

Monteagle's Moses
By Louise Davis

Transcribed from the August 7, 1949 issue of "The Nashville Tennessean Magazine" by Jackie Layne Partin

Puncturing the flat rock dome of Monteagle like a sieve, Silas Gregory for half a century has drilled thousands of wells through to the water below, and he is better known on the mountain as "the well digger" than by his own name. For practically every bath, every car wash, every aquatic drink at the mountain-top resort flows from wells that iron-muscled Gregory has chiseled away with his home-made well-digging rigging. So long has he bored hundreds of feet through the sandstone, limestone and shale that his long drill stem and bit jammed through the rocks is like another finger probing the secrets of the deep underground. By the feel of the steel shivering against the rocks 500 feet below he can tell what kind of formation it is, and by the action of the water he can tell whether he has struck an underground river or a pond or a spring.



Silas Gregory "The Well Digger"

No geologist himself, Gregory takes a lively interest in the findings of scientists who devote their study to the wonders that lie beneath the earth's surface, and around his rambling two-story house are samples of the exotic rocks that his tube-like bailer has sucked up out of his well diggings. A long-jawed Scotsman whose grandfather came over from the land of _____, Gregory still pronounces his name with a crackling

“Greek-ko-rry” effect, rolling his r’s with a fulsome burr, and his brittle speech combined with the idiom of the mountain is salty fare.

“People are getting weaker and wiser, and they ain’t through yet,” he pronounced with an impressive trill of the r’s when we asked him why he kept swinging a 225-pound wrench about the drill stem when he could just as well use the newly developed 40-pound aluminum wrench. He has thought of buying one, he said, but he didn’t see much use in it. A brawny man of 64 who works on the theory that muscles are to be used, he heaves a 275-pound bit from well to forge as if it were a kitchen tool, and he takes pride in the fact that he drills a well without assistance, that he is his own foreman and his own crew. There is no cheating the boss, no losing time from the job.

With his own muscle and skill he has earned the title of best well digger on the mountain, and he has financed a constant series of improvements in his cumbersome machinery—“a well-digger’s fortune is in his tools,” he says—and he has bought a home and raised a family on the profits. A man who has as little use for government had-outs as he has for any other kind of charity, who has as little use for a government that encourages dependence as he has for those who accept it, Gregory has built a reputation that is good as gold on the mountain. “I owe some,” he announced, “but nobody’s scared.”

From the time he was such a small boy that he had to stand on a scaffold to pump the ballast in his father’s Monteagle blacksmith shop, Gregory has been accustomed to making the most of his muscles, and he has been completely independent most of that time. Born three-quarters of a mile from the Monteagle Adventist church where we found him drilling a six-inch well alongside its west wall, Gregory has never lived anywhere else. “Ain’t had a chance to go nowhere,” he commented without apparent regret. In his childhood days in the blacksmith shop he used to help build wagons and plows, and he learned the technique of the anvil and the forge that has kept his bits sharpened all through his well-digging career. “We used to make anything,” he reminisced on the busy self-sufficiency of the early mountain days, spending his words as frugally as a Scotsman’s cash.

Most of his learning came outside the schoolroom, because Gregory had the sudden urge to strike out on his own when he was 12 or 13 years old. He had finished the third grade, had even bought his books for the fourth grade when the longing for independence overtook him that fall, but one day instead of going to school he cut across the field and asked a well-digging crew for a job as water boy. He had a little tow-headed mule—later two of them—and he got the job of “totin” water from a spring to the steam-powered engines that drill wells into the steep mountain side. He got a dollar a day for the job, and he was learning a new trade.

Well-diggers often have a fondness for drink—not always water—and one day two of the “boys” working on the well-digging crew had so much whisky that they failed to show up for work. It had happened before—so frequently that the owner of the machinery could not afford to lose any more time—and he put Gregory the water-boy to work handling the drill. From that day on Silas Gregory was a well digger. The big Scotsman would try anything. