. Her story follows:

"This is my first year in the poultry club. I am twelve years old. I live on a farm near Basehor, Kansas. I joined the poultry club early in the summer. In June my mother ran a nail in her foot and I had to take care of the farm flock of about 300 young chickens of a couple of different breeds which were but a few days old. There were about 200 young Leghorns and about 100 young Buff Orpingtons. I was taking care of them when Mrs. William McConnell, our club leader, discovered that I was taking care of the farm flock, and she told me that she wanted me to join the poultry club and take one kind of either breed of chickens. I took the Leghorns which we bought from a neighbor when they were but one day old. They were incubator chickens, but the Buffs were hatched by hens.

"My father was building a new barn, so he took the remaining lumber and built the Leghorns a new chicken house so that we could keep the different breeds separate. The new building had two compartments in it and each side had four coops, which made eight coops with twenty-five chicks each. The rats got to the chicks and got about thirty of them and about as many more died. We have eaten quite a few, as meat was scarce and we wanted Uncle Sam to have as much as possible. We are going to keep the seventy pullets for breeding stock, but we are going to sell the roosters for breeders.

"We fed the chicks wheat screenings and buttermilk. The Buff pullets which were hatched in March are laying, but I do not expect the Leghorns to lay till November. I am going to send in my egg report as soon as I can. The chickens are all running on range. I soon hope to have some snowy white eggs."

Pure Breeds Are Best

Occasionally one comes across a farmer who believes that common scrub fowls are hardier and more profitable than the pure breeds, but the number is getting less every year.

It costs no more, after the first purchase, to keep a flock of improved fowls than it does to harbor dunghills or cross breeds. Either kind, when properly fed, will eat just about as much as the other. Or, if there be any saving, it is so trifling as between one or the other kind that it is not worth noticing. If judiciously provided for and tended from the shell upward, as all fowls should be cared for, either of the larger breeds will make good eating poultry at the proper age, and the hens of any one kind will lay an abundance of eggs, take them as they average, throughout the year.

Among any of the pure breeds there will always be found some exceptionally good ones for breeding purposes, or for exhibition. All these finer specimens will command the highest current prices among fanciers or amateurs, who are about to commence the propagation of prime stock, and who are disposed to pay the better prices for such specimens. At the same time the imperfect birds, as to form, color and other Standard requisite points, come to good size at maturity, and will pay much better for their keeping, at the right killing age, than will the runts or the smaller barnyard fowls, which cost quite as much to feed and to bring them to the proper state for slaughtering. The improved hens will, in a season, lay one-third more eggs, in number, and of a larger size usually, than will the dunghills. As broilers, the young cockerels of the heavy breeds are fitted for this purpose at a much earlier age, and so are far more valuable in this respect than are the lesser sized or common varieties.

In any view, then, it has come to be well determined that pure-bred fowls are the most economical, the most valuable and the most desirable for all purposes, and although any of these better breeds cost a little more at the outset, the product they yield in twelve months in eggs and meat alone, saying nothing of the income that may be had from extra good specimens, will be found far more satisfactory and more profitable than will the same number of the ordinary dunghill breeds.—THOS. OWEN.

Sell Drones from Flock

The fall culling of the flocks is generally over, but it is not too late yet to cull out stock that is sure to be unprofitable if kept through the winter.

"Culling is a comparatively simple process," says E. H. Wiegand, State Poultry Club leader. "Where the different characteristics or several of them in the case of any individual agree as indicating good production or poor production, selection is comparatively accurate. Where they do not agree, judgment must be used in deciding which should be given the greatest weight. The following are the main points to consider:

"Sickness and lack of vigor, molt, shank color, beak color, vent color, appearance of vent, pelvic bones, distance from pelvic bones to keel bone, flexibility of abdomen."

A careful study of the flock as a whole and close observation of the habits and characteristics of certain hens will aid one greatly.

For certainty in every point mentioned the best plan is to read some special article on the subject, such as "Culling the Flock," a pamphlet put out by the poultry extension department of the Kansas Agricultural College.

Before fowls are killed they should be without food for fourteen to sixteen hours. If this is not done and they are full of food when killed, the carcass soon decomposes, turns the flesh green and renders it comparatively worthless. Even if the food has passed out of the crop into the bowels, the fowls will not keep very long, as the half-digested food in the interior causes them to spoil and give an exceedingly unpleasant odor.

Chickens Sick?—Use Germozone
Roup, colds, bowel troubles, sore head, limber neck, etc. At dealers or postpaid 75 cts. with 5 book Poultry Library.
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This book is a PRACTICAL Farm Account Book which has been developed under the direction of the United States Government men, working in co-operation with hundreds of farmers in Kansas. It is not merely theoretically correct, but has been prepared to fill the needs as shown by practical use on farms in this state.

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The book which KANSAS FARMER is offering on this page, FREE to subscribers, is gotten up with the idea of keeping all the information necessary and valuable with the smallest amount of work. The book is a one-year record. It is small and convenient to keep. It contains full but simple instructions on how to keep the records required, with sufficient blanks for all entries.

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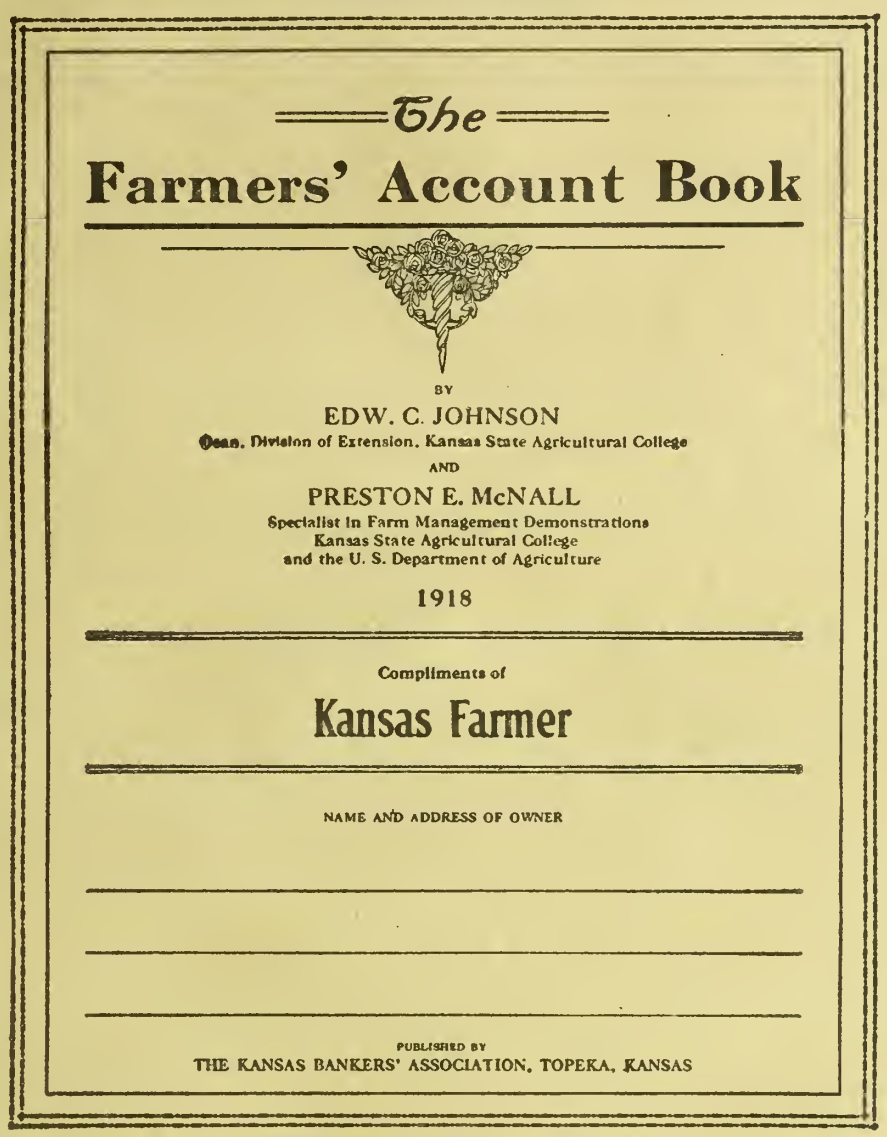

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This book has been used in Farm Management studies on hundreds of farms in Kansas where owners have heartily co-operated and offered many valuable suggestions for making it thoroughly practical and suited to actual farm conditions. These suggestions have been incorporated in this latest edition.

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It is the ultimate object of the Internal Revenue Office to adopt a uniform method of computing farmers' incomes. This includes farm inventories, farm receipts, and farm expenses, and follows very closely the book which is given by KANSAS FARMER to its subscribers. From year to year there may be a few slight changes made. For this reason it is best to buy a one-year book in order that each year your book will conform to the Internal Revenue rulings for that year.

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135 HEAD---TWO DAYS

LINWOOD, KANSAS, FRIDAY AND SATURDAY, NOV. 29 AND 30, 1918

The Greatest Opportunity of the Year to Secure High Class Pure-Bred Holstein Females.

On Friday, November 29, beginning at 12 o'clock, noon, the **Linwood Boys' and Girls' Pure-Bred Holstein Club** will sell forty-eight of heifers, just old enough to breed. This is one of the classiest and best bred lots of heifers ever put into a sale in the Central West. Every one of them is sired by a well-bred bull and out of high-producing dams. The very best producing families of the breed are represented. Anyone in the market for foundation stock cannot afford to overlook this opportunity.

ON SATURDAY, NOVEMBER 30, BEGINNING AT 10 O'CLOCK, A. M., THREE CONSIGNMENTS WILL BE SOLD.

A. S. NEALE, OF MANHATTAN, KANSAS, will sell forty head selected from his herd of 250 head. This is not a consignment of culls, but includes some of the very best young cows and heifers in the herd. Those of breeding age are in calf to either a bull whose dam made over thirty pounds of butter in seven days, or to one whose dam has a record of 27,844 pounds milk and 1,159 pounds butter in a year. Everything in this lot guaranteed to be right in every way. Not an old cow, or one with unsound udder, in the lot.

ELLIS & BECK, OF OMRO, WISCONSIN, two young breeders who are engaged in war activities, will sell their entire herd of thirty-two head, half of which are of milking age. This is a herd of good ones and could not be bought were not both owners with the colors. Only high-class females were selected as foundation cows, and these were mated to choicely-bred bulls. Do not miss the chance to get some of these excellent cattle.

THE UNITED STATES DISCIPLINARY BARRACKS, OF LEAVENWORTH, KANSAS, will sell a few well-bred bulls.
All animals over six months of age tuberculin tested by approved veterinarians.

Linwood is twenty miles west of Kansas City and can be reached by either the Union Pacific Railroad or the Kaw Valley Electric. Hourly service to Kansas City and Lawrence.

Remember the dates and plan to attend both days. For catalog address

Auctioneer, J. E. MACK, Ft. Atkinson, Wis.

A. S. NEALE, Sale Manager, Manhattan, Kansas.

Registered Polled Durham and Shorthorn Cattle

FOR SALE—Twenty Head of Shorthorn Cows and Heifers bred to our show bull, SULTAN'S PRIDE, at $200 each for immediate sale. Also a few Shorthorn bulls at bargain prices.

Twenty-five Heal Polled Durham Bulls of choice breeding, sired by Roan Orange, a 2,500-pound bull, and Sultan's Pride, a winner at three state fairs.

I will meet all trains except Sunday and show my stock. Write, wire or phone me.

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Pearl Shorthorn Herd

One of the oldest and strongest herds in the West, Scotch and Scotch-topped reds and roans. Yearling bulls and well grown last spring calves. Mostly sired by Marengo Pearl 391962 and Orange Lovel 420052.

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For Sale — Ten bulls, seven to fifteen months old; Scotch and Scotch topped. Two Scotch bulls by Type's Goods, one a Brawith Bud, the other a Duchess of Gloster. All in good condition and priced reasonably.

S. B. AMCOATS, CLAY CENTER, KANSAS
Write Me Your Wants

MARKS LODGE RED SHORTHORNS

For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.

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160 acres fine wheat, corn or alfalfa land, finest creek bottom. Balance pasture and meadow. $6,000 improvements. A bargain. Fine investment. Price, $55 per acre.

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L. F. RICHARDSON - TOPEKA, KANSAS
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Beautiful Shawnee Co., Kansas, Farms, near Topeka. Can fit you out in any size farm desired. Twenty years on one-third. List free.

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CLAIM SALE DATES.

Jacks and Jennets.

March 25, 1919—H. T. Hineman & Sons, Dighton, Kan.

Holsteins.

Nov. 29—Boys' and Girls' Pure-Bred Holstein Club at Linwood, Kansas. A. S. Neale, Manhattan, sale manager.
Nov. 30—Consignment sale, Linwood, Kansas. A. S Neale, Manhattan, sale manager
Dec. 12, 1918—Wichita Sale Holstein Cattle, Wichita, Kan.
March 25, 1919—Kansas Holstein Breeders' Association sale, Topeka.

Shorthorn Cattle.

Feb. 14, 1919—H. E. Huber, Meriden, Kan.

Poland Chinas.

Feb. 6, 1919—H. B. Walter & Son, Effingham, Kan.
Feb. 7, 1919—Fred B. Caldwell, Howard, Kan.
Feb. 8, 1919 — Willis & Blough, Emporia, Kan.
Feb. 11, 1919 — O. B. Clemetson, Holton, Kan.
Feb. 12, 1919—James Barnett, Denison, Kan.
Feb. 13, 1919 — Herman Groninger & Sons, Bendena, Kan.
Feb. 17, 1919—Ed Cook, Mayfield, Kan.
Feb. 18, 1919—F. Olivier & Son, Danville, Kan. Bred sow sale.
Feb. 19, 1919 — A. J. Erhart & Son, Ness City, Kan.
Feb. 20, 1919 — Ross & Vincent, Sterling, Kan.; sale at Hutchinson.
Feb. 21, 1919—Bruce Hunter, Lyons, Kan.
Feb. 22, 1919 — Bert E. Hodson, Ashland, Kan.; sale at Wichita.
March 4, 1919—Schmitz Bros., Seneca, Kan.
March 5, 1919—Jones Bros., Hiawatha, Kan.

Duroc Jerseys.

Jan. 28—W. R. Huston, Americus, Kan. Duroc dispersion and general farm sale.
Feb. 14, 1919—W. W. Zink, Turon, Kan.
Feb. 26, 1919—John W. Petford, Saffordville, Kan.; sale at Emporia.
Feb. 27, 1919—W. W. Otey & Son, Winfield, Kan.
Feb. 28, 1919—Wooddell & Daner, Winfield, Kan.

Spotted Poland Chinas.

Dec. 17—Geo. Akens-Failer & Miller, Rossville, Kan.
Feb. 25, 1919 — Everett Hays, Manhattan, Kan.

Chester Whites.

Feb. 11—Arthur Mosse, Leavenworth, Kan.
Feb. 27, 1919 — Henry Murr, Tonganoxie, Kan.

POLAND CHINAS.



Faulkner's Famous Spotted Polands

THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

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Deming Ranch Poland Chinas. Big-Type Poland China Hogs

For Sale—Fifty spring boars, real farmer boars and herd boar prospects; 100 bred sows and gilts. Write or come and see our herd.

Deming Ranch, Oswego, Kan.
(H. O. Sheldon, Herd Manager)

O. L. Isaacs, of the Isaacs Stock Farm, Peabody, Kansas, is the owner of a splendid herd of big-type Poland China hogs. Mr. Isaacs has used in the herd as chief herd boar a son of Big Bob Wonder, which hog came from the H. B. Walter & Son herd at Effingham, Kansas, and the results from this line of breeding have been very satisfactory in the Isaacs herd. He is also using a Giant Buster boar. While Mr. Isaacs always has on hand several well bred boars for use in his herd, he is very particular about the type of sows kept on the farm. He will not keep in the herd a brood sow that does not farrow large litters and raise them. He handles his hogs in a way that insures their future usefulness, and a feature of the herd at this time is a splendid lot of spring boars.

John W. Petford, of Saffordville, Kansas, is the owner of one of the good herds of Duroc Jersey hogs in Central Kansas. The farm is a natural hog farm of 320 acres, suitably arranged with alfalfa, lots of natural shade and plenty of water, being well planned for growing hogs for profit. Mr. Petford has announced February 26, 1919, for his annual bred sow sale. On this date he will offer sixty-five head of choice sows bred to a trio of good boars.

H. O. Sheldon, herdsman of the Deming Ranch, Oswego, Kansas, has just returned from a two months' trip on the Poland China show circuit through the South and has more ribbons than he knows what to do with, as this herd was well up in the money at all the leading state fairs this year. The Deming Ranch contains 3,000 acres of Neosho bottom land and 1,000 acres of pasture land. There are about a thousand acres of alfalfa on the ranch. It is one of the largest hog farms in Kansas, and has on hand about 700 head of registered Poland China hogs at all times. A feature of the herd at this time is a splendid lot of spring boars, also 100 bred sows and bred gilts.

The top price at the Holstein-Friesian Association sale held at Independence on November 1 was $575 instead of $75, as appeared in the comments on the sale in our issue of November 9. Of course our readers realized that this was an error, as the average for the eighty head sold was given as about $270. Two cows brought the top price of $575, the consignors being Dr. J. T. Axtell of Newton and A. S. Neale of Manhattan, and the buyers were J. C. Hearrell, Columbus, Kansas, and O. S. Holmes, Garnett. The first ten head sold at this sale averaged $309.50. The top bull of the sale brought $255. Many difficulties confronted Sales Manager W. H. Mott, the chief of which was the influenza epidemic raging over the country. He is to be congratulated for the success of the sale in spite of the various handicaps under which it was held. It is to be hoped that nothing will interfere with the plans for the annual meeting and association sale which will be held at Topeka March 24 and 25. The Topeka Free Fair Association has offered the use of the fair grounds and the Topeka Chamber of Commerce will give a banquet to the members of the Holstein-Friesian Association of Kansas the evening following the annual meeting.

POLAND CHINAS

ERHART'S POLAND CHINAS

Have a great lot of spring boars for sale. Some by the 1200-pound, A Big Wonder. Will make prices on pairs and trios not related. All immuned. Write your wants. Bred Sow Sale Feb. 19, 1919.

A. J. ERHART & SONS
NESS CITY, KANSAS

H. O. Mott's Poland Chinas

For Sale—Fifteen spring boars and ten spring gilts, priced for quick sale at $35 to $50. First check gets choice. Guaranteed right or money back.

H. O. Mott, White City, Kansas
R. F. D. 4

BIG-TYPE POLAND BOARS

For Sale—Real pork producers of excellent blood lines and large litters. Some by Kansas Champion, others of the noted Buster blood. Bred gilts, tried sows and baby pigs, pedigreed, vaccinated, and priced reasonable for quick sale.

ISAACS STOCK FARM, PEABODY, KAN.

LONE CEDAR POLANDS

Strictly big type March and April pigs, either sex. Nothing but tops shipped. Prices reasonable. Guarantee to please. All cholera immune. **A. A. MEYER, McLouth, Kansas.**

LANGFORD'S SPOTTED POLANDS—April boars ready to ship; also summer pigs.
T. T. LANGFORD & SONS, Jamesport, Mo.

White Oak Park Polands

Twenty Spring Boars for Sale by the 1,100-pound Missouri Jumbo and Surprise Wonder. Three of the tops at $75, the rest at $50. All cholera immuned and will be recorded in buyer's name. I have two full brothers to Northern Jumbo, the first prize and reserve grand championship pig. All sales guaranteed as represented or your money back.

HENRY KOCH - EDINA, MISSOURI

Townview Herd Poland Chinas

Ten Rugged Spring Boars, weight about 175 pounds, at $50 each. **Eight March and April Boars**, weight 135 to 150 pounds, $40 each. These boars are immune, heavy-boned and ready for business. Send check and get hog guaranteed to please you.

CHAS. E. GREENE, PEABODY, KANSAS

Henry's Big Type Polands

March and April pigs sired by Mammoth Orange, Smooth Prospect and Big Bob 2d, out of sows the best of big type breeding. Everything immune.

John D. Henry, Route 1, Lecompton, Kansas

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Big Registered Poland Chinas and English Berkshires that weigh and win. S. C. Brown Leghorn Chickens that lay. See or write

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Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.

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100 Good Jerseys for Sale

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.

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REGISTERED JERSEY BULLS, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.

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Breeders of Pure-Bred Jersey Cattle
A small but select herd of producing cattle, rich in blood of Gamboge, Oxford Lad, Golden Fern's Lad, Leda's Fern Lad, etc. Write for prices on young stock.

ALLEN CENTER STOCK FARM
Registered Jerseys from choice cows. Sire's dam is the highest producing cow in Kansas. Prices reasonable.

TREDWAY & SON, LA HARPE, KANS.

RED POLLED CATTLE.

RED POLLED CATTLE FOR SALE
Young bulls and some extra good young cows to calve in early spring. A few yearling heifers.

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Red Polled cows, heifers and bulls. Special price if taken at once.

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RED POLLS, BOTH SEXES, BEST OF BREEDING.

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Cholce spring boars and gilts weighing up to 200 pounds. Two prize winning fall boars weighing 350, also fall pigs. My herd won nine champions, twenty firsts and twenty-seven seconds at the two Kansas State Fairs. Best of blood lines.

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I AM NOW OFFERING a grand lot of big, heavy-boned boars and gilts, sired by as good herd boars as money can buy. Every hog shipped a good one or he can be returned. Inspection invited. Write or telephone at my expense.

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Registered Hampshire Hogs—Sows and Spring Gilts, bred or open. Choice spring boars. Double treated. **Geo. W. Ela, Valley Falls, Kansas**

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KNOX KNOLL MULEFOOTS

Thred sows, spring gilts and boars. Weaned August pigs. Priced for uick sale. Satisfactlon guaranteed. Free catalog.

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IMMUNE DUROC BOARS

Duroc Boars, immune and guaranteed breeders, shipped to you before you pay for them. The big Southeast Nebraska herd bred for size, bone and length. "Eventually" you will breed the "Crocker Type." "Why not now?"

F. C. Crocker, Filley, Nebraska
Box K

DUROC BOARS

For Quick Sale — 25 Head of Large Spring Duroc Jersey Boars, of March and April Farrow

Sired by Illustrator Orion 3d, Pet's Great Wonder and Cherry King Disturber. Priced reasonable and guaranteed right in every way or your money back. Write me your wants.

JOHN W. PETFORD
Saffordville - - - Kansas

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For Sale—A few choice spring boars, selected from forty head. Sired by a son of Great Wonder, a son of Illustrator and Cherry King Disturber. A few gilts, same breeding, priced bred or open.

W. A. Wood, Elmdale, Kansas

HIGHVIEW DUROCS

Home of Repeater by Joe Orion King and Golden Reaper by Pathfinder. For sale—spring boars and a few bred gilts. I guarantee satisfaction or your money back.

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CONYERS HERD DUROCS
Herd boar, King Conyers by King the Col. Sows in herd by Golden Model, Graduate Chief, Cberry Chief and other good breeding. For sale, one extra good spring boar sired by Pathfinder and one by Great Wonder. Fifteen spring gilts by Royal Critic. Come and see me.

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Forty Double Immuned Big Rugged Herd Heading Boars, sired by Great Wonder 2d and out of dams mostly by Taylor's Model Chief, winner at Missouri and other fairs. Buy them cheap now.

W. R. HUSTON - AMERICUS, KANSAS

DUROC BOARS OF QUALITY

Choice March boars, sired by the great herd boar, Reed's Gano, first prize boar of Kansas and Oklahoma State fairs. Also Illustrator 2nd and Golden Model. Fine growthy boars, well built and nice color. All immuned. Priced to sell quickly.

JOHN A. REED & SONS, LYONS, KANSAS

WOODDELL'S DUROCS
Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.

G. B. WOODDELL, WINFIELD, KANSAS

Ellen Dale Breeding Farm

Offers Duroc Jerseys of blood lines of Watson's Wonder, Ideal Pathfinder, Crimson Orion King and Joe Orion 5th, also a one-year-old herd boar, a grandson of King the Col., and one-year sows bred or open. Also Shorthorn bulls.

R. C. WATSON - ALTOONA, KANSAS

R. H. DIX & SON'S DUROCS
For Sale—One choice spring boar, a real herd header. Twelve spring gilts bred to Giant Crimson by G. M.'s Crimson Wonder, a prize winning boar. Priced reasonable for quick sale. Write today.

R. H. DIX & SON, HERINGTON, KANSAS

FARM AND HERD.

J. C. Banbury & Sons, of Pratt, Kansas, have made a great success with their herd of Polled Durham cattle. The herd now consists of 125 head of registered cattle. The herd bulls now used in the herd are Sultan's Pride by True Sultan, the International grand champion. Sultan's Pride was first and junior champion at three state fairs in 1915 and first at three state fairs in 1916. His half sister was grand champion in 1917. Roan Orange is a 2,500-pound bull and was sired by J. K. Miller's great show bull, Orange Champion. Model Orange is also used in the herd and has proven a great breeder of the correct type of beef cattle. The females in this herd are of pure Scotch hornless cattle from the leading herds of Kansas, Indiana and Missouri. Many cows in the herd will weigh from 1,400 to 1,700 pounds in flesh. A feature of the herd at this time is the fine lot of young stock.

W. H. Mott, of Herington, Kansas, manager of the Wichita Holstein cattle sale, has announced December 12 as the date on which this sale will be held. Eighty-five head of pure-bred cattle will be consigned to the sale by several of the best breeders of Kansas. The offering promises to be one of the best to pas sthrough an auction ring in years. Fifty head of A. R. O. cows, nearly all fresh. There will be several 27-pound cows, several 25-pound cows and twenty head of 20-pound cows bred to a 30-pound bull. This offering promises to be the best lot of cattle ever consigned to a registered Holstein sale in the Southwest. The sale will be held in the large pavillon, "The Forum."

Dr. J. T. Axtell, of Newton, Kansas, has decided to consign ten head of choice cows and heifers to the Wichita Holstein sale to be held December 12. His consignment will include one cow with a record of 18.31 and that has given over a ton of milk in one month; a heavy springing three-year-old heifer by a 33-pound bull and her dam has a record of 28.20; a daughter of Tidy Abbekerk Prince with a seven-day record of 21.11; a daughter of King Burke Hengerveld out of a 20-pound dam and with a two-year-old record of 16.83, and others with equal breeding and records.

HOLSTEIN CATTLE.



SAND SPRINGS FARM

Registered Holsteins—The Long Distance Kind
Watch for our consignment to the State Breeders' Sale, November 1.

E. S. ENGLE & SON - ABILENE, KANSAS

EDGEWOOD HOLSTEINS

Fifteen Two-Year-Old Heifers
High grade and from heavy producing dams. Bred to grandson of King of the Pontiacs and due to freshen this winter and early next spring. All raised on my farm and well marked. One registered bull old enough for service. A whole dairy herd for some one and priced worth the money.

GEO. E. TUCKER
EUREKA - - - - KANSAS

Registered Holsteins

King Segis breeding, bulls four to six months old, $45 to $65. Few bred heifers at $165 to $250. Seven heifers fresh in July. One yearling bull. First check of $1,050 takes the eight head.

S. E. STOUGHTON
HUTCHINSON KANSAS

For Sale—Thrifty Holstein-Friesian Calves

Either sex. Practically pure-bred, from registered bulls and high producing dams. $25 crated, f.o.b. Chanute. Safe delivery guaranteed. Six registered bulls from two to ten months old. These are beauties, $75 to $100. Also thirty registered Duroc-Jersey pigs, either sex, three to five months old, $30.

MAGEE DAIRY FARM, CHANUTE, KAN.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.

GEO. F. DERBY, CAMERON, MISSOURI

REGISTERED HOLSTEINS

If you want big producers, males and females, write us. All our own breeding.

Lilac Dairy Farm
Route 2 Topeka, Kansas

BRAEBURN HOLSTEINS

Service bulls; bull calves. Their heifers will outyield the dams by 10-50 per cent.

H. B. Cowles, 608 Kansas Ave., Topeka, Kan.

HIGHLY-BRED HOLSTEIN CALVES
Beautifully market, twelve heifers and two bulls from heavy producing dams at $25 each, crated for shipment anywhere. Safe delivery guaranteed. Write

FERNWOOD FARM
Wauwatosa - - - - - Wisconsin

Holstein Calves

Choloe, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write

W. C. Kenyon & Sons
Holstein Stock Farms, Box 33, Elgin, Illinois

BUTTER-BRED HOLSTEINS

Three choice registered Holstein bulls, ready for light service, and some bred heifers to a 32-pound sire.

J. P. MAST, - SCRANTON, KANSAS

SEGRIST & STEPHENSON, HOLTON, KANSAS
Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

GOLDEN BELT HOLSTEIN HERD
Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.

W. E. BENTLEY, MANHATTAN, KANSAS

CHESTER WHITE HOGS

Frost's Big Smooth O. I. C.'s

Forty Spring Pigs, Two Yearling Boars and 100 Early Fall Pigs.
All from prize winning blood and priced for quick sale. Write us today.

S. D. & B. H. Frost, Route 2N, Kingston, Mo.

MOBERLY, Mo., Oct. 24, 1918.

KANSAS FARMER, Topeka, Kan.

Gentlemen: Enclosed please find draft for $7.50 for which extend subscriptions as follows: W. H. Wyatt, Kinsley, Kansas; L. J. Woodburn, Sharon Springs, Kansas, and the writer's to Moberly, Missouri.

I would not think of operating a Kansas ranch with hired help if they could not get the advice of KANSAS FARMER. Don't forget the war atlas for each. Yours truly,

JOHN H. NEBERGALL.

HOLSTEIN CATTLE.

SAND SPRINGS FARM

Registered Holsteins—The Long Distance Kind
Watch for our consignment to the State Breeders' Sale, November 1.

E. S. ENGLE & SON - ABILENE, KANSAS

GUERNSEY CATTLE.

GUERNSEY BULLS
Good individuals of serviceable age, of May Royal, May Rose, Masher Sequel, Raymond of the Precl breeding. Write or come and see them.

ADAMS FARM, GASHLAND, MISSOURI
Twelve miles from Kansas City.

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FOR SALE

A bunch of good big Registered Shropshire Bucks, not high in price. Also registered ewes.

Howard Chandler, Chariton, Ia.



SHROPSHIRES—BRED EWES
Won 2 champions, 7 firsts and silver cup at 1918 Iowa State Fair Weight and Wool Win. Yearling rams and ewes bred to imported prize winning rams for sale at farmers' prices. **C. W. & Frank Chandler, Kellerton, Ia.** (80 mi. from St. Joseph)

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GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

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LOOK HERE, ANGUS BREEDERS!

I want to reduce my herd of registered Angus cattle consisting of cows, bulls and heifers. Attractive prices for early buyers. If you want the best kind of low-down, beefy Angus, come at once.

D. J. WHITE, - CLEMENTS, KANS.

Dietrich's Aberdeen-Angus

Aged bulls, fifteen choice spring bulls. Females, all ages.

GEO. A. DIETRICH, CARBONDALE, KAN.

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PERCHERON-BELGIAN-SHIRES
Registered mares with colts at side and bred again; registered fillies, stallions one to five years old; grown ourselves the ancestors for five generations on dam side. Sires imported.



Fred Chandler, R. 7, Charlton, Iowa
(Above Kansas City)

PERCHERON STALLIONS

Some good young stallions sired by Algare and Bosquet, two great herd sires. These young stallions are very promising and priced to sell.

D. A. HARRIS - GREAT BEND, KANSAS

JACKS AND JENNETS
Registered Jacks and Jennets. Good individuals, good colors. Have some choice young jacks that are priced to sell quick.

GEO. S. APP, ARCHIE, MISSOURI

THE STRAY LIST.

TAKEN UP—ON THE FIRST DAY OF November, 1918, by Geo. Holter, 1208 Shawnee, Kansas City, Kansas, one red cow with white face, weight about 900 pounds; appraised at $50. William Beggs, County Clerk, Wyandotte County, Kansas.

TAKEN UP—BY WILL WALDEN, OF Whitewoman Township, Wichita County, about the 15th of August, 1918, one red whiteface heifer two years old; underbit on right ear; blurred brand on left hip. Grover C. Lonherger, County Clerk.

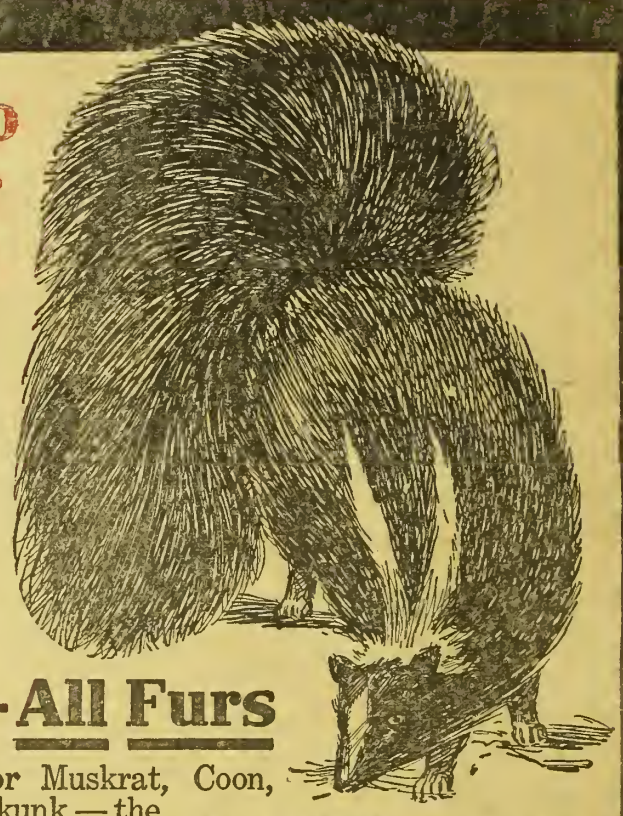
TAKEN UP—ON THE 10TH DAY OF November, 1918, by Tobe Harold, 1527 North First Street, Kansas City, Kansas, one gilt, weight 135 pounds; red with black spots; appraised at $35. William Beggs, County Clerk, Wyandotte County, Kansas.

TAKEN UP—ON THE 18TH DAY OF April, 1918, by Albert H. Eshelman of Ramona, Colfax Township, Marion County, Kansas, one heifer, color red with white face, weight 500 pounds; W brand; appraised at $40. J. H. Alexander, County Clerk.

George E. Tucker, of Edgewood Dairy, Eureka, Kansas, reports his fine herd of pure-bred and high-grade Holsteins doing well. A feature of his herd of high grades is the extra fine lot of well marked two-year-old heifers. These heifers are all bred to a grandson of King of the Pontiacs.

If on the market for pure-bred stock, read KANSAS FARMER live stock advertisements. You will find what you want.

Biggs wants Furs



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We are paying top-notch prices for Muskrat, 'Possum and Large Prime Black Skunk — the kind easily caught in your part of the country. The cash is here waiting for you. The woods and streams are alive with these "fur-bearers"—get 'em, set your traps the very day the season opens and be ready to cash in **big. You can pocket $50.00 to $500.00 between that day and Christmas.**

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See for yourself just what we are paying for furs. Learn just why hundreds of thousands leave it to "BIGGS AT K. C." to pay most money and guarantee a square deal. Know what **Biggs' Better Service** means and then you will know why Biggs is the house of **higher prices, ready cash and quickest returns.**

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You sure are the speediest firm I ever shipped to. Sent my furs Friday. Got my money early Monday morning. Keep on with "Trappers' Exchange."—*Millard Niemier, Story Co., Ia.*

More Than Expected—
I am very well satisfied with your way of dealing. All the furs I get will go to E. W. BIGGS & CO. I got a lot more money for my furs than I expected.—*Glenn W. Hinde, Dubuque Co. Ia.*

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Received check for furs and am well pleased with prices and grading. Don't hold furs separate any longer. I must say "BIGGS AT K. C." gives prompt returns.—*E. Dillon, Douglas Co., Mo.*

Well Satisfied—Thanks
Received check O. K. and am well satisfied with returns. I want to thank you for your prompt action.—*Lewis Sylvester, Riley Co., Kansas.*

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NOV 30 1918

KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 48. TOPEKA, KANSAS, NOVEMBER 30, 1918. Established 1863. $1 a Year

America Must Feed Starving Millions

Herbert Hoover Goes to Europe to Assist in Organizing Relief Work

BEFORE leaving for Europe following the signing of the armistice, Mr. Hoover delivered an address to the federal food administrators setting forth the world food conditions as affected by the coming of peace. Upon the people of America still rests a great burden of responsibility in the matter of feeding the starving millions of the devastated countries of Europe. Mr. Hoover said in part:

"We have now to consider a new world situation in food. We have to frankly survey Europe—a Europe of which a large part is either in ruins or in social conflagration; a Europe with degenerated soils and depleted herds; a Europe with the whole of its population on rations or varying degrees of privation and large numbers who have been under the German heel actually starving. The group of gamblers in human life who have done this thing are now in cowardly flight, leaving anarchy and famine to millions of helpless people. We have also to survey the situation in the exporting nations of the world, to see what can be done to redeem this mass of humanity back to health and to social order. Up to the collapse of the Germans the world that is allied against Germany depended upon the North American continent for the margins of food that maintain their strength against the common enemy. The loss of shipping and the increased demands for transportation of our army had isolated the stores of food in the Southern Hemisphere and the Far East. Within thirty or sixty days the world should begin to release cargo ships from military duty and to send them further afield for food, and before the next harvest arrives the entire world's food supply should be accessible. On the other hand, the cessation of hostilities will create an enormously increased demand for food and we must be deeply concerned that the starving millions who have been liberated from the German yoke shall have such supplies as will enable them to return to health and prosperity. The war has been brought to an end and in no small measure by starvation itself and it cannot be our business to maintain starvation after peace."

It has been a part of the Food Administration's duty to keep as thoroughly informed as possible as to the situation in world supplies. Mr. Hoover stated briefly that with economy in consumption there were sufficient supplies of wheat and rye. Of the high protein foods for dairy animals, there is a shortage of about three million tons. There are sufficient supplies of other feeds if they are economically used. Also sufficient supplies of beans, peas, and rice, with economy in consumption. Of pork and dairy products and vegetable oils there is a shortage of about three billion pounds. There is beef enough in sight to load all refrigerating ships' capacity. If other nations continue their present short rations of sugar, we will have enough for normal consumption in this country, but a shortage if European allowances are increased. There is a surplus of coffee.

"Of all these foods," continued Mr. Hoover, "except possibly protein feeds, we have a sufficiency for our own people and in many of them, large surpluses. Of the world total to produce the above results, we are estimating North America will furnish rather more than 60 per cent and that the United States, including the West Indies, will be in position to furnish a total of about twenty millions tons of food of all kinds for export against our pre-European war exports of say six million tons.

"Calculations of this order are vitally necessary if we are to intelligently guide the policies in the United States. On the other hand, all sueh calculations are based upon assumptions as to transportation, production and consumption which may be subject to great disturbance and distortion during the reconstruction period. For the present we can accept and rightly guide ourselves by these conclusions, and we may examine in more detail the position of each group.

"In the matter of wheat and rye, the large supplies that have accumulated in the Argentine, Australia and other inaccessible markets appear to us to supplement the stores of clear wheat bread for the world. It will, however, require a continued high percentage of milling with continuous economy in consumption and the elimination of waste. Here directly arises a change in our policies, for we are able from now on to abandon the use of substitutes in our wheat loaf. The world's supply of wheat at this juncture is a priceless blessing, for, while bread comprises but 25 per cent of our national diet, the food of Europe is from 50 to 60 per cent sheer bread. The large harvest that we have here this year is to a large degree the result of the guaranteed price and we may rightly be proud that our production and conservation policies have provided the necessary margins to the world, of its daily bread.

"We can export, together with other surplus countries, an apparent sufficiency of the coarse grains for feeding purposes; that is, of oats, barley and corn. On the other hand, there is a world shortage of high protein feeds; that is, the wheat feeds, the seed and bean meals, upon which the dairy production of the world, and particularly of Europe, so considerably depend. This shortage extends to the United States and, in our case, is due largely to the necessary diversion of cottonseed meal to use as fertilizers and, to some degree, to our shortage in wheat mill feeds, due to our hitherto reduced use of wheat flour. This latter will be somewhat corrected by the elimination of substitutes in our bread. Thus the change in world conditions should somewhat ameliorate our dairy feed situation.

"The shortage in protein feeds directly contributes to the world's shortage in the supply of fats. If we examine the position of the dairy products, the pork products and the vegetable oils, we find that in every item there is a shortage in the needed supplies for the whole world, although we are estimating with economy the export possibilities of the United States in all these products at over four billion pounds, of which from three to three and one-half billion comprise pork products. This world fat shortage is due primarily to the fact that Europe has been steadily underfeeding its dairy herd, has made steady inroads into its herd of hogs during the war, and to the fact that there has been a great degeneration in the production of vegetable oils in certain regions, owing to the inability to secure shipping.

"Of our export possibilities in fats, the largest item is pork products. Here again we have a right to congratulate ourselves as to the policies pursued in the administration of food supplies in the United States by the Department of Agriculture and the Food Administration. If you consider that we have reasonable promise of ability through increased production and conservation to export seven times as much products as our pre-war average and if you consider the vital importance of this extra contribution in fats in this new war against famine, we are justified today in our every act in the stimulation of production of this commodity. While we cannot supply the world's full deficiency, we have ameliorated it enormously.

"As you will recollect, eighteen months ago, when we had to define our food policies, we stated that the only hope of a sufficient production of fats and meat for the world either in peace or war, lay in the stimulation of production of the American hog. In that direction we could obtain results in twelve months, whereas, in any other direction, years would be required for expansion of fat production. The American farmer has responded to a remarkable degree. In order to assure this change in agricultural courses we promised the farmer a fair return on his hogs, so far as our control of export orders gave us the power. It is our duty to make this undertaking good.

"Yet, with all our supplies, the world will be far deficient in its normal supply of fats for two or three years at least. Our internal policy with regard to this group of commodities must therefore be one towards intensest economy in consumption, if we are to carry out our high purpose of furnishing food to a famine-stricken world.

"Policies of conservation require great care and guidance. For instance, for the next thirty or sixty days there is barely enough shipping at our shores to take care of our current production of pork products, and our storage is deficient. Later on when ships are available, we will need call upon our people for great sacrifice. On the other hand, the shortage in our supply of dairy products is today so acute that we are compelled to now limit the export of this product. Dairy products are vital to the proteetion of child life throughout the world that we should immediately reduce our unnecessarily large consumption of butter and condensed milk.

"In the matter of beef, the world's supplies are limited to the capacity of the available refrigerating ships. The supplies of beef in Australia, the Argentine and the United States are sufficient to load these ships. There will be a shortage in the importing countries, but we cannot hope to expand exports mateeially for the next months, in view of the bottle neck in transportation.

"It is very difficult to forecast with any degrec of accuracy the position in sugar. At the present moment all Europe and North America are living on much restricted allowance. Our assured supplies under the purchases we have made are the largest per capita in the world. This is not greediness, for we have throughout the war asked our allies to supply themselves first and we would do with the remainder. They have sacrificed sugar to provide ships for other purposes. If we assume that Europe will continue on present rations, then the world supplies, now enlarged by rendering Java sugar available are sufficient to provide our entire normal consumption. If Europe raises its ration very considerably, there will be a shortage.

"The Food Administration has protected the fundamental supply to the American people by purchasing, in conjunction with the Allies, the next Cuban sugar crop. We have made such arrangements with the various refiners and producers in the United States and with the producers as will assure a price of nine cents a pound wholesale, for sugar during the next twelve months. This price compares with from twelve to twenty cents a pound in the other sugar importing countries.

This being the new world situation in food, created by the collapse of the war, the prime changes in our policies on today's outlook ean be summarized:

"That we may now advantageously abandon the use of substitutes in our wheat bread; that we still require economy and elimination of waste in its consumption; that for the present we need conservation in butter and condensed milk; that ultimately we must extend this to all fats. We can contemplate, at the most, maintaining fully three pounds per month of sugar per person for household sugar and on the present outlook, and we can, by the availability of Java sugars to Europe, begin at once to relax more restraints on sugar pending some change in European policies.

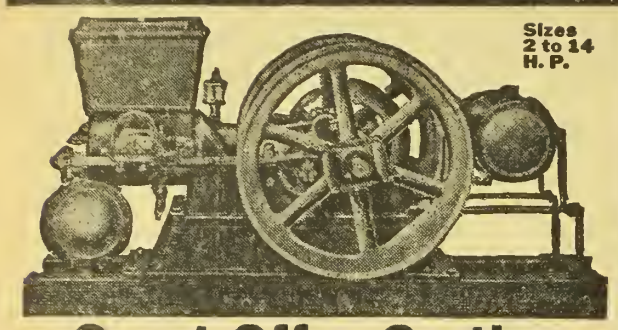
"These are special features of changes in policy, but the shifting of conservation from one commodity to another is not the whole policy. There is one policy which cannot change, and that is the vital necessity to simple living; to economy in all consumption for commodities more or less substitute for each other. We must realize that the specter of famine abroad now haunts the abundance of our table at home.

"There are conditions of famine in Europe that will be beyond our power to remedy. There are 40,000,000 people in North Russia to whom I fear but little access with food can be obtained this winter. Their transportation is demoralized in complete anarchy and shortly many of their ports will be frozen even if internal transport could be realized. I expect the most dreadful results of starvation beyond all human power to allay."

Save Frozen Potatoes

Do not throw away frozen potatoes. An American Chemical Society bulletin says if they are kept frozen until they are used they will be just as wholesome, nutritious and palatable as if they had not been frozen at all. It is only when prematurely thawed that they are spoiled. It would be difficult to estimate the waste that has been caused by the mistaken belief that potatoes are unfit for food merely because they have been frozen.—Youth's Companion.

Pay Nothing Down -Nothing Until 60 Days



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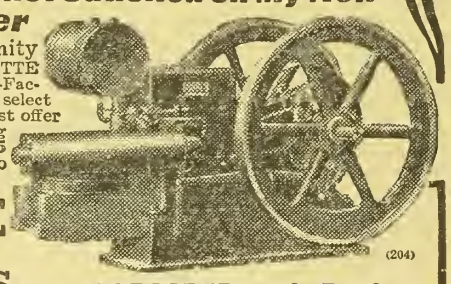

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The Farmer's Concrete Mixer

SHELDON Batch Mixer Price $11.50 Up

The Sheldon was designed especially for the farm. Highly praised by users. Farmers everywhere call it the ideal mixer. Used today all over the United States. A big success. Small enough to be easily moved—big enough to keep 6 men busy. Low in price. Build your own silo, tanks, troughs, floors, foundations, buildings, etc., out of concrete with a Sheldon Batch Mixer.

Read What These Sheldon Owners Say

I and my hired man laid a feeding floor for my hogs, 24x24, in one day; also put floor in my cow barn. My neighbor liked it so well I am not able to keep it at home.—ANDREW CHRISTENSEN, Hancock, Minn., Rt. 1.

We have used the mixer during past year for putting in cement foundations for a complete set of farm buildings, including silo, and like it very much.—DANA WRIGHT, Jamestown, N. D.

Last year I bought a cement mixer from you with which I am well satisfied. It did not take long for it to pay for itself and I surely can recommend it to anyone needing a *big mixer at a small price*.—WM. PARKS, Martinton, Ill.

I am more than busy with my Sheldon Concrete Mixer. Have more work than I can do. *I get $10 a day when I work out.*—JESSE L. WITTER, Wellsville, N. Y.

The machine works fine. Have already *got the job* of mixing concrete for the bridges in this township.—JOHN ROSE, Spartansburg, Pennsylvania.

Last spring we purchased of you a set of castings to make a concrete mixer. It was constructed per the plans furnished and it *surely worked great*.—D. M. BRUBAKER, Freeport, Ill.



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Make your own concrete mixer. You can do it at a cost so low you can not afford to mix concrete by the shovel method. Along with our iron parts we send Free Plans and permit for making your own machine. A good way to get a practical mixer at a small expense. Or, we will sell you the complete machine, ready built.

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If you buy a Sheldon Mixer for your own use, you can make many times its cost in a season by renting it to your neighbors. Or, if you want to go out with the mixer on contracts, you can easily earn $3 to $20 a day. Our customers are doing it right now. The jobs go to the man with a Sheldon Mixer every time.

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Shows our full line of mixers which are sold direct to you on strong guarantee. *Thirty days trial* privilege. No other like it. Patented. Two styles, hand and power. Mixes 2 1-2 cubic feet a minute. One man can operate it, but it will keep 2, 3, 4, 5 or 6 men busy. Continuous chain drive. Tilting dump. Easily and quickly moved. All parts guaranteed. Does work equal to $400 mixers. Be sure to get the catalog. Write today.

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I want to tell you about my co-operative plan by which you can get my time-tried, thoroughly-proven Sheldon Batch Concrete Mixer at little or no cost to you. I want ten men in every county to accept my special co-operative offer right now. Are you going to be one of the ten? Write and say: "Send me special offer."

The Sheldon will pay for itself on first small job. Takes the backache out of concrete. Makes possible those many small improvements that add so much to the value of your land.

SHELDON MANUFACTURING COMPANY, Box 750, Nehawka, Neb.

MENTION KANSAS FARMER WHEN YOU WRITE.

MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

War Work of Dean Potter

KANSANS may well be proud of the splendid war work record made by A. A. Potter, dean of the engineering division of our Agricultural College. Dean Potter is one of two men in the United States in charge of more than one educational district for the War Department Committee on Education and Special Training.

Recognizing the need of mechanics and technicians of various sorts in the army, the War Department, through its committee, arranged for the training of drafted men in mechanical subjects in 130 educational institutions. More than 100,000 men have been trained already. Of this number the agricultural college of Kansas, possessing unusual facilities for practical work along these lines, has prepared 1,400. This is nearly double the number trained by the average institution.

Early in the operation of the plan Dean Potter was made educational director of vocational instruction for the district in which the Kansas college is situated. This is one of twelve such districts throughout the United States. Later he was given another district in addition, thus placing him in charge of the work in one-sixth of the United States. There is only one other director in charge of two districts.

One of Dean Potter's districts comprises Kansas, Colorado, Wyoming, and Missouri, his headquarters being in Kansas City. His other district comprises Iowa, Minnesota, Nebraska, North Dakota, and South Dakota, with headquarters in Minneapolis.

During the month past Dean Potter inspected corps schools of the army. At the John Wise balloon school near San Antonio he went up 1,000 feet in an observation balloon to observe the relation between telephone, telegraph, map making, and other activities. At Ellington field, near Houston, he inspected the training of bombers in the largest school of this type in the world. He went from Houston to Galveston in a bombing plane propelled by a Hispano-Swasey motor, a late French model used exclusively in bombing work.

Dean Potter inspected also the signal corps schools at St. Paul, Minn., and Austin, Texas, the training detachments at the University of Texas, and the artillery finishing school at West Point, Kentucky.

"I have been especially impressed," said Dean Potter, "with the initiative of the American soldier. In one school, for example, a battery was lacking in an emergency requiring the use of a telephone. The men constructed a battery by means of a copper coin and a pocket knife stuck into the ground, and a little vinegar.

"The great lesson that we have learned from the educational side of the work is that efficient teaching teaches men and not merely subjects. We have learned, too, the value of intensive training and the results that it gives after even a very short period."

Electric Light Plant for Farm

The farm electric light plant as now being put on the market can no longer be considered a complication of electric devices, says Percy J. Friday in The American Thresherman and Farm Power. "We can not blame the farmer for being afraid of some of the constructions that have been on the market. But now, if the same good judgment is used in the purchase of a plant that is used in the purchase of other machinery, there is no possibility of 'buying trouble.'

"Unnecessary parts have now been almost universally abandoned, and necessary parts have been perfected to the extent that trouble is no more common in the high grade plants than in other machinery. A plant constructed of the best material and in a simple way is actually easier understood than a gas engine.

"The dynamo or generator is an extremely simple machine which generates or makes electricity when the armature is rotated between two or four field magnets.

"The regular type of dynamo as used on farm plants has an armature made up of a large number of turns of each wire laid in a groove in the steel frame, and a large number of these wires with a pair of copper segments for each.

"A small part of the current generated by the dynamo is used to magnetize the field magnets and make them much stronger than any permanent magnet. Sufficient magnetism remains in these magnets, however, to start the armature to generating current.

"All the wearing parts of the dynamo are the bearings and brushes. The bearings, when made of good material, will last for years without even noticeable wear, as they are not subject to any strain or stress of any kind; simply the rotation of a perfectly balanced armature on the shaft. The bearings are also ring oiled on the best makes of dynamos. This assures plenty of oil at all times with only an occasional filling.

"The brushes are made of carbon, and are held down on the rotating copper armature by springs. They wear slowly but a set will last from two to four years on the average farm plant, and the cost of replacement is only about fifty cents."

Tractors in Pennsylvania

Farm tractors in Pennsylvania have come into almost universal use during the past year when there was an increase of over 122 per cent in the sales throughout the state, bringing the total estimated number of tractors in use this fall to 2,439.

These figures are from reports just received from crop correspondents and assessors throughout the state by the Bureau of Statistics of the Pennsylvania Department of Agriculture and show the rapid increase in the use of tractors.

One year ago it was estimated that there were 1,080 tractors in use, but during the past year the farmers realized that there were a number of makes of standard tractors that were adaptable and dependable for Pennsylvania agriculture conditions and the farmers have not been slow in adopting the power form of farming. Much of the success in getting the largest acreage ever sown to wheat this fall was due to the assistance of the tractor.

Study the Machine

Every owner of a tractor should give a good deal of attention to familiarizing himself with his machine.

He should have the necessary knowledge to operate his tractor to its highest efficiency and capacity. At this time it is his duty to put forth his very best efforts to keep his tractor and the equipment which he uses with it in the very best working order. He should exercise the most extreme care to see that each day before it goes to the field it is given a thorough inspection, and that nothing requiring attention is neglected.

The cost of operating a tractor depends mainly upon the man at the wheel. If small adjustments are made as needed, bearings kept clean, well oiled and greased and reasonable supervision given, the repair cost is small.—The Progressive Farmer.

Storage Battery in Winter

The storage battery that is to be used in a car during winter should be kept well charged, which will keep it from freezing. If the storage battery is not to be used, dry storing will keep it from deteriorating. In dry storing the acid must all be removed by charging in distilled water three or four days. Then the elements must be removed, dried and kept separate.

These are wonderful autumn days, Brother o' Mine. The air is crisp and clear, and the hillsides are masses of gold and red and brown. Walk alone through the wood and give thought to the beauty of it all. With each step take a long, deep breath. And quickly, the many little annoyances and petty troubles of life will be forgotten and in their place will come inspiration for great work.—The Quicterion.

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CHOLERA LOSSES INCREASE

Kansas lost more hogs from cholera in the year ending March 1, 1918, than in the year preceding. The toll from cholera in that year was 41,712, or 5,524 more than in the preceding year. The total losses of hogs from diseases of all kinds for the twelve months was 74,018. These figures are from the State Board of Agriculture and are compiled from the returns of the assessors.

More hogs have died from cholera in the eastern third of the state than in the balance of the state, and the losses have been greater in the northeastern corner than elsewhere. The counties touched by or north of the Kansas River sustained the largest losses, aggregating about 43 per cent of the state's total; Nemaha, Jackson, Doniphan, Brown and Leavenworth counties reporting deaths from this disease of 4,435, 3,323, 2,574, 1,885, and 1,772 respectively. Eight counties in the western third of the state report no losses from cholera.

In the year ending March 1, 1917, Butler County reported 2,644 hogs lost from cholera while this year but 1,503 are listed; Smith County 1,819 a year ago compared with 480 this year, Jewell County 1,703 compared with 699, and Washington 1,649, compared with 560 in the year ending March 1 last.

Only 5.4 per cent of the hogs which were on hand March 1, 1917, died of disease (all kinds) during the succeeding year, compared with 21.5 per cent during 1914 and 19.6 per cent in 1911. A record such as shown by these statistics gives promise of better things to come if steps are taken to make quarantine regulations more stringent and vaccination compulsory when herds are known to be exposed to this dread disease.

Much headway has already been made in demonstrating that hog cholera may be held in check, if not wholly eradicated, through the intelligent administration of control measures. This experience suggests the wisdom of extending the application of such measures as are found most efficient, in order that the fight against this disease may be waged successfully in all portions of the state.

With the prices of hogs as they are at present and when the death of an animal means a financial loss to its owner of from $15 to $35, the Kansas farmer is especially interested in seeing that the best practices in the prevention of disease are employed on his farm and the farms surrounding him.

RETURNS FROM LIVE STOCK

Wheat has been such a vital factor in our war program from the food standpoint and Kansas has taken such an unrivaled position as a wheat-producing state that the importance of other phases of our agriculture are likely to be obscured in the public mind. After all has been said, however, one of the most important industries of Kansas is that of raising and feeding live stock and supplying the market at home and abroad with meat and other live-stock products. The wide diversity of the crops raised, which include alfalfa, corn, sorghums, and the native grasses, makes the state admirably fitted for meat production. The returns from animals slaughtered and sold for slaughter each year represent approximately 20 per cent of the annual income from farm products.

The State Board of Agriculture has just shown that the value of Kansas animals sent to the shambles during the year ending March 1, 1918, was greater by more than 30 per cent than in any previous year in the state's history, the total amounting to $108,073,032. The value of live stock sold for meat in the previous year amounted to $81,596,288 and the record previous to the year just past was in 1910-1911 when the total aggregated $82,105,615.

There are three reasons for the tremendous increase reported: war's demands, high prices, and shortage of feed caused by the poor crop season of 1917. These conditions induced many farmers to dispose of stock not actually needed for breeding purposes, while in some cases even breeding animals were sacrificed.

The larger aggregate incomes from animals sold for slaughter were in the counties of the eastern third of the state, Butler leading with a return of $3,594,985, followed in order by Nemaha $3,371,527, Wabaunsee $3,161,067, Morris $3,084,504, Pottawatomie $2,856,477, Washington $2,772,231, and Lyon $2,672,295. Of the fifty-nine counties comprising the eastern half of the state only seventeen, twelve of which are located in the southeastern corner, reported a return of less than $1,000,000 each, while a block of ten counties in the central part of the eastern half, each reporting more than $2,000,000, has contributed approximately one-fourth of the state's total. These counties are Dickinson, Wabaunsee, Morris, McPherson, Marion, Chase, Lyon, Butler, Greenwood and Cowley, noted for their grazing lands, as well as for their areas devoted to alfalfa, the sorghums, and corn—all of which products are prized meat-making materials.

MORE HOG RESTRICTIONS

The Food Administration is taking drastic measures to hold back the hogs now coming to market. On another page of this issue appears the telegram received in Kansas City last week pointing out the necessity for holding hogs back.

An embargo affecting four cities east of the Mississippi has just been declared. Compulsory holding back of light hogs in the Southwest country is likely to work a hardship, for many farmers are stocked with hogs beyond their ability to finish them for market. While the embargo to date has not affected the shipping of any kind of hogs to Kansas City, what amounts to practically a new minimum has been announced. The guaranteed minimum price is to apply only on hogs above 150 pounds in weight, or, in other words, all hogs under 150 pounds will go in with the "throw-outs." Heretofore the throw-outs have included hogs under 130 pounds in weight. With the guarantee off on all hogs under 150 pounds, hogs of these weights will of necessity be sold for whatever they will bring, which is almost certain to be under the guaranteed price. This rule is hard on the light hogs, and shippers are being warned by commission men to refrain from shipping hogs that would go in the "throw-outs" under this new rule.

There seems to be a feeling of certainty that the market will later take all hogs in the country at good prices, but it is hard to get around the fact that here in the Southwest there will be a forced marketing of light weight hogs that cannot be avoided. It is time to put some real study on the subject of economy in feeding, possibly by keeping hogs a few weeks or possibly days they can be brought up to the required weight. Well balanced combinations are always more economical than the feeding of straight corn, and hogs necessarily held to avoid falling outside the price guarantee should by all means be fed the most economical combinations possible.

GERMAN FLEET SURRENDERS

The past week has witnessed one of the great events in history in the surrender of practically the whole German navy to the Allied fleet. With the surrender of this aggregation of dreadnaughts, battleships, and other vessels of war, including submarines, Germany is most effectually shorn of her power to menace the world. In this abject surrender Germany acknowledges to the world the utter defeat of the kaiser's program of world domination.

The British fleet has had a most important part to play in bringing Germany to terms. A KANSAS FARMER reader who is at least anti-British, if not pro-German, writes to us in criticism of the fleet of Great Britain and referring to our editorial of October 14 in which we spoke of the absolute crushing of the power of autocracy, he asks: "What of the British navy? Has it ever been used to bulldoze weaker nations?" In reply we can only say that we have been so everlastingly grateful that the British navy has stood like a wall of steel between us and Germany until we could get ready to defend ourselves and do our part in putting down this world menace that we have not thought very much about possible wrongs which might have been committed by the British navy at some time in its past history. We have not been unmindful of how the fear of the British fleet in Manila Bay awed the German fleet into withdrawing from its menacing attitude toward Admiral Dewey. The Monroe Doctrine, without the fear of the British navy, would have been a mere "scrap of paper" to Germany long years ago. We cannot recall that any other civilized nation has ever committed such brutal crimes against humanity and in violation of international law as have been committed by Germany in this war. Her avowed program from the start is one of brutality to weaker nations. If a powerful British navy had not been in existence, England would have been conquered in a few short months, and Germany's avowed intention of making the United States pay for all the war's cost would have been a reality. Instead of investing our money in Liberty bonds we would have been paying indemnities. The armistice terms, drastic as they may seem, are most merciful as compared with what Germany had openly announced as her program if she had won.

ILLINOIS TO BUILD HARD ROADS

The people of Illinois voted on November 5 to spend sixty million dollars on highway improvement. This money is to be raised by the sale of bonds, and as we understand the plans the automobile license fees will not only take care of the interest but the principal as well. A lot of money is collected in Kansas in automobile license fees, and we sometimes wonder if we are getting value received for the funds so collected.

The Illinois highway system will connect up 4,800 miles of "hard-surfaced, durable highways," connecting every county and every town of more than two thousand inhabitants with every other town of that class. It has been estimated that 66 per cent of the population live on the lines selected for these roads and 86 per cent live within five miles of them.

Illinois is one of the older states, but straws tell which way the wind blows. Pennsylvania also voted fifty million dollars in bonds November 5 for road-building purposes. We have an era of road building ahead of us, and our state will come in for its proportionate share of such work. Permanent roads are investments, and when the time comes every community must so regard them.

THE ROYAL STOCK SHOW

The 1918 American Royal Stock Show has passed into history. Never before have so many exhibitors competed nor have the animals shown been of finer quality. In numbers the Herefords led. R. J. Kinzer, secretary of the Hereford Record Association, pronounced it the greatest show of Herefords ever seen in the world. The classes were so large that there was scarce room in the arena to show them. In the Shorthorns many new exhibitors were seen. W. A. Cochel, special representative of the Shorthorn Association, said that fully 80 per cent of the animals shown were bred by the exhibitors and many of the herds came from farms that had never shown before. The Angus herds were of unusually high quality, coming third in point of numbers.

Better breeding and better feeding must be given credit for the remarkable showing of cattle made at this great breeding show held in Kansas City last week. High priced feed is crowding the scrub out of business.

The cattlemen were glad to be back at the stock yards, even though the cattle were housed and shown in somewhat cramped quarters. The American Royal has earned a place at this great heart of the southwest producing territory, and is worthy of all that goes to make it the greatest show of breeding beef cattle to be seen anywhere in America. Kansas City will be missing one of its opportunities if it does not make ample provision for the growth and development of this great show.

FIRE PREVENTION DAY

Fire is one of the most serious causes of waste and destruction. According to the figures furnished by L. T. Hussey, state fire marshal of Kansas, the fire waste in the United States in 1917 was $267,273,140, and in Kansas for the same year it amounted to $4,883,994.

Fire Prevention Day is to be observed in Kansas December 6, the influenza epidemic having prevented its observation on November 1 as originally planned. The Governor, through the state fire marshal's office, has issued a proclamation calling on communities all over the state to make this a clean-up day, removing the accumulations of rubbish which increase the fire risk wherever found, and wherever practicable to carry out appropriate educational programs in the schools. On the farms observance of the day must be largely a matter of personal initiative, each family doing its part in cleaning up about the home premises and so lessening the danger of fire, which is even more serious on the farms than in the towns, because of absolute lack of fire-fighting facilities.

GOOD PRICES TO COVER LOSSES

Farming is a business in which a good many factors enter which are beyond the farmer's control. Crops are subject to the attacks of many enemies. There may be less than the normal rainfall or there may be excessive rains, extreme heat, unseasonable frosts, plant diseases, all of these being things which to a greater or lesser extent cannot be guarded against. No other business has such an array of risks. The only way the farmer can get ahead is to receive sufficiently high prices for the things he sells to carry him over the years of bad luck, for while there is a saying that there is no such thing as luck, the man who farms will take exceptions to this statement.

"Consumers must reimburse the farmer for his loss or he will become insolvent and agriculture must cease," says the Agricultural Review. "In the case of corn, for instance, there are always annual variations from the average yield per acre for a period of years, and often there is a sharp upward or downward turn from one year to the next. In 1901, memorable in corn history, a protracted drouth in the corn belt reduced the yield per acre for the United States to 16.7 bushels, or to about two-thirds of the usual yield, but such a yield was somewhat exceeded the following year.

"Corn production was almost impossible in Kansas in 1913, when the nominal yield per acre was only 3.2 bushels, although the average of the ten years ending with 1917 is 17.5 bushels and the production now and then in individual years is more than twenty bushels and reached thirty-one bushels in 1915. In Illinois in 1913 corn yield per acre fell 20 per cent below the average of the ten years mentioned and 32 per cent below the yield per acre of the preceding year. During the last ten years the corn yield per acre in the great corn state of Iowa has ranged from thirty to forty-three bushels, a difference between extremes of thirteen bushels or 43 and 30 per cent, respectively, of the extremes and 37 per cent of the average yield of ten years.

BREEDING UP DAIRY HERDS

Paying Herd from Use of Pure Bred Sire and Common Scrub Cows

THAT a paying dairy herd can be bred up from a foundation of scrub cows by the use of good pure-bred sires has been proved experimentally by the Iowa Experiment Station. Environment and proper feeding and care are factors in improving dairy production. This was also demonstrated in the course of the experiment. Good feeding and proper care will increase the production of the most ordinary cows. The first year's work of any co-operative cow-testing association shows that low production is due both to poor feeding and inferior cows. It has not been so easy to figure out from ordinary observation the relative importance of better feeding and the influence of the good, dairy-bred sire.

The Iowa Experiment Station test had covered a period of eight years at the time the first report was made in bulletin form. The information given out is most valuable, for anything that will help show how to build up better dairy herds is of great importance to the dairy industry. In this Iowa test the purpose was to determine the influence of pure-bred dairy sires in increasing the production from a foundation of scrub cows as well as the effect of improved feeding and management. Scrub cows from an isolated region of Arkansas were selected for the work in 1907 and the first public report was made at the end of 1915. Many of the daughters of the scrub cows were not yet mature and none of the second cross heifers, or those carrying 75 per cent of the blood of a recognized dairy breed, had gone through a lactation period.

Seven cows, four yearling heifers, and two heifer calves were purchased. These animals were inferior individuals, small in size, of very limited abdominal, udder, and milk vein capacity, and very unprepossessing in general appearance. As far as could be learned no pure-bred stock had ever been used in that section of the state up to the time of their purchase and the conditions were not such as to stimulate heavy milk production. About all the cow was expected to do was to raise a calf or produce enough milk for one family to use.

Plan of Investigation

The scrub cows and their calves were given the same care, feed, and shelter as the pure-bred dairy cattle in the herd. This environment has remained fairly constant during the eight years work.

The milk from each cow was weighed each milking and a composite sample taken from which the per cent of fat was determined every seventh day. During the last two years included in the record the cows were weighed every Monday morning so that it has been possible to feed what was required for milk production plus body maintenance.

The concentrates in the ration were weighed out each day to each cow producing milk. Amounts of silage and hay were estimated from occasional weighings. These feeds were charged at average prices and the same prices charged for all the years. The cows were credited with the butter fat at an average price of thirty-one cents a pound and skimmed milk at twenty-five cents a hundred. Pasture and soiling crops were charged at $6.00 an acre in addition to cost of labor, seed, etc., for the latter. The net returns are secured by deducting from the income for butter fat and skimmed milk the cost of all feeds. No charge was made for labor or shelter nor credit given for calves and manure.

Some of the cows were in calf to a scrub bull when they reached the farm and one of them dropped a heifer calf which was later used in the experiment. Pure-bred sires of the Guernsey, Holstein and Jersey breeds were used on these scrub cows and all heifer calves grown out under the same conditions as the pure-bred calves on the farm. With the establishment of an Ayrshire herd, an Ayrshire bull is also being used on some of the cows.

Some of the scrub cows dropped bull calves every year as long as they were in the herd, thus the number of heifers for us in this work has been limited. The bull calves were killed or vealed. The only ones saved were by the scrub bull brought with the cows and used one year. These calves were used in a feeding test reported in the latter part of this bulletin. Heifers by pure-bred sires were bred to other pure-bred sires of the same breed and the heifer calves resulting from this union were also kept for dairy purposes. A few of these heifers carrying 75 per cent of the blood of recognized dairy breeds have just freshened but their records are not available for this preliminary report of the work.

Unfortunately, records of production and feed consumed prior to the time the cows were brought to the college farm are not available. Consequently it is impossible to compare the records of the cows under their original environment and those obtained under conditions such as a fairly well managed herd would have.

However, a comparison of succesive lactation periods, after coming to the farm, is of interest and in the following tables the cows are divided into two classes: The two cows that came to the farm at four years of age in table I and those advanced in age in table II.

Successive Lactation Periods of Scrubs

In table I are shown the milk and fat records of two cows for seven successive lactation periods. As these cows were about four years of age at the time of the first lactation period at the college farm, a part of the increase in production should be attributed to their normal development. However, the greater part of the increase is considered due to the development of digestive and milk secreting systems due to superior feeding and milking, and the residual effects of better feeding, as the cows had all been but scantily fed and poorly cared for before coming to the farm. The figures show that the cows increased rapidly and steadily up to the fourth lactation period, when they produced 59 per cent more milk and 54 per cent more fat than during the first period. This is a much greater increase over the four-year-old performance than was ever secured from animals raised on the college farm and is five times as great as the breed associations' handicap by which the four-year-old is required to produce 90 per cent as much as a mature cow five years old or over for advanced registry. The decrease for the following periods is not regular, due to the fact that one of the cows produced much more during the seventh than during the sixth period, but the decline is what one would expect from advancing age.

It will be noted that the greatest net returns were more in the fourth period after they came to the farm, when the average for the two cows was $37.48 as against $13.93 the first year and $1.97 the sixth. The average cost of the butter fat decreased gradually with the exception of the sixth year, when one of the cows made a very poor record. The decrease of practically 30 per cent in cost per pound of butter fat from the first year to the second, third, and fourth indicates that the cows used much of the feed the first year to build up their bodies.

In Table II are shown the successive records of the five mature cows. Because of their age they were kept but three years in the college herd where some of them produced heifer calves by pure-bred dairy bulls. The records of some of these heifers are shown in Table III. These five cows did not respond to the improved feeding and management in such a way as to show increased production during succeeding lactation periods. No records of their production under the original conditions in Arkansas are available, however, and it cannot be said that they did not increase after coming to the college farm and receiving better feed and care.

Comparisons between Tables I and II would indicate that the decrease between the first and second and the second and third lactation periods in the case of the old cows was due to advancing age. It will be noted that the cost of feed per pound of butter fat remained nearly constant for the three years and did not fall below twenty-two cents a pound, while in the case of the younger cows there was a greater decrease in cost.

In Table III the cows that were four years old or over when they came to the farm are referred to as 'original scrubs;" those that came as yearlings and calves, or were dropped on the college farm, are designated as "developed scrubs," while the terms Holstein x scrub, Guernsey x scrub and Jersey x scrub refer to the first generation heifers out of scrub cows and by pure-bred sires of those breeds. The comparisons are made between cows falling into these different classes and in this table the younger animals are not compared to their own dams but to all of the old cows taken as a group. In the comparison between the developed scrubs and the originals it will be noticed that the former have produced 13 per cent more milk and 12 per cent more butter fat, while little difference is noted in per cent of fat or length of lactation period. With seven cows in each group and the number of lactation periods, twenty-fve and twenty-nine, respectively, this increase is worthy of note. A direct comparison can not be made between dams and daughters in this case as but one record made by a scrub daughter of one of the old cows is available. The first generation of Holstein grades show an increase of 64 per cent in amount of milk, 41 per cent in pounds of fat, 15 per cent in length of milking period and a decrease of 14 per cent of fat in milk.

The first generation of Guernsey grades show an increase of 12 per cent in quantity of milk, 6 per cent in pounds of fat, 1 per cent in length of lactation period and a decrease of 5 per cent in fat in milk. The smaller increase shown by these grades can not be charged to the breed of the sire but to the fact that no mature records are available and further that before the college owned a herd of Guernseys a bull was borrowed and his daughters, while not mature, have not equalled their dams' records, while a two-year-old grade by our present Guernsey herd bull has produced over 101 per cent more milk and 107 per cent more butter fat than her scrub dam, developed here at the station, produced in her best year.

Only one first generation Jersey grade has freshened and her two lactation periods show an increase of 7 per cent in quantity of milk, 24 per cent in pounds of fat, 15 per cent in per cent of fat and 12 per cent in length of milking period as compared to group of original scrubs.

TABLE I—AVERAGE YEARLY RECORDS OF TWO COWS THAT CAME TO THE COLLEGE FARM AT FOUR YEARS OF AGE

No. of Lactation Period	MILK		FAT		Net Returns Over Feed Cost	Cost of Feed per Pound of Fat
	Lbs.	Increase or Decrease from First Lactation Per Cent	Lbs.	Increase or Decrease from First Lactation Per Cent		
1	3084.6	..	149.24	..	$13.93	26c
2	3984.4	29	178.97	19	32.15	18c
3	4618.1	50	217.79	46	31.68	21c
4	4907.7	59	229.91	54	37.48	19c
5	4224.0	37	197.59	32	31.80	19c
6	1931.3	-35	84.76	-50	1.97	34c
7	2862.5	-8	133.70	-10	18.95	21c

TABLE II—AVERAGE YEARLY RECORDS OF THE FIVE AGED COWS

1	3790.9	..	183.84	..	$24.40	23c
2	2802.3	-26	135.50	-26	18.64	22c
3	2841.1	-25	141.60	-23	18.58	22c

TABLE III—AVERAGE YEARLY RECORDS SHOWING INFLUENCE OF FEED AND MANAGEMENT AND THE USE OF PURE-BRED DAIRY SIRES ON PRODUCTION

Lot	No. Cows	Lactation per'ds	Average Yearly Records				Per Cent Increase Over Lot 1			
			Lbs. of Milk	Lbs. of Fat	Pct. Fat	Days in Milk	Lbs. of Milk	Lbs. of Fat	Pct. Fat	Days in Milk
1. Original scrubs	7	29	3397.1	161.67	4.76	283				
2. Developed scrubs ..	7	25	3841.2	181.64	4.73	276	13	12	-1	-2
3. Holstein x scrubs..	4	12	5561.6	227.94	4.10	326	64	41	-14	15
4. Guernsey x scrubs..	4	8	3787.6	170.56	4.50	287	12	6	-5	1
5. Jersey x scrubs....	1	2	3643.1	199.64	5.48	317	7	24	15	12

Summary of Results

The results of this eight years work has been summarized as follows:

1. The scrub cows that came to the station when young—four years old—increased in production rapidly and steadily up to the fourth lactation period after reaching the station, when they produced 59 per cent more milk and 54 per cent more butter fat than during the first period.

2. The scrub cows that came to the station advanced in age did not increase in production after the first year. However, it cannot be said that their production was not greater than it had been under their original environment.

3. The scrub heifers developed at the station averaged 13 per cent more milk and 12 per cent more fat than did the scrub cows that came to the station when four years old or over.

4. The daughters of all except one pure-bred bull have proved to be much better producers, as two and three-year-olds, than their dams as mature cows. However, this can not be considered a breed comparison.

5. The average of all records made by first generation heifers by a pure-bred Holstein sire show an increase of 2,314.5 pounds, or 71 per cent in milk and 67.15 pounds, or 42 per cent in fat, at an average age of three and one-half years, over the record of their scrub dams at an average age of six years.

6. The average record of the one first generation Jersey grade that has freshened is 205.6 pounds, or 6 per cent more milk and 32.9 pounds, or 20 per cent more fat at an average age of two and one-half years than the record of her scrub dam at an average age of seven years.

7. The greatest increase shown by any of the first generation grades is that of a heifer by the second Guernsey bull used. This heifer as a two-year-old produced 3,451 pounds, or 13 per cent more milk and 179.22 pounds, or 136 per cent more fat than the average record of her scrub dam reared at the station. However, the average records at an average age of three years made by the first generation grades by the first Guernsey sire used, are not quite equal to those of their mature dams.

8. Variation in the ability of sires to transmit dairy qualities is a factor to be considered in selecting a pure-bred bull to head a scrub or common herd as well as for a high-grade or pure-bred herd.

9. In persistency of milk production the grades were intermediate between the scrub and the pure-bred cows in the herd.

10. The first generation grades are much superior to their dams in dairy conformation.

11. Many of the first generation grades show the characteristic color of their sire's breed; however, in the case of the Holstein this was not so pronounced until the second generation.

The sires of future generations must make themselves the bondsmen of rules which curb their desires and curtail their personal liberties.—WRIGHT.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

THE question as to whether a cow can retain her milking qualities after having made a great record is once more answered by a famous Jersey, Spermfield Owl's Eva. This cow not only made one record worthy of note, but has made six records that stamp her as an animal of exceptional merit. Her performance closely rivals that of Sophie 19th in total production, and both of these animals hold honor places to he occupied until at least such time as the practice of testing cows for "long distance" production hecomes more general.

The close relationship in the records of Spermfield Owl's Eva and of Sophie 19th is all the more interesting because hoth of these animals represent entirely different lines of hreeding, and also because of the fact that both animals are of about the same age and still on the active service list.

Both cows were at the last National Dairy Show and "Eva" won second prize in the Register of Merit cow class. Both finished their latest tests within a few months of each other and their trips on the show circuit did not impair their work, which speaks volumes for their vigor and constitution at a rather advanced age.

Spermfield Owl's Eva's Record

Milk, Pounds	Fat, Pounds	Age, Years
8,947.0	511.80	3
10,859.9	597.10	7
16,457.4	993.30	8
11,666.8	709.61	10
13,114.4	740.65	11
15,504.2	833.72	12

Sophie 19th's Record

Milk, Pounds	Fat, Pounds	Age, Years
7,050.2	395.9	2
9,924.8	570.8	3
14,373.2	854.4	4
15,099.4	931.9	6
17,557.8	999.1	7
11,915.4	680.5	9
15,948.2	847.8	11

Spermfield Owl's Eva in her best year's work made 993 pounds of fat. Sophie 19th in her hest year made 999 pounds of fat. The latest test in each case is the second hest record that either of these cows ever made. The six years' total for Eva is 76,549.7 pounds milk and 4,386.18 pounds fat, while Sophie 19th in her first six tests made 75,920.8 pounds milk and 4,432.6 pounds fat. Sophie 19th has made one more yearly record than her opponent, however. It is said that both cows are in a remarkahly good condition at the present time and fit for a still greater length of service.

Spermfield Owl's Eva cannot be classed as a sport, nor is her great productive ability or her fine type an accident. Her sire is the great Jersey hull, Spermfield Owl, who has forty-nine daughters and six sons in the Register of Merit. She also has illustrious grandparents, one of them heing Exile of St. Lambert, the sire of ninety-four tested daughters.

Wintering Farm Horses

It is to he expected that farm horses will be wintered as economically as possible the coming winter, but we must keep in mind that there will be lots of heavy work to do next spring and not carry the economizing too far. It is not necessary to keep mature work horses in high condition through the winter, hut they should he well enough fed so they will not get too thin. Colts and young horses must of course he fed more nutritious rations during the winter than idle work horses, since they are making growth.

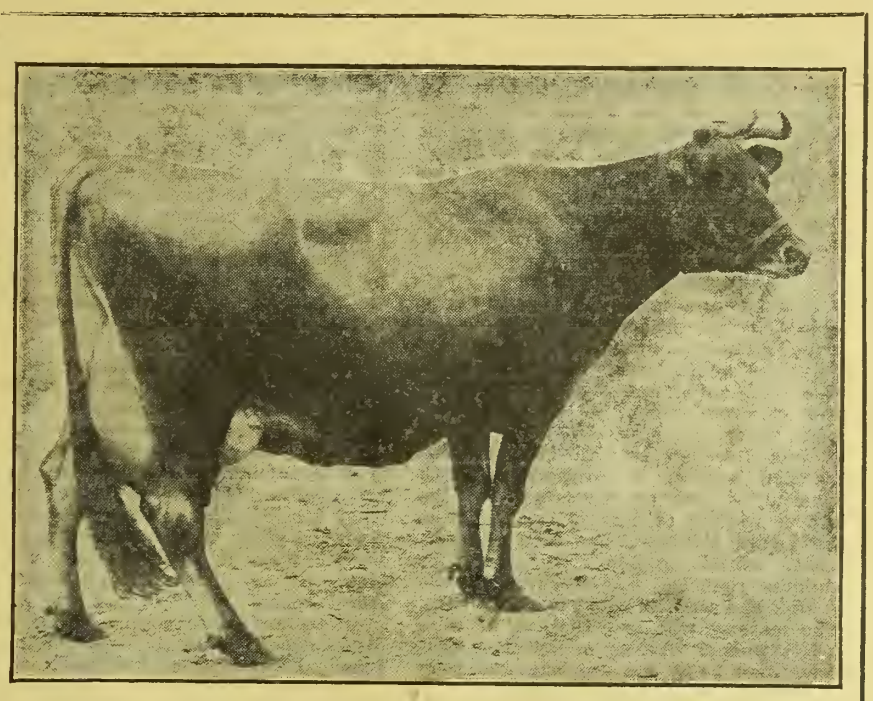
Farm work horses weighing an average of 1,439 pounds were wintered at the Missouri Experiment Station last winter on a daily ration composed of corn and coh meal 14.77 pounds, linseed oil meal 1.67 pounds and oat straw 14.34 pounds. These horses did 5.55 hours work daily and lost only twenty-four pounds in weight during the six weeks of the trial. Oat straw can he utilized to good advantage by work horses and mules. Horses weighing around 1,150 pounds have been wintered at the Missouri Station on 5 pounds of alfalfa hay and 15 pounds corn silage. They lost an average of 35 pounds per head. A ration of 6 to 7 pounds of alfalfa or clover hay and 18 to 20 pounds of corn silage of good quality has kept horses doing no work through the winter in satisfactory condition.

The principle upon which to base the wintering of farm horses is to keep the work horses in reasonahly good condition in which to start spring work, and to utilize as much home grown feed, especially roughness, as possible.

Trim Dead Wood from Trees

The time to remove dead wood from fruit trees is when you discover it, no matter what time of the year that may be. Of course it is not always convenient to do this, hut it is not wise or necessary to delay cutting out dead wood until the regular pruning time. It should he got out of the way at once if possihle. It would be a good plan to run over the orchard right now and cut out all dead limbs that are found. The wood will come in handy for fuel and there will be that much less to do at the regular pruning season, which should usually he delayed until late in the winter so as to catch the trees when they are as near dormant as possible.

Harold Simons, extension horticulturist of our agricultural college, suggests that after cutting out the dead limhs it would be a good plan to plow the orchard if it has not been plowed within the last three years. This is an important step in orchard cultivation and helps greatly in keeing the orchard free of insects, since the eggs and larvae of many insects will be destroyed by exposing them to the cold of winter.



SPERMFIELD'S OWL'S EVA, A PRIZE-WINNING COW IN REGISTER OF MERIT CLASS AT NATIONAL DAIRY SHOW

Farm Storage of Root Crops

It does not cost much in time and effort to store the various root crops so they will keep for winter use. An expensive storage cellar is not a necessity, although a good, permanent vegetahle storage cellar is a great convenience and every farm should have one if possihle.

To store in pits out of doors, select a piece of well-drained ground just preceding the cold weather of early winter and dig a pit from three to four feet wide, sixteen to eighteen inches deep. Such a pit can be made any length desired, according to the quantity of vegetahles to he stored. Beets, carrots, parsnips, turnips, and other root crops of similar nature can he very satisfactorily stored in such pits. They should always be gently handled and should be carefully placed so as to form a conical pile with the top some six to twelve inches above the level of the ground. It is hetter to make several small pits than to store large quantities in a single pit. Cover the vegetahles first with a layer of straw and then with ahout four inches of dirt. More dirt must be added as the weather gets colder. Before the severe cold weather comes the pits should be covered in addition with from four to six inches of coarse, strawy manure.

Many prefer this method of storing root crops of this kind to storage in the cellar, as it keeps them fresher and tends to retain more of the natural flavor and color. There will he less decay than when stored in the cellar because the temperature is so much more uniform in the outdoor pit. Irish potatoes can be stored in the same way.

Next Year's Garden

Now is the time to get ready for a better garden than ever next year. If the garden spot of the hest garden in 1919 is not already plowed, it soon will he, says Professor Alhert Dickens, horticulturist at the Agricultural Collegc. The real gardener knows that a garden soil cannot he made in a few days. A liheral dressing of well-rotted manure should he spread before plowing if possihle, hut if the manure is not to he had, the garden should be plowed anyhow and manure spread on top during the winter.

Soil plowed in the fall before heavy freezing will he in much finer tilth in the spring and the garden can be worked earlier and frequently planted two weeks earlier than if the plowing is left until spring. All the best Kansas potato growers plow in the fall. We noted last week in one of the big commercial potato sections of Kansas a heavy growth of turnips heing plowed under in a big potato field.

The ground should be left rough and if it is in too exposed a place where the wind is liahle to drift the soil during the winter, it is a good plan to protect it by spreading coarse manure and litter, raking this off in the spring before doing the spring cultivating. Fall plowing also helps destroy a great many garden insects.

Protect Trees from Rabbits

Young trees must be protected from rabbits during the winter. A good many questions are heing asked as to how hest to do this. W. F. Pickett, assistant in horticulture at our Agricultural College, offers the following suggestions:

"There are several methods of protecting trees against injury by rabbits. Among those most commonly used are: Tar paper, corn stalks, screen wire, hardware cloth and various washes and paints.

"Tar paper is very satisfactory, considering the initial cost, hut it does not last as well as the screen wire. In using the paper, it should he cut into strips about 18 to 24 inches in length—or long enough to reach from the ground to the lower limhs of the tree. The strips should he wide enough to go around the tree without binding. The paper is usually tied in placc with binding twine.

"Corn stalks are sometimes used on young trees. Two or three corn stalks are put around the young trce and tied in place.

"The use of screen wire is a popular method of protecting trees. This wire costs from 3 to 4 cents per square foot. The screen wire is usually sewed in place by using a fine wire, or it may he fastened by using staples made of baling wire.

"Hardware cloth is a galvanized wire netting, usually with meshes of one-fourth to one-half inch. Hardware cloth costs ahout 7 to 8 cents per square foot, but it is more economical than screen wire because it lasts longer.

"The screening and hardware cloth should he made large enough to allow for the growth of the trees. All protective materials should he placed in the ground one to two inches to make them more stahle and protect the trees from field mice.

"There are several washes or paints that orchardists use as a protection. Dormant strength lime sulphur may be used. This acts as a repellant for rabhits and also aids in cleaning up the trees, such as aiding in the control of San Jose scale and destroying spores of various diseases. Some orchardists use common white-lead paint. Treating apples with a formalin solution is sometimes effective as a poison.

Live Stock Losses in Europe

Just what are the live stock losses in Europe is a question frequently being asked hy producers of live stock in this country. We are interested in this hecause it has a hearing on the future of live stock production in the United States. A message cahled to the Food Administration hy Dr. Vernon Kellogg, one of its investigators who is now studying live stock conditions in Europe, is to the effect that the meat herds of Europe have decreased so enormously that there is a great dearth not only of meats and fats, but also of milk for children.

Following are the per cent of losses in the herds as given by Dr. Kellogg:

Loss of cattle: France, 17 per cent; Italy, 14 per cent.

Loss of sheep and goats: France, 41 per cent; Italy, 1 per cent; United Kingdom, 10 per cent.

Loss of pigs: France, 49 per cent; Italy 12½ per cent; United Kingdom, 25 per cent.

Horses: France, 37½ per cent; Italy, 25 per cent; United Kingdom, 4½ per cent.

Figures for that part of France recently evacuated by the Germans are not available. The loss in that part of France and in Belgium is nearly total.

After traveling in France three weeks Dr. Kellogg was served hutter only once. Butter is almost unknown except along the military front and on the farms.

Horses Have Influenza

A disease which very much resemhles influenza of the human is afflicting farm horses in various parts of the country. There is some resemhlance in the symptoms to the human disease which has been epidemic during the past few weeks. The following advice is being given hy the Department of Agriculture:

"To guard against an unfavorahle termination or the development of one of its numerous complications, horses, upon showing evidences of influenza, should he relieved immediately from work. Most careful nursing is also essential for horses affected with influenza and, likewise, skilled medical treatment, which can he hest assured hy placing affected animals under the case of a qualified veterinarian. The spread of the infection should he prevented hy segregating the diseased animals and thoroughly cleaning and disinfecting the contaminated premises. Plenty of sunlight and good ventilation are also highly desirable."

HOME DEMONSTRATION AGENTS

Their Work an Integral Factor in Farm Bureau Program

By Frances L. Brown, State Leader of Home Demonstration Agents, Division of Extension, K. S. A. C.

IN KANSAS, the first home demonstration agents began work in July, 1917. Their work was started with state funds, hut later in the year when the emergency bill was passed by Congress these women were regularly employed as emergency home demonstration agents. The number of these agents at work in Kansas has grown constantly and at the present time sixteen counties and six cities of the state employ emergency home demonstration agents.

Made Food Saving Easy

When these home demonstration agents were first employed, the war relief agencies were endeavoring to establish systematic local organizations in order to bring about effective results and the first duty of the women agents was to assist these agencies in whatever way they could. This assistance was given in various ways. In Topeka, when the program o fthe Food Administration at first seemed rather difficult to follow, the home demonstration agent made a series of exhibits in a department store window so that the people might study the simple principles underlying the feeding of t he family according to the Food Administration's regulations. In these exhibits the agent emphasized the points that the Food Administration wished to have emphasized and showed the equivalents in food substances other than those which we were to deny ourselves.

In other places the home demonstration agent was called upon to name rations suitable for meu of different occupations, and which could be made with substitutes for bread, meat, fat, and sugar. Each time the Food Administration has conducted a special campaign each county and city home demonstration agent has covered her territory with demonstrations in the interest of the campaign.

We have become so used to falling in line and doing whatever we can to aid in winning the war, that some of us have forgotten how we complained in the early months of the war when we were asked to do things differently than was our custom and how difficult it was, even when we were willing to save wheat, sugar, meat, and fat, to feed our families well by using substitutes. I remember one old man told one of the agents that he did not mind going without meat so much, but bread made from "those constitutions" would get him, he knew. In those days we needed every means of persuasion to convince ourselves, our families, and our friends that the new dishes were as satisfying as the meals to which we were accustomed. Into this campaign the home demonstration agent entered wherever the advisory committee thought it would encourage the public in its effort to keep a definite record of the amounts of foods actually saved during the campaign period. Cards were sent out for the purpose of keeping this record. A card was sent to every family in the counties and cities undertaking the campaign. but only about one-third of the cards were returned. Of course, we know that many others saved who did not keep a record. The record showed that during the food-saving campaign period 1,996,163 pounds of wheat, and 79,643 pounds of sugar actually were saved in the communities that reported, and the people of these communities were proud to refer to the record made by those who did this systematic saving. One man remarked boastfully, "Why, our agent had our folks save more than 130 sacks of flour in less than a month."

The effect of this work was felt later also when we were asked to do without any wheat at all; many took the pledge readily because they knew from the records which they had kept, that they could keep the pledge. In Atchison County one woman said to the home demonstration agent: "You surely helped us to understand why we should save the wheat." That was half the battle. When the campaign started another woman told the same agent that she had plenty of flour on hand and that she intended to use it. At the close of the campaign after she had seen several of the agent's demonstrations, this woman said to the agent: "We like oatmeal bread so well that I doubt if we shall ever go back to the wheat bread, and anyway, we should be glad to help even if we did not like it; if the use of wheat substitutes is going to help lick the Kaiser, we are going to do our part."

This attitude on the part of the women has helped the home demonstration agent in her endeavor to get every family in her territory to meet the demands of the Food Administration.

Public Welfare Work

Nor was the saving of food the only object of this program. The Food Administration was anxious that we should be fed as well as ever. The fact that in this food-saving campaign the needs of the children might be understimated made it necessary to stress the matter of infant feeding and the home demonstration agents, in co-operation with housewives, put on campaigns for the proper feeding of infants and children. In Wichita the agent had such an interesting exhibit of the prope rfood for children that the booth containing the exhibit had a crowd about it all the time. The mothers who saw the exhibit were led to wonder whether or not their children were being fed properly and tl ey made a study of this important subject. The Hutchinson Red Cross chapter became alarmed lest the children of that city might be neglected and called upon the city's home demonstration agent to make a similar exhibit at one of the bazaars.

In fact, when any war campaigns have been launched, whether they were for Liberty Loans, hospital linen, or some other war necessity, the home demonstration agent has been found actively engaged in assisting. Recently when a call was made for nutshells and fruit pits, Miss Edna Danner, the agent in Marshall County, canvassed her county through the children in the public schools in the interest of the campaign. As a result of her efforts 5,450 nutshells and pits were shipped.

It is not only in campaigns that the home demonstration agents give their assistance. In matters of public health and safety you will find them serving in the ranks. In Lyon County, during the recent attack of influenza, the county home demonstration agent worked six days in the emergency hospital kitchen, cooking for the patients. In one city the agent had a soup campaign and enlisted the help of voluntary workers in making soup enough to feed the sick of the city. In another city the agent, with the aid of voluntary workers, made soup in her thrift kitchen and sent it out to those who were afflicted with the influenza; and this was done not only once, but during the entire season of the epidemic.

Although the home demonstration agents assist in all sorts of campaigns in their territories and in general endeavor to be all things to all people, yet they have a definite work to do. Usually they are employed through the farm bureau in the same way as are the men county agents, and in those counties having farm bureaus the work of the home demonstration agents is an integral part of the farm bureau program. Whether they represent a farm bureau or not they have an advisory committee of women, who, with the assistance of the agricultural college, supervise the work to be taken up by the agent. This work is planned in the form of a program; that is, it is made up of three or four projects which are recognized by the people in the territory in which the agent works as being the problems which they most wish to have "put over."

A project leader is selected for each project and this project leader with any others whom she desires to have help her, and the home demonstration agent, make out the plans by which the project is to be accomplished. They decide upon the results that they wish to achieve. They consider also the related problems that are likely to arise as soon as the work is taken up in the county. For instance, in one county "Hot Lunches for Rural School Children" was one of the projects, and since so many hot lunch dishes depend so largely upon milk as a principal foundation, the milk supply became one of the related problems and how to increase the supply was one of the side lines where the women decided to throw their power of co-operation with the men. In another county where "Raising Poultry" was a project, the farm crops became a related problem. The advisory committee decides upon the number of days that the home demonstration agent can afford to spend on a project, the number of demonstrations that should be given, and the nature of the demonstrations; the training classes that should be held for volunteer leaders; the circular letters that should be sent out, and any other means by which the purpose of the project can be accomplished. In fact, by the time the committee has planned a project the work of the home demonstration agent is clearly mapped out for her and from that time on she is merely an agent in carrying out the committee's plans.

Good Results From Agent Work

In those farm bureaus or cities where the work of the home demonstration agent is planned in this way by the people or by an advisory committee representing the people and the agent, the work is very satisfactory and becomes efficient. The City of Fort Scott has a splendid organiaztion. A supervisor from the United States Department of Agriculture, after having checked the work done by the Fort Scott agent, reported that the work there is progressing as well as in any other city in the United States, if not better. Fort Scott has reason to be proud of its people and their wonderful spirit of co-operation. The city is proud of its home demonstration agent because she really does things. That city has taken as its projects, "Child Welfare," "Clothing," "Fuel and Food Conservation," and a thrift kitchen is maintained. Recently the home demonstration agent of that city reported as follows:

"October has been a very fine month and I rejoice over the pleasure of reporting to you that the thing which we most desired for the best development of our work has been granted to us. At the October meeting of the county commissioners the board voted to turn over to our visiting nurse, Mrs. W. F. Pritchard, the county fund for the needy—some nine or ten thousand dollars—to be used by her to the very best advantage for the needy of the city and county. The city superintendent and city school board also has appointed Mrs. Pritichard truant officer so that she may bring every child of school age into the school and provide for his needs through our welfare department of the thrift kitchen, where we provide clothing, books, and food, if necessary. Due to the quarantine of the past two weeks caused by the influenza epidemic, our big woman's committee of the Council of Defense, which is composed of over 400 volunteer workers, has not been permitted to come to our central work shop, but they are working in their own districts and blocks and will be ready to do splendid work when the quarantine is lifted. Mrs. Pritchard and I have been at our thrift kitchen daily to answer calls of the needy and ill and to prepare food for whole families who are ill and cannot secure the aid of a nurse. When in need of any assistance from our band of splendid workers we have only to call and they are glad to serve. Many call in to know if there is anything we need and all the time they are keeping watch over the sick and needy of their own blocks. Our workshop or thrift kitchen is located in the center of the business district and up to date it has been maintained by the home demonstration agent's monthly allowance, but since the county commissioners have granted us the county fund for the needy, we are sure the mayor and the city commissioners will grant money to maintain the work room. Hope to tell you of this in my next report. The report on the projects follows:

"Project 1. Food: Through our visiting nurse we have furnished food to fifteen needy families. Soup made by the home demonstration agent has ben delivered by the visiting nurse to twenty or thirty patients each day for the past two weeks. The Mothers' Club on the east side of the city has furnished the material for the soup each day; Grace Methodist Church Society furnished material for soup one day. Many volunteer workers have made soup at home and have given it to us for the sick. Each day some old or poor and needy come to the thrift kitchen for a drink of milk or a cup of soup.

"Project 2. Clothing: Due to the quarantine we have not made a call for



"IN WICHITA AT THE FAIR AND EXPOSITION THE AGENT HAD SUCH AN INTERESTING EXHIBIT OF THE PROPER FOOD FOR CHILDREN THAT THE BOOTH CONTAINING THE EXHIBIT HAD A CROWD ABOUT IT ALL THE TIME.—THE MOTHERS WHO SAW THE EXHIBIT WERE LED TO WONDER WHETHER OR NOT THEIR CHILDREN WERE BEING FED PROPERLY AND THEY MADE A STUDY OF THIS IMPORTANT SUBJECT"

clothing which our block workers will collect for us. When we need certain things, such as nightgowns for the sick, we make the call through our workers and they come to us. From our supply of clothing the visiting nurse has put out 240 pieces, of which 60 garments were made new or re-made and sold to the commissioners for the needy. Clothing for burial was provided for two persons who were buried by the county. As I told you when I explained our plan to you in former reports, our motto is 'To help the people to help themselves' and no one is helped without giving something in return. Some piece quilt blocks; some sew carpet rags; others rip, wash, and prepare old material to be re-made into new garments; others come to our shop and sew for each other. Next month's report will give you more information along this line.

"Project 3. Shelter: Coal has been furnished to six families. One house has been rented and a family moved into better quarters; one comfort supplied where needed; blankets bought and supplied a family sick with influenza. Many comforts will be made before winter by these people who are getting aid through the department. As winter advances more coal will be furnished to relieve suffering.



FRANCES L. BROWN, STATE LEADER OF HOME DEMONSTRATION AGENTS

"Project 4. Welfare Work: Besides what has been reported in the preceding projects, the visiting nurse has made trips to 150 homes to give relief to the ill; has directed the feeding and care of ten babies; has given assistance to four expectant mothers; has secured positions for at least twenty people who wanted work; has found homes for three old people."

Permanent Home Agent Needed

The work of the home demonstration agents is being systematized throughout the state and the outlook for its continuation is very good. While these agents came into existence as an emergency measure, their value has become so established that there is no doubt that the emergency home demonstration agent has laid the foundation for a permanent corps of home demonstration agents and we are looking forward to the time when the women of every county and of our larger cities will annually take up some specific problems of progress, development, or reform, and, working through their home demonstration agent will actually bring to pass the dreams which they have in mind. The slogan of the home demonstration agent is to help the women help themselves until every woman can do whatever she has to do, in the best way, with the least amount of effort, in the least amount of time, and at the least cost possible.

