John Porter Fort

A Memorial

and

Personal Reminiscences

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THE FOREWORD

The reminiscences of his life and work were dictated to me by my father during the summer of 1916. He touched only upon the main events. There are countless unmentioned things that would add to this story of a wonderfully full life, but I leave it just as he told it to me as we sat together on the porch, or in the library by the open wood fire. To these I have added a few tributes and some clippings from Georgia newspapers. Martha Fannin Fort. Jno P. Fort

[1]

IN MEMORY OF JOHN PORTER FORT

The sweep of sky at eventide; That melts within the majesty of pine;

The hush that breathes serenity of space; Where summer twilights linger long

In benediction; Beauty of leaf and bird, Of blossom and star, Of sea and furrowed lands,

Of storm that cracks the mountain peak to flame;— These were his soul which reaching held the universe; Within the circle of his brotherhood; To their haunts they called him,— Note of thrush; And wild heart of the trees; There 'mid glooms of cypress brooding moss; And lakes of ebon pearl, With shy wood denizens and mist of boughs He met his God.

Day beckoned him, and forth among the fields He stepped and sowed his spirit. Sowed that man might eat and live and "thank the Lord, Giver of all good gifts." And as of old did Jacob dig a well, And Moses smite to life the desert rock, So with prophetic eye He saw the hidden rivers of the earth,

[2]

And brought forth drink, Praising the kind Beneficence "who fills All nature with his plenteousness," Flashing anew the ensign of his life That "man is made to overcome the world." Years sped on and still his soul unfurled From out the snowy petals of his dreams, Still buds burst greening from his pruning hook And little children smiled In answer to the welcome of his voice. While from the sky; The titmouse came, Leaving her nest and company of wings To perch

upon the friendship of his hands. And so; Through victory of his spirit barrens bloom; And earth unlocks her prisoned waters, And places that he knew are touched with light; As from diffused transcendence of his life; And hallowed by the passing of his feet. Kate Fort Codington.

[3]

[Editorial from "The Constitution," Atlanta, Ga., Sunday, February 18, 1917]

THE WORK OF JOHN P. FORT

No man of his day accomplished more in the nature of everlasting benefit for the state in which he lived than the late John P. Fort did for Georgia. He was a man of vision—a dreamer—but with the energy and the faith and the resourcefulness to push ahead, explore his vision, and make his dreams come true; and in the doing of which he made of himself a notable public benefactor. Especially thankful should south Georgia be for the very revolutionizing of the health conditions of that section which he did so much to bring about. South Georgia was once afflicted with a malarial condition which seriously impaired the many advantages of that part of the state. The development of the country had been held back through generation after generation, despite its fertility and adaptability to agriculture, simply because of malarial conditions.

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John P. Fort turned his attention to the problem. "It's the water," he said. And he set himself the task of finding a remedy. With no guide save his reason and determination, he managed somehow to bore a hole into the earth more than five hundred feet deep; and was rewarded by a stream of pure, life-giving water. That was Georgia's first artesian well; and, as he says in a remarkable letter to Alfred C. Newell, written in October, 1907, and reproduced in the magazine section of this issue of The Constitution: "The well has furnished drinking water during the summer time mostly for a circular area of ten or more miles in diameter for twenty-six years, parties coming in wagons with utensils to convey the water away for drinking purposes." That well, still flowing undiminished, proved the rejuvenation of South Georgia. It was followed by the boring of hundreds of others, and the result is that to-day residents of South Georgia are as free from the taint of malaria as are those of "the hills of Habersham." The genius of the man again was manifested when, sensing the possibilities of the timber[5] resources of south Georgia swamps, always before his day looked upon as worthless and inaccessible, he managed to get capital interested, and, under his guiding hand, the cypress lumber production of the state became one of its great industries.

What he did for the fruit—especially the apple—industry in North Georgia is known to every man at all conversant with the state's development. A lake in the southern part of the state covered acres of fertile soil. Generation after generation of men had found no means of

drainage. Fort found one. He studied the geological formation of the country, applied the knowledge he had gained by his artesian well operations, and reasoned that probably the lake could be drained—as no man ever had drained a lake before—from beneath. So he exploited his theory, bored a hole straight downward in the center of the lake; and the waters ran out, leaving the bed ready for the plow. "The inhabitants of the pond were left on the muddy bottom," he writes to Mr. Newell, "among which was a large alligator. A strange and wonderful sight to behold!" And thus he spent his useful, constructive, busy life; doing original—often daring—things, all for[6] the good of mankind and the development of his country. It is exceedingly gratifying too, that, unlike most men whose names illuminate the pages of our history, Fort lived to see his good works, or many of them, fructify. He was honored in life, and was appreciated for what he had done; but with the passing of time that appreciation of him and his life work will grow, and the future generations will honor and revere his name, it is safe to predict, more pronouncedly even than do we who were contemporaneous with him. As time goes on undoubtedly the real greatness, the constructive genius of Fort will become even more generally recognized than it is to-day. The value of his great service to the community will become more apparent in the future than it has in the past; and he, in the sphere of practical scientific achievement and agricultural and industrial development, will be given rank in history along with Sidney Lanier, in poetry; Alexander H. Stephens, in politics; and Le Conte in science.

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PERSONAL REMINISCENCES

My father, Dr. Tomlinson Fort, was born in Burke County, Georgia, July 14, 1787. He was the son of Arthur Fort, who was a soldier in the Revolutionary War and a prominent man in the pioneer days of Georgia. My father studied medicine at the Philadelphia Medical College under the famous Dr. Rush to whose memory he was ever attached. He returned to Georgia settling at Milledgeville, then the capital of the State. He had a large medical practice, the most extensive in middle Georgia, which he kept up until ill health forced him to retire only a short while before his death in 1859. He represented his county twelve years in the State legislature, and his district two years in Congress. He was for years president of the State Bank and trustee of the University of Georgia. He then retired from political life. He served as a captain in the War of 1812, and was severely wounded while fighting against the Indians in Florida. Had he lived until the Civil War I am sure that he would have opposed secession. He was strong for the[8] Union, and much opposed to negro slavery. I remember hearing him say that he could never look upon his slaves, which were about fifteen or twenty, with any degree of satisfaction. He was a quiet, grave man of great sobriety and learning. For general information I have never met his equal. He had the confidence of all that knew him, the love of family and friends. He was a most kind and sympathetic father. He was the greatest man I have ever known. My mother, before her marriage in 1824, was Miss Martha Low Fannin of the Fannin family of Georgia. She was a woman of great charm and of great strength of mind and heart. She had a large family—

thirteen children—nine of whom lived to be grown. Her household consisted of ten or eleven servants. Ours was an open house, friends and relatives always coming and going. Mother was a busy woman and a very economical one, knitting our stockings and making our cloth caps. She loved her children devotedly, which love was returned by them. I was born in Milledgeville, August 16, 1841; there I passed my boyhood and youth. My early education was at a common school. The school was carried on under the principle of the lash. It was thought necessary to force knowledge[9] by whipping. A child missing two words in a lesson was usually whipped. My first teacher was an Englishman named White. His invariable rule was to whip a pupil found not studying his lesson. In one of my first reading lessons I had to repeat "As high as the sky" in a peculiar singing manner, which I could not do to please him. He stood over me with a hickory; I was only a little boy, seven or eight, and I was frightened. At last I said it in a way that suited him. He then grabbed me up, put me on his shoulder, and marched around the room. Our next teacher, Little, also whipped for the slightest offense. One day after school hours several boys, among whom was I, went to the schoolhouse and for revenge broke up the furniture. Fights between the teachers and larger boys were the natural outcome of such system. When a boy I was very fond of the woods and streams, and everything connected with nature. My father took great pains to instruct me in these matters, and in talking to him and asking questions, I obtained a large insight into nature—much more than is usual with boys of my years. I was interested specially in birds. I remember that a couple of bluebirds built their nest in a hole in a mulberry tree that grew in the yard. One[10] day I announced that the young had hatched, as I could hear their chirpings when the parent birds approached the nest. No one else could hear them and I was blindfolded to prove my statement, which I successfully did. I timed the visits of the old birds. On the average, once in twelve minutes a worm or some insect was brought to the young. At about that time I had a small collection of birds, which I had skinned and stuffed. These I kept in my room. One day an old gentleman, Mr. Armstrong, who was visiting in our house, when told of my fondness for birds, said to me, "Young man, I have never known any one with an interest in such things who ever amounted to anything." I was greatly mortified by this harsh criticism, and made a bonfire of my birds. My mind and temperament from childhood have been those of a naturalist. Milledgeville is on the Oconee River at the mouth of Fishing Creek. Swimming was the favorite sport with the boys of the town. I was in the water a great deal and was a fine swimmer. To give an incident I remember well: A boyhood friend, Joe Bell, was drowning; I caught him by the hair and pulled him out, thus saving his life. At a later time he saved mine in the following manner: During the Civil War, in a mix-up in a[11] swamp, we were fired upon by some of our own men. Just as one of them had his gun leveled on me, his officer, who was Joe Bell, recognized me and threw up the man's gun. We were quits.

JOHN P. FORT AT THE AGE OF TWELVE

When sixteen years of age I entered the Freshman class of Oglethorpe College. This was a Presbyterian school, situated at a little town called Midway, about two miles from Milledgeville. The president of the college was Rev. Samuel Talmadge, an eminent Presbyterian divine. Two

members of the faculty, Mr. James Woodrow, Professor of Chemistry, and Mr. Charles Lane, Professor of Mathematics, were living until a few years ago. I walked to and from college for four years, carrying my dinner bucket. There were usually five or ten of us walking together. I remember on one of these walks killing a dove with a throw of my Latin grammar. There were two literary societies at college, the Phi Deltas and the Thalians. I was president of the Phi Delta during my senior year, but I never took a high stand in my class, as I was not a student. I was more fond of nature. Especially during vacations I was in fields and woods with rod and gun, and became a proficient sportsman. Two of my classmates are still living, Samuel Quarterman and his brother Pratt. Sam lives near Albany, Georgia, and Pratt in Quincy, Florida. Sidney Lanier, Georgia's most distinguished poet, was in my class. I remember him as a slender young man of medium height, light hair, hazel eyes, and aquiline features—an ideal picture of the poet and musician he afterwards proved to be. I do not remember that he was especially studious or wrote poetry while at college. I do remember, however, his proficiency in playing the flute. The strains of melody brought forth from this little instrument dwell with me until now. Lanier learned so easily that he carried off first honor in his class. Later we renewed friendship of college days. I remember going with him to Brunswick, Georgia, and viewing with him the broad marshes, which inspired his celebrated poem, The Marshes of Glynn.

College days came to a close, and I began the study of law in the office of Mr. William McKinley in Milledgeville. I was not old enough to vote, but I was an ardent follower of Stephen A. Douglas in the presidential election of 1860, and because of this, was called by the boys at college the "Little Giant" although I, in no way, resembled him in stature. I took a lively interest in the stirring events of the time. The question of negro slavery usurped the place of all other questions. Then[13] came John Brown's raid which created an incredible excitement. No "Free Soilers" like Horace Greeley or William Lloyd Garrison dared visit the South for fear of actual violence. Then came the secession of South Carolina, Mississippi, Alabama, Florida. Georgia felt in honor bound to follow. Then came the inauguration of President Lincoln and the firing on Fort Sumter. The proclamation of Mr. Lincoln calling for volunteers to overrun the South consolidated the people of Georgia, and as one man we offered our services in defense of our homes. The excitement was intense. I know my father, if he had been alive, would have opposed secession. Although she greatly disapproved of war and secession my mother did not put a veto on her three sons going. On the night that Georgia seceded all the houses in Milledgeville were illumined except ours. All my strongest feelings were aroused. I felt called to defend my country. In May, 1861, I joined a company from my home town, called after my father's old company, the "Baldwin Volunteers." I entered as a private soldier. I was entirely ignorant of everything pertaining to military affairs. If I had known as I afterwards did the difference between the status of a soldier[14] in the ranks and a commissioned officer, I doubtless would have aspired to, and obtained, a commission, but I refused to consider the matter at all. I preferred to handle a gun, as this appealed to me as being more in accordance with the patriotic fervor that encompassed my being. I was a slender, immature young man of

nineteen. It looked as if I would be unable to endure the hardships of camp life, but I soon became hardened to it, and became an efficient soldier; always up on the company's line; always up on the march; always ready for any duty. The rigor of camp life agreed with me and from one hundred and thirty pounds I soon weighed one hundred and sixty. It was the 9th of June, 1861, before arms could be obtained. Then our company was transferred to a camping ground at Atlanta, where we all duly signed articles of enlistment. We were attached to the 9th Georgia regiment. We were the first regiment to enlist for the war. All enlistments before that time had been for twelve months. The magnitude of the peril and the hardship, blood, and strife incident to our enlistment were not in the slightest anticipated. We thought it would be a short campaign. We knew nothing of the disposition of our opponents and of the bitterness and bloodshed that were to follow.

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Our officers were all elected by ballot. The colonel was a Mr. Goulding, who soon dropped out. The captain of my company was Benjamin Beck of Milledgeville. I was made first corporal without asking for the position. Afterwards I was made a sergeant and acted for a while as first sergeant. I had reason to know afterwards that any office is preferable to the position of a private. About the middle of June we were transported by rail in cattle and box-cars to Richmond, Virginia. There the regiment was drawn up in line of battle and we had our first dress parade. Our regiment was soon ordered to Strasburg, Virginia; there we disembarked from the train and commenced our march down the beautiful Shenandoah Valley to Winchester. Large wagon trains were in attendance to transport our tents and camp equipage. How great a change gradually came over our transportation department! From several wagons to a company, we were reduced eventually to one to the regiment, known as the skillet wagon, as the men kept their cooking utensils in it. Our regiment was armed with an ordinary smooth-bore musket which shot a cartridge loaded with a ball and three buckshot. By actual trial our guns with such a cartridge were only effective a short distance, and would not bear the ball and shot at direct range more than eighty yards. Our cartridges were gradually changed to one with a single ball. Each soldier carried a belt of leather around his waist to which was attached a cartridge box containing forty rounds of cartridges and a cap box with about fifty percussion caps. This musket was used up to the end of the war, although a large part of the army gradually changed for Enfield rifles, a better gun with a range two or three times as far as a muzzle loader. The Federals had an immense advantage with their superior breech-loading Spencer rifles, which carried three times as far as our rifles, and shot ten times to our one. Toward the end of the war this was equivalent to doubling the Federal force. During our first marches our knapsacks and all camp equipment were hauled in wagons. But soon we were required to carry our knapsacks; but we eventually threw them away, and carried our clothing in a roll. The shoes I wore were splendid,—made by a shoemaker at home, and my socks had been knitted by my mother. At Winchester we were attached to Gen. Francis S. Bartow's brigade. The army was in command of Gen. Joseph E. Johnston, who rode down our line, and I

had my first sight of our commanding general. After remaining in camp at Winchester, we were ordered to march farther down the valley toward Martinsburg. Near there we were drawn up in line of battle expecting an attack. While waiting we were suddenly ordered across the valley toward Manassas Junction. We marched all night; when the sun rose not more than one-fifth of the men had reached our destination. I was among the foremost. In this connection I wish to state that I had an extraordinary endurance on long fatiguing marches. I never met a man in the army whom I thought my superior in endurance.

Our brigade waited by the railroad expecting to be transported to Bull Run. But as transportation was very limited the 9th Georgia was left behind. We could hear the roar of battle, and early next day we were upon the historic field of Bull Run, generally known as the First Battle of Manassas. We marched over the battlefield only to see the dead and wounded Federals. I saw the first dead I had ever seen. It made an impression of horror upon me that I remember to this day. I recollect a day or two after the battle I came[18] upon a horse, wounded in the shoulder, standing in the shade of a tree. The wound was such that he had no power to twitch or move the muscle of his shoulder to frighten the great number of horse flies which were sucking his blood. I was struck with the wise provision of nature that gives the horse the power of shaking off insects by a twitch of the skin. General P. G. T. Beauregard, who commanded the Confederate forces, rode down our line. We gave him a cheer, and I remember crying out, "Let us go forward." My impression was the right one. If our victory had been followed up, we could easily have captured Washington, and the outcome of the war would have been very different. But we waited and gave the aroused North full time to recover from their defeat, and place large armies in the field. While on picket duty on the hills in sight of Washington, our regiment was under fire for the first time. I remember on one occasion I had been standing with my hand upon a plank—I moved away. A second afterwards a bullet struck the plank. We remained several months inactive in camp, losing valuable time. Camped near us was the 28th Georgia in which was my brother George as[19] a surgeon. We were also within a few miles of the 1st Georgia Regulars, a splendid body of men, in which my brother Tomlinson was a first lieutenant. So I had the pleasure of being near and seeing my two brothers. During the winter of 1861-1862 the hardships of camp life, caused more than anything else by bad food and water, enfeebled my health. While lifting a heavy log I sprained my back, and was ordered to a hospital in Richmond. In Richmond I met my brother George, so did not go to a hospital, but stayed with my brother, who, on account of his poor health, was forced to leave the army. The surgeon who examined me thought I was permanently disabled, so I obtained my discharge from the ranks and went home with Brother George. At home, in a few months, I partially recovered my health and insisted on again entering the army. My mother would not consent to my entering the infantry, therefore I bought me a good horse and proposed to ride down to the seacoast where I would consider the matter, as I was at that time exempt from service. But I went to Bainbridge instead, intending, with a Mr. Campbell, to organize an artillery company. But while there I met some college friends who had enlisted in a cavalry company for

the coast defense. I joined[20] them as a private and did some hard riding for three months along the Florida coast. We were stationed at Newport, which is near the mouth of the St. Mark's River in northwest Florida. This company was a finely appointed body of men. They furnished their own horses and were splendidly mounted. They were all young men of position and education. There seemed to be no distinction between the officers and men. I do not think there was a mess in the company that did not have several servants to cook and wait upon its members. I became a good rider, and before I left I was one of the best in the troop. I was well mounted upon a fine horse I named "Red Robin." I exchanged this horse for one called "Flying Ant," which was considered a very vicious and dangerous animal, as she had disabled two men before I took her in charge. I simply wished to show the company that I could manage her, and I did. She was a splendid horse. On leaving the cavalry for the infantry service I sold her, including my fine cavalry saddle and equipment, to a prominent man in Quincy, Florida, for fifty-five dollars in gold, which I was to receive in a few days, but which I never did.

In January, 1863, I joined the 1st Georgia Regulars as second lieutenant of Company B. The regiment had been ordered from Virginia to Georgia to recruit its ranks. From there they were ordered to Florida near the junction of the Chattahoochee and Flint rivers, and there I joined them. I shall not attempt to give in detail my life in this regiment—its toils and privations, marches and battles. I shall only give incidents in our campaigns that are personal, and I may often with but a line pass over long periods of time. At the time I joined the 1st Georgia, it was commanded by Major R. A. Wayne. The colonel, and lieutenant-colonel had been disabled by wounds and illness and never rejoined the regiment. Major Wayne became colonel. He was personally one of the most fearless men I have ever known. He was a gruff man, short and peremptory in manner, in camp disliked by his officers and men, but in time of battle, especially in great danger, commanding the respect of all. During the spring and summer of 1863 we performed picket duty along the coast near the mouth of the Appalachicola River. This was useless from a military point of view, and our ranks were more decimated by malaria than if we had been in many battles. We were under the immediate[22] command of General Howell Cobb. I have never been able to understand why he kept us there with the daily report of sickness and death. Oh! the chills and fever—and no quinine! This medicine, so necessary in the treatment of malaria, the enemy refused to pass into our lines. Three-fourths of our men and officers were prostrated, many of them dying. It was a shameful waste of life. The memory of the sufferings in those sickly camps will remain with me always. My brother Tomlinson was the captain in Company L in the regiment. He was a good officer, beloved of his men and respected by the officers of the command. He had been wounded twice severely, in the Virginia campaigns, on the field of Malvern Hill he was left for dead with a wound in the chest from a piece of shell, and at Second Manassas with a ball through his leg. He was carried home from our camp on the Appalachicola River so wasted with malaria, that I never expected to see him again. All in the regiment were sick with this disease that summer and I felt the effects of it through the entire winter. Early in 1864 we were ordered to march in all haste to Quincy, and

from there to entrain to Lake City. We rejoiced to leave our sickly camp. Shortly[23] before we left we were joined by a company of men, which had been raised in Savannah as a command to operate heavy artillery. They were men over fifty and boys under eighteen years of age. They presented a most unmilitary appearance in motley civilian clothes. A large force of Federals had landed at Jacksonville and intended to march to Tallahassee and take possession of the State of Florida. Their cavalry were marching upon Lake City and were within a few miles of the city when we arrived. Our small battalion and a company of Florida cavalry were all the troops we had to receive them. About a mile from Lake City where we expected to meet the enemy we formed a line in the pine woods. Soon they were in sight, and, on seeing our skirmishers, dismounted and proceeded to attack us. It was a foggy morning and the enemy approached within seventy-five or one hundred yards before we perceived each other. I was given command of the skirmish line. I was instructed to try to draw them near to our line. Both sides commenced firing. Soon the mists rose. The enemy, seeing our line of battle, retreated with haste. They outnumbered us two to one. We lost no men. While walking along the line of skirmishers I was aware of bullets whistling near me, one going[24] through my cap. Then I realized that the white blanket strapped to my shoulders made a target, I pulled it off and the firing, especially at me, ceased. After this skirmish fighting our forces were joined by Colquitt's and Harrison's brigade and we marched forward at once and met the enemy on the ever memorable battlefield of Olustee. It was not the intention of our commanding officer, General Finnegan, to fight the battle where it was fought. About a mile to the rear our line of battle had been formed with a protection on one flank of Ocean Pond and a swamp on the other. A regiment was sent forward to entice the enemy to our line of defense; they became engaged and regiment after regiment was sent forward to support them until the engagement became general, resulting in a complete victory for our forces.

The battle of Olustee was fought in the open pine woods. The victory was attributed to the courage and determination of the soldiers. There were no special tactics or generalship displayed. It was simply a continuous charge of the enemy to break our irregular lines which had been formed behind logs and trees. In this strong position our regiment of one hundred and fifty men was at the[25] extreme left, with a depression filled with logs in front. Here we remained many hours resisting every attack of the enemy, who were many times our number, to dislodge us. They were in plain view and being above us presented a fair mark. At last under shot and shell we rose and charged them. We had already withdrawn our skirmishers, so we overran their skirmish line with our line of battle. They now hastily withdrew and our victory was complete. The battle lasted from noon until night. I think it probable that we killed and wounded more men than we probably had in our command. During the battle we were commanded by Capt. Henry A. Cannon of Wayne County, Georgia. At the beginning of the battle, after all our men were in position, I was standing within a few feet of Captain Cannon. I whispered in his ear that it was his duty to lie down, or protect himself behind a tree as I was doing. The enemy was charging in front of us, and I was satisfied no one could stand before

such a fire. He refused to move, but stood with his sword drawn calling on the men to be steady. I had hardly spoken before a ball struck him. He staggered backward saying, "I am a dead man." With my left arm under him I lowered him to the ground. He died at once.[26] He was a good officer and a brave man. We were together in the same mess. I wrote to his wife an account of his death and sent her a small amount of Confederate money that Captain Cannon had left with me. The day before the battle, while riding near a great live oak tree, he had said if he should die in battle he would like to be buried under its branches, so he was wrapped in his military cloak and buried there. In this battle I lost another friend, Lieutenant Dancy of Lake City, Florida. At that time I had but three or four men in my company. They were tried and true soldiers and were too few to require any attention from me. So I went into the battle with the arms of a private soldier. On hearing of the battle of Olustee my brother Tom returned to the regiment, a very ghost of his former self. He was wholly unfit for any kind of service and had to have a negro man to accompany him. Strange as it may appear, camp life seemed to agree with him and he soon reported for duty. Our camp life in Florida's piny woods was varied with sham battles between different regiments; the men used lighted pine burrs at night as ammunition. Another entertainment was digging[27] gophers and often a rattlesnake out of their holes. We ate the gophers and killed the snakes. I remember one rattler that measured over ten feet and whose head was as broad as my hand, to stuff its skin took a bushel of bran, and a straw was run through the hollow of its fangs. I have never before or since seen such a serpent. It came out of a gopher's hole to warm in the sun and its head was cut off by an officer's sword.

The troops of both armies soon left Florida. Our regiment was partly filled up with returning invalids and recruits. We stopped at Savannah and were sent on Whitemarsh Island to aid in the coast defense. There and upon Wilmington Island we performed picket duty upon an extensive scale. For a short time we were engaged in guarding a large number of Federal prisoners, who had been brought from Andersonville to be turned over to the United States fleet stationed at the mouth of the Savannah River. The United States Government refused to exchange prisoners of war with the Confederate States. The Confederate authorities wished to avoid feeding and guarding so many prisoners. So several thousand were forced on their government on the plea of sickness, although not one in ten was really sick. These prisoners were taken down the river on flat barges.[28] I remember their shout of joy when they saw the Stars and Stripes floating from the masts of the transports which waited to receive them. About this time General W. T. Sherman commenced his famous march through Georgia, with nearly one hundred thousand men in his command. There was no force to oppose them. And their course was marked by fire and pillage. My mother's house in Milledgeville was robbed of everything of value. My mother and sisters fled to Macon just before this army of robbers had reached Milledgeville. All the men that could be gathered together opposed Sherman's army as it approached Savannah. Our regiment marched from Whitemarsh Island and occupied a prominent position in the breastwork of defense. General Sherman and his army confronted us and although twenty times our number they refused to attack us, although we offered them defiance for several

days. General Sherman's tactics as a general was exemplified here. He opposed us with an entrenched line more than equal to ours and sent a large force to occupy our flank, thus forcing us to retreat. Our regiment of about two hundred and fifty men was commanded by Colonel R. A. Wayne, a cool, fearless, officer. I was on duty as adjutant of the regiment. We felt the hazard of our position.[29] The rumor came along the line that we were to be surrendered as prisoners. We were determined to resist to the utmost. Suddenly at nightfall we evacuated our entrenchments and crossed the Savannah River, leaving the city to be occupied by General Sherman and his army. It was on a bitter cold night, December 23, 1864, when we crossed the river. The scene of our army at midnight crossing the river on the pontoon bridge lighted by bonfires and the excitement over the evacuation are all vividly impressed on my memory. The next morning when the sun was barely above the horizon I looked across the wide rice fields of Carolina, and saw the United States flag floating above the City Hall of Savannah. The Federal army was delighted at the capture of Savannah, especially of twenty-five thousand bales of cotton, which were stored there. Though this was private property, it was ordered shipped and sold for government account.

Our army when we left Savannah was under the command of General Hardee. It contained only about eight thousand men, mostly reserves, old men and boys. We never attempted seriously to oppose General Sherman in his march through South Carolina. The march of that army was a trail of fire and desolation. Their acts of vandalism[30] accomplished nothing except to embitter Southern people. Pillars of smoke arising from barns and peaceful dwellings gave us notice that Sherman's army had commenced its forward march. Our little regiment was the rear-guard in nearly all of our march through the State. I shall not give in detail the various scenes and incidents connected with our marches and countermarches in front of the great Federal army, nor shall I describe the scenes of confusion among the people. We had less than ten thousand men of all arms, of these about five thousand were infantry. The enemy pursuing us had more cavalry than our entire force. We, who brought up the rear, would form in a good position and dare this cavalry to attack us. They invariably refused to do so. We were then forced to withdraw before their great force of infantry could arrive to overwhelm us. Because of exhaustion and sickness we lost probably about one-fourth of our army before we reached Augusta. We passed below Columbia, but the main body of the Federals took a direct line to South Carolina's capital with the avowed purpose of its destruction. I will now pass over the incidents of our Carolina campaign, until we reached Cheraw on the Santee River. The enemy evidently expected[31] that we would give them battle here, because at this point we had large commissary stores. But General Hardee had no idea of attempting battle, except skirmishes. So we used every exertion to get our army with all the supplies possible across the Santee River and then burn the bridge. Our little regiment, comprising less than two hundred men, was given the dangerous duty of guarding the river until our cavalry could retire behind us and then we were to cross the bridge ourselves. Very soon we saw a dark line of horsemen among the trees. At first, we supposed that they were the enemy, but they proved to be our cavalry, about five

hundred men. They came thundering down the road, crossed the bridge, and were soon in our rear. Then in the woods we saw a long line of infantry with their skirmishers in front advancing slowly to attack our skirmish line. The immediate command of our skirmishers was given to my brother, Captain Tomlinson Fort, a calm, fearless officer. I, as adjutant, was instructed by Colonel Wayne to ride along the line and to tell the men to fall back slowly before the overpowering forces of the enemy. In returning to my post beside the colonel, as was my duty, I had the narrowest escape from death or capture that occurred to me during the entire war. I was[32] aware of the great danger I was incurring as I swiftly galloped back in front of our skirmish line along the public road to rejoin Colonel Wayne. As I emerged from the pines along the road, riding very swiftly, suddenly I came upon two or three of the enemy's skirmishers who had been firing at Colonel Wayne. I came into the main road a few steps ahead of these men. I pulled up my horse and suddenly turned to the left and at the same instant the men threw up their guns and fired. By reason of my sudden turn I feel satisfied that the balls all went in front of me. As I rode down the open road a dozen or more skirmishers had some nice target practice at me, but they did very poor shooting. A cup was cut from my haversack, I think my hair was touched, and my horse was skipped by a ball. We arrived at the bridge—with a large body of enemy skirmishers about fifty yards behind us.

The bridge, a wooden-covered structure, had been saturated with turpentine and rosin by a squad of our men who had instruction to burn it as soon as we had crossed—I was among the last to cross. The bridge was then smoking and burning, I remember being partly stifled with smoke as I entered, with difficulty forcing my horse through. The bridge burned like tinder and[33] a few minutes after we were across the flames were fifty feet high. After we had marched a few hundred yards, our regiment received orders to return to the bridge and see that it was entirely destroyed. I never saw a better exhibition of discipline and courage than was shown by our tired men. With no protection, and only a narrow river separating them, they turned to face a force ten times their number. Fortunately there was a natural entrenchment by the river into which we filed and which fully protected us from the enemy's fire across the river. Our situation was changed—the heavy line of enemy skirmishers was along the open river and our men who had been so long pursued were protected, so we had our revenge. My brother Tomlinson, was stricken with a most acute case of inflammatory rheumatism and had to be carried by his men, as he did not wish to be left to fall into the hands of the enemy. After we had crossed into North Carolina I managed to have him sent in a wagon to Raleigh where he was taken care of by a kind lady, Mrs. Polk, until his recovery.

I asked our commanding colonel that I be relieved from my position as acting adjutant, and that I be assigned to command of Company L,[34] my brother's company. It now had no commissioned officer. My request was complied with. Colonel R. A. Wayne called a meeting of the officers of the regiment and proposed that on my being relieved of my position that the thanks of the regiment be given to me. It was agreed. The regiment was drawn up in line of battle, arms were presented, and in the language of the order—"Thanks are returned to

Lieutenant Fort for his coolness and courage under fire." I was much gratified at this compliment. I have the paper written in pencil by Colonel Wayne, and have preserved it for my children so as to show them that their father did not lose his presence of mind in times of great danger, and that they are the children of a Confederate soldier. General Hardee's brigade was now joined to the army of General Joseph E. Johnston. At Bentonville, North Carolina, Johnston gathered together what forces he could, and fought the last great battle of the war. It was a bloody, indecisive battle, and ought never to have been fought. We were confronted with a force over four times our superior in number and ten times in equipment. No valor or strategy could overcome such immense odds. On the evening of the last day our rifle pits on the extreme angle in front of our main line were[35] captured. To recapture them a detail of ten men from each company in the brigade was made and I was detailed to lead it. It appeared a very hazardous undertaking, but we retook the pits with but little loss. I was the third man in the pits. At midnight our army retreated across the river.

FACSIMILE OF THE COMPLIMENTARY ORDER ISSUED BY COLONEL WAYNE

As soon as we had a safe distance between us and the enemy, an order came to send an officer from our division to Georgia to collect all soldiers possible and bring them to the army. This order was given to our regiment. Every officer except myself applied for the place. Colonel Wayne was indignant at so many applications, and ordered me to go. I at once made quick preparations to leave for Georgia. I had written orders signed by the adjutant-general of General Joseph E. Johnston's army for all authorities to forward me on my journey with all means in their power. I was aided some by the railroads, but I mostly depended upon walking, carrying a knapsack weighing twenty-nine pounds. On my journey through the Carolinas and Georgia I witnessed many scenes and incidents, some of an amusing, others of a pathetic nature. I made a remarkably quick trip. A day or so after I left the army a reorganization was made of our division. Our regiment[36] was raised to over one thousand men. Although not present I was advanced to senior first lieutenant of the regiment. Many officers were put back into the ranks. While on the road I heard of the surrender of General Lee. It seemed unbelievable, and I denied the report. I arrived in Macon two days before its capture by General Wilson. An organization of cavalry was hastily formed in which I was to receive an independent command and join General N. B. Forrest in Alabama. But before this could be accomplished in quick succession came General Johnston's surrender, the capture of President Davis, and the death of the Confederacy. In conclusion, Stonewall Jackson defined war as "Death." General Sherman as "Hell." Whatever may be its definition it is always unjustifiable, inhuman, barbarous; the cause has nothing to do with the issue of the conflict. Success attends the side with resources sufficient to overcome their opponents. For the last year of the war it was the pure white flame of patriotism which alone sustained the Confederacy,—its material resources were exhausted. No valor, however great, could withstand the resources of the North sustained by immigrants from Europe. The frown of civilization[37] was upon the institution of negro

slavery and it had to go.

Note—At Cornelia, Georgia, on March 25, 1917, a little group of patriotic women met to organize a Chapter of the United Daughters of the Confederacy, and when asked to select a name for the Chapter, the name of John P. Fort was suggested and unanimously adopted, the ladies being anxious to show, in some measure, their appreciation of his splendid war record and of his loyal and unselfish devotion to this section of the State since the War.

Mrs. R. L. Deck, Pres. John P. Fort Chapter, U. D. C.

AFTER THE WAR

When I returned from the army I had a severe cough and was in a very run down condition. Brother George feared that I had an incipient case of tuberculosis. So in the fall of 1865 I went down to a plantation in Sumter County to try to recover my health by living out of doors. That winter I lived the life of a hunter, the gun constantly in my hand. During the four years of the war the game had not been hunted at all, consequently it had increased in great abundance. I was very successful in killing game of all kinds—quail, ducks, wild turkey, and deer. To show the abundance of the game, and my success, I remember that in fourteen turkey hunts I brought home a turkey every time but one. There were several large ponds in the place to which the ducks, principally mallards, came in great flocks to roost. One late afternoon I saw two trumpeter swans coming in to a pond. From a distance of one hundred and forty yards I raised my rifle and shot one of them dead. It was a magnificent bird, weighing thirty-nine pounds and measured nine feet from tip to[39] tip of the wings. There were coon hunts at night, and many hours spent with the fishing rod. On many of the trips I was accompanied by a faithful negro named Squash. My health improved, my cough disappeared, and I went back to Macon a well, strong man. In 1864 my sister Julia, Mrs. E. D. Huguenin of Macon, then a widow, died as a result of a runaway accident. She left five children to my mother's care. She bequeathed to my mother her home and servants in Macon, and made brother George executor of the estate. The family then moved to Macon, where we lived for about twenty years. The family life was a most harmonious one. The household was presided over by my mother, assisted by sister Kate. In the spring of 1866 brother George died. He had been in poor health for a long time, but, in spite of that, he had made a splendid success of his profession, and had acquired a good deal of property. He was the kindest and best of brothers. After brother George's death I applied for testamentary letters for the administration of the Huguenin estate. The letters were granted de bonis non cum testamentor nexus. The estate consisted principally of three large plantations in Sumter County. At Colonel Huguenin's death[40] there had been about three hundred slaves. I assumed the position of manager of the estate, which occupied most of my time for many years. When I took charge the estate owed about twenty thousand dollars to Mrs. Rosa E. Delony, Athens, Georgia, a daughter of Colonel Huguenin by a former marriage. I succeeded with great effort in paying off this indebtedness, although the extreme low price of cotton and

the contraction of the currency made the payment very difficult to make. Some years I was not able to make any at all. At one time attempts were made to sell the plantations at public sale. But I managed to pull through. My commission for administrator averaged about eight hundred a year.

I resumed the study of law under the tutelage of Mr. L. N. Whittle in 1866, and I was duly admitted to the Bar in the following year. On account of the fact that the Sumter County plantations kept me so busy, I was only able to devote a limited amount of time to the practice of law. I was reasonably successful in my profession. I had a good clientage who felt that their affairs were in safe hands. Some of my cases involved interesting questions of law, several being taken to the Supreme Court. I believe my greatest triumph was the case of Mrs. Martha F. Woodson[41] versus Bodeing & Company, in which the opposing counsel was Mr. Benjamin H. Hill, in which I achieved a great victory. I retired from the practice of law in 1885 and turned my entire attention to agriculture. During my life in Macon I was interested in the welfare of the city. Under the auspices of the Ladies' Memorial Association, I erected the Confederate monument which is standing to-day at the crossing of Cotton Avenue and Mulberry Street. My niece, Martha Huguenin, married Mr. J. Marshall Johnston of the firm of R. T. Wilson & Co., bankers of New York City. Mr. Johnston and I purchased large plantations in Houston, Lee, and Dougherty counties, twelve thousand acres in all. The title was conveyed to me and Mrs. M. F. Johnston. The affairs of the Huguenin estate being now wound up I could give most of my time to agriculture on the newly acquired plantations. The price of cotton continued very low. I do not think at that time any one made money planting cotton. At just about that time the cotton caterpillar appeared in the fields of southern Georgia and bid fair to destroy the crop. Cotton growing seemed doomed as a profitable undertaking. One day[42] while out in the fields I noticed that the moths, the parents of the cotton caterpillar, were flying very slowly, as if sick. I captured some of these moths and took them back with me to Macon, where with the aid of a compound microscope I discovered they were infested with a parasitic insect. This parasite killed them in a short time. I, at once, communicated this discovery to the Entomological Department in Washington. But they refused to agree with me in this, the true reason for the quick disappearance of the cotton caterpillar. Although I had testimony that the same trait of slow short flight was noticed in the moths all over the country, I do not know if any credit has ever been given to my discovery by the Department, or how they finally accounted for the disappearance of the caterpillar from the cotton fields.

In the year 1876, a society for the promotion of agriculture was formed, with headquarters in Washington City. The organization spread with astonishing rapidity, the farmers looking to it for assistance. At a general meeting in Atlanta of the Georgia organization, of which I was a member and officer, a resolution was passed requesting the legislature to form a Department of Agriculture. I was requested to prepare a bill. I had no guide before me; but I drew the bill, defining its object[43] in various matters, and giving the commissioners power to prescribe rules, and to prohibit the sale of worthless fertilizers in this State. I handed the bill to Mr. Bacon,

speaker of the House, and it was introduced by Mr. Butt of Marion County. The bill passed without amendment after much discussion, and was soon a law. A similar bill was passed almost at once by several other States. Among the plantations in the western part of Dougherty County, purchased by Mr. Johnston and myself in 1879, was a body of land of twenty-five hundred acres known as "Hickory Level." The land was very fertile, there was no superior in that entire section of the State. The plantation was very sickly, no white man but one had ever lived on it for two consecutive years. Malaria in its worst form was very prevalent. The death rate among the negroes was alarming. At that time, the theory of the relation of the mosquito to the spreading of malaria had not been advanced. I considered the sickness to be due to a great extent to the very bad water, being what is known as "rotten limestone," which was drunk on the place. The question of obtaining pure water became so important that at one time it looked as though the place would have to be abandoned if some solution were not found. I thought first of building[44] large cisterns with sheds to catch rain water, but that plan involved so many details, and expense, and there was the danger of easy contamination, so I gave up that plan. I suggested then that we bore an artesian well, as I had been investigating that subject and believed that a well could be bored with success. The question was discussed between Mr. Johnston and myself but held in abeyance on account of the expense and the uncertainty of the enterprise.

During the summer of 1880 there was a great deal of sickness on the place. There was very little rain. Water was difficult to obtain and was of a milky color. During that summer I tried to interest the town of Albany and the Central of Georgia railroad in the enterprise of boring an artesian well to obtain good water. At that time Mr. Nelson Tift, Sr., was Mayor of Albany; General W. S. Holt was president and Mr. Shelman superintendent of the Southwestern railroad. As best I could, I laid before these gentlemen, the importance of good water to that section and what the benefit would be to the town of Albany and to the railroads. I explained why I believed artesian wells could be bored with success in this section. And as I felt financially unable to undertake the experiment of the first well, I[45] wished to get financial assistance for the undertaking from those who would ultimately be benefited. I received no encouragement. I wrote articles for the Macon Telegraph and the Albany News and Advertiser, explaining fully my reasons for believing that artesian wells could be bored in southern Georgia. My theories were ridiculed, and received no serious attention. At last, I determined to commence the undertaking myself. I had the consent of my partner, Mr. J. M. Johnston. We were jointly to bear the expense. I again laid the matter before the managers of the Central and Southwestern railroads for assistance. I saw Mr. Shelman in person. All he would do was to give me a free ticket over the Southwestern road for the man whom I had engaged to commence the well. This amounted to three dollars and fifty cents, which was all the assistance I received from the railroads, and that was done in anticipation of the freight charges that were to be on the engine and other material that were to be brought from Selma, Alabama, to Ducker Station for the purpose of boring the well. I had written to a friend in Selma, Mr. J. C. Campton, to recommend to me a

man who was accustomed to boring artesian wells in that section of Alabama. He employed for me a Mr.[46] Jackson from Selma at the price of five dollars a day, for his services, and use of his friction clutch and windlass. I purchased an engine and steam pump and commenced work on February 1, 1881.

My reasons for the faith I had in the practicability of artesian wells being bored in Georgia was a matter of thought and observation extending from my boyhood. One day while riding in a buggy with my father in the lower part of Baldwin County, we crossed a little stream known as "Reedy Creek," that flowed over many small round pebbles that looked like birds' eggs. The banks, too, of the stream were covered with these round stones imbedded in the earth. I got out of the buggy to get some to carry home as checker rocks for my sisters. My father then explained to me, that at an ancient period of time this had been the shore of the ocean that had extended over what is now southern Georgia, south of a line drawn from Augusta to Columbus. I was interested in the facts explained to me by my father, and remembered the conversation. Many years afterwards while on the southern Chattahoochee River I noticed cut by the river bank a stratum of blue earth, which I felt assured was an ocean deposit known as blue marl, a deep-sea ooze. This ooze is impervious to water, preventing[47] the water underneath from rising to the surface in springs. I noticed this deposit on the west bank, the Alabama side, and that it was sloping downward, eastward, and toward the south. I crossed over to the east bank, the Georgia side, none was to be seen. But the natural supposition was that it was there only lower than the river bank. This was near Eufaula. As this marl appeared again at the surface near Brunswick, I took what seemed to me to be a logical position that this deposit extended under all southern Georgia, far down in the earth.

There were other phenomena I had observed on this subject. During the Civil War, I was attached to a cavalry scout service with headquarters near Saint Mark's, Florida. One day I went with a comrade, Jim Denham, in a skiff up the Wakulla River to the Wakulla Spring, about five miles from Saint Mark's. This spring is said to be the largest in the world. It is a great natural curiosity. Here was a river as large as the Chattahoochee or larger, rising up out of the ground. Whence came this water? The natural answer seemed: an underground river flowing under Georgia, which had been prevented before from rising to the surface by some natural obstruction, namely, earth impervious to water.[48] The water had sunk into the earth in the northern plateau and mountains of Georgia, where there were no water-tight strata. I was greatly awed and interested in the Wakulla Spring. At first my ideas of its origin were only vague and crude, but became more definite and crystallized as time went on, and as I added to my observation and thought on the subject. There had been several attempts to bore artesian wells in Georgia. In about 1850 an attempt was made to bore a well in Albany; which proved a complete failure. They were wanting in continuous pipes to reach water-tight strata. The water would seep out and never reach the surface. Mr. Jones of Newton, Georgia, was the contractor for the Albany well. I wrote to him upon the subject. He answered with a most discouraging letter, stating that when a young man he had lost a good deal of money in that enterprise,

which he had never been able to recover from the town of Albany. Another attempt was by a Mr. Walker, called "Rich Billy Walker," a very wealthy man of Pulaski County, who bored two wells near Longstreet, Georgia, both of which were failures, although he went over six hundred feet deep. My attention was also called to the fact that scientists and especially the famous geologist,[49] Joseph Le Conte, had said that artesian water could not be procured in Georgia. In the face of all this discouragement I am astonished that I was still determined to go ahead, and too my finances were very low. In after years, in thinking this over, I have sometimes felt that I was compelled to continue the undertaking by some power outside of myself.

Commencing February 1, 1881, I continued the work through the spring and summer. My tools were so inferior that I almost had to abandon the well, especially when a boring tool, a reamer was broken off in the bottom of the pipe. My well seemed to be a failure and was ridiculed by some of the citizens of Albany. I remember one day on the street that a Mr. Bazemore, a warehouseman, stopped me and laughingly said that he had an injunction against me, because I was trying to rival Noah,—the difference was that Noah wished to rescue from a flood while I wanted to flood the State. Such ridicule only made me more than ever determined to go on. With great difficulty I succeeded in getting the reamer out. At about the depth of four hundred feet I reached the water-tight stratum, a deposit of deep-sea ooze known as blue marl. I had been looking for this water-tight envelope and felt greatly encouraged. On August 1st, I returned to Macon leaving word to continue work until my return, which would be within a few days. On August 4th, at ten o'clock in the morning I received the following telegram, "Water flowing at seven gallons per minute." I was greatly gratified at this, which was a triumph for my belief and for my perseverance. I took the next train accompanied by Mr. Harry Edwards of the Macon Telegraph. We arrived at Ducker Station the next morning, Sunday, and went out at once to see the little well. It was an inspiring and gratifying sight to see the water flowing from the pipe. The country was in the grasp of a parching drouth, and presented the appearance of a country in a great need of the blessing of water. A great number of awe-struck negroes had assembled. They regarded me with great wonder and astonishment. It was thought that the Almighty had informed me to strike at that special spot, and I was likened to Moses, who in the wilderness struck the rock from which water gushed out. The news spread. The well was visited by many people who came to wonder and drink the splendid water. An account of my success was published in many of the State papers. The first being the Macon Telegraph[51] with an article by Mr. Edwards in which I was much praised.

This gem of a little well, five hundred and fifty feet deep, of the purest life-giving water, of less than one hundred grains of any substance to the gallon, flowed nineteen years without diminishing. Its diminution at the end of this time was caused by chemical corrosion of the pipe, a hole being made, through which the water passed into the great sand bed above the water-tight strata. I successfully telescoped the pipe with a smaller one. The well had only ceased to flow two or three days.

LOG OF THE WELL OF JOHN P. FORT

U. S. Geological Survey

	Thickness	Depth
	Feet	Feet
A few feet of surface clay, followed by limestone bowlders	65	65
Limestone with silicified layers containing shells—Traversed by subterranean streams	85	150
Blue marl (clay?)	15	165
Shell rock, sand rock, and marl (clay); water rose to within 14 feet of surface	95	260
Sand tinted blue; layer of very fine white sand at 370 feet, below which was some coarse sand with shell fragments and sharks' teeth	120	380
Blue clay and sand rock in alternate layers	30	410
Blue clay with soft sand rock to flowing water	80	490
Sand and clay, forming water-bearing stratum	40	530
Hard rock	17	547

My successful boring of this well was quickly followed by the boring of others. The town of Albany and the Central railroad bored two at once, showing that they recognized the fact that it would be of value to them. Soon there were wells in Jacksonville and Sanford, Florida, and Brunswick and Savannah, Georgia. Other places quickly followed, getting their entire water supply by this means. Gradually the excitement occasioned by my well died out. By many it was looked upon as an accidental discovery and I was put in the list of cranks. I believe that it even caused my credit to suffer, for the banks of Albany, looking upon me as a crank, refused to lend money to a visionary. Nor has the Central of Georgia railroad, which more than any corporation was benefited by my success, ever acknowledged it in any way, or ever extended to me any special courtesy. The boring of my well, which cost eleven hundred dollars, was never a help to me financially. But it was a great satisfaction to me, to know that I was instrumental in procuring the blessing of good water for a great section of my native State, and to know this has been recognized and praised by many. During the first ten years my little well was used by a large circle of the surrounding population who[53] daily hauled barrels of water from the plantation. No charge for this water was ever made. It was free to all. It was a great satisfaction to me to see how the health on the plantation was improved. Malaria decreased, and hemorrhagic fever, the great curse of the country, almost disappeared. Pure water is a great

preventive of sickness. Times were hard, but I met all my pecuniary obligations, although sometimes paying as high as fourteen per cent. for money loaned on my real estate as security, taking it as valued at one dollar per acre. I consider the year 1881 the brightest in my life, as it contained two momentous happenings; in August the boring of my artesian well, and in October my marriage to Miss Lulah Hay Ellis of Atlanta, which event was the most important in my life. I brought my wife to Macon where we lived three years. I then gave up entirely my law practice, and left Macon. I took my family, my wife and two little daughters, to spend the winter months on Cooleewahee, one of my plantations near Albany. My wife became devoted to this plantation. We lived a healthful and happy life in the open. As game was plentiful, Lulah, with her fishing rod, and I, with my gun, supplied our table.

I now return to my work with the water of south Georgia. During the boring of my artesian well we drilled through a limestone stratum, eighty feet from the surface to one hundred and ten. When this stratum was reached all the water which could be pumped down the pipe would disappear. I considered this a strange thing. I inquired of contractors in Albany and the neighborhood if they had met with similar strata. They informed me that they had. On receiving this information, I felt confident that water let down into this stratum from a pond would disappear. I became so interested in this proposition that I determined to make the experiment. This section of Dougherty County is not over two hundred feet above the sea level and has on it a great many shallow ponds which have no natural drainage and which, because of the flatness of the land, cannot be drained by ditching. Near the artesian well on my Hickory Level plantation there was a pond of this character. It was not over twelve feet deep and covered several acres of ground. I thought that this stagnant water contributed to the sickness of the place, and to the high death rate from malaria. Later scientific research concerning the mosquito has[55] proved the connection of stagnant ponds and malaria.

I determined to drain this pond into that subterranean limestone stratum eighty feet below the surface. I had a boat built and transported pine logs to the center of the pond, laid them in a square, building this up until it was above the surface. I then had a platform put upon this crib, connected a small derrick, made a large swinging maul, and drove a three-inch pipe down to the hard-rock stratum. I then attached a chisel to a two-inch pipe which was let down in the three-inch one and cut the rock by continually raising it up and down, thus cutting through the rock until we reached that honeycombed stratum which I was looking for. When the chisel struck this porous rock it fell about two feet. A large quantity of air rose to the surface, startling the two negroes who were working on the chisel. The top of my three-inch pipe was several short pieces screwed together. I now unscrewed and left open at the bottom of the pond the three-inch pipe. The roar of the water as it went into this subterranean cavity sounded like a small cascade. The water in the pond decreased gradually for about two weeks, when it disappeared. The drained bottom presented a remarkable sight—many fish, alligators,[56] and trunks of ancient trees were exposed to the sun. This was a complete drainage and cost about one hundred and fifty dollars. By preventing the pipe from being stopped up with debris, the pond

was kept successfully drained for several years. But, finally, through the difficulties of keeping it open, as there were only negroes on the plantation, and because of general inattention, the pipe became stopped up and the pond filled again. I would here like to state that to my knowledge this method of subterranean drainage has been taken advantage of, in several localities. One that has been specially drawn to my attention is the drainage with six pipes by Mr. T. F. Putney, of Albany, of several hundred acres. This has greatly increased the value of his land. There are many ponds in south Georgia that I believe could be drained in the same way, as I feel assured that this same porous limestone stratum extends under that entire section.

I believe that this method could be the answer to the great problem of draining the Everglades of Florida. That State is now spending large sums of money on the attempt to drain parts of these vast swamps by canals and ditches. I believe that under this section of Florida is the[57] same geological formation as under Dougherty County, Georgia, and into which could be drained the surface water. And at only a fraction of the cost of the system now being attempted. I also hold the theory that the earth slides at the Panama Canal could be remedied in the same way, these slides being caused by very wet earth. The geological formation at the Isthmus is volcanic, resting on tertiary. Where the slides occur is one hundred feet above sea level. I think that a system of pipes, from the surface into a sand stratum which runs under the Isthmus, would remove the water from this wet earth. I shall not here go into my theory in detail. I have suggested it to Mr. Goethals, the engineer of the canal, and state it here not only as a theory of mine, but as a prophecy of the system that will ultimately be used. As I became more and more convinced of the immensity of the underground waterways of Georgia, vast underground rivers making their way to the sea, and as I realized more fully the inexhaustible supply of good water to be obtained, I had the vision of a large area of our State being made more healthful because of pure water, and prosperous by the use of that same water for the irrigation of the land in the growing of crops.

I had always been interested in the problem of[58] irrigation. Many years ago, a Mr. H. S. Orme moved from Milledgeville to Los Angeles, California. When on a return visit of Mr. Orme, I asked him what was the most wonderful thing he had seen in the West. He replied that which most impressed him was the fact that on a piece of land watered by irrigation such splendid fruit and vegetables were raised that it was worth five hundred dollars an acre; adjoining this tract was land which could be bought for one dollar per acre because it could not be reached by water. This showed the great value of water, both pieces of land being of the same fertility. There is no section of Georgia that is arid, but a large section of southern Georgia is subject to prolonged summer drouths, when the crops burn badly, sometimes being totally destroyed. It is good land and with the help of commercial fertilizer and water could make over one hundred bushels of corn and two bales of cotton to the acre. This section is geologically in the tertiary system and I believe that in it artesian water is everywhere obtainable. I was so impressed with these facts and my belief in the underground waters of the State was so strong, that I determined, if I were ever financially[59] able, to make a practical demonstration of what could be done in this

section by the help of irrigation from an artesian well. In late years, with much difficulty and limited means, I have illustrated the truth of my theory. I have, ten miles from Albany, a plantation known as Tompkins. The land is good and well suited to my purpose. On this plantation I determined to make an irrigation plant. With difficulty, in spite of accidents, I succeeded in boring a well five hundred and fifty feet deep. From a pipe six feet above ground there now flow thirty-five thousand gallons per day. This now fills a reservoir which holds four hundred thousand gallons. This reservoir is about four feet above the field to be irrigated. I was financially unable to make a cement reservoir which would have cost between three and four thousand dollars. I made a cheap substitute of sand and clay at the cost of about one hundred dollars. I plastered the sides and bottom of my reservoir with sand and clay, and which I had mixed by dragging a log back and forth across it. The log acted as a trowel, and made the reservoir perfectly water-tight. This reservoir now irrigates a field of fourteen acres. On this tract I have for the last three years averaged per acre two bales of cotton, and over[60] one hundred and fifty bushels of corn, and over four hundred bushels of fine onions.

Mr. Milo Williams, a United States irrigation engineer, on looking over my plant, said that this large section of Georgia was worth from three hundred to five hundred dollars per acre, that is, if the water supply was equal to what I believe it to be, and if the availability of the water became generally known. He said, too, that this land compared favorably with lands that were selling at that price in the irrigated section of the far West. The United States Department of Agriculture was interested in my work and gave me practical advice on the irrigation of my field, but on account of some technicality in the irrigation appropriation I was given very little financial assistance. I had hoped that the Department would take up my idea and do some developing on a large scale as they have done in the West. I wish again to state more fully my reasons for my confidence in the possible development of the underground resources of Georgia—a matter I believe most important. There is a surface geological formation called eocene commencing near Dublin in Laurens County, extending in a southwesterly direction through the counties of Pulaski,[61] Dooly, Sumter, Lee, Dougherty, Early, and Decatur, across a narrow strip of West Florida. I feel confident that under this formation flows a great river with collateral branches which comes to the surface at Wakulla Springs. Wherever this eocene formation is clear and distinct I believe an artesian well may be obtained, and that my well taps that great underground river. There are other underground waterways taking different directions and different surface formation that flow under southern Georgia and Florida. There is a large quantity of fresh water that comes up in the Gulf of Mexico near Cedar Keys, Florida, another in the Atlantic Ocean at Sheep Island, near Brunswick, Georgia. Brunswick has excellent artesian wells. I believe in the future this water power will be developed for irrigation. It will not require much capital, if the inexpensive furrow system of irrigation is employed, and the well once obtained is permanently there. I picture that part of the State prospering with the raising of cereals and cattle. There will be beautiful farms and comfortable homes. Thus showing that adding water to the other bounties of nature, this land can yield abundant crops

with the aid of the wisdom and industry of man.

We shall now turn our attention to my work in fruit growing in northeast Georgia. In the summer of 1886, we decided to spend the summer months in the cool and healthful climate of north Georgia. We bought a small cottage in Mount Airy, Habersham County, where my family have spent the subsequent summers. The last fifteen years being spent in a large comfortable home on the highest point in the village, with magnificent views of the Blue Ridge Mountains and surrounding country, and beautified with a profusion of flowers with which my wife has great success. In north Georgia my first work was with grapes. In 1890 I bought some land near Mount Airy and planted out a vineyard of Concords and Niagaras. I raised splendid grapes. I have never seen their equal, being superior in quality to those grown in New York State. Our climate made them especially sweet and tender. I did not make much money with my vineyards as the prices were low and express and commission so high. The grapes were attacked by the black rot. I was unable to eradicate it, although I tried the best means then known to the United States Department of Agriculture. So I was compelled to abandon the cultivation of grapes on account of this disease which became uncontrollable.

In my observation of the country around Mount Airy I became satisfied that a large section of the dividing ridge between the Chattahoochee and Savannah rivers, on which ridge Mount Airy is situated, was specially adapted to the growth of peaches. My principal reason for this belief was the freedom of this ridge from late frosts. This absence of frosts is caused by oscillation of the atmosphere—the cold air from the high lands draining to the valley. Frost does not form when the air is in motion. My theory that peaches planted on these ridges are not killed by a late frost has proved to be correct. I did not reckon with the cold winds that swoop down on this section from the northwest, the temperature going very low, sometimes to zero, and killing the fruit buds. This fall of temperature often comes after comparatively warm weather, which had caused the buds to swell. I determined to plant a peach orchard on one of these ridges. In 1895 Mr. R. H. Plant, of Macon, and I purchased some land splendidly situated about three miles west of Mount Airy. We planted about twenty acres in peaches. This orchard is known as "Clear View." Later I became the sole owner of this orchard. I also planted orchards in the other side of Mount Airy. I increased my orchards until I have one hundred[64] and twenty acres in peaches—about twelve thousand trees. I, at first, planted a good many varieties, but my greatest success has been with Elbertas, Georgia Belles, Crawfords, and Fox's Seedling. In good seasons I have shipped from fifteen thousand to eighteen thousand crates to markets at Boston, New York, New Orleans, Cincinnati, and Chicago. I have obtained net, as high as $1070 for a car, my peaches selling as high as $3.50 a crate in New York. But this was by no means always the case. Some seasons on account of the glutting of the market it hardly paid to ship.