Loans for Cattle Production

Already one and a half million dollars in breeding cattle loans have been approved and made through the Cattle Loan agency of the Federal Reserve Bank at Kansas City. This money was made available by the War Finance Corporation, its purpose being to stimulate the stock-raising industry in the Southwest. The details of the plan have only recently been announced by W. P. G. Harding, governor of the Federal Reserve Bank Board. Additional applications awaiting the approval of the Finance Corporation amount to $2,365,000. It has been estimated by Kansas City bankers that applications to the amount of ten million dollars are likely to be made by cattlemen of the Southwest. For the one and a half million loans already approved, 50,570 head of breeding stock have been pledged as collateral.

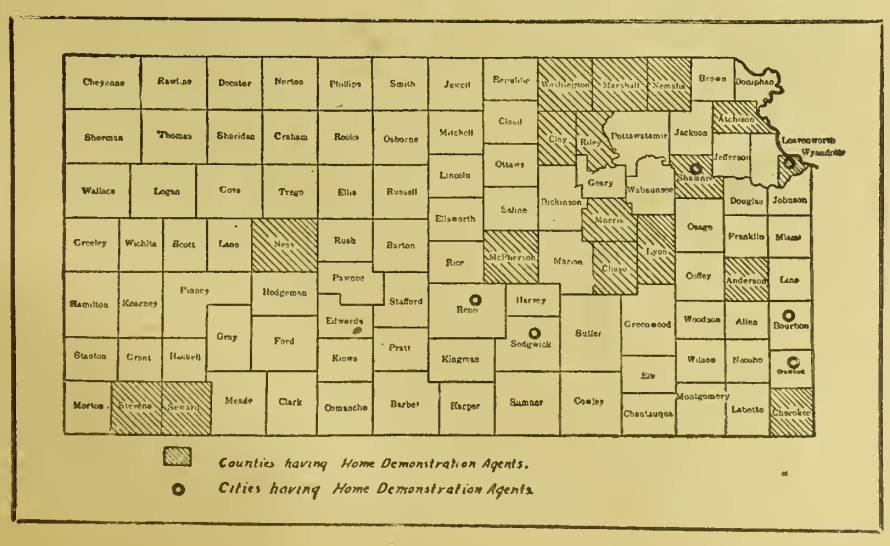
Return Straw to Soil

The lack of soil humus is the greatest limitation of most soils, and it is doing more than anything else to hold down crop yields. Humus is decaying vegetable matter, and the only way to keep up the supply is to put material on the ground that will decay. Just as soon as the amount of this vegetable matter begins to decrease, the soil begins to get out of good physical condition and will tend to "blow." This is certain to lower crop yields and profits. Straw is one of the leading materials under the conditions in the Middle West that can be used to supply humus.

In order to supply the enormous quantity of water necessary to grow an acre of wheat, oats, flax or barley, the soil must not only be in condition to absorb and hold water well, but it must be porous enough to permit the moisture to pass freely from one soil grain to another. This is only possible when the soil contains a large quantity of decaying organic matter (humus). Humus is the soil's lampwick which draws the moisture stored in the soil and subsoil and furnishes it to the growing plants. One ton of humus will absorb two tons of water and give it up readily to the growing crops. Not only that, but the shrinkage of the particles of decaying organic matter and the constant loosening of the soil grains keep the soil open and porous. Furthermore, humus of good quality is extremely rich in both nitrogen and mineral plant food. The maintenance of fertility may almost be said to consist of keeping the soil well supplied with humus.

"Straw stacks should not be burned," says L. E. Call, head of the soils and crops department of the Kansas Agricultural College. "The soil needs all the humus it can get, and when a farmer burns straw he is destroying wealth that can be made available later if it is handled right." And it is just about as bad, too, to let a straw stack rot down as to burn it. Almost all the nitrogen and humus is wasted in both cases, and in addition the man who lets the stack rot down has put that spot in such a fertile condition that the small grain crops frequently fall down, and thus they are practically a total loss. Then, too, the rent on this land is lost while the straw is on it, and there is the added disadvantage of working around the stack in caring for the following crops. The proper thing is to spread the straw back on the land promptly, or use it for feed and bedding and spread the manure produced.

With the recent increasing use of commercial fertilizers in the Middle West has come an appreciation of the value of straw in supplying essential plant foods. There is more than $2.50 worth of nitrogen, phosphorus and potash in a ton of straw, when the value is based on what these plant foods would cost you in commercial fertilizers. Remember that this does not include the beneficial effect of the humus, which on many soils of hardpan type is worth about as much as plant food.





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Without her this increasing complexity of military, business and civil life could not be kept smoothly working. Hers is patriotism applied. She is performing her part with enthusiasm and fidelity.

The increasing pressure of war work continually calls for more and more telephone operators, and young women in every community are answering the summons—cheerfully and thoughtfully shouldering the responsibilities of the telephone service upon which the Nation depends. Each one who answers the call helps speed up the winning of the war.

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Arkansas Valley Report

Thirty-nine cows owned by members the Arkansas Valley Cow Testing Association produced forty pounds or more tter fat in October. The records of se cows, with the names of their ners, are given in the following ble:

Owner—	Pounds Milk	Per Cent Fat	Pounds Butter Fat
H. Bock, G.	877	4.8	42.096
H. Bock, H.	1,451	3.0	43.530
H. Bock, H.	1,950	5.3	103.350
H. Bock, H.	1,603	4.6	73.738
lter Craven, H.	1,373	3.6	49.428
lter Craven, H.	1,228	3.5	42.980
W. Enns, H.	1,172	3.5	41.020
W. Enns, H.	1,116	3.8	42.407
W. Enns, H.	1,290	3.4	43.860
W. Enns, H.	1,451	3.4	49.534
ke Leendertse, H.	1,107	5.0	55.850
as. R. Gordon, H.	961	4.2	40.362
as. R. Gordon, G.	1,327	3.7	49.099
as. R. Gordon, H.	1,023	4.5	46.035
R. Peck, H.	1,215	4.1	49.815
R. Peck, H.	1,101	4.4	48.444
as. R. Weede, H.	964	4.2	40.488
d Harvey, H.	1,383	3.2	44.256
d Harvey, H.	1,510	3.4	51.340
d Harvey, H.	1,088	3.8	41.344
Regier, H.	1,742	3.3	57.486
bbs Farm, H.	1,225	3.5	42.875
bbs Farm, H.	2,058	3.0	61.470
bbs Farm, H.	1,172	4.0	46.880
bbs Farm, H.	1,807	3.0	54.210
bbs Farm, H.	2,161	4.3	92.923
bbs Farm, H.	1,758	4.2	73.836
bbs Farm, H.	1,290	3.2	41.280
bbs Farm, H.	1,225	3.6	44.100
bbs Farm, H.	1,395	3.8	53.010
pleman Bros., H.	1,845	3.7	68.265
pleman Bros., H.	1,504	4.6	69.184
pleman Bros., H.	1,755	3.6	63.180
pleman Bros., H.	1,535	3.3	50.655
pleman Bros., H.	1,612	3.4	54.808
pleman Bros., H.	2,266	3.7	83.842
s Gosney, H.	1,497	3.4	50.898
s Gosney, H.	1,587	3.1	49.197
s Gosney, H.	1,457	4.0	58.280

H stands for Holstein; G for Guernsey.

Getting Results in Dairying

FALL fresh cows produce more milk during their lactation periods and more through a period of years than do those that freshen in the spring. The impulse given by recent calving causes the cow to yield for several months or throughout the winter, then about as the cow is becoming stale and declining in milk flow, the spring, with its abundance of fresh grass and warm weather, restimulates the cow to increase and continue to give the milk. Thus a fall fresh cow will, by following August, be yielding nearly as much milk as she would be at the same time had she calved in March.

Comfortable housing saves food. The cow's body must be maintained at essentially the same temperature, regardless of the temperature of the stable. If she is tied in a barn in which water will freeze during the night, she will of necessity use a large portion of her feed merely to warm her body. Of course, if too hot, she will sicken and refuse to eat. A temperature of about 60 is the most desirable.

Succulent feed, such as silage, should be fed liberally. Corn silage is in most sections of the country the most nutritious and economical feed that could well be supplied a dairy herd. Cows will eat more of such feed than they would if it were dry.

Liberal feeding is economical. The first portion of the feed consumed is always used for the maintenance of the animal body and it is only by feeding more than necessary to keep the cow that she may have any remaining out of which to make milk. With corn silage, clover or alfalfa hay, and comfortable stables, cows will require but moderate amounts of grain in order to produce profitably.

Balanced ration is nothing more nor less than a ration which consists of just enough ash, protein and energy-yielding substances to meet the needs of the body, with none to waste. Just as the carpenter requires nails, boards, shingles and dimension stuff in certain proportion to build the house, so does the cow require her building materials in proportion to the size of her body and the amount and quality of the milk she is giving. Feed a balanced ration.

Treated with kindness, the cow will yield materially more milk than she would, all other things being equal, if she were given harsh, unsympathetic treatment. Kindness to the cow has commercial value. She is a mother with many attributes of the human, and any man who cannot so regard her will not be as successful a dairyman as he might be. The milking should be done quietly, rapidly and thoroughly.

Regularity in feeding and milking are also beneficial, as the cow is a creature of habits and will become decidedly restless and fretful if not cared for at the usual time.

Liberal watering at least twice daily is essential to good milk flow. While some cows seem almost to prefer to drink but once a day, many others drink very frequently if given opportunity.

The cow dehorned as a calf or heifer is not only far more comfortable and safe for man to handle, but is also prepared to live peaceably with her sisters, and for that reason produce more economically. The dehorned herd will crowd together like so many sheep without fear of injury.

The milk of each cow should be weighed at intervals, at least one day each month, but preferably one day each week, and tested from composite sample at least four times during the year and preferably once a month. This is done to know of a certainty whether any certain cow is sufficiently profitable to warrant being kept, and also whether she is sufficiently valuable to warrant keeping her offspring.

The best cows in the herd, as determined by scales and Babcock test, should be kept as long as possible, bred to purebred sires of the breed desired in order that the future herd may be better than the present one.

Our grade cows must, of necessity, serve as foundation stock, but we should aim to build higher than foundation only. —R. M. WASHBURN, Minnesota Agricultural College.

Milk for France

Someone has said that a can of American condensed milk represents the future citizens of France. America has furnished thousands of cans of milk to the children of France and Belgium. At the time of the evacuation eight camions started for Compeigne from Paris, carrying 14,000 pounds of condensed milk.

Due to the conditions of war, milk has become more and more inferior in quality and the bottle babies are being menaced by disease. Recognizing this, the Children's Bureau of the American Red Cross began last January a campaign against infant mortality in connection with the Rockefeller Commission, one of its chief aims being to instruct in baby feeding.

Pictures, exhibits, moving pictures, lectures and actual demonstrations were some of the methods employed. The French have taken the keenest interest in this work and French doctors are eagerly co-operating in this effort to save the French babies.

At the dispensary of St. Etienne a mother is not only told how to feed her baby, but this is followed immediately by a home demonstration. A nurse goes into the home and shows the woman exactly how to sterilize the baby's milk as well as the poor utensils she may happen to have.

Furthermore the American Red Cross buys condensed milk for the poor little sick babies and part of the membership money received from the Christmas roll call will go to the support of this work.

In France milk is regulated both as to its price and as to its sale. So that in order to insure a sufficient amount for the babies, milk cannot be served to the public after 9 o'clock A. M. This ruling, however, has not as yet been applied to the condensed milk which comes largely from America.

Because of lack of credit and the small stocks carried by these Paris shopkeepers, the price of condensed milk is most unstable. In fact, the same brand is often sold in four or five stores within a very limited radius, at prices ranging all the way from two francs to two francs sixty centimes, or a variation in price of some thirty cents.

But it is not only among the babies of France that there exists this very vital need for pure milk. Lack of fresh milk, according to army doctors, seriously retards the recovery of wounded and sick men.

In order that this fresh milk may be available, the American Red Cross is about to establish a model experimental dairy plant at the largest American army hospital in France. The French government has agreed to loan to the Red Cross one thousand cows which it is expected will supply milk to twenty thousand sick and wounded soldiers daily.

A sum of five thousand dollars has been set aside to inaugurate this plan which will be operated almost entirely by convalescent and wounded soldiers and hence will have but little expense of maintenance. The cost, however, is of little importance compared to the very great need for milk in the diet of the hospital patients. For it is a well known nutritional fact that even adults should have at least a pint of milk daily in their dietary. Christmas Roll Call in the American Red Cross may mean the lives of some of these convalescents.

On the model farm at Courbat, conducted for the mutiles, the American Red Cross has established a complete dairy equipment, as it has been found that such creational work has a very curative effect on the men suffering from shell shock.

Saving little children, as well as supplying fresh milk to the hospitals, is but another errand of mercy, executed by all Americans who shall wear the Red Cross button and display the service flag during the Christmas Roll Call week. —Chicago Daily Produce.

"Can you afford to milk a cow and care for her a year for sixteen cents?" That's the sum a Minnesota farmer profited from "Fuzzy," a grade Jersey, the past year. Her product had a value of $57.89 and the feed she ate was worth $57.73. The owner had sixteen cents for his trouble. "Fuzzy's" herd mate, "Stub," looked very much like her and received the same treatment, but paid her owner $108.26 for feeding and caring for her. These facts were shown in a cow testing association.

Trophy to Nebraska

A large silver trophy, given by the National Holstein-Friesian Association, has become the permanent property of the University of Nebraska. It bas been won four times by dairy judging teams of the university, or twice as often as it has been won by any other institution. Hence, the Association decided to make it the permanent property of Nebraska. The trophy was among the prizes won by the Nebraska dairy judging team at the National Dairy Show at Columbus, Ohio, last month.

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Roosevelt and Waters

Roosevelt is a regular contributor and H. J. Waters, former president of Kansas State Agricultural College, as editor-in-chief, are largely responsible for the mounting popularity of The Weekly Kansas City Star. The publishers announce that residents of Kansas, Missouri, Iowa, Oklahoma, Arkansas and Nebraska may subscribe for one full year by sending fifty cents to Department 34, The Weekly Star, Kansas City, Mo.—Adv.



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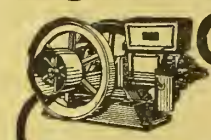

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Farm Bureau Resolutions

THE conference of farm bureau officers and county commissioners held in Manhattan last week was an epoch-making event in the development of the farm bureau movement in the state. While the attendance was not as large as might have been desired, it was thoroughly representative of the most progressive agricultural interests of the state. The results of the discussions were finally crystallized in the form of a series of resolutions which are given below, special committees reporting on marketing, organization, legislation and finance, and agricultural reconstruction.

The resolution on marketing as adopted was to the effect "that the farm bureaus of the state and the United States should actively investigate the cost of production of the various agricultural products, and that with this information they take active steps to represent their interests in the interpretation of the law of supply and demand with due consideration to costs of production. We urge that all farm hureaus in the United States co-operate with other farmers' organizations along this line in representing the farmer's interests for his protection.

"We respectfully ask the Kansas Agricultural College to employ a marketing specialist to further this program and to do educational work along marketing lines in the State of Kansas."

The resolutions on organization as adopted recommended a strengthening of the farm bureau organization in each county hy the following means: Increased memhership; by developing a strong program of work; by raising, as far as possihle, adequate funds for carrying out the work planned in its program, and hy carrying on a thorough puhlicity campaign during the memhership drive in order to acquaint all of the people of the county—business men as well as farmers—with the work already accomplished in the county and with the proposed work for the coming year.

And further that the organization appoint a state-wide committee to investigate, gather information, and lay plans for the organization of a state farm bureau association, said organization to he later perfected when a majority of the farm hureaus in the state have accepted the principles of state organization.

The legislation and finance recommendations are as follows:

"We recommend to the Legislature of Kansas that the following changes be made in the present county farm bureau law: The law now provides that the Kansas Agricultural College shall contrihute, from federal and state funds granted for demonstrations in agriculture and home economics, not less than $800 nor more than $1,600 per annum, as far as such funds are available, toward the salary of such county agricultural agent; it is recommended that this he changed to read as follows:

"'The Kansas State Agricultural College shall contrihute, from federal and state funds granted for demonstrations in agriculture and home economics, not less than $1,200 toward the salary of such county agricultural agent.'

"The committee recommends that the section of the present law which reads, 'The said board of county commissioners shall appropriate from the public funds of the county a sum of money not less than $800 per annum and not to exceed $1,600 per annum, to assist in the payment of the salary of the county agricultural agent and the expense of the farm hureau,' he amended so as to read as follows:

"'The said board of county commissioners shall appropriate a sum of money not less than $1,500 per annum, to assist in the payment of the salary of the county agricultural agent and the expenses of the farm hureau.'"

The report on reconstruction is as follows:

"As one of the great problems following the peace conclusions will he the demohilization of our army and the returning of our soldiers and sailors to their homes, and inasmuch as the needs of agriculture for lahor are great, it is the belief of this hody of men that our returning soldiers and sailors should be sent back direct to their local boards in order that they may be returned to civil life through the same channels that sent them to the front. By returning those in the service in this manner they will be more readily able to find employment and will be availahle in their communities to meet the needs of agriculture for lahor.

"We respectfully request the Secretary of War and the Provost Marshal General to adopt some such plan as will return the soldiers to the homes they left at the earliest posslhle date. In Kansas there has heen sown to wheat this fall a record acreage, amounting possihly to more than 10,000,000 acres, with a splendid prospect, which if realized would require an army of workers to harvest next year. The demands of the farm for lahor in the early spring for preparation and planting of spring crops is also great, and in no other way can so well be met as through the demohilization of our soldiers and sailors in the manner suggested.

"Inasmuch as there is not sufficient provision in the law whereby the county commissioners may raise these funds, the committee recommends that a section he incorporated in the present law empowering the county commissioners to make a tax levy sufficient to raise the funds needed for the farm hureau work; that the executive committee of the farm bureau he required to prepare and present to the board of county commissioners on or hefore the first Monday in August, budgets which will show clearly the amounts necessary from year to year.

"It is also recommended that the part of the law which reads, 'The memhers of the county farm hureau residing in the several townships shall choose from their numher a person who shall he known as the vice president for that township, and the several vice presidents thus chosen shall select from their number ten persons who shall constitute the executive hoard of the county farm bureau,' shall be stricken out. This or similar provisions can then be included in the constitution and by-laws of each farm hureau, thus making it possihle to adapt the organization more closely to local conditions in the county.

"The appointment of a legislative committee was also recommended, to be selected at this time hy those present at the conference and instructed to notify the farm bureaus of Kansas of the action taken at this meeting and request that they obtain petitions signed by as many of the farmers of their counties as they are able to secure, and forward these petitions to their respective representatives. This committee to be composed of five members selected as follows: Two from the eastern part of the state; two from the central part of the state; and one from the western part of the state.

"It is also recommended that the county commissioners, farmers, county farm hureaus and such other agencies in the state as may be informed as to farms for sale, and any lands that could be purchased of any extent, but more especially tracts of land of 5,000 acres or upward, report the same at the earliest possible moment to the Kansas Agricultural College, which has been suggested as a central point for the assemhling of these facts. The information will thus be availahle to soldiers and sailors who are already asking the Agricultural College for information of this kind and will provide the preliminary information which is needed if the state is to co-operate with and secure the assistance which the federal government may offer.

"Furthermore, it is the helief of this hody that Kansas presents, in various sections, the opportunity for great further development by the expenditure of capital, which is not now availahle, as for example, flood areas which require diking, and drainage, or areas smitten intermittently with drouth and which lie within reach of economic irrigation. Development along these lines will assist closer settlement in many cases, hut in any event will guarantee more certain farming. In order to ohtain the funds which the state and federal government may provide, he it resolved that local organizations of those engaged in and interested in agriculture, be formed to ascertain the needs in this line, the security of investment of such funds and therefore serve as the connecting link between lands and farmers, needing and desiring such development and the sources of the funds availahle.

"We demand that any credit extended by the federal government for the purpose of reconstruction, be apportioned among the several states on a basis of the numher of men in military and naval service from the respective states.

"We favor that extra credit he extended to returning soldiers to assist them to huy a farm home in Kansas; first, hy the extension of the Farm Loan Act to loan to soldiers an amount up to 75 per cent of the appraised land value; second, by amendment of the Soldiers' Life Insurance Act providing (as originally intended) that the amount of the policy he considered as a stake to the returning soldier which would enable him to make a start at being self-employing and self-sustaining, regardless of disahility."

The men serving on these various committees will be recognized as men of standing and influence in their respective communities. The names follow: F. W. Dixon, J. M. Ryan, J. A. Crawford, J. T. Martin, Tom Collins, Albert Weaver, H. N. Holdeman, W. H. Hamblin, F. O. Peterson, Allison Andrews, J. H. Shriver, S. H. Baker, Andrew Shearer, W. S. Gibbons, J. T. Short, Gus Aaron, E. E. Frizell, F. M. Sumpter, and Henry Rogler.

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SHORT.	8.50 to 7.50	7.25 to 6.50	6.25 to 5.50	5.50 to 4.50	4.00 to .80
NARROW. . . .	7.00 to 5.50	5.50 to 4.75	4.75 to 4.00	4.00 to 3.10	3.50 to .60
BROAD.	4.50 to 2.75	2.75 to 2.25	2.25 to 1.75	1.75 to 1.25	1.50 to .25
MUSKRAT.	2.90 to 2.40	2.30 to 2.00	1.75 to 1.40	1.20 to .90	1.25 to .10
MINK—DARK.	11.00 to 9.50	8.25 to 7.25	6.50 to 5.50	5.00 to 4.00	5.00 to .40
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RACCOON—HEAVY. . .	9.00 to 7.75	7.25 to 6.00	5.75 to 4.75	3.25 to 2.75	4.00 to .60
ORDINARY .	7.50 to 6.25	5.75 to 4.75	4.50 to 3.50	3.25 to 2.50	3.50 to .50
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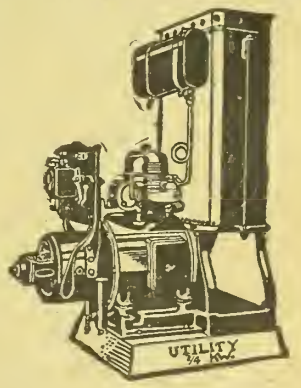

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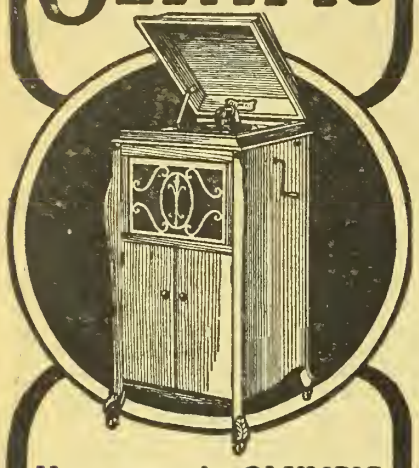

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merely send us your name and address. We will send you complete information. There are no "ifs or ands" in our offer. If you wish the phonograph after trying it 30 days in your home, you may then begin paying us in small monthly installments until the phonograph is paid for—just a few cents per day does it.

FREE RECORDS. With the phonograph we will send you absolutely free of charge two beautiful records, with our compliments.

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You are not confined to the music of one producer, for your Olympic will play all disk records. The Olympic is a beautiful piece of Cabinet work 46 inches high, finished in Oak or Mahogany with Record Rack, Sound Chamber, Multiple Spring Motor, Speed and Tone Regulator, Automatic Stop, etc. Specify whether you want Oak or Mahogany finish when writing. Our terms are easy and strictly confidential. Write us Today. Dept. 6

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1,120 ACRES, 2½ miles town on Missouri Pacific; Bee Line Highway; well improved; 400 acres cult.; 160 growing wheat with sale; 30 head horses and cattle, chickens, feed, implements, living water. Possession at once. $26,500, half cash. $1,000 commission to agent sending buyer, or same off to direct buyer.

BOX 141 - UTICA, KANSAS

SOUTHEASTERN KANSAS

Eighty Acres. About 40 acres now in wheat goes with the place. Should produce a crop worth $1,600. Good house, good barn; all smooth land; near school; two miles from railroad town; splendid bargain. Price, $5,400; $1,000 cash, $200 two years, $300 five years and balance fifteen years; low interest. It is a snap. Won't last long. Act quick. Address

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320-Acre Farm, 100 acres wheat, well improved; less than three miles from a good county seat town. Price, $80 per a. Terms.
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160 acres fine wheat, corn or alfalfa land, finest creek bottom. Balance pasture and meadow. $6,000 improvements. A bargain. Fine investment. Price, $55 per acre.
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I am offering for sale my beautiful eight-room residence and three lots in Oakland (a suburb of Topeka), at an exceptionally low price. Fine barn with three stalls, mow, feed bins, harness closets, etc.; built-in carriage or auto shed; coal house, chicken house, etc. One block from car line; three blocks to fine high and grade school. Electric lights and gas in house. Nice floors and woodwork. A place to be proud of, and ideal for a farmer who would like to have city conveniences and yet live in a quiet district. $2,500 will buy it, with only a few hundred dollars cash. House could not be built for $4,000. Best of reasons for making sale, and not selling because of dissatisfaction with the property. Call or write
L. F. RICHARDSON - TOPEKA, KANSAS
202 Winfield Avenue

Interesting War Items

TOO LATE the new rookie at the training camp noticed that the man who had just passed him and whom he had not saluted was the major. The officer glanced back. "Did you know you did not salute?" he asked.

"Yes, sir," replied the private, expecting a reprimand.

"Well, it doesn't make so much difference about me," said the major, observing his confusion, "but the Lord help you if you ever fail to recognize a second lieutenant!"

Why Red Cross Asks Gifts

The question has been asked, "Why is it that a government which does not hesitate to set aside twelve billion dollars in one appropriation for the prosecution of the war makes no provision for the work of the Red Cross? When money is needed for this work, why is it not obtained by an appropriation from Congress instead of through appeals addressed to individuals?"

The answer to this is that, although the President of the United States is president of the American Red Cross Society, and its detailed operation is in the hands of officers of a committee whose chairman is named by him, its support must come from voluntary contributions by private individuals rather than from the government, since by international agreement the organization is given the rights of a neutral nation in time of war. The government does, however, require an account for every dollar contributed to the Red Cross, to insure its proper expenditure.

The Red Cross movement was started with an unofficial international conference held at Geneva, Switzerland, in 1863. The next year fourteen nations negotiated a treaty which led to the formation of the first societies. The American division of the Red Cross was established in 1881 by Clara Barton. According to the terms of the treaty made in 1864 the Red Cross was to be the representative of no government, but its rights were to be respected by all, and its benefits extended to all. This agreement has never been broken by any civilized or semi-civilized nation until the present war, during which it has been utterly disregarded by Germany.

Subjects—Not Citizens

The characteristically undemocratic attitude of German rulers toward their people is shown in the following proclamation made by Grand Duke Friedrich when he recently succeeded to the Grand Duchy of Mecklenburg-Schwerin:

"We, Friedrich, by the grace of God grand duke of Mecklenburg, prince of Wenden, Schwerin, and Ratzburg, count of Schmerin, lord of Rostock (and so forth), have undertaken the government and control of the grand duchy.

"In graciously condescending to notify the population of this important procedure, we command all those who dwell in the grand duchy, officials, vassals, servitors and persons of all rank, station, and position, to show us unquestioning silent obedience in whatever it may please us graciously to condescend to undertake or order, and to conduct themselves at all times and in all circumstances as beseems faithful subjects and servitors in their attitude toward their lord and master, who will brook no opposition to his gracious and condescending rule and authority."

This was before kings and dukes in Germany began abdicating and running for cover.

The S. A. for the U. S. A.

All the world knows the work of the Salvation Army in times of peace. It has saved, is saving now, men and women and children from snares and pitfalls, poverty and squalor. Since the world has been at war the bonnet and cap of blue have gone even into the trenches. The Army has kept about fifty men and twenty-two women in the field carrying hot cocoa and coffee and doughnuts and pies "like mother used to make" to the soldiers in the front line trenches and ministering to the moral and spiritual needs of men.

Said an old regular army officer who returned to Paris recently: "I wish every American who has stood on street corners in America and sneered at the work of the Salvation Army could see what they are doing for the boys in France."

Lapsing into the slang of his men, the officer went on: "Take it from me, these women are doing a mighty fine work. We army men have given them shell-shattered and cast-off field kitchens to work with, and, O, man! the doughnuts, the pancakes, and the pies they turn out!

"I am an old army officer, but what I like about the Salvation Army is that it doesn't cater to officers. It is for the doughboys first, last, and all the time. The Salvation Army men do not wear Sam Browne belts; they do as little handshaking with officers as possible.

"They cash the boys' checks without question, and during the month of April in a certain division the Salvation Army sent home $20,000 for the soldiers. The Rockefeller Foundation hasn't as yet given the Salvation Army a million-dollar donation to carry on its work. Fact is, I don't know just how the Salvation Army chaplains and lassies do get along, but get along they do.

"Ever since Cornelius Hickey put up 'Hickey's Hut,' the first Salvation Army hut in France, they have been working at a loss. The work done in 'Hickey's Hut' did much to endear the Salvation Army folks to the doughboys. When a letter arrived in France some months ago addressed only to 'Hickey's Hut, France,' it reached its destination forty-eight hours after it arrived.

"The French climate has hit our boys hard. It is wet and penetratingly cold. Goes right to the marrow, and three suits of underwear are no protection against it. When the lads returned from training camp or the trenches, wet, cold, hungry and despondent, they found a welcome in 'Hickey's Hut.' Not a patronizing, holier-than-thou, we-know-we-are-doing-a-good-work-and-hope-you-doughboys-appreciate-it sort of a welcome, but a good old Salvation Army Mission welcome such as Tim Sullivan knew how to hand out in the old days.

"Around a warm fire with men who spoke their own language and who did not pretend to be above them in the social scale, the doughboys forgot that they were four thousand miles from home and that they couldn't 'sling the lingo'."

An Army of Charlie Chaplins

"Why, they're exactly like our own people!"

The French rubbed their eyes and stared again at the doughboys who had just come among them.

"They don't throw food at each other! They haven't tried to shoot up the town! Look at them, will you, walking around so quietly. There's some mistake. We know all about the Americans. Didn't we see them long ago with our own eyes in their wild west show? Don't they make us giggle every Saturday night at the cinema?"

It is a fact, we are assured, that the good French people were expecting an army of Buffalo Bills and Charlie Chaplins.—Collier's.

Probably Feel That Way Now

The lieutenant at the marine recruiting station was examining a husky farmer for enlistment in the marines. The man, it was found, had bad eyesight and could not read letters an inch high at twenty feet. He could not understand why that should keep him out of service.

"You've got to have good eyesight to pick off those Huns," he was told.

"You don't mean to tell me," he said earnestly, "that the Huns are that small!"

Clean Quarters for Troops

The healthful conditions insisted upon in the towns where American troops are quartered are thus described in a letter from France:

"In the place where we were last located we had some novel work to do—cleaning up a town. Any place where we make our headquarters for even a few days we want in a sanitary condition. In this town it seemed that the people were especially proficient in wrongly locating the manure piles. We got horses and wagons from the supply company and set to work hauling the trash and manure, sweeping the street, digging drainage ditches and holes for kitchen waste. We had all expericnced pleasanter work, but it was to our advantage to set things right. Our company certainly never has left barracks and billets—houses or barns where from five to one hundred men are sheltered—in disorder."

As It Looks to Private

A private at one of the camps was asked if he would like to be promoted.

"It all depends on what you mean by promotion," he replied. "I don't think I know enough to be a sergeant, but I know too much to be a second lieutenant."—Beloit Gazette.

Much Easier

Sam: "Who was the first kaiser?"

Bill: "How do I know? Ask me something easy.

Sam: "Something easy?"

Bill: "Yes; ask me who's the last."—London Opinion.

Did They Do It!

A parody on "There's a Long, Long Trail a-Winding," which is being sung a great deal by the boys in France, according to The Rifle Report, goes thus:

There's a long, long trail a-winding
Through No Man's Land out in France,
Where the shrapnel shells are bursting,
But we must advance.
There'll be lots of thrills and fighting
Before our dreams come true,
But we're going to show the kaiser
What the Yankee boys can do.

Bill Kaiser said to Ambassador Gerard: "I shall stand no nonsense from America." Well, you're not getting it, Bill.—Columbus Record.

Germany professes to have had a change of heart. Be that as it may, we demand also a change of head.—Baltimore American.

Germany has found a substitute for everything else. It shouldn't be hard to find a substitute for the kaiser.—St. Louis Star.

Fifty-nine million horseshoes have been shipped to France during the past three years for the horses and mules of the war.

"Victory means more to those who earn their bread in the sweat of their brow than any other class."—Lloyd George.

WEEKLY EAGLE
WICHITA KANSAS
65 CENTS FOR 3 YEARS
KANSAS' GREATEST FARM WEEKLY

SAVE
W.S.S.
WAR SAVINGS STAMPS ISSUED BY THE UNITED STATES GOVERNMENT
SERVE

A NATION'S STRENGTH IS IN ITS FOOD SUPPLY
Eat Less — Waste nothing
Create a Reserve
AMERICA MUST FEED 120,000,000 ALLIES

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Safeguards Against Fire

WHEN you wake up in the morning you may be sure that hundreds of destructive fires will occur somewhere in the United States before night. When you go to sleep at night it is practically certain that before you arise in the morning there will be hundreds of fires throughout the country. For the number of fires in the United States averages pretty close to 1,500 every twenty-four hours. A startling statement of the damage done by fire in one year is made by Charles W. Baker. He says:

"The buildings consumed, if placed on lots of sixty-five feet frontage, would line both sides of a street extending from New York to Chicago. A person journeying along this street of desolation would pass in every thousand feet a ruin from which an injured person was taken. At every three-quarters of a mile in this journey he would encounter the charred remains of a human being who had been burned to death."

The saddest thing about it is that these fires could be prevented. They wouldn't occur if people would only be careful. To call attention to some of the most common causes of fires and simple means of prevention, the National Board of Fire Underwriters has prepared at the request of the United States Bureau of Education a pamphlet entitled "Safeguarding the Home Against Fire." Some of the safety rules in this pamphlet are given below. Do you observe these precautions? If not, the chances are that your home will be among those which burn some day.

Cleaning

Don't leave sweepings in a piece of paper; put them into the stove.

If you keep oily cloths, put them into a metal box or can with a cover.

In handling oil or wax, use only small quantities at a time; wipe thoroughly the surfaces you have rubbed and then burn the rags.

If gasoline is used for cleaning clothing, it must always be kept in tightly fastened cans; never in glass bottles. It should never be uncovered within the house, nor at any point where its fumes can travel to an open flame, a live coal, or a spark.

Lamps

Fill by daylight only any receptacle in which oil is to be burned.

Be sure that the cap and burner of the lamp are tightly screwed into place. Wipe the reservoir clean.

Do not leave a burning lamp too long unwatched. Do not leave the house without extinguishing the light.

Instead of glass lamps, use metal ones with solid, heavy bases. Be sure that the wick fits snugly and keep it trimmed evenly. Use only the best quality of oil.

Do not set the lamp near the edge of a table or in any place where it may be struck. Do not set it too close to curtains or anything that will take fire easily.

Stoves

Do not dry wood in an oven.

Do not hang wet clothing too near to a stove.

Never pour kerosene into a coal or wood stove, even when the fire is out.

Keep curtains and other cloth away from stoves and pipes and lighted lamps.

Study the drafts and dampers of your stove. Keep stoves, furnaces, flues and chimneys clean. Inspect the chimneys and flues to be sure they are sound.

Never let a stove or stovepipe get red hot. There is no excuse for a red hot stove. Fuel is wasted, the stove becomes warped, and danger lurks for all who are in the house.

Be careful not to use stove polish on a hot stove; wait until it is cold. Don't use any kind of stove polish or other cleaning mixture unless you know what is in it; buy the safe kinds which do not contain gasoline or benzine.

Matches

Don't carry matches loose.

Don't keep matches in a celluloid box.

If matches are spilled, pick up every one.

Never throw away a match until every spark is out.

Strike matches away from you. If striking on a box, first close the box. Strike downward on the box.

Keep matches out of the reach of little children. Keep them in covered boxes or dishes, away from the heat of stoves and stovepipes and out of the reach of rats and mice.

Purchase matches by brand, and always avoid brands which break, lose their heads, or glow after being blown out. Give the preference to strike-on-the-box, or safety matches, but, in case of buying the strike-anywhere match, get one in which the white head is surrounded by a black bulb.

General

Keep everything that smells of camphor away from fire.

Be careful to keep away from fires if you are wearing a celluloid collar or imitation shell combs.

Never let a chair upholstered with artificial leather be placed too near an open fire or near a hot radiator.

Javelle Water

Javelle water is used as an antiseptic and disinfectant as well as a softener of hard water, a bleaching agent, and a stain remover. It quickly bleaches white clothing or bed or table linen that has become yellow through disuse. It cannot be used in washing colored clothing, as it would remove the color, and white goods should not be left to soak in it for any length of time, but when carefully used it is a good thing.

It is made as follows: Dissolve a pound of washing soda in a quart of boiling water in a graniteware vessel. In another pan dissolve one-half pound of chloride of lime in two quarts of cold water. Let this settle, then pour off the clear liquid and add to the dissolved soda. Bottle, corking tightly, and keep in a dark place. For washing, use one-half cupful to a washboiler of suds. In removing stains use equal parts of Javelle water and clear water, put the stained part in this and leave until the stain disappears. Then wash at once in several changes of clear water, using one tablespoonful of household ammonia to each two quarts of water for the last rinsing.

The Parsley Bed

Don't allow your parsley to die down. The green sprigs may be cut off and dried to use in soups this winter, or better still the bed may be covered and the parsley kept green practically all winter. If your bed was sown in the spring it will require only a little protection to keep the roots alive through the winter, and you can have green parsley to use late this fall and early next spring. If this is the second year and the plants have gone to seed, the beautiful fall weather has probably encouraged the growth of a crop of young plants from the seed that has been scattered, and with a little care these will supply you with fresh parsley for some time yet.

When you butcher you will want parsley for seasoning your hamburger sausage and head cheese. All through the winter it will give a relish to creamed salmon, creamed potatoes, buttered potatoes, potato salad, vegetable soups, and chicken or meat dressing. A bit of the green may also be used as a garnish with steak, fish, and other meat dishes.

Apple Possibilities

Every surplus fall apple has in it possibilities for winter desserts or relishes. With the drain on transportation during the coming winter, likely to make the importation of fruits more difficult, the pantry shelf should be well-stocked with local, home products preserved in some form, as jelly, conserve, juices, or dried.

Canned fruit, canned tomatoes, dried fruit and bottled juices may be made into winter preserves. Let nothing go to waste at this season; pumpkin, squash and carrots combine well with fruit in the making of jam. So can any surplus that can't be taken care of in other ways.

CHIPPED APPLES OR PEARS

8 pounds hard fruit (apples or pears)
1 pound sugar
3 pounds syrup
Ginger root or crystallized ginger
3 lemons
2 quarts water

Wash and prepare fruit. Weigh after it is prepared. Add sugar to syrup and water. Add lemon juice and chopped rind and fruit. Cook slowly until fruit is tender and product is thick and dark.

APPLE AND TOMATO CONSERVE

1 quart sour apples, diced
1 quart ripe tomatoes, cut
2 cupfuls syrup
Grated rind and juice of one lemon

Cook the apples and the tomatoes until they are tender, without adding any water. Add the syrup and lemon and cook the mixture until it is clear. This conserve is slightly tart and is excellent with meats or with bread and butter.

APPLE-GRAPE JELLY

1 pint apple juice
1 pint grape juice
1 cupful sugar
1 cupful sorghum, cane syrup or any light syrup

Heat syrup and sugar together and add to the boiling juice. Follow usual directions for jelly making. Cook until the mixture "sheets off the spoon" or gives the jelly test. It is a slightly higher temperature when using syrups than when using all sugar.

A pint of cranberry juice may be substituted for the grape juice in the foregoing recipe. When this is done one and one-half cupfuls of sugar and one and one-half cupfuls of syrup should be used, as cranberries are sourer than grapes.

CANDIED APPLE.—Select firm and perfect apples. Apples may be prepared by cutting in eighths or in circles. Any syrup may be used, sorghum, cane, corn or maple syrup or honey. Heat to the boiling point and add apple sections. Cook very slowly until almost tender. Set aside for twenty-four hours, then reheat and cook very slowly until tender. Cool slightly, drain completely in strainer or on fork and roll or dip in finely chopped cocoanut. Use as a confection or for a dessert. The process may be completed in one day, but fruit is not as well candied. Other fruit may be prepared in the same way.

Cooking the Pinto Bean

The results of comparative cooking tests applied to a year-old crop of pinto, navy and lima beans are of interest. In these preliminary cooking tests it was found that if the pinto beans were cooked in the water in which they had been soaked over night, the finished product was darker and of a stronger flavor. To some persons this proved to be a desirable characteristic. It should be added that the darker color resulting from the cooking is not in the least objectionable.

After soaking for twelve hours it was found that the time required for boiling until tender enough to mash easily when pressed between the finger tips was as follows: Pinto beans, two hours; navy beans, three hours; lima beans, one and one-half hours.—EVELYN JONES, Colorado Agricultural College.

Beef Stew

1 pound beef
4 potatoes cut in quarters
¼ peck green peas or one can
1 cupful carrots cut up small
1 teaspoonful salt

Cut meat in small pieces and brown in the fat from the meat. Simmer in two quarts of water for one hour. Add the carrots and cook for one-half hour, then add the potatoes and then the peas. If canned peas are used, add them ten minutes before serving.

Some variations are:

The Meat. — This may be any kind, and more or less than a pound may be used. Use the cheap cuts, the flank, rump, neck, or brisket. The long, slow cooking makes them tender. Game and poultry are good.

Potatoes and barley may be used, or barley alone, or rice, hominy, or macaroni.

Vegetables.—Carrots, turnips, onions, peas, beans, cabbage, tomatoes are good, canned or fresh. Use one or more of these, as you wish.

Parsley, celery tops, onion tops, seasoning herbs or chopped sweet peppers add to the flavor.

Many left-overs may be used — not only meat and vegetables but rice or hominy.—U. S. Food Administration.

Oatmeal Griddle Cakes

1 cupful milk
1 egg
1 tablespoonful melted fat
1½ cupfuls cooked oatmeal
½ cupful flour
¾ teaspoonful salt
4 teaspoonfuls baking powder

Combine the milk, beaten egg and melted fat. Beat this into the cooked oatmeal. Add the flour, salt, and baking powder, which have been sifted together. Bake on a hot, greased griddle.

Other cooked cereals, mashed Irish potatoes, sweet potatoes, etc., may be used in place of the oatmeal. When rice is used, one-fourth cupful more flour is necessary.

Griddle cakes may also be made using one-half or more of corn meal or buckwheat flour.

If desired, sour milk may be substituted in these recipes for the sweet. In doing this the quantity must usually be increased a little. Use one-half teaspoonful of soda for each cupful of sour milk. For each half teaspoonful of soda the quantity of baking powder can be reduced by two teaspoonfuls.—U. S. Food Administration.

Giving

I would not be a selfish child,
For early was I taught
To give a part of all I have,
As generous children ought;
Not keeping everything myself,
But sharing it with others;
So, when I had the whooping-cough,
I gave it to my brothers.

Last winter I was kept at home;
The doctor came each day;
We had a card inside the door
To warn our friends away.
No one might come to visit us;
Yet, doing what I could,
I gave my scarlet fever
To half the neighborhood.

And so it was with measles,
And so with chickenpox;
I gave them to my little friends
On three surrounding blocks.
And now that we are well again,
It makes me laugh—Ha! ha!
To think that when I had the mumps,
I gave them to papa! —Selected.

FASHION DEPARTMENT

All patterns, 10 cents.



No. 9016—Ladies' Shirtwaist: Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. Flowered chiffon or voile will make a dainty waist, with the draped collar and narrow turnovers of organdie or voile. The collar is knotted at the front to form the tie and it is edged all around with a gathered frill. No. 9044—Girls' One-Piece Dress: Cut in sizes 4, 6, 8, 10 and 12 years. The new feature is the use of the inverted plaits at each side of front and back, giving the effect of panels. The dress is not belted but the small tabs button over at the waist line. The simple roll collar is of contrasting material. No. 9020—Ladies' One-Piece Dress: Cut in sizes 36, 38, 40, 42 and 44 inches bust measure. The dress is gathered at the shoulders and the long sleeves are set in without fullness. They are gathered into neatly buttoned cuffs at the wrists. The fullness of the dress is held in by a narrow belt with unique closing.

Classified Advertising

AGENTS WANTED

VICTORY TOY SOLDIERS—EVERYBODY buys them. Something new. Dealers and agents wanted everywhere. Sample, 10 cents. Liberty Toy Company of America, 3523 N. Grand Ave., St. Louis, Mo.

AGENTS—MAKE A DOLLAR AN HOUR. Sell Mendets, a patent patch for instantly mending leaks in all utensils. Sample package free. Collette Manufacturing Co., Dept. 103, Amsterdam, N. Y.

HELP WANTED.

FARMERS WANTED — MEN - WOMEN - girls. $95 month. U. S. Government jobs. Short hours. Pleasant office work. Common education sufficient. Write immediately for list positions now obtainable. Franklin Institute, Dept. Y-82, Rochester, New York.

PLYMOUTH ROCKS.

NICE BARRED ROCK COCKERELS, $2. Cocks, $1.50. J. Hammerli, Oak Hill, Kan.

"RINGLET" BARRED ROCK COCKERels, $3 and $5 each. Mrs. C. N. Bailey, Lyndon, Kansas.

PURE-BRED BARRED ROCK COCKERels for sale, $3 each. J. P. Alpers, Route 1, Hudson, Kansas.

QUALITY BUFF ROCK HENS AND PULlets, $1.50-$1.75 until December 15. Joseph Thomas, Louisburg, Kan.

BUFF ROCKS — HENS AND PULLETS, $2 each; cockerels, $2.50 to $5. Mrs. A. J. Batchelder, Utica, Neb.

PURE-BRED BARRED PLYMOUTH Rock cockerels, Parks' 200-egg strain; good ones; $3 to $5. Discount on large orders. Gem Poultry Farm, Haven, Kan.

RINGLET BARRED ROCKS, FARMraised cockerels from large egg-producing stock. My best, $5 each, six $25. Satisfaction guaranteed. Hiram Patten, Hutchinson, Kan.

CHAMPION BARRED ROCK COCKERels, large and well marked. Dams have trap nest record 225 eggs a year. Have won many prizes in largest towns. $3 each. Ike Hudnall, Milan, Mo.

RHODE ISLAND REDS.

ROSE COMB RED COCKERELS, $1.50-$4. Lewis Bauer, Dover, Kan.

STANDARD BRED R. C. RED COCKERels, $2 and $3 each. Mrs. B. F. Weigle, Winfield, Kansas.

PURE-BRED ROSE COMB RED COCKerels. Large rich red breeders. $5. Mrs. W. G. Prather, Eureka, Kan.

SINGLE COMB REDS — EXCELLENT color with good laying qualities. Cockerels, $2.50; pullets, $1.50. O. K. Lynn, Lane, Kansas.

DARK RED ROSE COMB REDS, GOOD scoring, greatest laying strain; cockerels, pullets, eggs. Satisfaction guaranteed. Highland Farm, Hedrick, Iowa.

LEGHORNS.

ROSE COMB BROWN LEGHORN COCKerels for sale, $1.50 each. Leonard Applewhite, Piedmont, Kansas.

S. C. WHITE LEGHORN COCKERELS, Farris strain, $2 and $3 each. Ray Heel, Manchester, Okla.

ONE HUNDRED CHOICE S. C. BROWN Leghorn cockerels for sale at $2 to $3 each. C. V. Douglas, Tecumseh, Neb.

ROSE COMB BROWN LEGHORN STOCK for sale reasonable if bought soon. Mrs. John Holzhey, Bendena, Kan.

CHOICE SINGLE COMB WHITE ENGlish Leghorn cockerels, high laying strain, $2 each, six $10. D. E. Lantz, Stanton, Ia.

S. C. W. LEGHORN COCKERELS — IF taken now, $1.25; six for $7. Will Tonn, Haven, Kansas.

FOR SALE — SINGLE COMB BROWN Leghorn cockerels from prize winning stock. Herman Schmale, DeWitt, Neb.

PURE ROSE COMB WHITE LEGHORN cockerels, beauties, $1.50 straight. J. M. Jarvis, Newton, Kansas.

PURE-BRED S. C. BROWN LEGHORN cockerels, $2 each; six for $10. Mrs. L. H. Hastings, Thayer, Kansas.

THOROUGHBRED SINGLE COMB Brown Leghorn cockerels, prize winners, $1.50. Philip Zimmerman, Hays, Kansas.

PURE SINGLE COMB BUFF LEGHORN cockerels, early hatched. Lack of room. Special prices. Six, $7.25; twelve, $14, if taken at once. Alice Dignan, Kelly, Kan.

FOR SALE — ONE ROSE COMB AND several S. C. Brown Leghorn cockerels, two to five dollars each, and eight hens, $1.25 each. L. D. Speenburg, Belleville, Kansas.

PURE-BRED R. C. BROWN LEGHORN cockerels, April and May hatched, $2.25 each; three or more, $2 each. J. M. Billingsley, Minden, Iowa.

POULTRY WANTED.

PAYING FOR NO. 1 TURKEYS, 28c; geese and ducks, 18c. Coops loaned free. The Copes, Topeka.

MINORCAS.

S. C. BLACK MINORCAS, PEN, $7, COCKerel and two pullets. Mrs. H. M. Tilton, Anadarko, Okla.

ANCONAS.

MOTTLED ANCONA COCKERELS FOR sale, $1.50 each. They are fine birds. John Smutny, Irving, Kansas.

WYANDOTTES.

BARRED ROCK, WHITE WYANDOTTE, Leghorn cockerels. Geese, ducks, guineas. Emma Ahlstedt, Lindsborg, Kansas.

SILVER WYANDOTTE COCKERELS, $2, $3 and $4 each. Experienced breeder. Ralph Sanders, Springdale Stock Farm, Osage City, Kansas.

TURKEYS.

FOR SALE — EARLY-HATCHED BOURbon Red toms, $8. Mrs. Frank O'Connor, Hartford, Kansas.

BOURBON RED TOMS, $5 UP; HENS, $3, $4. Good stock. Mrs. D. H. Noggle, Mapleton, Kansas.

WE SOLD FIVE CHAMPION BRONZE turkeys last March for $750. One tom brought $500. Have 300 grand birds, same breeding, sired by sons of my 52-pound champion tom, $7.50-$25 each. Ike Hudnall, Milan, Missouri.

SEVERAL BREEDS.

ONE THOUSAND FINE SHOW AND breeding birds for sale in November. Barred Rocks, Brown, White, Buff, Silver and Black Leghorns, Langshans, Cochins, Brahmas, Polish, Bantams. Ducks and geese. Best bargains ever offered. Write today for prices on what you need. Modlin's Poultry Farm, Route 7, Topeka, Kan.

LANGSHANS.

BLACK LANGSHAN COCKERELS, $2 and up. Mrs. Geo. W. King, Solomon, Kan.

BLACK LANGSHAN COCKERELS FOR sale. Mrs. J. B. Stein, Smith Center, Kan.

FOR SALE — PURE-BRED BLACK Langshan cockerels of good laying strain. Joe O'Brien, Route 3, Zurich, Kansas.

BIG BLACK LANGSHAN COCKERELS and pullets, fancy and utility; also eggs. Guaranteed. H. Osterfoss, Hedrick, Iowa.

DUCKS AND GEESE.

MAMMOTH TOULOUSE GEESE, $8 PER trio; choice White China ganders, $6 each. Earl Scott, Belvidere, Kan.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

HOLSTEIN BULL, REGISTERED, 20 months old; good one. $175. O. T. West, Hartford, Kan.

FIVE AYRSHIRE BULLS FOR SALE, ready for service; from good producing dams. Prices very reasonable. For full information write University Dairy Department, Lincoln, Neb.

FOR SALE—FOUR PURE-BRED HOLstein bull calves four weeks old, from high-producing dams and a 31-pound sire. Price, $50 apiece. E. J. Stearns, Route 1, Elkhorn, Wisconsin.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

ENGINES.

20-60 REEVES TRACTOR ENGINE, SIXbottom plow, steam lift, tank. First class condition. For sale account ill health. Address Joseph Bulin, Box 2, Milligan, Neb.

HOGS.

PURE-BRED CHESTER WHITE BOARS, not eligible, weight 100 to 150. Price, $30. J. Hammerli, Oak Hill, Kan.

REGISTERED LARGE TYPE POLAND China boars, herd headers; best blood lines; extra individuals; weight, 150 to 400 pounds. M. A. Draper, Topeka, Kansas.

WANTED

TO TRADE FOR FARM—TWO CLEAR houses in northeast part of Kansas City, near school, cars and park. Address 120 Park, Kansas City, Mo.

MISCELLANEOUS.

WHITE BLOSSOM SWEET CLOVER reasonable. Sow on fall wheat. John Lewis, Madison, Kansas.

WANT A BELT POWER TRANSMITTER for your Ford? Don't pay more than $12.50 for it. Buy the Simplex. Simplest, handiest, most practical. Write for circular. Frank R. Weisgerber, Salina, Kansas.

REAL ESTATE.

FOR EXCHANGE — WASHINGTON, ARkansas, Texas, Oklahoma land. Want land farther north and east. Ludeman, Okmulgee, Okla.

HONEY.

PURE EXTRACTED HONEY, PUT UP in 60-pound cans, 30 cents per pound; 30-pound or 12-pound cans, 32 cents, f. o. b. here. Roy Bunger, Eskridge, Kansas.

FOR SALE—1918 CROP OF HIGH GRADE table honey direct from bees to you. Guaranteed to be absolutely pure. Can containing 60 pounds net, $15.25. On orders for two cans or more the price is $15 per can and the freight is less on shipments of 100 pounds or over. Have dark honey for table or cooking purposes also, which I can recommend as pure and good. Single 60-pound can, $13, or $12.75 each for larger lots. Prices f. o. b. Hotchkiss, Colo. All cans securely boxed and strapped. Frank H. Drexel, Crawford, Colorado.

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Sprouted Oats for Poultry

THE poultry raiser who has not yet adopted sprouted oats as a part of the hen's bill of fare, especially during the winter months, is not only depriving his hens of feed that would be relished and which is most valuable in feeding for egg production, but is also overlooking one of his best opportunities to save on the cost of feeding. Town folks who keep only small flocks have been quicker to realize the advantages of feeding sprouted oats than have farmers, yet the latter are the ones who should be first to understand the food value and the results that might reasonably be expected from sprouted oats, because the oats sprouter is to the poultryman what the silo is to the dairyman. A few poultry raisers operate their oats sprouters the year around, they having found sprouted oats to be an excellent feed for both laying hens and growing stock. This can be done very profitably when the chickens do not have free range, but is not necessary with the farm flock during that part of the year when there is plenty of natural green feed. The real advantage in feeding sprouted oats is that it provides succulent green feed when none other is available. In the sprouted form none of the grain is lost or wasted. The hens eat all the tender green sprouts, roots and soft hulls. Every poultry raiser should add an oats sprouter to his equipment. It is just another one of those things that is needed in order to make the poultry equipment complete. It means only a small investment, but large returns.—G. D. McCLASKEY.

Buy Incubators Now

Poultry raisers who are contemplating the purchase of incubators for the coming season's use should place their orders early. Buy before January 1 if at all possible to do so. The victory celebration on November 11 did not mean that there would be immediate relief in shipping. Freight shipments will be heavy for a long time to come, and there will be many unavoidable delays in making deliveries. No poultry raiser can grow a good crop of poultry—a flock of sufficient size to make it profitable from the market standpoint—without the use of an incubator for hatching the chicks. The incubator should be on hand, all ready for use, before the eggs that are to be incubated are gathered. Buy that incubator now.

American Egg-Laying Contest

The hens in the American egg-laying contest at Leavenworth made an average of thirteen and a half dozen eggs per bird, or a total of 162 eggs each during the past year. Some of these birds scored as high as 95½ points. All were standard-bred. The first prize pen in the breeders' contest was a pen of exhibition Light Sussex from Ohio, No. 48, with a record of 1,039 eggs. The highest pen in the Leghorn contest was Pen No. 67 from Washington with a record of 1,145 eggs. The best individual record ever made in the American contest was made by White Leghorn No. 1101 from Pennsylvania with a record of 304 eggs. The leading pen of yearling hens, R. I. Whites No. 35 from Illinois, laid 1,002 eggs.

The best individual record in the yearling hen contest was made by White Rock hen No. 28 from Illinois. She laid 265 eggs, which is quite good for a hen that is now two years old. The highest individual record in the breeders' contest was made by R. I. White hen No. 351, from Illinois, which laid 258 eggs.

The fact that these birds were all standard-bred and averaged 168 eggs per bird speaks well for American breeders and the progress which they are making along the line of combining standard qualities with egg production. The eggs laid by these hens sold for approximately $6 per bird. The feed cost was in the neighborhood of $2.80 per bird, which left about $3.20 to cover cost of labor, interest on equipment and profit. If records are kept on your flock you can make more per bird at present prices of feed, eggs and poultry than at any time in the past if the right methods are used. Of this there is no doubt.

The five leading hens for the year in the breeders' contest were as follows: No. 351, R. I. White, Illinois, 258 eggs; No. 102, S. C. W. Leghorn, Illinois, 248 eggs; No. 273, White Orpington, Ohio, 245 eggs; No. 131, Ancona, Ohio, 236 eggs; No. 306, S. C. Red, New York, 233 eggs.

The five leading pens for the year were as follows: No. 48, Light Sussex, Ohio, 1,039 eggs; No. 7, Buff Leghorns, Michigan, 1,033 eggs; No. 43, White Wyandottes, Illinois, 1,005 eggs; No. 35, R. I. White, Illinois, 1,002 eggs; No. 9, Buff Leghorns, Ohio, 992 eggs.

Steps in Poultry Success

An important step toward success with poultry is the keeping of accurate records. Little progress can be made without this first step. The average monthly and yearly egg-production, cost of feed and income from the flock should be known.

Feed a properly balanced ration. Such a ration furnishes nutrients for growth, maintenance, fattening and eggs. The production of eggs must be a constant aim.

Give proper care and comfort by good housing and management. Discomforts are: Extremes of heat and cold, hunger and thirst, foul air and dampness, and discases and parasites.

Keep standard-bred utility stock. There are five good breeds for the farm: Plymouth Rock, Rhode Island Red, Leghorn, Wyandotte and Orpington. Varieties of these have been bred for heavy egg production. There are other good breeds for those who prefer them.

Breed from the best, both male and female. There are many signs of vigor and high production.

Sell unprofitable stock.

Market graded products. Maximum returns are secured from graded products. Markets demand a constant supply, and this calls for community cooperation.

These seven steps will lead to success.

You have to keep your hens during the fall and winter months. Why not give them more care, go to a little extra trouble and expense, and make them keep you?

The hen is a sort of factory that can convert feed into a wonderful finished product—the egg.

It is well known that the average hen lays best in the springtime when there is an abundance of worms and bugs. Animal food is necessary for high egg production.

For fall and winter eggs, feed a dry mash containing 20 per cent meat scrap or tankage. The balance of the dry mash may be composed entirely of corn meal or ground oats or of the two feeds combined.

SHEEP.

REGISTERED SHROPSHIRE RAMS from imported stock. Registered Shorthorn bulls. Western Home Farm, St. John, Kan.

FARMS WANTED.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. John J. Black, 56th St., Chippewa Falls, Wisconsin.

MILKING MACHINES.

FOR SALE—USED FIVE-UNIT B. L. K. milking machine with all necessary piping, pump, and vacuum tank, complete. In first class condition. Redmon & Son, Tipton, Mo.

DOGS.

COLLIE PUPS FROM GENUINE HEEL drivers. E. L. Dolan, Route 2, Platte City, Missouri.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list. 5c. W. R. Watson, Box 128, Oakland, Iowa.

Chickens Sick?—Use Germozone
Roup, colds, bowel troubles, sore head, limber neck, etc. At dealers or postpaid 75 cts. with 5 book Poultry Library.
GEO. H. LEE CO., Dept. 415, OMAHA, NEB.

Keeping the Horse Supply Adequate

(By Wayne Dinsmore.)

MORE than one million horses and a third of a million mules have been furnished to the allied armies since war began. The United States, in addition has bought a third of a million more.

America's whole agricultural system, which has stood the test of war so splendidly, has been built on maximum use of machinery and horse power. Plowing, discing, harrowing, seeding, cultivating, hay harvest, grain harest are all handled with the minimum of manual labor and maximum use of horse power. Tractors are supplementing our horses in this work, but the wide fluctuation in the amount of power needed in these different operations, soft terrain, and need of intelligence which will give what is practically self-guidance in many operations, make good horses the solid foundations on which our farm operations rest, and this will so continue.

The maintenance of an adequate horse supply is therefore one of our fundamental needs, both from the standpoint of food production and national defense.

How this may be carried out is our problem. High-priced grain, hogs and cattle, have created profound disturbances in our usual agricultural practices. Our supply of horses, such as it was, was sufficient for our needs for the past four years, and the great curtailment in horse breeding which all experienced men know has taken place has not yet affected our agricultural or military effectiveness. It is admitted, however, that it will do so if effective methods to encourage the breeding of good horses be not taken.

The key to the situation lies in the use of good sires. These cost too much to individual farmers to own. Eight mares is the average owned on a good 200-acre farm. One stallion, worthy of service, should have 100 mares per season. To keep a stallion for use on the mares on a single farm is wasteful, as he can and should be available for the use of twelve or fifteen farms. Farmers themselves cannot take time from their own operations to travel to a sire, and as it is not profitable to a man to own and travel one sire for public service if he is a good one, we are rapidly reaching a point where men who have good mares have no good sires available.

The same situation has before this arisen in other countries. France met it by granting government subsidies to sires of approved stamp, thereby designating them as suitable for reproductive purposes, and adding enough to the earnings of a sire to justify men in owning fifteen or twenty stallions, which were maintained and traveled in localities desiring their services. This system has been in use in France for more than a hundred years and has given admirable results. Belgium has had a somewhat similar plan in force for fifty years, with the added proviso that the amount of the government subsidy increased each year if the horse was kept in use in one locality for three years or more. This gave to little Belgium a race of horses famous throughout the world—which the greatest horsethief the world has ever known took to Germany to build up his own horse stocks.

Great Britain has had similar measures in force for some years, and Canada with a similar plan in use for two years past finds it very successful.

State aid is needed to maintain an adequate supply of horses. It must come in the form of a state subsidy to approved sires. It can be administered through our stallion boards and it will bring back in added wealth to the state one hundred dollars for every dollar expended. It must be state rather than federal aid for there are only about twenty states that produce a surplus of horses. These supply other states and foreign countries. As they benefit directly through the added wealth coming within their borders, which goes to the farmers, and through them to the business men in every other walk of life, it is strictly a state limited enterprise. The details of it can be worked out along lines already found successful in other countries. In substance, however, it should provide for an expenditure of about $50,000 per year, which shall be used to pay 20 per cent of the service fee of approved sires, providing:

First, that the farmers in any given locality first organize a club, with legal responsibility, guaranteeing one hundred breeding mares.

Second, that they arrange for the lease of a pure-bred sire which must pass the approval of a special committee named by the stallion board, before said lease is valid.

Third, that the service fee shall be $25 per mare, 20 per cent of which shall be paid to the club by the state.

Fourth, that only one hundred approved mares shall be granted a subsidy during the first four years the act is in force, and not more than three of these in any one county.

These are the main details. The essential point I make is that we have now reached a point, long since reached in older countries, where we must have state aid to maintain an adequate horse supply, and that such aid is justified by precedent, experience, and financial returns accruing to the states granting such assistance.

Test Hogs to Market

Seventy-five of the 322 hogs being fed in Washington County by Frank Gotfredson under the direction of the county agent were marketed in Kansas City on Monday of last week, November 18. We gave a preliminary report on this demonstration in Kansas Farmer of November 16, the figures given covering the month of November.

The hogs sold brought $17.65 a hundren, the top for the day in Kansas City, and averaged 231 pounds in weight when loaded at Greenleaf. During the month of October, the 322 head consumed 1,016 bushels of corn valued at $1.70 a bushel, 5,400 pounds of tankage valued at $100 a ton, ground barley to the value of $93, and oil meal valued at $53.55, making the total feed bill for the month $2,163.75. Interest on investment was figured at $50 and the labor of feeding $93, bringing the total charges up to $2,306.75.

The total gain for the month was 16,510 pounds, and on November 1 it was estimated that the lot would have brought $17.50 on the Kansas City market, or fifteen cents less than the seventy-five head marketed last Monday brought. This would have left a net profit on the gains made by the 322 hogs of $582.50, on the basis of $17.50 a hundred. The hogs made an average daily gain for the month of one and six-tenth pounds apiece, at a cost of 13.9 cents a pound.

Pork Production Costs

The hog price question is a serious one to those who have hogs on hand and must buy feed to finish them for market. It is maintained by many that at prices of pork there are certain to be losses in finishing hogs for market. The margin is so narrow that only the best and most approved methods of feeding can safely be followed.

The thirteen to one promise led to increased production, which was its purpose. The failure to make good on this promise has discouraged many, although others are better satisfied with a definite guaranteed price than with the manner in which the thirteen to one proposition worked out when it was first tried in the fall.

The thirteen to one talk has led many to believe that pork cannot be produced for less than thirteen bushels of corn or its equivalent to each hundred pounds of pork. In other words, it has been assumed that this ratio was adopted because experience had shown that this amount of feed was necessary to produce a hundred pounds of pork. The real reason, however, was to offer such a substantial margin to pork producers that they would greatly increase production. It does not require thirteen bushels of corn to produce a hundred pounds of pork. The hog produced by the practice of skillful methods can produce pork for considerably less. We must not be satisfied with average results, but must strive to so carefully feed and handle our hogs as to get better than the average in pork from a given amount of feed. The results with the hogs being fed in Washington County as a farm bureau demonstration by Frank Godfredson illustrate approved practices in hog feeding under present conditions. We refer to these results elsewhere in this issue. The hog feeding being done at the Kansas Experiment Station also furnishes valuable lessons on lessening feed costs in pork production. Dr. C. W. McCampbell, head of the animal husbandry department, calls attention to some of the results of the past year's feeding. Four hundred head of commercial hogs have been finished at the Station yards during the past twelve months, and these hogs have returned a value of $2.01 a bushel for the corn they have eaten. This is based on other feeds and expenses as follows: Shorts, $40 a ton; tankage, $100 a ton; alfalfa pasture, $25 an acre rental; interest on the investment at 7 per cent, also all vaccination charges, labor charges, and a charge to cover losses sustained by death are included.

The Station started October 5 to fit a bunch of hogs for showing at the International Live Stock Exposition in Chicago and they made a gain up to November 16 of ninety-four pounds a head, the initial weight of the hogs October 5 being 122 pounds. This gain in weight was made at an average cost per hog of twenty-one cents per day, itemized as follows: Tankage, 2½ cents a day; linseed oil meal, ¾ cent a day; commercial buttermilk, 4 cents a day; corn, 21 cents a day. According to Dr. McCampbell's figures, the gain on these hogs has cost at the rate of $12.55 a hundred.

The lessons to be learned from the feeding tests of the Experiment Station and the practical experience of the most successful hog feeders are that good quality hogs are essential and that production costs can be greatly reduced by using well-balanced rations. Present conditions offer an incentive to continue hog production, even though local conditions in some instances may not be the most encouraging.

Hog Prices for December

The December minimum on hogs, based on Chicago and average packers' droves, will be $17.50, or the same as that for November. This was announced by the Food Administration following the conference in Chicago November 15. This announced agreement affords a guarantee for another month at least. The Food Administration maintains that there will be a strong demand for hog products and there should be large production in 1919. It is believed by some that the Government is paying enough for pork to justify packers buying at as high as $18 a hundred. At any rate there is no reason for glutting the market with hogs at the present time. E. W. Houx, president of the Kansas City Live Stock Exchange, advises hog men to sit tight in the boat and keep their heads, and makes a plea for avoiding any excitement and any inclination to rush hogs to the market beyond its ability to take care of them.

A telegraphic announcement received at Kansas City last week from L. D. Hall, of the Federal Bureau of Markets, dated Chicago, has an important bearing on the hog situation. This statement is as follows:

"Advising necessity reducing hog shipments by one-third until labor supply of packing houses can be increased.

"Food Administration has requested Secretary of War to releave from cantonment on furlough, as urgent industrial necessity and of vital importance to maintain overseas shipment of meat, all enlisted men in this country who have had similar experience in packing houses, and that enlisted men abroad who have had similar experience be given preference in industrial release on ground that these men are at the moment of greater importance than in any other industry. Hogs should be held back because under no circumstances will there be enough to meet foreign demand as soon as shipping can be arranged, which will be within thirty days. We will be able to export all surplus hog products which can be properly spared from this country. Call attention to the great increase in hogs slaughtering in October this year as compared with last year despite fact labor supply was less than year ago. (Signed)

"Food Administration—Hall."

Sugar for Home Meat Curing

In support of its policy to encourage curing of meats on farms, the Food Administration has authorized all federal food administrators to supply the necessary sugar for this purpose. Farmers requiring either white or brown sugar for curing home-butchered meat should make application to their county or state Food Administration official.

It is pointed out that the home-curing of meats is similar in principle to the preservation of local fruits and vegetables for home use, and is in accordance with the Food Administration's efforts to shorten the route of food products from source of production to place of consumption.

Opportunity and vacant lots must be improved to make them profitable.—Advertising Age.

Fight with Concrete

¶ The way is open

The War Industries Board recognizes farm buildings as necessary to increased food production. No permit is needed for a farm improvement not exceeding $1,000 in cost.

¶ Concrete is the way

Bull's-eye hits against fire, rot, disease, rats, cyclones, expensive upkeep and insurance, are fired by such concrete weapons as *feeding floors* and *barnyard pavements, milkhouses, hog houses, manure pits, granaries, fruit and vegetable storage cellars and dipping vats.*

¶ You build once only with Concrete

You save labor, transportation, and with one stroke increase production and defeat waste.

Put up that necessary building now. Cold weather need not stop you.

Write for Bulletins 115 and 137, which will tell you how you can use spare hours to

fight with concrete.

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CONCRETE FOR PERMANENCE

W.S.S. WAR SAVINGS STAMPS ISSUED BY THE UNITED STATES GOVERNMENT

THE WICHITA SALE OF

Registered Holstein-Friesian Cattle

AT WICHITA, KANSAS

THURSDAY, DECEMBER 12

EIGHTY-FIVE HEAD OF PURE-BRED CATTLE

The best bred, the heaviest producing and the largest record lot ever offered in any sale west of the Missouri River

Just think about it; nearly fifty head of A. R. O. cows, nearly all of them fresh or ready to freshen.

Twenty-seven-pound cows, 25-pound cows, 24-pound cows and twenty head of 20-pound cows or better.

And now think again! Twenty head bred to 30-pound bulls, and the greatest quality offering and the most unusual values ever put in one sale in the Southwest.

Ten head of well bred, well grown, handsomely marked young bulls ready for service NOW.

Mr. Geo. B. Appleman, who has such an excellent herd, is consigning twenty-four head. B. R. Gosney and the Stubbs Farm, Mark Abilgaard, manager, of Mulvane, are each consigning six head; Dr. J. T. Axtell, of Newton, ten head; G. Regier, of Whitewater, six head; Mott Bros., of Maplewood Farm, Herington, ten head; A. S. Neale, Manhattan, Kan., fifteen head; and R. E. and Victor Stuewe, of Alma, five head.

Sale to begin at 10 o'clock and to be held at Wichita's large pavilion, *The Forum*

Write today for catalog to

W. H. MOTT, Sales Manager
HERINGTON, KANSAS

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JOINT SALE

Pure-Blood Spotted Poland China Hogs

SALE TO BE HELD AT ROSSVILLE, KANSAS
DECEMBER 17, 1918, AT 1 P. M.

EIGHT TRIED SOWS
TEN SPRING GILTS
TWENTY SPRING BOARS
ELEVEN FALL PIGS



These hogs have blood lines running back to the famous herds of Gates, Faulkner, Bock & Shirk, Alexander and Bell. Prize winners at Kansas Free Fair included in sale. Catalogs ready December 7.

GEORGE EAKIN : Rossville, Kansas : MILLER & FAILER

CHAS. CREWS, Auctioneer. Mail Bids Can Be Sent to Auctioneer.

SHORTHORN CATTLE.

SHORTHORN BULLS

For Sale — Ten bulls, seven to fifteen months old; Scotch and Scotch topped. Two Scotch bulls by Type's Goods, one a Brawith Bud, the other a Duchess of Gloster. All in good condition and priced reasonably.
S. B. AMCOATS, CLAY CENTER, KANSAS
Write Me Your Wants

MARKS LODGE RED SHORTHORNS
For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.
M. F. MARKS, VALLEY FALLS, KANSAS

Cloverdale Farm Shorthorns

For Sale—Three Shorthorn heifers, two bred to a grandson of Whitehall Sultan; also a fine roan yearling Scotch bull, a real herd bull for some one. Heifers, $150 to $225; bull, $300. Must go soon at this.
Wesley Jewell, Humboldt, Ks.

SHORTHORNS

A few Shorthorn bulls for sale, from eight to eighteen months old. Roan and reds.
S. A. HILL, Route 2, Smith Center, Kansas

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KNOX KNOLL MULEFOOTS

Thred sows, spring gilts and boars. Weaned August pigs. Priced for uick sale. Satisfaction guaranteed. Free catalog.
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CHESTER WHITE HOGS

Frost's Big Smooth O. I. C.'s

Forty Spring Pigs, Two Yearling Boars and 100 Early Fall Pigs.
All from prize winning blood and priced for quick sale. Write us today.
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I make sales anywhere
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Registered Polled Durham and Shorthorn Cattle

FOR SALE—Twenty Head of Shorthorn Cows and Heifers bred to our show bull, SULTAN'S PRIDE, at $200 each for immediate sale. Also a few Shorthorn bulls at bargain prices.

Twenty-five Heal Polled Durham Bulls of choice breeding, sired by Roan Orange, a 2,500-pound bull, and Sultan's Pride, a winner at three state fairs.

I will meet all trains except Sunday and show my stock. Write, wire or phone me.

J. C. Banbury & Sons, Polled Durham Breeders, Pratt, Kansas

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POLAND CHINAS



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THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

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O. W. Devine, Field Representative

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Personal mail may have to be held for several days, or be delayed in forwarding, and Kansas Farmer cannot assume any responsibility for mistakes occurring thereby

CLAIM SALE DATES.

Jacks and Jennets.

March 25, 1919—H. T. Hineman & Sons, Dighton, Kan.

Holsteins.

Nov. 29—Boys' and Girls' Pure-Bred Holstein Club at Linwood, Kansas. A. S. Neale, Manhattan, sale manager.
Nov. 30—Consignment sale, Linwood, Kansas. A. S Neale, Manhattan, sale manager
Dec. 12, 1918—Wichita Sale Holstein Cattle, Wichita, Kan.
Jan. 7, 1919—Rockbrook Farm Dispersion Sale, South Omaha, Neb. Henry C. Glissman, Station B, Omaha, Neb.
March 25, 1919—Kansas Holstein Breeders' Association sale, Topeka.

Shorthorn Cattle.

Feb. 14, 1919—H. E. Huber, Meriden, Kan.

Poland Chinas.

Feb. 6, 1919—H. B. Walter & Son, Effingham, Kan.
Feb. 7, 1919—Fred B. Caldwell, Howard, Kan.
Feb. 8, 1919 — Willis & Blough, Emporia, Kan.
Feb. 11, 1919 — O. B. Clemetson, Holton, Kan.
Feb. 12, 1919—James Barnett, Denison, Kan.
Feb. 13, 1919 — Herman Groninger & Sons, Bendena, Kan.
Feb. 17, 1919—Ed Cook, Mayfield, Kan.
Feb. 18, 1919—F. Olivler & Son, Danville, Kan. Bred sow sale.
Feb. 19, 1919 — A. J. Erhart & Son, Ness City, Kan.
Feb. 20, 1919 — Ross & Vincent, Sterling, Kan.; sale at Hutchinson.
Feb. 21, 1919—Bruce Hunter, Lyons, Kan.
Feb. 22, 1919 — Bert E. Hodson, Ashland, Kan.; sale at Wichita.
March 4, 1919—Schmitz Bros., Seneca, Kan.
March 5, 1919—Jones Bros., Hiawatha, Kan.

Duroc Jerseys.

Jan. 28—W. R. Huston, Americus, Kan. Duroc dispersion and general farm sale.
Feb. 14, 1919—W. W. Zink, Turon, Kan.
Feb. 26, 1919—John W. Petford, Saffordville, Kan.; sale at Emporia.
Feb. 27, 1919—W. W. Otey & Son, Winfield, Kan.
Feb. 28, 1919—Wooddell & Daner, Winfield, Kan.

Spotted Poland Chinas.

Dec. 17—Geo. Akens-Failer & Miller, Rossville, Kan.
Feb. 25, 1919 — Everett Hays, Manhattan, Kan.

Chester Whites.

Feb. 11—Arthur Mosse, Leavenworth, Kan.
Feb. 27, 1919 — Henry Murr, Tonganoxie, Kan.

George Eakin and Miller & Failer have announced a sale of pure-bred Spotted Poland Chinas to be held at Rossville, Kansas, December 17. They will catalog a choice offering consisting of tried sows, spring gilts, spring boars and fall pigs. They have the prize winning blood lines and will have one of the best lots of Spotted Polands sold this fall.

H. C. Glissman, of Rockbrook Farm, Omaha, Nebraska, and owner of one of the famous herds of pure-bred Holstein cattle, has claimed January 7, 1919, as the date of his dispersion sale. On that date he will offer one hundred head of richly-bred Holsteins.

F. B. Morlan, of Courtland, Kansas, owner of one of the good herds of Hampshire hogs in this state, reports his herd doing fine. Mr. Morlan has all the popular blood lines in his herd and this year has raised one of the finest lots of spring pigs in the history of his herd. They are well grown out and the lot includes good herd material.

R. A. Gilliland, of Mayetta, Kansas, owner of Tessoro Place Jersey herd, reports that all of the cows in the herd have finished their year records and have made more than the yearly requirement by a nice margin. The breeding of this herd is mostly Owl Interest and Finance Interest, breeding that is noted for production. The show herd from Tessoro Place made a fine record of winnings on the State Fair circuit this year.

POLAND CHINAS

ERHART'S POLAND CHINAS

Have a great lot of spring boars for sale. Some by the 1200-pound, A Big Wonder. Will make prices on pairs and trios not related. All immuned. Write your wants. Bred Sow Sale Feb. 19, 1919.
A. J. ERHART & SONS
NESS CITY, KANSAS

Deming Ranch Poland Chinas. Big-Type Poland China Hogs

For Sale—Fifty spring boars, real farmer boars and herd boar prospects; 100 bred sows and gilts. Write or come and see our herd.
Deming Ranch, Oswego, Kan.
(H. O. Sheldon, Herd Manager)

BIG-TYPE POLAND BOARS
For Sale—Real pork producers of excellent blood lines and large litters. Some by Kansas Champion, others of the noted Buster blood. Bred gilts, tried sows and baby pigs, perigreed, vaccinated, and priced reasonable for quick sale.
ISAACS STOCK FARM, PEABODY, KAN.

BIG BONED POLAND CHINA BOARS
By Wonder Mastodon and Alpers' Chief Price, old enough for service; $40 each. Also gilts and sows.
J. P. ALPERS - HUDSON, KANSAS

LONE CEDAR POLANDS
Strictly big type March and April pigs, either sex. Nothing but tops shipped. Prices reasonable. Guarantee to please. All cholera immune. A. A. MEYER. McLouth, Kansas.

LANGFORD'S SPOTTED POLANDS—April boars ready to ship; also summer pigs.
T. T. LANGFORD & SONS, Jamesport, Mo.

White Oak Park Polands

Twenty Spring Boars for Sale by the 1,100-pound Missouri Jumbo and Surprise Wonder. Three of the tops at $75, the rest at $50. All cholera immuned and will be recorded in buyer's name. I have two full brothers to Northern Jumbo, the first prize and reserve grand championship pig. All sales guaranteed as represented or your money back.
HENRY KOCH - EDINA, MISSOURI

Townview Herd Poland Chinas

Ten Rugged Spring Boars, weight about 175 pounds, at $50 each. Eight March and April Boars, weight 135 to 150 pounds, $40 each. These boars are immune, heavy-boned and ready for business. Send check and get hog guaranteed to please you.
CHAS. E. GREENE, PEABODY, KANSAS

Henry's Big Type Polands

March and April pigs sired by Mammoth Orange, Smooth Prospect and Big Bob 2d, out of sows the best of big type breeding. Everything immune.
John D. Henry, Route 1, Lecompton, Kansas

HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that weigh and win. S. C. Brown Leghorn Chickens that lay. See or write
S. Y. BURKS, BOLIVAR, MO.

S. A. Hill, of Smith Center, Kansas, reports his fine herd of Shorthorn cattle doing well. Mr. Hill owns one of the choice Shorthorn herds in Kansas and a feature of his herd just now is the fine lot of young stock, including young bulls that are good prospects.

Wesley Jewell, of Cloverdale Farm, Humboldt, Kansas, and owner of one of the richly bred herds of Shorthorn cattle in Kansas, reports his herd doing well. A feature of his herd at this time is the fine lot of young stock, including a choice lot of heifers bred to a grandson of Whitehall Sultan; also some good young bulls.

J. P. Alpers, of Hudson, Kansas, owner of one of the good herds of Poland Chinas in this state, reports his herd doing well. A feature of his herd at this time is the fine lot of young stock sired by Wonder Mastodon and Alpers' Chief Price.

The championships at the American Royal Stock Show held in Kansas City last week were as follows: Shorthorns—Senior and grand champion bull, Upper Mill Farm on Villager's Coronet; junior champion bull, Anoka Farm, on Anoka Omega; senior champion cow, Lookabaugh, on Pleasant Princess; junior and grand champion cow, Rosenburger & Son on Cloverleaf Gloster. Angus — Senior and grand champion bull, Escher & Ryon on Eulate; junior champion bull, Escher & Ryan on Bar Marshall; senior and grand champion cow, Escher & Ryan on Erica McHenry 39th; junior champion cow, C. D. & E. F. Caldwell on Eritus 5th. Herefords—Senior and grand champion bull, O. Harris & Sons on Repeater Junior; junior champion bull, O. Harris & Sons on Repeater 129th; senior and grand champion cow, Enochs & Wortman on Dolly Rupert; junior champion cow, Colonel Taylor on Bull Woodford 28th.

JERSEY CATTLE.

REDHURST JERSEYS

FOR SALE—Noble's Jolly Actor No. 155761. Solid color, born October 14, 1916. Sire (the imported son of Golden Jolly), Golden Jolly's Masterpiece No. 86295, with six tested daughters out of Noble's Eminent Jess, a R. of M. cow whose dam is also in the R. of M. and whose sire, Noble's Oxford Sultan No. 106403, with six tested daughters, seven of Noble of Oakland's with 65 tested daughters and whose dam is in the R. of M. and since by Sultan's Oxford Lad, his great dam also in R. of M. Also a few calves and yearlings of like breeding. The home of the only living son of Golden Jolly in America.

Redmon & Son, Tipton, Mo.

100 Good Jerseys for Sale

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.

J. W. BERRY & SON, Jewell City, Kan.

HAMPSHIRE HOGS

Hampshires on Approval



Choice spring boars and gilts weighing up to 200 pounds. Two prize winning fall boars weighing 350, also fall pigs. My herd won nine champions, twenty firsts and twenty-seven seconds at the two Kansas State Fairs. Best of blood lines.

F. B. Wempe, Frankfort, Kan.

BECKENDORF'S HAMPSHIRES

I AM NOW OFFERING a grand lot of big, heavy-boned boars and gilts, sired by as good herd boars as money can buy. Every hog shipped a good one or he can be returned. Inspection invited. Write or telephone at my expense.

J. E. BECKENDORF, Box 144, Walnut, Iowa

PURE-BRED HAMPSHIRES—
Thrifty March boars, $50 each.
F. B. Morlan, R. R. 1, Courtland, Kan.

Registered Hampshire Hogs—Sows and Spring Gilts, bred or open. Choice spring boars. Double treated. Geo. W. Ela, Valley Falls, Kansas

THE STRAY LIST.

TAKEN UP—ON THE FIRST DAY OF November, 1918, by Geo. Holter, 1208 Shawnee, Kansas City, Kansas, one red cow with white face, weight about 900 pounds; appraised at $50. William Beggs, County Clerk, Wyandotte County, Kansas.

TAKEN UP—BY WILL WALDEN, OF Whitewoman Township, Wichita County, about the 15th of August, 1918, one red whiteface heifer two years old; underbit on right ear; blurred brand on left hip. Grover C. Lonberger, County Clerk.

TAKEN UP—ON THE 10TH DAY OF November, 1918, by Tobe Harold, 1527 North First Street, Kansas City, Kansas, one gilt, weight 135 pounds; red with black spots; appraised at $35. William Beggs, County Clerk, Wyandotte County, Kansas.

TAKEN UP—ON THE 18TH DAY OF April, 1918, by Albert H. Eshelman of Ramona, Colfax Township, Marion County, Kansas, one heifer, color red with white face, weight 500 pounds; W brand; appraised at $40. J. H. Alexander, County Clerk.

TAKEN UP—BY I. B. SHRINER, OF Geuda Springs, Sumner County, Kansas, on the 17th day of June, 1917, one pony mare, color bay, weight 1,000 pounds, branded 101L on hip, appraised at $50. Also one pony mare, color bay, weight 1,100, branded 102 and 437L on neck, 101L on hip, appraised at $50. James H. Large, County Clerk, Wellington, Kan.

Parsnips and salsify may be kept in sand or soil in a cool place without shriveling very much. It is well to cover all root crops with an inch of sand when they are stored in the cellar to prevent their drying out.

Asparagus tops should be cut and burned. A thin mulch of thoroughly rotted manure may be put over the bed, although unless this is removed early in the spring it will have a tendency to hold back the growth of the asparagus.

Report of Horticultural Society

The biennial report of the Kansas State Horticultural Society which has just been printed is full of valuable horticultural information. It contains the experience of men and women who are engaged in garden and fruit work. If you wish to have the best information on horticultural subjects from the practical experience of those who have contributed to the making of this report, write to the secretary of the Kansas Horticultural Society, Topeka, Kansas. A copy will be furnished free to interested parties.

Speaking of Trees

Said the rural philosopher: "A feller must have a heart of oak if he doesn't pine after he finds he ain't pop'lar with that peach he met."

DUROC JERSEYS.

IMMUNE DUROC BOARS

Duroc Boars, Immune and guaranteed breeders, shipped to you before you pay for them. The big Southeast Nebraska herd bred for size, bone and length. "Eventually" you will breed the "Crocker Type." "Why not now?"

F. C. Crocker, Filley, Nebraska
Box K

DUROC BOARS

For Quick Sale — 25 Head of Large Spring Duroc Jersey Boars, of March and April Farrow

Sired by Illustrator Orion 3d, Pet's Great Wonder and Cherry King Disturber. Priced reasonable and guaranteed right in every way or your money back. Write me your wants.

JOHN W. PETFORD
Saffordville - - - Kansas

DUROC BOARS

For Sale—A few choice spring boars, selected from forty head. Sired by a son of Great Wonder, a son of Illustrator and Cherry King Disturber. A few gilts, same breeding, priced bred or open.

W. A. Wood, Elmdale, Kansas

LEGAL TENDER DUROCS

Durocs for Sale Reasonably. March and April service boars weighing about 170 lbs., $40; May, 130 lbs., $30; trio Sept. pigs, male, two sows, not akin, $50. Liberty bonds same as cash. **J. E. WELLER, Faucett, Missouri**

HIGHVIEW DUROCS

Home of Repeater by Joe Orion King and Golden Reaper by Pathfinder. For sale—spring boars and a few bred gilts. I guarantee satisfaction or your money back.
F. J. MOSER - - - GOFF, KANSAS

CONYERS HERD DUROCS

Herd boar, King Conyers by King the Col. Sows in herd by Golden Model, Graduate Chief, Cherry Chief and other good breeding. For sale, one extra good spring boar sired by Pathfinder and one by Great Wonder. Fifteen spring gilts by Royal Critic. Come and see me.
B. W. CONYERS - MARION, KANSAS

HUSTON'S DUROCS

Forty Double Immuned Big Rugged Herd Heading Boars, sired by Great Wonder 2d and out of dams mostly by Taylor's Model Chief, winner at Missouri and other fairs. Buy them cheap now.
W. R. HUSTON - AMERICUS, KANSAS

DUROC BOARS OF QUALITY

Choice March boars, sired by the great herd boar, Reed's Gano, first prize boar of Kansas and Oklahoma State fairs. Also Illustrator 2nd and Golden Model. Fine growthy boars, well built and nice color. All immuned. Priced to sell quickly.
JOHN A. REED & SONS, LYONS, KANSAS

WOODDELL'S DUROCS

Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.
G. B. WOODDELL, WINFIELD, KANSAS

Ellen Dale Breeding Farm

Offers Duroc Jerseys of blood lines of Watson's Wonder, Ideal Pathfinder, Crimson Orion King and Joe Orion 5th, also a one-year-old herd boar, a grandson of King the Col., and one-year sows bred or open. Also Shorthorn bulls.
R. C. WATSON - ALTOONA, KANSAS

R. H. DIX & SON'S DUROCS

For Sale—One choice spring boar, a real herd header. Twelve spring gilts bred to Giant Crimson by G. M.'s Crimson Wonder, a prize winning boar. Priced reasonable for quick sale. Write today.
R. H. DIX & SON, HERINGTON, KANSAS

FARM AND HERD.

Forty-one Shorthorns sold at the Association sale held during the week of the American Royal Stock Show averaged $777.80. This offering was selected and passed on by Prof. W. A. Cochel and was the best lot of Shorthorn breeding stock ever sold at an American Royal Association sale. The top was the yearling bull, Autumn Marshall, consigned by Tomson Bros. of Dover and Carbondale. He went to Ben Will Thatcher of Smithville, Missouri, for $2,575. The top cow was Rosewood 105th from the herd of Park Salter, Augusta, Kansas. She went to Carpenter & Son of Mansfield, Ohio, for $2,000. The average on the thirty-one females was $800, and the average on the ten bulls $677.50. Alva Ham, of Prescott, Kansas, bought several of the good ones, including Imp. Sister Susie, from Park Salter's herd, for $1,125.

The Agricultural College steers won $445 in prizes at the American Royal last week. This is more than was won in the fat classes by all other exhibitors combined. In the Shorthorn breed the college won all firsts and championship on best steer any age, also second and third on senior steer calf and second on junior calf. In Herefords the winnings were first on senior yearling, first on senior calf, best steer any age, or champion, and second on group of three steers. In the Angus breed the college won first on senior calf and second on junior yearling. There was sharp competition in all classes. The animal husbandry department of the Agricultural College is to be congratulated for its skill in breeding and fitting the steers that made such a record possible.

HOLSTEIN CATTLE.

DR. AXTELL'S CONSIGNMENT TO WICHITA HOLSTEIN SALE DECEMBER 12 INCLUDES:

A very large, straight cow, more than half white, with record of 18.31. Has given over a ton of milk in a month. Heavy springer.

A heavy springing three-year-old heifer that has already given over 2,000 pounds of milk in a month. By a 33-pound bull, and her dam has record of 28.20 and sold for $1,000.

A splendid daughter of Tidy Abbekerk Prince, with a seven-day record of 21.11. Just fresh, and a wonderful milker.

A wonderful daughter of King Burke Hengerveld, out of a 20-pound dam. Has two-year-old record of 16.83. An extremely heavy milker. Just fresh.

A splendid two-year-old heifer, by a 33-pound bull and her dam by a 33-pound bull. This heifer gave over 1,800 pounds of milk as a two-year-old and is just fresh again.

Ten Head, and These are Only Samples
DR. J. T. AXTELL - - - - - - NEWTON, KANSAS

REGIER'S HOLSTEINS WILL BE SOLD AT WICHITA SALE DECEMBER 12

Herd Bull, Sir Rag Apple Korndyke De Kol No. 160419
(First daughters will be tested this month)

His son twelve months old, one of his daughters 22 months old fresh next spring, and two extra A. R. O. cows three and six years old to freshen in December and January.

G. REGIER & SONS - - - WHITEWATER, KANSAS



SAND SPRINGS FARM

Registered Holsteins—The Long Distance Kind
Watch for our consignment to the State Breeders' Sale, November 1.
E. S. ENGLE & SON - ABILENE, KANSAS



Holsteins Are Rugged

The Holstein-Friesian cow is large, strong and vigorous, full of energy and abounding vitality. It is able to turn to best advantage the roughage of the farm, converting it into large quantities of excellent milk for all purposes. She perpetuates herself through strong, healthy calves, and when useless in the dairy fattens readily and makes excellent beef.

If interested in
HOLSTEIN CATTLE
Send for our booklets—they contain much valuable information.
HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 114, Brattleboro, Vt.

For Sale—Thrifty Holstein-Friesian Calves

Either sex. Practically pure-bred, from registered bulls and high producing dams. $25 crated, f.o.b. Chanute. Safe delivery guaranteed. Six registered bulls from two to ten months old. These are beauties, $75 to $100. Also thirty registered Duroc-Jersey pigs, either sex, three to five months old, $30.
MAGEE DAIRY FARM, CHANUTE, KAN.

HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.
GEO. F. DERBY, CAMERON, MISSOURI

REGISTERED HOLSTEINS

If you want big producers, males and females, write us. All our own breeding.
Lilac Dairy Farm
Route 2 Topeka, Kansas

BRAEBURN HOLSTEINS

Service bulls; bull calves. Their heifers will outyield the dams by 10-50 per cent.
H. B. Cowles, 608 Kansas Ave., Topeka, Kan.

HIGHLY-BRED HOLSTEIN CALVES

Beautifully market, twelve heifers and two bulls from heavy producing dams at $25 each, crated for shipment anywhere. Safe delivery guaranteed. Write
FERNWOOD FARM
Wauwatosa - - - - - Wisconsin

Holstein Calves

Choice, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write
W. C. Kenyon & Sons
Holstein Stock Farms, Box 33, Elgin, Illinois

BUTTER-BRED HOLSTEINS

Three choice registered Holstein bulls, ready for light service, and some bred heifers to a 32-pound sire.
J. P. MAST, - SCRANTON, KANSAS

SEGRIST & STEPHENSON, HOLTON, KANSAS
Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

GOLDEN BELT HOLSTEIN HERD

Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.
W. E. BENTLEY, MANHATTAN, KANSAS

J. E. Weller, of Faucett, Missouri, owner of Legal Tender Stock Farm and one of Missouri's famous herds of Duroc hogs, reports his herd doing fine. Mr. Weller has built up one of the great herds of Durocs now assembled. He has all the popular blood lines and the big easy-feeding type. His herd is drawn upon heavily for breeding stock and many of the best herds in the country have started with foundation stock from his herd.

As soon as the ground freezes it is a good plan to mulch trees and shrubs with well-rotted stable manure, and put two or three inches of well-rotted stable manure over the beds in which the bulbs have been planted. This will keep the ground from freezing and thawing both this fall and in the spring.

HOLSTEIN CATTLE.

GUERNSEY CATTLE.

GUERNSEY BULLS

Good individuals of serviceable age, of May Royal, May Rose, Masher Sequel, Raymond of the Preel breeding. Write or come and see them.
ADAMS FARM, GASHLAND, MISSOURI
Twelve miles from Kansas City.

BREEDERS' DIRECTORY

DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.
HEREFORD CATTLE
F. S. Jackson, Topeka, Kan.
RED POLLED CATTLE
Mahlon Groenmiller, Pomona, Kansas.
POLLED DURHAMS
C. M. Albright, Overbrook, Kan.

SHROPSHIRE SHEEP



FOR SALE

A bunch of good big Registered Shropshire Bucks, not high in price. Also registered ewes.
Howard Chandler, Chariton, Ia.



SHROPSHIRES—BRED EWES

Won 2 champions, 7 firsts and silver cup at 1918 Iowa State Fair. Weight and Wool Win. Yearling rams and ewes bred to imported prize winning rams for sale at farmers' prices. C. W. & Frank Chandler, Kellerton, Ia. (80 mi. from St. Joseph)

GALLOWAY CATTLE.

GALLOWAY CATTLE

80 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.
E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

ANGUS CATTLE

LOOK HERE, ANGUS BREEDERS!

I want to reduce my herd of registered Angus cattle consisting of cows, bulls and heifers. Attractive prices for early buyers. If you want the best kind of low-down, beefy Angus, come at once.

D. J. WHITE, - CLEMENTS, KANS.

Dietrich's Aberdeen-Angus

Aged bulls, fifteen choice spring bulls. Females, all ages.
GEO. A. DIETRICH, CARBONDALE, KAN.

HORSES AND MULES.

PERCHERON-BELGIAN-SHIRES



Registered mares with colts at side and bred again; registered fillies, stallions one to five years old; grown ourselves the ancestors for five generations on dam side. Sires imported
Fred Chandler, R. 7, Chariton, Iowa
(Above Kansas City)

PERCHERON STALLIONS

Some good young stallions sired by Algare and Bosquet, two great herd sires. These young stallions are very promising and priced to sell.
D. A. HARRIS - GREAT BEND, KANSAS

JACKS AND JENNETS

Registered Jacks and Jennets. Good individuals, good colors. Have some choice young jacks that are priced to sell quick.
GEO. S. APP, ARCHIE, MISSOURI

RED POLLED CATTLE.

RED POLLED CATTLE FOR SALE

Young bulls and some extra good young cows to calve in early spring. A few yearling heifers.
I. W. POULTON, MEDORA, KANSAS

FOR SALE

Red Polled cows, heifers and bulls. Special price if taken at once.
W. J. HARRISON - AXTELL, KANSAS

RED POLLS, BOTH SEXES, BEST OF BREEDING.
Charles Morrison & Son, Phillipsburg, Kan.

The Government's Call for Income Tax Statements Makes it Certain that

YOU NEED THIS BOOK

GET STARTED RIGHT

There is no better time than right now to begin keeping Farm Records so that you will have the required information ready to make your income tax statement next year. No doubt you are already keeping your records. You want the most simplified and easiest way. Get this book. It's FREE.

PRACTICAL ACCOUNT BOOK

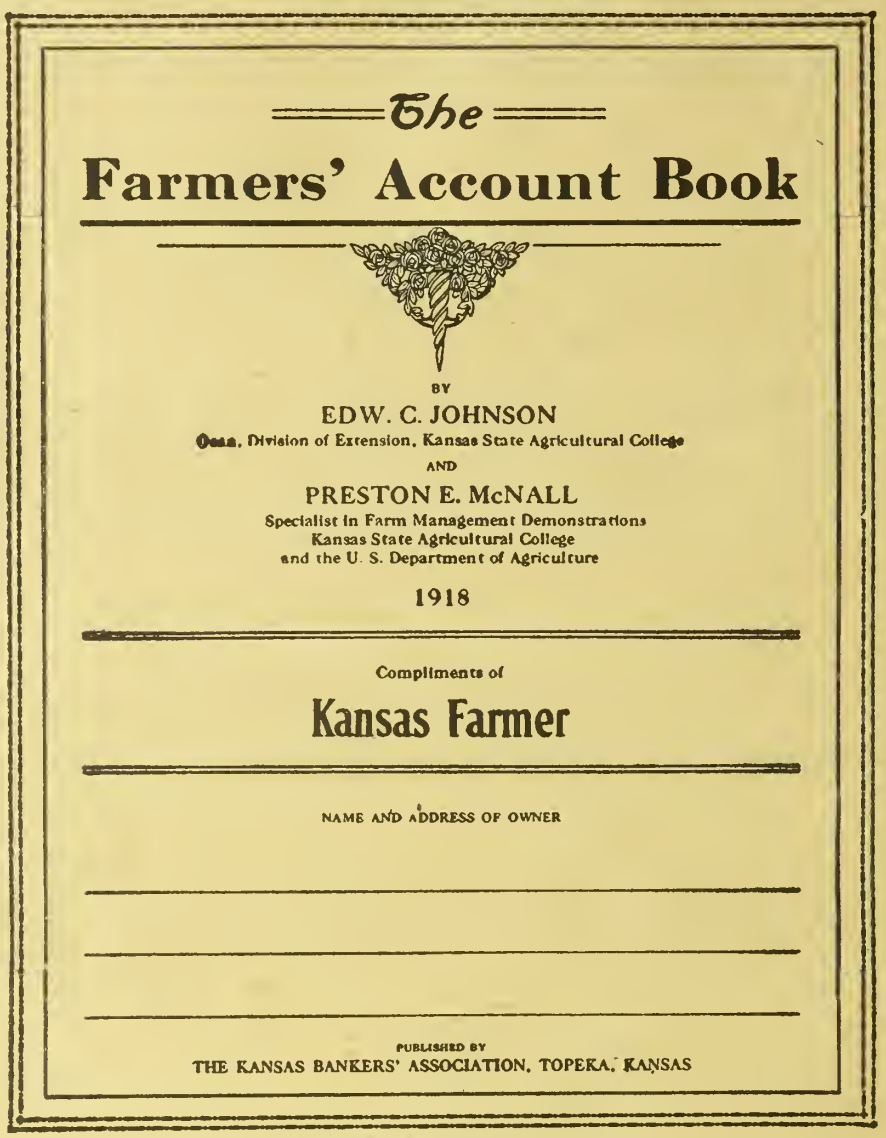
This book is a PRACTICAL Farm Account Book which has been developed under the direction of the United States Government men, working in co-operation with hundreds of farmers in Kansas. It is not merely theoretically correct, but has been prepared to fill the needs as shown by practical use on farms in this state.

THIS BOOK WILL MAKE YOUR WORK EASIER

Keeping accurate records of farm business is becoming more and more popular, not only because it is practically necessary for the income tax statement, but also for the value of the records to the farmer. The most important thing, however, is to secure and keep the information desired with the least amount of work and time; that is, in the simplest way.

The book which KANSAS FARMER is offering on this page, FREE to subscribers, is gotten up with the idea of keeping all the information necessary and valuable with the smallest amount of work. The book is a one-year record. It is small and convenient to keep. It contains full but simple instructions on how to keep the records required, with sufficient blanks for all entries.

ONE-HALF ACTUAL SIZE



ACTUAL SIZE OF BOOK, 8 x 11 INCHES

A PRACTICAL BOOK NOW IN USE BY FARMERS

The book is published by the KANSAS BANKERS' ASSOCIATION. It has been prepared by Dean Edwin C. Johnson and Preston E. McNall, both of the Extension Division of the Kansas Agricultural College, who have done their work on the book in co-operation with the United States Government.

This book has been used in Farm Management studies on hundreds of farms in Kansas where owners have heartily co-operated and offered many valuable suggestions for making it thoroughly practical and suited to actual farm conditions. These suggestions have been incorporated in this latest edition.

CONFORMS WITH REQUIREMENTS OF THE GOVERNMENT

It is the ultimate object of the Internal Revenue Office to adopt a uniform method of computing farmers' incomes. This includes farm inventories, farm receipts, and farm expenses, and follows very closely the book which is given by KANSAS FARMER to its subscribers. From year to year there may be a few slight changes made. For this reason it is best to buy a one-year book in order that each year your book will conform to the Internal Revenue rulings for that year.

FARMERS' ACCOUNT BOOK GIVEN FREE

HOW AND WHERE TO GET THIS BOOK

KANSAS FARMER desires to assist its readers in getting a book which will meet all their requirements at the least possible expense. The book described on this page is adapted to your needs and can be obtained FREE from many banks in Kansas, or KANSAS FARMER will give the book FREE with a subscription. Read our offer below and send today.

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To subscribers whose subscriptions are already paid in advance we make the following offer: Send us one new subscription to KANSAS FARMER for six months at 50 cents and we will send you one of the books FREE AND POSTPAID. This offer is open only to subscribers whose subscriptions are paid in advance, and the subscription MUST be a NEW ONE; that is, for someone not taking KANSAS FARMER at the present time.

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KANSAS FARMER

For the improvement of the Farm and Home

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Agricultural Reconstruction Program

National Grange Adopts Constructive Farmers' After-the-War Platform

EVERYTHING will be different after the war, is a statement we have been repeating for months. Now that the after-the-war period is immediately before us, the time for action has arrived. We must do something more than talk, for the problem of making things different must he worked out and put into operation. With a third of our population living on the land and a fourth of the wealth of the country invested in the business of farming, the great industry of agriculture certainly should he expected to play a large part in our readjustment program. This not only as a means of protecting the industry, but because such protection is essential to our national progress. Unless agriculture is given equal opportunities with other great industries, our national life will fail of its proper and legitimate development.

The National Grange, which held its fifty-second annual session in Syracuse, New York, last month, was the first national gathering of a farmers' organization since the signing of the armistice. The acts of this great organization and the program laid down are of special significance at this time. The National Grange Monthly in its November issue pointed out that the Grange at its national convention this year found more of its advocated policies had heen wrought into actual accomplishment since the St. Louis session of a year ago than in any previous twelve months since the organization of the order. Government control and operation of the railroads—and postalization of the wires loom largest in Grange ideals realized, hut the remarkable advancement of national prohibition, which has heen won, so far as congressional action is concerned, recognition of the Grange in the farm advisory hoard at Washington, a far-reaching income tax law, effective taxing of war excess profits, development of the farm loan policy of the government, and numerous other movements of the year, are no less significant as showing how the nation has at last "caught up" with the Grange; in short, the policies long and consistently advocated hy the Grange, in times of ordinary conditions and needs, have heen adopted as sound government policy when compelled hy the stress of war emergency. It is a vindication of Grange foresight that is most illuminating.

At this year's session the following agricultural reconstruction program was unanimously adopted, B. Needham, master of the Kansas State Grange, heing a member of the committee making the report:

"The farmers of America are proud of their part in the world war. In loyalty and devotion, in food production, in financial aid and in the gift of their sons they have again shown their sturdy Americanism and have justified the confidence always reposed in them when serious danger threatens the republic.

"Just as agriculture has had a vital part in the war, so it must have a strong voice in the reconstruction program that is to follow. This task is hardly less gigantic than the great war itself, and will command the best thought of our leaders. Broad-minded statesmanship demands that our entire citizenship, without distinction of class or occupation, shall unite in keeping the nation steady in the inevitable price-leveling process that must come. Justice to all must accordingly be uppermost in our minds while we insistently urge that the interests of agriculture so fundamental to the prosperity of the whole nation must be safeguarded at every point.

"Holding the first national gathering of farmers since peace has become definitely assured, it is clearly the duty of the National Grange as a recognized spokesman of the organized farmers of America to state clearly and forcefully the needs and demands of agriculture in the program of readjustment. To fail is to invite neglect and to merit contempt.

"We therefore present the following statements and recommendations as a platform upon which the farmers of the country may stand as a program of reconstruction with confidence that their interests are carefully safeguarded and their welfare assured.

Profitable Agriculture

"Profitable agriculture is the keynote of our declaration. A prosperous and progressive agriculture with an independent, self-respecting citizenship in the open country, is the surest guarantee of an enduring national life. Farming must be made as profitable as any other occupation involving the same amount of investment, business ability and hard work, or our democracy must fail and our people go hungry.

"Facing the most stupendous tax levy which the nation has ever seen, we demand that so far as consistent with national safety, war contracts be cancelled and the hundreds of boards and commissions and the thousands of clerks and employes made necessary hy the war shall be released from their responsibilities at the earliest possible moment. Just as we have earnestly urged the spending of the last dollar and the use of the last man to win the war, so now we as insistently demand that the most rigid economy shall be exercised in governmental expenditures.

Marketing and Distribution

"The present system of marketing and distrihution is clumsy, wasteful, costly and inefficient and lends itself readily to the most offensive forms of speculation and control. It jeopardizes adequate food production by establishing the lowest possible price to the producers and in turn naming the highest possihle price to consumers. Cost of production plus a fair profit should determine the price on farm products. Unnecessary middlemen, especially in the retail trade, should he eliminated. Service with a fair profit rather than control with all the profit the traffic will bear is our standard for the middleman. Conforming to this standard he should be encouraged by patronage. Refusing, he should be supplanted by every available form of direct and co-operative marketing. We recommend the extension of co-operative shipping associations, the establishment of city retail markets, the construction of municipal warehouses and terminal markets, the careful grading and marketing of farm products with personal trade marks, the extension of parcel post marketing, and the establishment of such regulation and control as will effectually remove the evils that have for decades discouraged producers and hurdened consumers. We further demand that all food and feed products he sold under such laws and regulations as will prevent one product being bought and sold as and for another.

The Press and Free Speech

"The farmer more than any other class of people is dependent upon the mails for guidance, happiness and intelligence. In any democracy free press and free speech are admittedly fundamental principles of human protection and human welfare. We hold that the censorship of both should be removed at the earliest possible moment; we demand also that the archaic and un-American zone system now in force in respect to the mileage of periodicals be discontinued and that as a national policy we return to the simple system of a single rate for all publications regardless of distance.

Railroads and Public Highways

"For thirty-five years the National Grange has advocated the strictest governmental regulation of all public utilities. We demand that when the railroads are returned to their former owners in accordance with act of Congress, that the ahuses of the past arising from over-capitalization and mismanagement be corrected. We favor co-operation between railroads, that necessary economies in management may be accomplished and the most efficient service rendered to the public.

"The welfare of agriculture demands an aggressive road construction policy by the national, state and local governments. We demand that federal funds shall not he used in an extensive houlevard system to be used hy the few, but that market and post roads, the highways over which must travel the food supplies of a nation, he given first consideration. Such a system of roads will meet every possible military need of the future. Instead of sentimental effort to use returning lahor on douhtful schemes of drainage, irrigation, etc., we urge that road construction be used as a shock ahsorber against an over-supply of lahor caused hy the return of soldiers from the front.

Recognition of Agricultural People

"It has been very apparent during this period of war that many federal departments charged with the administration of national affairs did not fully recognize the function of agriculture; nor did they give consideration to the rights, wishes or needs of rural people, yet one-third of the population live upon the land and more than a quarter of the wealth of the country is invested in farm enterprises. We hold that in the reconstruction of the nation, it is imperative that agriculture be given equal consideration and equal protection with all other pursuits. Actual, working farmers, through their organizations, should always he consulted and represented. We hold that the entire people of the nation will be best served when agriculture is represented adequately in all legislative bodies and on all administrative boards and commissions.

"In other words, agriculture is entitled to the full recognition that its importauce merits, and where an agricultural position is to be filled, the appointment of a real agricultural representative shall be demanded. We oppose the continued domination of our vital interests hy men who neither rightly understand nor justly estimate the position and service of American farmers.

Farmer for Secretary of Agriculture

"We helieve that the Secretary of Agriculture should he a practical farmer and should not only be in sympathy with farmers, but so identified with them in vocation, ideas and effort that farmers will recognize him as one of themselves. It is most essential that the head of this department shall be a man identified in the puhlic mind with agricultural matters, around whom agricultural interests and workers will rally with confidence in his leadership. We pledge ourselves to secure the appointment of such a secretary in the future, regardless of politics.

The Land Problem

"Land tenantry is rapidly increasing, farm property is concentrating in the hands of wealthy land owners, and abandoned farms are becoming altogether too common. In the face of these conditions every means should be provided to assist the young man of character and training to secure a homestead of his own. The largest possihle number of owners operating and living on their farms is the surest guarantee of the perpetuity of American agriculture. To this end we favor such modification of the farm land hank law as will extend its benefits still more widely. We advocate the establishment of a system of personal co-operative credit to enable tenant farmers and small farm owners to extend their operations and avail themselves of the economics which command of credit always affords.

Farms for Soldiers

"We oppose the proposed plan of providing swamp and arid lands, by drainage and irrigation, for returning soldiers, as unsound and impractical and detrimental to the best interests of the nation and agriculture. The time may come that will justify this huge expenditure of public funds, but that time is not now.

"This plan fails to take into consideration the previous occupations, desires or ambitions of these hoys and the economic welfare of established agricultural communities.

"There is an abundauce of unused and untenanted farms and available farm lands near established market centers to supply all needs in this direction. The government should offer our heroic soldier hoys who desire it, such help as will enable them to secure farm homes of their own.

Fertilizer Supplies

"In many sections of the country the use of fertilizers is now a vital need in the production of crops. Any policy that will provide an adequate supply of phosphoric acid, nitrogen and potash at moderate cost will henefit agriculture and all the people. Already the necessary machinery has been provided, largely at federal expense; this machinery, if properly turned from war to peace channels, can he made to provide all fertilizer materials cheaper than ever hefore.

(Continued on Page Seven)

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DEATH OF W. D. HOARD

William D. Hoard, ex-governor of Wisconsin and founder of Hoard's Dairyman, died November 22 at his home in Fort Atkinson, Wisconsin. He was eighty-two years of age and had been very feeble for several years. In the field of agriculture and particularly dairying, Governor Hoard was a character of national reputation. In addition to publishing Hoard's Dairyman, he developed a splendid dairy farm which is one of the show sights of Fort Atkinson. Practically every dairyman who visits Wisconsin considers his visit incomplete without having seen the Hoard's Dairyman farms.

Governor Hoard was a native of New York, moving to Wisconsin as a boy in 1836. He worked on farms and at other jobs, served in the Civil War, and on his return entered the newspaper field by establishing the Jefferson County Union, which was the forerunner of Hoard's Dairyman. He early saw the possibilities of dairying as a type of agriculture, fitting Wisconsin conditions, and began that campaign of education along dairy lines which only ended with his death. He organized dairy associations, published herd records, gave public addresses all over the country, and in other ways promoted dairy activities. Wisconsin is now recognized as one of the leading dairy states of the Union, and to Governor Hoard must go a large part of the credit for the remarkable dairy development of that state.

He served his state one term as governor. While in this office he fathered a measure for fully Americanizing the many German communities of the state by compelling the teaching of English in all the parochoal schools, and barring German. His fearless advocacy of this measure resulted in his being defeated for a second term. To Kansans he will perhaps be best remembered by the most forceful and inspiring address he gave on the subject, "The Man Behind the Cow," at an annual meeting of our State Board of Agriculture some ten or twelve years ago. It is with genuine sorrow that we learn of his death.

LAND FOR SOLDIERS

It is highly desirable that the capable young men of Kansas who have been brought up on the farms should return to them after they are released from military service. Already returning soldiers and sailors are beginning to make inquiries about farms for rent or sale. Requests for such information are being received by the Kansas Experiment Station, the State Board of Agriculture, and other public institutions. The number of these requests will probably increase as our men are released from military service and return to civilian occupations.

It was suggested at the conference of farm bureau officers at Manhattan recently that the Agricultural College would be an appropriate place for assembling such information, and a resolution to that effect was adopted. These resolutions were printed in KANSAS FARMER last week. The suggestion on this point was to the effect that all agencies or individuals having information about farm lands either for sale or rent, and particularly tracts of five thousand acres or more, report at the earliest possible moment. Theodore Macklin, head of the department of agricultural economics, announces that the Experiment Station is now ready to receive and classify information of this kind. This is in line with the nation-wide investigation, the inspiration for which came from Secretary Lane of the Department of the Interior of the President's cabinet.

Information about land available for agricultural production will be valuable in the reconstruction period before us wherever that information may be finally assembled and given out, and we would suggest that readers of KANSAS FARMER having knowledge of idle land that should be in cultivation, respond to this invitation of the Experiment Station at Manhattan and send in the details.

It is reported that the Experiment Station is also fostering a plan whereby progressive farmers of the state will organize by counties or communities and back reliable and competent young men for loans of state or federal funds for the purchase of land and equipment. It is possible that through such organizations an incentive can be furnished to young men of promise to make their homes in the state where they have been reared.

THE LAST FLAG TO BE FURLED

ON February 10, 1917, nearly six weeks before the United States declared war, National Red Cross Headquarters advised its Chapters to prepare for war. That which has followed in the record of the Red Cross in helping to win this war and to relieve the suffering growing out of it, constitutes something of which every American citizen has a right to be proud. Every American Red Cross worker must feel a sense of gratitude in having had a share in it all.

On November 11, 1918, Germany surrendered. Victory is ours. The Red Cross flag has floated over a thousand battlefields. It proclaimed America's presence in the war long before our fighting forces had arrived. Now the work of bloodshed has ended—and the first flag to fly must be the last flag to be furled.

For even with peace, let no one suppose that the work of the Red Cross is finished. Millions of American boys are still under arms. Thousands of them are sick and wounded. Owing to the shortage in shipping, it may take a year or more to bring our boys home from France. But whatever the time, our protecting arms must be about them and their families over the whole period which must elapse before the normal life of peace can be resumed.

Our soldiers and sailors are enlisted until the Commander-in-Chief tells them there is no more work for them to do in the war. Let every Red Cross member and worker—and this means both men and women—show our returning soldiers and sailors that to care for their health, welfare and happiness we are enlisted for no less period than they are.

The cessation of war will reveal a picture of misery such as the world has never seen before, especially in the many countries which cannot help themselves. The American people will expect the Red Cross to continue to act as their agent in repairing broken spirits and broken bodies. Peace terms and peace conditions will determine how we may best minister to the vast stricken areas which have been harrowed by war, and for this great act of mercy the heart and spirit of the American people must continue to be mobilized through the American Red Cross.

On behalf of the War Council, we accordingly ask each member of our splendid body of workers throughout the land to bear in mind the solemn obligation which rests upon each one to "Carry on."

Our spirits must now call us to show that not the roar of the cannon or the blood of our own, alone directs our activities, but that a great people will continue to respond greatly and freely to its obligations and opportunities to serve.—RED CROSS WAR COUNCIL.

RED CROSS ROLL CALL

The Christmas Roll Call is the official designation of the coming Red Cross drive for membership, which will be conducted the week beginning December 15. This great agency of mercy makes its appeal for funds in the name of a common humanity and hopes in the campaign to complete a universal membership with population as the only limit. With all the misery and suffering in the world, much of which to some extent can be relieved if we do our part, this Christmas Roll Call of the Red Cross surely will meet with a universal response. The message of the War Council of this greatest of humanitarian organizations appears on this page.

LOBBYING AT PEACE CONFERENCE

From the various press items appearing from day to day it would appear that the peace conference which is to begin its session in Paris December 14, is to be conducted under the surveillance of a gigantic corps of lobbyists from all over the world. Great industrial and commercial organizataions in this country are reported as making plans to have delegates present. Samuel Gompers, president of the American Federation of Labor, and a group of labor leaders are to be there. The United States Senate proposes to send a delegation to sit on the outside and watch the proceedings. Jane Addams and a group of women are to hold some sort of a conference in Europe while the peace conference is in session. So far no public statements have been made that organized farmers of this country are to send delegates. We have been informed, however, that an attempt was made by the National Board of Farm Organizations to send a couple of delegates to Europe to investigate reconstruction plans of the various countries as they might interest and affect the farmers of America. The Department of State refused passports to the delegates so appointed. That was before the armistice was signed, however, and there might have been some good reason why they should not have been permitted to go at that time. If it is necessary or desirable that all these other various interests have representatives on the side lines during the peace conference, agriculture certainly cannot in justice be denied an equal privilege.

EXPRESS EMBARGO RESCINDED

The order to place an embargo on all express shipments of breeding hogs and poultry, beginning December 10 and continuing until December 31, has been rescinded. This embargo would have been a most serious handicap to the distribution of breeding stock. In fact during the period of such an embargo the delivery of breeding hogs and poultry would have been practically stopped entirely. The movement to have the order rescinded was started some time ago by W. M. McFadden, president of the National Swine Growers' Association. E. Z. Russell, who has been acting as a special representative of this organization in Washington, was also instrumental in presenting the facts and getting a reconsideration. This will be information that will greatly relieve shippers and buyers of pure-bred breeding hogs or poultry.

MORE MILL FEEDS IN PROSPECT

There is a prospect for more mill feeds in the very near future. This is most welcome news to live-stock producers all over the country. It will come about as a result of the return to all-wheat bread and the relaxing of substitute regulations. The amount of mill feeds available will be further enlarged by the recently increased purchases of flour by the Grain Corporation for export. Flour can be exported now rather than wheat because of the increased ocean tonnage available since the signing of the armistice.

A third factor which is expected to increase supplies of mill feeds is the cancellation of the so-called "milling extraction rule" which, as a wartime measure, diverted into flour a considerable proportion of the wheat berry ordinarily used for feed.

All of these developments combined are expected to increase the mill feed output fully a fifth, and this extra feed should be available about the end of December. In presenting these facts the Food Administration warns against excessive optimism over the situation, since there will be a continued shortage of mill feeds compared with pre-war years. The price of these feeds is being maintained by regulation at an artificially low level which obviously stimulates an abnormal demand.

Briefly, more mill feeds are in prospect and they will be available about the Christmas holidays, but the supply will be short of demand and continued conservation is necessary.

A Red Cross worker in France was recently leaving for America, says the Speakers' Bulletin. He wanted to do something for all the children of his locality before he left, so he invited them all to a luncheon. The luncheon consisted of cups of chocolate and bread, a veritable feast. As a super-feature for the occasion the Red Cross man gave each child a rare treat—a half lump of sugar. A few of the children at once munched their sugar, the first they had known for months, but the greater majority of them stored the half-lumps of sugar carefully in their pockets. In the next few days the French soldiers at the front were receiving half-lumps of sugar through the mails from Paris school children. Starved for months for the precious sugar, the youngsters had voluntarily abstained from eating their half-lump, that some soldier at the front might taste sugar for the first time in months of fighting.

CURING MEATS AT HOME

Poor Economics for Farmers to Buy All Their Cured Meat

By A. M. PATERSON

THE home curing of meats on the farm is more essential this season than ever before. Vast quantities of meat that are consumed by the purchaser are transported to the central live stock markets and then back again in the cured form. This requires the use of transportation facilities which are needed by the Government for moving material necessary in feeding our armies and the starving peoples of Europe.

The weather will soon be cool enough to successfully butcher on the farm and cure the meat. To get the best product a few precautions should be taken. Select animals that are healthy and gaining in weight at the time of slaughter. Meat from unhealthy animals is difficult to cure and very likely to spoil after curing.

Take the animals off feed for fifteen hours before slaughter. Keep them quiet and supply plenty of fresh water for them to drink. Do not pound them around, as this will cause a rise in temperature and the carcasses will become bruised.

After the animal has been slaughtered and dressed the carcass should be hung in a cool well ventilated place until the animal heat is gone. If it is cured before thoroughly cooled, the action of the cure is likely to cause a retention of gases which may cause the meat to sour and finally spoil.

Hams, shoulders and strips of bacon should be uniformly and neatly trimmed. Loose ragged edges should be cut off and made into sausage so as not to be wasted in curing and cooking.

The vessels in which the meat is to be cured should be clean and sterilized; unclean vessels will aid the growth of bacteria, and may cause the meat to spoil.

A dark cool basement which is free from flies and vermin is an excellent place to cure meat. The meat should be looked at from time to time to see that all is going well and that none of the pieces are beginning to sour.

Pork should be smoked after curing, as it adds to the flavor and keeping qualities of the meat. Hard wood should be used in smoking, as soft wood will give the meat a resinous taste which is undesirable. The meat should be warmed slightly when the smoking process begins in order to open the pores of the meat, allowing the smoke to penetrate. It should be smoked until it is a rich brown color or longer if desired.

After smoking, the meat should be wrapped in burlap or paper and hung in a dry well ventilated place or packed in grain—oats preferred.

The following recipes have been used successfully in curing pork:

PLAIN SALT PORK—Rub each piece of meat with fine common salt and pack closely in a barrel, letting it stand over night. The next day weigh out ten pounds of salt and two ounces of saltpeter to each hundred pounds of meat, and dissolve in four gallons of boiling water. When this brine is cold pour it over the meat. Cover the barrel or jar and weight down so none of the meat comes above the brine. It should be kept in the brine until it is used.

SUGAR CURED HAMS AND BACON—Rub each piece of meat with salt and allow to drain over night, then pack closely in a barrel, hams and shoulders in the bottom, using the strips of bacon to fill in on top. To each hundred pounds of meat weigh out eight pounds of salt, two pounds of brown sugar and two ounces of saltpeter, dissolving these in four gallons of water. Cover the meat with this brine. For summer use it is best to boil the brine, allowing the brine to become thoroughly cooled before using. For winter curing it is not necessary to boil the brine. The bacon strips should remain in the brine from four to six weeks and the hams six to eight weeks.

DRY CURED PORK — To each hundred pounds of meat weigh out five pounds salt, two pounds sugar and two ounces of saltpeter, mix them thoroughly. Rub each piece of meat once a day for three days with one-third of the mixture.

The sugar cured hams and bacon recipe is the most satisfactory under ordinary farm conditions, and when cured by this method the meat will keep right through the summer after it is smoked. The meat will be sweet and palatable and the flavor good if properly smoked.

HAM AND BACON SHOW

THE Animal Husbandry Department of the Kansas Agricultural College will stage a Ham and Bacon Show during Farm and Home week at Manhattan, February 3 to 8, 1919. Premiums amounting to $150 will be awarded.

"DO IT NOW!" Cure hams and bacon and plan to send them to this Ham and Bacon Show. For further particulars and information write A. M. Paterson, Animal Husbandry Department, Kansas Agricultural College, Manhattan, Kansas.

Raccoon Trapping Methods

After finding raccoon runs and trails near lake or stream, set trap out in water deep enough to cover it. Then cut two separate pieces of brush, scent with the best raccoon bait, and place one on each side of the trap. Or the trap may be concealed in a path made by the coon, covered carefully with loose earth and baited. On catching the scent the coon will be sure to investigate. Another good place to set coon traps is at the mouth of small creeks or at the bottom of old logs that have fallen across a stream.

Coons are attracted by bright objects and always investigate the unusual. In the majority of cases their curiosity proves fatal to them. A bright tin fish to be attached to the pan of the trap will glitter in the sun or moonlight and will draw the coon over to the trap.

In preparing for the market, coon should be taken off open. The furs should be stretched in their natural shape, care being taken not to overstretch. All superfluous meat and fat should be removed, but the pelt should not be scraped too closely. Skins should be dried in a cool place, not in the sun or near fire. They are ready to ship when dry enough to hold their shape.

People who cease to fight do not cease to eat.

A Mile and a Half of Milk

IT IS a little unusual to speak of milk in terms of miles, but this concerns two unusual heifers—pure-bred Holsteins owned in Minnesota. These two heifers, by name Jewel Pontiac Segis and Beauty Beets Walker Segis, have established records of production for milk and butter which, according to the Holstein-Friesian World, have never been approached by other heifers of their ages since Adam fed on milk and honey in the Garden. Jewel, a three-year-old, produced 27,068.5 pounds of milk, and 1,171.15 pounds of butter in a year, while Beauty Beets, only a two-year-old, made 25,343.3 pounds of milk and 1,040.64 pounds of butter in the same period.

Considering first their milk production, we find that these two heifers together produced over 26,000 quarts of the most nearly indispensable food in the human dietary. This product, placed in quart bottles stood side by side would make a row extending approximately a mile and a half. Similarly, if their year's production of butter, over 2,200 pounds, were made into the ordinary pound prints and piled end on end, they would extend half again as high as the Woolworth tower in New York City. As a matter of fact the product was certified and sold for hospital use in the city of St. Paul at 16 cents a quart, so that these two young heifers actually earned their owner, Senator J. M. Hackney, over $4,000 for the year.

Of course, in order to make such wonderful records for production they had to have the best of care and liberal, intelligent feeding, but consider that each one of these heifers produced as much milk as eight average scrub cows; and think what it would mean to feed and care for two cows instead of sixteen. In these days of high feed prices and labor costs the improved dairy cow shows the only way out for the dairyman.

This story illustrating the possibilities in milk and butter production is one of vital interest to every reader of KANSAS FARMER. To those who are engaged in the dairy business it points the way to increased profits through the use of better dairy machines. Its significance from the standpoint of the consumer lies in the fact that efficient dairy producers of this type can produce milk so much more economically than the average cow that the milk can be sold at a lower price and still return a fair profit to the milkman.

Any factor which can influence the general public to use greater quantities of milk is of great importance to humanity, for milk is the one food that is absolutely essential to normal and healthy development. It is the one food that cannot be replaced by a substitute. According to the latest scientific investigation milk contains certain properties called vitamines which are indispensable in the diet, particularly for growing children. Extensive experiments were conducted with rats and other animals in which one group was fed milk fat, which composes butter, and other lots were fed on the various vegetable fats and other animal fats of the sort commonly used in the manufacture of oleomargarine. It was found that the milk-fed animals continued their normal development, while those which were deprived of the milk fat soon stopped growing and failed to develop and function in a normal manner. These facts are given in this connection to show the importance of such great records as those made by these two Minnesota Holstein heifers in stimulating the breeding and development of better dairy cattle.

Another important lesson to be drawn from the work of these two marvelous heifers is the fact that they are half-sisters, both being by the same sire, King Segis Pontiac Count. This illustrates the importance of the herd bull in improving the dairy stock. The dams of these two heifers were neither of them cows of more than ordinary merit, just simply average pure-bred Holstein cows. When mated with this well-bred sire the resulting offspring break every previous production record for heifers of their ages.

These two are not the only good daughters of this sire, as altogether he has six daughters which have been tested for a whole year each, and the six, all of them first and second calf heifers, average considerably over one thousand pounds of butter and nearly twelve hundred quarts of milk per year. This bull, King Segis Pontiac Count, formerly had the highest average record for his two nearest dams of any bull of the Holstein breed, which emphasizes the importance of selection from producing strains, in picking out a bull to head the dairy herd. A good production-bred, pure-bred Holstein bull at the head of even a scrub dairy for a few years can build up a profitable herd of grade Holsteins, profitable to keep as producers and in big demand at attractive prices when placed upon the market.

The food question will continue to be the world's greatest problem for years to come. A wonderful opportunity in helping to solve it lies before the dairymen of America through the use of better dairy cows.



BUTCHERING DAY ON A MISSOURI FARM.— NO TRANSPORTATION FACILITIES ARE WASTED HERE IN HAULING HOGS TO MARKET AND CURED MEATS BACK TO FARM

Evidently a Popular Song

Little Marie, just six, visited the Red Cross hospital near her home each day and had become popular with the convalescent American soldiers there. When they sang she joined in their American songs. When teacher asked her class the title of America's national anthem, Marie without hesitancy replied, in quaint, rolling English, "Hail! Hail! the Gang's All Here."—Red Cross Speakers' Bulletin.

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

WE HAVE been asked to give the composition of barley, the party making the inquiry having in mind its value as a feed. This is a very timely question in view of the great shortage of corn in Kansas and the use of barley as a substitute. The feeder is interested in the digestible nutrients contained in the food. This has been determined for practically all the commoner feeds by careful experiments with animals. The digestible nutrients in a hundred pounds of barley are given by Henry & Morrison in "Feeds and Feeding," as follows: "Protein, 9 pounds; carbohydrates, 66.8 pounds; fat, 1.66 pounds, or a total of 79.4 pounds of digestible nutrients, this total being arrived at after multiplying the fat by 2.25. The reason for this is that a pound fat as found in our feeds is worth for energy or fat production in the animal 2.25 times as much as a pound of carbohydrate or protein.

Since it is as a substitute for corn that barley is usually fed, it will be of value to have the digestible nutrients of corn given for purposes of comparison. A hundred pounds of corn contains 7.5 pounds of protein, 6.8 pounds of carbohydrates, and 4.6 pounds of fat, or a total of 85.7 pounds, after multiplying the fat by 2.25. It will be seen that in total nutrients the corn is slightly superior to the barley, but not equal to barley in the digestible protein it contains. This makes barley a better feed than corn alone for growing animals or cows giving milk, since the protein is essential to growth and milk production. Barley is not as palatable as corn and since it contains the hull it is not relished as well by some animals. The best results will always come from crushing or grinding it before feeding.

Tile for Draining

Cement tile is as good as clay tile if well made. Buy your tile of a reliable firm. Good tile gives a clear metallic ring when lightly tapped with a hammer. They should be dense, hard and non-porous. Clay tile should be of uniform texture and hard burned. Cement tile should be made of clean, sharp materials, well graduated and well mixed. They should be cured slowly and thoroughly. Cement tile made poorly or from poor materials tends to disintegrate in acid or strong alkali soils. Both clay and cement tile, if poor, fail under heavy pressure or under frost action.—H. B. ROE, Minnesota.

Proper Wintering of Bees

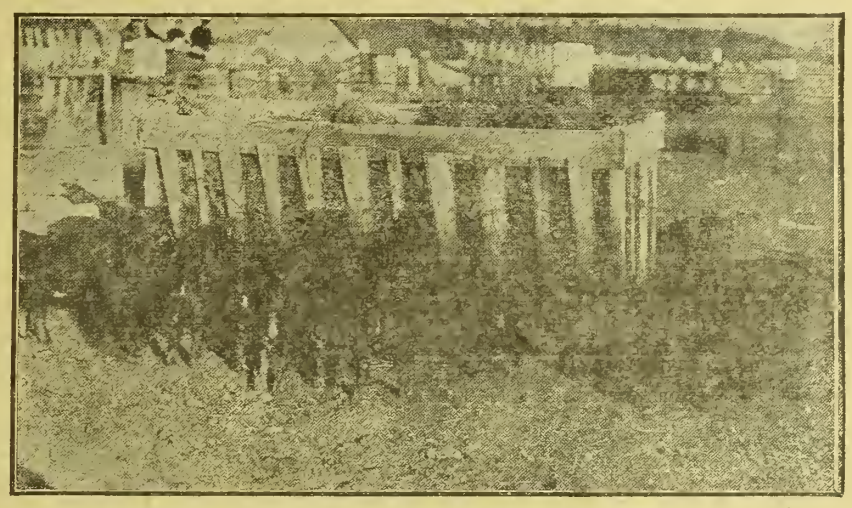
The necessary requisites for good wintering of bees are: First, to have lots of young bees in the hives; second, to have plenty of stores; third, protection from the prevailing winds; and, fourth, sufficient packing about the hives to keep the bees warm during the coldest weather.

If the bees are to gather the maximum amount of honey, the colony should be strong, and strong at the beginning of the honey flow. To bring about this condition they should be properly prepared for the winter in the preceding fall, otherwise they will not become strong until too late to take advantage of the honey flow.

Since bees are essentially cold-blooded animals, the mere fact that several thousand of them are together in one hive does not mean that this large number will raise the temperature. If 20,000 bees are in a hive, the temperature will be no higher than if only 1,000 were present, unless they raise it by muscular activity. When the outside temperature drops to 57 degrees, the bees form a cluster in the shape of a hollow sphere, inside of which some of the bees are maintaining a high temperature by fanning the air with their wings. From time to time their places are taken by other bees from the outside of the cluster. Bees, like storage batteries, have just so much energy to expend, and after this energy is gone they die. Consequently, if anything can be done to prevent the temperature from the hive from going too low, the bees will live much longer and retain more energy to be used in honey gathering.

One of the essentials of good wintering is to have a large number of young bees in the hive. This condition can be brought about by having a good, vigorous queen. Young bees will have energy enough to last through the winter, assist in the spring brood rearing, and be ready to gather nectar. Thirty to thirty-five pounds of stores will ordinarily carry a colony of bees through the winter in Kansas, and keep them until the honey flow begins next year, but more should be left if possible. Honey is the best food they can have for the winter. However, there are some sources of honey, such as honey-dew and some asters, which do not yield a good honey for the bees. When such honey is found in the hives, sugar syrup should be fed to the bees.

In addition to having lots of young bees and plenty of stores, the apiary should be so placed that the hives will be protected from winds. A hedge or a hill offers good protection. A solid windbreak, such as a board fence, should be avoided. If such a fence is used, better protection will be given if every other board is removed, as a broken windbreak is better than a solid one. The single-walled hives which are commonly used do not give sufficient protection from the cold, and these should be packed with some insulating material. A hive may be placed singly in a packing box, or they may be put in groups of four, with two of the entrances facing to the east and two to the west. Four inches of packing should be placed beneath the hives, six inches on the sides, and eight inches on the top. Tunnels should be made to the exterior so that the bees can pass out for flight. Packing should be put on after the first frost, and good insulating materials are ground cork, leaves, chaff, shavings, or sawdust, packed in tightly around the hives. Another method of packing is to place poultry netting with two-inch mesh around the hive, allowing it to protrude about six inches all the way round, and pack between this and the hive with leaves. More leaves should be stuffed beneath the hive, and a super filled with leaves placed on top. This last form of packing gives good winter protection, is easy to prepare, and costs but little.—J. H. MERRILL, State Apiarist.



THIS RACK CONTAINS ALFALFA HAY.—DO THE HOGS LIKE IT?—THE PICTURE GIVES THE ANSWER

Red Cross Work in the U. S.

Today the American Red Cross is the largest organization of any kind in the world. Its work on the battlefield and behind the lines as well as its relief work among the civilian population of France, Belgium, Italy, and Roumania, is fairly well known. Perhaps we know less about the work being done in our own country than that across the water.

More than 300,000 families of American soldiers and sailors have been relieved of money troubles, legal difficulties and worries of all sorts by the protecting arm of the Red Cross. In money alone the help given, since the beginning of the war, will have amounted to $6.000,000 by the end of the year—by that time, too, the expenditure for fighters' families will be at the rate of $1,000,000 a month. More important than financial assistance are the other helps that are being freely given, as in cases of sickness, worry over children, business difficulties, and failure to keep in touch with loved ones at the front. The Red Cross has furnished aid to thousands of dependents whose allowances and allotments under the War Risk Insurance law have been delayed in reaching them. Over 60,000 inquiries for help of this sort were received during the one month of July, and were promptly attended to. Twenty or more rush inquiries after the welfare of soldiers' families are cabled over from France every day by the Red Cross—and at least 100 more are sent daily by mail. Men in camp in this country and on the firing line in Europe are in touch at practically all times with Red Cross field workers who, when an appeal is made, communicate at once with the Red Cross in the fighter's home town. Every request received, any facts revealed, are held in sacred confidence. No request goes unanswered, and no aid is denied that is within human power to render. More than 50,000 American men and women have volunteered to help the Red Cross in this work and they are serving on 10,000 local committees in all parts of the country.

In carrying out its great purpose, sanctioned by the army and navy and by President Wilson, the Red Cross has conserved human resources in fighters' families. Help is given to all creeds and races. Aid is extended to every person who will accept it. It is not charity, but only that helpful neighborliness which is due to every fighter, from the entire American people.

Alfalfa for Hogs

Every hog man who has used alfalfa in pork production appreciates its value, but in a time of high-priced concentrates even greater use can be made of alfalfa than is the usual practice. The greatest place for alfalfa in pork production is as pasture for the brood sows and growing pigs, but it can be used with profit even in the hay form and during the winter season. The Department of Agriculture reports that tests indicate the value of grinding alfalfa hay, soaking it for twenty-four hours in barrels containing hot water, adding a little salt and possibly a half bushel or more of shorts to a barrel of the feed, giving this mixture to brood sows in the form of a thick slop. It is suggested that the preferable time for feeding this slop is each morning, so that during the balance of the day the animals can rustle about for corn. Good alfalfa hay should also be available in convenient racks so that the sows can eat this roughage as they please.

One of the most important matters and undoubtedly the one which is most commonly neglected in the proper handling of hogs, is to supply the porkers with an abundance of clean, pure drinking water. For this purpose some automatic watering device or home made convenience of this nature should provide the hogs constanly with water. Without question, water is the cheapest material used in pork production and the importance of having it supplied in quantity and of proper quality cannot be overestimated. Hogs should not be forced to drink from an icy tank, nor should they be provided with only a limited supply once or twice a day. A tank heater or a properly protected gravity system will control the former evil, while a permanent and dependable supply of water will overcome the latter.

Trapping for Skunk

Skunk are usually found around old barns and buildings, hollow logs, old cross fences and cross hedges. When their dens have been found, holes should be dug near by in the paths they are most likely to run over, and the traps placed in these holes. The traps should be covered with dry grass and dust in order that the ground look as natural as possible. Just above the trap hang a piece of rabbit, chicken or bird on which is sprinkled a few drops of the best skunk bait. This process of trapping the skunk has proved its success over and over again.

When the real cold weather sets in or there is a deep snow, skunk generally den up sometimes as many as fifteen or twenty in a hole. When the den has been found, the animals can be easily smoked out and caught, if the right kind of smoker is used.

The skunk furs are always in good demand and there has always been fine profits for the trapper in this animal. Traps should be visited every day if possible, or, at most, every other day, for a skunk caught is liable to gnaw off its foot and get away or have its fur seriously damaged by other skunks attacking it in the trap.

In preparing for the market, skunk skins should be cased pelt side out; all superfluous meat and fat should be scraped off before shipping. Care taken in preparing the skunk for the market will reward the trapper well.

Do Not Waste Wild Meat

"Guard against waste of wild meat" should be the slogan of every hunter this year. All edible portions of the animal killed should be utilized.

Do not let wild game be an added luxury; let it take the place of other meat. No more game than can be eaten should be killed. Do not let your desire to tell a big story when you reach home lead you to shoot everything in sight. Good sportsmen will observe these conservation suggestions in addition to the game laws.

Careful preparation of game for the table also will prevent waste. As a rule, game is preferred cooked rare rather than well done. Rabbit is most delicious when roasted. After cleaning well, stuff the body of the game with a dressing of salt pork, minced onion, and crumbs well seasoned with pepper and salt. The body is then sewed up and roasted one hour. A few thin slices of pork are necessary in the roasting pan to supply fat, as rabbit meat is almost entirely lean. A gravy made in the pan after the rabbit has been removed adds to the finish of the dish. Rabbit stew is also delicious.

Wild birds are usually roasted in the same manner as domestic fowl. Since they lack fat they require careful basting to prevent drying out of the meat. Squirrels are cooked in much the same way as rabbit. Squirrel pie prepared in the same manner as chicken pie is a special favorite among most lovers of wild game.

It was the kaiser who boasted that he would stand for no foolishness from the United States. It is Marshal Foch who is not bragging about it but who will stand for no foolishness from Germany. —Western Kansas Journal.

America's minimum food pledge is twenty million tons — Save food. We have promised to feed the hungry millions of Europe—the Allies and the liberated nations.—U. S. Food Administration.

GRAIN GRADING REGULATIONS

What Federal Wheat Grades Mean to The Grower

Prepared for Kansas Farmer by Rollin E. Smith, Grain Supervisor, Bureau of Markets, United States Department of Agriuulture

BUT for the abnormal conditions brought about by the war, one of which was the Government minimum prices for wheat in force since the beginning of the crop movement in the summer of 1917, which completely changed marketing conditions, federal wheat standards, or grades, and inspection under federal supervision would be better understood than they are. During the 1917-18 crop season competitive bidding for wheat by the mills was entirely eliminated for the higher grades and largely for the lower. Because the wheat was sold almost entirely by grade, and the farmers, therefore, did not get the benefit of the accustomed competitive bidding, and because of the generally unsettled market conditions, many complaints were directed against the federal standards, and some farmers were induced to believe that they were not getting as much for their wheat as they would under the standards previously in force. Again, because wheat was divided into several classes and these again into subclasses, and the latter into six grades each, critics made it appear that the system is complicated and very difficult to understand. During the 1917-18 crop year, when the Food Administration Grain Corporation controlled most of the crop and alloted it to licensed mills, the wheat sold strictly on its grade, and fine distinctions in quality were disregarded.

Conditions would have been worse, however, under the old system of grade standards, for they were different in the different markets, and uniform inspection was impossible. The statement has been made by men prominent in the grain and milling trade that but for the federal grades it would have been practically impossible for the Government to have applied the fixed minimum prices because of the lack of uniformity in the grades between markets.

Many grain buyers would prefer, of course, to buy wheat under a system, or lack of it, that requires no technical knowledge and little judgment—everything going into two or three grades; and it is a fact that many country buyers in the crop season of 1917-18 did not familiarize themselves with the specifications of the different grades of wheat they were dealing in every day.

The purposes of the federal wheat standards are, first, to divide the different qualities of wheat, in their respective classes, into grades so that each grade will more nearly represent the milling or flour-making value of the wheat than was previously the case; and, second, to bring about uniformity between all the markets of the country. Without question, the farmer is directly interested in both of these propositions.

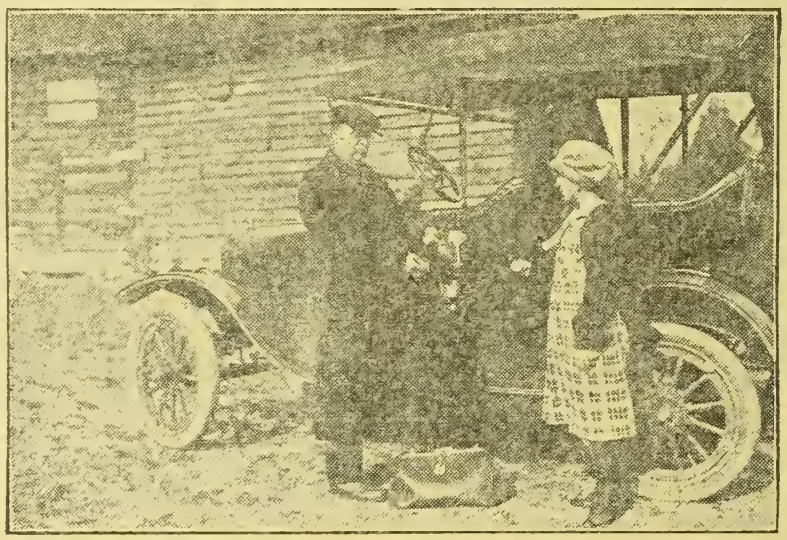
Federal Grades Not Complicated

A glance at the list of classes, subclasses and grades of wheat as given in "Official Grain Standards of the United States for Wheat," issued by the Bureau of Markets of the United States Department of Agriculture on April 15, 1918, may give the impression that the list is a formidable one. But when it is considered that the different sections of the country, as a rule, each have only two classes of wheat to deal with, and in many localities only one, the situation at once becomes greatly simplified. For example, approximately all the wheat grown in the entire southeastern quarter of the country is of the soft red winter class. In the Southwest—that is, in Nebraska, Kansas, and Oklahoma—the predominating class is hard red winter, with considerable soft red winter in certain localities. In the Northwest, the great spring wheat region of Minnesota and the Dakotas, hard red spring is the principal class, with durum second; but these classes are so distinct as readily to be distinguishable without expert knowledge.

Therefore, generally speaking, any great section of the country is concerned with only one or perhaps two classes of wheat, except in minor instances, and with the subdivisions and grades of that class or of those classes. This reduces the seeming complications to a minimum.

Taking Kansas as an illustration, the grain buyer knows that the load of wheat offered by any farmer is either hard red winter or soft red winter; and a glance at the wheat tells him which. If it is hard, the buyer knows that it must come within one of three subclasses, but in most cases one of two, since little of the Kansas wheat contains less than 25 per cent of dark, hard and vitreous kernels. The two subclasses are "dark hard winter" and "hard winter," the difference being a matter of "texture," which is readily distinguishable at a glance by an expert grain buyer, unless a particular load of wheat is close to the dividing line between the two subclasses. Dark winter, according to the official standards, "shall include wheat of the class hard winter consisting of 80 per cent or more of dark, hard and vitreous kernels," while hard winter consists of "less than 80 per cent and more than 25 per cent of dark, hard and vitreous kernels." When the distinction between the two subclasses is fine, it becomes necessary to weigh the "dark, hard and vitreous" kernels in a sample and so determine the percentage. Farmers or anyone else can as readily learn to distinguish between the subclasses "dark hard winter" and "hard winter" as can grain buyers.

It is obviously right that hard red winter wheat should be divided into three subclasses, "dark hard winter," "hard winter," and "yellow hard winter," because there is more milling or flour-making value in the "dark hard" than in the "hard winter," and in the latter than in the yellow. Yet, in normal times, when there is no Government minimum price, during a period of scarcity, competitive buying by the mills will cause a slight range in price for different cars of the same grade; and, also, a car of choice quality "hard winter," if of heavy test weight, may sell at the same or a little better price than a car of "dark hard winter," which by a narrow margin gets into that subclass. The same is true of the different grades of the same class. For example, a mill will pay a cent or two a bushel more for a car of choice No. 2 dark hard than for a "skin grade" of No. 1 dark hard, when competitive buying is in force.



I. N. CHAPMAN, COUNTY AGENT OF LEAVENWORTH COUNTY, SHOWING TO HAZEL PARRY, A MEMBER OF THE LINWOOD PURE-BRED CALF CLUB. THE PRIZES AWARDED ON SALE DAY, NOVEMBER 29

As dark hard winter contains 80 per cent or more of dark, hard and vitreous kernels, it must be apparent to anyone that a mill might be willing to pay a little more for wheat containing only 80 per cent. Yet both lots would be graded "dark hard," other conditions being equal. Therefore, while it is impossible to make fine enough distinctions between the subclasses of wheat, and again between the grades, to permit of every car when sold by grade to bring its exact value, based on its milling qualities, these slight differences are exceptional cases and are usually offset by the competitive buying of the mills. If there were a subclass or a grade to reflect every slight difference in quality, it would be impossible to provide enough inspectors to inspect the wheat arriving at the several markets, and there would then be just cause for complaint that the system is complicated.

The federal standards for wheat now in force are believed by the experts of the Bureau of Markets to separate the several classes of wheat into as many subclasses, and the latter into as many grades, as is practicable, yet not into so many as to make inspection complicated. The official standards enable the farmer to get approximately full milling value for his wheat when sold by grade, if properly graded, and much more nearly its full value than was possible under the former method of grading.

State Grades Lacked Definiteness

Furthermore, under the federal standards the factors to be determined are definitely stated, and they are therefore clear to anyone. Formerly even under the best system of grades, the requirements were so indefinite that there was room for argument over almost any point that might be raised, except the test weight. For example, in the description of grades in one state previous to the adoption of the federal standards, the following terms were used:

"No. 1 hard spring wheat shall be dry, sound, sweet, clean, and consist of over 75 per cent of the hard kernels and weigh not less than fifty-eight pounds the measured bushel."

When analyzed, the foregoing falls to pieces. The only definite, tangible statement is regarding the weight. Every other point might be decided differently by different men. For instance, where does "dry" wheat leave off and damp wheat begin? There must be a percentage moisture standard and test to determine this point. Again, the wheat shall be "clean." Who could determine, to settle a controversy, what "clean" means? Even the courts could not settle the point, for millers and elevator men would disagree among themselves. Let us quote further: "And consist of over 75 per cent of the hard kernels." The term "hard kernels" was too indefinite, for there was nothing to indicate the dividing line between hard kernels and soft ones in the wheat being described.

In the description of No. 2 northern spring wheat, the following terms of value meaning appear: "Shall be * * * not clean enough or sound enough for No. 1, but of good milling quality." Such terms are entirely meaningless. There can be nothing definite as to what constitutes "good milling quality"—where it begins, or where poor milling quality leaves off. The description of the next lower grade begins thus: "Shall be composed of inferior, shrunken spring wheat." Such a description could not be applied with any semblance of uniformity by inspectors located all over the United States and in many cases in widely separated markets. All the foregoing quotations are from a copy of the revised grades in force in a certain state during the movement of the 1916 crop. Such descriptions, when compared with the concise, definite terms found in the federal grain standards, would only increase the problem of securing a uniform interpretation of the standards as applied to the nation's grain industry.

Federal Grades Not Exact

While it is not difficult for anyone at all familiar with wheat to distinguish between the two subclasses, "dark hard winter" and "hard winter," yet to separate them properly into their respective grades calls for experience and some expert knowledge. Yet the descriptions of the different grades are more exact than has ever been the case; therefore, comparatively little is left to the judgment of the inspector, as was the case under the old standards.

The official standards say, in the description of "No. 1 dark hard winter" and "No. 1 hard winter":

They "shall be bright, cool, and sweet," with test weight of at least sixty pounds per bushel. These requirements are not difficult to ascertain. For the next requirement, apparatus for testing moisture must be had, since the moisture content of wheat is an important factor. The requirement is: No. 1 dark hard winter and No. 1 hard winter "may contain not more than 13½ per cent of moisture."

To ascertain the next requirement, some apparatus is also necessary, in order to determine the dockage. The rule says: "May contain not more than 1 per cent of foreign material other than dockage;" and this 1 per cent "may include not more than ½ to 1 per cent of matter other than cereal grains." Also, wheat to make the No. 1 grade "may contain not more than 2 per cent of damaged kernels, which may include not more than one-tenth of 1 per cent of heat-damaged kernels."

The foregoing test requires some experience and care, but not expert knowledge of inspection. The next, however, requires an ability to detect readily an admixture of other kinds of wheat. This test for the No. 1 grade reads: "May contain not more than 5 per cent of wheat other than hard red winter."

The No. 2 grade is, of course, a little easier. The wheat "shall be cool and sweet"—it need not be bright. This means that wheat exposed to rain while in the shock, for instance, and damaged in color but not otherwise, cannot make the No. 1 grade, but will drop to No. 2. If it is exposed long enough to absorb moisture in excess of 14 per cent, however, it cannot make the No. 3 grade. The other requirements are, of course, a little easier than for No. 1.

Moisture is an important factor in the milling value of wheat. Not only does it add actual weight that cannot be turned into flour, but excessive moisture makes it necessary for the mill to dry the wheat. This means extra expense as well as the loss in weight in the wheat. The moisture standard is necessary, because it has been proved that wheat containing over 14 per cent of moisture requires intelligent handling in order that it may be stored without great risk of serious damage. The great dread of terminal elevator companies is that the wheat in their bins may heat; but it will not ordinarily heat if the wheat is sufficiently dry.

The same is true of dockage and smut. Speaking generally, millers prefer clean wheat rather than wheat with a dockage allowance at a few cents lower price. This is also true of terminal elevator companies. While an allowance is made in the price for the dirt or smut in wheat, the screenings that may be taken out and sold may not cover the cost of the necessary work. To eliminate smut, the washing and scouring results in a loss of bran in addition to the expense of doing the work. Therefore, it may be said that while dirty wheat is penalized in the inspection, it is justly so, for the grades are based as nearly as possible on the final test of wheat, namely, its flour-making value.

A Premium on Good Farming

Incidental to the real purpose of the

federal standards, it may be said that the grades as classified place a premium on good farming. The farmer who keeps his land clean and who cleans his seed wheat receives a decided benefit over his neighbor who permits his land to become weedy and who does not clean his seed. The enforcement of the dockage rules may be regarded as a hardship by the careless farmer, but it will give him an incentive to adopt more careful farming methods.

The United States Department of Agriculture in October, 1918, issued a "Handbook of Official Grain Standards of the United States for Wheat and for Shelled Corn." This handbook contains tabulated and abridged descriptions of the official standards for wheat and shelled corn, as established by the Secretary of Agriculture, April 13, 1918, effective July 15, 1918; and also a brief discussion of methods of grading. A copy of this handbook will be mailed to any address, on application to the United States Department of Agriculture, Washington, D. C.

In regard to determining the quantity of dockage in connection with the official grading of wheat, the handbook describes the following cleaning devices, which are used in the offices of Federal Grain Supervision:

For proper inspection "a small wheat tester or device for removing barley, oats, wild oats, pieces of straw, weed stems, and other coarse matter from wheat," is required. This is a modified form of the machine already in general use in the spring-wheat region, where the dockage system has been practiced for many years. On account of the peculiar short, jerky motion of the riddle, this machine has been popularly designated as the "wild-oat-kicker."

The tester includes a set of perforated metal hand sieves. The sieves and bottom pan should be circular in shape and made of aluminum, brass, or other suitable material. The set includes the following: A fine seed sieve, buckwheat sieve, a fine chess sieve, a coarse chess sieve, and a scalper sieve. The sizes of the perforations are given, and the handbook says: "It is absolutely essential that the dimensions of the perforations of the sieves used be exactly as stated. A slight variation in the dimensions materially influences the percentage of dockage obtained. In order to secure the exact size, it is necessary that the perforations be cut with dies especially made for the purpose. Sieves made from tin or galvanized iron with an ordinary punch will not give accurate results."

In determining the moisture content of grain, the handbook says it is desirable that all important samples be tested in duplicate whenever practicable and the final result based on the average of the two tests. Results of tests need not be expressed more closely than one-tenth of 1 per cent.

Owing to the numerous methods of making moisture determinations and the wide variations in the results obtained by the different methods, the tester and method described in Circular No. 2 of the Bureau of Plant Industry, United States Department of Agriculture, have been designated as the standard on which the grades are based. This in no way precludes the use of other methods of making moisture determinations, so long as the results are corrected to conform to those secured by the standard method specified.

For the information of persons who desire to equip laboratories for the grading of wheat and shelled corn according to the official grain standards of the United States, a description of the necessary equipment will be found in the handbook.

How can the farmer know whether the grain buyer is giving him a fair deal? This is a question sometimes asked. Obviously, he cannot "know whether the grain buyer is giving him a fair deal" unless the farmer can inspect and grade his own wheat.

There are thirty-five federal grain supervision districts in the United States, and in order to bring about closer relations between Washington and the offices of the Federal Grain Supervision, and in order to secure greater uniformity in inspections between markets, the districts have been grouped into six divisions, with a division supervisor over each. The headquarters of these division supervisors are as follows: New York, Indianapolis, Chicago, St. Louis, Kansas City, and Portland, Oregon.

One of the duties of division supervisors is to investigate complaints against lack of uniformity of inspection between markets with a view to securing uniformity. Neither they nor the supervisors in charge of the offices of Federal Grain Supervision have jurisdiction in instances where farmers complain that they are not getting the grades for their wheat or corn that they think they should when the grain is sold at country stations. However, should a farmer or a country shipper think that he is not getting the grade that he should for his wheat or corn, he should write to or call at the nearest office of Federal Grain Supervision, state his case and ask for advice. The official in charge will give him full instructions as to how to have a sample of his grain inspected.

In the Southwest, offices of Federal Grain Supervision are located as follows: Kansas City, Mo., 310 Postal Telegraph Building; Wichita, Kansas, 313 Sedgwick Building; Oklahoma City, Okla., 502 Patterson Building; Fort Worth, Texas, 511 First National Bank Building, and Galveston, 222 Security Building.

Agricultural Reconstruction

(Continued from Page One)

plants used for the production of sulphuric acid for munitions may easily be continued that the unlimited stores of rock phosphate may be converted into acid phosphate at a minimum cost. The nitric acid plants established by the government for the production of gunpowder should be converted into nitrate plants for the production of nitrogen for fertilizers, thus freeing the nation from dependency on foreign supplies. Of equal importance is the development of methods for securing potash of domestic origin, but our peace commission should be asked to make every effort to secure proper concessions in Alsace that potash from that source may be available at less cost than formerly.

"Taxes should be so levied as to encourage home owning and discourage land speculation and tenantry. The income and inheritance tax laws should be framed so that a much larger proportion should be taken from large incomes and fortunes, to the end that the tax may be most justly placed and easily borne.

"The income tax should be moderate on small incomes, not to exceed 4 per cent for the normal. The surtaxes should be progressively increased until at least 80 per cent be levied on all incomes over $500,000. The revenue tax bill for 1918 should carry a provision taxing war profits 80 per cent on all income above the pre-war earnings as provided in the contemplated tax bill. The excess tax features should also remain as heretofore established and if income taxes are increased the provision should apply to the surtaxes only.

"Reaffirming the Grange position of former years, we demand that in the readjustment of tariff schedules agricultural products be given the same protection as other commodities.

"Our system of rural education should not neglect rural environment as a basis of education. Urban standards should not become guides of rural systems of education. Unless teachers themselves breathe the atmosphere of a country life environment they cannot sense sympathetically the basic facts that mean country contentment and satisfaction. Neither can they instill into the minds of country children those important things that mean the fullest enrichment of country life. We therefore demand a system of education that will direct the farm youth toward the farm, not away from it.

Organization for Reconstruction

"Organization is essential for proper rural reconstruction. Business and labor interests are now organized and equipped with the shrewdest representatives that can be found to defend their interests during the coming readjustments. Agriculture must also have strong, well disciplined fraternities which can speak for it and develop from its own ranks a loyal, capable and aggressive leadership.

"During the reconstruction period new questions and new phases of old questions that affect the farmer will constantly arise for investigation and consideration. Since Grange headquarters are to be opened at once in Washington, we recommend that the executive committee and legislative committee of the National Grange be constituted a special committee on agricultural reconstruction, to defend and protect the interests of agriculture. To accomplish this purpose we recommend that said committee shall co-operate with all persons and organizations in support of policies and measures upon which they may mutually agree."

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Interesting War Items

THIS story of Lieutenant Colonel Griffith is told by Dan Poling, a Y. M. C. A. secretary recently returned from France, who describes the Colonel as a typical soldier, "a military man from his heels up."

A wounded Bavarian lieutenant was being carried to the American lines when the Germans fired on the little party. The stretcher was dropped and the men ran for cover. When they reached headquarters and reported to Lieutenant Colonel Griffith he inquired: "Did the carriers stay with the prisoner?"

"No," was the reply. "He's a Hun. If Germany wants to kill her own men she has the privilege of doing so, but she shouldn't be allowed to muss us up while doing it."

The Colonel smiled, then said quietly, "Yes, he is a Hun; we are Americans. Go back and get him."

Kansas Man No Dietscher

The Hutchinson News prints a story told by Sergeant Fred Henney which is worth repeating. He says:

"You know there are a good many Germans from Central Kansas in our regiment, just as loyal as anybody, too, although some of them speak better German than they do English. One of them was on outpost duty and tumbled into a machine gun nest where there were four Germans with two of their Maxim guns. The Kansan knew he was up against it, but without hesitation called out in German: 'Surrender; you're surrounded.' The machine gunners thought it was a German patrol and started to explain, when the Kansas man got sore and shouted back. 'Can't you tell I'm a U. S. A., even though I talk Dutch? You raus mit 'em now.' He began shooting and they 'raused.' One German was left behind dead. The three survivors were taken back as prisoners. 'Py golly, those dunderheads took me for a Dietscher,' the Kansas man exclaimed indignantly as he marched his prisoners back.

Ought to Be Dead

This story was told by a soldier after a two weeks' stay at a base hospital with an attack of the measles.

A nurse went around and took the temperature of the sick soldiers, and while her back was turned, one soldier, instead of putting the thermometer into his mouth, inserted it into a cup of hot coffee standing near. He handed the thermometer to a passing doctor, who first looked at it and then at the patient.

"My boy," he exclaimed, "you are not dead, but you ought to be."

The thermometer registered 120 degrees.—Exchange.

Drew Line at Biting Huns

A dental ambulance, operated by the American Red Cross, was doing its bit just behind the lines in France. The personnel was discussing the Christmas roll call and was wondering whether last year's record would be broken. Then came a commotion. A private was protesting audibly against a top sergeant's orders to have his teeth fixed then and there.

"I'm willing to shoot them boches," he expostulated, "and I'm willing to bayonet them or blow 'em to pieces, but what's the idea of having to have your teeth fixed—do I have to bite 'em, too?" —Red Cross Speakers' Bulletin.

One man was rejected from the draft because he weighed 300 pounds, though willing and anxious to serve as a soldier. By all means let us save the fats! —Exchange.

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Feeding the Dairy Cow

AT THE present prices of butter fat it pays to feed a good cow. Feed is so high now that there is a tendency to underfeed with the idea of saving money. If there was ever a time when full feeding was necessary, it is now, says W. E. Peterson, extension dairyman at the agricultural college. Mr. Peterson gives in a leaflet some good practical suggestions on feeding dairy cows under present conditions.

The first point to consider in feeding a milk cow is that she takes care of her own body first. For the average cow this will take half of all the feed she eats when on a full ration. If she is fed only a half ration, it is easy to see that she can give little or no milk and the feed so consumed will be wasted entirely. In other words, skimping on feed to the extent of supplying a good cow with only an amount sufficient for maintenance is a sheer waste of good feed.

Mr. Petersen figures that a good cow weighing a thousand pounds and giving twenty-five pounds of 4 per cent milk daily will return a pound of butter fat each day. This at the time he wrote was worth 55 cents. The price now is considerably higher. The resulting skim milk at 70 cents a hundred would amount to about 15 cents, or bring the total value of the product to 70 cents daily. The cow could be fed the following good ration and there would be a net profit even at the high prices charged for the feed: Ten pounds of alfalfa, $25 a ton, 12.5 cents; thirty pounds of silage, $30 a ton, 12 cents; three pounds of corn chop, $75 a ton, 11.25 cents; four pounds of bran, $25 a ton, 5 cents; one pound of oil meal at $62 a ton, 3.1 cents. This totals 43.85 cents, which deducted from 70 cents, the return of the product, leaves 26.2 cents as daily profit over feed cost, or $7.80 a month. This leaves the value of the calf and the manure to take care of the labor.

On the ordinary farm there will be some home-grown feeds which can be figured in cheaper than the feeds quoted and there will also be wheat pasture which can almost be counted as "velvet." By feeding a cow such a ration through the winter she will go onto spring pasture in fine shape, and this is always a period of the year when dairy cows return the largest profit over the cost of feed.

Mr. Petersen, however, urges that the dairyman first consider carefully whether the cow is worth feeding this expensive feed, which can be learned by testing and weighing her milk. The cow with dairy capacity can be fed liberally with the right feeds, but even good feeds can be wasted if improperly fed. We quote the following feeding rules:

"Do not skimp on feed for good cows. Feed what is grown on the place, even if it is not the best feed, and buy feeds which will offset the bad qualities of that at hand.

"See that the ration is balanced. If too little protein is fed it cuts production. If too much, it works a hardship on the animal. If too little carbohydrates are fed, production is cut; if too much, it is wasted.

"See that the ration is palatable. If some feeds are not palatable, see that others are very palatable, so that the ration as a whole is.

"See that the ration has sufficient bulk. Enough nutrients may be gotten from a small amount of concentrates, but the animal will not be satisfied and the heavy mass will be hard to digest. Mix heavy feeds with lighter ones.

"See that it is laxative. If costive feeds are raised, buy laxative feeds like oilmeal, bran, etc., to offset the costive effect.

"Feed roughage to take care of body weight. This is about two pounds of hay per hundred pounds live weight. Make silage one-half of the roughage, which will be three pounds silage to one pound hay.

"Feed grain mixture for milk production at the rate of one pound grain for every four pounds milk testing below 4 per cent, or one pound grain for every three pounds milk testing above 4 per cent."

The following are a few good rations suggested, the proportions all being by weight:

Ration 1: Roughage—Alfalfa 1 part, silage 3 parts. Grain Mixture—Corn, 3 parts; bran, 3 parts; oil meal, ½ part; cottonseed meal, ½ part.

Ration 2: Roughage—Prairie hay, 2 parts; roots, 1 part. Grain Mixture—Barley, ground, 5 parts; oil meal, 3 parts.

Ration 3: Roughage—Alfalfa, 1 part; silage, 3 parts. Grain Mixture—Oats, 6 parts; oil meal, 1 part.

Ration 4: Roughage—Prairie hay. Grain—Oats, 2 parts; oil meal, 1 part.

Selection of the above rations will depend upon the availability and cost of the ingredients.

Linwood Calf Club Awards

The Linwood Boys' and Girls' Pure-Bred Holstein Heifer Club sale was held at Linwood November 29, on which day the prizes furnished by the Kaw Valley Electric Road were awarded. The cut shows the trophies.

When the calves were distributed last spring they were grouped in six classes. On sale day a committee of judges picked the best and second best heifer in each class, a cup being awarded for first and a watch for second. Each of the remaining boys and girls of the club received an engraved penknife.

The sale was a most successful one. There were a good many Holstein breeders present and they were anxious to buy these choicely bred heifers. The average price paid for the first twenty-nine sold was $219.48. Among them was a $400 heifer consigned by Hattie Tudhope and a $355 heifer consigned by Harold Hughey. Both of these heifers



were bid in by the consignors. In fact most of the heifers were retained on the farms where they had been kept the past summer. The breeders present recognized the value of these fine heifers, as was evidenced by their bids. A few were successful in getting heifers, as some of the club members chose to take the profits in cash and let the heifers go.

The members of the club retaining their heifers have secured the use of a choicely bred bull and all the heifers will be bred in the near future.

The awards in the different classes are as follows:

Class 1—First, Archie Garwood; second, Opal Browning.

Class 2—First, Elmer Hubbard; second, Orville Hughey.

Class 3—First, Wayne Beckey; second, Jessie Atterberry.

Class 4—First, Elbert Lange; second, Joey Atterberry.

Class 5—First, Claude Cook; second, Jessie Hoffine.

Class 6—First, Hattie Tudhope; second, Harold Hughey.

High-Priced Cow

In the spring of 1917 Charles H. Seifert, of Leavenworth County, paid one thousand dollars for a pure-bred Holstein cow. As far as we know this is the highest price that has been paid for a dairy cow at a public sale in Kansas. When a man puts a thousand dollars into a cow, a good many may question whether from a utility standpoint it is a good investment. This cow has made good, even on the basis of a thousand-dollar investment. Early in 1918 she dropped twin heifer calves, and in the 280 days following gave 15,120 pounds of milk. This at 10 cents a quart would have brought over $700. With an average test of 3.5 per cent, the fat would have sold for $250 or more if the product had been marketed in this way. The skim milk would have been worth at least a hundred dollars for feeding pigs or calves. This alone would have paid more than a year's interest on the money invested in the cow.

Mr. Seifert writes that he is very proud of this cow and is trying to develop a whole herd of the same kind. The combined product of half a dozen cows, each with a capacity for producing 15,000 pounds of milk a year, would amount to more than many a dairyman gets from a herd of eighteen or twenty cows.

Too much sugar is used on the American table, with a consequent loss of variety and piquancy of flavor. The nutty flavor of grains, the natural sweetness of cornbread, the distinctive flavor of fruits and the real coffee taste are too often smothered with sugar.



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You men and women of his "home guard" should wear this patriotic economy cloth, too. It's fast color and wears like leather.
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MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Cold Weather Hints

FROM a pamphlet issued by the International Harvester Corporation we quote the following on caring for farm tractors in cold weather:

"Cold weather offers certain problems to all tractor owners. These are not much of a handicap to the experienced tractor operator, but are likely to be to the man who is wintering his tractor for the first time. In order of their importance these problems are:

"First—Danger of the water in the cylinder and head jackets freezing with consequent cracking of the cylinder and head.

"Second—Faulty lubrication due to the sluggish action of oils when cold.

"Third — Difficulty in starting the tractor.

"Fourth—Storing the tractor for the winter months.

"The reasons why engine cylinders and heads can be damaged so easily in cold weather are not hard to understand. Iron gives off heat rapidly and therefore reaches the temperature of the surrounding air very quickly. The sheet of water in the water jacket around the cylinder is very thin, consequently it is also quickly brought to the same temperature as the walls of the jacket. This water has been known to freeze at times when a pail of water standing near the engine would not even have a film of ice on its surface. This is due to the very rapid evaporation of heat from both the iron cylinder and this thin sheet of water. They reach a freezing temperature in a surprisingly short time.

"A man may forget to drain his tractor or may not think it is going to be cold enough to freeze the water in the cylinder jacket. No matter how the water happens to be left there, the result is invariably a cracked cylinder followed many times by an extensive outlay for repairs.

"To avoid anything of this sort, there is one simple precaution to take during cold weather; that is, to drain the water out of the cooling system at the end of every run. Where a tractor is to be left standing for an indefinite period, it should be drained. Where a tractor operator has finished using his tractor, although at the time the weather may not be freezing, he should take care to drain his tractor, because when the freezing weather does come he will have forgotten that he left water in the cooling system.

"Tractors are equipped with the proper number of drain cocks for drawing off the water. These should all be opened and care taken to see that the water drains properly through each one. Stoppage anywhere may result in the very thing we wish to avoid. It is a good plan to open all the drain cocks just before the tractor is shut down. Where tractors are equipped with water pumps, care should be taken that these be also drained. A water pump freezes up very quickly, and the pump bracket is often broken on account of the pump plunger being held fast in the pump.

"Another important point to be observed is to leave all drain cocks open until ready to fill up the cooling system for another run. This is especially important where the tractor is left in the open. A rain can refill the cooling system, especially of the hopper-cooled type, enough to do serious damage if the drain cocks are not left open.

"Anti-freezing solutions are not to be recommended for tractors on account of the rapid evaporation of the water in the cooling system. This causes a wide variation in quality of any anti-freezing mixture. By reason of this rapid evaporation, tractors must be refilled more often than automobiles, making it impossible to maintain an efficient, uniform, anti-freezing solution. Pure water is the best cooling medium. Proper care in draining the tractor during the winter months requires but a few minutes' time and prevents any damage to the tractor. Be sure to drain your tractor at the end of each period of work during the winter months or freezing weather.

"That there is a positive danger through poor lubrication in cold weather has been demonstrated over and over again. It is common knowledge that oil does not flow as fast in cold weather, and for this reason unless special care is taken will not get to the working parts in time to prevent serious wear and tear on bearings and pistons when tractors are first started. The same custom which old steam engineers observed, of heating their lubricating oil on frosty mornings, should be followed by tractor operators. A little warm oil added to what happens to be already in the lubricator will make the entire supply more easily handled by the automatic pump. In addition to this, every operator is urged, before starting his tractor in freezing weather, to turn the hand crank of the oiler from sixty to seventy-five revolutions. This will insure a sufficient quantity of oil on all working parts to prevent serious trouble. Observance of this precaution will increase the life of the tractor by preventing undue wear.

"Cup grease stiffens to a greater degree than lubricating oil when cold. There are some grades of grease that actually freeze when subjected to zero weather. This is due to the presence of water in the grease. Cup greases so hardened require considerable heat to make them again efficient, and unless they receive this heat within a reasonable length of time after a tractor has been started, risks are taken of damaging such parts as are lubricated by greases. Take special pains to see that all grease cups are not only kept filled with a good, light grease, but are also screwed down several turns more at the start during cold weather."

To Women Readers:

Four complete novels a year, free advice on social forms and beauty aids, war time menus, suggestions for lessening kitchen drudgery and an active campaign in behalf of nation-wide suffrage for women, prohibition and better lights, heat and water for the farm home, are a few features of The Weekly Kansas City Star which makes it so interesting to women. If you live in Kansas, Missouri, Iowa, Oklahoma, Arkansas or Nebraska send fifty cents to Department 35, The Weekly Star, Kansas City, Mo., for a full year's subscription.—Adv.

Square Meal and Square Deal

Put a new leaf in the "common table." Many of our new guests haven't had a square meal for a long time and never had a square deal.



Do *you* think there is no competition?

If anyone thinks there is no competition amongst the big packers he ought to go through a day's work with Swift & Company.

Let him begin at the pens when the live stock comes in; let him try to buy a nice bunch of fat steers quietly and at his own price, without somebody's bidding against him.

Let him realize the scrupulous care taken at the plant that not one thing is lost or wasted in order that costs may be held to a minimum.

Let him go up into the office where market reports are coming in — and reports of what other concerns are doing.

Let him watch the director of the Swift refrigerator fleet, maneuvering it over the face of the country like a fleet of battleships at sea.

Let him take a trip with a Swift & Company salesman and try to sell a few orders of meat.

Let him stay at a branch house for an hour or two and see the retail meat dealers drive their bargains to the last penny as they shop around among the packers' branch houses, the wholesale dealers, and the local packing plants.

And then, when the day is over, let him have half an hour in the accounting department, where he can see for himself on what small profits the business is done. (Less than 4 cents on each dollar of sales.)

If he still thinks there is no competition in the meat business it will be because he wants to think so.

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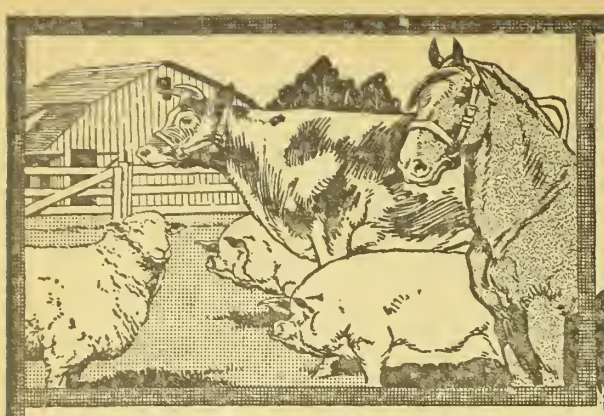



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Don't allow your stock to "get off feed" and in a rundown condition. Dr. Hess Stock Tonic eliminates waste and gives appetite, good health and good digestion. It enables animals to get the most benefit out of their feed.

Buy Stock Tonic according to the size of your herd. *Here's a suggestion for your guidance:* Get from your dealer 2 pounds for each average hog, 5 pounds for each horse, cow or steer, to start with, feed as directed and then watch results.



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Dr. Hess Instant Louse Killer Kills Lice

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NARROW. . . .	7.00 to 5.50	5.50 to 4.75	4.75 to 4.00	4.00 to 3.10	3.50 to .60
BROAD.	4.50 to 2.75	2.75 to 2.25	2.25 to 1.75	1.75 to 1.25	1.50 to .25
MUSKRAT.	2.90 to 2.40	2.30 to 2.00	1.75 to 1.40	1.20 to .90	1.25 to .10
MINK—DARK.	11.00 to 9.50	8.25 to 7.25	6.50 to 5.50	5.00 to 4.00	5.00 to .40
ORDINARY. . .	9.50 to 7.75	7.25 to 6.25	5.25 to 4.25	4.00 to 3.00	4.00 to .30
RACCOON—HEAVY. . .	9.00 to 7.75	7.25 to 6.00	5.75 to 4.75	3.25 to 2.75	4.00 to .60
ORDINARY .	7.50 to 6.25	5.75 to 4.75	4.50 to 3.50	3.25 to 2.50	3.50 to .50
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Prospect For Record Wheat Crop

KANSAS is the first state in the Union to pass the ten million mark in wheat acreage. Last week's Board of Agriculture report on the acreage and condition of the wheat sown the past fall shows that its correspondents estimate the total acreage for the state at 10,825,131. This is 9.3 per cent greater than was sown in 1917, this breaking all previous records. Not only has a record-breaking acreage been sown, but conditions have been unusually favorable for wheat the past fall. As a result of these favorable conditions, the board's correspondents place the general average condition of the crop over the state at 96 on the basis of 100 representing a satisfactory situation. This is twenty-six points higher than the condition reported a year ago, twenty points above that reported in November, 1916, and one point below the condition reported in the fall of 1913. The planting that fall amounted to 9,062,000 acres, and the following year, 1914, was produced the record-breaking crop of 180,000,000 bushels. In the fall of 1900 the average condition was reported as 99.7, the acreage being 51 per cent less than that sown this fall. The crop, however, according to the United States Department of Agriculture, amounted to nearly a million bushels. Reference back to these figures of previous years would seem to indicate that when conditions are so favorable for wheat in the fall as they have been this season, we have every assurance of a good crop the following year. Wheat growers can confidently look forward with the highest hopes to a crop of wheat which will break all previous records.

Thirty-eight counties, all in the eastern half of the state, have conditions of more than 100, the highest being 109, in Clay. In the northwest quarter the average is more than 90, while in the southwest quarter conditions for the most part are under 90, the lowest being 80, in Wichita and Scott. While soil and weather conditions have been excellent in the western counties, reseeding was necessary to some extent in this region, owing to damage from grasshoppers, and because of the presence of these pests sowing was delayed in many localities. The later sown wheat, while comparatively small, is a good stand and thrifty. Quite generally wheat is of rank growth, and the excellent pasturage it affords is a boon to stockmen—a very valuable and timely complement to the high-priced and limited feed supply.

A more adequate comprehension of the magnitude of the Kansas wheat field this fall may perhaps be had from the statement that it exceeds the total land surface of the four states of Massachusetts, Connecticut, Delaware and Rhode Island combined, with the District of Columbia added for good measure.

Every county in the state, except perhaps a half dozen in the southwest, sowed as much or more wheat than a year ago, the larger percentages of gains being in the eastern counties, amounting to as much as 99 per cent, the highest, in Greenwood County. Of the counties credited with the largest acreages in wheat, Reno leads with 298,364 acres, followed by Sumner with 296,837, Barton 293,903, Ford 272,891, Pawnee 270,374, Stafford 242,702, Pratt 236,290, McPherson 228,537, Rush 220,777, Ellis 220,249, Thomas 208,560, Rice 207,648, Russell 204,052, and Sedgwick 202,497, all but one or two of these being located in the south central portion of the state.

Inasmuch as it was due to the board's initiative, taken last June, that government seed wheat loans were made available for the Southwest, it is interesting to record in this report, through the courtesy of the Kansas field agent of the U. S. Department, that government loans were made to nearly 3,600 Kansas farmers, mostly in the western counties, with the result that approximately 330,000 acres were seeded to wheat that otherwise would not have been sown. These seed loans in Kansas amounted approximately to a million dollars.

With no more farmers, with no more equipment, and with not as much labor, the largely increased sowing to wheat in Kansas this fall is certainly a remarkable showing. It shows what can be done under the extreme pressure of war conditions and the pressing need of the whole world for food. The farmers of Kansas now have before them a task perhaps no less important than that of the war period. This record-breaking acreage of wheat planted in Kansas was to promote the war, but it will be harvested to preserve peace.

Justice to Stock Shippers

Senator Cummins has just offered a bill in the Senate providing for the restoration of the suspension powers of the Interstate Commerce Commission. This is of great importance to the shippers in the country. This information comes from the National Live Stock Shippers' League.

Congress provided in the Railroad Control Bill for retaining the final jurisdiction over rates, rules and regulations in the Interstate Commerce Commission, giving the commission power to review orders of the President and set them aside where unreasonable. However, the bill went further and provided that when the President initiated any rate or regulation the same should become effective at once and not be subject to suspension. This has resulted in great confusion. Wholesale changes in regulations and rates have been instituted without any hearing before disinterested tribunals. Other changes of a like character are now pending.

It is a poor rule that does not work both ways. When a shipper wants a rate reduction or a rule relaxed, he files his petition with the Commission and before anything is done a hearing is had and the order rendered either favorable or unfavorable to his position. Under present practice, if a railroad wants to secure an advance or increase the burden on the shipper, all it has to do is to file the tariff and it becomes effective immediately without investigation. This is unjust, unfair and out of harmony with our whole system of procedure in this country. Shippers throughout the entire nation should unite in demanding the immediate restoration of the suspension powers of the Interstate Commerce Commission.

There might have been some justification for eliminating the suspension powers of the commission while the war was in progress. The grounds urged in support of the measure was the necessity for immediate action without delay to investigate. Assurance was given members of Congress that if the bill was passed in that manner the power to initiate rates without investigation would only be exercised on emergency matters, that this would occur on very rare occasions. However, the situation has so developed that the power to so initiate rates is being exercised constantly in all parts of the country affecting all kinds and classes of rates. Some proposals now pending are of a revolutionary character. The war has ceased. The argument which prevailed during the progress of hostilities no longer is applicable. The emergency has ceased to exist. We should immediately return to normal conditions.

Officers of the National Live Stock Shippers' Protective League have taken the initiative suggesting this legislation and are going to exert all the influence they have to secure its passage. We suggest that all interested shippers should immediately wire or write their congressmen and also communicate immediately with Senator Cummins so that he can know how thoroughly the shippers are behind him in this effort.



BEAUTY BEETS WALKER SEGIS



JEWEL PONTIAC SEGIS

These are the cows referred to on page four of this issue

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Simple Living Must Continue

NO REAL peace can be assured until the food problem of Europe is well on its way to a solution We must not relax our efforts along food-saving lines until all the boys come home. A letter just received from the United States Food Administration reads:

"The armistice is signed, but almost the whole of Europe is famine-stricken. There is insufficient food to go around and millions must inevitably die of starvation before another harvest.

"To the voluntary service and sacrifice of the American people must be attributed the continued health, strength and morale of the Allied armies and the people behind the lines who have been bearing the brunt of our war.

"Upon this same spirit of service and sacrifice will depend Europe's fate in the months to come. The guns are silent, but anarchy, bred of hunger, rages in Europe. Food is the necessary bridge that will carry Europe over from the state of war to an orderly peace. Facing this great world obligation America has raised her food pledge from seventeen and a half million tons to twenty million tons of food. This is two-thirds more than we shipped last year.

"At present we have sufficient supplies of wheat in the world to return to the white loaf, a sufficient supply of sugar, if other nations stick to their short rations—a shortage if they increase their rations. There is on hand as much beef as can be loaded on ships, but a world shortage of three billion pounds of fats—that is, pork products, dairy products and vegetable oils. The clearing of the sea and opening up of markets long closed to the world will alter the setting of the home table from time to time. Everything depends on available ships, railway transportation and storage capacity. We must plan to meet each situation as it arises.

"This means that conservation policies must necessarily change, and change suddenly. Women are called to be alert and ready to follow each change. The policy that cannot change is the necessity for simple living. The world shipping program is based on avoidance of waste.

"Your pages have reflected the spirit of American women and their great accomplishments in food saving. We now face an increased responsibility. The coming year will tell the story month by month of the power of women to visualize the situation in Europe and accept the rigid discipline of simple living that is imposed by our task abroad."

The Woman's Part

Clarence Ousley, assistant secretary of agriculture, in an address on the place of agriculture in the reconstruction period, given before the New York Humanitarian Society, cites two impressive instances showing the spirit of sacrifice and service on the part of women of France and of America. We give the stories in his own words:

"Not long ago I heard a war worker relate this incident, which he had witnessed in shell-torn France: A poor peasant woman had returned to her village from which the German despoilers had been expelled, and found her cottage in ruins. She had lost her husband and two sons in the war, and her other two sons were in the army. Alone, but undaunted, she set about the work of restoration, and her deft hands soon converted the cellar into a livable habitation. Then her third son was sent back mortally wounded and died in her arms. She was burying his dear body when she received a message that her fourth and last son was killed. She paused but a moment in her ministration to the dead; her cheeks did not blanch, but flushed as a soldier's would in a fierce charge; her lips did not quiver, but were firmly set; no tears came to her eyes, but they glistened with a new fervor of patriotism, as she caught her breath and with uplifted countenance, in a low and solemn tone as if recording an oath to high Heaven, she said, 'Vive la France!'

"A few weeks ago I received a letter from the wife of a farmer in New York State asking advice about a contemplated transaction involving the sale of her farm and the purchase of another. In order that I might understand the situation, she described in detail the manner of farming, the equipment, and the intimate operations. She is in the fullest sense a helpmeet to her husband. She not only performs the household tasks but lends a hand in the field. In four years she has rarely had breakfast later than six o'clock, or supper earlier than eight. The hours between are her working day. Among other striking statements in her letter was this:

"'July 2 I cut an acre and a half of peas and my husband pulled them back, and July 3 we had an eight-and-a-half-pound boy. Since then I have been tied to the house more or less, but by getting the little neighbor girl to tend baby I cut twelve acres of hay across the road on another farm while my husband was helping my father draw in grain. He has to drive four and one-half miles when he changes work with him.'

"I dare not say which of these two women is the greater heroine—the one suffering denial, bearing children, enduring grief, toiling in field or factory and home, but sustained by the inspiration of immediate contact with the greatest tragedy in human history; the other, far removed from the sound or sight of military spectacle, likewise suffering denial, bearing children, but sustained by the unspoken and unutterable instinct for sacrifice and creation which is the unfailing quality of her sex.

"Compared with this the heroism of the battlefield, whatever wounds it may bring, even unto the death, is but a thrilling adventure, and other war work, there and everywhere, is mere playing at service.

"These women are the types of millions of women in France and in America, and when I contemplate their service, their sweetness, and their uncomplaining sacrifice, I feel for all others and myself the deep compassion of utter unworthiness. And when I contemplate their devotion and witness all around me here in this blessed land able-bodied men doing unnecessary things, and pampered women dawdling in beauty parlors, I feel an unspeakable contempt and wish that I might have the power to condemn to hard labor all such miserable slackers, who are unworthy of the freedom for which millions of men are dying and millions of women are working and weeping."

To Can Pumpkin and Squash

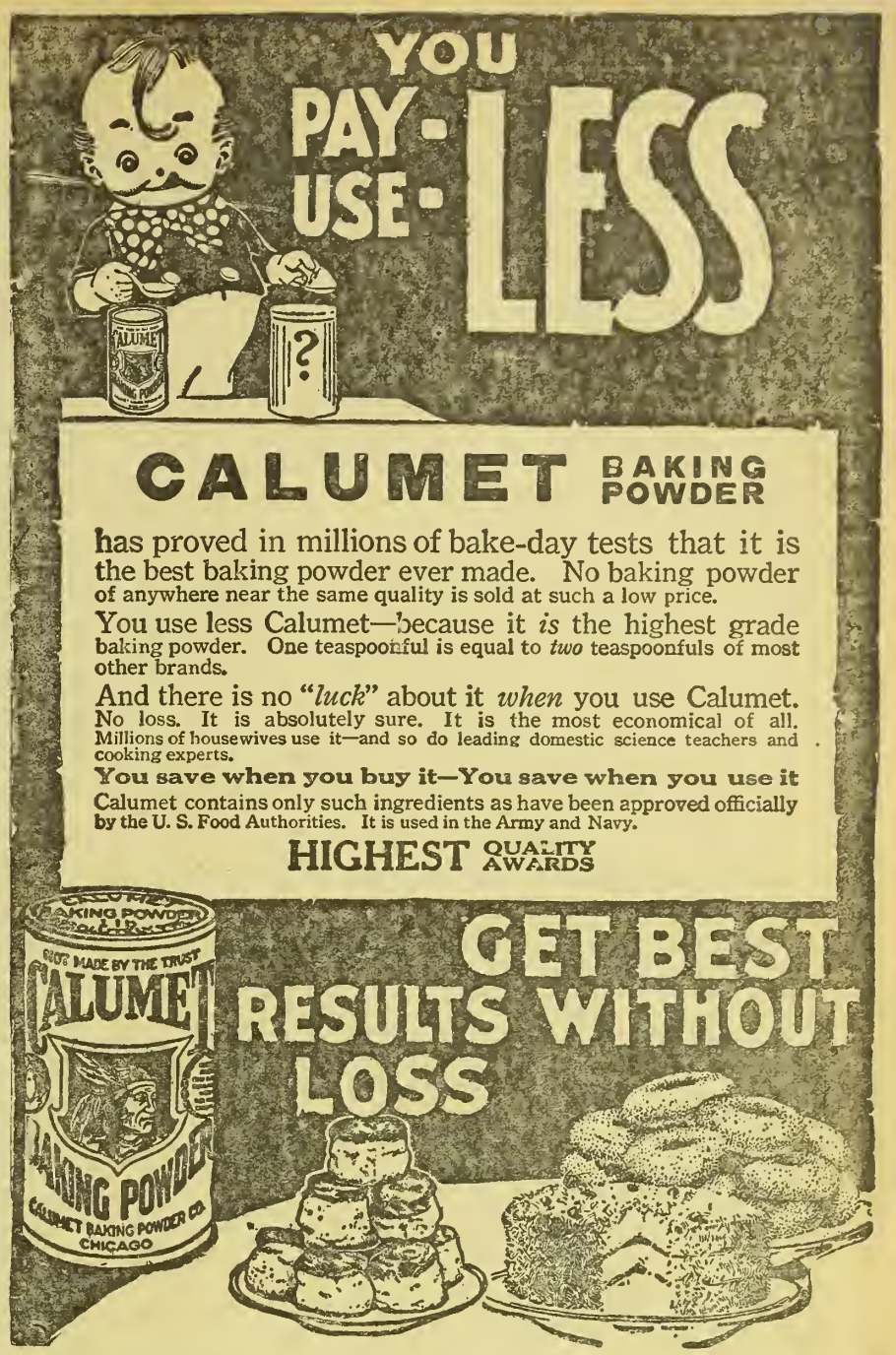
Wash clean while whole, then cut into quarters or eighths. It is not necessary to pare or peel. Scrape out seeds and fiber. Steam until pulp can be scraped from shell with spoon, which will take possibly ninety minutes over a false bottom in a hot-water bath outfit or thirty minutes under five to ten pounds steam pressure. Remove and let cool or plunge quickly into cold water, but never allow the products to stand or soak in the cold water. With spoon scrape pulp from rind or shell; work out the water thoroughly; mash with potato masher if lumps are present. Have rubber placed in position, then pack pumpkin or squash in jars. Add one level teaspoonful of both salt and sugar but never water. Place tops in position. Partially seal. Sterilize one hour—provided the pumpkin or squash has been steamed as suggested above—if using hot-water bath outfit, or thirty-five minutes if steam-pressure outfit under five to ten pounds of steam is used. If you did not steam the pumpkin or squash, as suggested, sterilize two and one-half hours in hot-water bath outfit or one hour under five to ten pounds of steam. Do not let cool air strike jars while hot.

Take Time for Recreation

Don't allow yourself to get the notion that you can't take time for a holiday. You owe it to yourself and to your family. There is always something to do and there always will be, long after you are dead and gone, but we venture to predict that no serious harm will result from your taking a day off now and then. You will do better work when you come back to it, you will live longer, and life will be much more worth while if you mix a little recreation with your work. Heed the admonition of the old song and "take time for living while yet in life."

The Dawn of Peace

It is the Dawn! The Dawn! The nations
From East to West have heard a cry—
Through all earth's blood-red generations
By hate and slaughter climbed thus high.
Here—on this height—still to aspire.
One only path remains untrod,
One path of love and peace climbs higher;
Make straight that highway for our God.
—Alfred Noyles.



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AGENTS—MAKE A DOLLAR AN HOUR. Sell Mendets, a patent patch for instantly mending leaks in all utensils. Sample package free. Collette Manufacturing Co., Dept. 103, Amsterdam, N. Y.

PLYMOUTH ROCKS.

NICE BARRED ROCK COCKERELS, $2. Cocks, $1.50. J. Hammerli, Oak Hill, Kan.

"RINGLET" BARRED ROCK COCKERels, $3 and $5 each. Mrs. C. N. Bailey, Lyndon, Kansas.

PURE-BRED BARRED ROCK COCKERels for sale, $3 each. J. P. Alpers, Route 1, Hudson, Kansas.

PURE-BRED BARRED PLYMOUTH Rock cockerels, Parks' 200-egg strain; good ones; $3 to $5. Discount on large orders. Gem Poultry Farm, Haven, Kan.

BEAUTIFUL LARGE WHITE PLYmouth Rock cockerels, $2.50 each, if taken at once. Need room. Louis Jones, Monroe, Neb.

BARRED ROCK COCKERELS, BOTH light and dark lines, $5 each; six for $25. C. C. Lindamood, Walton, Harvey County, Kansas.

PURE-BRED WHITE ROCK COCKERels, $2 and $2.50. White Embden geese, $4. Just over Kansas line at Filley, Nebraska. Mrs. John Burgess.

RINGLET BARRED ROCKS, FARMraised cockerels from large egg-producing stock. My best, $5 each, six $25. Satisfaction guaranteed. Hiram Patten, Hutchinson, Kan.

CHAMPION BARRED ROCK COCKERels, large and well marked. Dams have trap nest record 225 eggs a year. Have won many prizes in largest towns. $3 each. Ike Hudnall, Milan, Mo.

WYANDOTTES.

BUY NOW—GOOD WHITE WYANDOTTE cockerels, March hatched, $2 each now. Mrs. Clarence Kagarice, Darlow, Kansas.

SEVERAL BREEDS.

WHITE LEGHORNS, BLACK MINORcas, Barred Rock cockerels, ducks, geese, guineas. Emma Ahlstedt, Lindsborg, Kan.

DUCKS AND GEESE.

PEKIN DRAKES FROM 8 TO 9½ LBS.; ducks, $2.50. Samuel Hockman, Beattie, Kan.

LEGHORNS.

ONE HUNDRED CHOICE S. C. BROWN Leghorn cockerels for sale at $2 to $3 each. C. V. Douglas, Tecumseh, Neb.

S. C. BROWN LEGHORN HENS, TWELVE dollars dozen. Mrs. Jefferis, Route 1, Kincaid, Kansas.

ROSE COMB BROWN LEGHORN STOCK for sale reasonable if bought soon. Mrs. John Holzhey, Bendena, Kan.

CHOICE SINGLE COMB WHITE ENGlish Leghorn cockerels, high laying strain, $2 each, six $10. D. E. Lantz, Stanton, Ia.

S. C. W. LEGHORN COCKERELS — IF taken now, $1.25; six for $7. Will Tonn, Haven, Kansas.

PURE ROSE COMB WHITE LEGHORN cockerels, beauties, $1.50 straight. J. M. Jarvis, Newton, Kansas.

PURE-BRED S. C. BROWN LEGHORN cockerels, $2 each; six for $10. Mrs. L. H. Hastings, Thayer, Kansas.

PURE-BRED R. C. BROWN LEGHORN cockerels, April and May hatched, $2.25 each; three or more, $2 each. J. M. Billingsley, Minden, Iowa.

FINE S. C. W. LEGHORN COCKERELS, strong, vigorous, good type, Ferris strain, $2 each. Also large Toulouse ganders, fine stock, $3 each. Chas. Yoder, Waldron, Kan.

ORPINGTONS.

S. C. BUFF ORPINGTON COCKERELS, $3, $4. Mary E. Price, Route 7, Manhattan, Kan.

MINORCAS.

S. C. BLACK MINORCAS, PEN, $7. COCKerel and two pullets. Mrs. H. M. Tilton, Anadarko, Okla.

ANCONAS.

MOTTLED ANCONA COCKERELS FOR sale, $1.50 each. They are fine birds. John Smutny, Irving, Kansas.

RHODE ISLAND REDS.

ROSE COMB RED COCKERELS, $1.50-$4. Lewis Bauer, Dover, Kan.

PURE-BRED ROSE COMB RED COCKerels. Large rich red breeders. $5. Mrs. W. G. Prather, Eureka, Kan.

SINGLE COMB REDS — EXCELLENT color with good laying qualities. Cockerels, $2.50; pullets, $1.50. O. K. Lynn, Lane, Kansas.

DARK RED ROSE COMB REDS, GOOD scoring, greatest laying strain; cockerels, pullets, eggs. Satisfaction guaranteed. Highland Farm, Hedrick, Iowa.

POULTRY WANTED.

PAYING FOR NO. 1 TURKEYS, 28c geese and ducks, 18c; hens, 21c; eggs, 65c. Coops loaned free. The Copes, Topeka.

TURKEYS.

BOURBON RED TURKEYS, SUPERFINE, $6 now. R. H. Brown, Halstead, Kan.

BOURBON RED TOMS, $5 UP; HENS, $3, $4. Good stock. Mrs. D. H. Noggle, Mapleton, Kansas.

OAK HILL FARM, HOME OF THE pure-bred M. B. turkeys, May hatched, large, good weight. Route 3, Lawson, Mo.

EXTRA FINE PURE-BRED BOURBON Red turkeys, toms, $6; hens, $4. Mrs. Frank Drake, Burdett, Kan.

BOURBON RED TOMS, $6; HENS, $4; early hatched, large bone, long bodies, nicely marked. Mrs. R. E. Weeks, Phillipsburg, Kan.

WE SOLD FIVE CHAMPION BRONZE turkeys last March for $750. One tom brought $500. Have 300 grand birds, same breeding, sired by sons of my 52-pound champion tom, $7.50-$25 each. Ike Hudnall, Milan, Missouri.

LANGSHANS.

BLACK LANGSHAN COCKERELS, $2 and up. Mrs. Geo. W. King, Solomon, Kan.

PURE-BRED WHITE LANGSHAN COCKerels, $2 each. Grace Welch, Utica, Neb.

BLACK LANGSHAN COCKERELS FOR sale. Mrs. J. B. Stein, Smith Center, Kan.

BIG BLACK LANGSHAN COCKERELS and pullets, fancy and utility; also eggs. Guaranteed. H. Osterfoss, Hedrick, Iowa.

AUTOMOBILES.

CADILLAC, SERVICE, COMFORT, looks substantially new, delivered one-fifth original cost. G. G. Burton, Topeka, Kan.

CATTLE.

REGISTERED JERSEY BULL CALVES, $20 up. H. R. Harvey, Ulysses, Neb.

FOR SALE—RED POLL BULLS, ALL ages. Best of breeding. Priced reasonable. Lyons Bros., Route 3, Coffeyville, Kan.

FOR SALE—THREE REGISTERED HOLstein bulls. Serviceable age. J. C. George, Hampton, Neb.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FIVE AYRSHIRE BULLS FOR SALE, ready for service; from good producing dams. Prices very reasonable. For full information write University Dairy Department, Lincoln, Neb.

FOR SALE—FOUR PURE-BRED HOLstein bull calves four weeks old, from high-producing dams and a 31-pound sire. Price, $50 apiece. E. J. Stearns, Route 1, Elkhorn, Wisconsin.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

DOGS.

COLLIE PUPS FROM GENUINE HEEL drivers. E. L. Dolan, Route 2, Platte City, Missouri.

COLLIE PUPS WANTED—WILL BUY A few good pups. Address full particulars to Mrs. J. A. Seaman, Albia, Iowa.

FOR SALE—A FEW HIGH CLASS COON, opossum and skunk dogs. Stamp for reply. A. F. Sampey, 317 East Mt. Vernon St., Springfield, Mo.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

FARMS WANTED.

WANTED—TO HEAR FROM OWNER OF good farm for sale. State cash price, full description. D. F. Bush, Minneapolis, Minn.

ENGINES.

20-60 REEVES TRACTOR ENGINE, SIX-bottom plow, steam lift, tank. First class condition. For sale account ill health. Address Joseph Bulin, Box 2, Milligan, Neb.

HOGS.

REGISTERED LARGE TYPE POLAND China boars, herd headers; best blood lines; extra individuals; weight, 150 to 400 pounds. M. A. Draper, Topeka, Kansas.

SEEDS

SEEDS — SEND FOR OUR NEW 1919 catalogue free. Hayes Seed House, Topeka, Kan.

WHITE BLOSSOM SWEET CLOVER reasonable. Sow on fall wheat. John Lewis, Madison, Kansas.

OATS—FANCY RED TEXAS. SEND FOR sample. $1 per bushel. Hayes Seed House, Topeka, Kan.