The fruit is of great beauty, of large size and bright color, and delicious flavor. My example has been followed by many others, and now from several miles above Mount Airy to Alto, ten miles below, are hundreds of acres planted in peaches, as many as six hundred cars being shipped out

of this section in one season. I believe as a whole the growers have made money. Land has greatly advanced in price. When I first put out my orchard, ridge lands sold at two dollars per acre. Now it is worth from fifty to one hundred and fifty dollars. It has been very gratifying to me to see an industry, in this section in which I was the pioneer, flourish and bring prosperity to the people.[65] During peach season as much as thirty thousand dollars are paid out for labor alone. I now wish to speak of another experiment of mine in fruit culture. Although this experiment has not proved a financial success, it is of interest, and I believe that yet through scientific work it will be made a success. I speak of my cherry orchard. My largest orchard of cherries is at Clear View. I planted the large leaf variety of sweet cherry—the large leaf protecting the tree from the sun, which is too hot for them in this climate. I planted a variety of Bigarreau cherries that holds its leaves longer than most varieties. Though splendid trees, and generally blooming profusely, there is a lack of fertilization of the bloom, and what few cherries are made fall before maturing. I believe this condition is mostly due to the lack of moisture at the season of blossoming. I now have some ideas that may be able to correct this, and I believe my cherry orchard will yet prove a success. Man is made to overcome all obstacles.

I have been interested in the growing of many kinds of fruits. I have large pear orchards on my south Georgia plantations, Le Conte and Keifer pears. The trees have been badly blighted but have been a moderate financial success. I now come to what I consider the most successful[66] undertaking of the latter part of my life—the growing of apples in Rabun County, Georgia. I shall begin with a few words on apple culture in Georgia. Draw a line through our State from Augusta through the cities of Milledgeville and Macon to Columbus, and we will note at these cities that our rivers break over the granite rocks, and from thence flow gently to the ocean. Below this primary geological formation is nearly two-thirds of the area of our State, none of which is more than five hundred feet above sea level. This large area is classed as tertiary, and presents a soil and climate in which the apple has never been successfully grown. Immediately north of this line we come to the granite formation known as primary—comprising a large portion of the State, in which are included the red hills of Georgia. In this section certain classes of apples succeed well. This type may be illustrated by the Red June and Horse apple for summer; and the Yates and Terry's Winter for winter. These apples succeed better the higher altitude we reach in this primitive area of the State. They seem to approach a higher degree of perfection as the altitude above sea level increases. I am inclined to think that climate and altitude above the sea level are the two most important[67] factors in successful apple-growing in the State of Georgia. We will now consider that area of our beloved State from which arise the headwaters of our streams that flow into the Atlantic and Gulf. This is termed the mountain section, and embraces that portion of Georgia lying from 1800 to 3000 feet above sea level. To go back to the beginning of my interest in this question,—I moved in the fall of 1898 to Demorest, a few miles from Mount Airy, for the winter months, for the purpose of putting my children in school, Demorest having good educational advantages.

Through Demorest there used to pass covered wagons full of apples on their way from the

mountains to Athens. I was struck with the beauty of these apples, especially with an apple called the "Mother" apple which was capable of a very high polish and very free from blemish. On talking to the wagoners I found that they came down from Rabun County, Georgia, and near Shooting Creek, North Carolina, and that they grew their apples with very little care or cultivation. I was so interested that I went up to Rabun to study the apple question. I applied for the government meteorological maps of this section. I[68] was struck by its heavy rainfall. An area of about thirty miles square with the center at Clayton, Rabun County, and extending into North Carolina, has the largest rainfall of any part of the United States, except Puget Sound on the Pacific Coast—a rainfall averaging from seventy to one hundred inches per annum. This does not come in floods, but all through the year in continual showers. I have often stood in Rabun Gap and been struck with wonder at the mist being drawn through Rabun, Hiawassee, and Crow Gaps, forming clouds laden with moisture to be deposited upon the mountains and vales of this favored country. They often present scenes of sunshine and clouds so inspiring and grand that they seem to encircle us with the majesty of Almighty Power. This rain upon a well-drained soil is very adaptable to the growth of splendid apples. On seeing what fine apples could be grown without cultivation, one naturally asked what could not be done with modern scientific culture. I wished very much to plant an orchard in that favored section. At first I tried to interest persons with capital in this enterprise, which I felt confident would be a profitable investment. I met with no success so, in spite of my limited resources, I determined to make the venture myself.

In pursuance of my long contemplated desire, I purchased in 1906 fifty acres of land near Rabun Gap in northeast Georgia, for the purpose of planting an apple orchard. The position chosen was within a mile and a half of Rabun Gap, on the Tallulah Falls railroad. The place was known as Turkey Cove, situated on Black's Creek which forms the headwaters of the Tennessee River. There were upon the place about fifty apple trees that had been planted fifteen or twenty years. They were overgrown with wild vines, and presented a very neglected appearance. I had the old trees cared for and I planted a young orchard of twelve hundred trees of approved varieties of apples. The young apple trees I planted grew, and the old trees responded to the care given them. After the first year's care and cultivation, I noticed in the old orchard four trees that produced a red apple that surprised me with its splendid appearance. They ripened about November 1, 1908. About this time I received by mail a pamphlet stating that there was to be held at Spokane, Washington, the first National Apple Show. A prize was offered for the best two barrels or six boxes of apples grown in the sixteen Southern States. This prize was called the "Southern[70] States Special" and was divided into first, second, and third prizes. I decided to send six boxes of my apples to contest for the "Southern States Special." I had about twenty-five bushels from the four trees. I shipped six boxes by express. In return I received a check for $50 for the second best apples—North Carolina receiving the first prize, my apples the second, and apples from Oklahoma the third prize. Being elated with my success I had my four apple trees specially cared for. On November 1, 1909, they presented an appearance superior to any

similar sight I had ever beheld. The National Apple Show was again held in Spokane in November, 1909. I again contended for the first prize, "Southern States Special," with superior apples to my entry in 1908. They were awarded the first prize of $100 above all competitors. The chairman of the committee making the award is the most renowned pomologist in our county—Mr. H. E. Van Deman, of Washington, D. C. I obtained also a diploma for the best new variety of apples. The cancelled check of one hundred dollars for this prize was applied for by a trustee of Mr. Ritchie's school, near Rabun Gap, and is now framed and hung upon the schoolhouse wall, to[71] remind the children that their county can produce the best apples.

AWARDED TO JOHN P. FORT FOR APPLES GROWN IN RABUN COUNTY, GA., "FORT'S PRIZE APPLE."

This apple, having been pronounced a new variety and worthy of being put upon the pomological books at Washington, was listed and given the name of Fort's Prize. The apple has demonstrated those qualities that make a financial success, such as appearance, color, taste, and above all, keeping without decay until the spring. Anticipating that an orchard of this new variety of apple will be valuable, I have obtained grafts from the old trees and have put out an orchard of them. I have a confident hope and belief that this variety of apples will become very valuable in future to apple growers, and that they will become money-makers, such as the Baldwin and Ben Davis are among apples; the Elberta peach, among peaches; the Concord grape, among grapes. It originated in Georgia. I am gratified that I brought it to public attention. This season, 1916, my orchard at Turkey Cove has an abundant crop of splendid apples, and I hope in the next few months to harvest a crop of two thousand bushels. I have just returned from a visit to my orchard, and it presents a beautiful sight. My youngest son, William, has the active management of my orchards.

University of Georgia, Office of the Chancellor, Athens, Georgia, October 22, 1915.

Col. John P. Fort, Mount Airy, Georgia.

Dear Doctor Fort:

I received the basket of apples about a week ago and thank you for them. You have no idea how much I appreciate a kindness like this, particularly when it comes from the man who has rendered the greatest service to Georgia of any living man.

Yours sincerely,

David C. Barrow.

There are now thousands of acres planted in this section of the State, and it bids fair to be one of the most profitable of Georgia's industries—an industry attributable in a great way to my success. I now wish to write a few words on my interest in the culture of pecans. When a boy in

Milledgeville, in the year 1849, my aunt, Mrs. Moses Fort, widow of my father's brother, returned from a visit to one of her sons in Louisiana. She brought with her a little sack holding about a quart of pecans. She divided them among my father's children, my share being about twelve. The others ate theirs, but I planted mine in the back of the garden, marking the places with stakes from my bird trap. They came up that spring and some of them are now immense trees, sixty feet tall and bearing[73] bushels of pecans. As far as I know these are the oldest pecan trees in the State of Georgia. About thirty years ago I planted a small pecan orchard on Tompkins plantation. They were not budded and were a poor variety, and for many years they were neglected. But about three years ago I had them budded and I believe that in a few years they will yield a profitable crop. The pecan industry in Georgia bids fair to be a very large one, as hundreds of acres have been planted. My belief in the agricultural possibilities of Georgia is so great, especially in the growing of fruits, that I wish to mention all my work in this line, the successful experiments and the ones that have not yet, from one cause or another, proved successes, such as my cherries in north Georgia, and my experiment with figs in south Georgia. The latter proved a failure because of the avidity and lack of coöperation of the railroads. Figs are too perishable to stand shipping. I wished to can the figs in glass jars at the orchard, but the freight rates on fruit in glass jars were so high and as there was no local market I abandoned the orchard. It would have proved a difficult undertaking anyway as I could not be in that section at the time and the work would have lacked the master's eye. There is one more experiment in agriculture that I wish to mention which has been a success. I thought of growing vegetables in north Georgia to ship to Florida after its crop was over. So I planted half an acre in tomatoes to be shipped to Savannah and Jacksonville. The railroads considered shipping vegetables to southern points such an uncertain and foolish thing that they required me to give bond on the freight. My experiment was a great success, the commission merchant, Mr. Putzel, of Savannah, wrote me that in his twenty-seven years of experience he had never handled such stock. The half-acre netted me one hundred and fifty-nine dollars. My example has been followed by others, and vegetables are now being shipped in considerable quantities from Cornelia to south Georgia and Florida markets. In June, 1909, when in Athens to attend the graduation of two of my sons, as an appreciation of my work for the State agriculture, I had conferred upon me by the University of Georgia, the degree of "Doctor of Science." That the trustees of the University contemplated this was entirely unknown to me. This honor was conferred before a large audience and was very gratifying.

FACSIMILE OF DIPLOMA FROM THE UNIVERSITY OF GEORGIA

My irrigation plant in south Georgia having proved a success, the Department of Agriculture at Washington sent a special irrigation engineer to Tompkins plantation to make a report. Such a good report was made that the Department conferred upon me the title of Collaborator of Irrigation, giving me a diploma stating this fact. As I stated near the beginning of this story of my life, I believe that my mind and temperament are those of a naturalist. From my boyhood my interest in birds has never abated. I know their habits, I can distinguish the notes of all the birds

of our woods and recognize them by their flight as far as my eyes can see. This spring (1916) while seated on the porch of our home, at Mount Airy, I have succeeded with great patience and with the enticing power of the peanut, in getting a gray-crested titmouse to light on my hand, and to take a peanut from between my lips. And I persuaded a nuthatch to come within a foot of my chair. The titmouse knew me so well that when I was several hundred yards from the house it flew down from a tall tree and took a peanut from my hand. This was in the season when food was plentiful. As an agriculturist as well as naturalist I have been always interested in the insectivorous birds as a great aid to man in the destruction of insects. I know of no bird that does not eat insects, except the goldfinch. I remember once examining the stomach of an American swift, it contained a mass of insects, six hundred and fifty mosquitoes and gnats which had been caught on the wing that day. Especially valuable is the purple martin because he can be attracted to our fields and orchards if the proper kind of house is made for him. He arrives from the tropics very early in time to meet the first flight of many noxious insects such as the cuculio which is so destructive to the peach and similar fruits. When I built for irrigation my reservoir holding four hundred thousand gallons, I was afraid that it would be a great breeding place for mosquitoes. I placed around the reservoir boxes and gourds on poles as homes for the purple martin, so that the birds would destroy the mosquitoes. At the same time I had put in the water small fish to eat the wiggletails, the larvæ of the mosquito. The fish and martins have largely eradicated this noxious insect from the plantations.[1]

[1]Acknowledgment of Mr. Fort's observations on mosquitoes has been made in The Mosquitoes of North and Central America and West Indies, pages 178, 403, vol. i. Authors: Leland O. Howard, Harrison G. Dyar, Frederick Knabe.