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FOR SALE OR TRADE — ONE MAMmoth, also one Spanish jack, both sure breeders. H. L. Summers, Twenty-third and Lincoln Streets, Topeka, Kan.

MILKING MACHINES.

FOR SALE—USED FIVE-UNIT B. L. K. milking machine with all necessary piping, pump, and vacuum tank, complete. In first class condition. Redmon & Son, Tipton, Mo.

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Winter Housing for Hens

COMFORTABLE housing for chickens does not necessarily mean an expensive house or one of elaborate details. Very good results have been secured from the simplest possible kinds of dwelling places for the backyard flock. Often an unused shed with the front partially covered or a corner of a barn or stable partitioned off may be used to house a profit-producing flock of hens or pullets.

The essentials of a suitable house for chickens are the same whether it be for five or five hundred birds. They are good light, ventilation, and drainage, with protection from wind and bad weather. For a small house, where from six to twenty fowls are to be kept, an opening at the front or south side should be left which may be covered with one-inch poultry netting and fitted with a muslin screen or curtain for protection in bad weather. The size of this opening can be made according to the size of the house and will furnish both light and ventilation. For larger houses, glass windows may also be used at either the south or east side to add to the light. The glass windows may be aranged for opening on nice days.

To allow the fowls free and unrestricted use of the entire floor space of the house, dropping boards should be provided with roosts about four inches above them and platforms should be arranged for water receptacle eighteen inches above the floor. Through the use of dropping boards — which are merely smooth level platforms placed against the back wall about twenty-four or thirty inches from the floor — sanitary conditions are improved and cleaning is greatly facilitated. A few minutes' work each morning is all that is required to remove the droppings and sprinkle the board with sand or ashes.

Nests may be fastened against the side walls or built under the dropping boards, if the latter are sufficiently far from the floor. For a small flock, an orange box may be used with two-thirds of the top removed and fastened to the wall with a small platform in front, on which birds may alight before entering nests. If possible, nests should be arranged so that they may be removed for cleaning easily and thoroughly. By all means, keep the straw or other nesting material clean and in sufficient supply.

One very important condition for the comfort of the flock is a plentiful supply of litter on the floor in which the birds may be fed a scratch grain and induced to exercise. From four to six inches of straw, leaves or other similar material should be used. If a liberal supply is furnished and dropping boards are used, it is usually necessary to renew the litter only two or three times during the winter unless the material becomes wet or moldy.—JOHN L. PREHN, K. S. A. C. Extension Service.

Corn for Laying Hens

Poultrymen in or near the corn belt will find it advantageous to use a larger proportion of corn in their poultry rations than has generally been recommended. In many cases it has been difficult or impossible to get bran or middlings and wheat is needed for human food. While the price of corn has been relatively high as compared with other feeds, it is usually available in most sections of the state, which gives it an advantage over the by-products of the milling industry.

At the Ohio Experiment Station, hens receiving a ration composed of 87 per cent corn and 13 per cent meat scrap produced an average of 241 eggs in two years. The mortality during this period was 10 per cent. Similar hens receiving only 42 per cent of corn, with wheat, oats, bran, middlings, oil meal and meat scrap, produced an average of only twenty eggs more per hen in two years. The mortality in this lot was 23 per cent.

While this indicates that corn may constitute a large part of the ration for laying hens, it should not be fed alone. Ten to 12 per cent of meat scrap or good feeding tankage used in connection with corn will make up for the deficiency of protein and ash in a ration composed only of corn. Oyster shells should be constantly accessible to laying hens.

Controlling Lice and Mites

The common forms of insect pests to be guarded against in keeping poultry are the body louse of chickens, the common chicken mite, and the scaly-leg mite, says John L. Prehn in a leaflet recently issued by the extension service of our agricultural college.

The body louse lives on the fowl constantly. It obtains its food by cutting or biting off minute particles of skin from the bird. The common chicken mite lives in cracks and crevices about the house during the day and feeds almost entirely at night, except in the case of hens on nests. Where houses are badly infested, it is possible for fowls to carry a number of mites about during the day time. This is the exception rather than the rule. The scaly-leg mite burrows through the scales on the feet and shanks of fowls, causing severe irritation and an enlargement or crust where present.

All of these insects cause serious loss in production during the winter as well as summer months, so measures should be taken for their control or for prevention if not already present. With the backyard flock, these measures are rather simple because of the small number of birds, but are nevertheless often neglected.

Sodium fluorid has been found to be very effective in freeing chickens of lice, as it kills not only adults and young lice, but also all that hatch from the eggs present at the time of treatment. One thorough application to all fowls on a place will completely destroy all lice present. The pinch method of application is economical of time and material. A small pinch is distributed among the feathers at each of the following places on the bird: Neck, head, breast, below the vent, each thigh, and under side of each wing, with a more liberal application to the back.

For the control of the common mite, crude petroleum four parts and coal oil one part, applied thoroughly to all parts of the house with a brush or spray should be effective for from one to three months. Remember that it pays to be thorough and do the job well. Any of the arsenical dips used against cattle ticks will be found fairly satisfactory against mites, but they do not hold their killing power for as long a period as crude petroleum. Either crude petroleum or coal oil is effective against scaly-leg mite and may be applied either by dipping the fect and shanks into the oil or applying with a brush. If one application does not kill all mites after a lapse of thirty days, a second application should be made.

FOR SALE OR EXCHANGE.

FOR SALE, OR WILL EXCHANGE FOR pure-bred Holstein calves — The pure-bred Percheron stallion, Pink Carnot No. 64402, sired by Pink No. 24765, one of the greatest Percherons ever bred. Also some good Percheron two-year-olds, yearlings and weanlings. Hawthorne Farms Co., Barrington, Ill.

SHEEP.

REGISTERED SHROPSHIRE RAMS from imported stock. Registered Shorthorn bulls. Western Home Farm, St. John, Kan.

MISCELLANEOUS.

WANT A BELT POWER TRANSMITTER for your Ford? Don't pay more than $12.50 for it. Buy the Simplex. Simplest, handiest, most practical. Write for circular. Frank R. Weisgerber, Salina, Kansas.

Chickens Sick or Not Doing Well?

An Extraordinary Offer: Germozone is a standard remedy everywhere for chicken troubles, roup, colds, cholera, swelled head, bowel complaint, chicken pox, canker, not doing well, non-laying, etc. Now our proposition: If no dealer there handling Germozone and you will agree to use it and pay if satisfied, we will send you a 75c package without a cent in advance. No pay if not satisfied. Can we do more? And we will send free 5 poultry booklets. Write today.
Local dealers handling Germozone will do the same.
GEO. H. LEE CO., Dept. 415 OMAHA, NEB.

The Government's Call for Income Tax Statements Makes it Certain that

YOU NEED THIS BOOK

GET STARTED RIGHT

There is no better time than right now to begin keeping Farm Records so that you will have the required information ready to make your income tax statement next year. No doubt you are already keeping your records. You want the most simplified and easiest way. Get this book. It's FREE.

PRACTICAL ACCOUNT BOOK

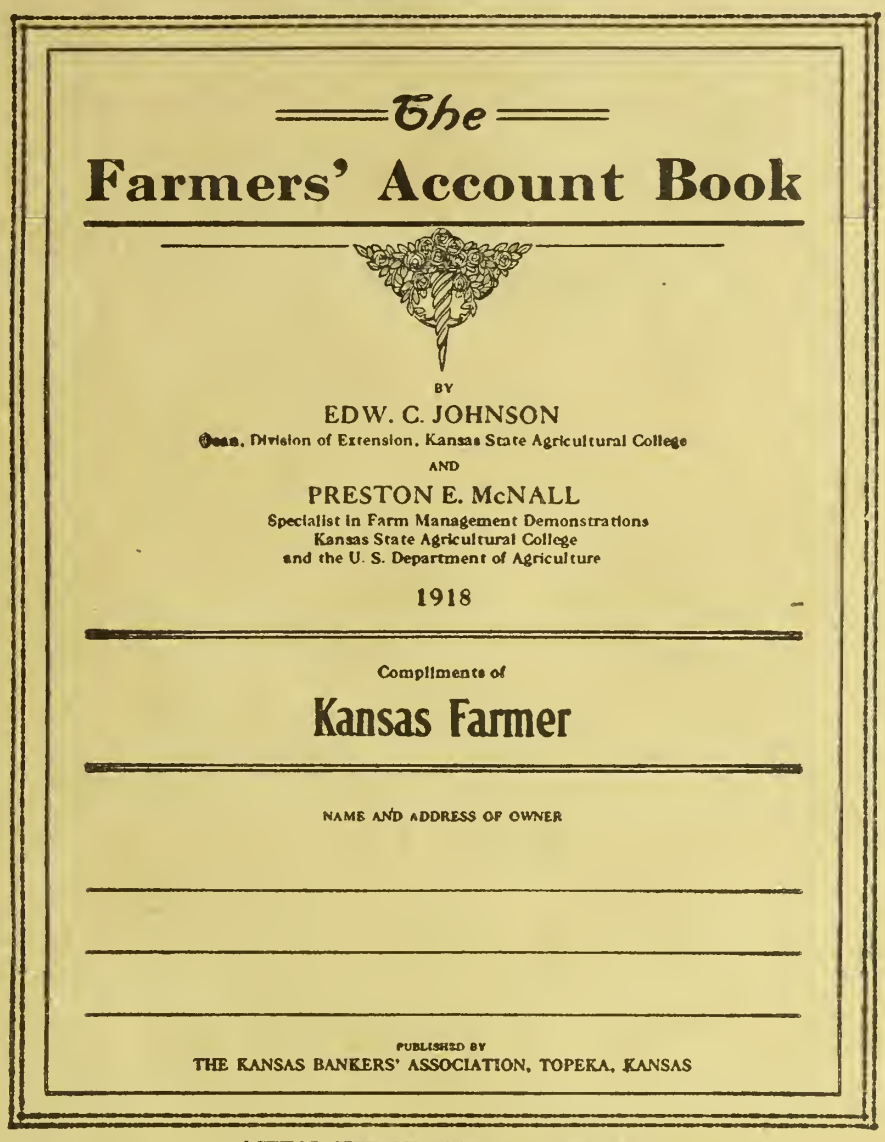
This book is a PRACTICAL Farm Account Book which has been developed under the direction of the United States Government men, working in co-operation with hundreds of farmers in Kansas. It is not merely theoretically correct, but has been prepared to fill the needs as shown by practical use on farms in this state.

THIS BOOK WILL MAKE YOUR WORK EASIER

Keeping accurate records of farm business is becoming more and more popular, not only because it is practically necessary for the income tax statement, but also for the value of the records to the farmer. The most important thing, however, is to secure and keep the information desired with the least amount of work and time; that is, in the simplest way.

The book which KANSAS FARMER is offering on this page, FREE to subscribers, is gotten up with the idea of keeping all the information necessary and valuable with the smallest amount of work. The book is a one-year record. It is small and convenient to keep. It contains full but simple instructions on how to keep the records required, with sufficient blanks for all entries.

ONE-HALF ACTUAL SIZE



ACTUAL SIZE OF BOOK, 8 x 11 INCHES

A PRACTICAL BOOK NOW IN USE BY FARMERS

The book is published by the KANSAS BANKERS' ASSOCIATION. It has been prepared by Dean Edwin C. Johnson and Preston E. McNall, both of the Extension Division of the Kansas Agricultural College, who have done their work on the book in co-operation with the United States Government.

This book has been used in Farm Management studies on hundreds of farms in Kansas where owners have heartily co-operated and offered many valuable suggestions for making it thoroughly practical and suited to actual farm conditions. These suggestions have been incorporated in this latest edition.

CONFORMS WITH REQUIREMENTS OF THE GOVERNMENT

It is tbe ultimate object of the Internal Revenue Office to adopt a uniform method of computing farmers' incomes. This includes farm inventories, farm receipts, and farm expenses, and follows very closely the book which is given by KANSAS FARMER to its subscribers. From year to year there may be a few slight changes made. For this reason it is best to buy a one-year book in order that each year your book will conform to the Internal Revenue rulings for that year.

FARMERS' ACCOUNT BOOK GIVEN FREE

HOW AND WHERE TO GET THIS BOOK

KANSAS FARMER desires to assist its readers in getting a book which will meet all their requirements at the least possible expense. The book described on this page is adapted to your needs and can be obtained FREE from many banks in Kansas, or KANSAS FARMER will give the book FREE with a subscription. Read our offer below and send today.

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We will mail you ABSOLUTELY FREE and postpaid one of these Account Books for your renewal subscription to KANSAS FARMER at $1.00. Send us your order today and get your accounts started in such a way as will be easy to keep and which you know will be correct.

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To subscribers whose subscriptions are already paid in advance we make the following offer: Send us one new subscription to KANSAS FARMER for six months at 50 cents and we will send you one of the books FREE AND POSTPAID. This offer is open only to subscribers whose subscriptions are paid in advance, and the subscription MUST be a NEW ONE; that is, for someone not taking KANSAS FARMER at the present time.

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KANSAS FARMER, TOPEKA, KANSAS.

GENTLEMEN: Inclosed please find $1.00, for which renew my subscription for one year and send me the Farmers' Account Book as per your offer.

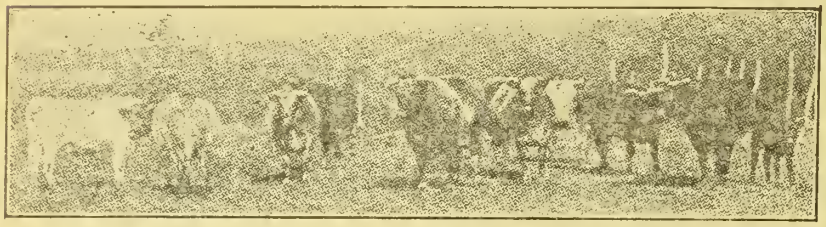
Name..... R. F. D.....

Town..... State.....

SALE OF REGISTERED
Shorthorn Cattle
AT
Holton, Kan., Thursday, Dec. 19, 1918
In Town, Under Cover

FIFTY HEAD—FORTY FEMALES, TEN BULLS

Twelve Cows with Calves at Foot



The bulls include the herd bull consigned by D. L. Dawdy, RED LINE, a Bruce Mayflower sired by Imp. Scottish Sentinel, dam by Imp. Strahan Star, second dam is Imp. Sobriety 2nd. And the young bulls of serviceable age include a CRUICKSHANK BUTTERFLY owned by Mr. John Conlon, besides several choice yearling bulls and bull calves.

J. Q. A. Miller consigns two females bred to ROSEDALE, one of the really good sons of the great AVONDALE.

The offering of D. L. Dawdy includes sixteen cows and heifers. These females of breeding age are bred to the Scotch bull, Red Line, and five of the cows have calves at foot.

The consignment of Ed Stegelin consists of sixteen cows and heifers; four of the cows with calves at foot, and all bred to good bulls, TRUE SULTAN or A SON OF ROSEDALE.

CONTRIBUTORS

D. L. Dawdy, Arrington, Kan.; Ed Stegelin, Straight Creek, Kan.; John Conlon, Atchison, Kan.; J. Q. A. Miller, Muscotah, Kan.

AUCTIONEER—Cary M. Jones, Chicago

Request for catalog should be addressed to

D. L. DAWDY, ARRINGTON, KANSAS

or to any of the contributors

JOINT SALE

Pure-Blood Spotted Poland China Hogs

SALE TO BE HELD AT ROSSVILLE, KANSAS DECEMBER 17, 1918, AT 1 P. M.

EIGHT TRIED SOWS
TEN SPRING GILTS
TWENTY SPRING BOARS
ELEVEN FALL PIGS



These hogs have blood lines running back to the famous herds of Gates, Faulkner, Bock & Shirk, Alexander and Bell. Prize winners at Kansas Free Fair included in sale. Catalogs ready December 7.

GEORGE EAKIN : Rossville, Kansas : MILLER & FAILER

CHAS. CREWS, Auctioneer. Mail Bids Can Be Sent to Auctioneer.

SHORTHORN CATTLE.

SHORTHORN BULLS

For Sale — Ten bulls, seven to fifteen months old; Scotch and Scotch topped. Two Scotch bulls by Type's Goods, one a Brawith Bud, the other a Duchess of Gloster. All in good condition and priced reasonably.

S. B. AMCOATS, CLAY CENTER, KANSAS
Write Me Your Wants

MARKS LODGE RED SHORTHORNS

For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.
M. F. MARKS, VALLEY FALLS, KANSAS

Cloverdale Farm Shorthorns

For Sale—Three Shorthorn heifers, two bred to a grandson of Whitehall Sultan; also a fine roan yearling Scotch bull, a real herd bull for some one. Heifers, $150 to $225; bull, $300. Must go soon at this.
Wesley Jewell, Humboldt, Ks.

SHORTHORNS

A few Shorthorn bulls for sale, from eight to eighteen months old. Roan and reds.
S. A. HILL, Route 2, Smith Center, Kansas

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MULEFOOT HOGS.

KNOX KNOLL MULEFOOTS

Thred sows, spring gilts and boars. Weaned August pigs. Priced for uick sale. Satisfactlon guaranteed. Free catalog.
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CHESTER WHITE HOGS

Frost's Big Smooth O. I. C.'s

Forty Spring Pigs, Two Yearling Boars and 100 Early Fall Pigs.

All from prize winning blood and priced for quick sale. Write us today.
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I make sales anywhere
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Registered Polled Durham and Shorthorn Cattle

FOR SALE—Twenty Head of Shorthorn Cows and Heifers bred to our show bull, SULTAN'S PRIDE, at $200 each for immediate sale. Also a few Shorthorn bulls at bargain prices.

Twenty-five Heal Polled Durham Bulls of choice breeding, sired by Roan Orange, a 2,500-pound bull, and Sultan's Pride, a winner at three state fairs.

I will meet all trains except Sunday and show my stock. Write, wire or phone me.

J. C. Banbury & Sons, Polled Durham Breeders, Pratt, Kansas

POLAND CHINAS.



Faulkner's Famous Spotted Polands

THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.

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CLAIM SALE DATES.

Jacks and Jennets.

March 25, 1919—H. T. Hineman & Sons, Dighton, Kan.

Holsteins.

Dec. 12, 1918—Wichita Sale Holstein Cattle, Wichita, Kan.
Jan. 7, 1919—Rockbrook Farm Dispersion Sale, South Omaha, Neb. Henry C. Glissman, Station B, Omaha, Neb.
March 25, 1919—Kansas Holstein Breeders' Association sale, Topeka. W. H. Mott, sale manager.

Shorthorn Cattle.

Feb. 14, 1919—H. E. Huber, Meriden, Kan.

Poland Chinas.

Jan. 8—Henry Hayman, Formoso, Kan.
Jan. 30—Adams & Mason, Gypsum, Kan.
Feb. 1—H. E. Myers & O. L. Oshel, Gardner, Kan.
Feb. 6, 1919—H. B. Walter & Son, Effingham, Kan.
Feb. 7, 1919—Fred B. Caldwell, Howard, Kan.
Feb. 8, 1919 — Willis & Blough, Emporia, Kan.
Feb. 11, 1919 — O. B. Clemetson, Holton, Kan.
Feb. 11—Joe Schneider & T. A. Corkhill, Nortonville, Kan.
Feb. 12, 1919—James Barnett, Denison, Kan.
Feb. 13, 1919 — Herman Groninger & Sons, Bendena, Kan.
Feb. 17, 1919—Ed Cook, Mayfield, Kan.
Feb. 18, 1919—F. Olivier & Son, Danville, Kan. Bred sow sale.
Feb. 19, 1919 — A. J. Erhart & Son, Ness City, Kan.; sale at Hutchinson.
Feb. 20, 1919 — Ross & Vincent, Sterling, Kan.
Feb. 21, 1919—Bruce Hunter, Lyons, Kan.
Feb. 22, 1919 — Bert E. Hodson, Ashland, Kan.; sale at Wichita.
March 4, 1919—Schmitz Bros., Seneca, Kan.
March 5, 1919—Jones Bros., Hiawatha, Kan.

Duroc Jerseys.

Jan. 28—W. R. Huston, Americus, Kan. Duroc dispersion and general farm sale.
Feb. 14, 1919—W. W. Zink, Turon, Kan.
Feb. 26, 1919—John W. Petford, Saffordville, Kan.; sale at Emporia.
Feb. 27, 1919—W. W. Otey & Son, Winfield, Kan.
Feb. 28, 1919—Wooddell & Daner, Winfield, Kan.

Spotted Poland Chinas.

Dec. 17—Geo. Akens-Failer & Miller, Rossville, Kan.
Feb. 25, 1919 — Everett Hays, Manhattan, Kan.

Chester Whites.

Feb. 11—Arthur Mosse, Leavenworth, Kan.
Feb. 27, 1919 — Henry Murr, Tonganoxie, Kan.

D. L. Dawdy, of Arrington, Kansas, and Ed Stegelin, Straight Creek, Kansas, have claimed December 19 for their annual sale of Shorthorn cattle. The sale will be held in Holton, Kansas, in a comfortable sale barn, and the Jackson County Breeders' Association will tender a banquet in Commercial Hall on the evening of December 18. The sale offering will include a lot of breeding cattle, including cows and heifers. Several cows have calves at foot and all bred to drop calves early in the spring. All will be registered and bred to good bulls, such as True Sultan, the grand champion double-standard Polled Durham bull at the head of Mr. Stegelin's herd, and a son of Rosedale used by Mr. Dawdy. The contributors are D. L. Dawdy, Arrington, Kansas; Ed Stegelin, Straight Creek, Kansas; John Conlon, Atchison, Kansas, and John Q. A. Miller, Muscotah, Kansas. This offering promises to be one of the best lots of useful farm cattle to be sold in any sale this fall.

Charles A. Tilley, of Anasdale Farm, Frankfort, Kansas, owner of one of the heavy producing herds of Jersey cattle in the Southwest, reports that his herd will close the year with a fine record. This is one of the Kansas herds that from foundation up has been bred for production, and a feature of the herd at this time is the large number of record-bred animals.

B. W. Conyers, of Marlon, Kansas, reports his fine herd of pure-bred Duroc hogs doing well. He also reports a good demand for high class Duroc breeding stock. Mr. Conyers owns one of the richly-bred Duroc herds in Kansas and this year his sales of breeding stock have passed all previous records.

POLAND CHINAS

ERHART'S POLAND CHINAS

Have a great lot of spring boars for sale. Some by the 1200-pound, A Big Wonder. Will make prices on pairs and trios not related. All immuned. Write your wants. Bred Sow Sale Feb. 19, 1919.

A. J. ERHART & SONS
NESS CITY, KANSAS

Deming Ranch Poland Chinas. Big-Type Poland China Hogs

For Sale—Fifty spring boars, real farmer boars and herd boar prospects; 100 bred sows and gilts. Write or come and see our herd.

Deming Ranch, Oswego, Kan.
(H. O. Sheldon, Herd Manager)

BIG-TYPE POLAND BOARS

For Sale—Real pork producers of excellent blood lines and large litters. Some by Kansas Champion, others of the noted Buster blood. Bred gilts, tried sows and baby pigs, perigreed, vaccinated, and priced reasonable for quick sale.
ISAACS STOCK FARM, PEABODY, KAN.

BIG BONED POLAND CHINA BOARS

By Wonder Mastodon and Alpers' Chief Price, old enough for service; $40 each. Also gilts and sows.
J. P. ALPERS - HUDSON, KANSAS

LONE CEDAR POLANDS

Strictly big type March and April pigs, either sex. Nothing but tops shipped. Prices reasonable. Guarantee to please. All cholera immune. **A. A. MEYER, McLouth, Kansas.**

LANGFORD'S SPOTTED POLANDS—April boars ready to ship; also summer pigs.
T. T. LANGFORD & SONS, Jamesport, Mo.

White Oak Park Polands

Twenty Spring Boars for Sale by the 1,100-pound Missouri Jumbo and Surprise Wonder. Three of the tops at $75, the rest at $50. All cholera immuned and will be recorded in buyer's name. I have two full brothers to Northern Jumbo, the first prize and reserve grand championship pig. All sales guaranteed as represented or your money back.
HENRY KOCH - EDINA, MISSOURI

Townview Herd Poland Chinas

Ten Rugged Spring Boars, weight about 175 pounds, at $50 each. **Eight March and April Boars,** weight 135 to 150 pounds, $40 each. These boars are immune, heavy-boned and ready for business. Send check and get hog guaranteed to please you.
CHAS. E. GREENE, PEABODY, KANSAS

Henry's Big Type Polands

March and April pigs sired by Mammoth Orange, Smooth Prospect and Big Bob 2d, out of sows the best of big type breeding. Everything immune.
John D. Henry, Route 1, Lecompton, Kansas

HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that weigh and win. S. C. Brown Leghorn Chickens that lay. See or write
S. Y. BURKS, BOLIVAR, MO.

HAMPSHIRE HOGS

PURE-BRED HAMPSHIRES—
Thrifty March boars, $50 each.
F. B. Morlan, R. R. 1, Courtland, Kan.

Registered Hampshire Hogs—Sows and Spring Gilts, bred or open. Choice spring boars. Double treated. **Geo. W. Ela, Valley Falls, Kansas**

Real Estate For Sale

FOR SALE

320-Acre Farm, 100 acres wheat, well improved; less than three miles from a good county seat town. Price, $80 per a. Terms.
BEAN & STILES LOAN COMPANY
Garnett, Kansas.

320 Acres, Part Now in Wheat

Five-room house, small barn, large part in bluegrass pasture; creek crosses this land; some little timber. One of the best bargains in all Eastern Kansas. Price, $47.50 per acre; $4,000 cash, balance long time, low rate. Address
THE ALLEN COUNTY INVESTMENT CO., Iola, Kansas

JERSEY CATTLE.

REDHURST JERSEYS

FOR SALE—Noble's Jolly Actor No. 155761. Solid color, born October 14, 1916. Sire (the imported son of Golden Jolly), Golden Jolly's Masterpiece No. 86295, with six tested daughters out of Noble's Eminent Jess, a R. of M. cow whose dam is also in the R. of M. and whose sire, Noble's Oxford Sultan No. 106403, with six tested daughters, seven of Noble of Oakland's with 65 tested daughters and whose dam is in the R. of M. and since by Sultan's Oxford Lad, his great dam also in R. of M. Also a few calves and yearlings of like breeding. The home of the only living son of Golden Jolly in America.

Redmon & Son, Tipton, Mo.

ANASDALE FARM

Offers yearling Jersey male, solid yellow, black tongue and switch, exceptional individual. Sire, Royal Missel's Torono, grandson Hood Farm Torono with 73 tested daughters and 21 proven sons. Dam, Pretty Kansas Gity, 500 pounds butter. Come or write.
CHAS. A. TILLEY, FRANKFORT, KAN.

100 Good Jerseys for Sale

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.
J. W. BERRY & SON, Jewell City, Kan.

THE STRAY LIST.

TAKEN UP—ON THE FIRST DAY OF September, 1918, by Fred Manninger, residing six miles north of Anthony, Kansas, one horse colt, color black, weight about 700 pounds; white spot on forehead; appraised at $50. C. E. Kennedy, County Clerk. Anthony, Kan.

TAKEN UP — BY WILL WALDEN, OF Whitewoman Township, Wichita County, about the 15th of August, 1918, one red whiteface heifer two years old; underbit on right ear; blurred brand on left hip. Grover C. Lonberger, County Clerk.

TAKEN UP—ON THE 10TH DAY OF November, 1918, by Tobe Harold, 1527 North First Street, Kansas City, Kansas, one gilt, weight 135 pounds; red with black spots; appraised at $35. William Beggs, County Clerk, Wyandotte County, Kansas.

TAKEN UP—ON THE 18TH DAY OF April, 1918, by Albert H. Eshelman of Ramona, Colfax Township, Marion County, Kansas, one heifer, color red with white face, weight 500 pounds; W brand; appraised at $40. J. H. Alexander, County Clerk.

TAKEN UP — BY I. B. SHRINER, OF Geuda Springs, Sumner County, Kansas, on the 17th day of June, 1917, one pony mare, color bay, weight 1,000 pounds, branded 101L on hip, appraised at $50. Also one pony mare, color bay, weight 1,100, branded 102 and 437L on neck, 101L on hip, appraised at $50. James H. Large, County Clerk, Wellington, Kan.

Getting Facts About Farming

It has been found extremely difficult to get at the actual production costs of the various farm crops. Accurate information would have been of the greatest value in connection with setting forth the claims of farmers during the past year. This is a job that might well be taken up by farm organizations of all kinds. We notice that the farm bureaus in Kansas, or many of them at least, are making an especial effort along the line of getting actual figures on the cost of producing various products. F. Joe Robbins, county agent of Franklin County, reports the placing of eighty books with farmers at the beginning of the year for the purpose of keeping farm accounts. Some of these were covering some particular farm enterprise, such as dairying, cattle feeding, or wheat growing. A question that has been coming up constantly has been the cost of producing these various products, whether it has been a bushel of wheat, a pound of pork, beef, or butter fat. Farming communities and farming organizations ought to be able to answer and to back up their statements with proof.

Legitimately conducted business of any kind is not likely to be in danger of adverse legislation in the reconstruction period unless that industry is misapprehended. There is a possibility that the farming industry might be misunderstood, and we have grounds for this belief from the many public expressions relative to the present prosperity of farming as a business. Farmers' organizations, of whatever kind, could do no more appropriate piece of work under present conditions than to systematically prepare and accumulate reliable information concerning the business they represent.

As an example of what such figures would mean, the story told by a bunch of cost account records kept by Missouri farmers under the direction of their agricultural college will be of interest. These figures have to do with the approximate average profits from corn growing as a cash crop in Missouri over a ten-year period. By taking average yields for the state and applying the cost figures collected from the farmers' accounts, the profit on an acre of corn above the cost of production has been averaged as shown in the following table:

Year.	Profit per Acre.	Price per Bu.
1907	$3.42	.45
1908	3.94	.56
1909	3.28	.56
1910	2.71	.43
1911	3.34	.58
1912	2.53	.46
1913	0.17	.74

The striking thing in this table is in the comparisons between the profit per acre and the price per bushel. In spite of the greatly increased price received for corn in 1913 over that received in 1907, the profit per acre has dropped from $3.42 to 17 cents.

Make Hens Comfortable

If you expect to get winter eggs you must provide comfortable quarters for your hens. This is nothing new to the experienced poultryman, but it was never more important than now, because the hens are going right on eating grain, even if it is high priced. Comfortable does not mean costly. The cheapest kind of poultry shack may be made comfortable, and the most up-to-date house may be uncomfortable if management is lazy and careless. Any one can make hens lay in winter if the desire is strong enough. Indifferent management means indifferent hens every time, and some say most farm flocks are indifferent from all standpoints. Do most farmers want them to be so?

DUROC JERSEYS.

IMMUNE DUROC BOARS

Duroc Boars, immune and guaranteed breeders, shipped to you before you pay for them. The big Southeast Nebraska herd bred for size, bone and length. "Eventually" you will breed the "Crocker Type." "Why not now?"
F. C. Crocker, Filley, Nebraska
Box K

DUROC BOARS

For Quick Sale — 25 Head of Large Spring Duroc Jersey Boars, of March and April Farrow

Sired by Illustrator Orion 3d, Pet's Great Wonder and Cherry King Disturber. Priced reasonable and guaranteed right in every way or your money back. Write me your wants.
JOHN W. PETFORD
Saffordville - - - Kansas

DUROC BOARS

For Sale—A few choice spring boars, selected from forty head. Sired by a son of Great Wonder, a son of Illustrator and Cherry King Disturber. A few gilts, same breeding, priced bred or open.
W. A. Wood, Elmdale, Kansas

40 DUROC JERSEY BOARS

Cholera immuned, of rare breeding and excellent individuality. Grandsons of the two grand champion boars of Iowa. None better.
W. R. HUSTON - AMERICUS, KANSAS

LEGAL TENDER DUROCS

Durocs for Sale Reasonably. March and April service boars weighing about 170 lbs., $40; May, 130 lbs., $30; trio Sept. pigs, male, two sows, not akin, $50. Liberty bonds same as cash. J. E. WELLER, Faucett, Missouri

HIGHVIEW DUROCS

Home of Repeater by Joe Orion King and Golden Reaper by Pathfinder. For sale—spring boars and a few bred gilts. I guarantee satisfaction or your money back.
F. J. MOSER - - - GOFF, KANSAS

DUROC BOARS OF QUALITY

Choice March boars, sired by the great herd boar, Reed's Gano, first prize boar of Kansas and Oklahoma State fairs. Also Illustrator 2nd and Golden Model. Fine growthy boars, well built and nice color. All immuned. Priced to sell quickly.
JOHN A. REED & SONS, LYONS, KANSAS

WOODDELL'S DUROCS

Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.
G. B. WOODDELL, WINFIELD, KANSAS

Ellen Dale Breeding Farm

Offers Duroc Jerseys of blood lines of Watson's Wonder, Ideal Pathfinder, Crimson Orion King and Joe Orion 5th, also a one-year-old herd boar, a grandson of King the Col., and one-year sows bred or open. Also Shorthorn bulls.
R. C. WATSON - ALTOONA, KANSAS

R. H. DIX & SON'S DUROCS

For Sale—One choice spring boar, a real herd header. Twelve spring gilts bred to Giant Crimson by G. M.'s Crimson Wonder, a prize winning boar. Priced reasonable for quick sale. Write today.
R. H. DIX & SON, HERINGTON, KANSAS

HOLSTEIN CATTLE.

DR. AXTELL'S CONSIGNMENT TO WICHITA HOLSTEIN SALE DECEMBER 12 INCLUDES:

A very large, straight cow, more than half white, with record of 18.31. Has given over a ton of milk in a month. Heavy springer.

A heavy springing three-year-old heifer that has already given over 2,000 pounds of milk in a month. By a 33-pound bull, and her dam has record of 28.20 and sold for $1,000.

A splendid daughter of Tidy Abbekerk Prince, with a seven-day record of 21.11. Just fresh, and a wonderful milker.

A wonderful daughter of King Burke Hengerveld, out of a 20-pound dam. Has two-year-old record of 16.83. An extremely heavy milker. Just fresh.

A splendid two-year-old heifer, by a 33-pound bull and her dam by a 33-pound bull. This heifer gave over 1,800 pounds of milk as a two-year-old and is just fresh again.

Ten Head, and These are Only Samples
DR. J. T. AXTELL - - - - - NEWTON, KANSAS

REGIER'S HOLSTEINS WILL BE SOLD AT WICHITA SALE DECEMBER 12

Herd Bull, Sir Rag Apple Korndyke De Kol No. 160419
(First daughters will be tested this month)

His son twelve months old, one of his daughters 22 months old fresh next spring, and two extra A. R. O. cows three and six years old to freshen in December and January.

G. REGIER & SONS - - - WHITEWATER, KANSAS



SAND SPRINGS FARM

Registered Holsteins—The Long Distance Kind
Watch for our consignment to the State Breeders' Sale, November 1.
E. S. ENGLE & SON - ABILENE, KANSAS



For Two Thousand Years

the people of Holland have been developing the Holstein-Friesian breed of dairy cattle. They have developed a breed that most economically turns large amounts of coarse fodder into valuable dairy products, and is valuable for beef purposes. Holstein-Friesian cows exceed all others in milk and butter production and return a greater profit upon the cost of their feed.

If interested in
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THE KNOW-HOW OF ORCHARDING

Some Pointers on Handing Young Orchards and Growing Apples

From Address Before State Horticultural Society
By George T. Groh, Jr. Wathena, Kansas

THE great interest in orcharding which developed during the latter part of the first decade of the century is still at its height. Men from all walks of life are turning toward orcharding as one branch of farming in which they would like to engage. Wealthy men are setting out commercial orchards on their estates, farmers in orchard sections are enlarging their fruit plantations, while the small producer is putting out a few hundred trees to add to his income aside from his farm products. No wonder that the future prospectors are shaking their heads and wondering as to what the outcome will be. No wonder the most enthusiastic advocates of orcharding are speculating as to whether it may not be overdone.

It is a well-known fact, however, that the general public is dependent upon magazine and newspaper articles for information, and while such articles undoubtedly strive to give the truth about the conditions, there is a possibility that part of the conditions may be misread by the reporters, who frequently are not well acquainted with orcharding. If in a certain community a grower sets out fifty acres of orchard, the fact is given considerable space in local papers and is usually copied by other papers, and in this way assured of widespread publicity. If during this same time his neighbor is cutting out one hundred acres of orchard which has become unprofitable, the fact is hardly mentioned by the local paper and is seldom copied by others. There is no attempt to criticise the papers for this policy of bringing to the attention of the public the things which will be of the greatest interest, but in this way a false impression may easily be gained by the reader. It must be very plain to a fruit grower that this condition is especially true of the Central States, for a trip through any of the Missouri or Mississippi Valley states reveals orchard after orchard being removed or in its last stage of bearing, while it is seldom that one of commercial size is being set out. In the East and the extreme West, however, the condition is reversed, and undoubtedly these sections will be gaining in acreage for several years, and it is the heavy plantings in these localities that are causing the growers the most concern.

While there undoubtedly has been a wonderful interest in the fruit business in recent years, and while many who have gone into it without sufficient thought and preparation will be disappointed, and while we may even have to admit that the price of fruit is likely to decline, yet it still seems to the writer that for the right man in the right place with the right methods, the growing of fruit offers a healthful and delightful occupation with at least a reasonable assurance of satisfactory financial returns. Let us examine the situation briefly and see what ground there may be for such a belief and what conditions one must fulfill if he is to be successful.

There are several methods by which we may judge the overproduction danger. First, the United States census of 1900 reported 201,794,000 apple trees of bearing age as against 151,383,000 trees in 1910, a decrease of 50,471,000, or 33 per cent. Missouri, the leading state in the Union in bearing trees, in 1910 had 14,360,000 trees, this being a decrease since 1900 of 5,680,000 trees. Kansas reported 6,930,000 trees of bearing age in 1910, against 11,848,000 in 1900. In 1910 there were 2,937.000 trees of bearing age in the state of Nebraska, while in 1900 the number was 3,877,000 trees. These figures seem to indicate that it will be several years before we get back to our former standard, and we must not forget that while the production of apples has been declining, the population has been increasing, and it will require a much larger production of apples to supply the present population with as many apples per capita as we furnished previous to the general decline of our former acreage.

Passing from Uncle Sam's estimate to the estimate of less important persons, we find that many orchards which were set out with high hopes a few years ago are already abandoned as hopeless. The writer himself can think of dozens. This was inevitable, considering the people who set them out. They were men who knew absolutely nothing of orcharding and planted varieties which were not in demand by the consuming public.

Another thing which will help to delay this dreaded time of over-production is the constantly increasing list of orchard pests, those which attack the tree itself being especially instrumental in holding the acreage of profitable bearing trees low. The blister canker, or Illinois apple-tree canker, is becoming one of the most serious of all diseases. It is causing a loss greatly in excess of such pests as the San Jose scale, for strict quarantines have been established by law. Canker usually attacks the tree about the time it is reaching its most profitable bearing age, and causes the rapid death of many varieties which are especially susceptible. The black rot is becoming a serious wood disease in the East, and the Pacific Coast canker is becoming destructive in the West.

Aside from these tree diseases and the many insects which feed upon the woody part of the tree, there are hordes of insects and fungous diseases which attack the fruit itself, and are responsible for the loss of millions of bushels annually. It is little wonder that many inexperienced growers become discouraged after a few years of ineffectual attempts to produce good fruit under these conditions, and allow the orchard to stand unprotected, or cut down the trees and plant crops which are better understood.

Apples will grow on a great variety of soils, but most kinds do best on deep rich clay or loams. Soils very rich in nitrogen should be avoided, as they will produce too much wood growth at the expense of fruit. However, very few soils are too rich for apples. Many farmers plant their trees on the poorest and roughest piece of land on the farm, because such soil will not produce other crops profitably. If the trees do not produce good fruit in a few years without any attention, the orchard is abandoned and the farmer says fruit growing is a failure. Does he expect this of other crops, and has he a right to expect it of apples? Give the apple trees the care and attention that other crops get and they will respond by producing profitable crops of fruit. It is a mistake to expect trees to grow well on poor soil, for plant food is just as essential to tree growth as to growth of corn or wheat. It requires a large quantity of food to produce a crop of trees, and even a greater quantity to produce the fruit.

It is believed that different varieties have adaptations to different soils, which adaptations, if known, would guide the orchardist in the selection of a site for an orchard, or the selection of varieties suited to any particular soil he may possess. Therefore I will only slightly touch the subject of varieties, as it is best to plant only varieties which do best in your territory.

In the first place, much depends on whether the planter wants a family or commercial orchard. If he is planting a family orchard it is best to plant only those varieties which do best in his district, and choose one or more trees of the very earliest varieties that will mature later, so that the fruit will be fit for use each month until late in autumn, when he will pick and store his winter fruit. In planting a commercial orchard he may largely disregard his own taste and that of his family and select only those varieties that are heavy and regular bearers, good keepers, good shippers, and those that bring high prices on the market. In doing this he is deferring to the demands of the market and is planting those varieties for which the public will pay the highest prices. Such varieties as the Jonathan, Grimes Golden, Winesap, Delicious, Gano and Ben Davis do well in this orchard district and have proven to us that they have been money-makers in the past and still have a good future. About the safest way for the planter is to take the advice of the professor of horticulture in the nearest experiment station, and of his neighbors, in order to know what results have been obtained by those who have tested the varieties in that section. For commercial orcharding it is better to plant but few varieties, say three or four varieties, and plant them alternately. In that way cross-pollinization will improve the quality and the quantity of fruit. Considering the value of an orchard of good commercial fruit, and considering the time it takes to bring it into bearing, the importance of wise selections is evident; but how to advise involves so many local questions that it is a difficult undertaking.

As a rule, the thing for the inexperienced man to do, if he is sure that he wants an orchard, is to work with some practical orchard man until he acquires a reasonable knowledge of the business. Right methods are only less important than right men. The writer has tried to suggest some of the things which he thinks are of importance. Even the best men with the best methods cannot succeed if they ignore too much the question of the right place. An unadapted soil, a frosty location and undue exposure to fierce winds, add much to the failures of the man who grows fruit.



"GIVE THE APPLE TREES THE CARE AND ATTENTION THAT OTHER CROPS GET AND THEY WILL RESPOND BY PRODUCING PROFITABLE CROPS OF FRUIT"

Prominent Granger Dies

A. P. Reardon, whose death occurred last month at his home in McLouth, was one of the prominent men of Kansas. He had been actively identified with Grange affairs in the state and nation for many years. He had been selected as a delegate to the National Grange meeting and had made all his plans for going, when he was stricken with influenza. For a number of years he was Master of the Kansas State Grange. He will be sadly missed in the Grange councils of the state.

MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Tractors in Great Britian

THEN the facts are fully known, the achievement of Great Britain in stimulating food production will astonish the world. The inception and management of the Food Production Department has set an example for initiative and performance which will long be remembered as one of the big feats of the war.

In 1916 Great Britain had millions of acres of land set apart for golf and cricket courses, hunting preserves, grass and meadow lands. It was decided to put three million acres of this under the plow. During 1917, 790,000 acres were reduced to cultivation, and during 1918 the magnificent total of 2,400,000 slacker acres were put to work for the British Empire. Assuming that these acres yielded an average of fifteen bushels, assuredly a very conservative figure in view of the fact that it is all new land the first time under cultivation, the acreage which the food production department has given to Great Britain means a yield of 32,400,000 bushels of victory wheat.

The food production department which accomplished this marvelous feat is controlled by a general director, assisted by a staff in London and an outside organization composed of what are known as county organizers. The country has been divided under these county organizers to such an extent that the director general knows daily just what is going on in every part of the kingdom.

The production department, through the ministry of munitions, agricultural department, has purchased large supplies of tractors and other farm machines. At Liverpool the department maintains an erecting depot where tractors and plows are assembled and shipped to various parts of the kingdom. Here soldiers not qualified for general service are utilized in the erection and educated in the use of machines.

The tractors and plows are not sold to the farmers, but remain the property of the government. They are used in this way—the county organizer for each county, who is usually a large implement agent or passenger car dealer, is given full charge in the county of all tractors, plows, and other machinery belonging to the government. The organizer is allowed a margin per acre, which is said to be very small. He has several district men under him, usually implement agents, who look after the tractors and other machinery in their districts and keep everything going. They report to him the names of farmers who are short of machines, labor or power. To these points he immediately sends tractors and plows. Along with the tractors and plows come soldier operators, oil, fuel, and all necessary supplies. The farmer pays on an average of fifteen to twenty shillings ($3.60 to $4.80) per acre, according to whether the land is level or hilly and whether the soil is light or heavy. This charge includes labor, oil and fuel as well as equipment.

All tractors are worked in units and the soldiers are under military discipline. They receive army pay but are kept by the farmers for whom they are working. Women and girls have also been educated in the use of these tractors and plows and are doing splendid work. Some are hired outright on many farms and others work without pay.

As a check-up on the whole system, the government has individual inspectors who visit all units occasionally and report direct.

The government, in order that it might create a friendly competition among tractor operators and increase the acreage plowed and cultivated, has established the custom of offering prizes to the unit plowing the most land in a week or a month. County organizers also have offered some prizes. The results of the contests are published far and wide in the newspapers, farm and trade papers in Great Britain. In many cases photographs of the winning units are published. These things possibly more than the actual value of the prizes serve to stimulate the men to do their best work.—Tractor Farming.

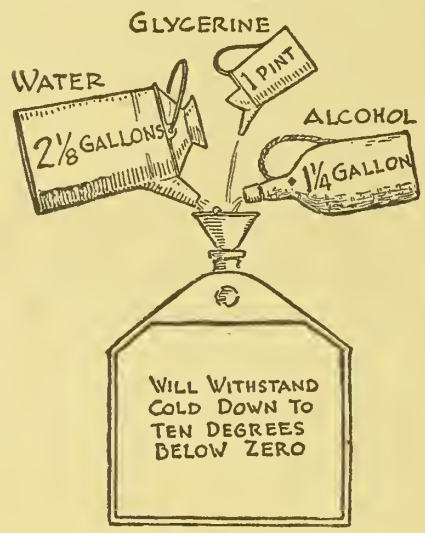
Overheating in an engine may be caused by defective water circulation, clogged radiator, improper lubrication, or incorrect valve or spark timing.

Motor Trucks Valuable

The motor truck must not be overlooked as a farm helper. This year of congested traffic, what would have become of food distribution but for the truck which relieved the freight car? Farmers and consumers have had cause to bless the motor truck this season as never before. When the freight situation shall have cleared, the farmer will still cling to his truck because he finds that what he resorted to in desperation serves his needs better than the freight car can.

This, of course, applies only to limited distances, such as the trucker, dairyman, fruit grower and others must consider. Good roads appear where motor trucks are needed. The tractor is found to be ideal for road construction. It saves time and money and makes better roads than can be built with the aid of a horse team.

Side by side in France work the tractor and the army truck. The first saving the stricken land from famine, the second transporting troops, guns, ammunition, food, in short every essential to the conduct of the war.—American Fruit Grower.



Protect Engine from Freezing

In cold weather the water must be drained from jackets and circulating system of the automobile engine by opening all pet cocks when the car is left standing. If it is not practical or convenient to do this, use some non-freezing mixture for cooling. Such mixtures can be purchased ready prepared. A mixture of one part denatured alcohol to four parts water will freeze at ten degrees above zero. One part alcohol and two and one-third parts water will freeze at five degrees below zero, and one part alcohol to one and one-half parts water will not freeze until the temperature goes to twenty degrees below zero.

Overhauling Farm Machinery

The high cost of farm machinery undoubtedly has resulted in the carrying over of a large amount of old equipment for use next spring. With the fall work well out of the way, attention should now be given to the repair of all this equipment. Farmers' Bulletins No. 946 and No. 947 give detailed information as to the repair of plows, harrows, mowers, and binders. Copies of these bulletins will be sent to any one making application for the same to the Division of Publications.

Special attention should be given to the iron boxes in the hubs in the iron wheels of plows, planters, cultivators, hay rakes, and similar tools. These boxes are replaceable and can easily be removed by unscrewing the large nut on the outside of the wheel that holds these boxes in place. When this nut is removed a few taps of the hammer will usually drive the box out of the hub and a new one can easily be inserted. These boxes are numbered, so that it is not a difficult matter to obtain duplicates from the local implement dealer. However, it may be necessary to order these from supply houses in distant cities, and it is advisable to attend to this matter at once, so that the new boxes can be put in the wheel before the tools are needed for next spring's work.

If the axles are badly worn on the under side, sometimes they can be reversed and turned upside down, or they can be replaced with new axles. Where this is impossible, they can oftentimes be repaired by using babbitt metal.

After the equipment has been thoroughly overhauled and repaired, it should be given a good coat of paint. If the old paint is gone or badly worn, it is advisable to apply a coat of linseed oil with a small amount of paint as the first coat over the woodwork. After this is thoroughly dried, a second coat can be applied over the entire machine. Moldboards and shares of plows, the steel teeth or sweeps of cultivators, should be smeared with cup grease or wagon grease so as to prevent their rusting. Put the implements under cover, where they will be protected from the weather. Oftentimes the implement can be taken apart or the wheels removed to economize space for storage.

Starting Engine in Winter

In cold weather the gasoline or other fuel used in an internal combustion engine vaporizes very slowly. Unless the fuel is mixed with the air as a vapor, the engine will not start when cranked. Usually priming the cylinders with a liberal amount of high test gasoline, letting it stand for five minutes before attempting to turn the engine over, will start the motor. Unless the engine cylinders are very cold, the gasoline will vaporize enough to make an explosive mixture. Another method is to pour hot water in the radiator. Hot water poured over the carbureter will cause the gasoline to vaporize as it is drawn into the cylinders. Ether vaporizes very quickly and at low temperatures and can be used in priming, but is expensive.

Overseas Gasoline Demand

Since the signing of the armistice the overseas demand for motor transport grade of gasoline has increased rather than diminished. The motor transport grade and the two aviation qualities are chief items in the overseas demands upon American supply sources. Aviation demands have greatly increased. Overseas demands as well as domestic requirements will have a considerable bearing upon any decision as to whether it is desirable to fix a standard of quality for domestic motor gasoline. The Fuel Administration has for some time had under consideration the question of a domestic standard.

An automobile engine will start more easily if the air is throttled just as the engine stops, thus leaving a rich mixture in the cylinders.

The good tractor is raising hob with the poor horse, and the good horse is raising Ned with the poor tractor. Both forms of farm power demand the best.

Doesn't Need Crutches Now

In the Santa Fe Magazine the story is told of a boy eleven years old—the little brother of a soldier—who had walked on crutches all his life. When he fell and broke them it was a real calamity, as the family did not have enough money to buy new ones. They confided their trouble to the home service section of the Red Cross. Instead of helping to get another pair of crutches, the worker there took the child to an orthopedic surgeon who said he could help him by an operation. The boy was eager at the prospect of being like other children. He is that now, running and jumping, and every time the big brother in camp sees the sign of the Red Cross he thinks of the little fellow at home who will never need crutches again.

"De mule has too much de best of it," remarked Mr. Erastus Pinkley. "If I lays hands on it dey'll have me up befo' de Animal Prevention Society. But spos'n de mule kicks me."

"What then?"

"He ain't gwine ter git reported. All my friends jes' laugh and ack like dey thought de mule showed good judgment."

If your engine knocks, look for the following: Too rich a mixture of fuel, too much spark advance, carbon deposits in cylinders, loose or worn bearings, loose flywheel, or lack of lubrication.

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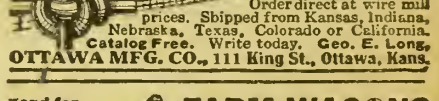

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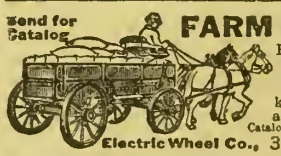

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HOG PRICES TO CONTINUE

The present minimum of $17.50 on hogs on the basis of Chicago has been guaranteed to continue through the month of January. This action was taken at a conference in Chicago last week attended by J. H. Mercer, representing the meat producers of Kansas, and W. L. Brown of Kingman, member of the agricultural advisory committee of the Food Administration. In fixing this minimum, hogs under 150 pounds weight will continue to go in as "throw-outs." This of course means that there is no guarantee on these light unfinished stock hogs. They must be sold for what they will bring. This regulation is in line with the policy of the Food Administration to discourage in every way possible the premature marketing of unfinished hogs. Of course in the sections where grain was not grown in sufficient quantity to finish the hogs for market, many pigs must be sold. The demand for stock hogs has been fairly steady, this demand coming from parts of the country where there is plenty of corn to finish hogs for market. It is not likely that many unfinished pigs will be slaughtered, and the prices paid will in all probability be high enough to protect growers from sustaining any great losses.

There has been a rather insistent demand for the announcement of a guaranteed price for a longer period ahead, and this announcement that the minimum of $17.50 is to continue up to February will be favorably received by hogmen generally. It will allay any feeling of uncertainty as to what hogs now being fattened will bring when ready for market.

It would seem that the Food Administration has enough information to warrant a definite announcement as to price on hogs for several months ahead. We know that the problem of furnishing pork and fats for Europe will be with us for months to come. Mr. Hoover has given out very definite information as to the needs, and it all points to a demand for all the pork in sight for some time to come. The Food Administration of course dies with the official end of the war, and only in the matter of wheat is there any provision made for any sort of a guarantee after the Food Administration ceases to exist.

The hogman knows full well what will happen if he is suddenly left to the mercy of the packers in the matter of prices. He is wondering whether the Government after getting him out on the end of a limb is suddenly going to saw the limb off. In view of the apparent need for a continuation of some method of handling the provisioning of Europe during the reconstruction period, it is likely that congressional action will be taken which will lead to some sort of a control in the matter of handling food products for export after peace is signed.

UNIVERSAL MILITARY TRAINING

Militarism has ever been the tool of autocracy. Ever since the Hohenzollerns started on their career of world domination and adopted the policy that might makes right, the soldier has been the instrument used to force injustice and wrong upon neighboring nations. The policy of these autocrats, of which the ex-kaiser is the last, could not be carried out without developing an arrogant military class. The whole social structure of Germany has been built around the military classes. Under this system the most eminent leaders in the arts and practices of peace were inferior to the merest whipper-snapper of a second licutenant in all affairs where a question of precedence was involved. Under this intolerable system and because of it the great war was fanned into flame. A successful war was the only hope of perpetuating the system and saving the autocratic rulers from being compelled to grant some measure of democracy. Now the whole structure has crumbled like a house of cards. Militarism has been defeated by the citizen soldiery of the democratic nations of the world.

Now that we have destroyed this hateful system as it had grown up in the Central Powers of Europe, there is grave danger that we may actually embrace, in some degree at least, the same sort of a thing that was so effectually used by the world's autocrats to perpetuate their rule of "might makes right" through all these years. There are those who are now using the fact of our unpreparedness for war as an argument for starting on a career of militarism in this country. Propagandists are most adroitly insinuating the idea into the public mind that our school system should provide for military training; that all our boys must be trained as soldiers. Surely the farming population of this country, the most democratic class of all our people, will not submit to this entering wedge in a career of militarism.

Military training in the schools is not desired because it is necessary to the making of a good soldier, but rather because it keeps the military idea uppermost and would gradually lead to an acceptance of the whole program of militarism. We are likely to be brought face to face with this question in the near future. The military propagandist will sieze on the present time when we are welcoming our soldiers home and listening with pride to the stories of their deeds of valor as the psychological moment to fasten a permanent military system upon us. We wonder what will be the ideas of these men who have seen the thing at close range. Will they back such a program for this country? It is well to do some clear and sound thinking and not be carried off our feet in a wave of emotionalism.

The action of England in the matter of military training in the schools is most significant at this time. After four years of fighting and sacrifice, during which time her people have gone through experiences in the awful struggle which we cannot even faintly imagine, England has definitely and positively refused to permit military training to become a part of its educational system. We can also point to the investigations of an educational commission in this country which has gone into the question and condemned the idea without reserve. We refer to the State of New Jersey, where as in other states demands were being made for military training being introduced into the schools. This commission made its report to the 1917 legislature, and it contained any number of good and sufficient reasons for not inaugurating a scheme of military training in our schools. Military discipline consists in yielding instant and unquestioned acquiescence to the commands of someone in authority. This is absolutely necessary in military service, but in the education of the young, training of that kind will offer not the slightest stimulus to independent thinking, which is probably the most important faculty to cultivate in developing the boy and the future citizen of a truly democratic nation. The physical training is a feature of the education of a soldier that is valuable, but there are many other ways of giving school boys better exercise for their development than such as they would get from training in military tactics. This New Jersey commission found that in England the prime need in making its men into soldiers was not military tactics but a thorough conditioning physically in order that they might stand the hardships of the battlefield. An alarming percentage of physically unfit was found in this country as a result of the physical examinations given enlisted and drafted men. The adoption of a comprehensive nation-wide program of physical education for children and youths to be aided by Government appropriations was advocated before the national conference on child labor recently held in New York. Dr. Willard S. Small, school hygiene specialist of the United States Board of Education, pointed out that there are now twenty-five million boys and girls, six to nineteen years of age, marching along the great highway of youth, and that numerous investigations have shown that at least 50 per cent of these have defects that impede normal development.

The Boy Scout movement is looked upon by some as a military organization, but the uniform is the only suggestion of the military idea. "Be prepared," is the motto of the scout, but it centers around the idea of taking care of himself physically in the open and of furnishing a similar service to others. Sir Baden Powell, the founder of the Boy Scout organization, himself a soldier, said: "Drill a schoolboy and spoil a soldier." Let us have physical training of the most thorough and systematic kind for all, but no more strictly military training than is needed to furnish officers for our necessary army establishment.

It has been said many times that in the great issues which have come up in the development of this nation, farmers have always done clearer and better thinking than any other class of our population. Let us not be caught unawares and be swept off our feet in this issue that has come upon us so suddenly.

JOIN THE RED CROSS

MILLIONS of dollars and the patient labor of many people will be necessary to overcome the awful blight that has come as a result of the war. In the performance of this great task the Red Cross goes to the suffering ones as an angel of mercy. The appeal for membership in this great organization comes at the approaching Christmas time when the message of "Peace on earth and good will to all men" goes forth throughout the world. Men with death-dealing weapons in their hands will not be glaring across No Man's Land this year with hate in their hearts as they have done at Christmas time for the last four years, but the misery and suffering resulting from the awful strife has not ended. The need for relief has never been greater. The Red Cross, the greatest and most efficient humanitarian organization the world has ever known, stands ready to minister in the name of a common humanity. The appeal for universal membership is well named "Christmas Roll Call," for how can we better exemplify the spirit of Christ than by contributing our money and sympathy to the support of Red Cross work. Let us make it truly a Christmas Roll Call, with every individual citizen answering "Present."

G. C. Wheeler.

THE RETURNING SOLDIER

A good deal is being said about the returning soldier going into agriculture instead of back to other industries. It is pointed out that this was the case following the demobilization of the armies at the close of our Civil War. Conditions are vastly different now, however, and what happened after the Civil War is of little value in connection with solving the problem of the returning soldier as it exists today.

A writer representing the National Board of Farm Organizations reminds us that land for the soldier is becoming a watchword of the politicians, and intimates that those who advocate this policy should remember that the returned soldier will not go on the land to be a serf, a peasant, or a slave of the soil. They must remember that to be attractive the land must supply a comfortable living. Any land program must have a clear plan of organizing the agricultural industry so that the soldier can make a living. Unless this is done, he will go to the city.

We quote the following paragraph:

"If you want to give land to the soldier, start at once to provide the cost of production plus a fair profit for every man who is now tilling the soil. If by the juggling of the market, the re-establishment of speculation, the legal prosecutions of those who organize for the purpose of getting cost of production, you make it unprofitable for the trained farmer to live on the farm, you can never provide land for the returned soldier. He will not take that which you hold out for him. He will be a fool if he does. You would hand him something that would only cause him misery, hardship, and disillusionment. You are no real friend of the soldier if you provide land for him without giving him an opportunity to earn the cost of production plus a fair profit for his labor."

The National Grange, which held its fifty-second annual meeting in Syracuse last month, went on record against the plan of spending vast sums of money in the effort to put returning soldiers on swamp or arid lands. It denounced the plan as impracticable at the present time, suggesting rather that every effort possible be made to enable returning soldiers to make profitable use of land near established market centers. Reading between the lines of the Grange report, we take it that this organization, which has a long history of usefulness for the cause of agriculture, looks upon the plan as largely a scheme of the politicians to fool the people into believing something wonderful is being done in the interest of agriculture and the returned soldier.

It is evident that organized agriculture all over the country is thinking along similar lines. At the Kansas farm bureau officers' conference held in Manhattan recently it was made clear that something more than land is necessary to develop agriculture. One of the recommendations made in the resolutions adopted at this meeting was that extra credit be extended to returning soldiers, first by amending the Farm Loan Act so that soldiers could borrow up to 75 per cent of the appraised land value, and, second, by amending the Soldiers' Life Insurance Act so that the policy could be used as a basis for personal credit.

Until next harvest the American table must be set according to the food resources of the world and the needs of Europe.

WHERE RED CROSS DOLLARS GO

End of War Reveals Picture of Misery Such as World Has Never Known

THIS war with all its barbarous atrocities has uncovered a depravity of human nature that we would have believed no longer possible in a world we had fondly hoped was almost entirely civilized and Christian. But it has also given opportunity for the display of heroism and unselfish service for others on a scale never before dreamed of. The work of a single agency—the American Red Cross—at the battle front in France, as shown by some items from an official report covering war work up to the first of March, gives some idea of what is being done. Almost thirty-one million dollars donated by private individuals in America was used, with the following results:

Established infirmaries and rest stations along all routes followed by the American troops in France.

Built canteens for use of French and American soldiers at the front, also at railroad junctions and in Paris.

Supplied American troops with comfort kits and sent them Christmas gifts.

Established a hospital distributing service that supplies 3,423 French military hospitals and a surgical dressing service that supplies 2,000.

Provided an artificial limb factory and special plants for the manufacture of splints and nitrous oxide gas.

Established a casualty service for gathering information in regard to the wounded and missing.

Opened a children's refuge hospital in the war zone and established a medical center and traveling dispensary to accommodate 1,200 children in the reconquered sections of France. Fifty thousand children throughout France are being cared for in some measure by the Red Cross.

Planned extensive reclamation work in the invaded sections of France from which the enemy has been driven; this work now being carried out with the co-operation of the Society of Friends and an alumnae unit from Smith College.

Established a large central warehouse in Paris and numerous distribution warehouses at important points from the sea to the Swiss border for storing of hospital supplies, food, soldiers' comforts, tobacco, blankets, clothing, beds, and other articles of relief.

Secured and operate 400 motor car vehicles for the distribution of supplies.

Opened a hospital and convalescent home for the repatrie children at Evian; also established an ambulance service for the adult repatries who are now returning from points within the German lines at the rate of 1,000 a day.

Organized a nurses' service for American Army use.

Established twenty dispensaries in the American Army zone to improve health conditions in that section before the coming of American troops.

Relief Work in Switzerland

Two million dollars of the one hundred million dollar American Red Cross War Fund will have been used in Switzerland by January 1, 1919. Of the money already expended, $125,000 has been given the Swiss Red Cross for its work with refugees and $75,000 has been given the Swiss Government to aid in caring for interned Russians. Allied soldiers released from prison camps in Germany and Austria are sent through Switzerland to either France or Italy and the American Red Cross is giving aid to these men, many crippled for life, others suffering from disease. In addition, many destitute civilians pass through Switzerland. These people, mostly from the captured regions of France and from Belgium, are not only given food, medicines and clothing, but in some instances funds.

Red Cross in the Near East

For relief work in European Russia the Red Cross has spent $2,807,919. Of this, $531,000 was for milk for the babies of Petrograd, $68,975 for 125 motor ambulances, $384,163 for medical and surgical supplies. One hundred and twenty thousand dollars has been spent for the relief of refugees in Siberia and Switzerland, and for destitute families of soldiers in Russia. For the relief of 25,000 railway employes at the northern terminus of the Murmansk railroad, $179,000 was appropriated. For the relief of returning Russian prisoners, $1,511,233 was appropriated in July. In Siberia $4,273,200 has been expended. The greater part of this was for warm winter clothing, for which there was great need among the refugees and the Czecho-Slovak troops. In Roumania, in the six months between September, 1917, and March, 1918, $2,676,369 was expended. For work in Serbia, $1,244,197 has been appropriated. For Greece, $375,000 has been appropriated. An aggregate of $3,000,000 was contributed to the American Committee for Armenian and Syrian Relief, for their work in Asia Minor, and in Palestine, the appropriations amount to $590,553.

American Red Cross in England

More than three hundred thousand American troops went to France during September. Half of those boys passed through England on the way.

That is the record for one month only. Thousands and thousands of Americans have gone to France via England.

Many have stopped there for extended periods, to receive additional training in the arts of war. Many have been returned to England from the front to recuperate from their scars of battle. The American Red Cross follows American troops wherever they may go. Where necessity warrants it goes before them.

The presence of such large numbers of Americans called for relief work expenditures in England of $4,313,566 up to July 1, 1918. This immense sum has been used in the building of three Red Cross hospitals, hospital and camp service and A. R. C. canteen work in the United Kingdom. Numerous donations, amounting to $2,169,975 to June 30, have been made to the British Red Cross, which organization has given such valuable help to the American Red Cross in caring for Americans during their stay in England. A "Care Committee" of six hundred American women residing in England visits and provides comforts for wounded American soldiers. An appropriation has also been set aside for a club and hospital for army and Red Cross nurses.

Old-Fashioned Neighborliness

The home service of the Red Cross is the nation's assurance that no enlisted man's family shall suffer for any essential thing that lies within its power to give, if that need is made known to the Red Cross. Its purpose is to make sure that the standards of living of the family shall not be lowered because the wage earner has been called to the colors. This service belongs to men in all branches of service, to those in the army, those in the navy, to sailors, marines, men of the aviation corps, engineers, and to the families of both men and women attached to hospital units as nurses, doctors, orderlies, or ambulance drivers. It is also extended to families living in this country of soldiers or sailors of any of the allied forces and the families of civilians who have been wounded or killed as the direct result of war activities.

The following extracts are taken from the diary of one home service worker, which has been published in pamphlet form by the Red Cross:

"I think my biggest lesson has been that home service means so much more than money help—often the money is the least part, perhaps no part—for home service often means employment or schooling or fun or instruction in housekeeping and cooking or the doctoring of mind or soul or body—and it always means sympathy and friendship.

"I realize more and more every day that home service is one of the best friends the soldier's and sailor's family has, and I'm proud to be part of the work. It's just old-fashioned fine American neighborliness brought up to date. It's our pledge to the boys over there that we are on guard over here and that all is well!"

The Challenge of Humanity

"A Red Cross membership today is a real indication of a man's sincerity in Christian faith and practice," affirms Bishop Reese, Bishop of Kansas in the Episcopal Church, in a pastoral to the churches of his diocese. "Peace has been declared, but that simply ought to be a stimulus to America for greater effort to come to the help of the nations of the world through the Red Cross. Long after the last gun has been fired in the greatest and most devastating war in the world's history, the cry of the needy and the destitute will ring out for help.

"If it was and is a glorious thing for this country of ours to respond as she has done to the challenge of humanity by sending millions of our sons into the trenches ready to give life itself freely to redeem the world from a brutal and savage foe, surely it is a more glorious thing and an even greater opportunity for service to have a share in the work of reconstruction and upbuilding that must be done.

"The first half of the task of the American Red Cross has been accomplished with such stupendous success that words fail in the attempt to even outline the story of its splendid achievement. We have faith enough and to spare in the American people to believe that they will unite as one in supporting the Red Cross until the mighty task it has set for our accomplishment is completed."

Caring for Children

More than one hundred thousand French children have been reached by American Red Cross aid through its hospitals and assistance given to French societies. Under the slogan, "Visit Every Baby in France," the Red Cross campaign for 1918 has had three main objects: to increase nursing service in the direction of child welfare work; to increase welfare stations throughout France, one or two to every province, and to assist all hospitals, clinics and organizations engaged in welfare work. It is estimated that eighty thousand French babies died last year, forty thousand of whom might have been saved. One of the vital objects of the Red Cross is to save those forty thousand babies during the current year.

In Belgium, at the request of Queen Elizabeth, a children's hospital was established at the front and a house-to-house visiting service by American and Belgian nurses provided. As a result fifteen thousand Belgian children are healthier and happier. In one Red Cross home alone four hundred homeless Belgian babies are cared for.

By the end of this year the Red Cross will have appropriated for use among the Belgians the sum of $3,379,699. Eighty-two canteens, which provide refreshments for 25,000 soldiers, are in operation. Nine hospitals have been maintained. About 15,000 Belgian children are happier and healthier as a result of day nurseries established by the Red Cross. Ninety thousand Belgian people remaining in a small area not under German control and 600,000 refugees scattered throughout Europe have been aided in many ways.

Red Cross Membership For All

THE Red Cross is the world's international ideal of mercy. It knows no bounds of racial, religious, or political separation. Wherever and whenever war, pestilence, flood or disaster has wrought suffering, want or distress, there it has gone and brought relief and the ready hands of unselfish aid.

Great Britain first organized relief work when during the Crimean War the war office sent Florence Nightingale with thirty-eight other nurses to the hospitals at Scutari, which were pest houses rather than hospitals. So successful was Miss Nightingale that she is today recognized as one of the greatest individual organizers of war relief.

In 1864 at a conference of fourteen nations held in Geneva, Switzerland, the International Red Cross was founded, the idea of putting such service on an international basis originating with Henri Dunant, a Swiss physician. The emblem of this service, common to all nations—the red cross on a field of white—is the Swiss flag with the colors reversed, and was adopted in recognition of the fact that Doctor Dunant was Swiss and that the organization had its birth at Geneva.

The suffering and devastation caused by the war has been monstrous and it will require years to rehabilitate some of the countries. The work of civilian relief does not end with the war, but rather increases. The American Red Cross will be the logical means of prosecuting this relief work in a large way. The spirit which actuated Florence Nightingale in England and Henri Dunant in Switzerland has been reborn in millions of Americans and is expressing itself in patriotic services and generous support of the Red Cross. Men, women and children have contributed to a relief fund of unprecedented size. Millions of women have given their time and energy to the making of relief supplies in homes and chapter houses throughout the world. Thousands of men and women have given their personal services, both in this country and abroad. School children have enrolled and the nation as a whole has responded to the call by increasing the membership within the space of twelve months from three hundred thousand to approximately twenty-two million.

The time has come for even larger things. The Christmas Roll Call for membership for the coming year begins all over this broad land December 15. It comes at a time when the approaching celebration of the birth of the Savior of mankind touches all hearts with the passion which He exemplified during His short life on earth, and the Red Cross national committee has placed population as the only limit to Red Cross membership, for who can turn a deaf ear to this greatest of all appeals for money and sympathetic support?

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

WHEAT is being pastured extensively this fall. It is most fortunate that so much fine pasture is available, for it enables stockmen to save their silage and other stored forage for feeding later in the winter. A Riley County cattleman with whom we talked at the Royal Stock Show warned against keeping cattle on wheat pasture alone. He said that a little grain or cake was necessary or they would shrink badly when the first stormy weather came.

The effect of pasturing on the wheat is a subject of much speculation. Some maintain that it is absolutely necessary to pasture wheat in order to keep it from jointing in the fall. We asked a number of wheat growers about this at the farm bureau conference in Manhattan, and found none who had ever seen wheat joint in the fall. We are inclined to the opinion that the stock have the long end in grazing wheat and from this standpoint the practice is a good one, but the necessity for grazing the wheat down for the good of the crop is overestimated.

There is no need to seek for other reasons for using the pasture than the advantage to the stock. Even if the crop is reduced two or three bushels to the acre, the stock will have more than offset the loss by the gain they have made. The forehanded stockman will be prepared, however, for the days to come when snow may cover the wheat and stock will suffer and lose in weight or production unless supplied with plenty of feed to take the place of the pasture.

Binder Twine Prices

An agreement has been made with manufacturers of binder twine with regard to reasonable profits on the sale of twine for harvesting next year's crop.

It appears that a substantial amount of twine was carried over by manufacturers which was manufactured from sisal purchased at 19 cents a pound. Some sisal has heen purchased at approximately 16 cents per pound, making an average cost of sisal to manufacturers of ahout 17 cents per pound.

The Food Administration considers the sale of binder twine manufactured from such sisal should not be made by the manufacturers at prices per pound which exceed this average price of 17 cents by more than the following amounts: Standard and sisal binder twine, 500 feet to the pound, f.o.b. factory, carload lots of 20,000 pounds or more, 4 cents per pound; lots of 10,000 pounds or more hut less than 20,000 pounds, 4⅛ cents per pound; all amounts less than 10,000 pounds, 4¼ cents per pound.

Prices for other grades should not exceed the prices of standard and sisal twine by more than the following amounts: 500 feet to the pound, 1¾ cents increase; 600 feet to the pound, 3 cents increase; 650 feet to the pound, 4½ cents increase; 650 feet to the pound, pure manila, 6 cents increase.

The Food Administration has considered the increased weight of binder twine over the sisal contained therein in determining the above margins.

These margins will result in binder twine being sold by the manufacturers at 2 cents less per pound than during the season of 1918 and the twine should therefore reach the consumer at a lower price than during the last harvest.

Next Year's Wheat Crop

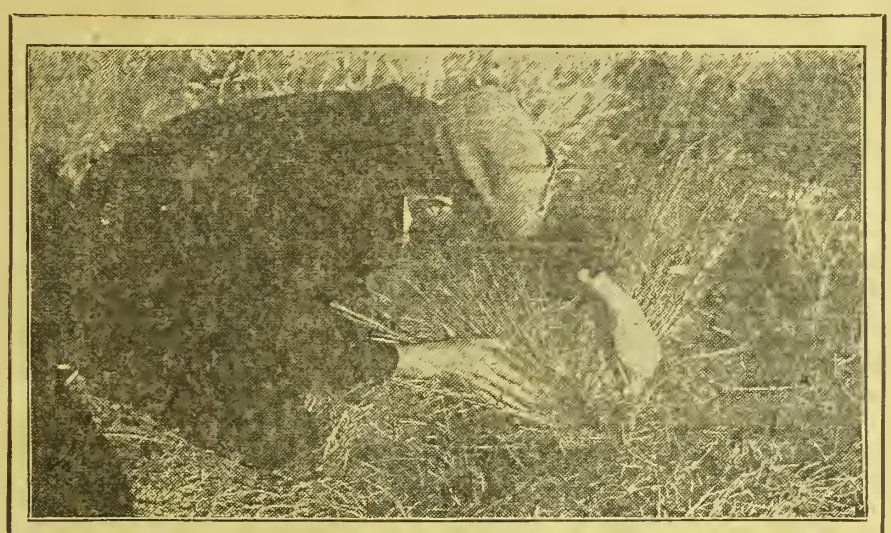
In order that our readers may crearly understand the status of next year's wheat crop as regards price and method of handling in view of the coming of peace, we publish the following authorized statement:

The President's proclamation of February 21, 1918, fixing guaranteed prices for the 1918 wheat crop, applies to wheat "harvested in the United States during the year 1918 and offered for sale before the first day of June, 1919, to such agent or employe of the United States, or other person as man be hereafter designated" at the principal primary markets specified. The Food Administration Grain Corporation was designated June 21, 1918, to purchase the 1918 wheat crop and will therefore continue to exercise that duty and oblibation even though peace should be signed prior to June 1, 1919. The Food Control Act provides that termination of the act shall not affect any ohligation accrued or accruing during its existence and the purchase of the 1918 wheat crop is such an obligation.

The President's proclamation of September 2, 1918, establishing guaranteed prices for the 1919 wheat crop, applies to wheat harvested in the United States during 1919 and offered for sale before June 1, 1920. As in the case of the 1918 crop the wheat must be offered for sale "to such agent or employe of the United States or other person as may be hereafter designated" at any one of the principal primary markets. Up to the present date, however, the agency by which the 1919 wheat crop is to be purchased has not been designated.

Thus, although the guarantee for the 1919 wheat crop will continue until June 1, 1920, there is no present assurance it will be purchased or handled by the Food Administration Grain Corporation.

Other matters on which the public is apparently not clearly informed are the licensing of the fertilizing industry, of the farm equipment industry, and of stock yards. By presidential proclamation of February 25, 1918, May 14, 1918, and June 18, 1918, respectively, supervision of these industries has been assigned exclusively to the Secretary of Agriculture. Certain reports by licensees of these industries are sent to the License Division of the Food Administration, but this is only for clerical convenience and carries no administration powers.



EXAMINE CLUMPS OF GRASS FOR CHINCH BUGS.—IF THEY ARE FOUND, BURN THE GRASS NOW, BURNING WITH BACKFIRE AGAINST THE WIND

Burn Chinch Bugs Now

Now is the time to make war on the chinch bugs. KANSAS FARMER has already referred to this matter this fall. The conditions have been very favorable for bugs, and in localities where they are at all numerous they are apt to go through the winter in good shape and do a great deal of damage in the spring. They will be found in the clumps of grass near last year's corn, cane, or kafir. The cut on this page shows the method of finding whether they are present or not. In Bourbon County it was shown recently how completely the burning of their winter quarters at this time destroys the bugs. E. G. Kelly, extension entomologist, writes as follows concerning this demonstration:

"In company with Mr. Maloney, agricultural agent in Bourhon County, I visited practically every district in the county last week. Farmers met us at the roadsides for a lesson in hunting chinch bugs. We found the bugs to be snugly hidden in the bunches of broom sedge or blue stem grass along the roadsides, uncut ravines, and railroad waylands, but not many in mown hay land. After locating the hugs in the grass we set fire to it, then we looked to see what the fire had done. We found in practically every case that the bugs had been consumed by the fire.

"The next step was to inform the farmers of the danger in their neighbors' grass and the importance of concerted action and community organization with a set day for burning.

"The dry weather was just what the fall brood of bugs liked best and now we find too many bugs everywhere. This is a plea for every community to organize, set a day for burning the chinch bugs and beat them to the crops. Burn the chinch bugs before Christmas, while the grass is dry, for the most effective work. Organize by communities, by townships, and by counties. Make it a big day and a hot day for the bugs."

The Hessian Fly

Hessian fly is not being reported as doing very much damage in wheat this fall. There are some sections, however, where the fly is present. Some are asking how to detect fly in the wheat. The adult female, which is a very small insect, lays her eggs on the surface of the leaves, and the maggots as soon as they hatch make their way down the leaf to a joint just above the roots of the plant. The young maggots become imbedded in the tissue and feed upon the juices of the plant. They later pass into the resting stage and very much resemble flaxseeds. The presence of the pests may be very easily detected by observing the difference between the infested and the uninfested plant. The leaves of an infested wheat plant are of a deep green color and are always broader and shorter than the leaves of an uninfested plant. The rolled central leaf which indicates the presence of the stem is always absent, leaving a hole which gives it a tubular effect. An infested plant stands very erect in the drill row, not spreading out to cover the ground as do normal plants. By observing this erect habit, broader leaves, and absence of the rolled central leaf, plants infested with the fly can be detected.

The uninfested plant always has more slender leaves, always has the central shoot, and as the plant stools or tillers it spreads out and covers the ground.

Push Highway Construction

Secretary D. F. Houston's remarks to the farm paper editors who held a conference in Washington November 20, foreshadowed the initiation of a plan for national highways. He spoke as follows on the resumption of road-building work:

"We must resume as quickly as possible, in full measure, the operations under the Federal Aid Road Act. You understand why they had to be contracted during the war. It is highly important that they be resumed. I need not emphasize before you the fact that good roads are prerequisite for better agriculture, for orderly distribution, and for a healthful and attractive country life. From unexpended balances of federal appropriations for the last few years, from state funds beyond what was necessary to meet the federal allotments, and from amounts available during the current fiscal year, we shall have for expenditure during the calendar year approximately 75,000,000. Next year, if all the balances should be expended during this year and we should have to rely solely on the funds accruing next year, we shall have from federal appropriations ahout $20,000,000 and probably more than this amount from state sources. The states, in addition, will expend sums in excess of what they have assigned, or will assign, for federal aid road projects. Still it seems to me that we should take a further step—take this step not only because of the importance of good roads, but also because of the desirability of furnishing worthy projects on which unemployed labor during the period of readjustment may be engaged. There will be many things suggested for which federal and state funds will be sought. Some of these will be unworthy. Clearly such public works as roads are worthy, and it would be in the public interest to make available larger appropriations from the federal treasury, to be used separately or in conjunction with state and local support.

There need be no delay in the execution of such a program. The nation has already provided the machinery in the Department of Agriculture and in the state highway commissions. The Federal Aid Road Act was fruitful of good legislation and each state in the Union now has a central highway authority with power and funds to meet the terms of the federal act. The two agencies, in conjunction, have been engaged in devising well considered road systems and in making surveys, plans, and specifications. The task will be one of selection and those roads should be designated for improvement which are of the greatest economic importance, with due regard to such military and other needs as are proper for consideration. There is no necessity for any departure from this scheme. The suggestions made have been canvassed with the President, the Secretary of War, and the Postmaster General, and they are in accord with the view that additional funds should be made available to this department and that they should be expended through existing machinery.

Roughage First, Then Silage

Before starting to feed silage to beef cattle this winter, a careful estimate of the total amount on hand should be made, as it is not a good practice to feed silage in such a way as to exhaust the supply and be compelled to feed dry roughage following the silage before turning to pasture in the spring. If a shortage is anticipated there are two ways to meet the situation—either feed dry roughages altogether for a time at the beginning and keep the silage until the latter part of the feeding period, or feed a small amount of silage with other roughage throughout the winter.

Sufficient silage and other roughages should be provided so as to begin feeding the cattle by the first of January at least, and to last until the first to the fifteenth of April. This later date is suggested so as to keep the animals off the grass in the spring and protect the pasture as long as possible. Best esults from feeding silage are obtained when some dry roughage is fed along with it. Unless legume hays are used a small amount of cottonseed meal or cake, one-half to one pound, should be used.

Angus Wins Championship

Fyvie Knight 2d, a pure-bred Angus steer fitted and shown hy Purdue University of Indiana, won the grand championship in the fat steer classes at the International Live Stock Show. This steer was not only an exceptional individual hut was royally bred. His sire was Imported Prince Ito, a former grand champion Angus bull at the International, and his dam was sister to the grand champion steer of 1908, also shown by Purdue. This steer is a junior yearling, which means that he was dropped between January 1 and September 1, 1917. He walked into the ring at Chicago weighing 1,350 pounds. He will he slaughtered and his dressing percentage figured out and reported later.

LAND SETTLEMENT PROBLEMS

Providing Better Credit Terms for Farmers Will Increase Land Ownership

IT IS highly desirable that land ownership should increase, but any plan for promoting this end must provide for giving the tiller of the soil a chance to make a good living. Living on farms must be profitable. No plan for artificial stimulation of increases in the number of farmers can run counter to this general proportion. Discussing the capacity of the United States to provide for a very much larger population, the Secretary of Agriculture, in his annual report, says that the responsibility rests upon each individual, and especially upon the farming population and state and federal agencies responsible for leadership.

"We have, up to the present, succeeded in this enterprise," the Secretary says. In the years from 1900 to 1915 the nation gained a population of approximately 22,000,000, and they have been fed and clothed in large measure from domestic sources. It is estimated that in the years from 1915 to 1918 the population increased by 3,200,000, of which a very small part was from immigration. We shall, perhaps, gain as many more in the next fifteen or twenty years, even if the rate of immigration should not be maintained. for the natural growth in recent years. averaging about three-fourths of a million a year, shows an upward tendency.

"It would be desirable to facilitate land settlement in more orderly fashion. This can be effected in a measure by systematic effort on the part of the federal government, the states, and the several communities through appropriate agencies to furnish more reliable information, intelligent guidance, and well-considered settlement plans. The nation has suffered not a little from irresponsible and haphazard private direction of settlement. In many sections, especially in the newer and more rapidly developing ones, the situation has been complicated by the activities of promoters whose main concern was to dispose of their properties. They too frequently succeeded in attracting farmers to localities remote from markets where they either failed to produce crops or met with disaster through lack of market outlets or adequate marketing arrangements.

"It is particularly vital that, by every feasible means, the processes of acquiring ownership of farms be encouraged and bastened. This process is real in spite of appearances to the contrary. It has been too generally assumed and represented that tenancy has increased at the expense of ownership and that we are witnessing agricultural deterioration in this direction. Tenancy does present aspects which should cause great concern, but its bright sides have not been sufficiently considered. The situation does not warrant a pessimistic conclusion. In the thirty years from 1880 to 1910 the number of farms in the United States increased from 4,0009,000 to 6.363.000, the number of those owned from 2.984,000 to 4,007,000, a gain of 1,023,000, or 34.3 per cent, and the number operated by tenants from 1,025,000 to 2,355,000, a gain of 1,330,000, or 129.9 per cent. But in 1910 five-eighths of the farms and 68 per cent of the acreage of all land in farms were operated by owners and 65 per cent of the improved land. The number of farms increased faster than the agricultural population. The only class not operating farms who could take them up were the younger men, and it is largely from them that the class of tenants has been recruited.

"In a recent study of the cases of 9,000 farmers, mainly in the Middle Western states lying in the Mississippi Valley, it was found that more than 90 per cent were brought up on farms: that 31½ per cent remained on their fathers' farms until they became owners, and 27 per cent until they became tenants, then owners; that 13½ per cent passed from wage earners to ownership, skipping the tenant stage; and that 18 per cent were first farm boys, then wage earners, later tenants, and finally owners. It is stated, on the basis of census statistics, that 76 per cent of the farmers under twenty-five years of age are tenants, while the percentage falls with age, so that among those fifty-five years old and above only 20 per cent are tenants. In the older sections of the country (except in the South, which has a large negro population), that is, in the New England and Middle Atlantic States, the tenant farmers formed a smaller proportion in 1910 than in 1900. This is also the case with the Rocky Mountain and Pacific divisions, where there has been a relative abundance of lands. The conditions on the whole, therefore, are not in the direction of deterioration, but of improvement. The process has been one of emergence of wage laborers and sons of farmers first to tenancy and then to ownership.

"The legislative steps that have been taken to promote better credit terms for farmers will have a tendency to hasten this process. The operation of the farm loan system, through arrangements by which those who have sold lands take a second mortgage subordinate to the first mortgage of the farm-land banks carrying a relatively low rate of interest, will have a beneficial influence. If further developments can be made though the application of the principle of co-operation, especially in the formation of personal credit unions, the conditions will be more favorable. In the meantime special attention and study should be given to the terms of tenancy, including the lease contract, with a view to increase the interest both of the landlord and of the tenant in soil improvement and to make sure that there is an equitable division of the income."

It is of interest in connection with this problem to note that the Department of the Interior has prepared a brief but comprehensive summary of soldier-settlement legislation of other English-speaking countries as a help to the people of this nation to understand and deal with one of the reconstruction problems which confronts us. The laws have special value because in most countries they are the outgrowth of several years' experience, prior to the war, with a rural development under which land was bought, subdivided, improved, and sold to settlers on long-time payments. Provision for soldier settlement required, therefore, only the broadening of a system of laws and policies already in operataion.

One important feature of these laws is the provision for co-operation between the federal and state authorities in Canada and Australia and, generally speaking, between the central government and the local authorities.

Australia, which has an area about equal to the United States, has a comprehensive scheme for co-operation between the commonwealth government and the several state governments, under which the states provide the land and the federal government provides the money for reclamation, where this is necessary, and for financing the improvement and equipment of farms. Such co-operation makes the movement truly national because it enlists all sections of the country and mobilizes in the service of soldiers public agencies which have the practical and technical knowledge needed to secure the desired results with the least effort, money, and time.

Co-operation it is thought should be the outstanding feature of our legislation. If the movement is to be national in the fullest sense, every state should provide opportunities for its sons and should contribute to the expense and share in the direction of the movement. If this plan is followed, state legislation is as necessary as federal legislation, and both ought to be enacted this winter.

Feeding Our Enemies

Some of us may fear that our former enemies in Europe will get more than they deserve in the way of food supplies in the period before us. A statement made by Mr. Hoover just before he sailed for Europe will be of interest in this connection as setting forth his views on this question of feeding the starving millions across the seas.

"There is a great problem in the situation of the enemy people—about 90,000,000. This problem is not one of going to their relief. It is a problem of relaxing the watertight blockade, which continues through the armistice, sufficiently so that they may secure for themselves the bare necessities that will give stable government. Unless anarchy can be put down and stability of government can be obtained in these enemy states, there will be nobody to make peace with, and nobody to pay the bill to France and Belgium for the fearful destruction that has been done.

"I would certainly approach this problem with mixed feelings, having been long a witness to the robbery of food from women and children, and the destruction of millions of tons of food at sea and to the misery under which the millions amongst the big and little Allies have suffered under the German yoke. Justice requires that government be established able to make amends for wrongs done, and it cannot be accomplished through spread of anarchy. Famine is the mother of anarchy.

"I am going to Europe to discuss the further food measures that must be organized as a result of the cessation of hostilities. The food problem in Europe today is one of extreme complexity. Of their 420,000,000, practically only three areas—South Russia, Hungary, and Denmark, comprising say 40,000,000—have sufficient food supplies to last until next harvest without imports. Some must have immediate relief.

"We have a surplus of some 18,000,000 to 20,000,000 tons of food if we are economical, so that the situation can be handled if this and the other smaller surpluses in the world can be transported.

"All continental Europe has reduced herds and is consequently short of meats and especially fats. These countries have their last harvest and under orderly governments this would furnish breadstuffs and vegetables for various periods from two months upward, depending upon the ratio of industrial populations. Something over 200,000,000 of peoples are now in social disorder.

"In these cases, with transportation and financial demoralization, the tendency is for peasants to cease marketing even their surplus and thus instant difficulties are projected into the cities even when resources are available in the country. The peasant and villager of Europe always provides for himself for the whole year in any event. The problem thus narrows itself to the support of the cities and large towns pending restoration of order and the establishment of confidence in future supplies—and the cities are the centers of anarchistic infection.

"Arrangements have long since been completed by which the big Allies—that is, France, England, and Italy—will be provisioned. This covers 125,000,000 people.

"Our first and deepest concern now must be for the little Allies who were under the German yoke—they are the Belgians, Serbians, Roumanians, Greeks, Czechs, Jugo-Slavs, and others. There are some 75,000,000 people in these groups, and they must be systematically helped, and at once. We have already doubled the stream of food flowing toward Belgium.

"Our next concern must be to relax blockade measures as far as possible in order that the neutral states in Europe, which are now all on short rations, should be able to take care of their people and prevent the growth of anarchy. This is another group of about 40,000,000.

"Another problem lies in the 50,000,000 people in North Russia, a large part of whom are inaccessible owing to the breakdown of transportation and through sheer anarchy. Millions of these are beyond help this winter. These groups are the ones that must enlist the sympathy of the American people and for whom we are prepared to make any necessary sacrifice."

Supplemental Irrigation Pays

MUCH real service has been given the farmers of the south semi-arid middle west by the county agent of Scott and Lane counties in co-operation with the state irrigation commissioner of Kansas, by demonstrating the value of supplemental irrigation in dry years and also by demonstrating the superior qualities of many of the best varieties of the sorghum crops over the average run of such varieties which are grown in this area. Incidentally, a means was also provided for many farmers to secure small quantities of this superior seed.

In all seventy-eight varieties of corn and sorghums were planted in the test plots. The highest forage yield was made by Sourless Cane No. 101, which made the surprising yield of twenty-nine and one-fourth tons per acre. Supplemental irrigation as a paying practice in this section was amply vindicated by the results secured.

Two hundred farmers attended one of the demonstration meetings, some of them coming as far as 200 miles.

October 3 was set as a definite date on which farmers could personally secure this seed. The seed secured from many of the best varieties was in great demand, one group of farmers driving 180 miles by car to secure a personal choice. Orders for small lots of seed also came from Brazil and California.



FARMERS BUYING PURE SEED OF SORGHUMS AT DEMONSTRATION FARM MODOC, SCOTT COUNTY

At Saint Mihiel

When the Rainbow Division hurled its greatest strength and force into the battle of Saint Mihiel and drove the foe out of the pocket which it had so long held, heaven itself seemed to smile on the victory. Our gallant men fought bolding off the steady resistance of the Hun. The Rainbow Division, composed of units from each state in the Union, won the day. They fought as never a division fought before. Inspired by the love for freedom, a heritage given them by their forefathers, their valor shall be recorded. Had they not crossed the seas to join forces with their Allies? Was not Saint Mihiel a vital spot in the battle lines of France? Saint Mihiel must be saved. Saint Mihiel was saved, and the looped line was straightened out. When the last of the foe had been routed, and the flags of victory were flying, a rainbow appeared in the sky. It was a perfect arc, dipping into the horizon to the east and to the west with a brilliancy of coloring which bathed the country laid waste in spiritual beauty. Heaven had pronounced its benediction, had rechristened the Rainbow Division, and had glorified its name.

Interesting War Items

Fatherless Children of France

THE welfare of the children of France whose natural protectors have been killed during the past four years, must be the concern of America. The future of France depends on the care given to its childhood and youth now. If Germany's effort to crush France by destroying its children succeeds, she will have accomplished one of her chief aims in this war.

We quote from a most touching appeal in behalf of the fatherless children of France, by Dr. S. S. Estey, pastor of the First Presbyterian Church of Topeka:

"The children of France — God pity them! One day they were laughing and playing among the garden flowers in their suburban homes. The next day the tide of war swept over France and all was changed. The fathers of the children of France, in whose strong arms they had nestled and in whose love they were sheltered, lay dead on the Marne. They had offered their lives to protect France, to protect England, unprepared, and America, unready, and because those fathers of France gave themselves as a bulwark to stay that tide of devastation until America and England could get ready, the children of France are fatherless today. I do not think there is a man here who does not realize that if the men of France has not given their lives, our American cities would be held by Germans today, and our children would be subjected to the most beastly insults. If that is true, what do we owe those children? The loyalty that made us safe made them fatherless.

"I say that gratitude should make us care for those children, orphaned for us, and as long as we are Americans we will do it. We cannot forget them; America does not do things that way. The orphaned children of France are our children—our own by bond of sympathy, the bond of loyalty, and the bond of love. Those sad, wisen-faced little children, going to school in cellars, studying often with gas masks on their faces, looking up in terror lest someone should drop a bomb upon them, are ours and we will care for them.

"Here is an opportunity for the children of America, whose minds we do not want occupied by the brutalities of war, to do their part of the war work in a way that will broaden their sympathies and not debauch their minds. Every community ought to have its French orphan. The boys and girls can help out and push on this kind of work in your schools this fall, and you men and women who come from different cities and towns and villages, you can have a part in reorganizing and pushing the work of caring for these orphan children.

"You must remember that these children are oftentimes so ill-nourished that many of them are having their constitutions undermined by tuberculosis. It costs only ten cents a day to support a child. Anyone can manage that, and any man who helps to support such a child and care for a widowed mother is helping to save a nation. I know no way of saving a nation but by saving men and women. I know no way of making men and women except out of boys and girls. If you help to save these orphans today, you help to save a nation that is facing extinction. If these orphans are not saved, Germany has accomplished one of her devilish aims, even though our flag floats over Berlin. Men who help to support a French orphan today may be doing something great for the future of the world in helping to make a great man.

"I would not exchange the little notes I get from my French orphans for any number of bank notes. It means a lot to have a child so grateful to you that it sends up prayers to God every day to shower blessings on your head. It means a great deal to have a child praying for blessings on the head of his benefactor today, when prayer means more than anything else in the world.

"I know you are busy with your business and with war work, but don't let them make you turn a deaf ear to the cry of the children of France. Men and women—exhausted as you are with your burdens, with the financial demands which will be still greater—when a child calls, say: 'I must give a little more. I must work a little harder.' The children of France are calling tonight. We cannot let them suffer."

There are so many demands on our pocketbooks just now, and all for such worthy causes, that one wishes for the magic purse of the old tale which never contained more than one ducat at a time but in which another coin appeared as soon as this was removed. With the campaigns for the United War Work and for Jewish relief just ended, the Red Cross membership drive on, and Christmas at hand, most of us do not have a great deal of money to spare. But if you knew that a little child was hungry and depending on you for food, what would you do? This is a call that cannot be disregarded.

Two hundred and fifty thousand French orphans whose fathers have given their lives in our common cause are looking to America for food, and must be cared for before Christmas. Four thousand two hundred forty-seven of these are depending on the people of Kansas. The French government is paying to these children an allowance of ten cents a day, or $36.50 a year, and cannot give more. It costs, in addition



TWO YANKS AND THEIR FRENCH PAL. THE SHORTER SOLDIER IS PAUL CODY, SON OF W. J. CODY OF THE KANSAS FARMER COMPANY

to this, ten cents a day—or $36.50 a year—to provide the necessities of life for one child. Now that the war is over, this aid is even more necessary, as many of the mothers who have been working in munitions factories will find themselves out of work or forced to work at less remunerative labor, and the amount requested is barely enough to cover the expense of such food, clothing and education as is necessary.

The district chairmen of the "Fatherless Children of France" for Kansas are:

Atchison — Mrs. Wheeler Barlow, 300 R Street.

El Dorado—Miss Ellina Murdock.

Hutchinson—Mrs. D. E. Richards, 515 First Avenue East.

Independence—Mrs. Nelson K. Moody.

Salina—Mrs. I. A. Pribble, 665 South Santa Fe Street.

Lawrence—Mrs. R. D. O'Leary, 1106 Louisiana Street.

Lincoln—Mrs. J. Albert Smith.

Ottawa — Mrs. Ralph A. Harris, 424 Elm Street.

Topeka — Mrs. John C. McClintock, 1313 Fillmore Street.

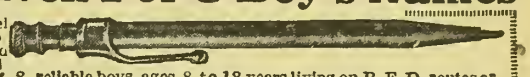
Wichita—Mrs. Theodore Jager.

If you want to save a child to the world and give it a chance to grow up into strong, vigorous manhood or womanhood, send your check for $36.50 to the chairman of your nearest committee as shown in this list. It is greatly desired that the money be given in one payment, but in cases where this cannot be done it may be possible to arrange for semi-annual or quarterly payments. If you do not feel able to do this yourself, interest a friend or several friends and put your money together. It would be a beautiful thing for a Sunday School, a Christian Endeavor Society, or any church society or community club to undertake.





Clutch Pencil Given For 8 Boy's Names



REGULAR size, 5 inches long, nickel plated. Complete with pocket grip. Should last a life-time. Always sharp and ready for use. No broken points. Pencil sent postpaid for names and addresses of 8 reliable boys ages 8 to 18 years living on R. F. D. routes or in the country in any of the following states: N. D., S. D., Minn., Ohio, Ind., Ill., Wis., Mich., Ia., Neb., Mo., Kan., or Okla. Give correct names and addresses. Write plainly. This offer is open only to one person in each family. Only one list of 8 names wanted from each person; no one person may receive more than one pencil. Offer not open to those who sent list of names previously unless different names are sent. SUCCESSFUL FARMING, 20 Success Building Des Moines, Iowa

The child is to be cared for in its own home in France. You are given its name and address and can correspond with the child or its mother. If you desire, you may specify whether your money is to go to a boy or a girl. You will enjoy the childish letters or the mother's gratitude, but best of all will be the feeling that the hand of a little child has not been reached out to you in vain.

There is no more appropriate way of celebrating the season when "for one little child's sake all the world is glad" than by helping to care for one of these little ones.

The Least of These

It is not the support of a nation buying billions of dollars' worth of Liberty bonds, breaking bottles over the sterns of new ships, cheering the lads in khaki in the movies, or even knitting socks that brings home to our fighting men the magnitude of their trust, according to a writer in The Stars and Stripes.

"It is all very fine," he says, "but it is all too big for any one man of us to grasp. But we appreciate how great our trust is when we hear that the folks have had two pounds of sugar in six weeks, that the lady next door let her bread burn in the excitement of reading our last letter, and that the lady next door to her is working in an office and keeping the children in school while her husband is over here."

Work for Crippled Men

Often we hear "What is to become of our soldiers after the war who are crippled and maimed, disabled for the work that they did before they sailed overseas to battle for freedom?"

Recent surveys by the Red Cross Institute for Crippled and Disabled Men have brought out that the field open for re-establishment of such men in industrial life is much wider than probably is generally supposed. Investigations of 542 factories since January 1 last have revealed 1,203 kinds of jobs open to leg cripples and 278 open to arm cripples. Careful attention was given sanitary conditions and precautions for safety.

The report describes in detail the processes involved in each industry investigated; the advantages and disadvantages of each for arm and leg cripples, respectively; the wages paid; the organization of the trade, and the general provision for the safety of workers. The following industries are included: The piano industry, the leather industry, the rubber industry, the paper-goods industry, the shoe industry, sheet-metal goods, the silk industry, cigar manufacture, drugs and chemicals, the candy industry, the celluloid industry, optical goods, and the motion picture industry.

Mistaken Kindness

An American soldier writing of the kindness of the French people to the foreign troops stationed among them, says:

"We sent our laundry to a lady who lives near our chateau and when it came back the little holes in our shirt collars which were made for the collar ornaments had all been neatly darned. How's that?"

One Thing to Be Thankful For

About the only thing the kaiser had to be thankful for this year, as far as the editor of the Colorado Agricultural College News Notes can see, was that he wasn't eating his Thanksgiving dinner in Paris—in the death cell.

Somewhere in France

An old colored woman entered the court room the other day in great consternation and asked to see the sheriff. When presented to that official she burst out with, "Honey, that fool boy of mine's done got lost ovah in France. I got a lettah frum 'im, an' on the outside of the envelope it says, 'Somewhere in France.' Now whah do you reckon that child's at?"—Exchange.

A Farm Boy's Success

Henry J. Waters, who began life as a farm boy and later became president of Kansas State Agricultural College, is now editor-in-chief of The Weekly Kansas City Star. If you want to keep in touch with the work Henry J. Waters is doing send fifty cents to Department 36, The Weekly Star, Kansas City, Mo. This offer applies only in Kansas, Missouri, Iowa, Oklahoma, Arkansas and Nebraska.—Adv.

Free Feed For Half of Your Stock

If you feed alfalfa, do not waste the stems and stalks. There is just as much nutritive value in the roughage of alfalfa as in the foliage. Stock will eat this roughage with relish and get just as much nourishment from it as from the foliage if it is reduced to a satisfactory fineness for feeding. As stalks form half the bulk of alfalfa, you can double the feeding value by reducing it with a

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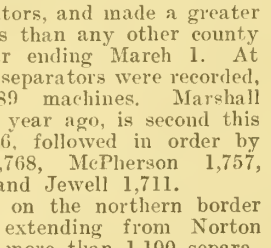

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Send particulars about position paying $75 to $125 a month.

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(Name)

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More Cream Separators

The number of cream separators in Kansas increased more than 9 per cent in the year ending March 1, 1918. Dairying in the state is developing in importance, as is shown by the purchase of more milk cows, the starting of condensery plants, new creameries, and the increased use of hand separators on the farms, as noted above.

The statistics gathered by the State Board of Agriculture show that on March 1, 1918, there were on Kansas farms 86,806 cream separators, as compared with 78,924 the year previous. In the four years in which statistics have been gathered by the board, the increase has been 16,547.

Seventeen counties in the state report decreases in the number of cream separators. Only three of these counties are in the central third of the state. Reno County, first in silos, is also first in cream separators, and made a greater gain in numbers than any other county during the year ending March 1. At that time 1,995 separators were recorded, a gain of 389 machines. Marshall County, first a year ago, is second this year with 1,796, followed in order by Washington 1,768, McPherson 1,757, Sumner 1,724 and Jewell 1,711.

Ten counties on the northern border of the state, extending from Norton eastward, have more than 1,100 separators each, except the eastern county of Doniphan. The average in those ten is 1,357 separators per county, and identically the same average is found in a block of the south central portion, consisting of ten counties, the four corners of which are Rice, Chase, Cowley and Sumner, all, excepting one, with more than 1,000 separators.

The counties of the eastern third of the state have 43,052 separators, or 49 per cent of the state's total, while those in the central third number 32,074, or 37 per cent.

In winning the war, food proved an effective weapon; in keeping it won, food will be our most valuable tool.

Farmers After The War

THE National Board of Farm Organizations has thrown out a request for certain information from organized farmers all over the country. This organization, as we have several times stated, is an attempt to federate the various national organizations representing agriculture. At a conference held late in the summer, attended by representatives of these various organizations, the following resolutions were unanimously passed:

Whereas, in times past the efforts of farmers to exert an influence upon public matters affecting their welfare, or even to express themselves as a unit upon agricultural conditions, has been minimized by the lack of co-operation between the organizations representing them, and

Whereas, this distressing condition has been relieved by the organization of the National Board of Farm Organizations, and

Whereas, the need of concerted action upon agricultural matters was never more imperative, therefore

Be it resolved, that the chairman of this convention be authorized to appoint a committee consisting of a chairman and forty-eight members, one from each of the several states, whose duty it shall be to determine the present status of organized farmers in the affairs of the nation and to examine and report what changes, in the widest sense, should be made in the reconstruction after the war, and how these changes can best be brought about.

This committee met and instructed the chairman, William T. Creasy, and the secretary, Charles K. Lyman, to communicate with the farmers' organizations of the United States for the purpose of ascertaining their views upon reconstruction after the war. In sending out this request, it was pointed out that farming, the basic industry of this country, must be properly recognized and safeguarded in the reconstruction process.

We must avoid the mistakes that led to the decline and fall of the Roman Empire. We do not ask for more than is properly ours. We raise no issue of class against class. But we do demand that the men and women who feed and clothe this nation shall have a voice in its affairs in reasonable proportion to their numbers, their power, and the importance of the industry they represent.

In your lifetime and mine no such opportunity has come to the farmers of America as is now immediately before us. If we neglect our duty in this matter we shall see the continued domination of our vital interests by men who neither rightly understand nor justly estimate the position and the services of the American farmer.

The task undertaken by the Agricultural Reconstruction Committee is to place before not only the farmers but our whole people such a plan of reconstruction as will bring to agriculture the stability and permanency necessary to the welfare of farmer and city person alike. If the unhappy day should ever come when food shortage and actual suffering fall to the lot of our people because of the neglect of agriculture, it must not be said of the American farmer that he was so lacking in vision and broad and clear-sighted statesmanship that he failed to warn the nation of impending national disaster.

This committee asked first of all that questions relating to the reconstruction period be placed before and discussed by farm organizations all over the country, including their local or subordinate groups, in order that a thorough study be made of the problem of establishing a better and more permanent agriculture. The committee is anxious to secure copies of all resolutions passed by farmers' organizations in connection with any of the subjects discussed, likewise copies of resolutions introduced but not adopted, giving the reasons why they were rejected. Three questions proposed for such discussion by farmers' organizations are:

1. Are farmers getting a fair share of the wealth they produce? If not, why not?

2. Is the influence of the farmers in national, state and local affairs in reasonable proportion to their numbers and power and the value of the services they render to all the people? If not, why?

3. What changes are necessary to bring about permanent agriculture? (By permanent agriculture we mean an agriculture yielding returns financially and socially as satisfying as those of other industries and modes of life.)

It is urged that these subjects be taken up at once so that by the first of January if possible the answers, with any resolutions introduced or adopted, may be brought together and tabulated in the office of the National Board of Farm Organizations, which is 615 Woodward Building, Washington, D. C.

The average price of a farm horse in the United States, all ages included, declined from $145 in 1910 to $131 in 1916. In 1917 the average price went up to $132, but in 1918 the fall was resumed and the average price became $128. In 1910 the price of a farm horse averaged about 240 per cent higher than the price of a cow; now a horse averages only 50 per cent higher.

College Steers Win

The Kansas Agricultural College made an exceptionally good record in the showing of fat steers at the International Live Stock Show this year. Steers were shown in four breeds: Hereford, Shorthorn, Galloway, and Angus. In all college entries were shown in twelve classes, winning five first prizes, two second prizes, three third, two fifth, one seventh, and one eighth. College steers were also shown in three championship classes, and won in two of them, the Hereford and Galloway.

Only one of the twenty competitors of the Kansas institution in the fat steer classes won as many prizes or as much money. The winnings in detail are as follows: In Herefords, first on senior yearling, which also won the breed championship; seventh on the junior yearling, first on senior calf, and first on herd of three steers. In the Shorthorns, the college entries won third in senior yearling and junior yearling classes, third and eighth in senior calf, first and second in junior calf, and second on herd. In Galloways, the junior yearling won first and was made champion steer of the breed; the college Galloway calf won fifth place. The only place won in the Angus breed was fifth on a senior calf.

College Sheep Winnings

The Kansas Agricultural College has been showing steers at the International for a good many years, but is comparatively new in the showing of sheep. This year, however, the college entries won a goodly share of the prizes. Sheep were shown in twelve classes, winning in all five first prizes, two second, four third, and one championship. In the Hampshire wether class the college won second and third on yearlings. In the Dorset wether class the college won third on yearling, first and third on lambs, and first on pen of three lambs. In the grade and cross-bred fat sheep the college won first on yearling, sixty-two showing. The winning yearling was also made the champion grade and cross-bred wether of the show. First prize was also made the champion grade and cross-bred wether of the show. First prize was also won on a pen of three cross-bred yearling wethers, and a second prize in Shropshire specials.

Grinding Grain for Sheep

We have been asked if it would pay to grind oats or corn and cob together for sheep, the idea being to economize because of the extremely high price of grain feed. Very seldom does it pay to grind grain for sheep. Their mouths are small and they do an extra good job of chewing the grain they eat. About the only class of sheep not able to grind their own grain cheaper than it can be ground for them is old ewes with poor teeth. Such ewes cannot always eat whole grain, and it is necessary to grind or crush it for them.

Corn and cob meal would not have any harmful effects when fed to sheep, but the cob has practically no nutrient value and the expense of grinding would be wasted. The same is true of oats or barley. Lambs on full feed are apt to eat their grain too fast, and occasionally actually choke. This can be avoided by spreading the grain out thin in wide, flat-bottomed feed troughs or by rigging up a device arranged so the grain comes out through a crack. This compels them to lick it out slowly.

Utilize the Roughages

The coming of peace will increase, not diminish, the demands made on the farmers of this country for the saving of grain and utilization to the fullest extent of all coarse roughages such as cheap hay, straw, and stover in all its various forms. The waste of stover or other roughages in the field will be a reproach and one which is emphasized all the more by the high price of hay, which, to a large extent, may be replaced by them. To utilize corn stover to best advantage



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"What doesn't seem right?"

"That a mere cow can afford to wear all that leather."—Our Dumb Animals.

it should be used early in the winter, saving other roughages until later. Other coarse roughages may also be used to better advantage by feeding them to dry cows and feeder steers, saving the more desirable roughages for breeding animals and calves. Dry cows and steers may be wintered largely on roughages alone by beginning to feed them earlier in the winter, before they begin to lose weight. This is particularly true of the cattle shipped into the southwestern states from the drouth area of the Southwest. These cattle are in somewhat thin condition and should be fed more liberally than native cattle, at least until well started through the winter feeding period.

Saving Grain Sorghum Seed

If not already done, now is the time to store grain sorghum seed for planting next spring. Before threshing, select the best heads nearest to the type desired. String these heads on baling wire or put them in burlap bags. Then hang them to the rafters of the wagon shed or granary, or in some other dry, well-ventilated place until spring. Seed threshed from heads stored in that way usually will germinate better than seed stored in the bin all winter. Good seed helps insure good stands.

To Get Most from Manure

The sooner manure is spread on the land after being made, the greater is its value, provided the land is level, or if hilly not frozen. So much is to be gained by early application under these conditions, and farmers have sometimes been so urged to haul manure immediately after making without limitations of conditions, that much loss of fertilizer has resulted from spreading it on frozen hilly ground either before or after snow had fallen. Manure-colored surface water flowing to the streams during a winter thaw is a sure indication of this waste of the most soluble and valuable parts of the manure. If, however, manure is spread on hilly land long enough before freezing for rain to carry the soluble parts into the soil, almost no waste occurs. And the same is true on light snow, if the ground underneath is not frozen. But it should be borne in mind that the saving in labor, by hauling in winter when teams are not busy, is not sufficient to offset the loss from washing on frozen, hilly ground, provided the manure can be kept under cover or even well tramped on an open level yard or feed lot.

Mulching the Orchard

Mulching is a most satisfactory way of handling the cultivation or tillage proposition in the home orchard. Such orchards are always apt to be more or less neglected in this respect. Some orchards are on land so rolling that it would wash badly if cultivated, and yet clean culture is essential to success in fruit growing. Trees well mulched will be more productive and profitable than those left to compete with the weeds and grass for the necessary plant food and water.

On slope land the mulch will hold water, prevent washing, and also delay the evaporation of moisture from the surface. Straw, corn stalks, coarse manure, in fact almost any coarse organic material can be used for mulching. Practically all such material will cost is the labor of hauling it out and spreading it. Such a mulch should be at least four inches deep. It will rot down in the course of time and more should be added. The results of mulching will be more apparent if it is done now rather than later in the season, for it will serve to protect the ground from deep freezing and may be the means of reducing winter injury of the roots of trees.

How to Ship Furs

After your catch has been skinned and the pelts stretched and dried, the furs are ready for packing and shipment. Each skin, when placed in the bundle, should lie perfectly flat and should be thoroughly cleaned. One skin should not be placed inside another or it may be overlooked. In general, furs should not be folded or rolled for this destroys much of the good effect of the stretching.

Furs should be shipped either by express or by mail, never by freight. If shipped by express the furs should be packed securely in a burlap bag or sack and the sack tightly sewn up. The burlap allows the air to get through and at the same time protects the furs fully. If sent by mail, the furs should be first wrapped in cloth and then in strong paper. The bundle should be fastened well, but not sewed up so that it is impossible for the postal authorities to inspect it if they wish, for then first class rates will be charged.

Each bundle or package should be carefully marked for shipment. The largs fur firms offer trappers any number of their shipping tags free. The tags consist of outside and inside tags, on which the trapper writes his name and address. One tag should be placed on the outside of the bundle and the other on the inside. In this way, if the outside bag is torn off in transit, the trapper has still his name on the inside and his shipment will not be lost.

A few of the large fur houses not only buy furs but also sell complete lists of trappers' supplies. Arrangements are made so that the trapper may buy whatever supplies he may need with his actual fur shipments and is not then necessitated to send cash with his order.

Death of B. O. Severson

B. O. Severson, associate professor of animal husbandry at the Kansas Agricultural College, died of influenza December 4, after an illness of only a few days. He leaves a widow and one small child. Professor Severson had made many friends in the short time he had lived in Manhattan, and had impressed everyone with his faithfulness and efficiency.

Professor Severson was born in Stoughton, Wiseonsin, December 9, 1887. He graduated from the University of Wiseonsin, earned a master's degree from the University of Pennsylvania, and had completed almost enough work in the University of Illinois to receive the highest scholastic degree, Doctor of Philosophy. In pursuance of his work for this degree he had devoted his time to advanced study of genetics, or the science of breeding, under the direction of Dr. Charles Zeleny, professor of zoology, and Dr. J. A. Detlefson, professor of genetics, both of whom are prominent investigators and teachers in this field. He also visited Dr. Leon J. Cole, in charge of experimental breeding, University of Wisconsin, last summer, and got in touch with the extensive and valuable work which Doctor Cole is directing there.

During the past eight years Professor Severson was a member of the animal husbandry department of Pennsylvania State College, being engaged largely in work relating to the maintenance of beef cattle and sheep. On this subject during his investigations he published a number of exceptionally valuable articles, among which are "The Maintenance of a Beef Breeding Herd," "The Maintenance of Breeding Ewes of Mutton and Wool Sheep," "Maintenance Rations for Breeding Flocks of Mutton and Wool Types of Sheep," and several other valuable and more technical papers, published both by the Pennsylvania State College and Journal of Agricultural Research. Among his bulletin publications are "Investigations on Raising Beef Cattle" and "Sheep Raising in Pennsylvania." He had been a regular contributor to several of the leading farm journals of the country, especially the Breeders' Gazette and the National Stockman and Farmer.

The Kansas Agricultural College had elected Professor Severson to take charge of the teaching and investigational work in genetics and animal breeding, this chair having become vacant through the resignation of Capt. E. N. Wentworth, now in France. Professor Severson came to the Agricultural College last summer with big plans well under way for extensive and valuable investigations in animal breeding at the college and experiment station. During the eight years in which he was engaged in instructional and investigational work in live stock production in the animal husbandry department of Pennsylvania State College, the importance of the scientific study of the problems of animal breeding and the scarcity of men trained in live stock production and interested in animal breeding influenced him to undertake graduate studies in genetics and devote himself exclusively to advanced work in that field. While he was a conscientious and capable teacher, yet his keenest interest and most valuable future plans and hopes were in his investigational work. In his death the institution loses one of the most promising young investigators in agricultural science.

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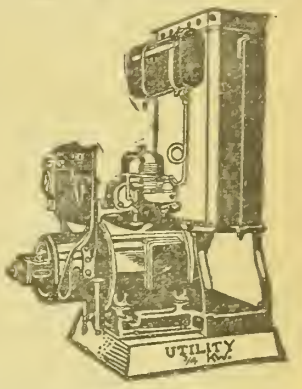

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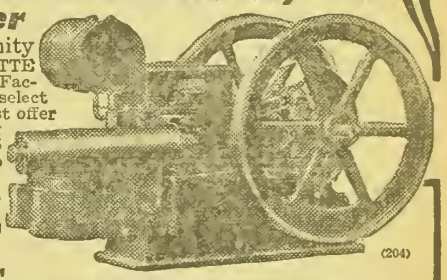

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Dry Bill a Law

We are to have national prohibition at least for the period of the war and demobilization. President Wilson signed the Food Stimulation Bill, which carried a provision prohibiting the use of any food products in the manufacture of intoxicating liquors until demobilization is ended. No liquors can be manufactured after May 1, 1919, and no intoxicants can be removed from storage for sale after June 30 for the same period. This ends a long and bitter fight in which the liquor forces have resorted to every possible effort to prevent this legislation from passing.

Men discharged from the army will be permitted to wear their uniforms three months, but they are expected to return their uniforms to their former camps as soon as possible. Postage will be free. Holding the clothing beyond ninety days makes the discharged soldier subject to prosecution for embezzlement of government property.

Poultry

PLYMOUTH ROCKS.

"RINGLET" BARRED ROCK COCKERS, $3 and $5 each. Mrs. C. N. Balley, ndon, Kansas.

LARGE HEAVY BONED WHITE ROCK ckerels (farm raised), at $3 and $4 cach. rs. John Henkens, Denton, Neb.

PURE-BRED BARRED PLYMOUTH ock cockerels, Parks' 200-egg strain; good es; $3 to $5. Discount on large orders. m Poultry Farm, Haven, Kan.

BEAUTIFUL LARGE WHITE PLYouth Rock cockerels, $2.50 each, if taken once. Need room. Louis Jones, Monroe, b.

BARRED ROCK COCKERELS, BOTH ht and dark lines, $5 each; six for $25. C. Lindamood, Walton, Harvey County, nsas.

CHAMPION BARRED ROCK COCKERS, large and well marked. Dams have ap nest record 225 eggs a year. Have won any prizes in largest towns. $3 each. e Hudnall, Milan, Mo.

SEVERAL BREEDS.

WHITE LEGHORNS, BLACK MINORS, Barred Rock cockerels, ducks, geese, ineas. Emma Ahlstedt, Lindsborg, Kan.

LEGHORNS.

PURE-BRED S. C. BROWN LEGHORN ckerels, $2 each; six for $10. Mrs. L. H. astings, Thayer, Kansas.

ROSE COMB WHITE LEGHORN COCKels, $1.50 each. Mrs. Den Barry, Wallace, b.

YESTERLAID S. C. WHITE LEGHORN ckerels, $1.25 if taken at once. Mary ws. Hartford, Kansas.

FINE S. C. W. LEGHORN COCKERELS, rong, vigorous, good type, Ferris strain, $2 ch. Also large Toulouse ganders, fine ock, $3 each. Chas. Yoder, Waldron, Kan.

ORPINGTONS.

S. C. BUFF ORPINGTON COCKERELS, -$5 each. John Oiler, Adrian, Mo.

S. C. BUFF ORPINGTON COCKERELS, $4. Mary E. Price, Route 7, Manhattan, an.

RHODE ISLAND REDS.

ROSE COMB RED COCKERELS, $1.50-$4. wis Bauer, Dover, Kan.

STANDARD BRED R. C. RED COCKERS, $2 and $3 each. Mrs. B. F. Weigle, infield, Kansas.

PURE-BRED R. C. R. I. RED COCKERS. $1.50 to $2.50 each. J. W. Warner, ush Center, Kansas.

SINGLE COMB REDS — EXCELLENT lor with good laying qualities. Cockers, $2.50; pullets, $1.50. O. K. Lynn, Lane, ansas.

DARK RED ROSE COMB REDS, GOOD oring, greatest laying strain; cockerels, llets, eggs. Satisfaction guaranteed. Highnd Farm, Hedrick, Iowa.

TURKEYS.

BOURBON RED TURKEYS, SUPERFINE, now. R. H. Brown, Halstead, Kan.

OAK HILL FARM, HOME OF THE re-bred M. B. turkeys, May hatched, large, od weight. Route 3, Lawson. Mo.

MAMMOTH BRONZE TURKEY TOMS, elght about 25 pounds, $8 each; hens, $4. W. Galloway, Jamestown, Kansas.

EXTRA FINE BOURBON REDS, MAY tch. Toms, $6; hens, $4. Mrs. Harry itchell, Rozel, Kansas.

BOURBON RED TOMS, $6; HENS, $4; rly hatched, large bone, long bodies, cely marked. Mrs. R. E. Weeks, Philsburg, Kan.

WE SOLD FIVE CHAMPION BRONZE rkeys last March for $750. One tom ought $500. Have 300 grand birds, same eeding, sired by sons of my 52-pound ampion tom, $7.50-$25 each. Ike Hudll, Milan, Missouri.

LANGSHANS.

BLACK LANGSHAN COCKERELS, $2 d up. Mrs. Geo. W. King, Solomon, Kan.

PURE-BRED WHITE LANGSHAN COCKels, $2 each. Grace Welch, Utica, Neb.

BIG BLACK LANGSHAN COCKERELS d pullets, fancy and utility; also eggs, uaranteed. H. Osterfoss, Hedrick, Iowa.

DUCKS AND GEESE.

CHOICE WHITE CHINA GANDERS, $6 ch. Rouen ducks, $5 per pair. White rican guinea cocks, $3 each. Earl Scott, elvidere, Kansas.

POULTRY WANTED.

IF DISSATISFIED WITH LOCAL PRICES poultry, write for cash offers. Coops aned free. The Copes, Topeka, Kansas.

RABBITS

PEDIGREED RUFUS RED DOES—ONE, ven young, 6 weeks, $8; one, nine young, weeks, $8. Samuel Ferguson, Route 28, peka, Kansas.

Put eight inches or more of straw on e floor. Feed the grain in this litter d make the birds scratch and work it for their grain feed.

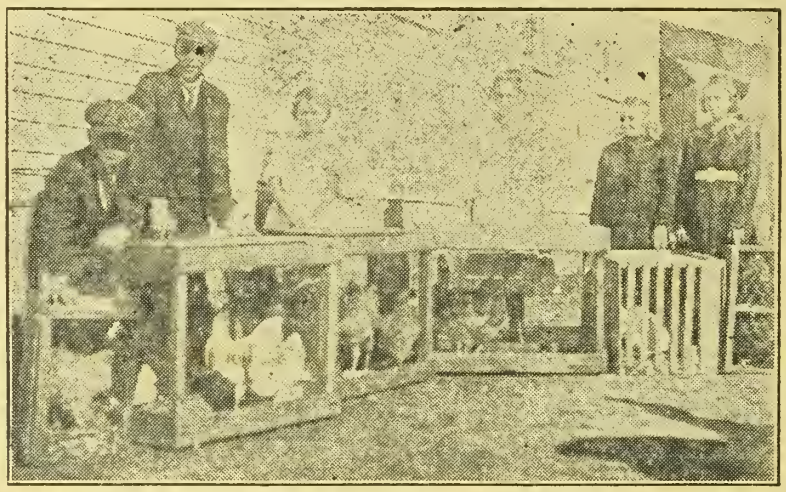
HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

HELPING UNCLE SAM

THE boys and girls of Lone Tree, a Jefferson County community, organized a poultry club last spring, their avowed purpose being to help win the war by raising poultry, thus setting free meats that could be shipped to the Allies and our soldiers. Members of this club succeeded in raising six dozen chickens of the various breeds, that are now worth on the market at least $75. They are all of good stock and as breeding stock are worth much more than $75.

It was decided that a good time to make an exhibit of what they had done would be on the occasion of the Pomona grange meeting. This meeting was held at the Lone Tree school house November 9. The judges decided that the chickens were all so good that they could not place them, so called it a draw and divided the money equally among the six members of the club, who were as follows: Helen Anderson, president; Helen Fauber, vice president; Marlin Bliss, secretary; and Genevieve and Daniel Fauber, and Allen and Maudie Smith. These patriotic boys and girls like the poultry business so well that they will try again next year. The breeds raised by the club were Barred Rocks, White Rocks, Buff Orpingtons, and White Leghorns. The cut shows all the members on the occasion of their exhibit at the Pomona grange meeting.—JESSIE MCCAFFERTY.



LONE TREE POULTRY CLUB EXHIBIT.—EVERY MEMBER PRESENT AND EXHIBITING

Grind Scraps for Chickens

"Table scraps and kitchen waste are best prepared for feeding by running them through an ordinary meat grinder," says H. W. Sanborn, extension poultry husbandman, U. S. Department of Agriculture. "After the material has been put through the grinder it is usually a rather moist mass, and it is well to mix it with some corn meal, bran, or other ground grain until the whole mass assumes a crumbly condition. All can be fed that the hens will eat up clean, and if any of the material is left after one-half or three-quarters of an hour it should be removed. If allowed to lie it may spoil and would be very bad for the hens."—The County Agent.

Kindness and Patience Needed

Boys inclined to go wrong are not likely to be permanently benefited by the rod. Better to encourage right conduct by appealing to what is good and noble. If your watch gets out of order and you take it to a jeweler, he would not get angry and break it to pieces as punishment. Carefully examining each intricate part of the machinery to find out just where the trouble was, he would soon have the defect remedied and the watch in running order again. Is not this the principle on which we should deal with the erring child? They do wrong often from causes they cannot control or comprehend, and it requires a thoughtful and sympathetic mind to find the springs of action and adjust the delicate machinery, whether it be of the mind, the heart or the body. If we are wise and patient we will have a grateful boy responding readily to good influences instead of a sullen and defiant lad seeking opportunity for revenge.—J. J. KELSO in Humane Pleader.

Provide Litter for Chickens

To be profitable a hen must be contented. A good way to keep hens contented is to provide a deep litter of about ten or twelve inches of good clean straw. Remove the litter as soon as it gets dusty and replace with fresh straw. Otherwise the fowls will have what seems to be catarrhal colds, caused by the dusty particles setting up an irritation in the nostrils. No better and no more economical method of compelling laying hens to exercise during the winter months has been devised than by feeding the scratch feed scattered in deep litter. Another advantage of the deep litter in the poultry house is to keep the floors warm, especially when they are concrete floors.

Keep the Laying Hens

Recent reports from the Bureau of Markets of the United States Department of Agriculture indicate that there are about 17 per cent fewer eggs in cold storage than at the same time last year. Fresh country eggs were quoted in New York in November at 95 cents to $1 a dozen. With the cold storage supply reduced and high price prevailing over the entire country, the hens given proper care through the coming winter should return good profit. There is no indication that eggs will be lower and they may be higher.

The One-Room School

There is no sense in talking of the charms of country life and the independence and dignity of producing from soil if the school at command is no more modern than a wooden plow. The old-fashioned one-room schoolhouse * * * having but a single teacher who knows nothing but books, is not a modern institution. — FRANKLIN K. LANE, Secretary of the Interior.

White Leghorn Pullet Record

Twenty White Leghorn pullets at the Wisconsin Experiment Station poultry farm at Madison have already laid as many eggs each as at least one-half of the hens in the United States average for the whole year. The eighty-eggs-a-year farm hen has been put to shame by the performance of 107 Leghorn pullets, which laid 2,879 eggs between the last of August and the first of November, averaging 27 eggs each in the two months. With the price of eggs ranging around 50 cents a dozen, the pullets have been worth about $120.

The lot of twenty pullets laid 950 eggs up to November 1, an average of 47½ eggs apiece—an especially high record, points out O. N. Johnson of the poultry department.

The success of the experiment, Mr. Johnson says, is due greatly to the early hatch. March and April pullets have a better chance to develop into early layers. The pullets were chosen from good egg-laying strains.

The ration has been strictly war-time. At present it consists of a light feed of corn, barley, and oats. This the pullets are given each morning, scattered in a deep litter of straw. Late in the afternoon they have a heavier feed of the same mixture. Besides this, they are allowed to eat all they want of dry mash made of equal parts cornmeal, bran, gluten feed, and middlings, with a small amount of meat scrap and a little salt. They have had no food or shelter that the ordinary farm could not supply.

Poultry Exhibit at Shows

An educational exhibit to be used at the leading poultry shows of the state is now being prepared by the extension division of the Agricultural College. The exhibit includes models of laying houses satisfactory for a farm flock, colony houses, back-yard poultry houses, and photographic enlargements of standard poultry. The houses will include full equipment.

R. M. Sherwood, specialist in poultry husbandry; E. H. Wiegand, state poultry club leader; and John L. Prehn, extension poultry husbandman, will in turn accompany the exhibit. At each exhibition place the person in charge of the display will be prepared to give advice as to care and feeding and the use of various feeds.

The exhibit will be shown free at all poultry shows over the state. The state shows open early in December.

Curing Egg-Eating Hens

Egg eating by hens is not a natural habit; they first learn it in confined runs and coops by the breaking of eggs or an occasional egg without a shell being dropped from the roost at night. Hens display onwonted eagerness to devour a broken egg at night, and the inference is when they attack the eggs in the nest that their systems demand something an egg furnishes, and which they cannot otherwise obtain. A reasonable supply of fine meat, ground cut bone, green food and lime usually operates as a preventative for this almost incurable habit. If their soft feed is salted two or three times a week it will tend to stop the habit. But the best remedy for those hens that will persist in the habit is to furnish them with very dark nests, or provide them with a nest box the bottom of which should be cushioned and padded, having a hole in the center large enough for the egg to roll down out of sight underneath to another box prepared to receive it.

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THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

School Lunches

SAID the farmer's busy wife, "There is one time when I feel exactly like old Motber Hubbard. It's when I go to put up the lunches for the children to take to school."

Some communities are solving this problem by the co-operation of the patrons, tbe teacher, and tne school board. Simple, inexpensive equipment is necessary. The patrons furnish the staple food articles and the teacher must be capable and willing to teach the simple rudiments of domestic science.

A one- or two-holed oil stove and oven, a large aluminum kettle with lid, a half dozen paring knives, and a couple of large tablespoons make a good start toward the equipment to be supplied by tbe school board. Such equipment, however, should be determined by the teacher in consultation with the school board. Only those things which are absolutely essential should be purchased.

Each patron then places in the teacher's hands a list of the vegetables and canned fruits which he has stored from his garden and orchard and from which he will contribute to the school lunches.

For each home the teacher makes a menu at the end of the week and with it sends a note containing a list of things to be furnished for the coming week. Teachers who bave conducted school lunches say that soups and baked vegetables are most nourishing and easily prepared. The milk for hot cocoa is to be had in abundance on every farm.

Each child brings from home eacb day a bowl, a spoon, and bread and butter sandwiches, also whatever raw food material the teacher may bave requested for that day.

Teachers who have worked out this idea require the children to use directions and recipes posted by the teacher at the beginning of each day. This relieves a great deal of confusion. Every child has some share in the task and tbe duties are alternated. In time each has done his sbare in preparing, serving, and cleaning.

This problem fixes in the child's mind the principles of sanitation, it teaches him to do things for other people, it gives him good wholesome food, it relieves his mother of a daily task, and gives bim, be he girl or boy, a systematic training in tbese simple household duties.

The menus for a month, used in a school tbat had adopted this plan, are:

First Week: Monday — Bean soup, crackers and cocoa. Tuesday — Baked potatoes on the half shell. Wednesday —Rice pudding served with milk. Thursday—Pea soup served with toast. Friday—Creamed carrots.

Second Week: Monday—Potato soup and croutons. Tuesday—Creamed cabbage and hot cocoa. Wednesday—Vegetable soup and crackers. Thursday—Canned string beans with white sauce. Friday—Baked parsnips.

Third Week: Monday—Tomato soup. Tuesday—Baked rice and apples. Wednesday—Eggs poached with toast. Thursday—Apple dumplings and milk. Friday—Cabbage and cheese.

Fourth Week: Monday—Peeled baked potatoes. Tuesday — Prunes and rice. Wednesday — Tomatoes cooked with bread. Thursday — Baked sweet potatoes. Friday — Creamed asparagus. — JULIA ANNETTE KEELER.

Butchering Time

If several hogs or beeves are butchered at one time it is likely there will be more livers, tongues, and hearts than can be used to the best advantage wbile fresh. If some of this meat is preserved until later it will make a pleasant change when you bave tired of one kind of meat. Some of it may be canned and used as picnic meat next summer. The following recipes for using surplus liver, tongue, etc., are offered by the United States Food Administration:

PICKLED TONGUE.—Place fresh tongue in hot water, let it come to a boil and boil gently for three hours or until tender. When cooked, remove from water, skin, put back into the water and let it get cold. Slice in thin slices, put one layer of sliced tongue in the bottom of an earthenware crock, then one layer of sliced onions, a few thin slices of lemon, salt, pepper, a little sugar and mixed spices. Repeat until all the tongue is used, having the onion and lemon on top. Cover all with vinegar. If the vinegar is too strong, use two-thirds vinegar and one-third water.

PRESSED BEEF TONGUE.—
- 1 beef tongue
- 1 veal shank
- Cayenne pepper
- Salt
- Black pepper
- 2 tablespoonfuls catsup

Boil tongue and veal shank together for three hours, putting it on to boil in cold water. This will draw out all of the gelatin of the veal bone. When tender, skin the tongue, cut in slices or put through a coarse meat grinder. Add salt, pepper, cayenne, and catsup, put into a mold and cover mixture with the liquid in which it has been boiled. When cold, turn out on a platter, slice, and serve.

CALF'S HEAD-CHEESE.—
- 1 calf's head
- 1 tablespoonful chopped herbs
- Pepper
- Salt

Put calf's head in enough water to cover, let come to a boil and boil gently until meat leaves the bone. Take up with a skimmer, put into an earthen bowl, season witb salt, pepper and chopped herbs. Lay a cloth in a colander, put minced meat into it. Fold a cloth over the top, weight down with a plate. When cold, slice and serve with mustard.

PORK LOAF.—
- 1 pound chopped ham
- 1 pound chopped fresh pork
- 3 tablespoonfuls chopped onion
- 1 tablespoonful salt
- 1 teaspoonful pepper
- 1½ teaspoonfuls curry powder
- 1 tablespoonful sage
- 1 egg
- ⅓ cupful cream

Chop meat and onion and mix together. Add egg and cream. Shape into loaf and tie in cheesecloth. Simmer two and one-half hours in three quarts of boiling water to which one teaspoonful of salt and four tablespoonfuls of vinegar have been added. Drain, press, and cool.

POTTED LIVER.—Wash and cut up two pounds of beef liver. Cover with cold water, let come to a boil, and simmer until tender. Press through a potato ricer; add one-half cupful of butter, one-half teaspoonful of salt, and a dash of pepper. Beat the above mixture to a smooth paste. Mince a good-sized onion and a few sprigs of parsley and stir into the mashed liver. Put in jars in a cold place and it will keep for some time.

The Christmas Tree

A lighted Christmas tree with shining ornaments and nuts and candy and bearing in a conspicuous place your present—an inexpensive one maybe, but the very thing you wanted most of all—a holiday dinner, and a time when ordinary occupations were laid aside and everyone had time to visit and laugh and play; isn't that what Christmas meant to you when you were a child? For it takes only a little of the unusual to create a holiday glamour in the sunny atmosphere of childhood. The Christmas tree is one of our most cherished holiday traditions, and in homes where it has been the custom probably nothing else will quite take its place. In many homes it will be somewhat hard to carry out the usual program, for someone is missing who was with us last year at this time, but this is one way of keeping the home fires burning and we must meet the occasion bravely, as those Over There wish to have us. We must not selfishly rob the children of the happiness which is their birthright.

If the celebration in home or church or school is to take the form of a tree, care should be taken to guard against the danger of fire. Electric lamps, carefully wired, are much safer for lighting the tree than candles, but if electricity is not available and candles are to be used, extra precautions are necessary. Many fires are caused by the careless use of lighted candles on Christmas trees. The tree should be fastened firmly so that it cannot be upset and the floor under the tree should be protected by a piece of zinc or iron. Decorations of paper or cotton and ornaments of celluloid or other inflammable materials should not be placed on the tree. Metallic or tinsel ornaments or those of other non-inflammable materials are safer. Cotton or cotton wool, sometimes used to represent frost or snow, catches fire very easily. The same effect may be secured by the use of asbestos fiber or mineral wool which will not burn.

The candles should never be lighted by children. They should be so placed that they cannot set fire to the branch above them. Doors should remain closed while the candles are burning because of the danger that drafts may blow the flame from the candle or sway the branches into the flame. Before the gifts are distributed the candles should be extinguished.

It is dangerous to leave the Christmas greens in the house more thon two or three days following Christmas, because the tree itself will burn readily when the needles have become dry, as will also dried branches of evergreen, holly, or mistletoe.

Ministering to Others

You are planning it now, that first dinner when your boy comes home. There will be chicken, and hot biscuit, and chocolate cake. And that first breakfast; how your eyes will watch him as he devours buckwheat cakes and sausage! Not a word will be needed, for you have placed before him the best you can cook, and you know he will understand this common language of all mothers.

This is the first instinct of women, to minister to the needs of others. Where is there a woman in America today who does not long to pack a bushel basket and follow our American army as it advances to the Rhine? You know just the little cottage you would seek out—the weary mother and wan little ones—the table so bare of food. Then out of that basket would come a wonderful roast chicken, loaves of white bread, sweet butter and thick cream, and little cakes for the children—all those things that this good housekeeper has not seen for four long years. You have no French nor she English, but you two women would understand, for you would speak this universal language of women the world over—the language of ministration.

That bushel basket of your is going along. It is not packed as you would pack it, but food is being distributed. And this is the meaning of the food pledge—twenty million tons. The new work of women in food saving is to keep the agents of America supplied with the kind of food that can be shipped and handled abroad. They must save food that America may continue to speak this universal language of solace to a distracted world. This is the great mission of our country and this the blessed opportunity of every woman.

Corn Meal Waffles

Corn meal waffles have been found to be one of the best and most nutritious foods for winter use, as determined by baking tests at the Ohio Experiment Station.

The tested recipe for corn meal waffles is: One cake of compressed yeast; two cupfuls of milk, scalded and cooled, or half water; two tablespoonfuls of syrup or sugar; two tablespoonfuls of shortening, melted; one teaspoonful of salt; two cupfuls of corn meal mixed with one-half teaspoonful of soda and one-half cupful of sifted white flour.

Dissolve the yeast and the sweetening in the lukewarm liquid, add the shortening, corn meal, flour and salt. Beat until smooth; cover and let rise in a warm place for an hour, or until light. When light, stir well. Have the waffle irons hot and well greased; fill the cool side, brown on one side, turn the iron and brown on the other side. If the batter is too thick, add a few tablespoonfuls of water.

If wanted for over-night, use one-fourth cake of yeast and an extra half teaspoonful of salt. Cover and keep in a cool place.

Dry Potato Yeast Starter

The following recipe for a dry "starter" for bread is recommended by the home economics department of the University of Wisconsin:
- 1 quart riced potato
- ¼ cupful sugar or syrup
- 2 teaspoonfuls salt
- 1 cake yeast
- 2 tablespoonfuls lukewarm water

Tightly pack a quart measure with riced or mashed potatoes. Turn into a bowl and mix with sugar and salt. Let cool. Soak a cake of yeast for two hours in the lukewarm water. Mix softened yeast with the potato mixture. Cover bowl with cloth and keep in warm place twenty-four hours. The following morning divide the yeast starter, using two-thirds for setting sponge. Cover the remainder and keep in a cool place.

The day before the next baking add enough more riced potatoes to make a quart in bulk. Add one teaspoonful of salt and two tablespoonfuls of sugar. Keep in a warm place over night. Divide the following morning and proceed as before.

In Dark Days

Through lanes of the faded heather,
O'er graves of the withered leaves,
In the face of the autumn weather,
From the fields of the absent sheaves,
I pass to the darkening winter,
And I have no fear nor pain,
For the life of the world abideth,
And the spring will come again.

Dear heart that is growing weary,
Let not thy faith decay;
Some days of the year are dreary,
But the fogs will pass away.
Ever the sun shines somewhere,
Over the land and sea.
Be strong in thy faith and courage—
There are summers yet for thee.
—Marianne Farningham in The Baby's Mother.

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FOR SALE—CAN OFFER YOU SOME fine corn, wheat and alfalfa farms, priced from $28.50 to $45 per acre. These farms are well improved, close to good town, and are real bargains. Write for price and description. F. D. Greene, Longton, Kan.

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EIGHTY ACRES, IRRIGATED, UNDER cultivation; small improvements; fourteen miles from Denver; ½ mile to elevator, beet dump and railroad shipping station; 7½ miles sugar factory. Thirty acres fine stand alfalfa; balance wheat, oat, barley, bean and sugar beet land. Running creek cuts one corner, affording pasture. Chocolate loam top soil with deep clay sub. Fine place for general farming and stock, hogs, or cattle. Price, $135 per acre; $2,000 cash, balance ten annual payments. Owned and for sale by Chicago Title and Trust Company, 701-8 Ideal Bldg., Denver, Colorado.

160 ACRES, OR WILL DIVIDE INTO eighties, smooth irrigated farm land, under cultivation but without buildings. Just a few miles from Denver in an old settled district. Fine wheat, alfalfa and sugar beet land. Good well water. Close by elevators and splendid railroad shipping facilities. Fine soil, plenty of irrigation water. Price, $115 per acre; easy terms; ten years time. This is good land and will make its payments from the crops each year. We will make the down payment sufficiently small to enable the purchaser to erect buildings to his own liking in lieu of any large down payment to us. Owned and for sale by Chicago Title and Trust Company, 701-8 Ideal Building, Denver, Colorado.

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REGISTERED JERSEY BULL CALVES, $20 up. H. R. Harvey, Ulysses, Neb.

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FOUR HIGH GRADE HOLSTEIN COWS, three Holstein heifers, one fine two-year-old Holstein bull from Canary Butter Boy King, gentle and quiet, not registered. Also De Laval cream separator No. 15, nearly new. Mrs. H. Buchenan, Route 3, Abilene, Kansas.

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REGISTERED LARGE TYPE POLAND China boars, herd headers; best blood lines; extra individuals; weight, 150 to 400 pounds. M. A. Draper, Topeka, Kansas.

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HONEY.

FOR SALE—1918 CROP OF HIGH GRADE table honey direct from bees to you. Guaranteed to be absolutely pure. Can containing 60 pounds net, $15.25. On orders for two cans or more the price is $15 per can and the freight is less on shipments of 100 pounds or over. Have dark honey for table or cooking purposes also, which I can recommend as pure and good. Single 60-pound can, $13, or $12.75 each for larger lots. Prices f. o. b. Hotchkiss, Colo. All cans securely boxed and strapped. Frank H. Drexel, Crawford, Colorado.

Ayrshire Cow Makes Big Record

THE Ayrshire cow, Canary Bell, the ten-year-old champion cow of Kansas and owned by the Kansas Agricultural College, celebrated the signing of the armistice by completing another good A. R. record. She already held all state records for Kansas, but she made another mark for would-be rivals to aim at, finishing a mature record of 19,863 pounds milk, 744.51 pounds fat.

Canary Bell was born August 2, 1908. She was bred by Sam Jones & Son, Juneau, Wis., but owned and tested by the Agricultural College. She already had four records to her credit. Her five records are as follows: 10,092 pounds milk, 371.81 pounds fat; 12,809 pounds milk, 490.74 pounds fat; 15,252 pounds milk, 559.29 pounds fat; 17,375 pounds milk, 667.10 pounds fat; 19,863 pounds milk, 744.51 pounds fat—a grand total of 75,391 pounds milk, 2,833.45 pounds fat, in five lactation periods, or an average for five years of 15,078 pounds milk, 572.69 pounds fat. Her records show a steady increase year by year and with age she has developed into a strong vigorous animal capable of still greater work.

This cow's records are all the more attractive because she has produced offspring which promise to rival her. Melrose Canary Bell, a daughter, has a record of 13,891.1 pounds milk, 505.5 pounds fat, as a two-year-old.

Canary Bell has the highest record of any living cow in the state and her new record is the highest milk production recorded in the Ayrshire Association's mature class this year.

Canary Bell's last record replaces the present state record of 18,377 pounds milk and 693 pounds butter fat, held by her stable mate, the Holstein cow, Maid Henry Pontiac, and also replaces the record of Maid Henry, who produced 19,600 pounds milk and 715 pounds of fat, which was the highest record ever made in Kansas.

Feeding the Dairy Bull

A good bull is essential in building up a dairy herd, for all the calves inherit half the blood from the sire. Too often the bull is housed in dark, dirty quarters and little attention is given him. The bull at all times should have proper feed, and the kind will depend somewhat upon his age. Young growing bulls do well when fed legume hay and four to eight pounds of grain daily. A suitable mixture to be fed with clover or alfalfa hay is four parts of corn chop, one of oats, and one of bran. Older bulls as a rule are not as active as young animals, and there is more danger of overfeeding them. After the animal is mature he requires only sufficient feed to keep him in good breeding condition and to keep him warm. The herd bull should not be allowed to become fat, as this results in sluggishness and early loss of breeding power. See that he has an abundance of drinking water and ample opportunity for exercise.

While care should be exercised to avoid overfeeding, do not go to the other extreme in the case of young bulls, as overfeeding checks growth. Size is always a desirable quality, and it is poor economy to underfeed a growing sire. Feed him a sufficient amount of grain to furnish ample material for growth and regulate the quantity according to his appetite and condition.

Standard for Oleomargarine

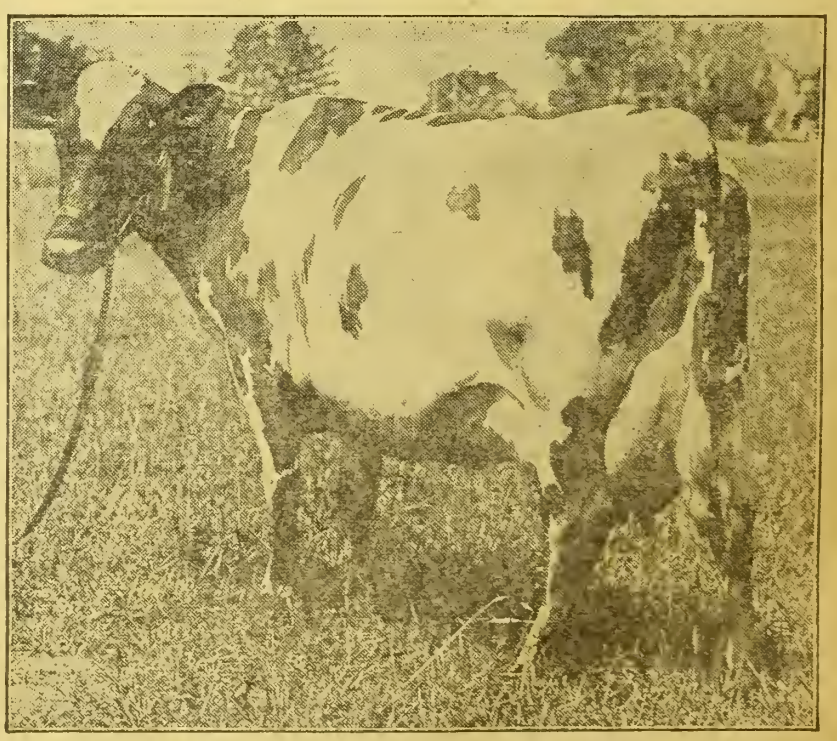
There is no standard for oleomargarine at the present time as there is for butter. The only law relating to oleomargarine is that passed through the efforts of the National Dairy Union, which prevents it from being sold as butter. In a recent open letter George P. Hampton, of Washington, D. C., writes as follows:

"A public hearing by the Joint Committee on Definitions and Standards to consider Definitions and Standards for Oleomargarine at 10 A. M. on December 4, at the Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C., is announced. All persons interested are invited to attend, and those who desire may present their views in writing on or before the date of the hearing to the secretary of the committee. The Joint Committee on Definitions and Standards is composed of representatives of the U. S. Department of Agriculture. The Association of American Dairy Food and Drug Officials and the Association of Official Agricultural Chemists.

"Since our successful fight against the Oleomargarine Underwood Amendment in the spring of 1917, in which we demonstrated that our combination was more than a match for the oleo combine and instantly ready for any emergency, there has been continuous effort to break up a combination that proves so dangerous to the oleo, that is, the packing interests, and at this December meeting the dairymen should not only agree upon their plans for the coming oleo fight, but in view of the constant menace to the dairy interests of the oleo combine, should decide their policy toward the Farmers' National Headquarters, or any other plan for federating the farm organizations.

This meeting is of considerable interest to dairymen who cannot see why manufacturers of oleomargarine should have any special privileges. It is to be hoped that such action will be taken as will result in the establishment of a definite standard for oleomargarine.

The cows are more comfortable in a well ventilated barn, and that means that they are more healthy and profitable. It is the healthy and comfortable cow that makes the handsomest returns.



CANARY BELL, AYRSHIRE COW HOLDING STATE PRODUCTION RECORD

The Government's Call for Income Tax Statements Makes it Certain that

YOU NEED THIS BOOK

GET STARTED RIGHT

There is no better time than right now to begin keeping Farm Records so that you will have the required information ready to make your income tax statement next year. No doubt you are already keeping your records. You want the most simplified and easiest way. Get this book. It's FREE.

PRACTICAL ACCOUNT BOOK

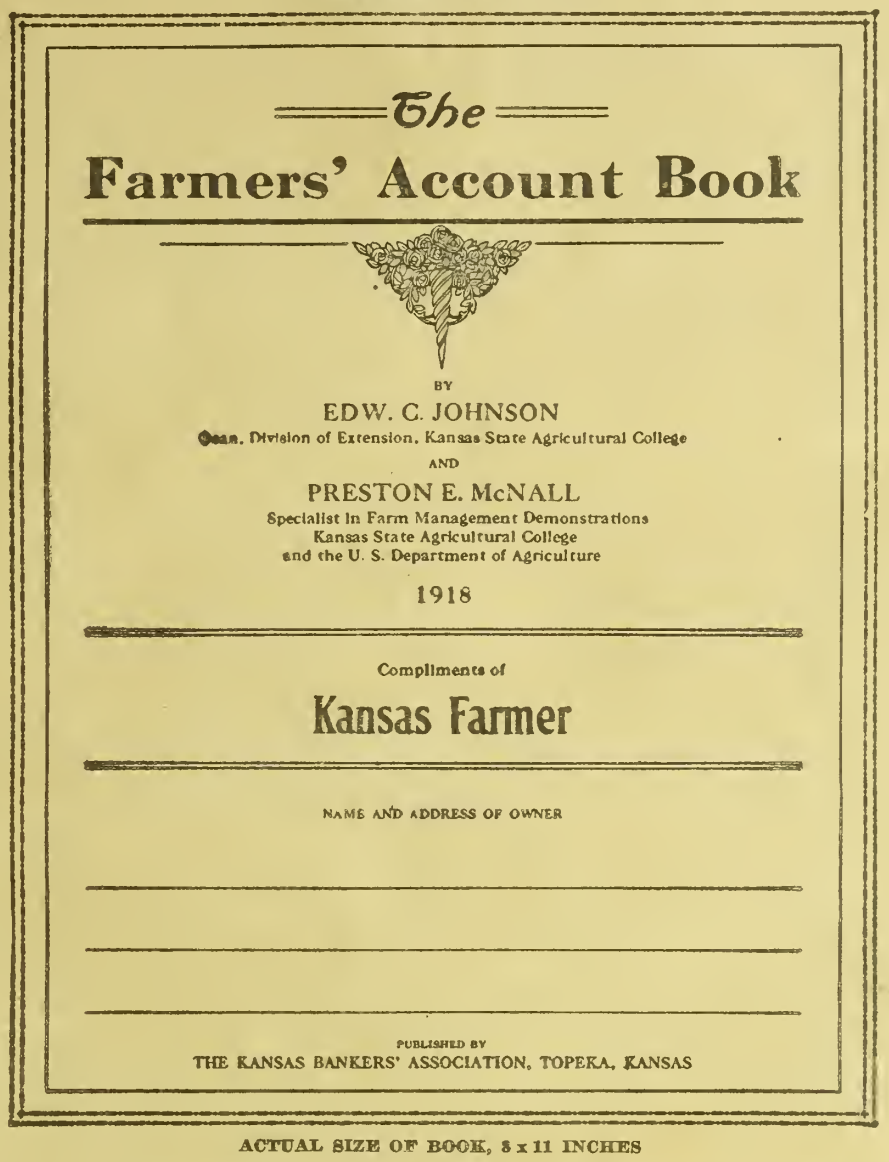
This book is a PRACTICAL Farm Account Book which has been developed under the direction of the United States Government men, working in co-operation with hundreds of farmers in Kansas. It is not merely theoretically correct, but has been prepared to fill the needs as shown by practical use on farms in this state.

THIS BOOK WILL MAKE YOUR WORK EASIER

Keeping accurate records of farm business is becoming more and more popular, not only because it is practically necessary for the income tax statement, but also for the value of the records to the farmer. The most important thing, however, is to secure and keep the information desired with the least amount of work and time; that is, in the simplest way.

The book which KANSAS FARMER is offering on this page, FREE to subscribers, is gotten up with the idea of keeping all the information necessary and valuable with the smallest amount of work. The book is a one-year record. It is small and convenient to keep. It contains full but simple instructions on how to keep the records required, with sufficient blanks for all entries.

ONE-HALF ACTUAL SIZE



ACTUAL SIZE OF BOOK, 8 x 11 INCHES

A PRACTICAL BOOK NOW IN USE BY FARMERS

The book is published by the KANSAS BANKERS' ASSOCIATION. It has been prepared by Dean Edwin C. Johnson and Preston E. McNall, both of the Extension Division of the Kansas Agricultural College, who have done their work on the book in co-operation with the United States Government.

This book has been used in Farm Management studies on hundreds of farms in Kansas where owners have heartily co-operated and offered many valuable suggestions for making it thoroughly practical and suited to actual farm conditions. These suggestions have been incorporated in this latest edition.

CONFORMS WITH REQUIREMENTS OF THE GOVERNMENT

It is the ultimate object of the Internal Revenue Office to adopt a uniform method of computing farmers' incomes. This includes farm inventories, farm receipts, and farm expenses, and follows very closely the book which is given by KANSAS FARMER to its subscribers. From year to year there may be a few slight changes made. For this reason it is best to buy a one-year book in order that each year your book will conform to the Internal Revenue rulings for that year.

FARMERS' ACCOUNT BOOK GIVEN FREE

HOW AND WHERE TO GET THIS BOOK

KANSAS FARMER desires to assist its readers in getting a book which will meet all their requirements at the least possible expense. The book described on this page is adapted to your needs and can be obtained FREE from many banks in Kansas, or KANSAS FARMER will give the book FREE with a subscription. Read our offer below and send today.

OUR OFFER

We will mail you ABSOLUTELY FREE and postpaid one of these Account Books for your renewal subscription to KANSAS FARMER at $1.00. Send us your order today and get your accounts started in such a way as will be easy to keep and which you know will be correct.

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To subscribers whose subscriptions are already paid in advance we make the following offer: Send us one new subscription to KANSAS FARMER for six months at 50 cents and we will send you one of the books FREE AND POSTPAID. This offer is open only to subscribers whose subscriptions are paid in advance, and the subscription MUST be a NEW ONE; that is, for someone not taking KANSAS FARMER at the present time.

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GENTLEMEN: Inclosed please find $1.00, for which renew my subscription for one year and send me the Farmers' Account Book as per your offer.

Name..... R. F. D.....

Town..... State.....

SALE OF REGISTERED
Shorthorn Cattle
AT
Holton, Kan., Thursday, Dec. 19, 1918
In Town, Under Cover

FIFTY HEAD—FORTY FEMALES, TEN BULLS

Twelve Cows with Calves at Foot



The bulls include the herd bull consigned by D. L. Dawdy, RED LINE, a Bruce Mayflower sired by Imp. Scottish Sentinel, dam by Imp. Strahan Star, second dam is Imp. Sobriety 2nd. And the young bulls of serviceable age include a CRUICKSHANK BUTTERFLY owned by Mr. John Conlon, besides several choice yearling bulls and bull calves.

J. Q. A. Miller consigns two females bred to ROSEDALE, one of the really good sons of the great AVONDALE.

The offering of D. L. Dawdy includes sixteen cows and heifers. These females of breeding age are bred to the Scotch bull, Red Line, and five of the cows have calves at foot.

The consignment of Ed Stegelin consists of sixteen cows and heifers; four of the cows with calves at foot, and all bred to good bulls, TRUE SULTAN or A SON OF ROSEDALE.

CONTRIBUTORS

D. L. Dawdy, Arrington, Kan.; Ed Stegelin, Straight Creek, Kan.; John Conlon, Atchison, Kan.; J. Q. A. Miller, Muscotah, Kan.

AUCTIONEER—Cary M. Jones, Chicago

Request for catalog should be addressed to

D. L. DAWDY, ARRINGTON, KANSAS

or to any of the contributors

SHORTHORN CATTLE.

SHORTHORN BULLS

For Sale — Ten bulls, seven to fifteen months old; Scotch and Scotch topped. Two Scotch bulls by Type's Goods, one a Brawith Bud, the other a Duchess of Gloster. All in good condition and priced reasonably.

S. B. AMCOATS, CLAY CENTER, KANSAS

Write Me Your Wants

MARKS LODGE RED SHORTHORNS

For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

Cloverdale Farm Shorthorns

For Sale—Three Shorthorn heifers, two bred to a grandson of Whitehall Sultan; also a fine roan yearling Scotch bull, a real herd bull for some one. Heifers, $150 to $225; bull, $300. Must go soon at this.

Wesley Jewell, Humboldt, Ks.

SHORTHORNS

A few Shorthorn bulls for sale, from eight to eighteen months old. Roan and reds.

S. A. HILL, Route 2, Smith Center, Kansas

MULEFOOT HOGS.

KNOX KNOLL MULEFOOTS

Thred sows, spring gilts and boars. Weaned August pigs. Priced for ulck sale. Satisfaction guaranteed. Free catalog.

S. M. KNOX - - HUMBOLDT, KAN.

CHESTER WHITE HOGS

Frost's Big Smooth O. I. C.'s

Forty Spring Pigs, Two Yearling Boars and 100 Early Fall Pigs.

All from prize winning blood and priced for quick sale. Write us today.

S. D. & B. H. Frost, Route 2N, Kingston, Mo.

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FRANK BLAKE Live Stock Auctioneer
I make sales anywhere
Write for date. VALLEY FALLS, KANSAS

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Write or wire for date.
818 Walnut Street Kansas City, Missouri

LIVE STOCK AUCTIONEER — Fifteen years' experience. Wire for date.
JOHN D. SNYDER, HUTCHINSON, KAN.

THE STRAY LIST.

TAKEN UP—ON THE FIRST DAY OF September, 1918, by Fred Manninger, residing six miles north of Anthony, Kansas, one horse colt, color black, weight about 700 pounds; white spot on forehead; appraised at $50. C. E. Kennedy, County Clerk, Anthony, Kan.

TAKEN UP — BY I. B. SHRINER, OF Geuda Springs, Sumner County, Kansas, on the 17th day of June, 1917, one pony mare, color bay, weight 1,000 pounds, branded 101L on hip, appraised at $50. Aiso one pony mare, color bay, weight 1,100, branded 102 and 437L on neck, 101L on hip, appraised at $50. James H. Large, County Clerk, Wellington, Kan.

GUERNSEY CATTLE.

GUERNSEY BULLS

Good Individuals of serviceable age, of May Royal, May Rose, Masher Sequel, Raymond of the Preel breeding. Write or come and see them.

ADAMS FARM, GASHLAND, MISSOURI

Twelve miles from Kansas City.

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H. C. LaTourette, Route 2, Oberlin, Kan.
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RED POLLED CATTLE
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GALLOWAY CATTLE.

GALLOWAY CATTLE

30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves

Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.

E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

HORSES AND MULES.

PERCHERON-BELGIAN-SHIRES

Registered mares with colts at side and bred again; registered fillies, stallions one to five years old; grown ourselves the ancestors for five generations on dam side. Sires imported.



Fred Chandler, R. 7, Chariton, Iowa
(Above Kansas City)

PERCHERON STALLIONS

Some good young stallions sired by Algare and Bosquet, two great herd sires. These young stallions are very promising and priced to sell.

D. A. HARRIS - GREAT BEND, KANSAS

JACKS AND JENNETS

Registered Jacks and Jennets. Good Individuals, good colors. Have some choice young jacks that are priced to sell quick.

GEO. S. APP, ARCHIE, MISSOURI

Registered Polled Durham and Shorthorn Cattle

FOR SALE—Twenty Head of Shorthorn Cows and Heifers bred to our show bull, SULTAN'S PRIDE, at $200 each for immediate sale. Also a few Shorthorn bulls at bargain prices.

Twenty-five Head Polled Durham Bulls of choice breeding, sired by Roan Orange, a 2,500-pound bull, and Sultan's Pride, a winner at three state fairs.

I will meet all trains except Sunday and show my stock. Write, wire or phone me.

J. C. Banbury & Sons, Polled Durham Breeders, Pratt, Kansas

POLAND CHINAS.



Faulkner's Famous Spotted Polands

THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.

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CLAIM SALE DATES.

Jacks and Jennets.

March 25, 1919—H. T. Hineman & Sons, Dighton, Kan.

Holsteins.

Dec. 12, 1918—Wichita Sale Holstein Cattle, Wichita, Kan.
Jan. 7, 1919—Rockbrook Farm Dispersion Sale, South Omaha, Neb. Henry C. Glissman, Station B, Omaha, Neb.
March 25, 1919—Kansas Holstein Breeders' Association sale, Topeka. W. H. Mott, sale manager.

Shorthorn Cattle.

Feb. 14, 1919—H. E. Huber, Meriden, Kan.

Poland Chinas.

Jan. 8—Henry Hayman, Formoso, Kan.
Jan. 30—Adams & Mason, Gypsum, Kan.
Jan. 30—Adams & Mason, Gypsum, Kan.
Feb. 1—H. E. Myers & O. L. Oshel, Gardner, Kan.
Feb. 6, 1919—H. B. Walter & Son, Effingham, Kan.
Feb. 7, 1919—Fred B. Caldwell, Howard, Kan.
Feb. 8, 1919 — Willis & Blough, Emporia, Kan.
Feb. 11, 1919 — O. B. Clemetson, Holton, Kan.
Feb. 11—Joe Schneider & T. A. Corkhill, Nortonville, Kan.
Feb. 12, 1919—James Barnett, Denison, Kan.
Feb. 13, 1919 — Herman Groninger & Sons, Bendena, Kan.
Feb. 17, 1919—Ed Cook, Mayfield, Kan.
Feb. 18, 1919—F. Ollvier & Son, Danville, Kan. Bred sow sale.
Feb. 19, 1919 — A. J. Erhart & Son, Ness City, Kan.; sale at Hutchinson.
Feb. 20, 1919 — Ross & Vincent, Sterling, Kan.
Feb. 21, 1919—Bruce Hunter, Lyons, Kan.
Feb. 22, 1919 — Bert E. Hodson, Ashland, Kan.; sale at Wichita.
March 4, 1919—Schmitz Bros., Seneca, Kan.
March 5, 1919—Jones Bros., Hiawatha, Kan.

Duroc Jerseys.

Jan. 28—W. R. Huston, Americus, Kan. Duroc dispersion and general farm sale.
Feb. 14, 1919—W. W. Zink, Turon, Kan.
Feb. 26, 1919—John W. Petford, Saffordville, Kan.; sale at Emporia.
Feb. 27, 1919—W. W. Otey & Son, Winfield, Kan.
Feb. 28, 1919—Wooddell & Daner, Winfield, Kan.

Spotted Poland Chinas.

Dec. 17—Geo. Akens-Faller & Miller, Rossville, Kan.
Feb. 18—Everett Hayes, Manhattan, Kan.
Feb. 25, 1919 — Everett Hays, Manhattan, Kan.

Chester Whites.

Feb. 11—Arthur Mosse, Leavenworth, Kan.
Feb. 27, 1919 — Henry Murr, Tonganoxie, Kan.

R. C. Watson, of Altoona, Kansas, owner of Ellen Dale Breeding Farm, the home of choice herds of Shorthorn cattle and Duroc hogs, reports his herds doing well. This year Mr. Watson raised an extra fine lot of pigs sired by boars that are among the best Duroc sires now in service. A feature of his Shorthorn herd at this time is the choice lot of young stock, including some outstanding bulls and a choice lot of heifers. The heifers are all bred to a pure Scotch bull.

We have just received Volume 38 of the Holstein-Friesian herd book. This volume contains the pedigrees of bulls from 216626 to 230705, and the pedigrees of cows from No. 391506 to 423670, approved and admitted for entry to February 26, 1918.

F. C. Crocker, of Filley, Nebraska, owner of the famous Maple Lane herd of Duroc hogs, reports his herd doing well. This is one of Nebraska's most noted herds. The popular blood lines of the breed are represented in Mr. Crocker's herd and a feature at this time is the choice lot of young herd material sired by some of the breed's most famous sires.

Adams & Mason, of Gypsum, Kansas, announce January 30, 1919, for their sale of Poland China bred sows. On this date they will sell fifty head of large roomy bred sows. Several of these sows they bought last spring at good prices. They are offering some of the best in the two herds and all are the big-type breeding and all will be bred for early spring litters to the trio of good boars used in the herds. The herd boars are Wonder Timm, a great son of the noted Big Timm, the Nebraska grand champion; Giant Bob by Mellow Bob; and Big Buster by Wonder Buster by Discher's Giant. These boars have proven sires of large even litters of the useful quick-maturing Poland China hog.

POLAND CHINAS

ERHART'S POLAND CHINAS

Have a great lot of spring boars for sale. Some by the 1200-pound, A Big Wonder. Will make prices on pairs and trios not related. All immuned. Write your wants. Bred Sow Sale Feb. 19, 1919.

A. J. ERHART & SONS
NESS CITY, KANSAS

Deming Ranch Poland Chinas. Big-Type Poland China Hogs

For Sale—Fifty spring boars, real farmer boars and herd boar prospects; 100 bred sows and gilts. Write or come and see our herd.

Deming Ranch, Oswego, Kan.
(H. O. Sheldon, Herd Manager)

BIG-TYPE BABY POLANDS

Well bred, heavy boned. Twenty dollars for choice. Trios for fifty dollars. Pedigree with every pig.

O. L. Isaacs, Peabody, Kansas

LONE CEDAR POLANDS

Strictly big type March and April pigs, either sex. Nothing but tops shipped. Prices reasonable. Guarantee to please. All cholera immune. **A. A. MEYER. McLouth, Kansas.**

LANGFORD'S SPOTTED POLANDS—April boars ready to ship; also summer pigs.
T. T. LANGFORD & SONS, Jamesport, Mo.

Townview Herd Poland Chinas

Ten Rugged Spring Boars, weight about 175 pounds, at $50 each. **Eight March and April Boars,** weight 135 to 150 pounds, $40 each. These boars are immune, heavy-boned and ready for business. Send check and get hog guaranteed to please you.
CHAS. E. GREENE, PEABODY, KANSAS

Henry's Big Type Polands

March and April pigs sired by Mammoth Orange, Smooth Prospect and Big Bob 2d, out of sows the best of big type breeding. Everything immune.

John D. Henry, Route 1, Lecompton, Kansas

HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that weigh and win. S. C. Brown Leghorn Chickens that lay. See or write

S. Y. BURKS, BOLIVAR, MO.

HAMPSHIRE HOGS

PURE-BRED HAMPSHIRES—
Thrifty March boars, $50 each.
F. B. Morlan, R. R. 1, Courtland, Kan.

Registered Hampshire Hogs—Sows and Spring Gilts, bred or open. Choice spring boars. Double treated. Geo. W. Ela, Valley Falls, Kansas

ANGUS CATTLE

LOOK HERE, ANGUS BREEDERS!

I want to reduce my herd of registered Angus cattle consisting of cows, bulls and heifers. Attractive prices for early buyers. If you want the best kind of low-down, beefy Angus, come at once.

D. J. WHITE, - CLEMENTS, KANS.

Dietrich's Aberdeen-Angus

Aged bulls, fifteen choice spring bulls. Females, all ages.

GEO. A. DIETRICH, CARBONDALE, KAN.

SHROPSHIRE SHEEP



FOR SALE

A bunch of good big Registered Shropshire Bucks, not high in price. Also registered ewes.

Howard Chandler, Chariton, Ia.

WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

GENERAL FARM ITEMS

The Oklahoma Agricultural and Mechanical College made a very good showing for a beginner in the steer classes at the Internataional Live Stock Show. An Angus steer fitted and shown by this institution took second in the junior yearling class, standing next to Fyvie Knight 2d, the grand champion of the show. Oklahoma steers also stood third in the Hereford classes in both senior yearling and junion yearling classes.

Know Your Cows

The question as to which are the good ones and which the poor ones cannot be answered by guesswork. Some pretty smart men have tried to pick their cows that way, but to do it successfully would need more genius and intuition than humans are blessed with. There is only one sure way to judge a cow's ability to produce. That is by carefully weighing the milk, testing samples at frequent intervals and keeping records over an extended period. That is the way in which the testing association helps the dairy farmer to help himself, and the benefit derived from the cost, which is almost negligible, can hardly be measured in dollars and cents.—Kimball's Dairy Farmer.

Calling a Spade a Spade

The Kansas Industrialist in a recent issue most appropriately holds up to ridicule those who from a sense of false modesty try to-mince words in writing or speaking of breeding animals. "A few days ago," says the Industrialist writer, "there came to this desk a paper containing an advertisement of 'a Holstein ox sired by the college ox.' On the same mail appeared a sales catalog in which the bulls were referred to throughout as 'male herd animals.'

"All of which merely calls attention to the fact that we have the mid-Victorians still with us. There may be some persons who think 'mid-Victorian' refers exclusively to poetry, furniture, and other objects connected with the fine arts. Let them be disillusioned at once. The mid-Victorian may be a furniture manufacturer, a literary critic—of the suburban rector school—or a live stock breeder. In every case he displays the same fool characteristics. He thinks that beauty and sense and modesty and all the other characteristics which are worth while are matters of words. He is pleased with the most fatuous or the ugliest suggestion if only it wears a garment of fine words. He is shocked by a word which he has been taught is 'vulgar'—whatever that means—no matter how big or fine the idea beneath.

"It is people of this sort who are responsible for the advertisements and catalogs and articles which have reached the point of calling a spade a spade, as William Cullen Bryant advised, but have not reached the point of calling a boar a boar or a bull a bull. To them a boar is a 'male pig' or a 'man hog' and a bull is a 'breeding ox' or a 'gentleman cow.'

"Of course it is all hilariously funny—which is the reason why sensible people take any interest in mid-Victorians, long may they wave! But it has a serious side, too. The live stock breeders' business is degraded by this attitude. If he is going to put his occupation on the dignified plane where it belongs, he must not tolerate any implication that it is unsuitable for frank, straightforward discussion. The live stock business deals with facts and problems the importance of which is being constantly magnified by modern scientific investigation. There is nothing to be ashamed of in the business or its terminology."

Help Uncle Sam with Mail

A number of suggestions for co-operating with post office employes in handling the rush of mail at the Christmas season are given in a circular recently issued by the postmaster at St. Paul, Minnesota:

"1. Remember that at the present time the postal service is handling the largest volume of mail in its history and mail of greater importance than at any time during its existence. Conditions are abnormal, man power has been reduced. It is your duty as a citizen to co-operate to the fullest extent and do your share to lighten the burden by following out suggestions of the post-office department from time to time along the lines of economy.

"2. Conserve the man power of the country by mailing your Christmas parcels early.

"3. Shop early—mail early.

"4. Whenever possible, deposit your mail at the main post office.

"5. Wrap parcels securely, address them plainly, and mail them early.

"6. Never mail a letter or package without having your return address in the upper left-hand corner.

"7. Remember the postal service is your business; make it more efficient by your intelligent co-operation.

"8. When mailing packages, use the stamps of larger denominations. This conserves paper, saves man power in cancellation, and expedites the handling of your mail as well."

Put Return Card on Letters

To prevent confusion in the mails whole troops are being moved, the Post Office Department requests that each letter addressed to a soldier overseas bear the address of the sender so that it may be returned in case the soldier is on his way home.

Whole Milk for Children

Don't skim the milk for children. Let them have it with its cream. Clean, pure, fresh milk and plenty of it makes them grow. It gives them rosy cheeks, bright eyes, strong bodies, and good brains. Each child can readily use a quart a day. Refuse the children tea and coffee, but always give them milk. Encourage them to drink it. Put it on their cereals. Pour it on the toast. Make it into puddings. Mix it into custards. And stir it into soups. Yes, use milk and use it freely. Economize on other foods, but don't economize on milk.

Relief Work in France

The American Red Cross will have expended $70,000,000 for war relief in France by the end of the present year, says a report made public by the Red Cross War Council. Up to July 1, 1918, the expenditures totaled $36,613,682, of which $21,160,632 was for work among refugees, reclaiming devastated areas, aid for civilians and funds to fight tuberculosis. The demands for the concluding six months call for $34,582,827, which already has been appropriated. The report contains a detailed statement regarding expenditures and is the fourth on the use of the Red Cross War Fund.

Pig skins and steer hides are the best grain sacks a man can have on the farm. War does not keep a pig from making a hog of himself. War does not keep a cow from giving milk nor a hen from laying eggs. The only safe way to continued success is to have something to sell every week in the year. It is the business of the farmer to see to it that his living is secured; that he does not depend directly upon one crop.

According to reports received by the United States Department of Agriculture, the situation in the horse-breeding industry reveals the fact that there are many nondescript and plug horses glutting the markets. The real good animals are still commanding satisfactory prices, but the misfits are being sold for considerably less than the cost of production.

A big service flag, bearing the number 1196, hangs in front of the main building of the Department of Agriculture at Washington. Since the flag was made the number of former members of the department now in the army or navy has risen to 1,537.

"You can't always tell by the way a man talks how much he has accomplished," shrewdly observes the Denver Field and Farm. "The hen that did more cackling than any hen we ever raised was a bantam that laid an egg a little bigger than that of a meadow lark."

Potatoes should be handled carefully and not as though they were cobblestones. The potato is a living thing, with a protective skin, which it is able to keep intact if it has a fair chance.

A coop of fowls of uniform size and color is more attractive and will bring a better price than an uneven lot, and the same can be said of an evenly colored lot of eggs.

JERSEY CATTLE.

JERSEYS

The PROFIT BREED



WHY waste feed on cows that skim their own milk? Jersey's produce the highest percentage of butter fat at the lowest feed cost. The man with one Jersey is never satisfied until he has a herd. Write to Breeders for pedigrees and prices. Let us send you profitable facts about the Jersey.

THE AMERICAN JERSEY CATTLE CLUB
375 West 23rd St. New York City

REDHURST JERSEYS

FOR SALE—Noble's Jolly Actor No. 155761. Solid color, born October 14, 1916. Sire (the imported son of Golden Jolly), Golden Jolly's Masterpiece No. 86295, with six tested daughters out of Noble's Eminent Jess, a R. of M. cow whose dam is also in the R. of M. and whose sire, Noble's Oxford Sultan No. 106403, with six tested daughters, seven of Noble of Oakland's with 65 tested daughters and whose dam is in the R. of M. and since by Sultan's Oxford Lad, his great dam also in R. of M. Also a few calves and yearlings of like breeding. The home of the only living son of Golden Jolly in America.

Redmon & Son, Tipton, Mo.

TESSORO PLACE

OWL INTEREST FINANCE JERSEYS
(Register of Merit)

All our bull calves are sold and now offer young cows and heifers from our herd. Cows are either in Register of Merit or qualifying and most of the heifers have dams with R. or M. records. These cows will be priced where their offspring and production above feed cost will more than pay for themselves in one year. For the profitable kind, write, or come and see.
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Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.

Longview Farm
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Offers yearling Jersey male, solid yellow, black tongue and switch, exceptional individual. Sire, Royal Missel's Torono, grandson Hood Farm Torono with 73 tested daughters and 21 proven sons. Dam, Pretty Kansas City, 500 pounds butter. Come or write.
CHAS. A. TILLEY, FRANKFORT, KAN.

100 Good Jerseys for Sale

We are offering some fine young cows and heifers, now fresh or to freshen in May and June. The best blood lines and good individuals.
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REGISTERED JERSEY BULLS, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.
THOS. D. MARSHALL, SYLVIA, KAN.

J. B. PORTER & SONS, Mayetta, Kansas
Breeders of Pure-Bred Jersey Cattle
A small but select herd of producing cattle, rich in blood of Gamboge, Oxford Lad, Golden Fern's Lad, Leda's Fern Lad, etc. Write for prices on young stock.

ALLEN CENTER STOCK FARM
Registered Jerseys from choice cows. Sire's dam is the highest producing cow in Kansas. Prices reasonable.
TREDWAY & SON, LA HARPE, KANS.

RED POLLED CATTLE.

RED POLLED CATTLE FOR SALE
Young bulls and some extra good young cows to calve in early spring. A few yearling heifers.
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FOR SALE
Red Polled cows, heifers and bulls. Special price if taken at once.
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RED POLLS, BOTH SEXES, BEST OF BREEDING.
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Ten fresh registered cows and heifers, six registered bulls, serviceable ages, out of cows with records up to 23 pounds of butter in seven days. Ten high grade heifers out of a bull whose three nearest dams averaged over 25 pounds per week, bred grade heifers, $125; yearlings, $65; almost white. Write or come and see my herd.

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Holstein Bulls—Registered

Some out of A. R. O. dams. Some sired by Sir Rag Apple Superba 207682.
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Service bulls; bull calves. The[illegible]fers will outyield the dams by 10-50 per cent.
H. B. Cowles, 608 Kansas Ave., Topeka, Kan.

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HOLSTEIN COWS

For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.
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HIGHLY-BRED HOLSTEIN CALVES
Beautifully market, twelve heifers and two bulls from heavy producing dams at $25 each, crated for shipment anywhere. Safe delivery guaranteed. Write
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GOLDEN BELT HOLSTEIN HERD
Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.
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DUROC JERSEYS.

DUROC BOARS

For Quick Sale — 25 Head of Large Spring Duroc Jersey Boars, of March and April Farrow

Sired by Illustrator Orion 3d, Pet's Great Wonder and Cherry King Disturber. Priced reasonable and guaranteed right in every way or your money back. Write me your wants.

JOHN W. PETFORD
Saffordville - - - Kansas

DUROC BOARS

For Sale—A few choice spring boars, selected from forty head. Sired by a son of Great Wonder, a son of Illustrator and Cherry King Disturber. A few gilts, same breeding, priced bred or open.

W. A. Wood, Elmdale, Kansas

WIRE FOR DUROC BOAR

Wire at once at my expense for Duroc boar to be shipped before you pay for him. We guarantee pedigree, price, size, bone, length, immunity, and a breeder. Send him back if not satisfied. You can't afford to wait.

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Ellen Dale Breeding Farm

Offers Duroc Jerseys of blood lines of Watson's Wonder, Ideal Pathfinder, Crimson Orion King and Joe Orion 5th, also Shorthorn bulls and bred heifers.

R. C. Watson Altoona, Kansas

40 DUROC JERSEY BOARS

Cholera immuned, of rare breeding and excellent individuality. Grandsons of the two grand champion boars of Iowa. None better.
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Durocs for Sale Reasonably. March and April service boars weighing about 170 lbs., $40; May, 130 lbs., $30; trio Sept. pigs, male, two sows, not akin, $50. Liberty bonds same as cash. J. E. WELLER, Faucett, Missouri

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Home of Repeater by Joe Orion King and Golden Reaper by Pathfinder. For sale—spring boars and a few bred gilts. I guarantee satisfaction or your money back.
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DUROC BOARS OF QUALITY

Choice March boars, sired by the great herd boar, Reed's Gano, first prize boar of Kansas and Oklahoma State fairs. Also Illustrator 2nd and Golden Model. Fine growthy boars, well built and nice color. All immuned. Priced to sell quickly.
JOHN A. REED & SONS, LYONS, KANSAS

WOODDELL'S DUROCS
Herd boar, Chief's Wonder; 75 spring pigs. A choice lot of herd boar prospects, priced to sell. I can please you. Write or come and see my herd.
G. B. WOODDELL, WINFIELD, KANSAS

R. H. DIX & SON'S DUROCS
For Sale—One choice spring boar, a real herd header. Twelve spring gilts bred to Giant Crimson by G. M.'s Crimson Wonder, a prize winning boar. Priced reasonable for quick sale. Write today.
R. H. DIX & SON, HERINGTON, KANSAS

A NATION'S STRENGTH IS IN ITS FOOD SUPPLY
Eat Less — Waste nothing
Create a Reserve
AMERICA MUST FEED 120,000,000 ALLIES

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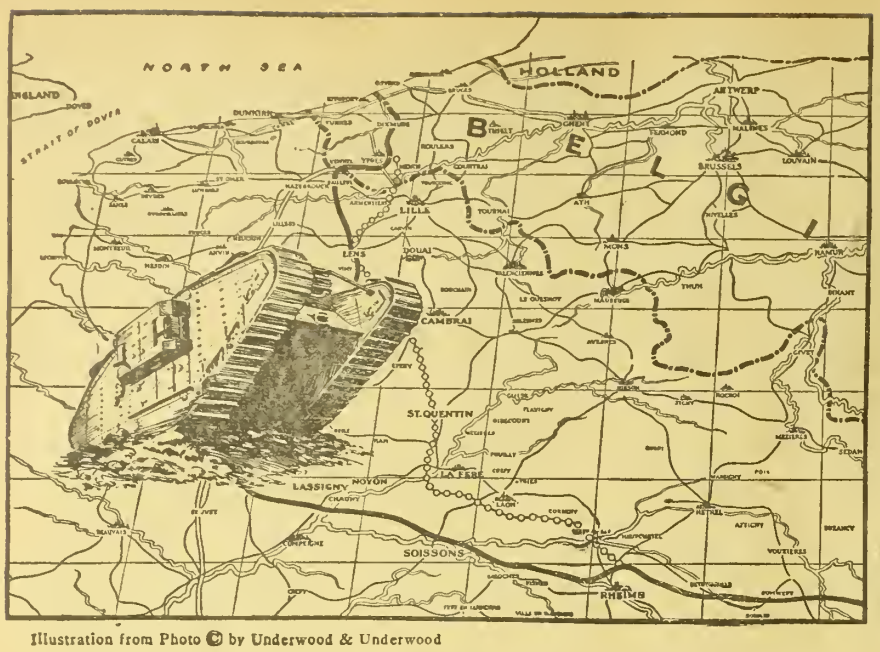

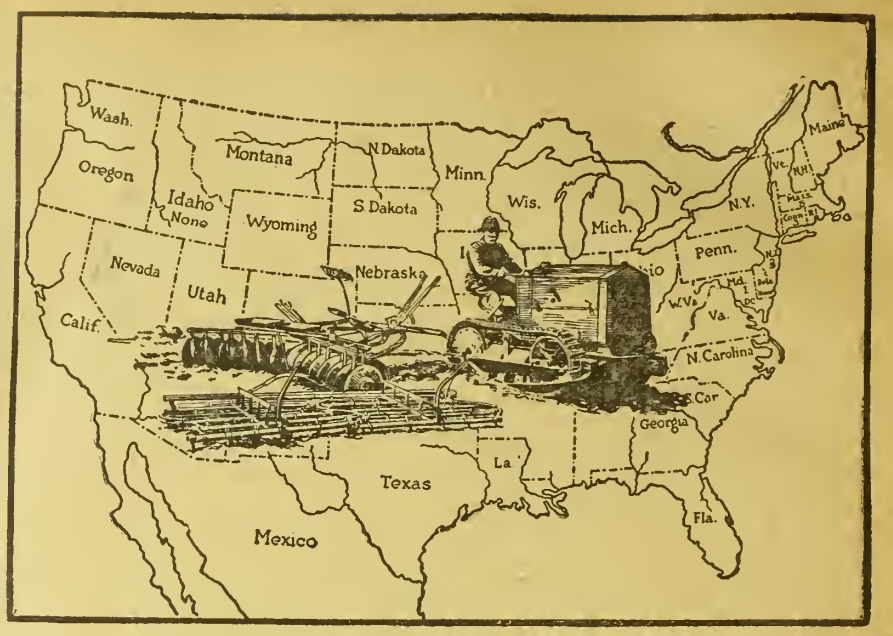

Illustration from Photo © by Underwood & Underwood

"They also Serve"

BATTERING away at the Huns' defense — the tanks have proved themselves great engines of civilization.

Dragging into position the huge guns to blaze the way to victory, are the gun tractors.

Bringing the German surrender!

Hard at work on thousands of American farms, drawing plows, planters, harvesting machinery, etc., are other engines of civilization—the American farm tractors.

"They also serve."

The tank was the outgrowth of the American farm tractor—War's adaptation of the machinery of Peace.

It would be hard to say which has the greater part in winning the great conflict—the tank and the gun tractor on the western front or the tractor on the American farm.

The part of the tank is spectacular. It thrills us in every fibre.

Crashing through death and destruction in battle, these engines of war must never fail. They must work always—smoothly, efficiently.

The most important single factor in the operation of a tank is Correct Lubrication.

The Allies know this. Practically every British tank on the western front has been lubricated with Gargoyle Mobiloils.

A Captain of the British Army (Tank Corps) recently said:

"Many a time I have gone into battle sitting on a can of Mobiloils and pumping death into the Boche."

Up in Hartford, Conn., one day a photographer was taking a picture of the British Tank "Britannia," recently used in exhibitions in this country. He asked one of the crew to remove the can of Gargoyle Mobiloils that was lying on top of the tank.

"Nothing doing," said the gunner. "It's just about lunch time and the old lady wouldn't know what to do if she didn't have some Mobiloils handy. Snap her as she is."

LESS spectacular in helping to win the war, but none the less important has been the American farm tractor—forerunner of the tank.

The tractor does its work **here at home**—a very vital work.

GARGOYLE

Mobiloils

A grade for each type of motor

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the Red Gargoyle on the container. If the dealer has not the grade specified for your tractor, he can easily secure it for you.

For final victory hangs as much upon food as upon money, munitions or men. Even with the war won, the world will require vast quantities of American food.

It is the tractor's part to speed up the production of food on American farms.

Like the tank, the tractor if it is to operate efficiently must have Correct Lubrication. And the tractor *must* operate constantly, efficiently.

Every breakdown on a farm tractor means loss of time—and loss of food.

The loss on any one farm may seem small, but multiply that loss by the number of tractors in operation and the total is staggering.

Tractor manufacturers and tractor owners have proved to themselves that the correct grade of Gargoyle Mobiloils used in their tractors results in greater power—less fuel consumption—less oil consumption—and fewer stops for repairs.

At the Salina, Kansas, tractor demonstration this last summer, every one of the 47 tractors exhibited was lubricated with Gargoyle Mobiloils. With their tractors on trial before the watchful eyes of thousands of people, the manufacturers were taking no chances with the efficient lubrication of their machines.

On the farm the Correct Lubrication of tractors is vital. For it is upon the farm that the foodstuffs are being produced which helped turn the foe back in the hour of need.

VACUUM OIL COMPANY, New York, U. S. A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world.

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KANSAS FARMER

For the improvement of the Farm and Home

Volume 56, Number 51. TOPEKA, KANSAS, DECEMBER 21, 1918. Established 1863. $1 a Year

ALFALFA FOR BEEF CATTLE

Bulk of Our Grain and Roughage Deficient in Protein

THE importance of alfalfa in feeding our beef cattle is discussed by Prof. W. A. Cochel in "Alfalfa in Kansas," published by the State Board of Agriculture. Professor Cochel calls attention to the fact that over 90 per cent of the land of the state is growing grain, hay, and grass crops, which from the standpoint of their feeding value are especially adapted to the production of fat and energy but all of them decidedly deficient in proteins and the kind of ash necessary for normal growth and development into meat-making animals. When animals are produced on other feeds that are native to or widely cultivated in the state, without the feeding of purchased by-products of mills and factories, or legumes, they are slow to mature, undersized, fine in bone, and deficient in the thick heavy muscles which give high value to the carcasses of meat-producing animals. "Grown and handled in this way," says Professor Cochel, "they usually fail to increase in weight during the winter, in many instances actually weighing less in the spring than in the fall. The result is that the first month to six weeks in the spring they utilize in making up for their lack of progress in winter. Calves handled in this manner usually weigh from 400 to 500 pounds when weaned in the fall of the year; from 450 to 500 in the spring; gain 250 pounds their second summer; remain stationary the second winter; make 950 to 1,000 pounds the third summer; going through this process, until finally, at the age of four years, they are ready for market at 1,200 to 1,300 pounds as native grass-fat cattle or heavy feeders suitable for sixty to ninety days of corn feeding to get them ready for market.

"Increased weights are sometimes secured by the use of heavy-boned, rugged bulls of the ton type; sometimes by the purchase of quantities of high-priced commercial feeds rich in protein, such as linseed meal or cottonseed cake; sometimes by preserving the rougher and coarser materials in succulent form in the silo. But the true stockman not only utilizes these methods, but considers them as secondary in importance to alfalfa, the king of all forage crops, which gives to cattle the size, the capacity, the condition of coat and skin which indicates thrift, bone and maximum growth at the least possible expenditure of cash and of food nutrients in the production of increase in live weight.

"On soils and under climatic conditions where it can be successfully grown, alfalfa produces the greatest yield of protein per acre of any crop which the farmer or the scientist has yet discovered. In dry years it is the last to recognize a deficiency in moisture and the quickest to respond to the combination of rain and sunshine. In wet years it may be decidedly damaged in the curing process; yet when winter comes, even the moldy, black and dusty hay yet contains sufficient nourishment and a vestige of palatability which enables a stock cow or a stocker or feeder steer to amply supply all of their needs as measured by digestible nutrients. During the winter of 1915-'16 thousands of tons of such feeds were utilized by the farmers of the state in wintering beef cattle which would otherwise have had little value except as an addition to the supply of plant food in the form of decayed vegetation or manure. Its cash value would have been much less than the expenses incurred in getting it to market. Yet even at its worst, alfalfa is a desirable addition to the usual supply of roughage on the farm.

"Although alfalfa is a boon to the live-stock farmer under adverse conditions, its real or true value is appreciated when the climatic conditions are such as to result in a maximum yield of hay of the very best quality. The animal husbandry department at the Agricultural College has found that one ton of good alfalfa will replace 307 pounds of cottonseed meal and one and one-half tons of silage in wintering beef calves, having a commercial value at the present time of $10.30, which would be decidedly increased when roughage is limited. An ideal method of producing cattle for the feed lot is to use alfalfa and silage, using an abundance of straw for bedding. With these feeds available an acre of alfalfa and an acre of silage will winter four mature breeding cows in excellent condition. The same acreage of crops will winter ten calves in such manner as to enable them to gain 150 pounds each, replacing entirely all the purchased feeds from the system of farming. Fed in this manner, calves would weigh 600 pounds at one year of age, gain 200 pounds on grass, 200 pounds as yearlings and 200 pounds the summer when they were two-year-olds, making them weigh 1,200 pounds when approximately thirty months old, instead of at an age of forty-eight months when they are wintered without alfalfa. The result is that the use of alfalfa as a roughage during winter will eliminate from twelve to eighteen months' time in bringing a steer up to a weight of 1,200 pounds, as compared with an attempt to develop him on other non-leguminonus roughages which do not leguminous roughages which do not ing winter.

"When fattening cattle on corn and alfalfa hay, as compared with corn and prairie hay, or corn and timothy, the use of alfalfa results in more rapid gains, higher dressing percentages, higher selling value, and a carcass which is more acceptable because of better distribution of fat within the muscle and more even distribution of covering of the entire carcass. In the feed lot alfalfa furnishes a portion of the protein usually purchased in the form of linseed or cottonseed meal, thus reducing the expense of the ration without influencing the behavior of the cattle adversely.

"There is considerable difference of opinion among the cattle feeders as to the comparative feeding value of alfalfa hay cut in different stages of growth and cured in such manner as to secure the various shades of color, such as pea-green, dark, and brown alfalfa. Undoubtedly the best grade of alfalfa hay for fattening cattle would be that which comes from the fourth cutting and is cured in such manner as to classify as pea-green alfalfa hay. This cutting is usually more palatable, has less fiber in it and carries a larger percentage of leaves than any other cutting. The second choice among the cattle feeders is for what is usually termed brown alfalfa. This grades comes from stacking the hay before it is thoroughly cured, with the result that it heats and turns brown in the stack. Apparently this method of curing softens the fiber and retains practically all the leaves that are on the hay. On account of its containing such a large percentage of moisture it is usually not profitable for cattlemen to purchase this hay by weight, but rather by measure. These two grades of hay should be very largely used for finishing cattle for market. The lower grades from the first, second and third cuttings can be used for the maintenance of breeding cattle or for roughing stockers and feeders through the winter.

"During 1913 and 1914 a considerable quantity of alfalfa all over the state was badly damaged by rains at harvest. The result was that the only method of securing a market for this hay was to purchase thin cattle and allow them access to all of the hay they would eat during the winter. While there are no experimental results which indicate the true value of this hay, yet the results secured under practical conditions indicate that the apparent damage is very much greater than the real damage to its feeding quality. During the winters of 1913-'14 and 1914-'15 the Hays Station used damaged alfalfa and kafir stover for wintering mature cattle with excellent results. Both of these feeds were in such condition that little or no commercial value could have been given to them in that section of the state.

"For mature cattle a ration made up of corn or kafir, and alfalfa hay, will give excellent results for fattening purposes. When younger cattle are full fed it is necessary to add to such a ration a limited amount of commercial concentrates, such as cottonseed or linseed meal or cake.

"The following rations for beef animals, which include alfalfa, are suggested by the Kansas Experiment Station:

"Fattening Cattle (for each 1,000 pounds of live weight. daily): (1) Five pounds alfalfa, fifteen pounds silage, two pounds cottonseed cake, sixteen pounds corn; (2) ten pounds alfalfa, eighteen pounds corn or kafir, two pounds cottonseed cake.

"Stocker Cattle (for each 1,000 pounds of live weight, daily): Fifteen pounds alfalfa hay, fifteen pounds silage.

"Breeding Cattle (for each 1,000 pounds of live weight, daily): Fifteen pounds alfalfa, one pound linseed meal, ten pounds silage, five pounds straw.

"Wintering Calves (for each 500 pounds of live weight, daily): Five pounds alfalfa, ten pounds silage, one pound cottonseed meal.

"Fattening Calves (for each 500 pounds of live weight, daily): Four pounds alfalfa, eight pounds silage, one pound linseed meal, seven pounds corn or kafir.

"During the winter of 1915-'16 the animal husbandry department of the Agricultural College fed ninety head of experimental calves, all of which received alfalfa hay as a portion of their roughage. After allowing 60 cents per bushel for corn, $1 per hundredweight for kafir, and $3 per ton for silage, the steers showed an average profit of $12.50 per head through a six months' feeding period. It would have been impossible to have secured such results by the substitution of any other roughage for alfalfa.

"Very satisfactory results have been secured from grinding alfalfa, mixing it with molasses, and using this mixture as a source of a considerable portion of the food nutrients for both fattening cattle and the maintenance of the breeding cattle. The advisability of using this particular combination will depend upon the relative cost of grinding and the comparative cost of molasses with other feeds which could be used as a substitute for same.

"The main advantage which alfalfa has over any other crop in Kansas is that it will produce a larger yield per acre of roughage that is rich in protein than any other crop. That it maintains and increases the supply of humus and nitrogen in the soils of the state, both of which are fundamental in crop production. That it is palatable and nutritious, regardless of the season in which it is grown. That it serves as a most excellent supplement to the main crops which are produced in the state, such as corn, sorghums and prairie hay, and it furnishes not only protein for the development of young animals, but also is an ideal constituent of the ration for breeding animals. There is no other crop that we grow when properly used, that will produce as much growth in the same length of time as alfalfa supplemented with corn and other feeds that are rich in fat- and energy-making elements."



BEEF CATTLE ON WHEAT PASTURE—LEAVENWORTH COUNTY

Study Farm Engineering This Winter

THE world's greatest agricultural college, which belongs to all the Kansas folks, is offering unparalleled chances for intensive study of tractors, automobiles, farm gas engines, carpentry, rural electricity, and other allied subjects. The winter short courses will be better and more thorough than has ever been possible before at any similar institution.

Kansas must set the pace for the nation in food production for the next few years, or we as a nation may not realize all the fruits of a lasting peace. War demands were considered stupendous by Kansas farmers, but if we do our full duty in helping solve the present world troubles, all that was accomplished in war activity was only a sort of warming-up process preliminary to doing something really worth while.

Feeding the world properly is the first great duty that comes to us as citizens of a great agricultural state. President Wilson has well said, "Hunger breeds anarchy, not peace." We must produce more and more of the world's food or we will have failed in our greatest opportunity to have good neighbors, and to insure a lasting peace, based on right, good will and justice.

To accomplish more we must know more, save wasted effort, accomplish more work with less help, produce our crops more cheaply, grow more on every acre we cultivate, bring all waste land into productivity, and spend less time playing politics and indulging in calamity howling.

Probably no one factor has helped more to place Kansas farmers in the front rank of food production than the use of up-to-the-minute farming tools, whereby the energy and directive effort of one man has taken the place of from two to twenty men, usually resulting in a considerable increase of yield of all crops over the former methods.

The gas engine in its various forms and uses is the one tremendously efficient tool that the farmer of today has had placed at his disposal, and which he is not yet fully in a position to use to its best advantage. He needs the advice and help of expert engineers. He needs to get acquainted at first hand with this tool. He has not yet grasped the possibilities that the gas engine offers for shortening, cheapening and doing better work than he has ever been able to do before.

The college has gone to school this past year, too, and has learned many things while giving instruction to the large groups of motor mechanics that the Government sent here from the army. A vast amount of laboratory equipment has been assembled for the soldier work, and now this is to be used to its fullest extent in giving help and instruction to our home army of farmers.

As the winter time is the season of the year when farm work is the least pressing on most farms, it is usually possible to get away for a few weeks, and the tractor and automobile short courses are offered at that time, beginning January 6, 1918, and ending March 1—eight weeks for the entire course. Students may start at any time and remain as long as their time permits, thus getting a part if not all of the course. Special work may be taken along a single line if so desired. In short the college is planning to adapt the work to suit the individual, rather than to force the individual to a set course of work.

Students may be either men or women, of sufficient age to properly take up such study. No examinations are necessary for admission. No tuition fee is charged. An entrance fee of three dollars together with very low fees for laboratory supplies, and a medical fee of fifty cents are demanded of all. The medical fee entitles the student to free medical service while in attendance. The laboratory fees are to help purchase accessory supplies, as gasoline, oil, etc., and to cover breakage.

All fees and tools required will fall under twenty dollars. Board and room for men in college dormitories can be had at $6.50 per week. Young women can obtain good rooms and board through the Y. W. C. A.

To those completing a prescribed course for the eight weeks in a satisfactory manner, a certificate will be issued.

The tractor and gas engine equipment will be located in new buildings 170 x 40 feet in size, well lighted and heated. There will be twenty or more different makes of tractors, and about thirty farm gas engines.

The automobile equipment comprises some ten engines for study in taking down and assembling—an equal number of running engines for study in valve and ignition timing, carburetion and running work. A fully equipped repair department furnishes opportunity to learn how to do one's own repairing. A varied assortment of automobiles are available for driving.

Special laboratories for ignition, lighting, and starting apparatus, are available for regular and special study work.

A folder explaining the short course more in detail can be had by application to the Division of Engineering, Kansas Agricultural College, Manhattan, Kansas. —W. H. SANDERS.

Make Farm Homes Attractive

By LEO. C. MOSHER

IT IS important that the farm home be made attractive. This fact becomes more evident when we realize that the farm home is the ideal home for boys and girls, that it is the ideal environment for the rearing of strong, noble-minded American men and women, and that, because of its unattractiveness, these great virtues of the farm home are too often lightly passed by or forgotten because it does not measure up to the allurements of the city and towns which are building up around the farming community.

The eyes of the youth are readily susceptible to the charms of city life. His inexperienced eyes sees only the color and sham; they do not see or would not understand the falseness and misery behind all the show which is put forward to attract his attention. The young person's fancy feasts upon beauty, color, symmetry, and what they term "nice things." They live in a world of imagination, it is true, and even though distorted, it must be recognized and dealt with. The farm home should be attractive, but at the same time, simplicity itself, with the added virtues of cleanliness, order and neatness. Trees, vines, a shaded lawn and flowers make the surroundings of the farm home attractive. But even these will lose their effect if the barnyard is piled, helter-skelter, with farm machinery and trash.

Where is the city man who has not philosophised on this subject of attractiveness of farm homes when he was traveling through a rural community? While one is journeying along in a rickety buggy behind a village livery team is the best time for such philosophy. The farm house, oftentimes badly in need of paint, stands upon a little knoll. The barns, cribs and pig pens are close by. There are no trees, no grass, no "homey" effects, no flowers except perhaps a few lonely hollyhocks. It is a place to sleep, a place to eat, a place to work.