At the present time the boll weevil has made its[77] appearance in most of the cotton fields in southwest and middle Georgia. I believe that the ravages of the weevil cannot be stopped, but they can be checked and reduced to a minimum. In studying the history of this insect, I find that it is food for birds of the class hirundo, or swallow. When the boll weevil, which is one of cuculio, makes its first flight over the cotton fields before depositing its eggs in the cotton squares is the time that it is caught by the swallows and martins. The weevil is slow in flight and easily caught. If the first brood is caught it will decrease them by the million, as it has been calculated that the progeny of one female, if not destroyed, would by the end of the season be two million. I have had placed around my cotton fields forty martin boxes. I am confident that these birds will greatly lessen the depredation of the boll weevil in my fields. As the martin returns every year to the same home, each year I hope to have a larger colony. We must protect the birds. A great French savant has said that in seven years, without the help of insectivorous birds, the world would become uninhabitable by man. The destruction of insects is greatest during the nesting season of the birds, as a young bird is a small mill continually[78] grinding up insects. Birds should have our special protection at that season. A young bird just off the nest is a prey to almost everything; cats, hawks, snakes, are among its principal enemies. The wanton destruction of bird life by man has so decreased them that it threatens the world

with a great calamity. We must teach the young generation to refrain from this destructive work, and that the birds are our useful friends. Teach them to love the birds, to admire their plumage and song, to study their habits, and to realize that they contemplate the work of a munificent Creator who has fashioned these beautiful inhabitants of the air. I now bring to a close these brief reminiscences of a long life, dictated to my daughter at her request. They are for my six children, being a short record of the life and work of their father.

WITH ONE OF HIS BIRD FRIENDS

EXTRACTS FROM THE NEWSPAPERS IN THE STATE OF GEORGIA

The Macon "Daily Telegraph," Saturday Morning, May 11, 1907

By John T. Boifeuillet

Speaking of John P. Fort reminds me that to him is due the credit of introducing artesian wells in southwestern Georgia, where he owned large farming lands. He desired to protect and improve the health of his tenants and other laborers by freeing them from the necessity of drinking the rotten limestone water in shallow wells which was considered productive of chills, fever, and other sickness. So this progressive Maconite decided to experiment with artesian wells and he had one bored on one of his plantations from which a splendid flow of fine water was obtained. The result was so gratifying that he had other wells bored and the health of the people on his farms became first class. The glad news was spread[80] throughout all that section of country, and other planters followed Captain Fort's example, and in a short time the boring of artesian wells became common in that territory. An official publication says that the sanitary advantages that have resulted to many towns and localities all over the southwest Georgia coastal plain through the pure, wholesome drinking water of the artesian wells, are seen in the fact that sections once dreaded as malarial and sickly are now considered among the most salubrious in the State and are increasing more rapidly in population than even the hill country of north Georgia. The average depth of the wells in south Georgia is about four hundred and fifty feet, and as the various strata penetrated are comparatively free of rock, the wells are bored at small cost. Bulletin No. 7 of the State Geological Survey says: "While there is much yet to be learned about the underground water system of the coastal plain, there is, nevertheless, sufficient known already to warrant the statement that almost this entire portion of the State is underlaid by pervious beds which will furnish large quantities of pure, wholesome water when pierced by the drill." When Captain Fort drilled his first artesian well he bored better than he knew. The Maconite became a public benefactor. Georgia is due him[81] much for his foresight and progressiveness, his philanthropy and humanity.

By Emory Speer

From the Albany "Herald" of Friday, November 1, 1912. The observant people of Georgia have

long been aware of the blessings many enjoy through the inducting philosophy of a distinguished and unpretentious son of our State. Our university has honored him and itself by the degree, Doctor of Science. Dr. John P. Fort was the first who made evident how practical and how beneficent are those artesian wells whose copious and healthful supply are now gushing in every community and on many farms in that fertile empire known as South Georgia. By W. A. Huff

The Albany "Herald," February 11, 1913

I never see or hear anything about the country around and about Albany that I do not think of Jno. P. Fort. Colonel Fort, by his wise experiment and persistent efforts, made it possible for white people to live in a country which had heretofore been regarded as almost uninhabitable. Colonel Fort called on me as he passed through Macon last week and on his way to his farm in south Georgia. Like myself, he is rapidly yielding to the weight of years as they carry him along the down-hill of life, but oh, what a halo of business glory will brighten and bless forever the memory of southwest Georgia's greatest benefactor! A grateful people will never be able to build a monument high enough to signalize the debt they owe to Jno. P. Fort. But as the good that men do lives after them, all coming generations will breathe out prayers of praise for him who made it possible for their ancestors to know the eternal joys that flow from the bosom of Mother Earth through the life-giving arteries of artesian wells. In the meantime you will continue to preach to the farmers of Georgia the gospel of truth and righteousness from the text—"The Life Worth Living," which, when illustrated, means—peace, health, happiness, and prosperity, for all who learn to live at home and board at the same place.

Editorial

The Clayton "Tribune," Friday, May 9, 1913

Col. John P. Fort, a graduate of Oglethorpe College, and one of the men who first got a vision[83] of the future possibilities of Rabun County's apples, was in Clayton, Wednesday. Colonel Fort owns one of the finest orchards in the county at Mountain City, and has done more in the way of growing fine fruits and advertising northeast Georgia, thereby enhancing the value of our mountain lands, than any other one man. Colonel Fort is now about seventy-one years of age, but is still very active. He joined the Confederate army in the beginning of the Civil War as a private, but was promoted and at the close he came out with honors and as a lieutenant. As Dr. Fort is able to talk with nature, we might compare him with Benjamin Franklin; he has been honored by our University with the degree of Doctor of Science. Dr. Fort was not satisfied with growing apples in northeast Georgia (in Rabun County), which took the prize in Spokane, Washington, at the great apple show, and for the last year or so he has been studying the conditions and needs of south and southwest Georgia, and while he was on duty as a Confederate soldier, he saw the beautiful Wakulla River on the coast of Florida, as it bursts forth into the Apalachee Bay and the Gulf of Mexico. Dr. Fort's ability to reason and know things

told him that this beautiful clear river had its origin away up in the "old red hills of Georgia," and last[84] year he made another trip to see this great spring or bay and to learn more about it. Dr. Fort traced the formation and vegetation up through Florida and on through the counties of Decatur, Grady, Early, Miller, Baker, Mitchell, Calhoun, Dougherty, etc., and he is satisfied that it heads in the counties of Laurens, Twigg, and Bibb. Dr. Fort owns a large plantation in Dougherty County, containing some three thousand acres, and last year he bored an artesian well on this farm about seven hundred feet deep, at an expense of about three thousand dollars, and not to his surprise, but to the surprise of his neighbors, Georgia, and our United States Government, he tapped the undercurrent of the beautiful Wakulla River and through a three-inch pipe, it has been estimated, a flow of eighty thousand gallons per day can be attained, and the expense of obtaining this flow and building reservoirs from which to conduct the waters to the crops is much cheaper in comparison with any other method of irrigation known to the world. This discovery by Dr. Fort will probably make it possible for other such discoveries to be made, and it has more than doubled the value of the farming lands in south Georgia, which are so subject to drouths. This theory of Dr. Fort's is thoroughly demonstrated as the water of this well[85] rises and falls with the Gulf tide and the water is inexhaustible and his discovery is so highly prized by the Irrigation Bureau of the Department of Agriculture, that it has conferred upon Dr. Fort the signal dignity of "Collaborator," and monthly there comes and will come to him during his life a treasury draft as a token from his country of its government's appreciation and value of his discovery, and the time is now here that not only northeast and southwest Georgia will tip their hats to Dr. Fort's name, but the whole nation will recognize Dr. Fort's ability as a scientist, and his name will go down to future generations as one of America's greatest men.

Macon "Daily Telegraph," September 30, 1913

By James Callaway

Colonel John P. Fort is one of the sure-enough progressives of the State. His progressivism is not destructive like that of the Western politicians, but is of the sort that promotes the welfare of his State. It is well-known that he gave to Georgia her first artesian well. Albany followed his example and became the "Artesian City," appropriate sobriquet—for it is a city of artesian wells. Some couple of years ago or more Colonel Fort[86] decided to experiment with truck gardening on his Dougherty County farm. He built a huge reservoir for the purpose of irrigation. Speaking of this a few evenings since, sitting on the veranda of the Albany Inn, Colonel Fort said: "I'm glad to say my experiment is a success. Irrigation is not needed so much here as in the West, still we have dry spells, and to make truck growing a successful enterprise, I prepared for seasons of dry weather. This year I will make 176 bushels of corn per acre in the range of the reservoir, and I gathered onions until we were fatigued gathering them and preparing for market. And all other truck, such as beans, tomatoes, okra, lettuce, salads, grew abundantly. After gathering the onions the land was planted in corn, which is now in the roasting ear stage, and at this season roasting ears are in good demand. To prevent mosquitoes from breeding in

the reservoir, I put into it fish, which destroy the larvæ, and also erected martin poles with old-fashioned martin gourds around the basin of water. Martins, you know, feed on mosquitoes. On the ponds on my place I pour kerosene oil, so the plantation is free from mosquitoes—resulting in health for all on the farm. Besides my manager after rains goes through the quarters of the laborers and if there[87] is any water in pans or cans or old vessels they are emptied. Thus by a little precaution my plantation is clear of mosquitoes. "Then to assist in truck growing it is important to conserve bird life. Every vegetable seems to have its insect enemy. Nature provides its checks and balances. But for years and years, reaching back for nearly a century, we have been killing the birds. They are here as nature's remedy to feed upon insects. It will take years to restore nature's balance which we have been upsetting by our war on birds. Take the red-headed woodpecker, the blue jay, the yellow-hammers, partridges, larks, and the oriole family of birds, and they all feed upon insects. The orioles are especially fond of boll weevils, and it is said the blue jay and partridges are very destructive of them. But we destroyed nature's balance by indulging the pleasures of sport. Had we conserved bird life—nature's remedy—insects and boll weevils had not been so destructive. "Fortunately there is a nation-wide campaign for the protection of birds. Congress has taken hold of the matter and our new tariff bill prohibits the importation of wild birds' plumage for commercial purposes. It will also abolish in the United States and its territorial possessions the[88] traffic in the skins and feathers of wild birds. This national conservation of bird life, supplemented by vigorous State action protecting our home birds, will in time restore that balance nature provided for preserving food crops and fruits from insect ravages. It seems almost incomprehensible that we destroyed nature's remedy for protection to our crops. The unthinking will continue to destroy our birds if not prevented by the strong arm of the law."

It is always interesting to listen to Colonel Fort. He is full of wisdom, and to be with him is as if sitting at the feet of Gamaliel. He is deeply interested in apple culture in Rabun County, but his peach orchards around Mount Airy, his home, this year did not bear to any great extent. In his quiet, unassuming way Colonel Fort preaches diversification of crops and raising home supplies, and he, unlike most reformers, practices what he preaches. His younger days were spent in Macon, and he has great affection for Macon and is interested in her progress and welfare.