My companion on such a trip recently, who was taking the negative side of an informal debate on "Advantages of Country Life," pointed to such a farm home—bleak and unattractive—as conclusive proof of the dreariness of life on a farm.

"Why live on a farm?" he asked. "There is only one life to live. One might as well get some enjoyment out of it."

For the time being he had the better of the argument, and we jogged along for nearly an hour, when I began anew my argument in favor of advantages of life in the country, for we were approaching an attractive farm home. A long row of neatly trimmed mulberry bushes edged the road and formed a broad avenue leading up to the house. Maple, ash and catalpa trees threw a dense shape over the green well-kept lawn. Barns, sheds and corrals were some distance from the house. Everything was in order. Even the fence appeared neater than the others that we had seen. The posts were of even height, set straight and at equal distances apart. In the little cluster of trees to the right of the house we could see a well curb, and I just knew that there was a real oak bucket hanging in the well—visions of cool sparkling water caused me to turn in the avenue. A broad colonial porch with thick green vines suggested mother and mending. A fluffy Scotch Collie gave us a rollicking welcome despite the whistling of the youngster in the orchard who was trying to call him back. And when we raised our eyes again toward the porch we were smilingly greeted by a refined gentlewoman.

The water was great—bully! We were refreshed, but I knew that my companion was in no more hurry to leave than I. That lawn and flowers and neat barn and brood pens and stock yards were interesting and demanded investigation. Everything was so "homey," so secluded, so in keeping with the great industry which was carried on from this center, that it was restful and fascinating.

It is all these and more which raise the dignity and increase the enjoyment of the farm life and make it attractive. As long as the farm homes are not maintained on this basis, just so long will the influx of country boys to the industries of the city continue, and rob our nation of the most advantageous utilization of her greatest and most important product—men and women. It is useless for one farmer to explain that his neighbor can make his farm home attractive, can arrange his stock pens so that they will be clean and neat, and keep his farm machinery housed, etc., because he is rich; for it may just as readily be proven that his neighbor is rich, in part at least, because he does these things. Attractiveness of the farm home not only brings profits in land values and conservation of materials on the farm, and increased self respect, but it goes a long way to the solution of that other and most important problem, keeping the boy's interest on the farm and in the farm.

EDITOR'S NOTE.—Mr. Mosher wrote the above before the United States entered the war. On our entrance into the war he sought service under the colors and after receiving intensive training, was commissioned second lieutenant and detailed as instructor in an ordnance training camp at Sherman, Alabama. We have not heard whether he had opportunity to serve overseas or not.

Tractor Operating Costs

It is interesting to note the results of a demonstration of some twenty different tractors which was recently made in Ohio. There were seven machines that burned gasoline and thirteen that burned kerosene for fuel. Each tractor plowed 2.07 acres at a depth of eight inches, in light clay loam, with a heavy growth of clover. Gasoline was figured at 25 cents per gallon and kerosene at 13½ cents per gallon. The average fuel cost per acre with the gasoline machines was 81 cents and that of the kerosene machines 53 cents. The test would seem to be largely in favor of the kerosene-burning motors, but there is a great difference of opinion among engineers as to the ultimate effect of kerosene on the motor and lubricating oils.

Cleaning Automobile Engine

The engine should be cleaned out thoroughly at least once a month. To do this, first remove the spark plugs and open the outlets in the bottom of the crank case; pour kerosene into the spark plug holes and crank the engine until the kerosene has thoroughly cleaned out the cylinders and rings, after which it will drain out of the openings in the crank case. A fresh supply of oil can then be placed in the crank case and the engine cranked by hand until the oil reaches bearings, rings, and cylinder walls.

It is advisable to clean the outside of the engine to get rid of any accumulation of grit or dirt which invariably gathers around the valve guides and crank case vents.

Occasionally look over both primary and secondary wiring, as a slight break in the insulation may be the cause of great trouble on the road.

Frequently look over timer contacts to see that the contact surfaces are not badly worn, which would cause skipping of the engine when speeded up.

Keep magneto clean and see that all wire connections are clean and tight.

Look at the universals often, and if grease is used keep them packed with it and covered with a boot.

Look over the brakes and see that there is no drag when the pedal or brake handle is released.

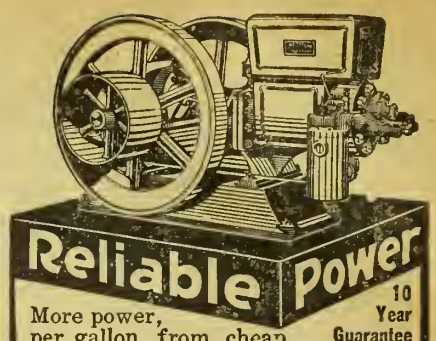
Refill all the grease cups from time to time with fresh grease.

Vibrating screws on the coil should be occasionally cleaned with a fine file or emery cloth.

Winter Care of Tires

If you lay your car by for any considerable period of time during the winter, it will pay to give the proper attention to the tires. The best method of storing tires during such a period is to remove them from the wheels, washing out the casings with soap and water to remove all traces of oil. They should then be examined for injuries and such repairs made as are needed. After wrapping them in clean cloths or paper lay them away flat on a shelf in a cool dark room. The inner tubes should of course be taken out of the casings, and these also should be laid flat in a cool dark room with no weight on them.

If the tires are left on the wheels, jack up the car, leaving only enough air in the casings to keep the tire tight and in shape. Otherwise your tubes might wrinkle and in time crack.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LEAGUE TO ENFORCE PEACE

Every soldier of the United States who has fought in this great war for democratic ideals and practically every citizen of the whole country has had a hope that out of this conflict would come a peace which would make a repetition of this great catastrophe impossible. Such a dream is by no means a modern idea, but it seems nearer of realization now than ever before. The creation of some sort of a league of nations bas been a feature of the program for peacc as announced by great leaders and statesmen in most of the allied nations in the war against the Central Powers. It is generally understood that President Wilson in going to France to be present at the opening of the peace conference will bring all his personal influence to bear in aiding to form some practical, workable plan for such a co-operation between the nations.

forth in brief form the results of its investigations and submits a tentative victory program which is printed on this page. It sets forth principles only, not attempting to go into detail, for, while the machinery of such a league must be put together by experts, the foundation stones should be fashioned by the people. This league, of which the president is William H. Taft, has among its membership many of the leading men of the

The League to Enforce Peace has set nation without reference to creed or political affiliations. The recommendations were drafted by a committee headed by Mr. Taft and composed of the following men: A. Lawrence Lowell, president of Harvard; Oscar S. Strauss, former United States minister to Turkey; Theodore Marburg, formerly United States minister to Belgium; Hamilton Holt, editor of the Independent; Talcot Williams, dean of the school of journalism, Columbia University, and Glenn Frank, the well known writer and lecturer on international subjects. After revision by the executive committee of the league on November 23 the recommendations were adopted as the official platform of the organization. We give this program in the hope that it may form a basis for thought and discussion on this great question which will be before us during the next few weeks and months while the peace conference is in session in Paris.

TRACTOR SCHOOLS FOR FARMERS

In this issue is an article telling of the short course instruction given at our Agricultural College in tractor operation and other lines of engineering work associated with farming. In addition to this course of instruction a number of large tractor manufacturing companies will conduct schools in the various sections so that farmers who cannot leave home can get practical and reliable instruction on tractor operation right at their doors. There are also schools of instruction in the operation of tractors and automobiles of more permanence at some of the larger centers. We are coming more and more into a mechanical age and the necessity for technical training in order to get the best results in tractor operation and the handling of other farm machinery is generally recognized. These various schools are rendering a great service to the farmers interested in tractors and engines. Every owner or prospective owner of such equipment should avail himself of the opportunity to learn all he can about tractor and engine operation.

DEAN JOHNSON LEAVES KANSAS

Edw. C. Johnson, dean of the division of college extension in our Agricultural College, has resigned and leaves next week for Pullman, Washington, to take up his duties as dean of agriculture and director of the experiment station in the Washington College of Agriculture, to which position he was elected several weeks ago.

In the five years Dean Johnson has been with the Agricultural College of Kansas he has rendered splendid service to the state and nation. He came to Kansas as superintendent of farmers' institutes and demonstrations, one of the four distinct sections of the division of college extension which had just been organized as a division of college work co-ordinate with the divisions of agriculture, science, engineering and home economics. He was soon advanced to the deanship of the division and in that capacity his organizing and executive ability has been a most important factor in making this division of the Agricultural College known throughout the state and looked to for help in solving many of the problems of rural life.

Probably the most conspicuous feature of Dean Johnson's administration has been the spread and development of the farm bureau idea. When he came to Kansas there were only five farm bureaus organized and in operation. The passage of the Smith-Lever Act gave a new impetus to the movement. This act, which became effective July 1, 1915, placed the administration of the federal funds in the hands of the Agricultural College, and to Dean Johnson has fallen the task of leadership in directing the use of the money provided for agricultural and home economics extension work. Farm bureaus are now organized in forty or fifty counties of the state with nearly twenty thousand farmer members and twenty-five or more counties are in the process of organization.

As a member of the Kansas Council of Defense Dean Johnson has rendered conspicuous service in directing the activities of his division and particularly the farm bureaus in the furtherance of our war program. The farm bureaus in co-operation with the United States Farm Labor Specialist and the Federal Bureau of Labor handled the harvest labor situation the past season, enlisting and distributing through their offices more than thirty thousand harvest hands. Handling the details of the Government seed wheat loans in the western part of the state was also under the direction of Dean Johnson. Lack of space forbids our mentioning more than a few of the many lines of service rendered by the division of college extension as it is now organized, and to Dean Johnson must go a large measure of credit for the efficient manner in which this division has been serving its purpose in our state. We are truly sorry to lose Dean Johnson from Kansas. KANSAS FARMER wishes him well in his new and wider field of work.

A VICTORY PROGRAM

THE war, now happily brought to a close, has been above all a war to end war, but in order to insure the fruits of victory and to prevent the recurrence of such a catastrophe there should be formed a League of Free Nations, as universal as possible, based upon treaty and pledged that the security of each state shall rest upon the strength of the whole. The initiating nucleus of the membership of the league should be the nations associated as belligerents in winning the war.

The league should aim at promoting the liberty, progress, and fair economic opportunity of all nations, and the orderly development of the world.

It should insure peace by eliminating causes of dissension, by deciding controversies by peaceable means, and by uniting the potential force of all the members as a standing menace against any nation that seeks to upset the peace of the world.

The advantages of membership in the league, both economically and from the point of view of security, should be so clear that all nations will desire to be members of it.

For this purpose it is necessary to create—

First, **AN IMPARTIAL TRIBUNAL** for the decision of justiceable questions, whose jurisdiction shall not depend upon the assent of the parties to the controversy; provision to be made for enforcing its decisions.

Second, **A COUNCIL OF CONCILIATION** as mediator for questions that are not justiceable in their character, which shall hear, consider, and make recommendations; and failing acquiescence by the parties concerned, the league shall determine what action, if any, shall be taken.

Third, **AN ADMINISTRATIVE ORGANIZATION** for the conduct of affairs of common interest, the protection and care of backward regions and internationalized places, and such matters as have been jointly administered before and during the war. We hold that this object must be attained by methods and through machinery that will insure both stability and progress, preventing, on the one hand, any crystallization of the status quo that will defeat the forces of healthy growth and changes, and providing, on the other hand, a way by which progress can be secured and necessary changes effected without recourse to war.

Fourth, **A REPRESENTATIVE CONGRESS** to formulate and codify rules of international law, to inspect the work of the administrative bodies and to consider any matter affecting the tranquility of the world or the progress or betterment of human relations. Its deliberations should be public.

Fifth, **AN EXECUTIVE BODY,** able to speak with authority in the name of the nations represented, and to act in case the peace of the world is endangered.

The representation of the different nations in the organs of the league should be in proportion to the responsibilities and obligations they assume. The rules of international law should not be defeated for lack of unanimity.

A resort to force by any nation should be prevented by a solemn agreement that any aggression will be met immediately by such an overwhelming economic and military force that it will not be attempted.

No member of the league should make any other offensive or defensive treaty or alliance, and all treaties of whatever nature made by any member of the league should at once be made public.

Such a league must be formed at the time of the definitive peace, or the opportunity may be lost forever.

This Victory program adopted by the executive committee of the League to Enforce Peace, November 23, 1918, as its official platform, is offered for the consideration and endorsement of all organizations and individuals interested in the problem of international reconstruction.

THE CHRISTMAS STORY

Next week we celebrate Christmas. Be sure to tell the children in language they can understand the story of the coming of the Son of God into the world of men as a little child like them. Tell them the story of the Babe in the manger, the wise men and the wonderful star which led them to the child, the shepherds watching their flocks on the hillside while others slept, and the angels announcing the birth of Christ and singing of "Peace on earth; good will to men."

They will not understand all that it means—nor do we who are older, for that matter—but they will grasp something of the beauty of the simple story and something of the real significance of Christmas, and these early impressions are lasting.

PUBLIC WORKS AND LABOR

The releasing of large numbers of men from army service is certain to create some confusion in the labor market. This can be avoided or lessened to a considerable extent at least by promptly inaugurating plans for extensive public improvements. This is a question in which the farmer may feel that he has no direct interest, but we should never forget that the different industries of the country are most closely bound together. Whatever benefits the country as a whole benefits agriculture.

Roads probably affect agriculture more directly than any other form of public improvement. During the war period road work has been at a standstill. A resumption of road-building activities would furnish employment for a large number of men and it is a type of public improvement that touches more or less directly every man, woman and child of our whole population.

President W. M. Jardine of the Agricultural College, in enumerating public improvements which might be used as absorbers of surplus labor during the demobilization period, places roads as first in importance. He gives as his reasons for urging a wide program of public improvements, the steadying effect it would have on general business conditions through the employment of the released labor and the value of the improvements themselves, particularly better roads which would be of immeasurable benefit to our agricultural population.

It has been intimated that the demobilization would be so gradual that the labor market would be able to adjust itself without difficulty. Apparently the idea is to turn men back to civil life so gradually as to cause no disturbance in the labor market. It costs money, however, to hold men in camps. Would it not be far better to demobilize as rapidly as possible aud by a program of public improvements turn the money to the released men in payment for labor and have something to show for it? Every day that labor is unemployed is an economic loss to the community and to the nation. It might seem uneconomical to inaugurate expensive public improvements now on account of high wage scales and high cost of materials. Even so, the public would have something permanent and substantial for its money, whereas money spent in maintaining men in camp after the military necessity ceases is a dead loss.

GRANGE MEETING POSTPONED

The annual meeting of the State Grange, which was to have been held in Newton last week, was necessarily postponed on account of the influenza epidemic. No definite date has been set for holding this meeting. It probably cannot be held until after the first of the year.

FARMING AND IMPLEMENT TRADE

Must Have Normal Movement of Machinery From Factory to Farmer

By FLOYD R. TODD

EARLY in the present conflict the Government coined the slogan, "Food Will Win the War," and established the Food Administration. The splendid work accomplished has proven the wisdom of the Government's position. When the importance of the production and distribution of food became apparent it was also recognized that all of those factors which have to do with its production must be most carefully considered and guarded. This accounts for the fact that the implement industry was the first one recognized in connection with the war-winning program, and has been continuously favored with priority treatment which has been second only to the railroads in the indirect war needs of the Government. At times the importance of our industry prompted the Government to give us priority which placed us side by side with that accorded shipping and munitions of war, all of this in recognition of the fact that, with the growing shortage of labor, due to expanding munition activities and the army draft, the farmer must be liberally supplied with labor-saving tools if he was to accomplish his part in the war program.

The implement industry has been permitted to operate upon substantially a normal basis until recently, when the tremendous drive, necessary to the successful conclusion of the war, required such a quantity of material that the Government was compelled to restrict the supply for implement manufacture.

Restriction of Material Supply

Investigation developed that the consumption of iron and steel by the implement industry was approximately two million tons per year, and the Government indicated the necessity of taking from this amount 500,000 tons for its war program. Consequently on September 30 it issued its circular No. 35, which stated that the implement industry "is clearly not only an essential, but an indirect war industry"; that "the nation must produce a maximum of foods and feeds, but through rigid economies and increased efficiency of the farmers, the dealers and the manufacturers, this production must be accomplished with a reduced consumption of materials." This circular then provides for a reduction in the supply of material received by the implement industry to 75 per cent of that of the preceding year. Since the signing of the armistice this allotment has been increased to 87½ per cent. It is probable that within a reasonable time this limitation will be entirely removed. As to when this happens will depend largely upon the problems of rehabilitation and the amount of material required therefor.

It is certain that the necessity for increasing the food supply for the starving nations abroad, both those of our Allies and our enemies, will prompt the Government in relieving this restriction at the earliest possible date.

Need for Food Production

The forming of a bread line, if the shortage of food is sufficiently acute and lasting, invariably leads to a revolution and anarchy. These conditions almost universally maintain today among the central nations of Europe and are not far removed from the peoples of our Allies. There is very little surplus food in the world. With the release of shipping a reasonable quantity of wheat is available in Australia and we have some surplus in this country, but the supplies in sight are nowhere nearly adequate to take care of the starving underfed peoples of Europe. It is therefore only by the strictest economy and the greatest effort to produce more food during the year to come, that open anarchy can be prevented throughout the conquered empires, which, if permitted to continue and expand, must necessarily affect the Allied countries adjoining and perhaps might finally endanger the civilization of the entire world.

In conquering the Hun we have only done a part of the task of "making the world safe for democracy" and maintaining civilization. We must now help the people of the annihilated autocracies and avoid the pitfall of social dissolution and anarchy. No steps can be taken in this direction until the material wants of these conquered peoples can be supplied, and first among these is that of food. We are told by the administration at Washington that Mr. Hoover is immediately proceeding to Europe for the purpose of organizing this relief.

With the knowledge, on the part of the President, of the demands of our own peoples and our Allies for food in event that the war continued, and of the very situation that now exists in event that it was brought to an end, a proclamation was issued last summer which guaranteed to the farmers of this country $2.20 a bushel for such wheat as they might raise during the crop year 1919. This has stimulated the planting of unusual acreages of winter wheat and will stimulate similar planting of spring wheat, all of which is necessary if this government performs its duty toward the world, but we must also remember that the production of meat is equally important, and that the raising of a large corn crop for the purpose of feeding food animals is just as essential as the production of wheat.

It is to be understood that in the rehabilitation period the farmer is the most important factor of all, to the end that the greatest possible acreage of all food crops and the largest production of meat animals in the history of this country may be secured next year.

Such a program as that outlined necessarily contemplates a larger sale of farm implements than normal, for if the farmer is to produce the large acreage demanded of him he must necessarily supply himself with those tools so essential to this production, and it should be the business of the dealer to be more active than ever before in investigating the needs of his farmer customer and in prevailing upon that customer to fully provide himself with machinery to accomplish his task.

Prices After the War

In connection with this program we must necessarily consider our financial interests. While these are secondary to the cause of our Government and civilization, they must bear an important part in our daily activities. Are our financial interests jeopardized by proceeding in a normal way now that peace is in sight? Is the revision of prices downward to occur so rapidly that losses will be sustained if we proceed to conduct our business in the usual manner? These are the questions now before not only the implement dealer but the farmer.

The war has affected more people than any war that ever preceded. The destruction of property and the problems of rehabilitation are greater than those of any conflict, therefore we can expect that the effect upon prices occasioned by the discontinuance of this war will be more radical than that of any war in the past, but as history repeats itself we can best anticipate what will happen in the present by what actually occurred after other wars.

We have had two great wars during the last century—the Civil War in this country, from 1861 to 1865, and the Franco-Prussian War in Europe, from 1870 to 1871. In the Civil War there was comparatively little destruction of property and the problems of rehabilitation were not as acute as those of the present time. We did have, however, a large portion of our population upon the verge of starvation and problems similar to those of the present prevailed in the food supply. In the Franco-Prussian War, which lasted only from July, 1870, to February, 1871, we had large destruction of property; not as great in comparison, of course, as during the present war. While the city of Paris was reduced to the verge of starvation, the war was so short that there was not a considerable interference with crop production and therefore the food problems were not as great as those of the present conflict.

Iron and Steel Prices

It is well recognized by economists that the prices of commodities largely fluctuate, as do the prices of iron and steel; in other words, that these are basic materials which more quickly reflect the changes in labor cost and are more largely instrumental in affecting costs of other products, because of the large amount used in most of our manufacturing activities.

A study of iron aud steel prices during the Civil War period shows that the price of foundry pig iron, f. o. b. Philadelphia, in 1861 was $20.25 per ton. This gradually increased until in 1865, the close of the war, it was $46.12 per ton. In 1866 the price was $46.87; in 1867, $44.12, and in 1868, $39.25. Three years after the war the price was substantially double that at the opening of the war.

At the opening of the Civil War the Bessemer process of making steel had not been discovered, therefore common iron bars bore the same relationship to industry as common steel bars of today. In 1861 the price of common iron bars, f. o. b. Pittsburgh, was $2.30 per hundred pounds. This price gradually increased until 1865, when it was $5.30 per hundred pounds. In 1866 the price was $5; in 1867, $4.50, and in 1868, $3.70. Three years after the war the price was $1.20 higher than at the commencement of the war.

The price of foundry pig iron, f. o. b. Philadelphia, in 1870—the year in which the Franco-Prussian War was begun—was $33.25; in 1871, $35.12; in 1872, $48.87—more than $15 per ton higher nearly two years after the war closed than at its opening. In 1870 the price of common iron bars, f. o. b. Pittsburgh, was $3.30 a hundred; in 1871, $3.40; in 1872, $4.60. Nearly two years after the war closed the price was $1.30 a hundred higher than at its opening.

Wheat Prices

In 1861 the price of western wheat per bushel was $1.38 f. o. b. New York. This price gradually advanced until 1865, when it sold for $2.45 per bushel. In 1866 it was $2.05 per bushel; in 1867, $2.60, and in 1868, $2.40.

In May, 1870, just before the Franco-Prussian War opened, the price of No. 1 northern wheat, f. o. b. Chicago, was $1.13 per bushel; in May, 1871, $1.20; in May, 1872, $1.12.

Other commodities were affected in substantially the same way.

From the above history it will be seen that after the two great wars referred to there was no immediate radical decline in prices; that during the period of rehabilitation, of readjustment, of getting into peace production, prices must necessarily remain high. Following this period, which usually lasts from two to three years, history shows that there is a general decline in prices extending over a period of years, its length depending largely upon the radical advance that has taken place during the time of war.

History Will Repeat Itself

It is probable that the history of the past will repeat itself in the period following the present war, and that we will see no substantial change in prices, except a slight tendency downward, for two or three years yet to come.

It is quite possible that immediately following the signing of a treaty of peace, or perhaps during the period that will elapse between the armistice and the happening of that event, some demoralization will occur while industry is trying to find its way back from the activities of war to those of peace, but if such is the case it will only be temporary, for there can be no considerable reduction in the price of food as long as the demand exceeds the supply; there can be no reduction in wages while the cost of living remains as high as at present, and, consequently, no considerable reduction in the products of labor.

War Industries Board

The authority of the War Industries Board to regulate industry and the prices of commodities continues until the treaty of peace is finally signed. It has been the policy of this board, in the steel and iron field, to make price agreements quarterly with the industry. It is not to be anticipated that any radical changes will be permitted by the board. The President has indicated that legislation will be asked to continue the activities of the board for a period after the execution of the final treaty of peace, such period probably to be of sufficient duration to cover the reconstruction following the war.

Mr. Baruch, chairman of that board, has said: "The War Industries Board will continue to exercise its functions until the peace treaty is signed, to the end that the readjustment of the matters upon which it has been acting may be made in as orderly a manner as possible. A committee named by the President has been and is now at work to devise the best mechanism of bringing about the adjustments from a war to a peace basis. The report of the committee may take the form of suggested legislation. The whole effect of the readjustment plans will be to the end of bringing about necessary changes with as little dislocation as possible, and the full opportunity for all to benefit, as in the past, by individual ingenuity, vision, and fair dealing."

It would seem to me that all of these facts point towards even a more gradual readjustment following the war than has occurred in the wars of the past, and that anyone would make a great mistake if he were to be influenced by prospective declines in prices to do other than control his business in a normal and logical way. The loss of profit which he would sustain by the slackening in trade that would follow such a policy would be much greater than any possible advantage to be gained through speculating upon the markets of the future. It is therefore clearly the duty of the implement industry to "carry on" in the usual manner, to the end that a normal flow of machinery may proceed from the manufacturer to the dealer and the farmer, so that the latter may fully discharge his obligation to feed the peoples of the world, and incidentally, while doing so, greatly profit himself.

We have just won a great war. We are in the best financial position of any country on earth. We should look to the future with the greatest degree of optimism. No industry has so great an expectation of prosperity as that engaged in the production of food. We must push ahead, confident that our efforts will be rewarded and that the future has still greater things in store than the past.



WITHOT ADEQUATE MACHINERY, PLANTING AND HARVESTING AN ELEVEN-MILLION-ACRE WHEAT CROP WOULD BE IMPOSSIBLE

There is one food policy that cannot change, and that is the vital necessity of simple living.

LYON COUNTY BOOSTS DAIRYING

Delegation Visits Wisconsin Dairy Section---Dairy Cows Being Purchased

TWENTY-SIX farmers and otber business men from Emporia and Lyon County formed a party which visited Sheboygan County, Wisconsin, in October of this year, and here are a few of the things they report:

This county bas 45,000 Holstein cows and many Guernseys and Jerseys. The total value of its annual dairy products is over nine million dollars. The average annual net profit per cow over cost of feed is from $100 to $175. The county has nineteen banks with total deposits of $12,785,780, mostly milk money. It has 126 cheese factories and several creameries and condenseries. Ninety-five per cent of the farms have silos. Each farmer has a manure spreader and bauls out manure daily. The county has many miles of concrete and gravel roads, tbe state paying 40 per cent of their costs. The farmers are feeding Kansas alfalfa at $38 a ton. They keep good cows, keep tbem in good barns, and make tbe milking part of the day's work.

The best dairy counties in Kansas have only about 10,000 milk cows. Lyon County has 6,888, and the total value of its dairy products for a year was $222,941. Franklin County has 9,039 cows and a total annual value of dairy products of $569,465.

This trip to Wisconsin was made under the auspices of the Emporia Chamber of Commerce, tbe details being handled by A. H. Gufler of its agricultural committee and chairman of its dairy industry committee. D. L. Harcourt of the De Laval department of dairy development and T. M. Jeffords, the agricultural agent of the M. K. & T. Railroad, gave much valuable assistance and accompanied the party on the trip. On the return of the party orders were taken for ninety-one pure-bred and grade Holstein cows and beifers and a committee accompanied by Mr. Jeffords was sent to make tbe purchases, the value of the stock amounting to about $10,000. This first consignment was due to arrive in Emporia about the middle of December, and the interest in dairy cattle is so keen that it is expected that the committee will in all probability find it necessary to make another purchase trip before Christmas.

The farmers and the Emporia business men wbo made the trip to Wisconsin were met by tbe business men of Sheboygan under the leadersbip of A. L. Sommers, secretary of their Association of Commerce, and Martin L. Hoppert, county agricultural agent. Tbey were conducted on an automobile tour of the county, visiting in all eighteen dairy farms. The professor of agriculture in the Sheboygan high school with fifteen or twenty members of the class in agriculture were in the party. Altogether about sixty persons made the trip, in twelve autos. Mr. Hoppert and Mr. Sommers provided every possible courtesy and facility for the party to secure information on dairying. What follows is from the report of the dairy development committee to the Emporia Chamber of Commerce.

Sbeyboygan County is of greatly diversified topography. Portions are very hilly. Other portions are rolling prairies. The entire county is of glacial formation. Originally the entire county was covered with dense forests, and even yet in the hillier portions there is a great deal of timber. In many places boulders from the size of a baseball to the size of a washtub had to be removed to the fence lines before the land could be plowed. The soil is light in color and except in the valleys it is only a few inches to gravel. Generally speaking the soil of Lyon County, Kansas, is inherently much more fertile. The lower lands along the streams and lakes are of a swampy nature and require tiling to cultivate successfully. One marsh of several thousand acres is now being drained by a big drainage company.

Farms range in size from fifteen to four hundred or five hundred acres. The average size for the county will be less than one hundred acres, and in some school districts forty acres is considered a good-sized farm. The tendency of the past thirty years is for farms to grow smaller. Land values range from $100 to $250 an acre, with a fair average value of $150 to $200.

Improvements were found to be more than ordinarily substantial. Farm houses are commodious, well painted, surrounded by fine shade trees, and the lawns are kept as neatly as they are in the towns. Beds of beautiful dahlias, geraniums, and other flowers surround practically every home. Almost invariably the barns are large, well painted, and are surrounded by one or more silos and other farm buildings. The farms are fenced into rather small fields, with tbe fences in excellent condition. One eighty-acre field was pointed out to us as being exceptional in size in the county. Everything about tbese farms indicated, from appearances, a high degree of prosperity.

Roads were splendid, being usually gravel or macadam. There are about twelve miles of very fine sixteen-foot concrete roads. Small bridges and culverts are concrete, the larger being steel.

Crops grown for sale include barley, potatoes, wbeat, sweet corn and peas, the latter two to be sold to local canneries. However, comparatively little grain of any kind is sold from the farms. In fact, many of tbe small farms grow no grain at all except corn for silage which is cut up, ear and stalk.

Crops grown for feed include oats, corn, clover, timothy and alfalfa. Oats, barley and wbeat are threshed and the straw carefully stacked close to the barn or stored in the barn mow to be used as feed and bedding. Barley and wheat are usually sold and the money used in purchasing concentrates for feed. Corn is almost never husked out, but practically all is put into the silo. The farmers were in the midst of filling their silos during our visit. All timothy and clover is fed the cows and horses. Not much alfalfa is yet grown, though some farmers claim to have gotten yields of four and five tons per acre. Most of them reported that it frequently winter-kills. One farmer we visited reported tbat he had just bought a carload of Kansas alfalfa, for which he had paid $34.50 delivered at Sheboygan. He furtber stated tbat the price of Kansas alfalfa is now $38 a ton. Yet this farmer and others frankly and positively stated that they could feed that alfalfa to grade cows and sell the milk at a considerable profit. Oats, generally speaking, yields fifty to seventy-five bushels per acre, even on tbe uplands. Corn makes eight to fifteen tons of silage per acre, which is considered worth this year from five to eight dollars a ton and in previous ordinary years about tbree to five dollars a ton. Corn is planted quite tbick, so as to increase tbe tonnage. It is put into the silos after it begins to harden and while the blades are yet practically green.

All farmers have manure spreaders. Manure is hauled daily and spread on the land. Most farmers report that they put from five to ten tons per acre every tbird or fourth year on the land. Their crop rotation system generally is corn followed by oats and barley, then clover or clover and timotby, as a three-year rotation. The manure is spread on the grass and pasture lands prior to planting corn. By this system of crop rotation and systematic use of manure, even the poorest lands are made to produce profitable yields.

Hired help costs $35 to $47.50 a month, with $45 being the general price, which includes board and lodging. This is for single men. A common practice is for the hired men to be let off every other Sunday.

Every farm has a dairy barn. Often it is a horse barn adapted to dairying purposes. Each cow has a separate stall and feed trough and in many of them there are separate drinking cups. Usually the floors are concrete, which means, of course, that bedding is provided for the cows. Box stalls are provided for calves and for the herd bull. Calves are almost invariably kept in box stalls in the barn until they are from six to twelve months old, except perhaps for one hour eacb day, when they are allowed to pasture. Farmers claim tbat stall-fed calves do much better, and therefore are of more value than those allowed to run on pasture, since they are less annoyed by flies, and their feed is not subject to tbe variation because of poor pasture. Calves are usually fed about five to eight pounds of whole milk a day until they are from three to six montbs old. Tbey are, of course, fed grain and hay as soon as they are old enough to eat it, beginning at about tbree weeks of age with small amounts and gradually increasing.

Tbere was great diversity of opinion among the farmers regarding milking machines. Some farmers had no use whatever for them, others feared them, while perhaps an equal number were strongly in favor of them. Most of those wbo did use them practice hand-stripping after tbe machine, while a few otbers stated there was no need of hand-stripping.

There are two or three cow-testing associations in the county. We were shown the official records of several herds. These records indicate each month for a year the number of pounds of milk given by each cow, the percentage of butter fat, the amount and value of tbe feed consumed, the returns per dollar's worth of feed consumed, the net profit of each cow, and other valuable information. Each of these testing associations is composed of about twenty-six farmers who pay a flat rate of two dollars a month for the services of a man or a woman to test the cows for every member. This person, called the "official tester," visits each farm at least once a month. The feed given every cow is weighed for that day, the milk is weigbed both morning and evening, and the milk is tested for its butter fat. Tbe weight of milk for the day is multiplied by the number of days in the month and this is considered her yield for the month. Likewise the weight and value of the feed for tbe month is obtained. Then these weights and records are totaled for the year. Many of tbese cows, both tbe grade and registered in tbe herds we visited, had yearly records of eight thousand to fifteen thousand pounds of milk and over three hundred to five hundred pounds of butter fat, and showed a net income above the cost of feed of from $80 to $200 per eow.

Tenant farmers are rare. It is claimed that not more than 2 or 3 per cent of the farmers of the county are tenants, though this probably does not include sons who are renting farms from their fatbers, or who have purchased same on contract. A rather common practice or system of renting is for the land owner to own one-half of all the dairy stock, the tenant to own the horses and implements, and the profits on all sales to be divided equally between owner and tenant, tbese sales including all grain, dairy products, increase in the herd and everything else disposed of on the farm.

We were impressed with the large number of farms that are now in the hands of the second and third generations. In fact this was the rule and not the exception. There seemed to be less tendency for the boys on the farms to leave tbem and go to towns. About one-third of the farms we visited were being run by sons or grandsons of the original settlers.

The towns are universally prosperous-looking. Dwelling and business houses are well painted, and fine shade trees, beautiful lawns and gardens are seen everywhere. The social conditions are evidently good. In fact, we were advised that every schoolhouse was a social center. Tbe village of Oostburg may be taken as a fair example. The population is about four hundred. Every house is well painted and in good condition. It has one bank, established eight years ago, with deposits of over two hundred thousand dollars, although there are nine other banks within eight or nine miles in various directions from the village. About three-fifths of the deposits are tbose of farmers. A bank was organized three years ago in another inland village of Howard. Its deposits now exceed tbree hundred twenty tbousand dollars, all farm money.

Sheboygan County has 126 cheese factories, besides several condenseries and creameries. The cheese factories are usually owned by individuals and are scattered throughout the county. The factories charge two and one-fourth eents a pound to make the cheese. The farmer sells his cheese himself. About ten pounds of milk make one pound of cheese. Cheese is now selling at about thirty-two cents a pound.

As an example, there are eleven cheese factories within less than five miles of the village of Oostburg. Each factory eonsumes daily from three thousand to eighteen tbousand pounds of milk. There is a condensery in the town witb a capacity of seventy-five thousand pounds of milk tbat is now buying about twenty-five thousand pounds daily. This condensery and these eleven cheese factories receive daily one hundred thirty thousand pounds of milk for which is paid out in cash every day approximately $4,000. Also there is a large cannery bere that has put up as much as thirty thousand cases of corn a year, besides an immense quantity of peas. Merchants report very little credit is asked by farmers. Bear in mind that milk is only about 4 per cent butter fat, 4 per cent sugar, 4 per cent albumen, 1 per cent ash, 87 per cent water. It takes about ten pounds of milk to make a pound of cheese.

Farmers borrow money on mortgages at from 4 per cent to 5 per cent and sometimes even lower. It is said that more tban one-half of the farms of the county are under mortgage, due to the fact that as tbe older farmers gain a competency tbey retire and sell tbe farms to their children. At Oostburg the banker, who was about forty years of age and wbo had lived all his life in the community, said he bad never heard of a foreclosure on a farm anywhere in the neighborhood. This banker advised us that in his section there were quite a number of fifteen- and twenty-acre farms, and a very large number of forty-acre farms. About one-fifth of the farms were eighty acres and not more than one-tenth were over eighty acres. Also tbat a farm of forty acres near Oostburg had recently sold for $250 an acre with improvements and a short time previous a smaller farm had sold for $225 an acre. Both were less than average farms. This same banker told us that the general impression among the intelligent farmers of that district is that a farmer cannot get all the good out of a farm of over forty acres. He further advised that upon the death of his father a few years ago bis farm of 115 acres was subdivided into four farms. Also he cited a case where a few years ago a farm of fifty acres was sold in a thirty- and a twenty-acre tract. He said that the farmer who bought the thirty-acre tract was now, because of dairying, one of the most prosperous farmers in tbe community.

Our party did not see a mule or a beef steer in Sheboygan County. Nearly all the hogs are Chester Whites. Tbey are fed hominy, whey from the cheese factories, and some mixed feed and ear corn.

Sheboygan County has forty-five thousand Holstein cows with over three thousand of them registered. Good grade eows producing milk can be bought at $125 to $175. In many instances these eows can be had from herds from official cow-testing associations. Bred two-year-old grade heifers can be had at

(Continued on Page Seven)



THIS IS A KANSAS SCENE SUCH AS THE LYON COUNTY DAIRY BOOSTERS EXPECT TO SEE MANY TIMES DUPLICATED IN THAT COUNTY

GENERAL FARM AND STOCK ITEMS

Something of Interest for All—Overflow from Other Departments

THE feeding value of soy-bean seed, which contains from 30 to 46 per cent protein, is very high and compares favorably with other concentrated feeds. When fed to sheep and hogs the beans can be fed whole, but in general it is preferable to crack or grind them. Practical experience has shown that it is necessary to mix the beans with corn or pease first and then grind together into meal. Owing to the high content of protein, soy-bean seed should always be fed in mixture with a less concentrated feed.

Fertilizing Value of Feeds

In these days of high-priced feeds it is well worth while to consider carefully the fertilizing value of the feed you use. It is important to be more than usually careful in saving the manure from animals fed alfalfa or other legume hay or expensive concentrate feeds.

A ton of cottonseed meal, for example, which is used largely for feeding cattle, contains the equivalent of 774 pounds of nitrate of soda, a fertilizing material now selling for 5 cents a pound; in addition a ton of the meal also contains the equivalent of 354 pounds of 16 per cent acid phosphate and of fifty-six pounds of muriate of potash. Acid phosphate sells for approximately 1½ cents per pound and muriate of potash for 25 cents. A ton of cottonseed meal then will contain approximately $57 worth of fertilizing substance, 75 per cent of which may be returned to the soil in the animal manure if hauled directly from the stable and spread on the fields.

A ton of linseed oilmeal contains the equivalent of 716 pounds of nitrate of soda; 236 pounds of acid phosphate and forty pounds of muriate of potash. A ton of bran contains the equivalent of 310 pounds of nitrate of soda, 394 pounds pounds of acid phosphate and 52 pounds of muriate of potash.

Even clover hay contains per ton the equivalent of 248 pounds of nitrate of soda and 52 pounds each of acid phosphate and muriate of potash.

Destroy Pocket Gophers

The work of the pocket gopher is familiar to all who have seen the mounds of earth they make in the alfalfa fields where they are working, but few of us realize the extent of the damage they do. It has been estimated that more than a tenth of the Kansas alfalfa crop each year is destroyed by gophers. On this basis this loss easily amounts to over five million dollars, and in view of the high price of alfalfa at the present time it is probably nearer eight million dollars for the past year. In addition to the damage done alfalfa, orchards, grass lands, garden and field crops, and especially potatoes and other root crops, are damaged.

Any farm can be cleared of gophers at small expense, but community action is necessary to get the best results, as they will keep coming into cleared areas from surrounding farms. Poisoning is the method most commonly employed, and is as a rule cheaper than trapping. The Kansas Experiment Station has for some years kept on hand a standard preparation of poison which has proven very effective. It is put up in the form of a syrup, an ounce of strychnia sulphate being used to a quart of the syrup. In preparing this the strychnine must be first dissolved in a pint of boiling water, the syrup being then added and the mixture stirred thoroughly. The Experiment Station sells the poison at cost, which is a dollar for pint cans and $1.75 for the quarts. Prof. R. K. Nabours gives the following instructions for using the poison in destroying gophers:

"Steep a half-bushel of corn in boiling water and let it stand over night. Then drain off the water and pour over the corn a quart of poison syrup from the can. Add a few pounds of corn meal to absorb the excess moisture and mix all thoroughly. It will require one-fourth bushel of corn if a pint can is used. This bait may be kept several days without spoiling.

"The poison bait is placed into the runways of the gopher through a small hole made by a sharpened stick or a spade handle. One may soon learn when he has struck the run, which is easiest located between two mounds of earth. Then with a spoon several grains of the poisoned bait can be dropped into the run and the hole left open.

"Another method of poisoning gophers recommended by the U. S. Biological Survey is to cut sweet potatoes or parsnips into pieces less than one inch in diameter. Wash and drain four quarts of the cut bait, place in a metal pan, and from a pepper box slowly sift over the dampened baits, while stirring, one-eighth ounce of powdered strychnine and one-tenth as much saccharine (well shaken, or ground together, in a mortar). Use these pieces of potato or parsnip as recommended for the poisoned syrup bait."

It is important that the poisoning be done while the gophers are still working. Those that are not killed before winter sets in will begin work in the spring and the job can then be finished.

Wintering Breeding Ewes

If you have some bred ewes, be sure to give them the kind of care and feeding which will insure strong thrifty lambs next spring. Weak, puny lambs can easily result from wrong methods of wintering the ewes. If you have some rye or wheat pasture for the ewes, the feed bill will be greatly reduced and the exercise question will be solved, for it is very important that pregnant ewes have not less than the equivalent of a mile of travel daily. When penned up too closely the ewes lose in vigor and cannot produce strong lambs. If there is no pasture for them to run on, at least arrange to let them range over some of the fields a portion of each day, even if they have to be herded or driven. While cheap roughages can be used, the ewes should be fed well enough so that they will gain from fifteen to twenty-five pounds before the lambs come. It is nearly always advisable to feed about a half pound of grain daily to each ewe during the last month of pregnancy, equal parts of corn and oats being a good mixture.

White Grub in Wheat

Many complaints are coming in that white grubs are damaging wheat fields. Edward C. Paxton, field agent of the United States Bureau of Crop Estimates, reports that hundreds of his observers are reporting this trouble. It seems to be more serious in Southern Kansas.

T. W. McCulloch, of the Kansas Experiment Station, states that unless preventive measures are taken we can look for a continuation of this grub injury next year.

It is too late to do anything where the grubs have destroyed wheat this fall. Such measures as have been worked out must be carried in mind and put in operation next year.

The particular white grub doing this damage in wheat has been studied by the Experiment Station entomologists for several years. In the badly infested fields of Southern Kansas it is found that the injury is occurring where the fields have been in wheat continuously for a period of five years or more. The females are wingless and do not leave the area from which they emerge. They feed on the weeds growing in the field and deposit their eggs in the immediate area from which they emerged. As a result of this, the injury is accumulative, becoming more severe from year to year.

The investigations show that wherever crops are rotated the injury from this grub is avoided. In a badly infested field it is suggested that the land be plowed shortly after harvest and put into corn the following year. The corn can be followed by oats and then back to wheat again. This rotation will prac-

Work of Girls' Cooking Club

ALMOST $150 in prizes has been won this fall by a cooking club composed of nine Jewell City school girls under the enthusiastic leadership of Mrs. O. M. Chilcott, wife of the former county superintendent of schools. At the Topeka fair individual prizes aggregating $13 were awarded to members of the club; at the exposition at Wichita the individual awards amounted to $20; while the club as a whole won state club honors at both Topeka and Wichita, carrying in each case a prize of $25. In the demonstration contest at Wichita a baking team from the club won $59.60, making a total of $142.60 as a result of one summer's work. This club made no exhibit at the Hutchinson fair. At a recent meeting the members voted to use the club honor money in supporting a war orphan to be adopted by the club.

Much of the credit for this splendid showing is due to the untiring efforts of the leader, who is one of the enthusiastic club mothers, loved not only by her own children but by every girl and boy of Jewell City. In a letter written to Miss Marion Mateer, assistant club leader for the state, Mrs. Chilcott tells something of the plan of the work and of other results accomplished in addition to the money prizes won. She says:

"We have tried to stimulate home work and so have asked each girl to record her cooking in the home beside the thirty-six bakings required. Most of them have records of one hundred or more things prepared. Next year we are going to ask instead of that for a record of meals prepared by the girls themselves, believing girls of that age—fifteen to eighteen years—can easily prepare the ordinary breakfast or supper meal. One girl wants to do as much as another girl.

"We have found this enforced vacation a good time to work on our stories of the club year's work and are illustrating them from the magazine pictures. I find that fine; the girls are learning to notice the articles and illustrations in the magazines on home things and I believe with another year's work will be readers of that kind of literature. They have begun to try out the recipes they find.

"I consider it necessary to have the mothers' co-operation and endeavor to have them with us at several meetings during the year, especially the first. I believe every mother in Jewell who has had children in our club has expressed her appreciation of what the club work has done for her in helping her raise her girl or boy and is now a booster for the work.

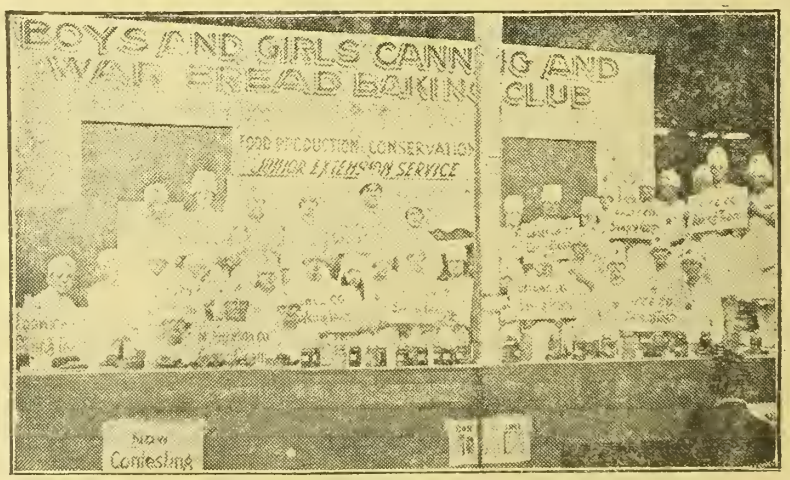
"It is vitally necessary to interest boys and girls in home work before they get so much interested in the things away from home; this club work does. It makes plain duties popular and attractive. The prizes these young people have won have called forth praises from so many of the grown people whose opinions they value very much that it gives them great pride in doing things.

"The summer months are the difficult ones in child raising. The club work gives them useful, pleasant work during that time. They begin and finish tasks.

"One girl has in her story of the summer's work this statement: 'We have learned much more this summer in our club than just how to cook.' What that implies I consider the big thing—shall I say the biggest thing of all? Doesn't it mean learning better how to live our lives? To be honest; to be fair to others; to finish what we begin; to do everything we do the best we possibly can; to do each thing better the next time; to enjoy our work and to find pleasure in working together. Our girls have said, 'We are too busy to fuss. We have lots better times than at a party.' The teachers tell me they see the effect already of the club work. The club ideals are carried out in school. Just a few boys and girls who have gone wrong can be reclaimed, but every good boy and girl may be kept so. I believe the club work to be the best plan yet evolved by which the energies, the mind and the heart of the child may be best developed.

"As a mother who has had two children in four clubs and will have another in next year, I am deeply grateful to the state and its leaders for an organized plan by which to work during the summer months. These young people are seeing what a college education means. One girl said, 'What splendid people we meet when these workers come to us!' Learning to choose the right kind of associates is a great big thing in life.

"I am so full of this work that I don't know where to stop. If I didn't do all my own home work. I suspect I should be out in the highways dragging children in to form clubs all the year round."



THE baking and canning club teams which contested at the Wichita Exposition for state honors are here shown. The six counties which had done the best work in canning were represented by canning teams, and the six counties best in bread-making sent their best bread-making teams. Rice County entered a team in each contest, winning first place in bread-making and second in canning. Ottawa County was second in bread-making and Pratt County third. In cannning, Harvey County won the state championship and McPherson County took third place.

tically eliminate the grubs from infested wheat fields. It would not be necessary to repeat this procedure oftener than once in five years, since the infestations in the field develop slowly during the first few years. Rotations of crops are advisable, however, for many other reasons.

Value of Education for Farmer

There are many who still raise the question of whether education pays in the business of farming. In other words is the educated farmer able to make a larger income than the one lacking in education? A very suggestive circular on the value of education to the farmer has been issued by the Missouri Experiment Station. In this pamphlet the author, O. R. Johnson, presents some facts and figures showing the place of high school education in farming, comparison being made with ordinary rural school education.

In making the comparison of farmers with ordinary school education and those who have gone farther than the rural schools, Mr. Johnson used information obtained in a farm management survey conducted in the western part of Johnson County, Missouri. The training of the second group in addition to their grade school education amounted to an average of practically two years in high schools.

"The better-educated farmers keep about one and one-sixth times as much stock as the others, as is shown by the number of acres of crops grown for each animal unit kept," says Mr. Johnson. "The man with more school training also handles more crops with each workman he employs. Each workman on farms of the first group of farms handles 53.5 acres of crops, while a workman in the second group of farms handles 61.2 acres. In other words, the better-educated man is doing about one and one-fifth times as much as the man with less school training.

"There are several points which the figures bring out. The one of greatest interest, perhaps, is that the better-educated farmer is making an income 71.4 per cent greater than the man with less education. After the labor income of the man with less school training is adjusted to allow for difference in size of business, the man with more education still has about 40 per cent greater income than the man of the first group. The other factors indicate strongly that the better-educated man has his business better organized. The fact that he gets slightly better yields and has a system which furnishes him more productive labor, and that he keeps more live stock, seem to show that he has somewhat greater ability in the organization and handling of his business. Because of this fact, it is found that he makes enough larger labor income to pay interest on approximately $5,500 capital, and allowing for the difference in size of business he still makes enough larger income to pay interest on $3,700.

"Other studies have shown that with this size of farm each acre that the farm is increased will add approximately $2 to the labor income, but that the investment per acre on the two farms is not enough different to make any difference in the income in favor of the better-educated man. Also, the difference in crop yields is not great enough to change the labor income materially. With these facts considered, it would appear as though the man who has received more mental training has increased his efficiency thereby to the extent of making interest on a capital of at least $3,700. This does not seem to be a bad investment for the small amount of time he spends in getting the additional training and the probable expense of obtaining this training. While other factors may have played some part in his greater earning capacity, yet from a careful study of the organization of his business it appears that education must have played a very large part in his greater earning ability."

How to Trap Mink

Mink are most easily trapped along small streams, where the lodging of the driftwood in the crooks and windings of the shore affords fine hiding places for the animals and consequently fine spots for setting traps either in or out of the water. But where possible the sets should be made in water and on the lower bank of the stream. A guideway is made of two logs, the traps set in between and on the far side placed a half dozen drops of the best mink bait. Again, the traps may be set in the water near some weeds or tall grass, and a few drops of the good mink bait placed on the weeds or grass.

Other good places to set traps for mink are inside old hollow logs or in the hollow of an old tree close to the stream. The bait should be placed near the trap but not on the trap. In winter the traps should be set near the ripples or thin ice where the mink is most likely to come out.

In working around the traps, gloves and shoes should be scented with the best trail scent in order to remove the effects of the human odor of which the mink are very wary. If a mink den can be discovered and the animals found inside, a good smoker will drive them out so that they may be easily caught.

In preparing mink for the market, they should be stretched pelt side out and all superfluous flesh and fat scraped off. Skins should be dried in a cool, dry place, not near the fire or in the sun. After being stretched enough to hold their shape, the skins are ready for shipment.

Mulch the Strawberry Bed

Get your strawberry mulch ready to apply, but do not put it on until the ground freezes. The object of the mulch is to prevent alternate thawing and freezing of the ground which "heaves out" the plants, breaking the roots and often killing the plants, but always injuring them sufficiently to reduce the crop.

If the mulch is applied before the ground freezes there is much more danger of damage from field mice.

For mulch use straw, when available, waste hay, coarse manure or other rubbish not containing grass or weed seeds. A two-inch covering is sufficient protection.

LYON COUNTY BOOSTS DAIRYING

(Continued from Page Five)

from $80 to $125, $90 to $100 being a fair average, and calves at around $15 to $25. Registered bulls or heifer calves and yearlings sell at from $100 up. There are also a great many Guernseys in the county, with a lesser number of Jerseys.

The party in the two days visited and interviewed eighteen dairy farms. In each instance the visitors asked questions freely of the farmer, and these notes are the substance of the farmers' frank replies to these questions. With one or two exceptions the farmers whom we visited were just such men as could be found by a similar drive throughout Lyon County. They differ only in their method of making a living. Instead of crop farming which their fathers and grandfathers practiced with its consequent depletion of plant food, they have taken up a system of crop rotation. Several of them frankly stated that without dairying their soil, in spite of fertilizing, would yield them a doubtful return. Everything grown on the farm is fed to dairy cows and the manure returned to the land. By this means they have restored and enlarged the original productivity of the soil and have rendered their yearly income both greater and more independent of bad seasons. They work no harder nor any longer hours per day than do Lyon County farmers. A larger proportion of their work is indoors, especially during the winter season. Their labor is productive of income every week of the year, while Lyon County farmers are engaged in income-producing labor not more than one-half of the year. Their income is even greater during the winter months than during the summer months, and it is invariably greater in every month of the year than is their outlay for that month. Most of them stated with frankness and definiteness that their net profits were safely one-half of their gross income. As a result, our visitors were unanimous in the belief that this was the most prosperous community that they had ever seen, and that the almost amazing prosperity and contentment were due to the milk cow.

Manure Pile Valuable

The dairy farmer is very likely to overlook the manure pile when he is figuring the income from his cows. It is sometimes even looked upon as a necessary evil that must be disposed of at an added cost and an increased amount of labor. And yet the manure pile is the farmer's "gold mine" when it is properly handled, says W. W. Swett of the Missouri College of Agriculture.

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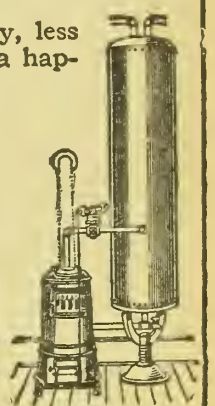

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Write to Department F-14 Chicago

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The ordinary well-fed dairy cow excretes at least ten tons of manure a year. A great deal of this amount is dropped in the pastures and lots and is never recovered. Assuming that half the entire amount is lost in this way we have five tons collected at the barn to be disposed of in some manner.

According to the soils department, manure has an actual value for increasing crop production amounting to $4.20 for each ton used. This gives the amount of manure collected from each cow a fertilizing value of $21 a year. The man who has a herd of ten cows can easily figure for himself that his manure pile has a value of approximately $210. Save the manure, take good care of it, apply it to the land and reap the profits, and do not fail to give the dairy cow the credit that is due her.

Manuring Wheat in Winter

Farmers have been very busy and short of help during the past season. Doubtless in many cases the manure pile is still in the barnyard. There was neither time nor help at hand to spread this manure at the usual time, and as a result the wheat may now be growing on land that is not as fertile as is desirable.

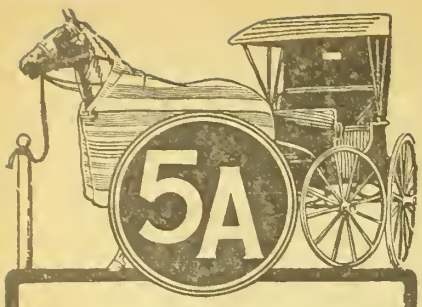
In such cases it will be of great help to the wheat crop and of profit to the farmer if manure, or straw not needed for other purposes, is spread evenly and thinly on the more level wheat fields this winter. Such application should be made when the ground is dry or frozen. In case fertilizer has not been applied recently to the land and it is known that phosphorus is needed, forty or fifty pounds of acid phosphate may well be added to each load of manure before spreading. The application of manure should not be heavy—probably not over six tons to the acre in any case—and it should be spread evenly so as not to smother the plants.

Cold fall rains may be expensive to the dairyman. The high producing cow is a delicate machine, easy to get out of order. She does not have a thick layer of fat like the beef animal to protect her body from the cold, and must have other means of protection. When the dairy cow gets cold and wet, the only means of her keeping warm is to use her feed for furnishing energy. The cow that uses her feed for warmth cannot use it for producing milk. The cold cow cannot be a high producing cow.

What Did He Mean?

Mrs. Oldwed—"Am I dearer to you than ever?"

Mr. Oldwed—"Sure thing. Everything is dearer nowadays."—Exchange.



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A good market for farm products is assured for the next two or three years because the world demand for food will continue until European agriculture is back to a normal basis.

Learn to Control Abortion

By Dr. George M. Potter, Extension Division. K. S. A. C.

THE purpose of the educational work in preventing abortion disease in our beef and dairy herds is to demonstrate not only that it is possible to control the disease by a system of sanitation and herd management, but that such a practice will be profitable to the owner of the herd. The work will be of a demonstrational nature. Where regulatory measures should be adopted, the live stock sanitary commissioner will be immediately notified. In farm bureau counties the work will he conducted under the auspices of the farm bureau.

It is proposed to secure the co-operation of the owners of dairy herds, two or three in each eight or ten counties in different sections of the state, and a like number of owners of beef herds in four or five counties which are typical of their respective sections, who are willing to try for a term of years our plan of herd management to overcome this disease. In choosing co-operators, only those men who have had losses in the past and realize the necessity for instituting preventive measures will be accepted. The proposed work will require the intelligent interest and active co-operation of the owner, as one who would not follow a definite system of herd improvement would derive no benefit from it. The assistance and active co-operation of one or more local veterinarians will be sought in every case so that they may be fully informed of the methods used and thus be ready to apply similar treatment and management to other herds in the community whose owners become interested in results in the demonstration herds.

It is desired to work wherever possible with pure-bred herds, or in the case of dairy herds with those connected with cow testing associations. Where such herds are not available, good grade herds may be used. In working with such diseases as abortion, which is of a chronic nature, the work must continue over a period of years before results become apparent and it is essential that there be a continuity of purpose such as the pure-bred and testing herds seem to offer. Moreover, this class of cattle are more frequently used as foundation stock in the development of new herds and are, therefore, potentially more dangerous disseminators of disease. They afford the most logical point of attack in any plan of herd management for disease prevention. The work will be directed along the following lines:

Prevention of abortion disease and allied affections; prevention of calf diseases, and furnishing the necessary veterinary service.

Treatment of Abortion Disease

In beginning the work it will be necessary to visit the premises of the man seeking co-operation for the purpose of determining conditions, such as size of herd, size of farm or ranch, system of herd management (breeding, feeding, management of calves, etc.), reproductive efficiency of herd, possihility of controlling breeding, season of greatest number of abortions, and facilities for isolating and treating aborters.

At first only the general measures, such as sanitation, segregation of aborters, and proper methods of herd management will be instituted. On subsequent visits when the work shall have been organized, the special measures for the treatment of aborted cows, retained afterbirth, and sterility, will be demonstrated; also laboratory diagnoses will be made, as opportunity offers, in co-operation with the veterinary department of the Agricultural College.

Records of breedings, calvings, abortions, retained afterbirth, sterility, etc., will be kept to facilitate the work and as a means of recording progress.

In outlining systems of herd management, the specialists in dairying and animal husbandry will be consulted. Conditions are so varied that each herd becomes a study in itself, and expert advice is necessary in each case. A detailed discussion of the disease and its complications and methods of combating it is given in Experiment Station Circular No. 69, "Contagious Abortion of Cattle."

It is planned to visit co-operators quarterly. All work performed will be of a demonstrational nature, for the benefit of interested breeders of the community. As it will also be of a professional nature, the co-operation of the local veterinarians will be sought.

Calf diseases are somewhat closely associated with diseases of breeding cattle, and the same measures of sanitation are effective in controlling both groups. Specific anti-serum would be used in combating outbreaks of contagious scours. Dietetic errors frequently cause digestive disturbances which could be avoided by the adoption of correct practices.

Blackleg is a disease of young cattle. Its control is assured by preventive vaccination.

Udder troubles constitute another group of diseases which are of special concern to dairymen. Attention will be directed to the causes and corrective measures.

Veterinary Service

Competent veterinary service is essential for the success of any systematic effort for disease control. We purpose to secure, wherever possible, the services of a competent veterinarian to care for all cases of diseases requiring immediate attention. The presence and assistance of the local veterinarian will be sought at all demonstrations, and in all work of a professional nature.

As the work progresses, a conference of co-operating veterinarians will be called by the veterinary department of the college to consider the latest approved methods.

This plan will operate to the benefit of the owner in providing more efficient service and to the advantage of the veterinarian in that greater confidence will be engendered among owners and his services therefore will be in greater demand than heretofore and will result in greater good to the community.

The successful operation of this plan, in harmony with the work of other departments, would mean much in valuable animals saved and make for a more productive animal husbandry.

Muskrat Trapping Methods

At the foot of slides or runs is generally the best place to take muskrat. Traps should be placed in shallow water and the bait hung about five inches above the trap. A weed or piece of brush on which is placed a few drops of the best muskrat bait will do; it should be fastened securely so that it will not float away on the current. A sheltered place is the best for setting the trap; if this cannot be found, a break of wood or stones should be made in order to protect the trap and bait

Another method which many trappers have found to be very successful is to build a mound of mud and stones in shallow water, set the trap at the bottom of the mound under the water, and then sprinkle a few drops of selected muskrat bait on top of the mound. The mound should always be a little above the water in order that the hait will remain on it. The trap should be staked firmly in deep water so that the muskrat will drown itself in its struggle to get away after being caught.

Muskrat should be cased pelt side out and all superfluous meat and fat scraped off thoroughly before shipping. The tail should he cut off, as it is absolutely worthless, and needlessly adds to the shipping weight. Skins should be dried in a cool shady place, not exposed to the sun. When the skin is dry enough to hold its shape it is ready to ship.

Keep Hogs Free from Worms

The worm-infested hog is never a thrifty hog. He gains slowly, and the gains made are expensive. Such a hog is also an easy prey to the various swine diseases. Prevention is far more satisfactory than the best cure. Pigs become infested with worms as a result of living in dirty pens and yards, being fed in filthy troughs, drinking contaminated water, or wallowing in infested mud holes. The infested pig does not thrive and usually develops into a pot-bellied profitless runt.

Cleanliness of yards and pens is the first preventive measure. A good many experieneed hogmen maintain that a mixture of charcoal, ashes, lime, salt, sulphur and copperas kept before the hogs where they can eat it will tend to prevent worm infestation. Even though this may not be as yet proven to be of positive value, experimentally such a mixture seems to satisfy the hog's appetite for mineral substances and probably has considerable value as a tonic and appetizer.

Free Feed For Half of Your Stock

If you feed alfalfa, do not waste the stems and stalks. There is just as much nutritive value in the roughage of alfalfa as in the foliage. Stock will eat this roughage with relish and get just as much nourishment from it as from the foliage if it is reduced to a satisfactory fineness for feeding. As stalks form half the bulk of alfalfa, you can double the feeding value by reducing it with a

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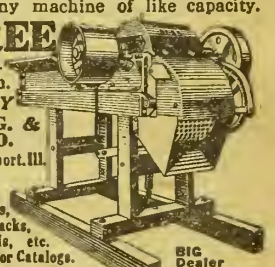

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When hogs have become seriously infested with worms, the following remedy is suggested: Santonin, 8 grains; areca nut, 2 drams; calomel, 2 grains; sodium bicarbonate, 1 dram. This is a dose for a hundred-pound hog. Santonin has been practically unobtainable owing to foreign trade complications, and the Bureau of Animal Industry has worked out another remedy which is also found quite effective. This consists in withholding all feed and water from the pigs to be treated for twenty-four hours. Then give each pig from one to four ounces of castor oil to which has been added oil of American wormseed as follows: For small pigs two to three months old, 35 drops; pigs weighing fifty to a hundred pounds, 50 to 100 drops; and for larger pigs, one teaspoonful. Each pig should be dosed separately to get the best results. The greatest care must be used, however, in drenching hogs, as they are very liable to get the remedy into the lungs. Where there is plenty of help the pig may be held, the mouth kept open by means of a couple of loops of wire or rope, and the medicine given directly from a tablespoon. This is a rather troublesome and slow method of dosing, but it insures each pig getting his proper dose. After they have been given this worm medicine they may be fed and watered. To be thoroughly effective it is necessary to repeat the treatment in ten days.

If pigs cannot be dosed individually, they should be sorted into groups of six to ten of equal size and the medicine thoroughly mixed with some feed which they like.

Butter to Remain High

Dairymen are wondering whether the present high price for butter will continue. The general opinion seems to be that there can be no lowering of butter prices. The Chicago Dairy Produce in a recent issue commented as follows on the market conditions as affecting butter:

"We have not ventured and do not intend to venture a guess as to how high butter will go before we get through the winter. Its possibilities are limited only by the ability of the consumer to purchase, in so far as fine butter is concerned. No one can tell the limit of the consumers' ability or willingness to follow the advances.

"There is a shortage of butter now. Government reports place it at nearly 7,000,000 pounds, compared to last year, and there is now a very great shortage of fine butter.

"The government took 60 per cent of storage holdings and its inspectors selected or are selecting, from the total storage holdings and are taking the cream. Besides taking such a large percentage of storage, the government is a buyer every day of fresh made fine butter.

"Many dealers who, in previous years at this time, had fine storage butter to give to their trade, are not provided with those goods now, the government having taken a larger part of their supplies, and they are in the market for fresh fine butter.

"With this additional demand is it any wonder that fancy butter is so closely cleared all the time that buyers are frequently unable to find any?

"Is it any wonder that prices are advancing?

"Regardless of how high it may go, we need not be surprised. The demand is there, a greater demand than we ever had before at this time of year, and the smallest supply of fancy goods in the history of the trade."

Better Breeding Helps

In dairying, large production and profit go hand in hand. Breeding furnishes the most economical way to obtain large-producing cows. The pure-bred bull, with generations of high-producing ancestors back of him, must be used for breeding, and only the best heifers from the best cows should be chosen to be the dams of the next generation.

The Khaki College

MOST remarkable is the educational program being planned for our fighting men while they await demobilization. This might well be called "the world's greatest university." The Army Education Commission is in charge, working under Y. M. C. A. auspices. Dr. Kenyon L. Butterfield, president of the Massachusetts Agricultural College, is the member for vocational training. He has already gone to France, where he is to join his associates, Dr. John Erskine of Columbia University and Frank E. Spaulding, superintendent of schools, Cleveland, Ohio. He has announced at the headquarters of the Y. M. C. A. War Council that he will be assisted by seven or eight presidents and deans of American agricultural colleges, who will act as regional directors overseas. Under them will serve the faculty of experts who are being recruited in the United States to supervise the teaching force that will be obtained from the fighting forces.

Doctor Butterfield stated that he expects to find in Paris a list of former teachers, alumni and students of agricultural colleges who are now in the army and who will be available for real teaching service in "the world's greatest university." He carries with him a list of nearly two hundred names, furnished by a large western university, names of men who doubtless will be transferred from fighting units to the educational system set up by the Government through the agency of the Y. M. C. A. He has canvassed all the universities and colleges in his compilation of a prospective faculty to provide educational opportunities for the fighting man overseas.

"The scope of the system as outlined by the commission," said Doctor Butterfield, "will be recognized when I state that from the United States alone we shall recruit experts in soils and fertilizer, cotton and other southern crops, grain and northern crops, live stock, dairying, horticulture, agricultural engineering, farm management, agricultural economics and country life.

"So far as possible 'Khaki College' will be an institution in which the student may matriculate in regular classes and courses of study. Lectures and demonstrations will be conducted by the visitation method; that is by utilizing all the opportunities overseas for giving the men an insight into the best French farming methods, horse breeding, intensive gardening and the like. It will be possible for the student to begin practically where he left off in America before he responded to the call to the colors; in accomplishing this result it is expected that the doors of the great French universities will be thrown open to the men of advanced classes.

"Along this line I may say that we expect to be confronted with the problems of many men who have never done any agricultural work but who feel that when they are demobilized they would like to make their living from the soil. The commission plans to furnish advice and counsel to such men regarding the possibilities of the future for them in agricultural pursuits. I expect that this counsel and guidance will be one of the most important functions of our entire system. We intend to co-operate in any constructive plan that may be offered for settling large numbers of the fighting men upon the land when they return to America."

Doctor Butterfield estimated the number of men from farming communities as at least 25 per cent of the total of men in uniform overseas, and states that he believes that at least 25 per cent more are interested in the possibilities of taking up agriculture when they are mustered out of the service.

The immediate needs in the educational work overseas today are organizers and supervisors and textbooks. Up to the signing of the armistice the demands for both were much greater than the supply, but Doctor Butterfield said that he thought both problems would be solved in such a way that no man in uniform who wants to study overseas would be disappointed. The list of regional directors and agricultural specialists in the various branches is nearing completion and will soon be announced by the Y. M. C. A. War Council.

Doctor Butterfield was a member of the commission on country life appointed by President Roosevelt and of the commission to study European rural credits appointed by President Wilson. As a member of the Army Educational Commission he will be in Europe for an indefinite period.

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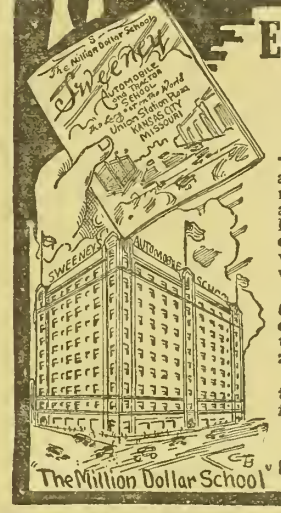

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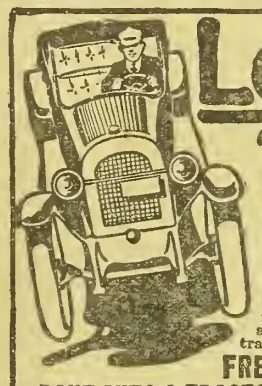

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STANDARD BRED R. C. RED COCKERels, $2 and $3 each. Mrs. B. F. Weigle, Winfield, Kansas.

ROSE COMB RED COCKERELS FROM good laying and richly colored strain, $2 up. Fred Gregorius, Humphrey, Neb.

PURE-BRED R. C. R. I. RED COCKERels, $1.50 to $2.50 each. J. W. Warner, Rush Center, Kansas.

DARK RED ROSE COMB REDS, GOOD scoring, greatest laying strain; cockerels, pullets, eggs. Satisfaction guaranteed. Highland Farm, Hedrick, Iowa.

ROSE COMB R. I. REDS THAT ARE really red. Fine, long-bodied, good-boned cockerels and cocks at $3.50 each. Some not quite so good in color at $2 and $1.75 each. Order from this ad. J. M. Nielson, Maple Heights Farm, Marysville, Kansas.

TURKEYS.

OAK HILL FARM, HOME OF THE pure-bred M. B. turkeys, May hatched, large, good weight. Route 3, Lawson, Mo.

MAMMOTH BRONZE TURKEY TOMS, weight about 25 pounds, $8 each; hens, $4. R. W. Galloway, Jamestown, Kansas.

WE SOLD FIVE CHAMPION BRONZE turkeys last March for $750. One tom brought $500. Have 300 grand birds, same breeding, sired by sons of my 52-pound champion tom, $7.50-$25 each. Ike Hudnall, Milan, Missouri.

CORNISH FOWLS

DARK CORNISH COCKERELS—GOOD—better — best. $3.50 to $10 each. L. C. Horst, Newton, Kansas.

DUCKS AND GEESE.

CHOICE WHITE CHINESE GANDERS, $6 each. Mammoth Toulouse hens at $2.75 each. Earl Scott, Belvidere, Kansas.

LANGSHANS.

BLACK LANGSHAN COCKERELS, $2 and up. Mrs. Geo. W. King, Solomon, Kan.

PURE-BRED WHITE LANGSHAN COCKerels, $2 each. Grace Welch, Utica, Neb.

BIG BLACK LANGSHAN COCKERELS and pullets, fancy and utility; also eggs. Guaranteed. H. Otterfoss, Hedrick, Iowa.

WYANDOTTES.

CHOICE SILVER LACED WYANDOTTE cockerels, $3.50 to $5. Eggs in season. Mrs. Philip Schuppert, Arrington, Kansas.

POULTRY WANTED.

IF DISSATISFIED WITH LOCAL PRICES on poultry, write for cash offers. Coops loaned free. The Copes, Topeka, Kansas.

There is no one thing that will make hens commence to lay better than fresh ground bone and meat.

HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Enlarge Poultry Flocks

THE world-wide scarcity of poultry products makes the present a most propitious time for enlarging our flocks in planning for increased production. H. W. Sanborn, poultry specialist at the Colorado Agricultural College, thinks that we are now at the beginning of the best five-year period for profitable egg production ever known. The following are some of his reasons, with suggestions for taking advantage of the conditions:

All Europe has very little poultry. Some parts none at all.

All Europe will become a bidder in American markets for poultry and eggs.

American breeders must furnish the breeding stock for the renewal of the European flocks.

It will take at least five years before Europe can be self-sustaining in poultry products.

These facts make for continued high prices of poultry and poultry products, even after prices of grains have declined.

This means that farmers will be able to realize for the next five years more for the grains fed to hens for egg production than will be possible by any other process of marketing. We feel confident that by following proper practices in poultry keeping at all seasons of the year, double the market value of grains may be realized by the feeding of it to hens for egg production.

Begin now—this season—to make your poultry work count. Give it a definite place in the daily work, keep accounts and compare returns for effort expended with other farm operations. If this is done, results will be more evident and you will appreciate your poultry as revenue producers.

Practice right selection in breeding.

Provide proper housing conditions.

Feed liberally rich foods to obtain high egg yield.

Hatch early. Early-hatched pullets lay fall and winter eggs.

Practice good sanitation.

Keep hens free from lice and roosts free of mites.

Take good care of eggs, gather daily, market often.

The hen lays a perfect egg. See to it that a perfect egg goes to market. Good eggs bring top prices.

Corn for Laying Hens

On stock farms hens are apt to get too much corn. Corn is a good grain for hens, but it must not be the only feed.

The Ohio Experiment Station reports that hens receiving a ration composed of 87 per cent corn and 13 per cent meat scrap produced an average of 241 eggs in two years. The mortality during this period was 10 per cent. Similar hens receiving only 42 per cent of corn, with wheat, oats, bran, middlings, oil meal and meat scrap, produced an average of only twenty eggs more per hen in two years. The mortality in this lot was 23 per cent.

While this indicates that corn may constitute a large part of the ration for laying hens, it should not be fed alone. Ten to 12 per cent of meat scrap or good feeding tankage used in connection with corn will make up for the deficiency of protein and ash in a ration composed only of corn. Oyster shells should be constantly accessible to laying hens.

Keep Henhouse Clean

If you do not believe that a clean poultry house, sweet smelling and sanitary quarters, will pay handsomely, just observe two flocks, one that is kept in such a house and under such conditions and another that is kept in a house that is seldom cleaned and as a consequence filthy and filled with foul odors. Note the difference in plumage, activity and general appearance of the two flocks and the number of eggs received. That alone will convince you of the absolute necessity of clean, comfortable quarters for hens.

The poultry house needs a good, thorough cleansing before real cold weather. Brush down the walls and ceiling, remove the old litter from the nests and floor. Whitewash or spray walls, ceiling and fittings. Fresh, dry earth or clean dry sand or sifted gravel makes the most comfortable floors to be had when covered with a litter of straw—rye straw preferred. Do not put in all the straw necessary at once, as the hens cannot stir so much; add a little every day or two as long as desirable. When these requirements are fulfilled, and not until then, can the hens begin their winter's work.—A. C. Smith, poultry division, University Farm, St. Paul, Minn.

Dry Mash Inquiry

A reader asks about the "dry mash." He says, "We frequently see formulas for poultry feeds, such as the following: Bran, alfalfa meal, corn meal, etc., fed in a dry mash. What are we to understand from the term 'dry mash'? Do you stir up the different ingredients dry or should they be cooked first?"

By "dry mash" is meant that the ingredients are fed just as purchased in their dry state, without any moistening with water or milk. A dry mash mixture is fed in hoppers, and if moistened would not run through the hoppers, but would clog them up. Dry feeding has been followed very extensively the last few years by eastern fanciers with unvarying success. The method has been a very successful one in feeding young chicks, never giving them any moist food from birth to maturity. When feeding dry foods, however, it is very essential that the chicks and fowls should always be supplied with plenty of pure water. To accelerate egg production we like a warm, moist mash occasionally, especially on cold winter mornings. This we make of alfalfa leaves, corn chop and meat meal, pouring boiling water over the mixture and letting it steam in a covered vessel for a time before feeding.

Kafir in Laying Ration

We have been asked to suggest properly balanced laying rations including kafir grain.

A good balanced ration for laying hens can be made as follows: Kafir, 100 pounds; meat scrap or ground cut bone, 10 pounds; oats, 10 pounds; gluten meal or oil cake meal, 5 pounds. The idea is to use kafir in place of wheat and Indian corn, presuming that kafir is more plentiful and cheaper than wheat or corn. Where the latter are as easily and as cheaply produced as kafir, we would feed equal portions of the three grains rather than all of kafir. A very advantageous way of feeding kafir to chickens is to cut off the heads of corn and feed it to them in that manner. It will do them good in exercising while picking off the grain.

A laying hen requires about three to four ounces of feed a day, including mash. However, the quantity of grain fed should depend largely on the condition of the birds and their activity.

During the winter some form of green food, such as mangel wurtzel, sprouted oats, or cabbage, should be provided daily.

Provide plenty of water in clean dishes. These should rest on a platform so that dirt may not be scratched into them.

Keep a supply of crushed oyster shell and grit before the birds at all times, for the hens require lime substance to make egg shells.

Stop the drafts and leaks in the poultry house. Let in the sunlight on the south side.

Keep a big south window in the poultry house open in the winter time to let in plenty of fresh air and to let out the moisture. In summer much more ventilation is needed to keep fowls comfortable.

Put in a droppings-board to keep the droppings off the floor. Clean the droppings-board frequently and have the compost heap where the fowls cannot scratch in it.

Don't forget the birds at Christmas, and any other of our animal friends in any danger of going hungry.

Renew the litter on the poultry house floor whenever it becomes damp or filthy.

Keep the fowls free from body lice by applying a mercurial ointment or some good lice powder. The ointment is applied just below the vent, a bit about the size of a pea being rubbed over a square inch of skin. If the powder is used, dust it thoroughly into the loose feathers on the rear and under side of the body and under the wings.

Eighty per cent of the incubators sold throughout the entire country are manufactured in three states—Illinois, Iowa and Nebraska.

Keep dry mash before the birds in hoppers and let them have free access to it. This will assure that they may always go to roost with a crop full of nutritious food.

The grain ration may be two parts cracked corn and one part oats, fed morning and evening.

Don't let disease get a start of you. Fight it in the early stages and you will find it much easier than to wait till it gets hold of all your flock.

A Tender Conscience

Frances and Agatha had been very carefully reared. Especially had they been taught that in no circumstances must they tell a lie—not even a "white lie."

One day, during a visit made by these little girls to an aunt in the country, they met a large cow in a field they were crossing. Much frightened, the youngsters stopped, not knowing what to do. Finally Frances said:

"Let's go right on, Agatha, and pretend that we are not afraid of it."

But Agatha's conscience was not slumbering. "Wouldn't that be deceiving the cow?" she objected.—Harper's Magazine.



SCHOOLS AND COLLEGES



LEARN TELEGRAPHY

Young men and women attend on credit. A practical school with railroad wires. Owned and operated by the A. T. & S. F. Ry. EARN FROM $75 TO $165 PER MONTH. Write for catalog.

SANTA FE TELEGRAPH SCHOOL
Desk F Topeka, Kansas

OTTAWA Business College
OTTAWA, KANS. CATALOG FREE

Eggs Cost 12c a Dozen

Any poultry raiser can get his hens to lay eggs at 12 cents a dozen by feeding Mayer's Egg Tonic, in which a half cent's worth of this wonderful egg producer is used for twelve hens. Two big boxes of over 200 doses is sufficient to last 100 hens for three months and they will be sent prepaid for $1.00. Money back if you are not absolutely satisfied. Dealers' or agents' price ten packages for $3.75.

MAYER'S HATCHERY
851 Security Bldg., Minneapolis, Minn.

Chickens Sick?—Use Germozone

Roup, colds, bowel troubles, sore head, limber neck, etc. At dealers or postpaid 75 cts. with 5 book Poultry Library. GEO. H. LEE CO., Dept. 415, OMAHA, NEB.

Interesting War Items

Country Life in France

"FRANCE is a beautiful country and has lots of good roads," writes an American soldier. "There has been an enormous amount of work put on the roads. Their main roads never get muddy and the trucks never need chains as long as they are on the main roads.

"I can't say that I like some of the methods the French use nor any of their buildings. In the country one does not see several buildings on a farm. They will have one long stone building. In one end the people live. Maybe next door is a wagon shed, then a place for their poultry and cattle and horses, and sometimes the stock is next to the people. Their houses have few windows. They use shutters on the windows and they are always closed at night. They get water from wells mostly and use wind power or the old-fashioned long sweep and bucket to draw the water from the well.

"They don't use wagons, but big, rude, heavy carts. If they use more than one horse, they hitch one ahead of the other. Yesterday I saw a man plowing with a stirring plow and using five horses. They were all strung out one ahead of the other. They lead or drive the lead horse and walk at the left side of the horse. It is a common sight to see people working dogs and, believe me, the dogs sure do pull. Yesterday I saw a man and woman riding in a cart. They were driving the smallest burro I ever saw and under the cart they had a big dog hitched and he was pulling his share. But the queerest sight was a woman riding a bicycle with a two-wheeled trailer attached and under the trailer the dog was hitched. She had the trailer filled with vegetables. The dog was pulling or pushing the big load down the road at the rate of fourteen miles an hour and doing his utmost to go faster. There are not many small horses, but they have lots of good draft horses and they are usually well kept. They have good cavalry horses, but we don't see many of them in this country, as they are in the government service."

A Clean Army

"You ask about the moral life of the American in France," writes a member of the signal service corps in France to his wife in America. "For two months, at least, I have seen the conditions under which our fellows habitually live, both in and out of the trenches, and I can honestly say that the folks at home haven't anything to worry about so far as morals are concerned. In a big sense they are living on a plane such as men seldom attain. In point of devotion, cheer under hardship and a spirit of courage, really they would make the folks at home feel ashamed because they condemn their morals.

"As far as drunkenness is concerned, I have seen many, many American troops, and I haven't seen any man under the influence of liquor. Of course the soldiers are not saints by any means, but they are all human fellows living a life you may be proud of."

An Underground City

The German soldiers in the concrete trenches in the Argonne forest were comfortably settled, evidently thinking they could not be dislodged, and prepared for a long stay. An American soldier tells how they were driven from the Hindenburg line and out of the trenches.

"Our barrage," he says, "blew those trenches out of a hilltop and if you could have seen and heard it you wouldn't have blamed the Heinies for beating it. The artillery fire actually tore the hill to pieces and there were lots of helmets, rifles and other things left behind.

"The line of trenches was supplied with a good water system, was electric lighted and in fact was just like a regular underground city. They had pianos, talking machines, and practically all the comforts of home, and surely never expected to leave there, but our artillery fire drove them out in about four hours, then the doughboys went over and chased them twenty-five kilos, or about fourteen miles. One division at Chateau Thierry caught a whole Dutch band and we have one of the altos—brass, bell-front model, rotary valve. I have a brass ring made out of a piece of a trombone."

Led Them Straight

"Did I not lead them straight?"

He did, and died. A British force was crossing the desert in Egypt. They were provisioned for five days. Somebody had miscalculated. Camels and men were dying; marches could only be made by night to avoid the terrible heat. They were aiming for the enemy and had lost their way as completely as on the ocean. The commander turned to a young engineer of 21, saying: "I place the command in your hands. Can you lead us straight to town tonight? We can last but one more march." Then that well-trained student-engineer took his observations as in mid-ocean, found the latitude and longitude as surely as a captain locates his ship on the ocean or a surveyor the corner stake in the western plains. As night shut in he took command and followed the compass. All night they marched. Toward morning they were greeted by a mighty fusillade—and they welcomed it, for it told them they were at their goal and were to fight for it. Quickly deploying and digging in, they fought and won. An aide reported to the commander: "Sir, Lieutenant Douglas is mortally wounded." Quickly going to his side, the commander knelt over the boy, took the highest British cross of honor from his breast, pinned it upon the boy and kissed him. Thanking him, Douglas said: "Did I not lead them straight, sir?"

This story, told by "Jimmie Taylor," required little application to arouse in a camp of men the moral purpose to lead their fellows straight.—Y. M. C. A. Journal.

As French Children See Yanks

The New York Sun tells of a schoolmaster in an unnamed French village near the front who asked his pupils to write without preparation little compositions describing the American soldiers billeted in the hamlet. A captain of engineers obtained the artless manuscripts and sent them to an English publication.

Little Ernettine writes: "The one I know is tall, well built. He is very amiable and kind to children. Whenever he meets one on the road he will stop his horses and take him along. He is a horse driver. When it is raining he does not care, he will then whistle with all his might."

"They like sweets very much," observes Camille. "They are clean. They wash all their body with cold water. They are very polite. They do not have the same religion as we have, but it does not matter; they are free to practice the one they choose, or none."

Pierre saw the American soldiers at their meals. "It is very funny," he says. "They stand in a long line and laugh aloud. When their meal is over they start singing."

The same note runs through the writings of all the thirteen children. The strangers are remarkably fond of baths, they are greedy for candy, and, strangest of all, they smile."

Sounded Thrilling Anyway

He wanted to give the home folks a thrill, but his work in France was not very exciting. His job was to dig ditches for a water supply system at an aviation training camp. Near by were some German prisoners, also digging trenches for pipes. So he wrote what was perfectly true, and it gave the thrill all right: "I am in the trenches now every day. The boches are so close I can tell the color of their eyes, while airplanes are flying over my head all the time."

Right, Mary

The children in the third grade each had to write an essay on the object of the war. Mary's read thus: "The object of the war is to make fewer and better Germans."

Classified Advertising

AGENTS WANTED

AGENTS—MAKE A DOLLAR AN HOUR. Sell Mendets, a patent patch for instantly mending leaks in all utensils. Sample package free. Collette Manufacturing Co., Dept. 103, Amsterdam, N. Y.

VICTORY TOY SOLDIERS—EVERYBODY buys them. Something new. Dealers and agents wanted everywhere. Sample, 10 cents. Liberty Toy Company of America, 3523 N. Grand Ave., St. Louis, Mo.

REAL ESTATE.

WRITE TOM BLODGETT, PINE BLUFF, Ark., for land bargains that will double in value.

WILL RENT LARGE ALFALFA AND stock farm. William Brandenburg, Wellington, Kansas.

GRAIN ELEVATOR AND LUMBER yard for sale. Owner has had over fifteen years' successful business. A fine opportunity in a good community. Address Number 10, Kansas Farmer.

FOR SALE—CAN OFFER YOU SOME fine corn, wheat and alfalfa farms, priced from $28.50 to $45 per acre. These farms are well improved, close to good town, and are real bargains. Write for price and description. F. D. Greene, Longton, Kan.

COFFEY COUNTY FARM—120 ACRES, near town; 50 acres bluegrass pasture, 15 alfalfa, 20 wheat, all tillable, living water, good buildings; extra well fenced; part bottom; splendid farm, good home. $75 per acre, half terms. A. J. Sanders, Hall's Summit, Kansas.

SOUTHWEST KANSAS IS DEVELOPING fast. Farmers are making good profits on small investments. It is the best place today for the man of moderate means. You can get 160 acres for $200 to $300 down, and no further payment on principal for two years, then balance one-eighth of purchase price annually, interest only 6%—price $10 to $15 an acre. Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy purchase contract. Address E. T. Cartlidge, Santa Fe Land Improvement Company, 405 Santa Fe Bldg., Topeka, Kan.

COLORADO ACRES AND RANCHES FOR SALE

EIGHTY ACRES, IRRIGATED, UNDER cultivation; small improvements; fourteen miles from Denver; ½ mile to elevator, beet dump and railroad shipping station; 7½ miles sugar factory. Thirty acres fine stand alfalfa; balance wheat, oat, barley, bean and sugar beet land. Running creek cuts one corner, affording pasture. Chocolate loam top soil with deep clay sub. Fine place for general farming and stock, hogs, or cattle. Price, $135 per acre; $2,000 cash, balance ten annual payments. Owned and for sale by Chicago Title and Trust Company, 701-8 Ideal Bldg., Denver, Colorado.

160 ACRES, OR WILL DIVIDE INTO eighties, smooth irrigated farm land, under cultivation but without buildings. Just a few miles from Denver in an old settled district. Fine wheat, alfalfa and sugar beet land. Good well water. Close by elevators and splendid railroad shipping facilities. Fine soil, plenty of irrigation water. Price, $115 per acre; easy terms; ten years time. This is good land and will make its payments from the crops each year. We will make the down payment sufficiently small to enable the purchaser to erect buildings to his own liking in lieu of any large down payment to us. Owned and for sale by Chicago Title and Trust Company, 701-8 Ideal Building, Denver, Colorado.

WE OWN 40,000 ACRES HIGH-GRADE farm land adjacent to Denver, which we offer for sale on easy terms of payment. Fine loam soil with deep clay subsoil. Well located, close to Denver, close to small towns, elevators and railroad shipping stations. We are selling this land on ten annual payments; interest on deferred payments, 6 per cent. Lots of 40 to 50 bushel wheat per acre this year; four to five tons alfalfa per acre, selling for $20 per ton in the stack. Other crops equally good in proportion; sugar beets average $150 per acre; potatoes, cabbage, beans and cucumbers for pickles are stable crops. We have large offices and sales force here at Denver ready to show you these lands at any time. Large selection. Your own terms. Call or write. Chicago Title and Trust Company, 701-8 Ideal Building, Denver, Colorado, owners.

WE OWN AND OFFER FOR SALE ON the same easy terms of one-fifth cash and balance ten equal annual payments, interest 6 per cent, several thousand acres of choice non-irrigated wheat land, within 35 miles of Denver, on the main line of the Burlington railroad, near good small towns and elevators. In a beautiful valley. Land lays smooth. Dark clay loam soil with clay sub. No sand, gravel or stone; no hardpan; no adobe. Fine wheat and small grain land. Many successful farmers on adjoining tracts. Good well water. Any sized tract to suit, 160, 320 or 640 acres. Ten years to pay for it. Twenty-five to thirty bushels of wheat per acre is customary. This land under good management pays for itself in three years. Are you interested? Write Chicago Title and Trust Company, 701-8 Ideal Bldg., Denver, Colorado, owners.

SEEDS

WHITE SWEET CLOVER, REASONable. Sow broadcast on fall wheat. John Lewis, Madison, Kansas.

SEEDS—SEND FOR OUR NEW 1919 catalogue free. Hayes Seed House, Topeka, Kan.

OATS—FANCY RED TEXAS. SEND FOR sample. $1 per bushel. Hayes Seed House, Topeka, Kan.

SHEEP.

FOR SALE—200 FINE COTSWOLD yearling ewes, bred to lamb in February and March. These ewes are large, heavy wooled and worth the price asked for. H. B. Browning, Linwood, Kan.

CATTLE.

REGISTERED JERSEY BULL CALVES, $20 up. H. R. Harvey, Ulysses, Neb.

FOR SALE—RED POLL BULLS, ALL ages. Best of breeding. Priced reasonable. Lyons Bros., Route 3, Coffeyville, Kan.

FOR SALE—THREE REGISTERED HOLstein bulls. Serviceable age. J. C. George, Hampton, Neb.

SIX DOUBLE STANDARD POLLED DURham bulls of different ages, for sale. C. M. Albright, Overbrook, Kansas.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

SEVEN REGISTERED HOLSTEINS, FOUR young cows about to freshen; two heifers; one bull. Foundation stock. Come and see them or write at once to Wiebe Brothers, Lehigh, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

FOUR HIGH GRADE HOLSTEIN COWS, three Holstein heifers, one fine two-year-old Holstein bull from Canary Butter Boy King, gentle and quiet, not registered. Also De Laval cream separator No. 15, nearly new. Mrs. H. Buchenan, Route 3, Abilene, Kansas.

FOR SALE—REGISTERED HOLSTEINS, bull calf 13 months old, weight 800 pounds, grandson of King of the Pontiacs. Four heifer calves 9 to 11 months old, weight 530 to 600 pounds. Closely related to world's record cow. Priced for quick sale. Compelled to leave farm. J. J. Cooper, Randall, Kansas.

HORSES AND MULES.

FOR SALE OR TRADE—ONE MAMmoth, also one Spanish jack, both sure breeders. H. L. Summers, Twenty-third and Lincoln Streets, Topeka, Kan.

DOGS.

FOR SALE—A FEW HIGH CLASS COON, opossum and skunk dogs. Stamp for reply. A. F. Sampey, 317 East Mt. Vernon St., Springfield, Mo.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

MISCELLANEOUS.

COW WEANER, CANNOT SUCK HERself, can eat and drink; guaranteed effective for calf and colt. Price, $1. L. S. Sanders, Atlanta, Kansas.

WANT A BELT POWER TRANSMITTER for your Ford? Don't pay more than $12.50 for it. Buy the Simplex. Simplest, haidiest, most practical. Write for circular. Frank R. Weisgerber, Salina, Kansas.

HONEY.

FOR SALE—1918 CROP OF HIGH GRADE table honey direct from bees to you. Guaranteed to be absolutely pure. Can containing 60 pounds net, $15.25. On orders for two cans or more the price is $15 per can and the freight is less on shipments of 100 pounds or over. Have dark honey for table or cooking purposes also, which I can recommend as pure and good. Single 60-pound can, $13, or $12.75 each for larger lots. Prices f. o. b. Hotchkiss, Colo. All cans securely boxed and strapped. Frank H. Drexel, Crawford, Colorado.

THE STRAY LIST.

TAKEN UP—BY THOS. H. WIX, OF Belmont Township, Woodson County, Kansas, on the 12th day of November, 1918, one yearling heifer, color red; has horns, no marks or brands. Appraised at $25. C. V. Orendorff, County Clerk.

TAKEN UP—ON THE FIRST DAY OF September, 1918, by Fred Manninger, residing six miles north of Anthony, Kansas, one horse colt, color black, weight about 700 pounds; white spot on forehead; appraised at $50. C. E. Kennedy, County Clerk, Anthony, Kan.

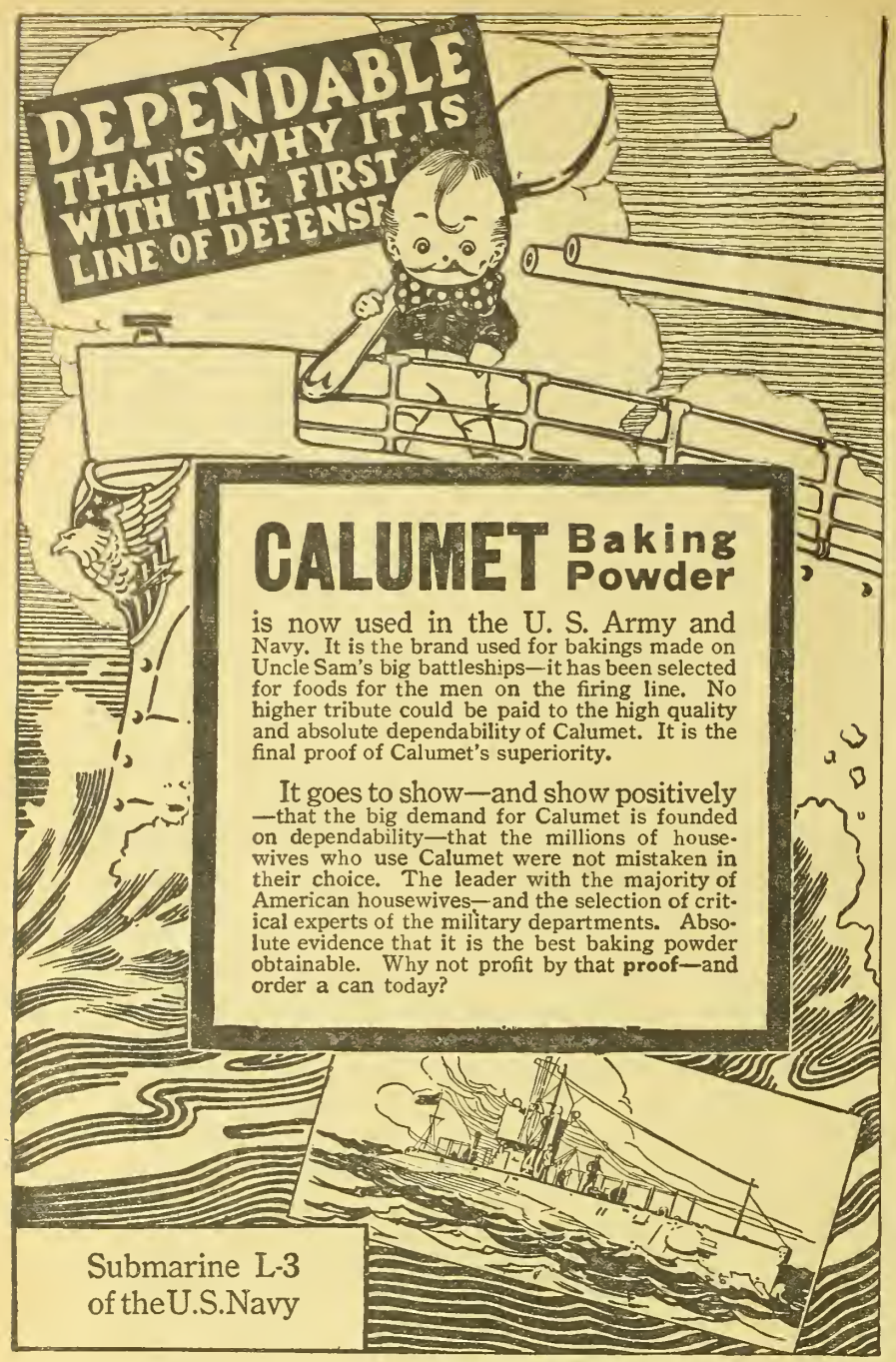
TAKEN UP BY ME ON THE WEBBER farm one-fourth mile north and one-fourth mile west of Blue Mound Corner, November 16, 1918, one bay gelding horse, smooth mouth with white star in forehead and white on end of nose; weight about 900 pounds. Taken up by J. O. Isely, Treece, Kansas. Estrayed before J. C. Huggins, J. P.

TAKEN UP BY ME ON NOVEMBER 27, 1918, one-half mile west of Treece, Kansas, and one and one-fourth (1¼) miles north, just north of the Southern Lead & Zinc Co. mine at Meade City, one blood bay mare about fifteen hands high, weight about 900 pounds, eight years old, right eye out and left one very weak; white speck on left shoulder; collar mark. Ed Doherty, Taker-up. Estrayed before J. C. Huggins, at Treece, Kansas.

Can't Be Done

"A man betrays hisse'f by braggin'," said Uncle Eben. "When I hears a man tellin' 'bout how easy he kin drive a mule, I knows right off he ain't no reg'lar mule-driver."—Washington Star.

If every sword were immediately turned into a plowshare there is a winter before us when plowshares don't count.



You Can Earn $100.00

In the Next Few Weeks, Working When You Have the Spare Time

We want either a man or a woman in every locality. Must stand high in respect of people of the community and furnish at least three references with application.

NO CANVASSING OR SOLICITING

Address

KANSAS FARMER COMPANY

TOPEKA, KANSAS

Some Board of Health Maxims

"Give him air, he'll soon be well."—Shakespeare.

You can't go far if you don't keep fit.

"The motion prevails" that the Don keep his influenza at home.

Kansas has an illiteracy rate of 2.7 per cent, and yet there are people who are not in this class wearing asafoetida bags around their necks or carrying a lump of camphor in their pockets or contaminating the atmosphere with garlic or onion breaths as a preventive against influenza! Will the janitor please open the windows wider?

Do you find time to read a new book now and then, or to hear some new music occasionally, or to keep in touch with what the rest of the world is doing through magazine articles? If you do not you are either working too hard or else using your leisure to little advantage.

To keep clean curtains from blowing against dusty or damp or rusty screens, weight them slightly, tie them back, or stretch a cord across the window.

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

America's Food Pledge

THE pledge of twenty million tons of food for the relief of Europe is just one more wonder added to our year of wonders. The signing of the armistice brought within our reach starving millions long cut off by the German lines and German submarines. America acted at once and raised her food pledge from seventeen and one-half million tons to twenty million tons. Within a week after the armistice was signed the first consignments of an emergency food order of over two hundred thousand tons had been dispatched. We realize that every ton of food that can be pushed through our ports must be shipped, for there is no real peace in sight until the food situation is relieved.

Once more the call has gone out, "Save food." We are summoned to an even greater task than last year. We must now fight even harder to win peace than we fought for victory, and the fight is against famine and anarchy. The Allies and liberated nations face not hunger alone but the collapse of all that holds their civilization together, unless we maintain a steady flow of food to Europe.

Will America keep her pledge to civilization and put twenty million tons and more across before next harvest? The answer depends on how the American woman sets her table, no less than on effective distribution of food in Europe, and on efficiency in handling and shipping supplies from this side.

This plan rests on how much food there is in the world, how much can be transported and where this food is most needed. It makes no allowance for waste in America and very little for an increase of war rations in Europe.

The world's food has been figured, and waste in America will upset the balance sheet. This, then, brings the national pledge right down to the home table and gives every woman something definite to go on at once—rigid economy all along the line.

This new war on waste means far more than "stews" and "hashes" and "bread puddings," more than the gospel of the "clean plate." It calls for balanced rations, scientific feeding and learning to look a calorie in the face with due respect and without fear. We must acquire that economic cookery for which certain countries are famed, but which they learned through long centuries of short meat and dairy supplies.

There is no time to wait on this expensive teacher — experience. Take the short cut based on knowledge of food values. You are called now, in the name of humanity, to adjust your table at once, and to practice the most rigid economy in the face of apparent plenty.

Economy and good food can go together only when based on knowledge, whether learned from experience or books. So learn to face a calorie and respect the ration.

This is not the time for women to muster out. If you belong to an organization, stay with it. This new fight calls for organization. If you can't join an organization, keep mobilized anyhow until the war against famine is won.

The Little Red Cross Hen

The amount realized from the sale of chickens raised for the Red Cross by the farm women of Marshall County is reported by Miss Edna M. Danner, county home demonstration agent, as $3,825.50. Fourteen townships and about one thousand families had a part in the work, each woman setting one hen for the Red Cross and donating the chickens raised to that organization, the money to be used in purchasing supplies for the local Red Cross sewing rooms. Marysville Township contributed $445, the largest amount received from any one township. From Herkimer Township $420 was received. School District 30 sent in $141.04, and Districts 21 and 25, $115 each, while several others went over the hundred dollar mark.

The chickens were collected and marketed through a local produce dealer, the money from each consignment going to the branch of the Red Cross designated by the donor.

The woman's committee of the farm bureau, which led in this work, is to be congratulated on the results obtained. This is not only a splendid showing in a financial way, but it manifests a real spirit of co-operation among the women of the county. There is no more worthy cause in which the women could unite their efforts than the work of the Red Cross, and there is no better medium for co-ordinating their work than the farm bureau with its thorough county organization.

Influenza

The disease now spreading over this country is highly catching and may invade your community and attack you and your family unless you are very careful.

Influenza is a crowd disease: Therefore, keep out of crowds as much as possible.

Influenza probably spreads mostly by inhaling some of the tiny droplets of germ-laden mucus sprayed into the air when ignorant or careless persons sneeze or cough without using a handkerchief. Therefore, cover up each cough and sneeze.

Influenza is probably spread also by the filthy habit of spitting on sidewalks, street cars and other public places. Therefore, do not spit on the floor or sidewalk.

Influenza is probably spread also by the use of common drinking cups and the use of common towels in public places: Therefore, shun the common drinking cup and the roller towel in public places.

If you feel sick and believe you have Spanish influenza, go to bed and send for the doctor. This is important. Don't get up too soon. Your heart feels as tired as your legs, and needs rest.

In all health matters follow your doctor's advice and obey the regulations of your local state health officers.

All that has been said about Spanish influenza is true also of colds, bronchitis, pneumonia and tuberculosis. Do your part to keep them away.

Sleep in the fresh air, work in the fresh air, and if sick from any cause insist on fresh air. — Bulletin, Kansas State Board of Health.

Don't Forget the Postman

While you are enjoying your Christmas holidays, don't forget the man who is working harder than on any other day in the year so that you may not have to wait for your Christmas packages and letters. Show your appreciation by being at the mail box with a hearty "Merry Christmas" and some little remembrance for him. Or if you can't meet him there, leave in the box with his name on it a box of cigars or of home-made candy, a handkerchief, or a crisp dollar bill.

The mail carrier is a faithful servant. Stormy indeed must be the day or impassable the roads to keep him from his route. Remember he is just as human as your own boys and appreciates the little attentions they would enjoy under similar circumstances. On cold, stormy days he will enjoy a cup of hot coffee or a sample of the hot cookies or doughnuts you are making, if you have it ready so that he will not need to lose any time. On a hot, dusty day in summer, a drink of cold lemonade or even fresh cold water is wonderfully refreshing to a tired warm traveler who must make the same wearisome round every day.

Face Masks in Influenza Cases

Influenza enters the body through the mouth or nostrils, and in no other way. The contagion is given off through the sputum and other secretions of the mouth and nose of the sick, and in no other way. It may pass from the sick

to the well by coughing or sneezing in their presence, by kissing, or using towels, handkerchiefs, cups, glasses, spoons, or other household utensils in common.

The contagious factor may find lodgement in dust of the home, office, shop, sidewalk, or street, and from these reach the mouth or nostrils of the well and infect them.

It is obviously of first importance to prevent the infection from leaving the sick.

A new, simple, cheap and successful device has been developed. It is called a face mask. It is made of four thicknesses of plain unmedicated gauze, about four inches wide and six inches long, with a small tape or string sewed to each corner. It is just large enough to cover the mouth and nostrils, with allowance for shrinkage, and is tied back of the head with the four strings. It freely admits the air in breathing and prevents the escape of droplets in expiration, coughing or sneezing. If such a mask is promptly applied in the early stages of every case of influenza there will be little or no spread of the disease.

Attendants of the sick should also wear a gauze mask, but two or three ply of gauze is enough for a protecting mask.—Bulletin, Kansas State Board of Health.

Meeting the Emergency

The home demonstration agent in Burleigh County, North Dakota, has been at the front during the influenza epidemic. During the last two weeks in October 105 men, women and children were taught the care of the sick and the preparation of foods for the sick by demonstrations in their homes. During these same two weeks forty-five volunteer women were given instruction in home nursing and invalid cookery. The names of these were given to the local doctors, who sent them to the homes where whole families were stricken and no nurses could be secured. The rural districts as well as the towns received assistance. News items on invalid diets and recipes of simple foods for influenza patients were furnished the local papers.

To Clean Serge Dress

When the serge dress that is your standby for general wear this winter gets a bit soiled and shabby, Miss Hazel Manning of the home economics department at the University of Wisconsin suggests that you try this method to bring it back to its original usefulness.

Sponge the goods on the right side in ammonia water, a solution of one tablespoonful of ammonia to each quart of water. Care should be taken not to have the solution too strong, as the American dyes turn purple and green in such a case. Ammonia removes not only grease spots but water spots as well.

When the dress is entirely sponged, it should be turned on the wrong side, a cloth laid over the goods, and the dress pressed.

Shiny places may be removed by sponging with vinegar. Or the nap may be pulled up by pressing damp crinoline on the goods until it dries, then pulling it off.

If there are trimmings which can be easily removed, an all wool serge dress may be washed, provided an alkali-free soap is used. The dress should be hung up until it is partly dry, and then pressed on the wrong side. Wrinkles may be steamed out by pressing with a wet cloth under the iron.

Not Their Fault

Uncle Josh was comfortably lighting his pipe in the living room one evening when Aunt Maria glanced up from her knitting.

"Josh," she remarked, "do you know that next Sunday will be the twenty-fifth anniversary of our wedding?"

"You don't say so, Maria!" responded Uncle Josh, pulling vigorously on his corncob pipe. "What about it?"

"Nothing," answered Aunt Maria, "only I thought maybe we ought to kill them two Rhode Island Red chickens."

"But Maria," demurred Uncle Josh, "how can you blame them two Rhode Island Reds for what happened twenty-five years ago?"—Exchange.

Home-Made Labor Savers

In eleven communities of one county in Oregon the women are making home-made driers, home-made fireless cookers, and home-made iceless refrigerators under the direction of the home demonstration agent. One woman found that an investment of fifty cents in a dish drainer and a wire dishcloth for pots and pans saved her ten minutes of the time required to do the dishes after each meal, or thirty minutes a day. She figured that this time in a year, if accumulated, would give two weeks, of twelve hours a day, leisure. Was the investment worth while?

Rubber Band for Hair

A rubber band wrapped several times around the end of the little girl's braid is not only an effective way of keeping it from unbraiding, but is better for the hair than tying with thread, which is liable to cut it. A box of small rubber bands can be purchased at a very slight expense.

A Poor Substitute

A lady came into a grocery store in the West and vehemently began to denounce the grocer for the sugar card that he had given her.

"Well, what is the matter with it?" asked the grocer.

"Why, I put it into my coffee and stirred it for fifteen minutes and the coffee was no sweeter than when I put it in. They are absolutely no good."—Exchange.

To Can Sweet Potatoes

Thoroughly wash, using vegetable brush. Cook in boiling water, with peeling on, until the potatoes are about two-thirds done. Plunge into cold water. Remove quickly. Scrape off peeling. Cut into halves or quarters if necessary. Try to have pieces nearly the same size. Fill jars as full as possible without crushing. Add one teaspoonful of salt and two to five teaspoonfuls of medium thick syrup—made by using equal parts of water and sugar. Do not put any water in the jar. Place rubber and cap in position and partially seal. Sterilize two hours in hot-water bath outfit or one hour in steam-pressure outfit under five pounds of steam.

Other root and tuber vegetables, such as carrots, parsnips, salsify, beets, and turnips, may be canned in the same way except that the syrup is omitted and the jar filled with boiling water after being packed with the vegetable.

The Message of This Christmas

By Philip R. Kellar

O warring, biting, hate-filled world!
O world all bleared and sodden with the blood
Of countless victims of the wrath of war!
O world whose soggy, dark-red painted mire
Sucks down into its slimy depths each one
Who struggles not to keep his vision lifted higher!
Where hate has burrowed out the hearts of men
And throned itself within the stolen realm!
Where murder, rapine, lust, deceit and lies
Have been unleashed to prey, unchecked, on man!

O world, is this your purpose—this your fate?
Is this the end of all your promised glory?
Is there no power to save you from yourself,
To save where you have shown incompetence?
Is there no God above your fouling strife?
Is there no Truth to light your way from doom?
Is there no Love to serve you with great power?
No power to serve you with great love?
Is there no Christ to prove the love of God
And lead you, groping, from your swinish husks?

Ah yes, the gloom of earth's despair
Undims the light from that bright star
Which Wise Men saw in olden times:
That star which shines for every one today
And every day, when to his mind there comes
The thought that all mankind are brothers,
And every one the keeper of the others,
And every one in service for the others,
And all are children of one father
Whom they have learned to know is God.

And so the Christ is born today and every day
To those who let this thought possess their souls
And move to action with its gentle impulse:
That God made men to love and serve each other
So they might learn His holy purpose is
That they should love and serve their God.
Nor any creed or color, race or nation
May claim this Truth exclusively its own;
For to each heart in every clime and people
May come today, each day, the Truth which Jesus taught.

Brown Bread Ice Cream

The extension division of the University of Wisconsin has discovered another use for bread crumbs. They recommend the following recipe for using them in ice cream, saying that the result closely resembles macaroon ice cream. It has the merit of being very easily made:

1 quart medium thick cream
1 tablespoonful vanilla
1¾ cupfuls corn syrup
1 teaspoonful almond flavoring
1 cupful browned bread crumbs

Mix cream, sugar and flavorings. Chill and freeze; when it reaches a thick, mushy consistency, open freezer and stir in the bread crumbs. Continue freezing to insure thorough mixing. Remove the dasher and pack.

Who seeks for heaven alone to save his soul,
May keep the path, but will not reach the goal;
While he who walks in love may wander far,
Yet God will bring him where the blessed are.
—Henry Van Dyke.

Then Freedom sternly said: "I shun
No strife nor pang beneath the sun,
When human rights are staked and won."
—Whittier.

Stuffed Potatoes

Cut baked potato in half, remove the pulp, mash and add enough milk to give usual consistency of mashed potato. Season with salt, pepper, and drippings. Refill potato cases, sprinkle paprika over the top and bake six to eight minutes in a hot oven.

Variations:

1. Beaten egg white (one egg to three medium sized potatoes).

2. Grated cheese (one-half cupful to three medium-sized potatoes).

3. Chopped meat (one-half cupful to three medium-sized potatoes).—Cornell University.

FASHION DEPARTMENT

All patterns, 10 cents.

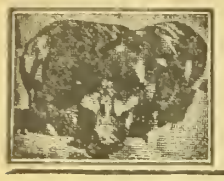


No. 9062—Girls' Dress: Cut in sizes 8, 10, 12 and 14 years. The dress buttons from neck to hem at center front and the V-neck is finished by a broad collar of contrasting material. A sash comes from under the panels at each side, crosses at the back, and is brought around to the front and tied. **No. 9080—Ladies' and Misses' Two-Piece Skirt:** Cut in sizes 16 and 18 years and 26, 28, 30, 32 and 34 inches waist measure. The foundation skirt has two gores and the side tunics are gathered at the slightly raised waist line. The front and back panels are separate and they are cut in one with the belt, which fastens at the sides. **No. 9067—Misses' or Small Women's Dress:** Cut in sizes 14, 16, 18 and 20 years. The dress shown has the approved narrow shoulders and tight sleeves. The neck is cut in U-shape and the dress fastens at the left shoulder and underarm seam. The belt and narrow roll collar are of contrasting material.



No. 9055—Ladies' and Misses' Waist: Cut in sizes 34, 36, 38, 40 and 42 inches bust measure. The waist is in semi-tailored style. The shawl outlines the vest, which may be of contrasting material. The lower edge of the vest is cut in points which extend down over the girdle. **No. 9077—Ladies' Dress:** Cut in sizes 36, 38, 40 and 42 inches bust measure. The waist is semi-fitted, for it has seams from shoulders to wasteline at each side of the front. The two-piece skirt is gathered slightly at the back. The new feature of the dress is the narrow panels which are arranged at each side of front and back. **No. 9056—Ladies' and Misses' Two-Piece Skirt:** Cut in sizes 16 and 18 years and 26, 28, 30 and 32 inches waist measure. This skirt is an excellent idea for combining serge and taffeta in a smart skirt for semi-dress wear. Both the upper and lower sections consist of one piece of material and they are joined with a stitched seam below the hip line.

POLAND CHINAS.



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THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.

ERHART'S POLAND CHINAS

Have a great lot of spring boars for sale. Some by the 1200-pound, A Big Wonder. Will make prices on pairs and trios not related. All immuned. Write your wants. Bred Sow Sale Feb. 19, 1919.

A. J. ERHART & SONS

NESS CITY, KANSAS

Deming Ranch Poland Chinas. Big-Type Poland China Hogs

For Sale—Fifty spring boars, real farmer boars and herd boar prospects; 100 bred sows and gilts. Write or come and see our herd.

Deming Ranch, Oswego, Kan.

(H. O. Sheldon, Herd Manager)

BIG-TYPE BABY POLANDS

Well bred, heavy boned. Twenty dollars for choice. Trios for fifty dollars. Pedigree with every pig.

O. L. Isaacs, Peabody, Kansas

LONE CEDAR POLANDS

Strictly big type March and April pigs, either sex. Nothing but tops shipped. Prices reasonable. Guarantee to please. All cholera immune. A. A. MEYER, McLouth, Kansas.

LANGFORD'S SPOTTED POLANDS—April boars ready to ship; also summer pigs. T. T. LANGFORD & SONS, Jamesport, Mo.

Townview Herd Poland Chinas

Ten Rugged Spring Boars, weight about 175 pounds, at $50 each. Eight March and April Boars, weight 135 to 150 pounds, $40 each. These boars are immune, heavy-boned and ready for business. Send check and get hog guaranteed to please you.

CHAS. E. GREENE, PEABODY, KANSAS

Henry's Big Type Polands

March and April pigs sired by Mammoth Orange, Smooth Prospect and Big Bob 2d, out of sows the best of big type breeding. Everything immune.

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HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that weigh and win. S. C. Brown Leghorn Chickens that lay. See or write

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Registered mares with colts at side and bred again; registered fillies, stallions one to five years old; grown ourselves the ancestors for five generations on dam side. Sires imported.



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(Above Kansas City)

PERCHERON STALLIONS

Some good young stallions sired by Algare and Bosquet, two great herd sires. These young stallions are very promising and priced to sell.

D. A. HARRIS - GREAT BEND, KANSAS

JACKS AND JENNETS

Registered Jacks and Jennets. Good individuals, good colors. Have some choice young jacks that are priced to sell quick.

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LOOK HERE, ANGUS BREEDERS!

I want to reduce my herd of registered Angus cattle consisting of cows, bulls and heifers. Attractive prices for early buyers. If you want the best kind of low-down, beefy Angus, come at once.

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Dietrich's Aberdeen-Angus

Aged bulls, fifteen choice spring bulls. Females, all ages.

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CHESTER WHITE HOGS

Frost's Big Smooth O. I. C.'s

Forty Spring Pigs. Two Yearling Boars and 100 Early Fall Pigs.

All from prize winning blood and priced for quick sale. Write us today.

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POLAND CHINAS

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising
O. W. Devine, Field Representative

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CLAIM SALE DATES.

Jacks and Jennets.

March 25, 1919—H. T. Hineman & Sons, Dighton, Kan.

Holsteins.

Jan. 7, 1919—Rockbrook Farm Dispersion Sale, South Omaha, Neb. Henry C. Glissman, Station B, Omaha, Neb.

March 25, 1919—Kansas Holstein Breeders' Association sale, Topeka. W. H. Mott, sale manager.

Shorthorn Cattle.

Feb. 14, 1919—H. E. Huber, Meriden, Kan.

Poland Chinas.

Jan. 8—Henry Hayman, Formoso, Kan.
Jan. 30—Adams & Mason, Gypsum, Kan.
Jan. 30—Adams & Mason, Gypsum, Kan.
Jan. 31—H. E. Myers, Gardner, Kan.
Feb. 6, 1919—H. B. Walter & Son, Effingham, Kan.
Feb. 8—Fred B. Caldwell, Howard, Kan.
Feb. 11, 1919 — O. B. Clemetson, Holton, Kan.
Feb. 11—Joe Schneider & T. A. Corkhill, Nortonville, Kan.
Feb. 12, 1919—James Barnett, Denison, Kan.
Feb. 13, 1919 — Herman Groninger & Sons, Bendena, Kan.
Feb. 17, 1919—Ed Cook, Mayfield, Kan.
Feb. 18, 1919—F. Olivier & Son, Danville, Kan. Bred sow sale.
Feb. 19, 1919 — A. J. Erhart & Son, Ness City, Kan.; sale at Hutchinson.
Feb. 20, 1919 — Ross & Vincent, Sterling, Kan.
Feb. 21, 1919—Bruce Hunter, Lyons, Kan.
Feb. 22, 1919 — Bert E. Hodson, Ashland, Kan.; sale at Wichita.
March 4, 1919—Schmitz Bros., Seneca, Kan.
March 5, 1919—Jones Bros., Hiawatha, Kan.

Duroc Jerseys.

Jan. 28—W. R. Huston, Americus, Kan. Duroc dispersion and general farm sale.
Feb. 14, 1919—W. W. Zink, Turon, Kan.
Feb. 26, 1919—John W. Petford, Safordville, Kan.; sale at Emporia.
Feb. 27, 1919—W. W. Otey & Son, Winfield, Kan.
Feb. 28, 1919—Wooddell & Daner, Winfield, Kan.

Spotted Poland Chinas.

Feb. 25, 1919 — Everett Hays, Manhattan, Kan.

Chester Whites.

Feb. 11—Arthur Mosse, Leavenworth, Kan.
Feb. 27, 1919 — Henry Murr, Tonganoxie, Kan.

WHEN WRITING TO ADVERTISERS PLEASE MENTION KANSAS FARMER

Dr. J. H. Lomax, of St. Joseph, Missouri, well known breeder of high class Jersey cattle and Poland China hogs, has moved from St. Joseph and is now located on his farm near Leona, Kansas. This move was made in order that he could give his personal attention to his herds. The Jersey cattle and Poland China herds owned by Doctor Lomax are among the best in the state.

F. C. Crocker, of Filley, Nebraska, owner of the famous Maple Lane herd of Durocs, recently purchased the noted herd boar, Gano the Great, from Fred Stambaugh, of Yutan, Nebraska. Mr. Crocker's policy has always been to breed for size and bone and Gant the Great is a remarkable producer of this type of hog. Mr. Crocker's big lot of spring pigs were sired by such boars as Bader's Golden Model 2d, Big Lincoln Valley Chief, Freiday's Jumbo Critic and Valley Chief Col. He is breeding 250 gilts to boars of Critic Col. and Pathfinder blood lines.

G. B. Wooddell, of Winfield, Kansas, owner of one of the choice herds of purebred Duroc hogs in Kansas, reports his herd doing well. The blood lines of his herd are the best of the breed and he has the big quick-maturing type. A feature of his herd is the choice lot of young stock, including a lot of good young boars of Chief's Wonder, Z's Orion Cherry, Pathfinder Jr., I Am Great Wonder, and Orion's King Illustrator breeding.

S. M. Knox, of Knox Knoll Stock Farm, Humboldt, Kansas, reports his herds of Shorthorn cattle and Mulefoot hogs doing well. Mr. Knox has choice herds of both cattle and hogs and he says the demand for breeding stock is the best in years. He has sold all Mulefoot breeding stock that he can spare and has shipped Mulefoot hogs to practically half the states. A feature of his Shorthorn herd at this time is the fine lot of young stock, including prize winners at a number of fairs.

J. W. Berry & Son, of Jewell City, Kansas, owners of one of the heavy producing herds of Jerseys in Kansas, report their herd making a good record this year. This is one of the herds in Kansas that is bred for production from the foundation up. A feature of the herd at this time is the choice lot of record bred cows and heifers.

A most useful little book of pocket size for keeping private herd records was handed to Shorthorn breeders at the American Royal and International stock shows by Secretary Harding, with the compliments of the American Shorthorn Breeders' Association. No breeder should be without a suitable memorandum book of this kind. If you failed to get one, write to the American Shorthorn Breeders' Association, Dexter Park Avenue, Chicago, Illinois.

Atwater's American Farmer's Figurer, published by the Atwater Publishing House of Peoria, Illinois, is a most useful compilation of arithmetical tables of all kinds. Practically every computation the farmer needs in buying or selling will be found in this little book. In paper covers it sells for 25 cents; cloth bound, 50 cents.

W. R. Huston, Americus, Kansas, has announced January 28, 1919, for a complete dispersion of his herd of 200 head of Durocs. This herd is one of the oldest herds in Kansas and has been headed by some of the champion and well-bred boars of the breed. This offering promises to be one of the good lots to go through the early spring sales.

H. E. Myers, of Gardner, Kansas, has announced January 31 for his annual bred sow sale. Forty-five head of large sows and gilts will be offered, consisting of eighteen tried sows that have raised good litters and bred back to good herd boars; sixteen fall yearlings and six spring gilts that will be bred to the trio of boars, Giant Joe, Beliemont Timm by Cook's Timm, and Big Giant by Dennis' Giant out of a Big Timm dam. Several of the sows in this offering are by such boars as Big Bob Wonder, Wedd's Long King, Giant Joe, King Wonder, Gerstdale Jones, A Monster and Big Orphan.

Everett Hayes, of Manhattan, Kansas, has announced February 18, 1919, as the date for his annual sale of Spotted Poland Chinas. Mr. Hayes will offer forty-five head of the real big Spotted Poland China hogs, the kind that go out and make good for the farmer and breeder. The offering will be bred and safe to the following herd boars: Gates' Lad, Faulkner's Model, Spotted Lad and Hayes' Model. These boars have both size and quality and promise to make great breeders.

Fred B. Caldwell, of Howard, Kansas, has announced February 8 for his annual bred sow sale of Poland Chinas. Fifty head of sows and gilts will be offered. Twenty-five head of tried sows and choice gilts will be bred and safe to Caldwell's Big Bob, the grand champion boar of the breed. This offering promises to be one of the best lots to be sold during the spring sales of 1919 and probably the best lot ever sold from the Elkmore farms.

GENERAL FARM ITEMS

An account book showing farm receipts and expenditures will help in making up the income tax report in the spring. It will also put farming on a more businesslike basis.

Never let a pig celebrate his birthday, is the motto of some of the most successful pork producers. A self-feeder with corn and tankage in it or corn and tankage with either oats or middlings in it will help get the pig to market between the ages of seven and nine months, thus lessening danger of loss from disease and saving grain and labor.

Women as Cow Testers

The twenty-seven women now employed as cow testers by some of the 353 cow-testing associations in this country have not only done satisfactory work, but have achieved results above the average, according to dairy specialists of the United States Department of Agriculture.

The main reason why women have begun to do this work is the scarcity of cow testers. Most of the testers at work when the war began were young men and many of them went into military service. Because of the shortage of workers the past year has seen the number of cow-testing associations decrease from 472 to 353, although there has been an increased demand for such associations, and it is believed the number could easily be doubled if enough testers were available. The work does not require great physical strength. It does demand some training, but this is easily acquired by women.

The first woman cow tester in the United States—Miss Bessie Lipsitz—began work less than three years ago with a cow-testing association in Grant County, Wisconsin. Wisconsin now has eighteen women cow testers, Iowa six, and three other states have one each.

One of the women cow testers of Wisconsin gave daily demonstrations at the National Dairy Show that attracted considerable attention and brought much favorable comment. She explained the details of the work and demonstrated all parts of it by going through each operation precisely as she had done hundreds of times before while at work in her association in Northern Wisconsin. She always had attentive audiences and proved that a woman can do the work just as well as a man. When asked if women can handle the feeding problems as well as men, she replied, "They can learn."

The women cow testers are paid the same as the men and receive from $50 to $75 a month besides board and lodging. Conveyance to the next farm is furnished in some associations, while in others the tester provides her own conveyance and the farmers furnish free stable room and feed for her horse.

Kansan Wins Hoover Specials

First place and championship in the special prizes offered by the Food Administration at the International and known as the Hoover-Cotton War Beef Specials were captured by the two-year-old steers shown by the Casement Ranch, Manhattan, Kansas. Capt. Dan D. Casement has been in France for over a year with the American Expeditionary Forces, and of course was unable to be present to show the cattle. They had been entered in the name of Mrs. Casement and fed and fitted by the farm manager, J. B. Collister. This remarkably fine load of steers was awarded first place in the two-year-old class and later made the grand champion load in the war beef specials. Mrs. Casement's entry in the yearling class, war beef specials, won third place.

The champion steers were bred in New Mexico and were purchased in Denver as calves. One load of these cattle was shown at the Fort Worth show last March and dressed out the highest of any cattle in the show, or an average of 65.79 per cent. It had cost $18.41 a hundred to bring this prize-winning load up to championship form. They were started last August on a ration of corn, oats, barley, cottonseed meal, linseed oil meal, bran and alfalfa, and during the feeding period made an average daily gain in weight per steer of 2.92 pounds. The yearlings were bred on the Casement ranch and were the product of pure-bred Hereford bulls and grade Hereford cows.

Another Kansan, A. E. McGregor, of Washington, won second in the two-year-old war beef specials. These steers were purchased at the Denver show last year, where they were champions. They cost $15 a hundred and averaged 732 pounds in weight. As soon as they reached Mr. McGregor's farm he started them on a light feed of corn and alfalfa, gradually increasing until they were on full feed. Mr. McGregor made his first show in Chicago at the International last year with two carloads, and established his reputation as one of the best feeders in the business, his cattle dressing out the highest of any shown, one load having a dressing percentage of 66.3 and the other 65.67.

Creamery Short Course

As usual a most practical eight weeks creamery short course designed to fit men or women for butter and ice cream making, market milk work, or other lines of dairying, will be given by our agricultural college at Manhattan this winter. The course begins January 6 and ends March 1. Such a course is especially valuable to those who have been in practical work for a few years and wish to learn more of the scientific side of their work. The department of dairy husbandry will gladly supply full information about this course.

Save the Straw

The value of straw both as feed and as a fertilizer cannot be too strongly emphasized. "The waste of the straw of the State of Kansas is nothing less than criminal," says W. J. Tod, of Maple Hill, in discussing the ways in which straw can be made more valuable to the live-stock man. Mr. Tod is one of the most successful cattlemen of the state and knows whereof he speaks. He thinks the waste of straw in Kansas is a disgrace to our agriculture and a disgrace to the state, and that in a time of need like the present, the crime is even worse. He says:

"The straw stacks of Kansas in any ordinary year will maintain through the winter a million head of cattle. We have eight to nine million acres of wheat every year and the straw runs close to a ton to the acre. Nine-tenths of it is absolutely wasted. It is actually burned

up. The only rift in the cloud is that the farmers are not burning the stacks now just as soon as the threshers get away. They are waiting until the stack is a year old. But the straw is going up in smoke just the same.

"The threshers do not get all of the grain out of the straw. I have heard of many instances where threshing the straw itself has been found profitable in the grain secured. There is always more or less grain carried across in the straw, and when a stack is burned the straw and this grain are absolutely destroyed, no salvage of any kind.

"A cow will live on a few tons of straw during the winter. She may not get very fat on it, but she will not lose, and one of the great things to impress upon any farmer with cattle is to keep his stock always gaining. A very little bit of concentrataes, cake or corn, will keep an animal growing and in good condition throughout the winter when it has a straw stack to run to.

"Straw is mighty good roughage. Let the cows and calves eat all they will and then just feed a pound or two of cake or two or three pounds of corn a day and the stock will actually gain throughout the winter. Then think of the tons of manure that straw will make, and every pound of manure put on a farm makes it that much better. Straw is a fertilizer in itself, but it is not so good as when it is changed into manure and then spread on the land.

"In England an experiment was made of scattering a ton of raw straw on an acre of ground every year. For ten years there was not any appreciable increase in the richness of the soil, but in the tenth year there was a noticeable improvement and every year thereafter that a ton of straw was placed on each acre of that plot of ground the soil improved. During the time there was no improvement noticed the soil held its own. It did not get poorer, but it took nine years for the straw, at the rate of a ton an acre, to build up that soil to a point where it could show improvement.

"Not a single stack of straw in Kansas should be allowed to burn up. Every farmer ought to have enough cows and young cattle to eat up all the straw he has. A couple of cows on a farm will turn a loss into profit every year simply by eating up the waste material on the farm. A couple of cows will furnish milk and butter for the family and some milk for the pigs and each year those cows will give a calf that will make a profit of itself with the grass and the straw and such fodder as may be around the farm.

"But if the farmer hasn't any cattle he still should not burn those strawstacks. Get out during the winter months and spread that straw over the fields and let it rot and plow it under. It might not be noticeable the first year or the first few years, but then that straw spread on the land every year will begin to count in larger crops and more certain crops each season.

"I have stood on farms which had been continuously cropped for a thousand years and it was better soil the day I was there than it was the day the sod was first turned. That soil had been carefully nurtured. Nothing was taken off unless there was something to put back on it. Each year it was given something. I have land on my ranch that is richer today than it was the day I began to farm it.

"So many farmers are continually complaining that there is little or no profit in farming. Their profits generally have gone up in smoke or in other waste. The difference between profit and loss on most farms in Kansas and over a great part of the country is the loss of such tremendous amounts of good material. It is pure waste and it is criminal to waste so much. This waste of straw can be turned from a loss into actual profit any and every year simply by letting some cattle eat it up and taking the profit from the cattle."

Farm Records

Farmers who are not keeping farm records should seek the advice of the county agent or farm management specialist as to a suitable form of record and the method of keeping it, and be ready at the beginning of the farm year to make prompt entries of things done during the year. This may be a record of just one enterprise or of all the operations of the farm. The record will be found very helpful in finding out the strong and weak points of the year's business, and in deciding on any changes that may be desirable in the organization and management for the next year. Farmers who are already keeping records should see that the accounts are summarized and the new inventories promptly entered for the beginning of the next year's business. Farmers who do not keep books will find it difficult to make proper returns under the federal income tax law.

Encouraging to Stockgrower

Stockgrowers all over the West have been very much at sea regarding the probable demand for live stock at the close of the war. It was confidently predicted by many that present prices would be cut in two, but since the armistice has been signed announcement has been made that this country will be called upon for double the quantities of food that have been sent abroad during the war period.

At the National Western Stock Show, in Denver, during the week of January 18, an effort will be made to inform the stockmen generally as to the real situation regarding the demand for live stock after the war. While there has been an increase in the sheep and hog population, it is believed that the cattle population will show a material decrease during the past year. The government is going to try to help increase live stock production of all kinds and plans looking to that end will be discussed at the coming Denver show when it is expected that there will be a representative gathering of stockmen from all parts of the country. The indications are that show week in Denver will bring together the greatest number of stockmen that have ever been seen at one place at the same time. Denver is making unusual preparations to take care of this crowd and in addition to the great stock show there will be held the annual convention of the American National Live Stock Association.

Sacrificing the Cows

"Females of the bovine species have been trooping to the shambles for months past in numbers calculated to arouse concern as to the future of the beef and dairy industries. Some found their way to market in the usual course of events, being dry, others by reason of age; but too many were of bearing age. The reason for liquidation was feed shortage."

This warning, coming as it does from the Breeders' Gazette, is full of significance. The meaning is plain. Cattle farmers have not been raising enough of feed for their herds. They have been making up the difference by purchase, and now when cattle feed is both scarce and high in price, there is a scramble to get out.

This is a rather sad ending for the theory, which claims that on the cattle farm the fertility problem automatically solves itself. Quite evidently it has not and does not. The cattle farms under their present system have not even raised what they need, much less a surplus.

The real truth of the matter is that the cattle farm in America has become a mill instead of a farm. Instead of using cattle to market the grain grown on the home farm, cattle have been used as a speculative side issue for the grain market, and a bullish grain market has splintered the whole foundation of cattle feeding.

Conditions are not going to be any better for the cattle farmer until he puts cattle back in their true place and uses them to market the grain which he himself raises. Then when he wishes to increase his business let him grow more grain, and market that grain with his own cattle. As soon as he realizes that the real foundation of his herd is the soil of his farm, and proceeds to strengthen that foundation by a sensible plan of fertilization and soil improvement, then and then only will the cattle business become a stable, fixed industry. Just as long as the cattle farmer persists in putting his business up in the clouds, and persists in resting it on a foundation controlled by the other fellow, just so long must he expect adverse winds to bring the whole structure tumbling down about his feet.

Meanwhile, the Breeders' Gazette says, "Where are the cows coming from?" if this destructive liquidation goes on much longer.

The war has been brought to an end in no small measure by starvation itself, and it cannot be our business to maintain starvation after peace.

JERSEY CATTLE.

FOR SALE—Five registered cows, to be fresh in January. We are pricing them very reasonable. They are strictly high class, perfect individuals and the best blood lines. Also young things and bred heifers.
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Young bulls and some extra good young cows to calve in early spring. A few yearling heifers.
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RED POLLS, BOTH SEXES, BEST OF BREEDING.
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Holstein Calves
Choice, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write
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Holstein Stock Farms, Box 33, Elgin, Illinois

REGISTERED HOLSTEINS
Ten fresh registered cows and heifers, six registered bulls, serviceable ages, out of cows with records up to 23 pounds of butter in seven days. Ten high grade heifers out of a bull whose three nearest dams averaged over 25 pounds per week, bred grade heifers, $125; yearlings, $65; almost white. Write or come and see my herd.
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Holstein Bulls—Registered
Some out of A. R. O. dams. Some sired by Sir Rag Apple Superba 207682.
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Service bulls; bull calves. Their heifers will outyield the dams by 10-50 per cent.
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Three choice registered Holstein bulls, ready for light service, and some bred heifers to a 32-pound sire.
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Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.
W. E. BENTLEY, MANHATTAN, KANSAS

HAMPSHIRE HOGS

Registered Hampshire Hogs—Sows and Spring Gilts, bred or open. Choice spring boars. Double treated. Geo. W. Ela, Valley Falls, Kansas

Fighting Tuberculosis

So severe had been the privations of war among the refugees of the battle area that tuberculosis had gained great headway. The fight against this scourge began immediately upon the arrival of the Red Cross in France. The disbursements up to July 1 this year were $2,147,327.

Seventy-six tuberculosis hospitals have been completed.

Requisitions for goods have been approved for ninety-six provisional hospitals containing 5,610 beds, all to be in operation by fall.

The appropriation for the current six months is $2,582,456.14.

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WIRE FOR DUROC BOAR
Wire at once at my expense for Duroc boar to be shipped before you pay for him. We guarantee pedigree, price, size, bone, length, immunity, and a breeder. Send him back if not satisfied. You can't afford to wait.
F. C. CROCKER
Box K Filley, Nebraska

Ellen Dale Breeding Farm
Offers Duroc Jerseys of blood lines of Watson's Wonder, Ideal Pathfinder, Crimson Orion King and Joe Orion 5th, also Shorthorn bulls and bred heifers.
R. C. Watson Altoona, Kansas

40 DUROC JERSEY BOARS
Cholera immuned, of rare breeding and excellent individuality. Grandsons of the two grand champion boars of Iowa. None better.
W. R. HUSTON - AMERICUS, KANSAS

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Durocs for Sale Reasonably. March and April service boars weighing about 170 lbs., $40; May, 130 lbs., $30; trio Sept. pigs, male, two sows, not akin, $50. Liberty bonds same as cash. J. E. WELLER, Faucett, Missouri

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Home of Repeater by Joe Orion King and Golden Reaper by Pathfinder. For sale—spring boars and a few bred gilts. I guarantee satisfaction or your money back.
F. J. MOSER - - - GOFF, KANSAS

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Choice March boars, sired by the great herd boar, Reed's Gano, first prize boar of Kansas and Oklahoma State fairs. Also Illustrator 2nd and Golden Model. Fine growthy boars, well built and nice color. All immuned. Priced to sell quickly.
JOHN A. REED & SONS, LYONS, KANSAS

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For Sale—One choice spring boar, a real herd header. Twelve spring gilts bred to Giant Crimson by G. M.'s Crimson Wonder, a prize winning boar. Priced reasonable for quick sale. Write today.
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WOODDELL'S DUROCS
I am going to slash prices on boars the next thirty days. If you want a good boar at a bargain, write at once.
G. B. WODDELL - WINFIELD, KANSAS

SHORTHORN CATTLE.

SHORTHORN BULLS
For Sale — Ten bulls, seven to fifteen months old; Scotch and Scotch topped. Two Scotch bulls by Type's Goods, one a Brawith Bud, the other a Duchess of Gloster. All in good condition and priced reasonably.
S. B. AMCOATS, CLAY CENTER, KANSAS
Write Me Your Wants

MARKS LODGE RED SHORTHORNS
For Sale—Bulls 12 to 14 months old. Sired by Double Diamond by Diamond Goods. Dams by Choice Lancaster. Priced for quick sale, $150 up. Come and see my herd.
M. F. MARKS, VALLEY FALLS, KANSAS

Cloverdale Farm Shorthorns
For Sale—Three Shorthorn heifers, two bred to a grandson of Whitehall Sultan; also a fine roan yearling Scotch bull, a real herd bull for some one. Heifers, $150 to $225; bull, $300. Must go soon at this.
Wesley Jewell, Humboldt, Ks.

Mulefoot Hogs-Shorthorn Bulls
No hogs for sale at present. Four bulls eight to fourteen months old, roans and a red, sired by Knox Knoll Dale 617322, priced from $150 to $225.
Knox Knoll Stock Farm, Humboldt, Kansas

SHORTHORNS
A few Shorthorn bulls for sale, from eight to eighteen months old. Roan and reds.
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Twelve miles from Kansas City.

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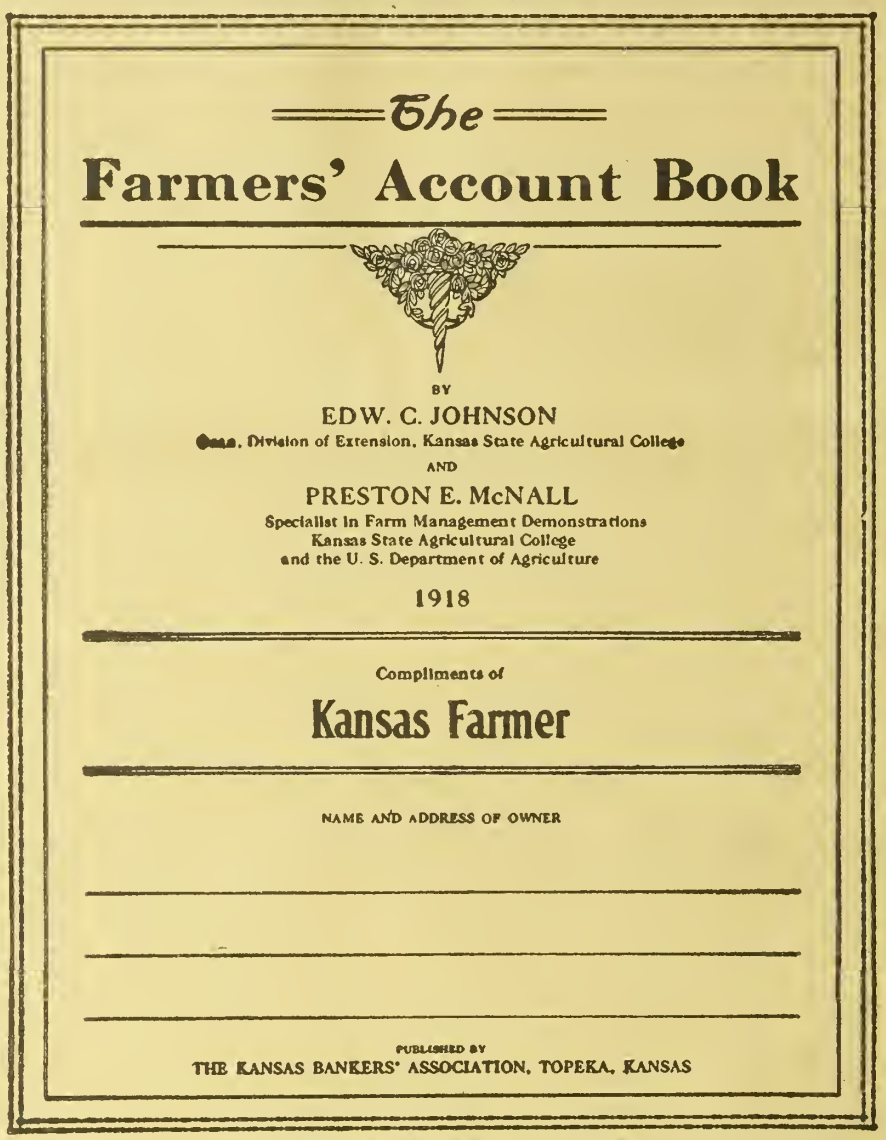

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LIVE STOCK INSPECTION TOUR

Atchison County Shorthorn Men Visit Registered Herds of County

THERE are thirty well-established herds of pure-hred Shorthorns in Atchison County. One day last month some twenty automohile loads of live stock enthusiasts started out on a tour of inspection lasting two days and visited fourteen of these thirty herds. The trip was planned hy the Atchison County farm bureau and its details worked out by O. C. Hagans, county agricultural agent. Nine herds were visited the first day, ahout 150 persons making the rounds. These herds were mostly in the northern part of the county. The second day the weather was unfavorahle and a numher dropped out, hut five of the best herds in the county were visited hy the Shorthorn men whose enthusiasm could not be dampened by rain and slippery roads. A trip of this kind serves to arouse community spirit and interest and general live-stock improvement is promoted as a result.

The party took dinner at the H. C. Graner farm the first day, and during the stop W. A. Cochel, representing the Shorthorn Association, and Dr. C. W. McCampbell, of the agricultural college, made interesting talks. Mr. Cochel said it was up to the Shorthorn breeders to feed out what was hred into the cattle. Many feeders make the mistake of under-feeding. It is far hetter to have a herd of reasonahle sizc and feed them well than to have a hig herd and only half feed them. In meeting the world demand for more heef, a judicious comhination of good feeding with better hreeding will accomplish the desired result. The breeder who keeps his stock on too scanty rations will find that in two or three generations they have deteriorated in size. "Frequently," said Mr. Cochel, "the men with the best hred cattle fail to grasp the necessity for good feeding and instead of improving their stock they permit it to run down. Scrub cattle are good rustlers and can get along on poor feed, hut the hetter the animal the more important it is to give it plenty of feed of the right kind."

The importance of the herd bull cannot be overestimated as a factor in live-stock hreeding. The bull must be masculine in appearance and have the characteristics required in beef animals. The cows and heifers should be of good beef type, hut should be feminine in appearance.

Professor Cochel warned Shorthorn hreeders that they must guard against tuherculosis in their herds. He advised regular tuberculin tests. Tuberculosis is an indoor disease and spreads much more rapidly in herds that are kept closely confined. Plenty of fresh air and thoroughly sanitary quarters are preventive measures. Cattle should he out in the open as much as possihle. Few animals are horn with tuberculosis, but a single infested cow in a herd may pass it on until the whole herd becomes badly infected.

In the course of the trip two breeders who were having herd tests made pointed out reacting animals in emphasizing what had been said. On one farm a thousand-dollar imported cow had reacted and been condemned. Her first bull calf, now eighteen months old, did not react, but her calf at side did. The accredited herd plan under federal supervision is appealing to the breeders of Atchison County, and it was stated that in the near future every Shorthorn herd in the entire county would he given regular tests. There seemed to he no disposition on the part of the hreeders to minimize or cover up the fact that tuherculosis had been found in their herds. Professor Cochel pointed out that the breeding of pure-hred cattle attracted men having high ideals of character. A man who is dishonest cannot succeed.

Doctor McCampbell in his talk urged breeders to not neglect the cows in trying to hreed up their herds, but said that no breeder should he satisfied until he had a bull at least 25 per cent better than the average of his hreeding cows. Doctor McCampbell took great satisfaction in calling attention to the value of the right kind of a cow hy means of a living demonstration in the fifteen-year-old cow, Westlawn Blanche, seen in the Scholz Brothers herd near Huron. It was stated that this cow is the mother of two of the hest Shorthorn herds in the county. She is many times a grandmother and still retains her style and class. A fine young hull was pointed out as her thirteenth calf and she is due to calve again soon. In the cut on this page this cow and her thirteen-year-old daughter are shown. Doctor McCamphell is discoursing enthusiastically on their good points as foundation animals for pure-hred herds.

At Ed Hagland's farm near Lancaster a roan heifer and a roan bull, each less than a year old, attracted the attention of the visitors. A four-year-old hull, Diamond Gloster, heads this herd.

At K. G. Gigstad's farm were found Shorthorns of exceptional quality. This is one of the outstanding herds of the county. "Better Shorthorns cannot be found anywhere," remarked Mr. Cochel. Mr. Gigstad has the largest herd of Shorthorns in Atchison County, some 200 head all told. He helieves thoroughly in live-stock farming as the most dependahle type of farming to follow. His harns and equipment are well adapted to handling good cattle.

Will Graner, who was visited just hefore the stop was made for lunch, was doing all his own farm work himself and was too busy to show the visitors around much. They found a fine red herd hull and a number of animals of high quality and good breeding. The visiting cattlemen could not help noting with interest the high-class draft horses being used. A fine team was hitched to a hay rack, and six hig hrood mares and six yearling colts could not he passed hy without the most favorable comments by the visiting stockmen.

H. C. Graner, who entertained the party at the noon hour, is in the Shorthorn business on a large scale and is well equipped to give his stock the right kind of care. An imported cow and her bull calf attracted special attention at this farm.

Twenty head of exceptionally good young cattle were found on the farm of R. L. Russell near Muscotah. Mr. Russell has been growing Shorthorns a good many years and has been most discriminating in his purchases of breeding stock. His herd shows the results of his good judgment.

The visitors found M. C. Vansell, whose farm is also near Muscotah, an authority on Shorthorn pedigrees. His herd hull was the largest animal seen on the trip. Mr. Vansell scoured the country for several weeks before he found an animal that suited hoth as to pedigree and individuality.

Scholz Brothers—August and John—started their herd hy purchasing the imported cow, Westlawn Blanche, from their hrother Charles Scholz, who is the pioneer Shorthorn hreeder of Atchison County. He imported this cow from Scotland, paying $300 for her. She paid for herself many times over hefore being used to start the herd of the Scholz brothers. Charles Scholz, whose farm was also visited, sticks to the rule of never keeping more cattle than he can feed properly. His cows showed the best care of any seen on the trip.

H. A. McLennon is one of the younger breeders of the county. His herd hull was formerly a herd hull on the Gigstad farm. Mr. McLennon still has the big red cow with which he started his herd several years ago. He is striving to develop a herd with plenty of scale and bone, and his plan in this respect met with the hearty approval of the older and more experienced Shorthorn men.

On the J. Q. A. Miller farm near Muscotah a seven-year-old herd bull, a son of the famous Shorthorn sire, Avondale, provoked quite a little demonstration of enthusiasm on the part of Mr. Cochel. A reproduction of this hig Avondale hull was found at the head of M. M. Morton's herd near Nortonville. The ability of a sire to reproduce himself is one of the greatest importance, and the Morton hull furnished positive evidence of the prepotence of the hull which aroused Mr. Cochel's admiration and approval. The same characteristics have heen passed on to a bull calf in the Morton herd. Avondale sticks out all over these animals, and all the young calves on the farm attest the breeding qualities of their sire.

Near Arrington the party found B. L. Dawdy, one of the most enthusiastic breeders in the county. He has a good herd and it was noted that he is interested in boys as well as in cattle. One of the young bulls seen was pointed out as belonging to John Dawdy, Mr. Dawdy's twelve-year-old son, and the visitors decided that John owned the best bull of the lot.

On the Glancy Brothers' farm just south of Atchison a bunch of twenty-six calves in the feed lot impressed Mr. Cochel as the most even lot they had seen. They ranged from six to eight months of age and were ahout equally divided as to sex. Mr. J. H. Glancy called attention to the fact that in their herd of nearly a hundred head there was not a single imported animal. This statement furnished good support to claims made by the visiting hreeders that just as good Shorthorns are heing bred in the United States as in Scotland.

Half a mile from the Glancy Brothers' farm is the farm of Ashcraft Brothers. A hig white bull headed this herd. The Ashcrafts are partial to the roan Shorthorns, and roan is the predominating color in their herd.

Three Jefferson County breeders, including C. H. Taylor, formerly agricultural agent for Atchison County, were among the visitors on this inspection tour. There are a number of good herds in the northern part of Jefferson County, where some of the good hlood of Atchison County herds has heen used. With the thirty well-estahlished herds in Atchison County and those in the northern half of Jefferson County, all in a radius of twenty miles, this community can well be marked on the map as a distinctly Shorthorn center. The farm bureau rendered a good service to the community in planning and conducting this tour of inspection. It is certain to result in more co-operation and a better feeling among the breeders of the county.



WESTLAWN BLANCHE, FIFTEEN-YEAR-OLD COW AND FIRST DAUGHTER.—SHE IS THE MOTHER OF TWO GOOD HERDS

MECHANICS ON THE FARM

Items of Interest About Automobiles, Engines, Tractors and Motorcycles

Starting Auto in Winter

AN automobile is subject to a number of ailments at auy time of the year, but in cold weather a car in perfect running order may stubbornly refuse to start some morning and cause a most annoying delay. E. V. Collins, the automobile expert in the engineering division of our Agricultural College, says that difficult starting often greatly inconveniences automobile owners who wish to use their cars in cold weather.

When everything else is in perfect order and it is simply a matter of zero temperature, some special treatment is necessary. Mr. Collins points out that under such circumstances the cause of difficnlt starting is obviously low temperature, which may affect the operation of the car in several ways. The most important item is the fact that ordinary gasoline does not vaporize readily at low temperatures. Another contributing factor is the congealing of the oil in the cylinders, making the motor turn hard and slow. The fact that a starting battery cannot deliver at once as much current when cold as when warm only aggravates the trouble. The ignition system may not work properly, due to oil congealed over the timer contacts which prevents a good electrical contact, or if a circuit breaker is used the stiff oil may prevent the free movement of the breaker arm. Lubricating oil thinned with kerosene is probably the best remedy for this ignition trouble. It is also evident that an explosive mixture will ignite more readily when warm than when cold.

The purpose of the carbureter is to atomize or vaporize the liquid gasoline and mix it with air in the proper proportions to form an explosive mixture. The velocity of air drawn through the carbureter causes the gasoline to leave the carbureter nozzle in the form of a spray or mist. If the air is hot, which is the ideal condition, the spray will be completely vaporized before reaching the cylinders. If the air is cold a large part or all of this spray from the carbureter nozzle will be condensed on the sides and bends of the intake manifold and drip from the carbureter in a liquid form. This explains the necessity of using a richer mixture until the motor is warmed up under the ordinary conditions. Slow cranking produces a low velocity through the intake manifold and in extremely cold weather it may be impossible to get any gasoline into the cylinders in the usual manner.

There are several ways of attacking the problem of difficult starting, and local conditions and temperatures must determine which remedy will be used. Heat may be applied; the engine may be primed; the motor may be turned rapidly, or a more volatile grade of fuel may be used in the car or only as a priming fuel.

Heat may be applied in one of several ways. The ideal way is to have a heated garage which removes the source of trouble. If the cooling system is filled with hot water, cylinders will be warmed, thus loosening the stiff oil. Even so, it may be impossible to turn it fast enough to get the fuel into the cylinders without priming. If a nonfreezing solution is used it will be impractical to put hot water in the cooling system.

Hot water may be poured over the intake manifold. This will vaporize at least part of the fuel which strikes it and the air will be warmed in passing through, thus warming the entire mixture, and greatly aid the ignition. This does not require a large amount of water and is very satisfactory, provided the carbureter is so arranged or protected that water will not get inside as it is being poured over the manifold.

Electrically heated plugs may be fitted into the intake manifold and current drawn from the storage battery. The action is practically the same as that of heating the manifold, but when the heat is turned off the partial obstruction in the manifold may promote condensation of the fuel.

Some drivers use a corn cob dipped in gasoline or some other torch to heat the carbureter and intake; while this is very effective, it should be discouraged, as the flame is apt to get beyond control. Another effective arrangement is to place a hot iron or brick in front of the air intake to the carbureter, thus warming the air which enters; however, the intake is often difficult to get at.

In extreme cases it may be of benefit to heat the spark plugs, as this will warm the mixture immediately surrounding the plugs and thus make ignition easier; it will also prevent condensation of moisture of fuel on the points.

In priming a motor, liquid gasoline is injected into the cylinders and there are several points to consider. With this scheme the fuel is not sprayed into the air, but surface evaporation must be depended upon for the most part. For this reason it is almost impossible to "choke" a motor with too rich a mixture if it is cold and ordinary gasoline is used. The amount to use must be determined largely by experience and judgment, but generally the error is in not using enough. Two tablespoonfuls per cylinder would probably be enough for the average motor, but twice this amount will often do better. A part of this surplus fuel will be vaporized for each succeeding explosion and the motor may be able to make as much as twenty revolutions without getting fuel from the carbureter. It must be remembered that the process of evaporation in the cylinder is slow and it is advisable to prime the motor some little time before attempting to start it. It is a great advantage if the fuel can be squirted into the cylinders with some force, as it materially aids vaporization and reduces the amount of fuel necessary.

For starting purposes the mixture which the carbureter furnishes may be enriched by depressing the float, thus flooding the carbureter, by opening the needle valve which allows more gasoline to flow ont, or by choking the air entrance to the carbureter, which increases the suction on the gasoline nozzle. It is self-evident that the first two methods do not assist in the spraying or atomizing action of the gasoline nozzle, but the last method is a material aid to this action and is the only one that should be used.

It is generally possible to start a cold motor by pulling it with another car and thus cranking it at a high speed. The resulting high velocity through the carbureter and intake manifold should produce the desired results. Here the chief difficulty is the lack of another car.

Occasionally the gasoline may contain enough water to stop the gasoline flow by freezing in the pipe or in the bottom of the carbureter. This is readily determined by the fact that no gasoline drips from the carbureter when attempting to start. In many cases the water circulating pump, even though drained, will retain enough moisture to freeze and prevent turning the motor.

The lubricating system demands especial attention in cold weather, as the oil thickens and does not circulate readily, but the greatest danger lies in getting a small amount of water into the crank case where it may freeze and stop the flow of oil to the pump. Because of this danger it is well to watch the oil gauge rather closely in extreme cold weather so that if the oil should stop circulating it will be noticed before any damage is done. In many cases it is of advantage to use a lighter bodied lubricating oil in winter than in summer.

Use of Chains

Chains are often absolutely necessary, but be sure they are applied properly, neither too loose nor too tight. If too loose they will cut and loosen the tread of the easing. If too tight the tread will be cut at regular intervals where the chain is looped over the casing.

It is a good plan to keep a good supply of extra links on hand so that worn and broken links can be repaired before they damage the tire.

Chains should always be put on with the same side next to the casing. They wear flat on the outside and the edges being sharp will cause serious damage to the casing if this worn side is placed next the tire.

Percherons in Great Britain

THE Percheron horse has invaded Great Britain and apparently is there to stay. Wayne Dinsmore, secretary of the Percheron Society of America, writes that he has reliable information to the effect that a British Percheron Breeders' Society has been formed which already has eighty members, including some of the most influential men in Great Britain.

The demand for Percherons in Great Britain is already great and as the French government has forbidden the exportation of any mares for an indefinite period of time, British buyers will be compelled to obtain all their Percherons in the United States and Canada.

At a recent meeting of the members of the British Percheron Society extended discussion occurred relative to mays and means of supplying the demand for Percherons in Britain. It was unanimously determined that speculators and scalpers should be kept out of the business. It was finally concluded not to permit the landing of any Percherons in Great Britain that had not been inspected and passed on the American side prior to embarkation by a qualified British veterinarian and a representative of the British Percheron Society to make certain that any Percherons intended for shipment to Great Britain from America should be sound and of creditable type and size. Resolutions to this effect were unanimously passed. It was further determined to send representatives of the British Percheron Society to America this coming season to make direct purchases for the British Percheron Association, the animals to be divided among its members after their arrival in great Britain. American breeders will heartily approve these sound and farsighted policies of the British Percheron Association. Fortunately, the leaders of the new British organization have the power to prevent the shipment of Percherons from the United States to Britain that have not received the approval of their representatives, the American breeders, without exception, will congratulate their British cousins upon their determination not to permit admission of Percherons into Great Britain that are not sonnd and of approved type.

The decision of the British Association to send a purchasing commission direct to America next season is also welcome. Such a commission will purchase better horses, will pay prices commensurate with their values, and will place them in the hands of British breeders to better advantage than if the matter were being handled by private speculators.

The announcement of this action by the British Percheron Society will put an end to the activities of numerous dealers who have been attempting to negotiate purchases of Percherons at low prices for exportation to Europe. It will defer such exportations for a few months, but will be ultimately much more advantageous to our breeders of good stock than any other course.

The Good Live-Stock Man

At this season of the year the young animals on the farm have reached a sufficient stage of development so that we can form some idea as to what they are likely to be. These young things on your farm will tell the tale of your ability as a live-stock man. Are they thrifty and in good condition and with all the development of quality which they inherited from their parents? Could you line up the colts, calves and pigs and see that they are noticeably of better type than the mature animals on the place from which they spring? If they are no better, proper advantage has not been taken of the opportunity for improvement through the use of better sires and better care and feeding. The question of whether you are a better stockman now than a year ago is answered far better by the young animals on your place than it could be answered by your neighbors.



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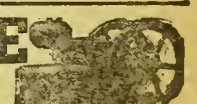

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LIFTING BREWERY REGULATIONS

A rumor is being circulated in Washington and being quoted widely in the press that Mr. Hoover had urged the President to lift the ban on grain for brewing which went into effect December 1. The reason being given is that the necessity for saving the grain used in brewing no longer exists. This rumor causes farmers to prick up their ears, for it does not coincide with the reports Mr. Hoover has been giving the widest publicity in regard to the need for food in Europe. He has told us that since the armistice was signed our obligations to save food have increased. Instead of the seventeen and a half million tons of food promised, we must plan to send twenty million tons of food to Europe the coming year. If all this is true regarding the dire need for foodstuffs in the countries made accessible through the signing of the armistice, there most surely exists the necessity for cutting out the absolute waste of grain used in brewing.

This rumor, which the daily papers state is being passed around, smacks of brewery propaganda, and in view of the slimy trail of disloyalty which permeated the ranks of the liquor men as developed in the investigation made, such propaganda does not set very well with the farmer who is raising the food or the consumer who is being asked to economize to the limit in its use. We shall expect the President to keep this rule in effect.

AGRICULTURAL CONVENTION

The big agricultural convention conducted by the State Board of Agriculture is one of the events of the winter season. January 8, 9 and 10 are the dates announced for this gathering which will take place in Topeka. This year the conference will deal with the problems of peace or reconstruction following the derangements of war. There are problems of most vital importance to agriculture to be taken up and threshed out. It is up to producers to get into the game and take an active part in shaping the plans for meeting the changed conditions. This meeting which just precedes the inauguration of our state officers and the opening of the legislature offers a public forum for the free and open discussion of the agricultural interests of the state.

A man prominent in Kansas affairs recently said: "Kansas has no taxation system. We have a hodgepodge of raising money and that is all. We know we must have so much money and we simply go out and hold the public up for it, with little or no regard for uniform and equitable assessment." A discussion of this matter of equitable taxation is one that is going to form a prominent feature of the program of this convention. Judge Samuel T. Howe, chairman of the State Tax Commission and former president and present member of the executive committee of the National Tax Association, will make an address on needed taxation reforms. Judge Howe is recognized as one of the country's foremost authorities on this intricate question, and his address will deal with facts which we must sooner or later face and deal with if improvement is to be brought about.

Kansas' present taxation methods are a great impediment to progress and upbuilding and it is high time that steps are taken that will give Kansas a real taxation system instead of the hodgepodge that we now have. Such a system would have a greater influence in developing our agricultural resources and solving the tenant problem than perhaps any other one thing.

Prominent speakers on various subjects have been engaged for the convention. The program this year will give much attention to live stock problems. Deficiencies in crop productions can, under normal conditions, be made good in a season, but it requires years to develop and build up the live stock industry. The demands of the country and the world for meat and milk are so pressing that this is a most opportune time to take up live stock matters. Frank D. Tomson, editor of The Shorthorn in America, will give an address on "Standards and Permanency in the Beef-Making Industry," and "Sweet Clover and Cattle Raising" will be discussed by Frank Coverdale, the pioneer sweet clover advocate, of Delmar, Iowa.

The horse industry which has been at a rather low ebb will be taken up by Wayne Dinsmore, secretary of the Percheron Horse Society of America, and Dr. D. F. Luckey, State Veterinarian of Missouri, will show the splendid results in the conservation of live stock through measures of regulation and control with respect to the various diseases.

At the evening session of Thursday, January 9, General Leonard Wood will make an address on "Arms and Agriculture." and Mrs. Virginia C. Meredith, of Indiana, will speak on "The Privileged Woman." Mrs. Meredith is one of the most successful as well as interesting of nationally known farm women ever introduced to a Kansas audience. She has been president of the Indiana Home Economics Association; is owner of Oaklawn Farm and has scored big successes in the show ring and auction sales of pedigreed Shorthorns. Mrs. Meredith is a woman with a practical and delightful message, as readers of one of our leading live stock journals, to which she contributes, well know.

Dairying, the silo, the sorghums and other subjects will be treated by eminent authorities, of which mention will be made in later announcements.

FARMERS BUSINESS MEN

"Farmers and other business men" is an expression becoming more common in place of "farmers and business men." And why not? Farming is a business, and one requiring a large investment of capital and good business methods. The successful farmer is a man with a wide range of experience along many lines. He must not only be skilled as a producer of raw material of various kinds and to some extent manufactured products, but a salesman as well. The more successful the farmer, the more closely we find him following modern business methods. He deserves the recognition he is being given as a business man by other business men in the towns and cities.

If you are not quite satisfied with your record of the past year from a business standpoint, now is a good time to plan to be a better business man in the year to come. Keeping farm accounts is almost essential in conducting any business on a business basis. This season of the year is a good time to plan for such work the coming year. The farmers' account book published by the Kansas Bankers' Association has been found a great help. Thousands of them are in use, and a new edition is just coming from the press. We have made arrangements to furnish copies of this book to those who desire them as a premium with KANSAS FARMER.

WHY A MILITARY PROGRAM?

There seems to be a systematic effort all over the country to force an immediate adoption of a program of universal military training. This is a question that can wait. There are many things to settle of far greater importance. The present is a most inopportune time to hastily adopt a plan calling for such a wide extension of military training. As a prominent Kansas Grange official remarked to us recently, "It seems utterly foolish to urge the need for training all our boys for soldiers just at a time when we are demobilizing an army of four million men, a large proportion of them veterans who have met and vanquished in fair battle the flower of the Prussian army with its forty years of military training and prestige. With such an army of trained men good for ten years at least, we are certainly in no immediate danger, and meanwhile we can more deliberately study the necessities of the future and particularly in the light of what may happen in working out the kind of a world peace program the United States wants and our boys fought for in the great war."

We were disappointed to see in the daily press that Governor-elect Allen had been quoted as urging the immediate adoption of a program of universal military training for this country in an address made at the recent convention of governors. Let us wait and decide this momentous question with more deliberation. No section of our population has a greater right to be heard on this point than those who not only furnished 35 per cent of the fighting men, but produced the food so necessary without even a question as to hours of labor or wages. There have been no strikes on the farms of this land, although no other industry has had greater difficulties in obtaining the necessary labor. There may have been eight-hour rules, but it was eight hours in the forenoon and eight hours in the afternoon. Farmers have a right to be heard, and we trust they will not be backward in expressing themselves on this particular point. Here is a portion of the report of the National Grange Peace Committee in which the policy of this great organization is set forth:

"The membership of our order may well feel proud of the policy of the National Grange with regard to war and international difficulty. Long ago we included in our platform the principle of arbitration, and no one can charge that by word or deed have we encouraged the solution of an international difficulty by the barbarous means of shot and shell. Up to the last minute we hoped for peaceful solution, not as pacificists afraid to fight, but rather as the earnest exponents of a better way. The time came when the weapons of the enemy's selection were reluctantly accepted and cruel war made the arbiter of the world's fate.

"The farmer met the situation. Shorn of skilled help by enlistment, by industries working under a cost-plus agreement, and to an extent by the draft, the American farmer has fed our people, has supplied the best ration any army ever had, and has kept starvation from the helpless families of our Allies. The men, women and children of the farm have accepted the challenge of the Hun, that the nation would win which could feed its people the longest, and the kaiser has lost.

"We, as an organization, fought hard against compulsory military training, and when the war broke out our young manhood was in the factory, office, store, and on the farm. It was stated that our hurriedly trained army would be simply cannon fodder for the military machine of Germany. When we entered the war the German was a superman, trained to the minute, fed up on success and hopeful of victory. The short space of eighteen months was enough to demonstrate that the training of forty years was nothing in the presence of high ideals and sturdy character, and from the day that our boys in the front line trench at Chateau Thierry met the picked soldiers of the German Empire, to the day when the Germans submitted to the most humiliating surrender of the world's history, our boys have never called retreat. The eyes of the Teuton army were driven from the clouds. The submarine was rendered helpless, and but yesterday the boasted armament of Germany went out to sea with silent guns to admit in abject surrender the supremacy of the so-called unprepared nations. Again has our policy been vindicated. And let us earnestly plead that compulsory military training may never stain our statute books with the foul trail of militarism."

There is no hired hand so good as the son with a regularly paid-up share in the farm—and he stays, too.—Exchange.

A FEW PERSONAL WORDS

AS I write the few lines closing this fifty-second issue for the year 1918 and completing Volume 56 of KANSAS FARMER, I cannot refrain from a backward look over the work of the year. This issue marks a milestone in the long and useful career of KANSAS FARMER. I look back with some degree of personal satisfaction at the part I have had during the past few years in the endeavor to make its influence felt for the cause of better agriculture in Kansas and a more satisfying life on the farm. It is almost four years since I assumed the sole editorial responsibility for KANSAS FARMER. The editor-in-chief, now president of The Kansas Farmer Company, retired from active editorial duties in March, 1915.

In editing KANSAS FARMER I have always endeavored to make it cover every phase of farm life, and in the course of the year recognize the many different conditions existing in different sections of our state. It is impossible for an editor to tell his readers how to farm, but I have traveled and visited farmers in every section of Kansas and know something at least of the general conditions under which you labor. Mistakes have been made, and many things have been left undone, but it has been a real pleasure to me to use such knowledge as I have of Kansas agriculture in the endeavor to serve KANSAS FARMER readers. Each week I have tried to select and prepare material that would be helpful to you in working out your many and varied problems.

I have always felt that live stock production was an essential feature of a permanent system of agriculture, and have endeavored to reflect that firm conviction in the columns of KANSAS FARMER. During the past year we have been actively engaged in the great war, and this has brought absolutely new problems to the farmers of our state. In handling these it has been my purpose ever to hold up the rights of agriculture and at the same time in every way possible point to service to our nation in the great crisis without reference to occupation.

The interests of the home are fundamental. Making a living is not all of life. We sometimes are in danger of placing too much emphasis on how to make the living and overlook the importance of learning how to live. Through the able assistance and co-operation of our home department editor, Miss Ethel Whipple, I have endeavored more than ever during the past year to furnish helpful reading for the home along both material and ethical lines.

I wish I could meet personally every one of the many readers of KANSAS FARMER and thank you for the cordial, helpful co-operation you have given. You have written me more kindly letters of commendation than of criticism, and both kinds are welcome. A little commendation gives encouragement, and honest, constructive criticism helps in showing where we are missing the mark in endeavoring to meet your needs.

With this brief backward look and these few personal words, I turn to the future and with the forward look pledge myself and my helpers to serve you to the best of our ability in the new year just before us.

G. C. Wheeler.

STOPPING A FARM LEAK

Two-thirds of Wheat Sown in Johnson County Treated for Smut

LAST fall the elevator managers of Johnson County united with the farm bureau and its county agent, Harry S. Wilson, in tackling a $100,000 leak in the farming practice of the county. It was estimated that wheat smut caused at least that amount of loss each year.

In June while calling on bureau members south of Olathe, the county seat, the county agent inspected several wheat fields and found that an average of 5 per cent of the heads had been destroyed by the wheat smut. This was called to the attention of the farmers, who were shown the smutted heads and with the agent made counts and estimated the damage done. The agent found that the majority of the farmers did not know that they had the smut and were unable to detect it in the heads. After they had smelled a few smutted heads, however, and examined them closely, they were able to detect it readily. During July the farms were visited and wheat fields inspected under the direction of the farm bureau executive committee. Many farmers for the first time learned what wheat smut really is and all were surprised to find that they had so large a percentage of it. Considering the whole county, the cash value of this loss was conservatively estimated at $100,000.

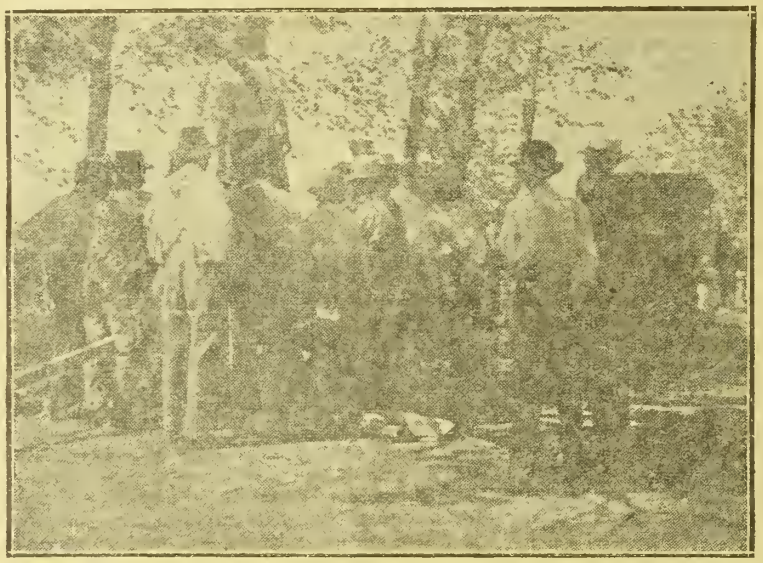
Practically no one in Johnson County had ever treated his seed wheat for smut before, although the farm papers each year, in July and August, had urged the treating of seed wheat to prevent smut. Occasionally a bulletin or an institute speaker called the matter to their attention, but the facts and the lesson somehow failed to apply or seem practical when considered in the terms of the local wheat field or granary.

While a few close observers had found occasional wheat heads which had been destroyed by smut, and it was frequently disagreeably dusty about the threshing machines, many farmers merely felt sorry for their neighbors who dwelt in some indefinite other county or state and were bothered by this pestiferous wheat disease, and were sure that they had never had such trouble in their own wheat fields.

Because of these, and probably other reasons, wheat smut had never really been translated into dollars and cents in Johnson County until the present year. The smut was not much worse this year than usual, but the wheat had a greater value, not only in dollars and cents but from a sentimental and patriotic standpoint. Then, too, Johnson County during the past year had organized a farm bureau and hired a county agent who was supposed to look after such things, and he did look after them.

Notices were published in all the Olathe papers describing the smut and calling attention to the cash value of the loss for the county. On Wednesday, June 18, the first squads of twilight harvest workers went out from Olathe to shock wheat. The agent instructed the leaders of the squads and asked them to make a point of investigating the fields and calling the attention of the owners to the losses incurred from smut.

When the threshing season opened, the agent, as a member of the threshing machine inspection committee, made a point of discussing the smut losses with the members of the machine crews. In all discussions with farmers the subject was brought up, and many farmers later reported that they had gone home and found smut in their wheat. No opportunity was lost that would assist in calling general attention to the smut losses and a county-wide eradication campaign was planned for September by the farm bureau.



GROUP OF MEN CONSIDERING METHODS OF ERADICATING SMUT AT A DEMONSTRATION MEETING.—COUNTY AGENT WAS ASSISTED BY PLANT DISEASE SPECIALIST

Excellent publicity to the campaign was given by the weekly papers published in the county, one of which printed three thousand posters and distributed them to all stores and places of business in the county.

The farm bureau officers made arrangement with the local elevators of the county for six demonstration meetings at which the agent with a specialist in plant diseases gave a thorough discussion of the disease and its control and actually treated a small lot of seed. The elevator men who were then receiving smutty wheat urged all who were planning to sow wheat to treat their seed, and nearly all the wheat growers followed this advice. At the demonstration meetings each farmer not only secured first hand information regarding treating methods, but was asked to handle the grain after treatment so that he would be able to determine the proper dampness more accurately when treating his own seed. These meetings were held September 11 and 12 and were attended by 290 interested farmers. Four more demonstration meetings were held later with an attendance of sixty-one, while persoual demonstrations were given many other farmers.

There was some skepticism regarding the effect of the treatment on germination, and one farmer took home a sample of the treated seed which he placed in a germination test. The seed all sprouted, and this instance gave a large amount of publicity. Undoubtedly this practical test made by a local farmer did much to remove doubt in many minds.

It is known that enough formaldehyde was sold to Johnson County farmers as a result of this campaign, to treat the seed of nearly two-thirds of the acreage of wheat planted in the county. Many other farmers were also assisted in securing smut-free seed wheat.

A Record Wheat Acreage

By Edward C. Paxton, Field Agent, Bureau of Crop Estimates

THERE is no need to speak for the Kansas wheat crop, it speaks for itself. Over eleven million acres of it is telling the world that there is nothing the matter with Kansas, all critics to the contrary notwithstanding. To be accurate, it is estimated that there are 11,184,000 acres of winter wheat now growing in Kansas. This is 13 per cent more than the acreage sown a year ago, which was the highest previous record. And not content with smashing her own former records, Kansas smashes those of all other states. Not only is this the largest acreage of wheat ever sown in a single state, it is probably the largest acreage ever devoted to a single grain crop by any state. The Texas cotton crop is probably the only state crop that ever excelled it in area.

Not only is the acreage unprecedented but the condition of growth has seldom been excelled at this season of the year. The average condition for the state is 98 per cent, with the eastern half considerably above normal. The only low conditions noted are in western counties where seeding and re-seeding were much delayed on account of grasshoppers. Hessian fly is reported as present in scattered localities south of the Kaw and east of a line through Wichita, but its numbers are not alarming and little damage has been suffered thus far. In the southeastern part of the state white wheat-grub has taken severe toll of the crop in scattered fields, but the aggregate damage is not large.

These estimates are based on a sample wheat census of nearly 9,000 farms in the state showing actual acres sown per farm in 1917 and 1918 on 12 per cent of the state's total wheat area. An analysis of this census shows that eighteen counties in the west devoted less acres to wheat this fall than they did a year ago and that six other counties only succeeded in maintaining last fall's acreage. The eastern and central counties show remarkable increases in acreage. Some of the largest increases noted are Bourbon, 232 per cent; Anderson, 216 per cent; Linn, 203 per cent; Woodson, 199 per cent; and Greenwood, 195 per cent of the 1917 acreage. Considerable decrease in acreage is noted in Gove, Rooks, Ford, Logan, Ness, Scott, Ottawa, Sheridan and Cloud counties. In general the eastern third of the state shows an average increase in acres of 51 per cent; the central third, an increase of 7 per cent, and the western third, a decrease of 1 per cent. It is shown also that 4 per cent more Kansas farms are producing wheat now than a year ago and that on the average the acreage of wheat per farm is 8 per cent greater than last year. Some western counties show as much as 4 per cent less farms raising wheat and as much as thirty-four acres less wheat per farm. Eastern counties show as high as 35 per cent more farms raising wheat and as much as forty acres increase per farm.

The past two seasons have witnessed a revolution in the distribution of grain acres in Eastern Kansas. In two years Anderson County has grown from 2,316 acres of wheat to 50,546 acres; Bourbon from 2,464 acres to 52,033 acres; Coffey from 4,133 acres to 66,432 acres; Greenwood from 485 to 26,764; Lyon from 5,341 to 60,387; Morris from 10,140 to 51,127; Osage from 4,428 to 66,203; Shawnee from 12,382 to 47,164; Woodson from 1,935 to 29,768 acres. In the last analysis this increase in wheat must come at the expense of corn acreage. Further curtailment of corn acreage in Kansas is in prospect for next season. These changes are not peculiar to Kansas. Some parts of Missouri show almost as violent a revolution and almost any state in the north half of the Missouri-Mississippi Basin will reflect the change. The 1919 crop season may see wheat supercede corn as the monetary king of American crops.

There have been several causes for this sweeping change from corn to wheat. The primary cause was the psychological effect of the constantly recurring demand of the world for more breadstuffs. A secondary cause was the fact that corn for several years past has been either a partial or total failure. Another contributing cause of no mean influence was the guaranteed price of $2.26 per bushel, which is conceded to be profitable, barring crop failure.

As the total acreage estimated as being devoted to winter wheat this fall in the United States is 49,027,000 acres, this means that Kansas now has 22.8 per cent of all the United States winter wheat area. Should this year's acreage of spring wheat be maintained next spring, Kansas will have 15.7 per cent of the total acreage of all wheat in the United States. It is an inspiring record of which all Kansans may well be proud.

In addition to her winter wheat, it is estimated that Kansas has this fall 187,000 acres of rye, or 10 per cent more than a year ago, which is now in 100 per cent of normal condition.

Failing Fertility

The virgin fertility of our western farms is no more. This fact becomes increasingly evident as the years go by. Crop reports show that yields are falling off in one great western state; portions of another fail to ripen up the corn with the old-time promptness; plant diseases are reported increasingly prevalent in a third—and so the evidence accumulates.

This situation should occasion no surprise—it is the natural, inevitable and inexorable result of the system of agriculture practiced. Neither is this a novel discovery on the part of the western states. Their neighbors immediately to the east made this same discovery a decade ago; those near the Atlantic seaboard, a generation ago.

Instead of wasting time in marveling at the discovery, or in obscuring the fact, we should accept the situation and hasten to apply the same remedy which has proved so efficacious for their eastern neighbors. Commercial fertilizers should be tried in all sections, and on all crops, and in a variety of combinations.

Right now is the time for this demonstration work to be done. The western states should be ready to profit by the anticipated fertilizer surplus which will result when war chemicals are again turned to agricultural uses.

If you need farm labor, apply to the free United States Employment Service. Offices at Topeka, Wichita, Kansas City, Hutchinson, Parsons, Salina, Atchison, Emporia, and Hays.

Deeply Affected

The latest example of English as she is spoken comes from Egypt, where a native interpreter, who had overstayed his leave, wrote the following letter to his chief:

"My absence is impossible. Some one has removed my wife. My! but I am annoyed!"—Selected.

CO-OPERATIVE MARKETING

Local Association Saves Time and Money for Its Members

CO-OPERATION is the key to success in getting farm-grown products to the consumer with the minimum of expense and the most profit to the producer. It is of advantage alike to producer and consumer. The Leavenworth County Fruit and Vegetable Association has taken this principle beyond the realm of theory and discussion and is making it work. The experience of this co-operative success will be helpful to those in other communities. At the annual meeting of the State Horticultural Society of Kansas held in Topeka last week Frank Olhausen, secretary of this co-operative association of producers, in a well-prepared paper told of what they had accomplished. He called attention to the fact that it is generally conceded that the price of any article of produce is regulated to a great extent hy the law of supply and demand, hut the secret of securing the proper price is based on our ability to place the article where it is wanted, or, in other words, to use a common expression, we must "put it where it ain't." To do this you must in some manner get in touch with the markets you can reacb with your products, whether tbey be fruit, vegetables or baled hay.

"In my opinion," said Mr. Olhausen, "the simplest manner in which this can be accomplished is by forming co-operative associations in your community, selecting one of your number to keep in touch with the markets and to advise you as to methods of grading and packing your produce to secure you the highest returns and satisfied customers. So universal has this idea become that the anti-trust laws of the United States have been amended and these associations have been given legal standing under Section 6 of the Clayton amendment. They may not have an organization with a capital stock, but in order to secure a working capital a membership fee can be charged and annual dues collected. We can not run these associations for profit, yet we may charge for service rendered to the member in the sale of the produce and at the close of the season any money in excess of that required for expenses must be returned to the member in proportion to the amount of business contributed by him, so tbat if these associations are properly conducted they are legal.

"But does co-operative marketing pay? Unhesitatingly I say yes, either on a large or small scale. Let me give you my personal experience in Leavenworth. Six years ago I became a market gardener. The first season's crop I marketed at home and on figuring up results at the close of the season found that while I had made a living, yet witb the capital invested the business had been conducted at a loss. The second season I began to watch the markets in adjacent cities and discovered a wide range of prices in markets that were close together. Under a proper application of the law of supply and demand tbese markets should have been uniform, but in all cases they were higher tban the local market. I tried a little shipping on my own account and on checking up at the close of the season found a slight surplus. Continuing the tbird season, I began to establish a line of customers that not only promised the highest prices, hut actually paid them. But I soon discovered that I was unahle to supply these customers with their requirements and the need of co-operation among the growers became apparent.

"Shortly after this I noticed a call in the papers for a meeting of truck growers for the purpose of perfecting an organization. I attended this meeting and found seven growers, and tbey were discouraged because the man who had been doing some shipping for them on his own account refused to attend the meeting, claiming that he did not need advice on how to run his own business. Then they had started wrong and were trying to organize a stock company at $25 a share. Very few truck growers care to put up $25 on an experiment. I suggested simply an association, each putting up annual dues of one dollar and agreeing to furnish enough produce to load cars or fill orders. The idea was adopted. I was elected seeretary and manager and today we bave the Leavenworth Fruit and Truck Growers' Association with 116 members, sixteen of wbom have membership fees of $25 paid in full and are not subject to annual dues, the others having credits toward membership fees ranging from one to twenty dollars and all accumulated from fees collected from the members in excess of amounts required to transact business, so that we have a neat little capital with wbich to purchase supplies in carlots and at times when the market is best. We charge 10 per cent to transact business for a member, but find it actually costs about 6 per cent. At the close of the season all money in excess of the $25 membership credited to the account of each memher is returned to bim.

"The first season we were in business the Dunlap strawberries and other like berries sold in Leavenworth for from 60 cents to $1.25 per twenty-four-quart crate and Aroma herries at $1.50. At tbe close of a very satisfactory season I visited tbe northern markets, selected a line of houses I believed would be safe to do business with, recommended a change in tbe style of our berry erate, and at tbe beginning of the berry season bad a huyer in Leavenworth who bought every Aroma berry we could supply and paid us $3 per twenty-four-quart cate on track at Leavenworth and as soon as a car was loaded we had a sight draft on bis house for the car. Ten days after the season closed I was enabled to place in the hands of every grower a check for his berries. The priee of Dunlap and other berries not adapted to long sbipping advanced to $2 per twenty-four-quart crate that season. During last season is was $2.50 for Dunlaps and $3.25 for Aromas. Can you in the face of these facts deny the advantage of co-operative marketing?

"But admitting that a great part of this increase was due to natural causes, to the law of supply and demand, one of the good things about co-operative marketing is the saving of time to the grower. By our plan a grower brings his produce in, leaves it where our manager tells him, and goes back to work. No worry about prices, hunting for customers or collecting his accounts, but back to his patch, where in the berry season his presence is worth tbat of any two hired hands. Nor is this the only good feature of co-operative marketing, because we also do co-operative buying. By anticipating our needs and watching the markets we saved to our growers three cents each on one-third bushel Climax baskets which we use for tomato and vegetable shipments. Thirty dollars saved to a grower on a lot of one thousand baskets is quite an item in an expense account.

"By buying in excess of our requirements in 1917 most of our growers saved 12 cents on each ventilated crate. During this past season we handled for Fred Burre $1,000 wortb of his produce at a net cost to him of $60. We saved him on bis tomato baskets $30. We saved for him on his berry box material $20, and on spraying material $15, and in addition be did not have to come to town with his produce, but sent it in with bis son.

"The principle of co-operative marketing is adapted not only to perishable products, but can he extended to every product of the farm, dairy or garden, and the sooner these facts are realized and taken advantage of by the producer, tbe sooner will the vision of a good living and 10 per eent be realized.

"There is no reason in the world wby a few growers of any article of produce in any community should not co-operate, selecting one of their number to act as manager, keep in touch with markets, advise as to style and condition, what kind of bag, bale or package the trade demands, and the proper time to sell. If you do this, in a sbort time you will be building elevators for your corn and wheat. You will be building cold storages for your apples. You will have money that can be advanced to your growers on produce held for better market conditions, and you will eliminate to a great extent the profit tbat goes to middlemen and speculators.

"Just one more suggestion: Use common-sense business methods in your farming or gardening, put up the best grade or pack of an article it is possible to produce, but know what it costs you to grow and market a bushel of wheat, a crate of berries, a bundle of radishes, or a bale of alfalfa, and when the proceeds from the sale of that article do not net a profit, try something else."

EVILS OF TENANCY

HALF the farms in Kansas are operated by tenants, and the numher is gradually increasing each year. The tenant system as it is being conducted prevents rural progress and development. The absentee owner of land seldom gives his hearty support to rural institutions such as schools, cburches, and better roads. The tenant himself can hardly be blamed for his indifference to rural improvements, for be is to a considerable extent a victim of circumstances and cannot help himself. The evils of tenancy constitute one of the problems of rural life.

President William M. Jardine of our agricultural college is suggesting that a plan for placing returning soldiers on the land of absentee owners migbt be worked out, furnishing the young farmers witb capital on easy payments at a low rate of interest in order that tbey might become real citizens of the state. A state by engaging in a really constructive program for making land owners of our returning young men would be conferring benefits on the commonwealth most far-reacbing in effect. This is a question to which all should be alive and particularly those living on farms and desiring to develop a profitable and satisfying rural life.

That these evils and tendencies are not imaginary is being proven by the surveys of farms and rural conditions being conducted by the farm management department of our agricultural college. Assistant Professor W. E. Grimes states that many a rural district of Kansas is being held back in community development because of its high percentage of tenants. He attributes this to the fact that desirable rural conditions are dependent upon the population of tbe community working together, and this is impossible witb a large shifting tenant population.

Statistics show that many tenants do not enter into community life and organization. In a survey of 250 farms in Jackson County, in which the effect of economic conditions on the social life of the community was studied, it was found that 60 per cent of the farmers owning their farms attended church regularly, wbile only 35 per cent of the tenants attended regularly. Less than 10 per cent of the owners did not attend church at all, wbile nearly 20 per cent of the tenants did not. Sunday School attendance averaged nearly the same as church attendance.

Very few tenants have modern conveniences in their homes, Mr. Grimes states. Statistics showed that one out of seventy-nine had furnace heat and running water. On the other hand twenty-five out of 171 of the owners had modern bomes.

Similar results were found in tbe membership of tenants and owners in farmers' co-operative organizations. Sixty per cent of the owners belonged to farmers' co-operative organizations, such as tbe Grange and the Farmers' Union, while only about one-third of the tenants belonged.

"This situation is due largely to the result of the conditions under which the average tenant leases his farm," said Professor Grimes. "He leases it for only one or two years at a time and is never sure tbat he will be on it for a longer period. Consequently be does not feel that he is a permanent part of the community, and he does not enter into its life with the same spirit tbat he would if be considered bimself a permanent part of it.

"As a result, from 40 to 50 per cent of their population in many communities do not take an active interest in community affairs because they are tenants and do not feel that tbey will be repaid for the effort necessary. Such communities do not develop along progressive lines so rapidly as those having a high proportion of the population interested in community affairs. All persons within the community suffer as a result of this condition."

Tbe remedy, points out Mr. Grimes, is in better leasing conditions, which will encourage the tenant to remain on the same farm for a number of years. Conditions must be brought about which will make it easier for tbe tenant to become an owner. Credit facilities which will enable the tenant to borrow money under more favorable conditions are also advisable. These things will aid materially in effecting a betterment of conditions.



THE Lecturer of the National Grange, John C. Ketcham of Hastings, Michigan, one of the strong men of this great body of organized farmers, will address audiences in Kansas next month. Mr. Ketcham will attend the Kansas State Grange meeting to be held at Newton January 7, 8 and 9, where he will speak January 8. The annual convention of the State Board of Agriculture meets in Topeka January 8, 9 and 10, and he will also address this meeting Thursday, January 9, on the subject, "How Shall the World Be Fed?" Mr. Ketcham is a forceful speaker and has a real message. He should have a large hearing at both these important meetings. It is to be regretted that they occur during tbe same week, hut this could not be avoided, as the State Grange meeting had been postponed from the usual time on account of tbe influenza epidemic.

The Creed of Happiness

Get up right in the morning. Go to bed right at night. Start with joy in your heart, hope in the future, kindness in your purpose.

If it is a dark day, never mind; yon will brighten it up. If it is a bright day, you will add to the brightness. Give a word of cheer, a kindly greeting and a warm handshake to your friends.

If you have enemies, look up, pass tbem hy, forget and try to forgive.

If all of us would only think how much of human happiness is made hy ourselves, there would be less of human misery.

If all of us would bear in mind that happiness is from within and not from without, there would be a well-spring of joy in every heart and the sun would shine forever.

Try it.—Leslie's.

FINANCING INSOLVENT FARMERS

Man Without Land Security Needs Credit Facilities

By Leonard G. Robinson, President Springfield, Mass., Federal Land Bank

THREE years ago, while testifying before the Joint Congressional Committee on Rural Credits, I created not a little disappointment in the ranks of the sponsors of the pending rural credit bills, and not a little satisfaction in the ranks of their opponents, when I directed attention to the fact that none of the bills under consideration made the slightest provision for the insolvent farmer.

What Is an Insolvent Farmer?

An insolvent farmer is the farmer or would-be farmer who cannot give the time-honored "fifty-fifty" first real estate mortgage as security for a loan. To this class belongs the marginal farmer who cannot put his farm on a paying basis because his encumbrances have reached the limit of marketable security. To this class belongs the tenant farmer who is compelled to shift from farm to farm because he lacks the means of acquiring a farm of his own. Finally, to this class belongs the would-be farmer; that is, the farm-hungry man in the city, native as well as immigrant.

The terms solvent farmer and insolvent farmer may not be technically correct. In fact I have been taken to task for taking undue liberties with the English which, by the way, is not my mother tongue. I noticed, however, that in subsequent hearings this term was used quite freely, and that it has even been adopted by some of the more important financial publications. Be that as it may, the term serves the very useful purpose of designating the two classes of farmers around whom the recent rural credits agitation has centered, and to draw a clear line of demarkation between two distinct problems. Financing the solvent farmer is a financial problem, pure and simple. All that the solvent farmer needs is the machinery that will place him in a position to compete on equal terms with other solvent industries for the world's surplus funds. But the insolvent farmer, who has no acceptable marketable security to offer, cannot be financed on the same basis.

Problem of the Insolvent Farmer

As a concrete illustration, take the recently enacted Federal Farm Loan Act and apply it to the average tenant farmer. Let us call him Bill Jones. Jones has farmed for many years on rented farms. By industry and good management he has succeeded in acquiring a fine stock and a fairly complete equipment of farm machinery. Jones reads in his favorite farm paper that the new rural credits law is designed to help tenant farmers become farm owners. He talks it over with his good wife, and they decide to buy the farm on which they live. They know their farm and want to make it their permaneut home. It is not an expensive farm. The price is $8,000, and it is worth it.

Jones gets his neighbors together, some of whom, like himself, are tenant farmers. He opens the meeting with a few appropriate remarks, and unfolds his plans for organizing a national farm loan association. He tells them also about his plans for buying his own farm. Of course, he has no money, but he intends to borrow the needed money through the association. One of the farmers present calls attention to the fact that the most that can be borrowed under the new law is one-half of the value of the land, and that in order to buy the farm Jones will have to find at least another $4,000 somewhere else. Jones is frankly nonplussed. He scratches his head. "By George," he says, "I never thought of that."

Jones returns home crestfallen and very much disappointed. His little wife comes to the rescue. Why not write to their congressman? Jones is pleased with the idea. He writes a good strong letter, and in due course he gets his reply. The congressman is most sympathetic. Yes, 50 per cent is unfortunately the limit that can be borrowed. However, he concludes with the comforting suggestion that the local bank or the owner of the farm might possibly be induced to take a second mortgage for the balance. Jones again scratches his head, and says, "By George, I never thought of that."

But Jones has a distinct recollection of what a time he had in getting $300 from his bank a short time before. So he dismisses the bank. But the idea of the owner taking a second mortgage strikes him as rather good. Off he goes to see Squire Smith and lays the proposition before him. The squire is a friend of the Jones family. He has known Bill since he was knee high to a grasshopper. He listens sympathetically, but cannot quite see it from the same angle. Of course he will be glad to do anything he possibly can to help Bill. But a second mortgage for $4,000 is entirely out of the question. He points out that if anything should happen and the land bank should find it necessary to foreclose, his second mortgage will be clean wiped out. Jones once more scratches his head, and says, "By George, I never thought of that."

And so it is. Those who believe that the problem of the insolvent farmer, the tenant, and the landless has been solved with the enactment of the Federal Farm Loan Act have not thought of that; or of that; or of that.

Please do not misunderstand me. This is not intended as a criticism of the farm loan act. On the contrary, it is an index to its fundamental soundness. Although far from perfect—no legislation is perfect—it is a really and remarkably effective maiden effort. What I wanted to show is that to all intents and purposes the average tenant farmer is still insolvent insofar as his ability to obtain the necessary credit to buy a farm is concerned. This, of course, is truer still of the landless man in the city. As I pointed out to the congressional committee in charge of the bill, the difficulty lies in the fact that it is not possible to devise one system of rural credits that will serve equally the solvent farmer and the insolvent farmer. You cannot lower the solvent farmer to the level of the insolvent, nor can you hoist the insolvent to the level of the solvent farmer. Financing the solvent farmer, as I have stated, is a financial problem. But financing the marginal farmer, solving the tenancy evil and promoting the back-to-the-land movement —or by whatever name you may choose to designate the innate land hunger of the average human being—is not a financial problem at all. It is a social and political problem.

The Farm Tenant

It is not my intention to tire you with an exposition of the evils of farm tenancy and absentee landlordism. These are too obvious for argument. We all know the economic waste, the moral bankruptcy, the civic and social sterility of farm tenancy. According to the last census, 2,354,000 of the 6,000,000 farmers in the United States are tenants. This constitutes 37 per cent of our total farming population and an increase of 16 per cent over the preceding census. And yet, so far as I am aware, no serious attempt has ever been made to attack the problem rationally and comprehensively.

The argument is often put forth—chiefly by landlords—that the majority of tenants are perfectly contented with their lot. In fact they prefer to remain farm tenants. I fear that these gentlemen mistake hopeless resignation for contentment. The average teuant farmer, like the average farmer, takes his financial troubles with due Christian piety and resignation, and looks upon them as a visitation from heaven, like drouth, frost, and bugs.

Then there are those who dismiss the subject with the offhand statement that these tenant farmers are a lazy, shiftless, and good-for-nothing lot, and that it is quite useless to waste any time on them. To my mind, this very argument is sufficient to cause grave apprehension in the minds of all thinking men. Just imagine—one-third of our farming population, or about 10 per cent of our total population, hopelessly shiftless and shiftlessly hopeless. It is a situation pregnant with menacing possibilities, threatening the structure of our democracy and the very foundation of our civilization. Personally, I do not believe that there is any such proportion of shiftlessness among our farm tenantry. But assuming, for the sake of argument, that this is true, I want to say that the more shiftless, the more good-for-nothing, and the more irredeemably hopeless our tenantry is, the graver is our problem, and the more urgent is the call for a remedy. So much for farm tenancy.

What About Farm Home Seeker?

We all know that the vast majority of our immigrants are farm born and bred. And we have often wondered at their perversity in choosing an industrial instead of agricultural career. The reason is economic.

The newcomers have not the money to start farming on their own account, and farm labor is neither steady enough nor does it hold out any other inducements to them. They accordingly dig our coal, build our roads and what not, pinching and slaving, and seeing, in their mind's eye, the little farm home approaching nearer and nearer with every heave of the shovel and every swing of the pick. Unfortunately, for the want of a little encouragement, many of them fall an easy prey to the exploiter and the land shark; while thousands of others, losing all hope of realizing their dreams in the land of their adoption, leave each year, with hundreds of millions of good American dollars to be invested in farms in their native lands at highly inflated prices. Accustomed to a higher standard of living and to a higher degree of personal liberty, many a repatriate sooner or later finds his native land with its lack of educational facilities, its enforced military service, and its burdensome taxation, more than he bargained for, and returns to God's country, minus his money, to start all over again.

Sentiment aside, it is a short-sighted policy that permits the immigrant, who becomes more and more of an asset as he accumulates money and acquires American ideals, to leave the country, when a little guidance and encouragement would transform him into one of the most stupendous productive forces of our country.

I hope you will not think I am a back-to-the-soiler. I am not. I do not believe that there is any greater virtue in making two blades of grass grow where formerly there grew one, than in building two automobiles where formerly there was but one. Besides, the automobile has been the greatest single influence in farming of all time. I am not especially interested in the reclamation of the desert, the swamp or the abandoned farm. I am more interested in the human factor engaged in the work of reclamation. I am not nearly as much interested in increased agricultural production as in the agricultural producer. I don't even care a straw about the increased cost of living—though the Lord only knows I have more than academic interest in the subject—but what interests me most are the thousands of soul-weary, land-hungry human beings—native as well as immigrant—taxing their energies to the utmost in the ultimate hope of exchanging some day the congested city for God's open country, the tenement for the homestead, the factory and mine for the farm.

This, in brief, is the problem of the insolvent farmer — the problem of the landless.

How Is Problem to Be Solved?

Europe, in its usual way of doing things, has made the problem of the insolvent farmer political and governmental. Russia adopted this solution in dealing with the newly freed serfs, and in its Siberian colonization. Germany employed it in its colonization policy in the Polish provinces and in West Africa. The principle was accepted in England with the enactment of the Small Holdings Act in 1908. Even democratic Australia and New Zealand have dealt with the subject on a semi-political basis. The indications are that in this country we are tending in the same direction. The Crosser Bill, introduced in Congress last February, to my mind a most astonishing legislative potpourri of feudalism, communism, Dowieism, prohibition and Utopia, is, nevertheless sound in so far as it is a recognition of the social and political significance of this problem.

But conditions here are so different that I cannot believe that the problem has as yet reached the stage of national legislation. The problem of Maine, with 5 per cent of its farms occupied by tenants, is not the same as the problem of Mississippi, with 67 per cent of its farms in the hands of tenants. The problem of Iowa, with 95.4 per cent of its area in farms, is not identical with that of Arizona, with 1.7 per cent of its area in farms. Federal action, therefore, is manifestly open to grave objection. Besides, not only does the subject appear to come within the special province of the states, but they are clearly more competent to deal with it.

But while I believe that any state desiring to develop its agricultural resources or where farm tenancy has become a menace in its body politic cannot go very far wrong in recognizing the social and political significance of these problems and in endeavoring to solve them through the use of its credit and taxing power, I am not altogether convinced that state action is indispensable, or that it is even the best or most practicable solution of this vital—and, in the last analysis, national—problem. Apart from any political consideration, the states where the problem is the most acute are the least likely to deal with it on rational business lines. And it is on business lines alone that the problem can be satisfactorily dealt with. Let

Sir Horace Plunkett Commends Plan

IT AFFORDS me pleasure to commend to the American public Mr. Leonard G. Robinson's address on the Insolvent Farmers delivered at the 1916 National Conference on Marketing and Farm Credits in Chicago. I have followed Mr. Robinson's splendid work and have a high regard for it both in its theoretic and practical phases.