The Albany "Herald," Tuesday, Feb. 13, 1917

News of the death of Colonel John P. Fort at Tampa, Florida, where he was spending the winter, will carry sadness to all parts of Georgia.

For Colonel Fort was a distinguished citizen of this State, and was widely known as a pioneer in many fields of activity. He it was who bored the first artesian well in Georgia. A great many men laughed at him when he declared, after carefully studying the geology of this section, that he would sink a well to water-bearing strata several hundred feet below the surface, and that through that well purer water than the people of south Georgia had ever drunk would flow to

the surface. That was thirty-five years ago, and Georgia's first artesian well, bored on one of Colonel Fort's plantations in Dougherty County, is still flowing. It is a simple but eloquent memorial of the man whose faith was not without works, and whom the ridicule of those with shorter vision could not discourage. To-day the health of no section of Georgia is better than that enjoyed by the people in the region of which Dougherty County is the geographical center, and much of the credit for the present splendid prosperity of southwestern Georgia is due to the man who was not afraid to "invest several thousand dollars in an auger hole in the ground," as some wise observers expressed it thirty-five years ago. Colonel Fort has also been a pioneer in the field of irrigation in this section. Several years ago[90] he publicly proclaimed the belief that a series of inexhaustible water-bearing strata runs beneath thousands of square miles of southwest Georgia territory, and he predicted that in time these strata would be tapped at many points, and drawn upon for water which would make garden spots of innumerable farming districts. He again showed his faith in what he proclaimed by drilling another artesian well on one of his Dougherty County plantations, where he has constructed and operated an irrigation plant that has given splendid practical demonstrations of the possibilities of this kind of agriculture in southwest Georgia. Colonel Fort has also made valuable contributions to the advancement of horticulture, and his apple and cherry trees, in north Georgia, are famous throughout the United States. He has raised the finest apples ever produced in the South, and several years ago the University of Georgia conferred upon him the degree of Doctor of Science, in recognition of what he had done for Southern horticulture. Colonel Fort was a gallant Confederate soldier, and personally was beloved wherever he was known, particularly in Albany, Macon, Atlanta, Athens, and Mount Airy. His death is a distinct loss to Georgia.

The Albany "Herald," Wednesday, Feb. 14, 1917.

What Colonel Fort Believed

It was the belief of the late Col. John P. Fort that much of southwest Georgia, including all the western part of Dougherty County, would one day blossom into a veritable garden spot as the result of a peculiar natural condition. Colonel Fort bored the first artesian well in this section, and had made a lifelong study of the geology of the southern part of the State. He contended that a flowing artesian well might be secured almost anywhere in this region, but it was his belief that in the territory where he had made especially careful investigations, including West Dougherty, a vast water-bearing stratum, or perhaps several such strata, lay below the surface and that the supply of water held there could never be exhausted. Many springs in south Georgia and Florida, including the great Wakulla spring and a number that boil up from the bottom of the Gulf of Mexico, were fed from this stratum, according to Colonel Fort's idea. The picture in the mind of Colonel Fort, as he often spoke of this rich blessing enjoyed by our section, was of a region to the surface of which a part of this water supply had been brought for use in irrigation plants. He himself built such a plant on one of his Dougherty County plantations, and gave practical demonstrations of what it was possible to accomplish. The

United States Government became interested in the experiment, and sent experts to make observations and lend assistance. Colonel Fort did not expect to live to see his dreams come true, but he believed they would materialize for other generations. He knew that in the rich soil of this section wonderful crops could be made under irrigation, and that with an inexhaustible water supply a few hundred feet below the surface, the development he foresaw would in time come to pass. Colonel Fort was no dreamer, though some persons thought he was when he began boring the first artesian well in Georgia. He lived to see hundreds of flowing wells and thousands from which pure water is pumped, and another generation will no doubt see his vision of a section made fabulously rich by irrigation likewise realized.

Macon "Telegraph," Feb., 1917

By James Callaway

I received a letter from Mr. Alfred C. Newell concerning a memorial to the memory of Col. John P. Fort. The letter in part reads: "I note that John P. Fort, of Mount Airy, is dead. I write you this because it seems to me a movement should be initiated by some one to establish a memorial to this great man. He would not want a monument. He would be the last man in the world to care for anything like display. It seems to me, however, entirely fitting that a special appropriation could be made by the board of county commissioners of every county in south Georgia to the end that a small mountain school might be established somewhere about his beloved Mount Airy. "What William H. Crawford, Charles F. Crisp, and Alfred H. Colquitt were to Georgia in a public sense; what Sidney Lanier and Joel Chandler Harris were to the State in a literary way; and what Henry Grady was as an editor-statesman, John P. Fort has been to Georgia as the practical scientist.

"In other words, his name deserves to be perpetuated in the immediate set of the biggest men in the State's history. "I don't think I am going too far when I say that he probably did more for Georgia in a practical way than any other one man. I have a long letter from him which he wrote some years ago telling me how he first came to think of drilling[94] the original artesian well on his place near Albany. This was in 1881. You know, of course, the transformation which followed in this section.

"It was through his efforts that the apple culture was introduced in the north Georgia mountains. "He was a dreamer who dreamed dreams as well as a scientist who knew how to work out these dreams with a table of logarithms. "His father before him was a great man, old Dr. Tomlinson Fort—the greatest antebellum physician of his day."

It is certainly appropriate that some steps be taken at once to erect a memorial to Colonel Fort. Nothing would be more fitting than a "mountain school." It is better than brass or marble. Mr. Newell has communicated his suggestion to Editor Henry McIntosh, of Albany, and also to Hon. Clark Howell. The thought-forces worked strongly in Colonel Fort, making him a centrifugal

force, a builder for humanity. He lived to see his visions become realities—blessings to mankind. He felt the responsibility resting upon him. He never permitted his faith to trail, but walked uprightly, full of good deeds and useful thoughts. Colonel Fort was certainly the "practical[95] scientist." Albany is known as the "Artesian City." Colonel Fort gave to Dougherty County its first flowing artesian well. His apples from the "hills of Habersham" and Rabun took the premium over all others at the fairs of the great Northwest. Throw a rock into the air and by force of gravitation it falls. Yet right in the face of that power of gravitation, that life-giving principle called sap, flows to the top of the tallest tree, resuscitating its remotest branches. Colonel Fort's attempt to discover flowing artesian water was likened by his friends to the rock that falls to the ground. But his thought-forces within, in the face of discouragement, were like the ascending sap, bounding in hope and carrying triumph and beauty and health to every branch of his tree of endeavor Every flowing artesian well in Georgia is a never-ceasing tribute to Colonel Fort—the "practical scientist," as Mr. Alfred Newell calls him. Colonel Fort drove mosquitoes from his Dougherty County plantation by the simple device of putting up martin-gourds and bird-houses at the homes of his tenants. He had discovered that the swallows and martins fed on mosquitoes, and determined to locate them on his premises by building little houses for them. On his recent visit to[96] Macon he told the writer, his countenance lighting up with expressions of pleasure over his triumph, that his experiment had been a success and that the health of his tenants was excellent. Two years ago he advised me to try the martin. But the tenants considered martin-gourds a relic of slavery times, and in their superstition would not erect the martin-poles. Colonel Fort also said the martins fed on boll weevils, and he expected to largely increase the number of martin-houses. And this was our last conversation, not many weeks ago. Yes, he was like Colonel Hunt, of Eatonton, "a practical scientist"—the most useful of men.

COLONEL JOHN P. FORT

Editor the Journal: I notice in a recent issue of the Journal the death of Colonel John P. Fort at Tampa, Fla., on the 12th inst. His home was in Mount Airy, Ga. In 1863 President Davis appointed John P. Fort a lieutenant in the First regiment of Georgia regulars, stationed at Hammocks Landing on the Appalachicola River, in Florida. The first time I saw Lieutenant Fort under fire was at Lake City, Fla., on the 10th of February, 1864. He was in command of the skirmish line of the regulars, trying to hold in check General Seamore's advance cavalry, who had dismounted and were fighting on foot. The cavalry were too strong for the lieutenant and forced his line back on the regiment, then mounted their horses and retreated toward Jacksonville. As a reminder of the fight they left Lieutenant Fort with a bullet hole through his hat. While Lieutenant Fort was a gallant soldier, he was a[98] gentleman in the true meaning of the word, with his heart overflowing with kindness for his fellow-man. One by one the regulars are crossing over the river to join their comrades on the other shore, who are sleeping beneath the shade of the beautiful trees in that home where all good soldiers who did their full and complete duty are at rest. The last three to cross were General King, General Lane, and Major Howard. There were about eighty officers who served in the regulars during the war, and I know

of only eight who are still in the land of the living—General Harrison, General Kirklin, Colonel Twiggs, Captain Wyley, Captain Anthony, Captain Myers, Lieutenant Palmer, and Lieutenant Blance—and they are swiftly gliding over the sea of time, waiting to hear the keel of their lifeboat grate upon the other shore. Yet a little while and the last Confederate soldier will have crossed over the river, and their like will never be seen again. They fought for the love of home and country, fought without reward or the hope of reward, fought to the last ditch, and when all was lost except honor, furled their flags for the last time, outnumbered five to one, but never whipped. Sweet be the sleep of Colonel John P. Fort. I loved him while living and will cherish his memory[99] until I am called to answer the last roll call, and then I hope to meet him in the home of the blest. W. H. Andrews. Late Orderly Sgt. Company M, First Ga. Regulars. 20 Hayden St., Atlanta, Ga.

TRIBUTE PAID BY GEORGIA HORTICULTURAL SOCIETY

Colonel John P. Fort

Since our last annual meeting death has removed one of the most honored members of our association. We not only owe his memory a page in our minutes but the younger and especially the future members, those who shall preserve this valued organization, would name us recalcitrant to the true interests of our society if we failed to pay tribute to this advanced thinker, practical scientist, friend of humanity, evinced by his lifelong devotion to horticulture, and advocate of all rural betterments. Thus from the mountains to the sea in our State his name will ever be recorded in nature's annals; sung by her fountains and embroidered by her flowers, and men shall remember and repeat his name with thanks when they lift the crystal[101] goblet to their lips, or breathe the perfume of earth's sweetest benefaction,—an apple orchard. From hidden and unknown depths the divining rod of his vision found and brought the sparkling water to refresh the low lands of Georgia. In common clay, unseen and unknown to others, he found the lusciousness of fruit, the bloom and fragrance of orchards to crown the peaks of Mount Airy. The mountain elevation of his north Georgia farm, its granite foundation, its copious rainfall he truly foresaw must become the home of the apple industry. The pioneer makes possible the success of the economist who later benefits from the foresight of the prophet. Every member of this society appreciated the act of the State University in conferring on him the degree of "Doctor of Science." It was a deserved tribute, fully earned. His life's work is done, and this tribute can only be an inspiration to the living. May it be assigned a page to be set apart in our records, as a memorial to his memory.

A RESOLUTION ADOPTED BY CITY COUNCIL, ALBANY, GEORGIA, FEBRUARY 13, 1917

Whereas this City Council has heard with profound sorrow of the death of Col. John P. Fort, for many years a resident of this City, which occurred on Tuesday, February 12th, in the City of Tampa, Florida, and, Whereas the said Col. John P. Fort was honored and loved by everyone with whom he came in contact, a man of a lovable character, a friend to everybody, a loving

husband and father, a man of the strictest honor and integrity, a man of great public spirit, who loved this section and its people, a man who has proven a public benefactor of this section and State by his introduction of artesian wells, and bringing the same into universal use,

Therefore be it resolved:

I. That we deeply deplore the death of this great and good man, and tender to his bereaved family our most sincere and heartfelt sympathy in this their great sorrow.

II. That these Resolutions be spread upon our minutes and a copy of the same furnished to the family.

III. That as a further token of our respect and esteem of our departed friend this Council attend his funeral in a body.

I certify that the above is a true extract from the Minutes of Council held February 13, 1917.

This 12th day of March, 1917.

Y. C. Rust, City Clerk.