As regards his plan for an agrarian bank, if it should be carried out on co-operative lines there should be no doubt as to its immense helpfulness in solving the problem of the tenant who wishes to buy his farm or the poor man, whether native or immigrant, who wishes to get a start upon the land from which all such are now barred.

If the past experience of the Jewish Agricultural and Industrial Aid Society can be made use of, it will go far to insure the lasting success of Mr. Robinson's plan.

His suggestions with regard to the financing of such a movement appeals to me as being particularly appropriate at the present time; and I trust that public-spirited persons of wealth will respond to the suggestion and work out a plan for supplementing the Federal Farm Loan Act incorporating the best features of self-help and co-operation. Such a move would go far to working out the next steps in the distribution of immigrant and native population over the land and to the working out of a more normal relation of occupiers to the land.

me give you a bit of my own experience.

Experience of Philanthropic Society

The Jewish Agricultural and Industrial Aid Society, with which organization I have the honor of heing identified, has heen engaged in solving the problem of the insolvent farmer—in its limited and restricted sphere, to he sure, hut none the less effectively—for seventeen years. During that time it has estahlished upon farms 3,500 families in thirty-six states of the Union and in Canada. The total financial outlay amounted to $2,065,391.13.

To help so many with so small an outlay requires not only financing hut finessing. How is it accomplished? The first step is to tahoo the first mortgage. It is only in extreme emergencies that we make a first mortgage loan. We leave the first mortgage to the vendor or the farm, the hank, the insurance company, or the private investor. The next step is for us to take what is left over and what nohody else can he coaxed. cajoled, or sandbagged to take. For example: Of the 396 loans made last year, only forty-four were secured by first mortgages, while 186 were on second mortgage, 108 on third mortgage, twenty-seven on fourth mortgage, four on fifth mortgage, thirteen on chattel mortgage, five on unsecured notes, and the remaining thirteen on purchase contract. Just to show you that all mortgages look alike to us, I will tell you that this year we made a loan for which our security is a sixth real estate mortgage on a farm in Connecticut. And I am willing to wager that we will not lose any money on this mortgage either.

"The insolvent farmer," says the Journal of the American Bankers' Association in a recent article reviewing our work, "is not such a had risk as might be supposed, even though working on charitahle aid." With loans decidedly marginal and security which is, to say the least, standardized, you will douhtless conclude that our losses must surely be appalling. Let us see. As I have stated, in seventeen years we have actually lent $2,065,391.13. Our total losses for the entire period aggregate $64,217.94; that is, 3.11 per cent. That our insolvent farmers are not as insolvent as they appear is shown by the way they meet their obligations. Last year their payments amounted to over $160,000, of which $40,000 was interest. This year they will aggregate about $200,000.

Just think. This is what was accomplished with farmers who were not only insolvent financially, hut agriculturally as well. What, therefore, could not he accomplished with our army of indigenous tenant farmers, inspired hy a new independence and a new hope? And what could not be accomplished with some of the-hest European farming material right in our midst if given a chance for land ownership, which to them is the emhlem of nobility? While wrestling with our own difficulties and solving our own prohlems, I have often wondered why American philanthropy, American statesmanship, American enlightened self-interest has so long overlooked a field of activity so pregnant with good, so fruitful in results, and yet so consonant with sound business and financial principles.

What is needed is a national organization—call it, if you will, the Agrarian Bank of America—that will perform on a nation-wide scale the same functions the Jewish Agricultural and Industrial Aid Society is performing for the Jewish immigrants.

The Agrarian Bank of America

It is not my intention here, nor is this the time or place, to enter into details. But let us consider very briefly what an institution of this kind ought to he like, and how its creation will react upon the status of the insolvent farmer, the tenant, the landless man, and our country's agriculture in general.

Our bank should have two kinds of capital stock. This stock should, on the one hand, consist of preferred shares to be subscrihed for hy investors. On the other hand, there should he the common shares—without par value—to be subscrihed for and owned only hy borrowers. The preferred stock should hc subscrihed for hy philanthropists and capitalists. I say philanthropists and capitalists advisedly. That is the only comhination that will work. The bank should stand midway between business and philanthropy, or—to put it more correctly—comhine business with philanthropy. It should not he a money making institution. Its operations should be conducted on a high social plane, and its stockholders should be satisfied with a moderate return—say 4 per cent—on their capital. At the same time it should not he considered a charity. Its philanthropy should he conducted according to the most approved business and financial principles and practice.

Having organized our hank, we can now revert to our friend, Bill Jones. In his district there are perhaps ahout 100 tenant farmers. They get in touch with the new hank. They arc advised, as a first step, to organize a national farm loan association under the Federal Farm Loan Act, and thus secure half of the money needed to huy their farms. As a second step, they are advised to organize themselves into another co-operative association—let us call them the Pioneer Farm Owners' Association. The third step is for the memhers to make application for loans through their association, each member buying one share of the common stock of the hank. The par value of each share shall be the same as the amount horrowed, 5 per cent to he paid in cash and the halance on call. The shares shall be elastic, their parity increasing or diminishing as the holder's indebtedness is increased or reduced. Loans are to he secured hy second mortgages, repayahle hy amortization, with interest at 6 per cent.

Although, as the operations of the Jewish Agricultural and Industrial Aid Society clearly show, losses even on suhstandard mortgages are negligible, it is ohviously necessary, if our hank is to he a paying institution, to surround these mortgages with sufficient safeguards to eliminate all losses, so that not only will there he no impairment of capital, hut there will he adequate provision for expenses and dividends. This is to be accomplished through a system of reserves—three in number—and a sinking fund, to wit:

1. PRIMARY RESERVE: The interest rate, as we have seen, is to he fixed at 6 per cent and the dividends at 4 per cent. This gives us a margin of 2 per cent. One per cent should he quite sufficient to cover expenses. The other 1 per cent is to be set aside as the Primary Reserve fund for meeting losses as they may occur.

2. SECONDARY RESERVE: The 5 per cent paid hy the members on account of their shares shall constitute a Secondary Reserve fund, and shall he drawn on only after the Primary Reserve fund has heen exhausted.

3. TERTIARY RESERVE: In the event that the Primary and Secondary reserves are insufficient to cover the losses, the unpaid halance on the common shares shall constitute the Tertiary Reserve fund—a final reserve to be assessed against in proportion to their parity; that is, the unpaid balance of the holder's indehtedness.

4. SINKING FUND: Should the reserves first named be more than sufficient to meet losses, the surplus should go into a sinking fund. When a member's interest in the sinking fund, and its accumulations, shall reach parity—be equal to his indebtedness—the indehtedness shall he cancelled, his sharc retired, and the memher relieved from all further liahility.

Amount of Capital Required

What should be the. capital of this bank? All I can say is that the capital should he large. With an initial capital of $10,000,000, and with the Federal Farm Loan system and other availahle agencies carrying the primary liens, approximately 5,000 families—at an average of $2,000 per family—can be satisfactorily estahlished, and out of the repayments on the original loans, more families can he added each year. The income on an initial capitalization of $10,000,000, or even $5,000,000, should—with loans made at 6 per cent—be ample to cover all costs of administration, make provisions for losses and reserves, and leave enough to pay a 4 per cent dividend on the preferred stock.

As I have stated, this is not the time or the place to go into the complex details of organization, administration, and operation of this hank. What I have attempted to show is that the insolvent farmer is, to all intents and purposes, in no hetter position today than he ever was. I have endeavored to set forth the guiding principles that are essential to the solution of this prohlem. I have outlined hriefly a plan to make these principles operative. I firmly believe there is enough vision and imagination, and enough puhlic spirit and enlightened self-interest, in this country to solve the prohlem of the insolvent farmer along rational business lines, and to make the Agrarian Bank of America a 4 per cent philanthropy combined with 100 per cent business.

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What Is Fertility?

Many answers are given to the question, "What is fertility?" We could not take the space to reproduce the replies frequently given to this simple question.

Some have defined fertility in terms of plant food only, others have restricted the scope of their definition to a single plant food; while still others have almost neglected the plant factor. Who is right, and who is wrong?

According to the definition given by the American Fertilizer Association, fertility is "the crop-producing power of the soil"—this and nothing else. There are many things contributing to this crop-producing power, such as water, plant food, organic matter, and the bacterial activity of the soil. Where conditions in any one of these are poor, the growth of crops is affected adversely. For instance, take the soil of the Sahara Desert. It cannot produce crops, despite the fact that it has plenty of plant food. It lacks one of the other essentials, viz., water. Similarly, the alkaline soils of some sections of this country are not fertile. There is no lack of plant food here—on the contrary it is the presence of certain soluble salts, some of which contain plant food, that renders this soil unproductive.

Plant foods, especially commercial plant foods, can be most successfully used where plant food is the first factor limiting crop growth. Fertilizer on barhen sand dunes is generally useless, for it is lack of water that limits growth under these conditions. Fertilizer, likewise, is not often successfully used on poorly drained soils, for here it is the bad effects of surplus water that limit crop growth. On other soils lime must be applied before fertilizer can be used to good advantage. While we do not consider lime a plant food, yet it is certainly true that on soils which are particularly acid, lime must be applied before the plant food in fertilizers can be used by the crops.

A good illustration of this viewpoint of fertility is to represent all the different factors in production by staves of varying lengths made into a barrel, the highest point to which the barrel can be filled representing the largest possible yield from the combination of all the essentials. Naturally the barrel cannot be filled higher than to the level of the shortest stave. So it is with soil fertility, used in this broader sense. The shortest stave will govern the size of crops which may be grown. This shortest stave may be nitrogen or it may be lime. It may be deficient moisture. Poor farming methods may be responsible for poor crops, even though plenty of plant food is applied in manure and fertilizers. In this last analysis, fertility must include the good soils where lime is applied from time to time if necessary to correct acidity, where attention is paid to keeping up the supply of organic matter, where proper tillage is used to conserve moisture in order that fertilizers and the plant food in the soil may be used to the best advantage and all other essentials to plant growth.

Top-Dressing Wheat Pays

There is plenty of evidence to prove that it is profitable to top-dress wheat during the winter with stable manure. Results of experiments covering twenty-five years at the Ohio Experiment Station show that top-dressing wheat when the ground is frozen has always been profitable.

On plots treated with fresh manure or manure taken directly from the stable and spread on sod in a three-year rotation of corn, wheat and clover, the increase over unmanured plots has been twenty-three bushels of corn, ten bushels of wheat and 1,360 pounds of hay to the acre. Where the manure had been exposed to the weather for three months and then applied, the resulting increase was nineteen bushels of corn, nine bushels of wheat and 800 pounds of hay.

Where manure has been applied directly to the wheat land before seeding in a five-year rotation of corn, oats, wheat, clover and timothy, the increase of wheat per acre has been as high as thirteen bushels when an eight-ton application of manure was used. Where only four tons were applied, eight bushels of wheat was secured as the increase, showing that a light application returns about 25 per cent more per ton of manure but the increase per acre was enough greater from the eight-ton dressing to make this the more profitable rate of application.

Manure spread on the growing wheat may not produce so great an increase, but it is sure to be well worth the labor if carefully applied.



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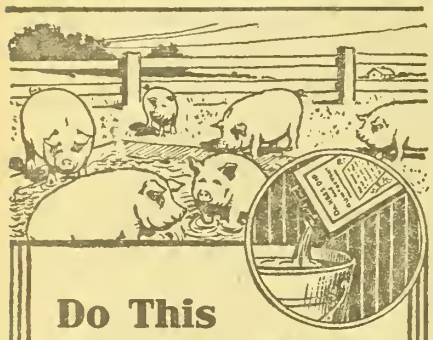

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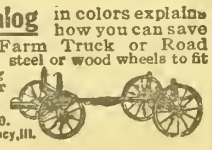

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THE STATE'S DAIRY FARMS

IN the farms connected with tbe penal and charitable institutions of Kansas over seven hundred dairy cows are kept to supply milk to the inmates. Formerly each berd was managed independently, but about a year ago the Board of Administration decided that this was not a very businesslike plan and the department of dairy husbandry at our agricultural college was given the job of actively managing all tbe dairy cattle owned by tbe state.

When tbis department took cbarge of these various herds of dairy cattle last December they totaled approximately 838 animals—68 registered and 770 grade. At present there are approximately 704 animals, about 85 of which are registered and 619 grades. The number has been cut down slightly but more registered cows and higher grades have replaced tbe low producing cows, tbus raising the quality of the herds and making them more profitable.

In December, 1917, only six institutions were keeping milk records of tbeir cows wbile now there are eleven. Eleven months ago six institutions were keeping feed records while at present there are twelve. For some of tbe herds systematic books have been installed and all the animals numbered and tagged in such a way that tbeir identity is beyond question. The dairy department bas done much toward encouragement of the production of cleaner milk and better feeding methods.

In co-operation with the department of veterinary science the department of dairy husbandry bas had all tbe animals tested for tuberculosis twice during the past year. The diseased and low producing cows are gradually eliminated, more complete records are being kept, and more businesslike management is being employed. James A. Kimball, state manager, and the superintendent of the various institutions have shown themselves anxious to co-operate with the department of dairy husbandry.

It is planned to place these herds on the "accredited herd list" of the United States Government, whicb means that in each herd no animal affected with tuberculosis has been found upon two annual or three semi-annual tuberculin tests. These tests will be conducted by a federal veterinarian. Upon the advice of representatives of the dairy department some of the unprofitable cows bave been sold to the butcher and these replaced by high grade or registered cows.

A representative of the department of dairy husbandry recently went to Vermont and purchased a foundation herd of Ayrshires for the reformatory at Hutchinson. The entire shipment of thirty-nine head included nine bead of registered cows and thirty bead of bigh grades. All the other institutions in the state have Holsteins. A few weeks ago J. B. Fitch, professor of dairy husbandry, purchased eight registered Holsteins for the Kansas penitentiary at Lansing at a public sale held in Linwood.

Each of the institutions has some registered animals. The herds vary in size from forty bead up to 150 head, depending on the amount of farm land available for tbe support of each herd.

The twelve institutional herds in this state were placed formally under the management of the department of dairy husbandry on July 1, 1917. L. H. Fairchild took active charge of this work in December, 1917, and was largely responsible for the progress made until April, 1918, when he enlisted in tbe United States Army. Since September 1, 1918, F. W. Atkeson has had charge of the work.

New Cow Test Association

The dairymen of Jackson County bave just recently organized a cow-testing association, and as soon as a tester can be found they will be ready to begin operations. There are many good dairymen in this county, and this is a most progressive move they have made. They still have room for two or three men in the association.

Forming an association for co-operative testing of tbe productive capacity of the cows kept on dairy farms is one of the most progressive moves any dairy community can make. The dairyman without production records on the individual cows of his herd is groping in the dark. The cow-testing association is a means of getting the records at a minimum of expense. The tester employed by such an association as bas just been formed in Jackson County spends all of bis time going from herd to herd visiting each man's place once a month and spending one or two days witb him. He will weigh tbe milk from each cow, test it for butter fat and estimate the approximate amount of feed each cow is eating. He will then figure just what each cow has been doing for her owner during tbe month. The dairyman thus knows at any time just what each one of his cows is doing for him. Tbe tester is a man who is well posted on dairy work and will be able to make many suggestions on feeding and general care of dairy cows.

By having tbis individual record of what each one of their cows is doing, the members of the cow-testing association can weed out the poor ones, and in selling any of the good cows whicb it may be necessary to dispose of they can often get from $25 to $50 more because they are able to sbow in black and white exactly what the cow is doing. An instance might be cited in connection with what happened in Dickinson County, where the pioneer cow-testing association of the state has been in operation for a number of years. Two men beld a combination sale, one belonging to the cow-testing association and baving records on bis cows and the otber man not a member and with no records. The herds looked very much alike. When the sale was over it was found that the man belonging to the cow-testing association had received 40 per cent more for his cattle than did the other man. The buyers were willing to give more because in addition to looking at the animals tbey could look at their past records for production.

Wolf-Trapping Suggestions

Any trapper who goes after wolf must recognize that tbe first precaution to take in bis trapping enterprises is to destroy all traces of the human odor. The wolf is very suspicious of any human scent and strategy must be resorted to in order to catch him. Some trappers dip their traps in melted beeswax or boil tbem in strong sage tea before setting. Gloves, well rubbed with a good trail scent, sbould always be used in setting traps for wolf.

A small piece of cotton or wool should be placed under tbe pan of tbe trap in order to prevent anything from getting under tbe pan. Traps should be concealed carefully. One good way to trap wolf is to dig a hole along a cowpatb near a fence or stream, put the trap in tbe hole, and sprinkle a little dirt and burnt hay over it. A few drops of tbe best wolf bait sbould be placed around tbe trap. Good results can also be secured if the trap is set in this manner near a badger or prairie dog mound.

An excellent method for trapping the wolf wben the snow is on the ground is the following: Place a heavy stone in a sack and scent both sides of the sack well with a good trail scent. Then get on your horse and ride out to where you intend to make your set, dragging the sack after you. Then pull tbe drag close to your horse and make a short turn. Tbis will also lead the wolf to make a short turn and he will not step over the trap. Extend the snow path across the prairie from stream to stream so that there will be a scented trail for the wolf to follow up to the trap. After digging a hole in the snow, the trap should be laid on a piece of wbite paper, set, and then carefully covered with a tbin layer of snow. A few drops of the best wolf bait should be sprinkled up and down the trail near the trap.

In preparing the wolf skin for the market it should be cased fur side out and very seldom taken off open. Pelts sbould be dried in a cool, dry place—not near fire or sun; good stretchers should be used. When dry enough to hold their shape they are ready for shipment.

Meat-Inspection Figures Given

The federal meat-inspection service covered 884 establishments in 253 cities and towns in the fiscal year 1918. The figures are in the annual report of the Secretary of Agriculture.

There were slaughtered under inspection 10,938,287 cattle, 3,323,079 calves, 8,769,498 sheep, 149,503 goats, and 35,449,247 swine—a total of 58,629,612 animals. Compared with the preceding fiscal year these figures represent a decline of 5,000,000 in the total number of animals, but an increase of nearly 1,750,000 cattle and more than 600,000 calves.



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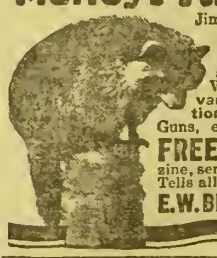

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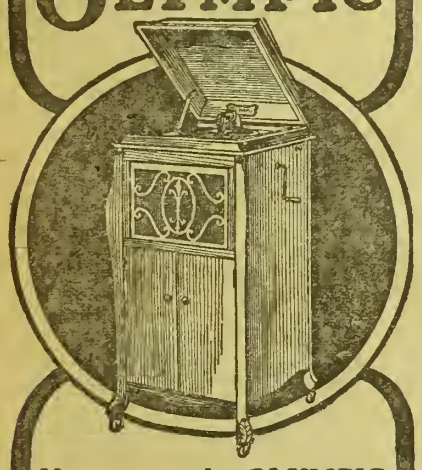

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Condemnations amounted to 206,265 animals or carcasses and 528,481 parts of carcasses. The supervision of meats and products prepared and processed covered 7,905,184,924 pounds, and resulted in the condemnation of 17,543,184 pounds. There were certified for export 2,510,446,802 pounds of meat and meat-food products.

Bells on Sheep

Fear of dogs is often given as the principal reason for not keeping sheep. Belling the sheep is suggested as a means of overcoming this danger. H. J. Millard, a Massachusetts doctor, is quoted as follows in Our Dumb Animals:

"During my professional career, which extends over a period of half a century, it has been my privilege to visit farmers who have kept and raised sheep, and I have observed that where they have put a strap around the necks of some of them to which was attached a bell, they had no trouble from the dogs. I feel confident from long observation that farmers who own sheep can, by putting bells on some of the largest and most active ones—say one to every eight in number—keep the dogs out of their flocks.

"The sound of the bells frightens or intimidates the dogs. Farmers are in my opinion too much frightened over the dog scare, and while the sheep industry is under discussion this method of which I speak may be of some value to some one. Whether this suggestion is new or old, it is certainly worth trying."

The man who uses the dome of the heavens as a roof to his tool house may have a long reach for his implements when he needs them, and should he be so fortunate as to find all his farm tools, they will be seriously injured. Gather them up, clean and grease them, and store them in a safe, dry place. You will save time and money.

Official Year Records of Kansas Cows

IN THE table below are given the twelve-months milk and butter fat records of the five cows in each class standing at the top of the list in Kansas. Only a few of these official records have been made by individual breeders. Kansas breeders have not as yet been able to make many long-time official records. There may be plenty of cows in Kansas that could make better records than the ones here shown, but these stand as the official records. Breeders of the state are beginning to realize the necessity of having more official records. The expense is the main obstacle. This might be much reduced by some sort of co-operative arrangement.

HEIFERS TWO YEARS OLD

Name of Cow	Owner	Milk, Pounds	B'fat, Pounds	Breed
Leah Campbell Mutual Jess 165446	K. S. A. C.	15,170.3	533.87	Holstein
Melrose Canary Bell 37838	K. S. A. C.	13,785.0	502.91	Ayrshire
Bangora's Melrose 37839	K. S. A. C.	12,562.0	482.79	Ayrshire
Sultana's Jolly Tipsy 361499	K. S. A. C.	7,940.5	464.90	Jersey
Poland Beauty Fobes H'gerv'd 165447	K. S. A. C.	13,833.1	456.45	Holstein

COWS TWO-AND-A-HALF TO THREE YEARS

Name of Cow	Owner	Milk, Pounds	B'fat, Pounds	Breed
Bernice's Countess 2d 33678	K. S. A. C.	9,991.4	521.79	Guernsey
Sultana's Princess Nunda 116259	J. A. Comp	8,267.9	507.33	Jersey
Canary Poland Clothilde 213932	K. S. A. C.	14,952.9	471.36	Holstein
Imp. Ladyship II of La Turquie 39675	C. P. Holmes	8,232.3	435.98	Guernsey
Imp. Hatton's Maggie III 39622	C. F. Holmes	7,626.8	429.39	Guernsey

COWS THREE TO THREE-AND-A-HALF YEARS

Name of Cow	Owner	Milk, Pounds	B'fat, Pounds	Breed
Leah Campbell Mutual Jess 165446	K. S. A. C.	13,192.2	460.83	Holstein
Reka Mooie Segis 255617	E. S. Engle & Son	13,575.3	424.76	Holstein
Dewey's Branford Pet 259046	J. R. Sterling	7,235.5	414.10	Jersey
Mattie Wayne De Kol 180029	K. S. A. C.	10,737.2	400.79	Holstein
Exile's Dolly Varden 290503	J. A. Comp	7,384.6	399.37	Jersey

COWS THREE-AND-A-HALF TO FOUR YEARS

Name of Cow	Owner	Milk, Pounds	B'fat, Pounds	Breed
Imp. Daisy of the Hall 35212	C. F. Holmes	11,366.4	581.18	Guernsey
College Josephine Pontiac 179078	K. S. A. C.	16,417.9	543.94	Holstein
Elizabeth of Juneau 26282	K. S. A. C.	15,122.0	536.15	Ayrshire
Cameola of Sand Springs 220640	E. S. Engle & Son	14,720.8	532.35	Holstein
Canary Bell 25748	K. S. A. C.	12,809.0	490.74	Ayrshire

COWS FOUR TO FOUR-AND-A-HALF YEARS

Name of Cow	Owner	Milk, Pounds	B'fat, Pounds	Breed
Maid Henry Pontiac 200383	K. S. A. C.	14,502.0	514.72	Holstein
Genesta Burke De Kol 204925	A. S. Neale	15,582.4	510.50	Holstein
Canary Poland Clothilde 213932	K. S. A. C.	15,673.1	504.18	Holstein
Doctor's Ladylove 230373	K. S. A. C.	9,913 7	495.10	Jersey
Fern's Revelation 239366	K. S. A. C.	8,313.3	480.00	Jersey

COWS FOUR-AND-A-HALF TO FIVE YEARS

Name of Cow	Owner	Milk, Pounds	B'fat, Pounds	Breed
Blossom Mechthilde 2d 111782	K. S. A. C.	17,481.7	636.89	Holstein
Kho 265045	K. S. A. C.	12,518.5	615.23	Jersey
Leah Campbell Mutual Jess 165446	K. S. A. C.	13,607.3	519.24	Holstein
Fontaine's Brown Bess 277836	Oliver & Doran	9,695.3	501.31	Jersey
Tommy's Mermaid 260596	K. S. A. C.	8,454.0	496.50	Jersey

COWS FIVE YEARS AND OVER

Name of Cow	Owner	Milk, Pounds	B'fat, Pounds	Breed
Canary Bell 25748	K. S. A. C.	19,863.1	744.50	Ayrshire
Maid Henry 54878	K. S. A. C.	19,600.4	716.27	Holstein
Maid Henry Pontiac 200383	K. S. A. C.	18,377.2	695.61	Holstein
Canary Bell 25748	K. S. A. C.	17,375.0	667.10	Ayrshire
The Owl's Design 204251	K. S. A. C.	14,606.3	650.10	Jersey

FIVE HIGHEST BUTTER FAT RECORDS IN STATE OF KANSAS

Name of Cow	Owner	Milk, Pounds	B'fat, Pounds	Breed
Canary Bell 25748	K. S. A. C.	19 863.1	744.50	Ayrshire
Maid Henry 54878	K. S. A. C.	19,600.4	716.27	Holstein
Maid Henry Pontiac 200383	K. S. A. C.	18,377.2	695.61	Holstein
Canary Bell 25748	K. S. A. C.	17,375.0	667.10	Ayrshire
The Owl's Design 204251	K. S. A. C.	14,606.3	650.10	Jersey

FIVE HIGHEST MILK RECORDS IN STATE OF KANSAS

Name of Cow	Owner	Milk, Pounds	B'fat, Pounds	Breed
Canary Bell 25748	K. S. A. C.	19,863.1	744.50	Ayrshire
Cornucopia Johanna Beets 139440	E. S. Engle & Son	19,821.8	542.60	Holstein
Maid Henry 54878	K. S. A. C.	19,600.4	716.27	Holstein
Maid Henry Pontiac 200383	K. S. A. C.	18,377.2	695.61	Holstein
Blossom Mechthilde 2d 111782	K. S. A. C.	17,481.7	629.89	Holstein

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PURE-BRED S. C. WHITE LEGHORN cockerels, $2. Mrs. W. G. Prather, Eureka, Kansas.

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HELPFUL POULTRY HINTS

Practical Ideas on How to Fill the Egg Basket and Increase Profits

Poultry in Food Program

THE importance of poultry in the food program should make poultry raising unusually attractive during the coming year. While poultry is not as well adapted for export as pork or beef, it can nevertheless be shipped in frozen condition. Chickens are used to a considerable extent by military hospitals and the American navy is also a large purchaser of poultry. poultry.

The principal demand, however, will be for domestic consumption to replace, in a measure, the meats needed for export. Outstanding merits of the poultry industry are the rapidity with which flocks may be enlarged or diminished in response to demand, and their adaptability for home consumption at any time of the year.

During the period of reconstruction these features make poultry a branch of agriculture having minimum market risks. The period between production and marketing is also relatively short; much of the labor can be performed by women if necessary, and under average farm conditions the feed required for poultry is largely a by-product not readily marketable. The American hen practices conservation by instinct.

Compared with other animals, the domestic fowl is a small unit, but wide distribution and large numbers make it a very important factor in supplying the nation's food requirements.

In anticipation of continued needs for large quantities of both poultry and eggs, the Food Administration points out the desirability of keeping laying hens and choice pullets, also of marketing only such surplus stock as is well developed and plump.

In brief, the poultry industry appears to be one of our national food resources which may wisely be developed both in amount and quality. The meat and eggs of our domestic fowls will help to maintain nutrition at home while the United States is supplying vast quantities of the foods required to stop famine and anarchy abroad.

Laying Rations for Hens

A dry-mash egg ration, as worked out by poultrymen at the Ohio Experiment Station, is made up of ground corn, two parts; bran, one part, and meat scrap, two parts. This mash when fed in connection with a grain mixture of corn and wheat gave an average annual production of 140 eggs per hen. Omitting the wheat would not be expected to lower the efficiency of the ration.

Other mashes made up of the same materials but in different proportions have not proven satisfactory as a laying ration for hens. When a large amount of meat scrap was used in the ration fewer eggs were produced than when a medium amount was fed; similarly, when only a small amount of meat scrap figured in the ration, the egg production was unsatisfactory. From the entire experiment the poultrymen have decided that a satisfactory ration for egg production should contain 12 per cent of meat scrap, but wheat is not necessary for laying hens if the proper proportion of corn, bran and meat scrap are maintained.

Farmers or poultrymen who have a supply of buttermilk or skim milk in large enough quantities to feed laying hens all they will drink may leave out the meat scrap, as these by-products form a good substitute for meat scrap. Cheaper sources of protein, such as cottonseed meal, linseed meal or soy beans, however, are not satisfactory, as they are not secured from animal sources. Experiments in several different states have verified the unprofitableness of attempting to use proteins for laying hens from vegetable sources.

Poultry Diseases Preventable

Chicken pox, roup, lice, and many others of the diseases and troubles affecting poultry are due to carelessness and can be prevented. "Almost every known disease can be avoided by careful consideration and the exercise of common sense," says John L. Prehn, extension specialist in poultry. These three rules should be kept in mind: Do not overcrowd; do not keep weaklings; do not handle your poultry with any less degree of efficiency than you use in handling cattle, horses, hogs or sheep.

"The great drawback to profitable poultry keeping is the lack of careful and timely consideration, especially in sanitation. The house or shed where poultry is kept should be clean and sanitary. The fowls should be kept free from lice. The drinking water should be fresh and in clean vessels.

Missouri Egg Rations

Here is a good winter egg-producing ration for a hundred hens, as worked out by the Missouri Experiment Station:

Scratch grain, 10 pounds shelled corn, 5 pounds dry thrashed oats; dry mash, 3 pounds wheat bran, 3 pounds shorts, 1½ pounds commercial meat scrap. Where milk is plentiful, 3 gallons of skim milk or butter milk will take the place of the meat scrap. Either milk or some form of lean meat must be supplied in every ration for successful winter egg production. The amounts are for one day's feeding. During the past year this ration has been fed on a number of Missouri farms with good results.

Poultry Culling Pays

If by culling the poultry flock the drones can be removed and production be made to average more eggs from each hen throughout the winter, a lot of good feed will be saved. Also, the winter layers are the birds which should furnish the eggs for setting early in the spring. A report comes from Missouri that farmers in various counties of that state began culling their flocks early in the fall and are pleased with the returns now. They are getting as many eggs from a less number of hens and are saving feed. One Clinton County farmer kept a record of his flock of 166 hens four days before culling and found that they produced an average of 33½ eggs a day. He culled 77 hens from the flock and the part of the flock retained produced an average of 32 eggs a day for the nine days after culling. The farmer said he could not afford to feed 77 hens for an egg and a half a day.

Greater Egg Yield Needed

The urgent need for a large supply of fresh eggs in the immediate future is a result of several factors, among which, says the Food Administration, the following are especially noteworthy:

Stocks of storage eggs late in November were about 21 per cent less than a year ago.

The United States is sharing these storage eggs with the Allies, whose production of poultry products is low.

Importations of Chinese dried eggs was stopped in February, 1918, and bakers have since been using shell eggs.

Domestic demand for eggs has been large, a condition attributive probably to the noticeable improvement in quality as a result of compulsory candling.

Current receipts of poultry at the markets consist chiefly of cockerels and laying hens are rarely found. For these reasons and from direct field reports, stocks of pullets and hens in producing areas are believed to be larger than in any previous year. In addition, the cost of commercial poultry feed is less than a year ago. With these important factors favorable to poultrymen, the Food Administration emphasizes the need for methods which will result in maximum output of winter eggs.

Changing Attitude in Farming

Farming is being adapted more and more to a business basis, and farmers are being recognized by the business men of the cities as having real business standing. The expression, "Farmers and business men," has become "Farmers and other business men." Once the young man learned the farming trade by working mostly with his father and brothers: now he learns farming in that way and also in school and college, and by the study and practice of modern business methods, so that he becomes a different type of farmer from the countryman of one or two generations ago.

The demand of the present farmer has brought about a new method of dealing with him and supplying him with any available information he may desire. It is recognized that it is not good practice to load farmers with advice—to tell them what to do and when to do it—and this changed attitude brings more satisfactory relations to all concerned. It has resulted in freer consultation and the arrival at safer conclusions and more correct practices than could possibly come from working separately.

Free Feed For Half of Your Stock

If you feed alfalfa, do not waste the stems and stalks. There is just as much nutritive value in the roughage of alfalfa as in the foliage. Stock will eat this roughage with relish and get just as much nourishment from it as from the foliage if it is reduced to a satisfactory fineness for feeding. As stalks form half the bulk of alfalfa, you can double the feeding value by reducing it with a

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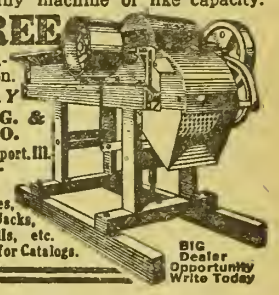

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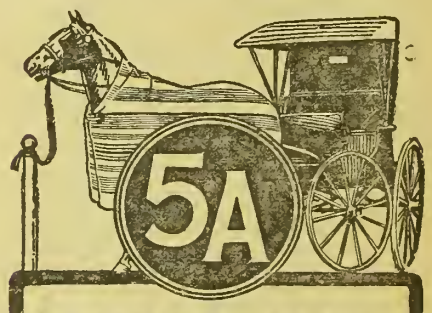

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Interesting War Items

American Soldiers in France

IT WAS my privilege to visit every port where American troops have been landed since we began the war," says Dan Poling, the well-known "Y" man who has done such effective work in France. "It was my privilege to go into every camp where we had any considerable number of men. I went with each division as it went into the line, each division that went in after my arrival in Europe. I saw the American soldier in every circumstance of warfare. I messed with a private soldier. I slept with him and with the things he sleeps with. I was with the First Division when they experienced a gas attack last February. Six times in the gray of that morning I drew the black waterproof above the face of my country's dead. Three times in the absence of the chaplain I buried the dead. I say this not boastingly but to give weight to what I am about to say.

"I found the American soldier living on a higher plane than the plane of civilian life on this side of the water. I would not convey the impression that I found the soldiers sprouting wings. There are men in uniform who have committed great excesses, but the composite soldier of the United States overseas is worthy not only of the love that we could not deny him, but of our honor and respect as well. I found the men resenting more than anything else the things that called in question their essential fineness of mind and heart.

"There are two reasons for the soldied as I found him; first, his own spirit, and, second, the program of General John J. Pershing and his staff. Never did a nation present a program as complete as the welfare program of the army overseas. General Pershing's program for vice was absolute prohibition. It was my privilege to study that program at first hand, not only through interviews with commanding officers, beginning with an interview with General Pershing himself, not only from the study of general orders that came into my hands, but I studied conditions without an escort by night in great cities east, west, north and south. I went by train, I drove, and I walked. The attitude of the British military authorities as to houses of vice behind the lines has been completely changed as a result of the program of General Pershing. That represented a greater triumph of arms than came to the Americans a few weeks later.

"The American soldier will come marching back presently. When he gets back we will stand in pride and thank God that the triumph of his arms was not greater than the triumph of his own soul that made him fit for the military triumph."

To Justify Mother's Faith

"I would never have left the three stripes of a sergeant for the golden bar of a second lieutenant if it hadn't been for you-all's ambition in my behalf," writes a young soldier to his mother. He assures her that he is doing his best to merit further promotion, but is afraid he will not be able to "make it" now, as the time is so short.

On Shipboard

The following is a part of the diary of a United States soldier who had promised to give daily accounts of his experiences on board ship:

"Tuesday, 17th, 8 A. M. Feeling fine. Full of good cheer and porridge."

"Tuesday, 9 A. M. Still full of good cheer. Minus porridge."—Everybody's.

The Dignity of the Conqueror

Victory is probably a more severe test of the moral fiber of a people than war. Te degree of restraint exercised by a victorious nation varies with the stage of advancement. Savages scalp or torture or murder those whom they have defeated in battle. Those a little higher in the scale of civilization spare the lives of those they subdue, but make slaves of them. The most enlightened nations show the greatest magnanimity to a conquered foe, disdaining retaliation and revenge as beneath them. The dignifiecl attitude of a highly civilized nation toward its overpowered enemies could hardly be better exemplified than in the admonition of General Petain to his victorious French soldiers:

"Into that land of Alsace-Lorraine that is so dear to us, you will march as liberators. You will go farther, all the way into Germany, to occupy lands which are the necessary guarantee of just reparation. France has suffered in her ravaged fields and in her ruined villages. The freed provinces have had to submit to intolerable vexations and odious outrages, but you are not to answer these crimes by the commission of violences which, under the spur of your resentment, may seem to you legitimate. You are to remain under discipline and to show respect to person and property. You will know after having vanquished your adversary by force of arms, how to impress him further by the dignity of your attitude and the world will not know which to admire most, your conduct in success or your heroism in fighting."

Proud to Be an American

A captain in the medical corps of the American Expeditionary Force was sent to the front twice during big American drives and each time assigned to duty with an evacuation hospital where he helped to care for the boys as they came back from the battle field. He says:

"I certainly was glad to have a chance to help the boys when they needed help so badly. I never heard a cross word spoken to one of them by anybody. They were usually cheerful and you hardly ever heard a word of complaint from any of them."

In regard to supplies, he says:

"You can never get an idea of the immense stores of supplies that Uncle Sam has piled up over here—storehouses packed to the roof, American freight cars by the thousands, engines by the hundreds. You would not believe that there could be so many trucks in the world as he has here. Clothing, blankets, ammunition, splints, dressings, food in abundance—everything. There is no use starting to enumerate them. Political croakers over there will try to deceive the people, but take it from me, Uncle Sam has been on the job in every department since the war opened and he sure has got results. I am prouder than ever to be an American."

A Hazardous Task

The Chicago Tribune reports a curious incident from the Merville sector. A large herd of cows, which had been abandoned, was still grazing in No Man's Land between Nieppe forest and Merville.

The Tommies sat in their defenses for a long time, speculating longingly how fresh milk would taste.

Finally some hardy pioneers ventured forth with tins, and, amidst the singing of bullets, milked the cows. Doing dairy work in No Man's Land these days is the task of a man.

Meeting the General Half Way

General Wood noticed that a colored soldier at Camp Funston did not salute and, thinking he must be a newcomer, asked, "How long have you been here?"

"Oh, I's been here five days, Boss," was the reply. "How long you been here?"

Mutual Benefits

"The future generations of Germany will thank us for licking her, and we did it with the greatest of pleasure, so that makes it unanimous," writes an American soldier. "Old Europe will wake up and shake off the old clothes of the past and come out into the broad light of liberty as she now sees it in America. And we ourselves will value it more because we have had a little glimpse into the darkness and evil of old monarchies and the result of their domination."

Salvation Army Lassies

My brother and your son took a long, long trail to make this world a decent place to live in—always three thousand miles from home; sometimes almost six thousand miles from home. But I found womanhood in France; and you were there, and your spiritual presence lighted the way for those boys.

Always I will think of the Salvation Army in terms of doughnuts. I have heard the men call to each other: "Boys, there's an American girl just over the hill!" I have seen them stand looking hungrily at the girl behind the counter. They wanted just to hear her talk. A man said to me the other day: "I couldn't let my daughter go to France and face the dangers she would face there." I responded: "It is a great deal safer for her in France than in Boston, for there are a million boys over there anxious to die for her."—DAN POLING, Y. M. C. A. Secretary.

Never Again

A colored soldier in France was very seasick on the way over. He was talking about the voyage when he said: "I is an 'Merican cullud man, bawn and bred. I is a United States citizen, but lemme tell you all dat if de Atlantic ocean don't freeze ovah or if dey don't build a bridge across it, I is a Europe niggah from now on."

Classified Advertising

AGENTS WANTED

AGENTS—MAKE A DOLLAR AN HOUR. Sell Mendets, a patent patch for instantly mending leaks in all utensils. Sample package free. Collette Manufacturing Co., Dept. 103, Amsterdam, N. Y.

VICTORY TOY SOLDIERS—EVERYBODY buys them. Something new. Dealers and agents wanted everywhere. Sample, 10 cents. Liberty Toy Company of America, 3523 N. Grand Ave., St. Louis, Mo.

REAL ESTATE.

WRITE TOM BLODGETT, PINE BLUFF, Ark., for land bargains that will double in value.

WILL RENT LARGE ALFALFA AND stock farm. William Brandenburg, Wellington, Kansas.

GRAIN ELEVATOR AND LUMBER yard for sale. Owner has had over fifteen years' successful business. A fine opportunity in a good community. Address Number 10, Kansas Farmer.

FOR SALE—CAN OFFER YOU SOME fine corn, wheat and alfalfa farms, priced from $28.50 to $45 per acre. These farms are well improved, close to good town, and are real bargains. Write for price and description. F. D. Greene, Longton, Kan.

FOR SALE — QUARTER SECTION IN south part Osage County, Kansas. Three miles good R. R. town. One hundred twenty acres cultivated. Good soil, good improvements, well fenced; some wheat. Eighty dollars per acre. Will carry half on land. Easy interest. J. R. Bechtel, M. D., Lawrence, Kansas.

FARM LANDS

YOUR CHANCE IS IN CANADA—RICH lands and business opportunities offer you independence. Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; twenty years to pay; $2,000 loan in improvements. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock. Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allen Cameron, General Superintendent Land Branch, Canadian Pacific Railway, 234 Ninth Avenue, Calgary, Alberta.

AUTO TIRES.

TIRES — FORD, $6.75. LARGER SIZES, equally low. "Lowest tube prices." Booklet free. Economy Tire Co., Kansas City, Mo.

FARMS WANTED.

WANTED—TO hear from owner of good farm for sale. State cash price, full description. D. F. Bush, Minneapolis, Minn.

THE STRAY LIST.

TAKEN UP—BY THOS. H. WIX, OF Belmont Township, Woodson County, Kansas, on the 12th day of November, 1918, one yearling heifer, color red; has horns, no marks or brands. Appraised at $25. C. V. Orendorff, County Clerk.

TAKEN UP—ON THE FIRST DAY OF September, 1918, by Fred Manninger, residing six miles north of Anthony, Kansas, one horse colt, color black, weight about 700 pounds; white spot on forehead; appraised at $50. C. E. Kennedy, County Clerk, Anthony, Kan.

TAKEN UP BY ME ON THE WEBBER farm one-fourth mile north and one-fourth mile west of Blue Mound Corner, November 16, 1918, one bay gelding horse, smooth mouth with white star in forehead and white on end of nose; weight about 900 pounds. Taken up by J. O. Isely, Treece, Kansas. Estrayed before J. C. Huggins, J. P.

TAKEN UP BY ME ON NOVEMBER 27, 1918, one-half mile west of Treece, Kansas, and one and one-fourth (1¼) miles north, just north of the Southern Lead & Zinc Co. mine at Meade City, one blood bay mare about fifteen hands high, weight about 900 pounds, eight years old, right eye out and left one very weak; white speck on left shoulder; collar mark. Ed Doherty, Taker-up. Estrayed before J. C. Huggins, at Treece, Kansas.

CATTLE.

REGISTERED JERSEY BULL CALVES, $20 up. H. R. Harvey, Ulysses, Neb.

FOR SALE—RED POLL BULLS, ALL ages. Best of breeding. Priced reasonable. Lyons Bros., Route 3, Coffeyville, Kan.

FOR SALE—THREE REGISTERED HOLstein bulls. Serviceable age. J. C. George, Hampton, Neb.

SIX DOUBLE STANDARD POLLED DURham bulls of different ages, for sale. C. M. Albright, Overbrook, Kansas.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

SEVEN REGISTERED HOLSTEINS, FOUR young cows about to freshen; two heifers; one bull. Foundation stock. Come and see them or write at once to Wiebe Brothers, Lehigh, Kansas.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $25, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

FOR SALE — IMPORTED REGISTERED Guernsey cow, 7 years old, due Jannary 26. Bred to bull whose dam made 720 pounds butter fat; sire's dam made 775 pounds. Yearling bull and bull calf also. R. C. Krueger, Burlington, Kansas.

FOUR HIGH GRADE HOLSTEIN COWS, three Holstein heifers, one fine two-year-old Holstein bull from Canary Butter Boy King, gentle and quiet, not registered. Also De Laval cream separator No. 15, nearly new. Mrs. H. Buchenan, Route 3, Abilene, Kansas.

FARM WORK WANTED.

UNMARRIED FARMER (44) WOULD work farm where everything is furnished. Could come married. Geo. W. Leonard, Box 121, Akron, Ohio.

HORSES AND MULES.

FOR SALE OR TRADE — ONE MAMmoth, also one Spanish jack, both sure breeders. H. L. Summers, Twenty-third and Lincoln Streets, Topeka, Kan.

DOGS.

FOR SALE—A FEW HIGH CLASS COON, opossum and skunk dogs. Stamp for reply. A. F. Sampey, 317 East Mt. Vernon St., Springfield, Mo.

AIREDALES, COLLIES AND OLD ENGlish Shepherds. Pups, grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

SEEDS

WHITE SWEET CLOVER, REASONable. Sow broadcast on fall wheat. John Lewis, Madison, Kansas.

SEEDS — SEND FOR OUR NEW 1919 catalogue free. Hayes Seed House, Topeka, Kan.

OATS—FANCY RED TEXAS. SEND FOR sample. $1 per bushel. Hayes Seed House, Topeka, Kan.

SHEEP.

FOR SALE — 200 FINE COTSWOLD yearling ewes, bred to lamb in February and March. These ewes are large, heavy wooled and worth the price asked for. H. B. Browning, Linwood, Kan.

MISCELLANEOUS.

FOR SALE—POULTRY GRAIN SPROUTer, cheap. Mrs. Jefferis, Mildred, Kansas.

COW WEANER, CANNOT SUCK HERself, can eat and drink; guaranteed effective for calf and colt. Price, $1. L. S. Sanders, Atlanta, Kansas.

WANT A BELT POWER TRANSMITTER for your Ford? Don't pay more than $12.50 for it. Buy the Simplex. Simplest, haidiest, most practical. Write for circular. Frank R. Weisgerber, Salina, Kansas.

HONEY.

FOR SALE—1918 CROP OF HIGH GRADE table honey direct from bees to you. Guaranteed to be absolutely pure. Can containing 60 pounds net, $15.25. On orders for two cans or more the price is $15 per can and the freight is less on shipments of 100 pounds or over. Have dark honey for table or cooking purposes also, which I can recommend as pure and good. Single 60-pound can, $13, or $12.75 each for larger lots. Prices f. o. b. Hotchkiss, Colo. All cans securely boxed and strapped. Frank H. Drexel, Crawford, Colorado.

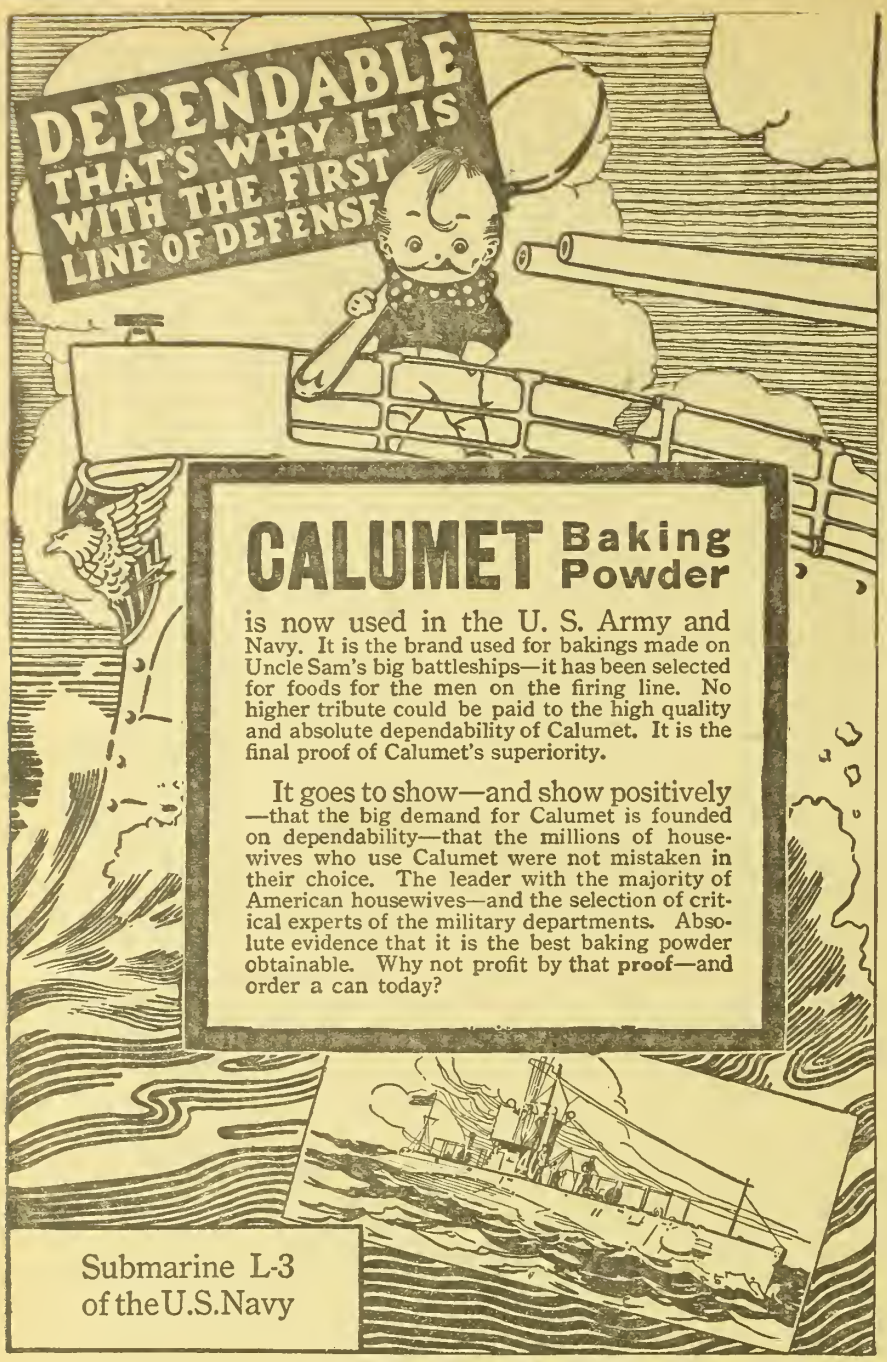
Real Estate For Sale

SHORT, MILD WINTERS

55 Acres in Southeastern Kansas, 4 miles from town of 5,000 people; small creek bottom and valley land, fair improvements. Possession March 1 next. Price, $3,575. Terms, $575 cash and balance five to twenty years at 6 per cent. Send for description. Address
The Allen County Investment Co., Iola, Kan.

SPECIAL BARGAIN

160 Acres, good 8-room house, 120 acres in cultivation, two miles from town of 1,000 people. All good land. Possession at once. Price, $67.50 per acre. $1,250 cash, balance long time at low rate. Send for description. Address
**THE ALLEN COUNTY INVESTMENT CO.
Iola, Kansas**



You Can Earn
$100.00
In the Next Few Weeks, Working When You Have the Spare Time

We want either a man or a woman in every locality. Must stand high in respect of people of the community and furnish at least three references with application.

NO CANVASSING OR SOLICITING

Address
KANSAS FARMER COMPANY
TOPEKA, KANSAS

A small table on casters to carry food from the kitchen to the dining room and dirty dishes from the dining room to the kitchen, to move near the stove when preserving, near the cabinet when baking, near the sink when washing dishes, and into an out-of-the-way corner when not needed at all, saves many steps in the course of the day.

Stew dried prunes in the water in which they were soaked until the liquid is almost all boiled away. If more juice is wanted add water to the syrup. The long, slow cooking is necessary to develop a rich flavor. If you can serve "real country cream" with prunes stewed in this way, you will have a most delicious as well as a most healthful dessert.

Potatoes for baking may be pricked with a fork, the ends cut slightly, or the potatoes greased to make them soft. To conserve fuel it might be well to boil potatoes twenty minutes in "jackets" and then bake.

It is not enough to have earned our livelihood; . . . the earning itself must have been serviceable to mankind. —R. L. Stevenson.

THE HOME-MAKER'S FORUM

ETHEL WHIPPLE, Editor

Letters from readers are always welcome. You are urged to send in helpful suggestions, to give your experiences, or to ask questions. Address the Editor of this Department.

Watch Your Children's Teeth

ONE of the facts which American mothers must face squarely if they are to do their part in building the future nation is concerned with the condition of the teeth of American children. How serious a matter this actually is is illustrated in the report of the Provost Marshal General to the Secretary of War, regarding the rejection of recruits for the new army in the first draft. Over a third, counting rejections at camps, were rejected for physical disqualifications. A preliminary analysis of the cause of rejection in 10,000 cases shows that more were turned back for defective teeth than for any other single cause except defects of the eyes.

Such a showing as this is the more discreditable since for years we have known that the children in our public schools have bad teeth, and the remedies for this condition have been understood. It is true that many mothers live at an inconvenient, even prohibitive, distance from dentists; and many more feel unable to bear the expense of dental work; but one of the greatest sources of danger to the children is the fact that so many mothers do not realize the serious and far-reaching effect of neglected teeth and do not understand how to prevent the need of expensive dental work.

The quality of every child's teeth is partly determined before he is born, when the embryonic teeth are growing. This is one of the many urgent reasons why the mother's diet and general hygiene should be scrupulously watched and every means to keep her in excellent health should be employed. After the baby is born the baby's food becomes a matter of prime importance if his teeth are to be strong. These matters are treated in two pamphlets, Prenatal Care and Infant Care, which will be sent free of charge upon request to the Children's Bureau, U. S. Department of Labor, Washington, D. C.

As the child grows out of babyhood, not only the diet, but the care of the milk teeth must be clearly understood. It has been demonstrated that the child's first teeth can be so preserved that he arrives at the age of second dentition without a decayed tooth, and the permanent set comes through in perfect condition. Like everything else in the child's care, this depends more upon the patient and intelligent care given each day by the mother in the home than upon outside help. Let us all, American mothers, resolve that our children shall not come to their school life nor later to their adult life as American citizens in anything less than the most nearly perfect condition which it is possible for us to secure.

NOTE.—This article by Mrs. Max West is one of the series issued by the Children's Bureau of the U. S. Department of Labor on How Mothers Can Help in Children's Year.

Chairman Fosdick's Report

Chairman Raymond B. Fosdick, of the Commission on Training Camp Activities, in his report to Secretary of War Baker, gives facts which show that the high ideal raised for the American soldier and sailor by Uncle Sam was attained. That ideal was that he should be physically fit and morally clean.

It was the business of the Commission, headed by Mr. Fosdick, to create conditions in and around army cantonments and training stations that would enable the soldier and sailor to fulfil these specifications.

The Commission immediately set about to remove temptation by driving out the vice agents and the liquor vendors from the territory surrounding camps and by substituting wholesome entertainment and recreational features. The old argument of the booze interests that men must be placed in temptation to make them strong morally by resisting, found no place in the program of the government.

Chairman Fosdick's report is most gratifying. He says that it was not the business of the Commission to apprehend and prosecute offenders, but rather to call the attention of conditions to municipal and state authorities and to assist them where they were unable to cope with the situation. Where there was no disposition on the part of the local authorities to help, publicity was resorted to, and no city could long endure the storm of protest resulting.

In most instances, however, Mr. Fosdick says the heartiest co-operation was given and the remarkable thing is that many public officials who "at first honestly believed the government had made a mistake in attempting to repress prostitution and to keep alcoholic liquors from men in the service" subordinated their own views and entered heartily into the government's campaign of law enforcement.

Mr. Fosdick reports that bootlegging has become a most hazardous occupation in the neighborhood of camps.

All honor to the government for the care it took in safeguarding the physical and moral welfare of its boys. Reward enough has come in the splendid way in which these boys acquited themselves on the battle field and the magnificent physical appearance they made, which elicited so many favorable comments from the notables of France and England.—The American Issue.

Recipe for a Happy New Year

Take twelve fine, full-grown months, see that these are thoroughly free from all old memories of bitterness, rancor, hate, or jealousy; cleanse them completely from every clinging spite; pick off all specks of pettiness and littleness; in short, see that these months are freed from all the past—have them as fresh and clean as when they first came from the great storehouse of Time.

Cut these months into thirty or thirty-one equal parts. This batch will keep for just one year. Do not attempt to make up the whole batch at one time—so many persons spoil the entire lot in this way—but prepare one day at a time, as follows:

Into each day put twelve parts of faith, eleven of patience, ten of courage, nine of work—some people omit this ingredient and so spoil the flavor of the rest—eight of hope, seven of fidelity, six of liberality, five of kindness, four of rest—leaving this out is like leaving the oil out of the salad; don't do it—three of prayer, two of meditation, and one well-selected resolution. If you have no conscientious scruples, put in about a teaspoonful of good spirits, a dash of fun, a pinch of folly, a sprinkling of play, and a heaping cupful of good humor.

Pour into the whole love ad libitum and mix with a vim. Cook thoroughly in a fervent heat; garnish with a few smiles and a sprig of joy; then serve with quietness, unselfishness, and cheerfulness, and a Happy New Year is a certainty.—Selected.

"There Is a Spiritual Body"

On the eve of undertaking a service for which he had volunteered and which he knew meant certain death or capture by the Huns, a soldier wrote to his mother, asking her to read as his message to her this passage from the great epic poem of India:

"Those who are wise in spiritual things grieve neither for the dead nor for the living. I myself never was not, nor thou, nor all the princes of the earth, nor shall we ever hereafter cease to be. . . . These finite bodies. which envelop the souls inhabiting them, are said to belong to Him, the eternal, indestructible, unprovable Spirit who is in the body. . . . The man who believeth that it is this spirit which killeth, and he who thinketh it may be destroyed, are

both alike deceived, for it neither killetb, nor is killed. . . . It is not slain when tbis, its mortal frame, is destroyed.

". . . As a man tbroweth away old garments and puttetb on new, even so the dweller in the body, having quitted its old mortal frame, entereth new. . . . Knowing it to be tbus, tbou shouldst not grieve."

The School Lunch Basket

It is most essential to good health that the scbool child have a nutritious, well-packed noonday lunch. Tbese lunch meals, wbich must he packed in a closed container and often carried some distance by the child, must supply materials for health and strength as well as growth. To prepare a basket lunch that will satisfy the appetites of bungry, growing boys and girls and contain the different kinds of food necessary for health, and to vary tbis from day to day, is a difficult problem. We are sure motbers of school children who carry their noonday lunch will welcome the following suggested hills of fare for tbe lunch, given in tbe Bi-Weekly Newsletter of the University of Idaho:

1. Sandwiches witb sliced tender meat for filling; haked apple; oatmeal cookies.

2. Slices of meat loaf or bean loaf; bread and hutter sandwiches; stewed fruit; gingerhread.

3. Bottle of milk; tbin corn bread and butter; dates; apple.

4. Cottage cheese; rye bread; celery, and honey drop cakes.

5. Egg and lettuce sandwicbes made of oatmeal bread; cornmeal cakes, and fruit.

6. Rice cooked in skim milk and molded in cups; cornmeal wafers, and baked or stewed apples.

If possihle the lunch should include a warm soup or drink, as sucb articles are conducive to slower eating and improved digestion. It is also necessary that these lunches observe tbe rules of conservation. Bread made from victory flour, sweets from cbopped dried fruits, and fish, eggs and poultry in place of more solid meats may be used. Some lunches which may be prepared partly or entirely at school, if tbe scbool has the necessary equipment, are:

1. Creamed potatoes, corn biscuits, and fruit paste made from chopped figs, dates and raisins.

2. Codfish chowder; cornmeal wafers; orange or sliced oranges, and oatmeal cookies.

3. Spoon bread; cocoa; raisin sandwiches, and an apple.

4. Bean or pea soup; crackers; lettuce sandwicbes made witb cornmeal and wbeat yeast bread, and stewed figs.

"No"

"No" is next to tbe shortest word in the Englisb language.

It is the concentrated Declaration of Independence of the human soul.

It is the central citadel of character and can remain impregnable forever.

It is the only path to reformation.

It is the steam gauge of strength, the barometer of temperance, the electric indicator of normal force.

It is an automobile safety-first device.

It has saved more women tban all the knights of chivalry.

It has kept millions of young men from going over tbe Niagara Falls of drunkenness, profligacy and passion.

It is the updrawn portcullis and barred gate of the castle of self-respect. It is the dragon that guards beauty's tower.

It is the bigh fence that preserves the innocence of the innocent.

It is the tbick wall of the home, keeping the father from folly, tbe mother from indiscretion, the hoys from ruin and the girls from shame.

It is the one word you can always say when you can't think of anything else.

It is tbe one answer that needs no explanation.

The mule is the surest-footed and most dependable of all domestic animals. "No" is the mule-power of the soul.

Say it and mean it. Say it and look your man in tbe eye.

Say it and don't besitate.

A good round "No" is the most effective of known sbells from the human howitzer.

In the great parliament of life the "Noes" have it.

The value of any "Yes" you utter is measured by the number of "Noes" banked behind it.

Live your own life Make your own resolutions. Mark out your own program. Aim at your own work. Determine your own conduct. And plant all around these an impregnable hedge of "Noes," with tbe jaggedest, sharpest thorns that grow.

Tbe "No-man" progresses under his own steam. He is not let about and pushed around by officious tug boats.

The woman who can say "No" carries the very best insurance against the fires, tornadoes, earthquakes and accidents that threaten womankind.

Be soft and gentle as you please outwardly, but let the center of your soul be a "No" as bard as steel.—Dr. Frank Crane.

Care for Clothing

If you brusb the dust from your clotbes eacb time before putting tbem away and then hang them on hangers between times of wearing, you will not only save yourself a great deal of work in cleaning and pressing, but your garments will last longer and look better than if frequently cleaned and pressed with a bot iron. Even the children may bave a low rod in the closet with small hangers for their clothes and be taught to put them there as soon as they are removed. At first it will probably be more trouble to see that tbey do this tban to put away tbe clotbes yourself, but the training in thrift and orderliness is worth while.

Teach Children to Help

It is always a temptation to the busy mother to perform many little tasks berself that might just as well be done by tbe cbildren. It will take more time to teach a child to do a new piece of work tban to do it yourself, but your patience will be rewarded by his helpfulness when tbe lesson has been learned and bis pride in being able to do it well. It is infinitely better for tbe child to teach him to help bimself tban to do too much for bim.

Saving and Wasting Sugar

Save by using—

Dates, raisins, figs, to sweeten puddings and cereals.

Fruit and nut confections for candy.

Honey, syrups, maple sugar, and molasses in cakes, cookies, and all desserts.

Less sugar in beverages.

Thinner syrups or no syrups in canning.

No frostings unless made without sugar.

Waste by losing—

Sugar dregs in coffee cups and iced tea tumblers.

Sugar leavings in cereal bowls and saucers.

Sugar spilled in little lots in cooking.

Sugar spent to make caramel for flavor or coloring.

Good sugar spoiled in scorched food or by careless cooking.

Pieces of cake or cookies or any sweetened dessert left to be tbrown away.

The Table Oilcloth

Where does your table oilcloth wear out first? On the corners? When you get a new one, paste a piece of cotton cloth on the under side where each of the corners falls over the sharp edge of the table. Several layers of newspapers placed on a pantry shelf and extending over the edge will make the shelf oilcloth last mucb longer.

Food for Young Children

A little cbild who is carefully fed in accordance with his bodily needs as these are now understood, says Farmers' Bulletin 717 of the United States Department of Agriculture, receives every day at least one food from each of the following groups:

1. Milk and dishes made chiefly of milk—most important of the group as regards children's diet; meat, fish, poultry, eggs, and meat suhstitutes.
2. Bread and other cereal foods.
3. Butter and other wholesome fats.
4. Vegetables and fruits.
5. Simple sweets.

Milk is the most important food for young cbildren and should be given each day. A quart of milk a day is a good allowance for a child. The greater part of this is usually given as a drink or served on cereals or in tbe form of bread and milk. It may also be used in soups, gravies, custards, and puddings, or in place of water in cooking cereals, or served on fruits tbat are not very acid. When used as a drink it should be sipped, not gulped down, because the action of the gastric juice causes milk to clot in the stomacb and if large swallows are taken large clots are formed which are difficult to digest.

Being a liquid, milk is sometimes thought of simply as a beverage by those wbo do not understand its value as food. This is a great mistake. If all the water were driven off from a quart of wbole milk, there would be left about half a cupful of tbe very best substances, including butter fat, a kind of sugar not so sweet as granulated sugar, known as "milk sugar," and also materials which are needed to make muscles, bones, teeth, and other parts of the body. Besides all this nourishment, milk contains a very small amount of a substance or substances now tbought to help tbe body of the child to make good use of other foods. For this reason milk is often spoken of as "growth promoting." It is the natural food of the young animal, and apparently nothing can serve so well as the basis for tbe diet of the healthy cbild.

Just How It's Done

A black mammy's recipes for ber cakes:

"Wby, sure, honey, I'll tell you jes' how to do it. You takes as mucb meal as you wants, mix in some flour an' tbree or four aigs, put in milk 'nougb to make it tbick as it ougbter be; don't forgit a pinch or two o' salt and a good-sized lump o' butter; drop in a little sugar, too; den fill de little pans an' put 'em in de oven . . . till dey's done, honey."

Rye Bread

Rye bread may be made by any method whicb you use for making wheat bread. Substitute two cupfuls of rye flour and three cupfuls of wheat flour for every five cupfuls of standard wheat flour you would use in making white bread. Rye bread should be softer than white bread, but well-kneaded. When light, form into loaves and allow them to rise to double tbeir size. Brush over witb water and egg and hake in a slower oven than for white bread. Many people like the flavor of caraway seeds in rye bread. These may be put in tbc sponge.

Tamale Pie

2 cupfuls corn meal
2½ teaspoonfuls salt
6 cupfuls boiling water
1 onion
1 tablespoonful fat
1 pound hamburger steak
2 cupfuls tomatoes
½ teaspoonful cayenne pepper, or one small chopped sweet pepper.

Make a mush by stirring the corn meal and 1½ teaspoonfuls of the salt into boiling water. Cook in a double boiler or over water for forty-five minutes. Brown the onion in the fat, add tbe bamhurger steak and stir until the red color disappears. Add the tomato, pepper, and remaining salt. Grease the baking dish, put in a layer of corn meal mush, add the seasoned meat, and cover witb mush. Bake thirty minutes. This makes sufficient to serve six people.—U. S. Food Administration.

Old-Fashioned Pudding Sauce

1 cupful corn syrup
1 cupful water
2 tablespoonfuls cornstarch
4 tablespoonfuls lemon juice

Mix the cornstarch with small amount of water. Mix the syrup and water, add cornstarch gradually and cook until tbickened. Add flavoring and serve on pudding.

Mary's Son

While the world about him slept,
Nor cared that he was born;
One gentle face above him kept
Its mother watch till morn;
And if his baby eyes could tell
What grace and glory were,
No roar of gun, no boom of bell
Were worth the look of her.

Now praise to God that ere his grace
Was scorned and he reviled,
He looked into his mother's face
A little helpless child.
And praise to God that ere men strove
About his tomb in war
One loved him with a mother's love
Nor knew a creed therefor.
—John Charles McNeill.

Tom Thompson of the Herington Sun observes that at this time of the year the woman who can compound and prepare good mince meat is of more use to humanity than the soprano who can take higb C or the elocutionist who can make tbe winds go "Woo-OO-oo!"

Forestry Terms

"What is your favorite tree?" asked the romantic girl.

"Yew," promptly replied the gallant young man.

FASHION DEPARTMENT

All patterns, 10 cents.



No. 9064—Girls' Dress: Cut in sizes 8, 10, 12 and 14 years. The dress buttons from neck kto hem and may be stitched together at the waist line. The Buster Brown collar with a soft silk tie is very girlish and attractive. The shoulder strap in the small view may be used. **No. 9057—Ladies' and Misses' Four-Piece Skirt:** Cut in sizes 16 and 18 years, and 26, 28, 30 and 32 inches waist measure. The side-front gores of the skirt are cut in pointed outline and the plaits are inserted under each point. The front gore is in panel effect and the button trimming gives the finishing touch. **No. 9048—Ladies' One-Piece Apron:** Cut in sizes 36, 40 and 44 inches bust measure. The apron is cut all in one piece and the neck is slashed and laced with a cotton tape. The short kimono sleeves are lengthened by sections of the plain material which are gathered on elastics at the elbows.



No. 8981—Ladies' Shirtwaist: Cut in sizes 36, 38, 40 and 42 inches bust measure. The graceful roll collar is crossed and it joins a square vest which is inset at the front. Tiny fancy buttons decorate the center front of the vest. The waist is gathered at the shoulders and the long sleeves are also gathered into cuffs with scalloped turnovers. **No. 8976—Girls' Dress:** Cut in sizes 6, 8, 10, 12 and 14 years. An excellent little every-day dress is shown in this number. The plain waist has an inset vest with rounded upper edge. The neck edge is outlined by a roll collar in a smart shape. The two-piece skirt is seamed at the sides and is plaited at the front to form the panel effect which continues the line of the vest. **No. 9005—Ladies' One-Piece Slip-On Wrapper:** Cut in sizes 36, 40 and 44 inches bust measure. This apron is very practical and easy to make. It is open as far as the waistline at center front, so that it can be quickly slipped on. It is in one piece, with seams on the shoulders. The large patch pockets are trimmed in the same way.

POLAND CHINAS.



Faulkner's Famous Spotted Polands

THE WORLD'S GREATEST PORK HOG

Buy from the oldest and largest herd of Spotted Polands on earth. Recorded in recognized record. Have your order booked now.

H. L. FAULKNER, Box K, JAMESPORT, MO.

ERHART'S POLAND CHINAS

Have a great lot of spring boars for sale. Some by the 1200-pound, A Big Wonder. Will make prices on pairs and trios not related. All immuned. Write your wants. Bred Sow Sale Feb. 19, 1919.

A. J. ERHART & SONS

NESS CITY, KANSAS

Deming Ranch Poland Chinas. Big-Type Poland China Hogs

For Sale—Fifty spring boars, real farmer boars and herd boar prospects; 100 bred sows and gilts. Write or come and see our herd.

Deming Ranch, Oswego, Kan.

(H. O. Sheldon, Herd Manager)

BIG-TYPE BABY POLANDS

Well bred, heavy boned. Twenty dollars for choice. Trios for fifty dollars. Pedigree with every pig.

O. L. Isaacs, Peabody, Kansas

LONE CEDAR POLANDS

Strictly big type March and April pigs, either sex. Nothing but tops shipped. Prices reasonable. Guarantee to please. All cholera immune. A. A. MEYER, McLouth, Kansas.

LONE CEDAR POLAND CHINAS—A splendid lot of bred gilts by Big Chimes, a great son of Big Hadley Jr. and out of high class mature sows; also a few tried sows and fall pigs. All immuned. A. A. Meyer, McLouth, Ks.

LANGFORD'S SPOTTED POLANDS—April boars ready to ship; also summer pigs. T. T. LANGFORD & SONS, Jamesport, Mo.

Townview Herd Poland Chinas

Ten Rugged Spring Boars, weight about 175 pounds, at $50 each. Eight March and April Boars, weight 135 to 150 pounds, $40 each. These boars are immune, heavy-boned and ready for business. Send check and get hog guaranteed to please you.

CHAS. E. GREENE, PEABODY, KANSAS

Henry's Big Type Polands

March and April pigs sired by Mammoth Orange, Smooth Prospect and Big Bob 2d, out of sows the best of big type breeding. Everything immune.

John D. Henry, Route 1, Lecompton, Kansas

HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that weigh and win. S. C. Brown Leghorn Chickens that lay. See or write

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HORSES AND MULES.

PERCHERON-BELGIAN-SHIRES

Registered mares with colts at side and bred again; registered fillies, stallions one to five years old; grown ourselves the ancestors for five generations on dam side. Sires imported.



Fred Chandler, R. 7, Chariton, Iowa

(Above Kansas City)

PERCHERON STALLIONS

Some good young stallions sired by Algare and Bosquet, two great herd sires. These young stallions are very promising and priced to sell.

D. A. HARRIS - GREAT BEND, KANSAS

JACKS AND JENNETS

Registered Jacks and Jennets. Good individuals, good colors. Have some choice young jacks that are priced to sell quick.

GEO. S. APP, ARCHIE, MISSOURI

ANGUS CATTLE

LOOK HERE, ANGUS BREEDERS!

I want to reduce my herd of registered Angus cattle consisting of cows, bulls and heifers. Attractive prices for early buyers. If you want the best kind of low-down, beefy Angus, come at once.

D. J. WHITE, - CLEMENTS, KANS.

Dietrich's Aberdeen-Angus

Aged bulls, fifteen choice spring bulls. Females, all ages.

GEO. A. DIETRICH, CARBONDALE, KAN.

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I make sales anywhere

Write for date. VALLEY FALLS, KANSAS

W. B. CARPENTER Live Stock Auctioneer

President Missouri Auction School

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LIVE STOCK AUCTIONEER — Fifteen years' experience. Wire for date.

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POLAND CHINAS

GUERNSEY CATTLE.

GUERNSEY BULLS

Good individuals of serviceable age, of May Royal, May Rose, Masher Sequel, Raymond of the Preel breeding. Write or come and see them.

ADAMS FARM, GASHLAND, MISSOURI

Twelve miles from Kansas City.

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H. C. LaTourette, Route 2, Oberlin, Kan.

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POLLED DURHAMS

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RED POLLED CATTLE.

RED POLLED CATTLE FOR SALE

Young bulls and some extra good young cows to calve in early spring. A few yearling heifers.

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FOR SALE

Red Polled cows, heifers and bulls. Special price if taken at once.

W. J. HARRISON - AXTELL, KANSAS

RED POLLS, BOTH SEXES, BEST OF BREEDING.

Charles Morrison & Son, Phillipsburg, Kan.

SHORTHORN CATTLE.

SHORTHORN BULLS

For Sale — Ten bulls, seven to fifteen months old; Scotch and Scotch topped. Two Scotch bulls by Type's Goods, one a Brawith Bud, the other a Duchess of Gloster. All in good condition and priced reasonably.

S. B. AMCOATS, CLAY CENTER, KANSAS

Write Me Your Wants

Cloverdale Farm Shorthorns

For Sale—Three Shorthorn heifers, two bred to a grandson of Whitehall Sultan; also a fine roan yearling Scotch bull, a real herd bull for some one. Heifers, $150 to $225; bull, $300. Must go soon at this.

Wesley Jewell, Humboldt, Ks.

Mulefoot Hogs-Shorthorn Bulls

No hogs for sale at present. Four bulls eight to fourteen months old, roans and a red, sired by Knox Knoll Dale 617322, priced from $150 to $225.

Knox Knoll Stock Farm, Humboldt, Kansas

MARK'S LODGE RED SHORTHORNS

For Sale—25 well bred cows and heifers bred, priced reasonable. A few young bulls by Double Diamond by Diamond Goods. Price, $150. Come and see my herd.

M. F. MARKS, VALLEY FALLS, KANSAS

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WIRE FOR DUROC BOAR

Wire at once at my expense for Duroc boar to be shipped before you pay for him. We guarantee pedigree, price, size, bone, length, immunity, and a breeder. Send him back if not satisfied. You can't afford to wait.

F. C. CROCKER

Box K Filley, Nebraska

Ellen Dale Breeding Farm

Offers Duroc Jerseys of blood lines of Watson's Wonder, Ideal Pathfinder, Crimson Orion King and Joe Orion 5th, also Shorthorn bulls and bred heifers.

R. C. Watson Altoona, Kansas

40 DUROC JERSEY BOARS

Cholera immuned, of rare breeding and excellent individuality. Grandsons of the two grand champion boars of Iowa. None better.

W. R. HUSTON - AMERICUS, KANSAS

HIGHVIEW DUROCS

Home of Repeater by Joe Orion King and Golden Reaper by Pathfinder. For sale—spring boars and a few bred gilts. I guarantee satisfaction or your money back.

F. J. MOSER - - - GOFF, KANSAS

R. H. DIX & SON'S DUROCS

For Sale—One choice spring boar, a real herd header. Twelve spring gilts bred to Giant Crimson by G. M.'s Crimson Wonder, a prize winning boar. Priced reasonable for quick sale. Write today.

R. H. DIX & SON, HERINGTON, KANSAS

WOODDELL'S DUROCS

I am going to slash prices on boars the next thirty days. If you want a good boar at a bargain, write at once.

G. B. WOODDELL - WINFIELD, KANSAS

Duroc Bred Sows and Gilts

For Sale—Several well bred sows and bred gilts bred for early March and April litters, priced to sell. Also a few spring boars. First check or draft gets choice. Sold on an absolute guarantee or money back.

JOHN A. REED & SONS, LYONS, KANSAS

FARM AND HERD NEWS NOTES

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CLAIM SALE DATES.

Jacks and Jennets.

March 25, 1919—H. T. Hineman & Sons, Dighton, Kan.

Holsteins.

Jan. 1919—Rockbrook Farm Dispersion Sale, South Omaha, Neb. Henry C. Glissman, Station B, Omaha, Neb.
Jan. 18—B. E. Totten, Topeka, Kan. Ben Schneider, Nortonville, Kan., sale manager.
March 25, 1919—Kansas Holstein Breeders' Association sale, Topeka. W. H. Mott, sale manager.

Shorthorn Cattle.

Feb. 14, 1919—H. E. Huber, Meriden, Kan.

Poland Chinas.

Jan. 8—Henry Hayman, Formoso, Kan.
Jan. 29—Adams & Mason, Gypsum, Kan.
Jan. 31—H. E. Myers, Gardner, Kan.
Feb. 6, 1919—H. B. Walter & Son, Effingham, Kan.
Feb. 8—Fred B. Caldwell, Howard, Kan.
Feb. 11, 1919 — O. B. Clemetson, Holton, Kan.
Feb. 11—Joe Schneider & T. A. Corkhill, Nortonville, Kan.
Feb. 12, 1919—James Barnett, Denison, Kan.
Feb. 13, 1919 — Herman Groninger & Sons, Bendena, Kan.
Feb. 17, 1919—Ed Cook, Mayfield, Kan.
Feb. 18, 1919—F. Olivier & Son, Danville, Kan. Bred sow sale.
Feb. 17—C. S. Nevius & Sons, Chiles, Kan.
Feb. 19, 1919 — A. J. Erhart & Son, Ness City, Kan.; sale at Hutchinson.
Feb. 20, 1919 — Ross & Vincent, Sterling, Kan.
Feb. 21, 1919—Bruce Hunter, Lyons, Kan.
Feb. 22, 1919 — Bert E. Hodson, Ashland, Kan.; sale at Wichita.
March 4, 1919—Jones Bros., Hiawatha, Kan.
March 5, 1919—Schmitz Bros., Seneca, Kan.
March 7—Chas. E. Green, Peabody, Kan.
March 8—V. O. Johnson, Aulne, Kan.

Duroc Jerseys.

Jan. 28—W. R. Huston, Americus, Kan. Duroc dispersion and general farm sale.
Feb. 14, 1919—W. W. Zink, Turon, Kan.
Feb. 26, 1919—John W. Petford, Saffordville, Kan.; sale at Emporia.
Feb. 27, 1919—W. W. Otey & Son, Winfield, Kan.
Feb. 28, 1919—Wooddell & Daner, Winfield, Kan.

Spotted Poland Chinas.

Feb. 1—R. W. Sonnenmoser, Weston, Mo.
Feb. 18—Everett Hays, Manhattan, Kan. Kan.

Chester Whites.

Feb. 11—Arthur Mosse, Leavenworth, Kan.
Feb. 27, 1919 — Henry Murr, Tonganoxie, Kan.

The joint public sale of Shorthorn cattle held at Holton, Kansas, December 19, by D. L. Dawdy, Ed Stegelin, John Miller, E. S. Woodworth and Hoskins Bros., resulted in the disposal of the thirty-six head catalogued at an average of $175.14. The four head of bulls sold averaged $191.25. Thirty-four head of cows and heifers averaged $173.12. The top price of $340 was paid for No. 19, a splendid four-year-old heifer going to H. G. Urich, of Scranton, Kansas. While no sensational prices figured in the auction, the averages were very fair and, while low enough to permit of liberal investments, were bigh enough to provide a small profit to the producer, and the returns for the entire sale were very satisfactory to all the consignors.

W. C. Kenyon & Sons, of Elgin, Illinois, owners of herds of pure-bred and high-grade Holsteins that are among the best now assembled, report their herds doing well. Their Holstein farm near Elgin is noted for its good herds of richly-bred cattle and for its fine equipment. Many of the best producing Holstein herds in the country were started with foundation stock from their farm.

A. A. Meyer, of McLouth, Kansas, owner of the famous Lone Cedar herd of big-type Poland Chinas, reports his herd doing well. Mr. Meyer has built up one of the best herds of Polands in the state. He has all the popular blood lines and the big easy-feeding type. A feature of his herd just now is the fine lot of gilts by sires that are among the best of the breed.

Ben Schneider, of Nortonville, Kansas, has announced January 18, 1919, as the date for a sale of seventy-five head of Holstein cattle. These cattle are owned by B. E. Totten and consist of forty head of very fashionably bred registered cows and heifers, also thirty-five head of high-grade cows and heifers all bred to registered Holstein bulls, to freshen early in the spring. The offering is a very high class lot of useful dairy cattle and will be guaranteed right in every way. The sale will be held in the new sale pavilion at the Topeka fair grounds.

John W. Petford, of Saffordville, Kansas, has announced February 26, 1919, for his annual sale of Duroc Jersey bred sows and bred gilts. Mr. Petford is the owner of one of the best herds of Duroc sows in Kansas and three great boars are used in the herd: Model Ally, who was grand champion Duroc Jersey boar at the 1918 Topeka fair, assisted by Illustrator Orion 3d and J. D.'s Wonder 1st. J. D.'s Wonder was sired by Great Wonder and his dam was Grand Lady 75th by Grand Model. Mr. Petford will offer twenty-three aged sows bred to this trio of good boars for early March litters and twenty-seven spring and fall yearling gilts sired by Illustrator Orion 3d that will be bred to Model Ally and J. D.'s Wonder. This offering promises to be one of the best lots that will pass through the sale ring during the spring season.

George W. Peterson, Jr., of Leonardville, Kansas, owner of one of the best hrrds of Hampshire hogs in Kansas, reports his herd doing fine. Mr. Peterson has the best blood lines of the breed in his herd, and a feature of the herd at this time is the choice lot of spring gilts and tried sows bred to boars that are among the best in service.

Volume 38 of the Holstein-Friesian Herd-Book is off the press and ready for delivery. It contains a record of all pure-bred Holstein-Friesian cattle approved and admitted for entry since the close of Volume 37. The registrations include bulls numbering from 216626 to 230705, and cows from 391-506 to 423670—a total of 14,080 males and 32,165 females recorded between September 1, 1917, and February 26, 1918. The grand total registrations of Holstein-Friesian cattle recorded in the herd-books to date reach 654,375, with Volume 39 in course of preparation. Volume 38 contains a complete record of animals registered, their age, sire and dam, also their breeders and owners. The price charged for the herd-book—$2.75 delivered—is much below the actual cost of compilation, and every owner of pure-bred Holstein cattle should avail himself of the opportunity to obtain a copy by ordering one immediately from the office of the Holstein-Friesian Association of America, Brattleboro, Vermont.

R. W. Sonnenmoser, of Weston, Missouri, has claimed February 1 as the date for his Spotted Poland bred sow sale. His offering will be one of the best that will go through the sale ring this season, and this sale will be one of the big events in Spotted Poland circles.

Development of Breeding Cows

FOUR years ago the Fort Hays Experiment Station set out to learn something about the results of different methods of developing breeding heifers. This experiment, which has now been running for four years, has attracted a great deal of attention. It began with eighty uniform Hereford heifer calves.

These eighty heifers were divided into two lots. Those in one lot were fed as the average western range cattle are fed, while the remainder received the best ration possible short of full feeding. Half of the heifers in each lot were bred to calve at two years old, the others being carried one year longer before breeding. Carcful notes have been made upon the calves resulting and the developments of the cows themselves.

The next year half of the heifers in each lot dropped their second calves, while the remaining heifers were dropping their first calves at three years of age. The purpose of the experiment was to ascertain what effect feeding would have upon the development of the cows in connection with early breeding.

Next spring will add another year to the test and another crop of calves. The observations and notes made will give valuable information on whether it pays to feed young heifers being developed for breeding purposes more heavily than is usually done.

As usual the experimental period will end just before the annual roundup at the station farm, which will take place early in April and will be a big occasion for the stockmen and farmers of Central and Western Kansas.

The Hays Experiment Station farm is the biggest experimental farm in the world. Its value to the central and western sections of Kansas is being more appreciated each year. In the detailed experimental work of the present season, 273 cattle are being used, the rest of the herd being used in the range experimental work. All the tests are conducted under practical Western Kansas conditions.

Another interesting experiment under way this year is a comparison of Russian thistle hay with alfalfa hay. Russian thistles have been used from time to time as an emergency hay crop, but there is no definite information as to their exact value in feeding.

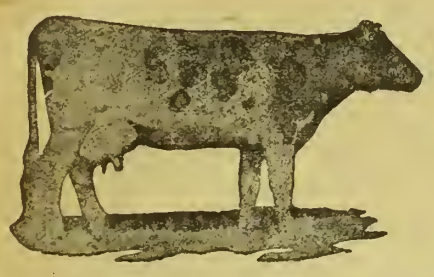
There has been a suspicion in the minds of some observant cattlemen that feeds had an effect on abortion. A group of experiments has been planned which will compare the effects of cottonseed cake, linseed cake, and silage, upon abortion in cows.

Still another experiment is to compare kafir silage, kafir fodder and kafir stover as a roughage for wintering cattle. The results in this test will be studied from the standpoint of acreage required under the different methods of storing. Exact records will be kept not only of the quantities of feed but the

75 HOLSTEIN COWS AND HEIFERS

Will be Sold at New Sale Pavilion, Topeka, Kansas, Fair Grounds

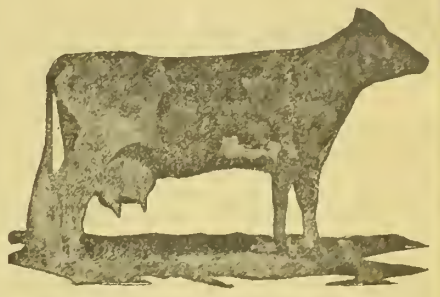
JANUARY 18, 1918



Forty head Registered Cows and Heifers, all bred to a son of Rag Apple Korndyke 8th; several will freshen early in the spring.

Thirty-five head High Grade Cows and Heifers, all bred to registered Holstein bulls to freshen in spring.

They are a splendid lot of dairy cows and are guaranteed right in every way. Every animal will be sold to the high bid. For catalog apply to



BEN SCHNEIDER, Nortonville, Kansas, Sales Manager

Auctioneers—Col. Chas. M. Crews, Col. Frank Regan.

B. E. TOTTEN, Owner

acreage of each required to winter a given number of cattle so that a farmer may know exactly how much he can expect from kafir on a given amount of land as stover, as fodder, and as silage. This experiment will continue for a number of years.

Figures will again be kept on the cost of wintering the herd bulls and heifer calves. The range cattle not in definite detailed tests will be divided into two lots. The cattle in one lot will be fed silage on buffalo grass, and in the other lot dry roughage on buffalo grass.

Drainage and Irrigation

In this time of year we hear a great deal about conservation of food and the use of every available acre of ground for food production. Not only should every available acre be used, but where possible the number of available acres should be increased, as this will mean additional food production and increased income as well.

Kansas usually is not considered a state with great need for either drainage or irrigation, but the report of the drainage and irrigation engineer of the division of extension of the agricultural college for the year ending June 30, 1917, shows that fifty-five farms were examined for drainage improvements. The improvement of these farms called for the use of 500,000 linear feet, or nearly 100 miles of tile. Under average conditions this means a direct benefit to approximately 1,000 acres, and an increase in the value of each of the fifty-five farms.

In addition to tile drainage improvement, this report shows assistance given on twenty-seven drainage projects. These drainage projects involved the prevention of overflow of crop land. Some of these districts contain 15,000 acres. Even with an acreage of 5,000 acres per project, this would mean 135,000 acres which have been or can be increased in productive value. Special flood and storm problems in a dozen different localities were also given consideration.

In the western part of the state forty-seven different irrigation projects were examined. Most of these are pumping plants used as crop insurance against dry weather.

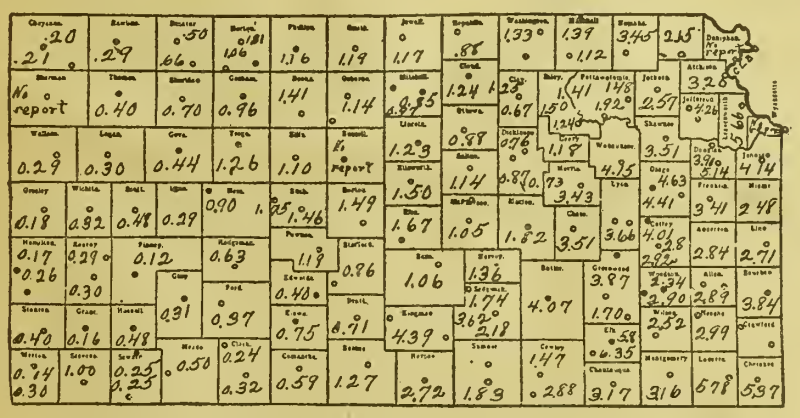
Every acre of land that can be drained and used to increase the production of food will not only help at this time of world need, but will add permanent value to the farm, the state, and the nation. In the western part of the state food production can be made more certain by the increased use and care of irrigation projects. With high prices for farm products now is the time to improve every overflowed or swampy acre. Numerous inquiries are also being received by the department of drainage and irrigation regarding wells for irrigation. At present prices, irrigation by pumping can be made very profitable.—J. B. MARCELLUS.

If we work upon marble, it will perish; if we work upon brass, time will efface it; if we rear temples, they will crumble into dust; but if we work upon immortal minds, if we imbue them with principles, with the just fear of God and love of our fellow men, we engrave on those tablets something which will brighten to all eternity.—DANIEL WEBSTER.

Sailor (as he gazes at his portion of corned beef)—"I wonder if this meat used to moo or whinney."

Rainfall of November, 1918

Reports Furnished by S. D. Flora, Meteorologist, Weather Bureau, Topeka



FIVE times as much rain fell over Kansas during this month as fell in November last year, and the monthly amounts were above normal in almost all except the western counties. As the ground was already thoroughly soaked when the month began, there was an abundance of moisture in all parts.

Temperatures were mild and it was an ideal month for wheat, which made such a vigorous growth that it was necessary to pasture it heavily in the eastern counties to keep it from jointing. At the close of the month it had made a growth of from four to six inches in the eastern two-thirds and its condition was generally without a blemish. In the western third its condition was also encouraging, but dry weather and grasshoppers earlier in the season had delayed it until it was only one or two inches high and in some places just coming up.

Another "Black" International!



Aberdeen-Angus won Grand Championships over all breeds on SINGLE STEER, Steer HERD, CARCASS and BOYS' and GIRLS' Calf, losing only Fat Carlot (first time since 1909). The interbreed Grand Championship standing of the world's greatest show is now 11 out of 17 for Single Steer, 12 out of 15 for Steer Herd, 13 out of 17 for Fat Carlot, and 16 out of 17 for Carcass, in favor of the Aberdeen-Angus. Write for "Results of Internationals."

ABERDEEN-ANGUS: First in War, First in Peace, First in Reconstruction!

AMERICAN ABERDEEN-ANGUS BREEDERS' ASSOCIATION
817 K. F. Exchange Ave., CHICAGO

JERSEY CATTLE.

THE Jersey



The investment breed—the profit producers. Richer milk from less feed. Cheese and butter that bring better prices. The facts about the Jersey make other breeds seem extr vagant. Let us send them free. Write Breeders for prices and pedigrees.
The American Jersey Cattle Club
375 West 23rd Street
New York

TESSORO PLACE
OWL INTEREST FINANCE JERSEYS
(Register of Merit)
All our bull calves are sold and now offer young cows and heifers from our herd. Cows are either in Register of Merit or qualifying and most of the heifers have dams with R. or M. records. These cows will be priced where their offspring and production above feed cost will more than pay for themselves in one year. For the profitable kind, write, or come and see.
R. A. GILLILAND - MAYETTA, KANSAS

LONGVIEW JERSEYS
(Register of Merit Herd)
Bull calves sired by champion bulls out of Register of Merit dams, for sale at all times.
Longview Farm
LEE'S SUMMIT - - MISSOURI

FOR SALE—Five registered cows, to be fresh in January. We are pricing them very reasonable. They are strictly high class, perfect individuals and the best blood lines. Also young things and bred heifers.
J. W. BERRY & SON, Jewell City, Kan.

BROOKSIDE JERSEYS
REGISTEREO JERSEY BULLS, few old enough for service from Eminent Flying Fox dams, sired by Idalia's Raleigh, a son of the great Queen's Raleigh. Write for prices.
THOS. D. MARSHALL, SYLVIA, KAN.

J. B. PORTER & SONS, Mayetta, Kansas
Breeders of Pure-Bred Jersey Cattle
A small but select herd of producing cattle, rich in blood of Gamboge, Oxford Lad, Golden Fern's Lad, Leda's Fern Lad, etc. Write for prices on young stock.

ALLEN CENTER STOCK FARM
Registered Jerseys from choice cows. Sire's dam is the highest producing cow in Kansas. Prices reasonable.
TREDWAY & SON, LA HARPE, KANS.

HAMPSHIRE HOGS

Registered Hampshire Hogs—Sows and Spring Gilts, bred or open. Choice spring boars. Double treated. Geo. W. Ela, Valley Falls, Kansas

SPECIAL IN HAMPSHIRES
Three tried sows, 20 choice spring gilts, open or bred to Leonardville Boy, he out of Scudder's Cherokee. Few good males. Some fall pigs. All stock registered. Write
GEORGE W. PETTERSON, JR.,
Route 2 Leonardville, Kansas

HOLSTEIN CATTLE.

Holstein Calves
Choice, highly-bred, beautifully marked calves, either sex, $17.00 each. Also cows, heifers and service bulls. Write
W. C. Kenyon & Sons
Holstein Stock Farms, Box 33, Elgin, Illinois

REGISTERED HOLSTEINS
Ten fresh registered cows and heifers, six registered bulls, serviceable ages, out of cows with records up to 23 pounds of butter in seven days. Ten high grade heifers out of a bull whose three nearest dams averaged over 25 pounds per week, bred grade heifers, $125; yearlings, $65; almost white.
Write or come and see my herd.
Chas. V. Sass
1013 North Fifth St., Kansas City, Kansas

Holstein Bulls—Registered
Some out of A. R. O. dams. Some sired by Sir Rag Apple Superba 207682.
LILAC DAIRY FARM
Route 2 Topeka, Kansas

BRAEBURN HOLSTEINS
Service bulls; bull calves. Their heifers will outyield the dams by 10-50 per cent.
H. B. Cowles, 608 Kansas Ave., Topeka, Kan.

HOLSTEIN COWS
For Sale—High grade Holstein cows and heifers, fresh and springers. Single or carload lots. Sale barn in town. Come and see me. Office at Midland Hotel.
GEO. F. DERBY, CAMERON, MISSOURI

BUTTER-BRED HOLSTEINS
Three choice registered Holstein bulls, ready for light service, and some bred heifers to a 32-pound sire.
J. P. MAST, - SCRANTON, KANSAS

SEGRIST & STEPHENSON, HOLTON, KANSAS
Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

GOLDEN BELT HOLSTEIN HERD
Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.
W. E. BENTLEY, MANHATTAN, KANSAS

GALLOWAY CATTLE.

GALLOWAY CATTLE
30 Head 2-Year-Old Bulls, and 50 Spring Bull Calves
Strong, rugged farm bulls, range grown. Can spare a few females. 200 head cows in herd to pick from. Don't delay if you want good cattle.
E. E. Frizell & Son, Frizell, Pawnee Co., Kan.

SHROPSHIRE SHEEP



FOR SALE
A bunch of big heavy-wooled young registered Shropshire ewes, not high in price. Bred to fine rams.
Howard Chandler, Chariton, Ia.

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There is no better time than right now to begin keeping Farm Records so that you will have the required information ready to make your income tax statement next year. No doubt you are already keeping your records. You want the most simplified and easiest way. Get this book. It's FREE.

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This book is a PRACTICAL Farm Account Book which has been developed under the direction of the United States Government men, working in co-operation with hundreds of farmers in Kansas. It is not merely theoretically correct, but has been prepared to fill the needs as shown by practical use on farms in this state.

THIS BOOK WILL MAKE YOUR WORK EASIER

Keeping accurate records of farm business is becoming more and more popular, not only because it is practically necessary for the income tax statement, but also for the value of the records to the farmer. The most important thing, however, is to secure and keep the information desired with the least amount of work and time; that is, in the simplest way.

The book which KANSAS FARMER is offering on this page, FREE to subscribers, is gotten up with the idea of keeping all the information necessary and valuable with the smallest amount of work. The book is a one-year record. It is small and convenient to keep. It contains full but simple instructions on how to keep the records required, with sufficient blanks for all entries.

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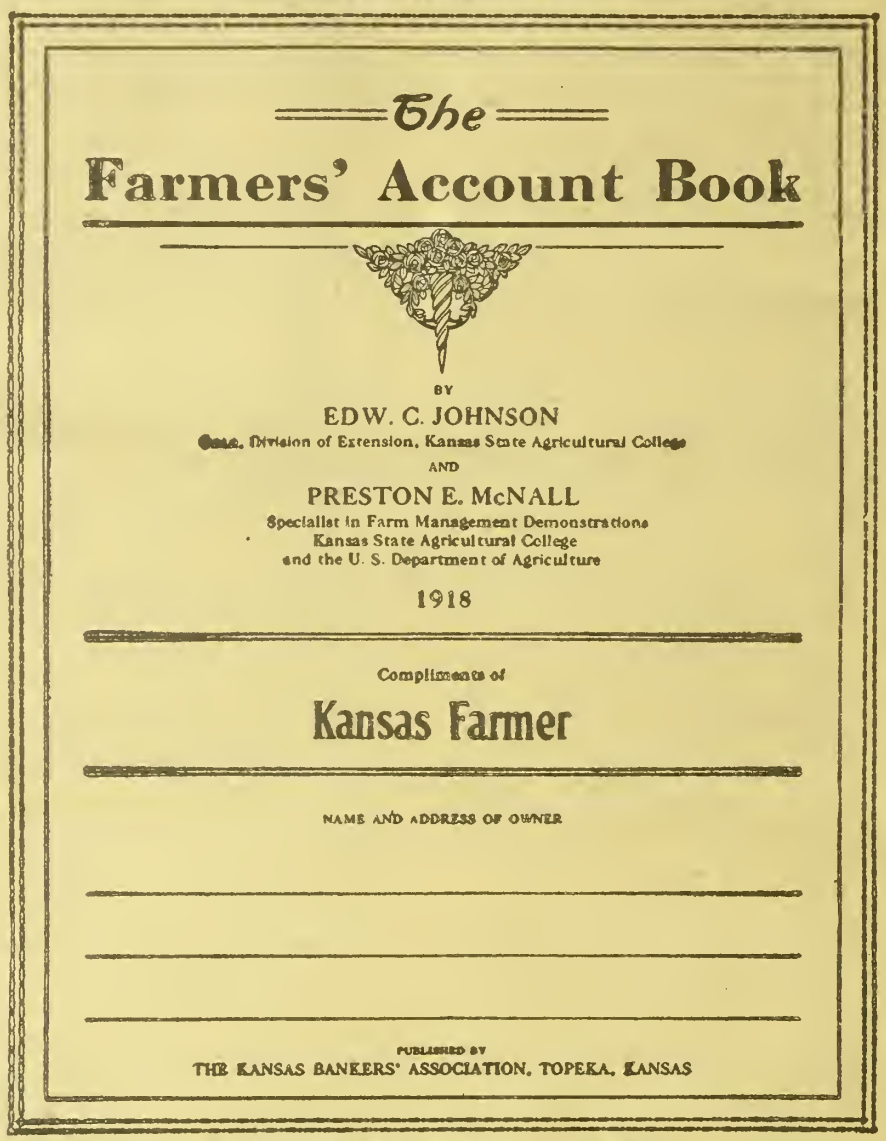

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The book is published by the KANSAS BANKERS' ASSOCIATION. It has been prepared by Dean Edwin C. Johnson and Preston E. McNall, both of the Extension Division of the Kansas Agricultural College, who have done their work on the book in co-operation with the United States Government.

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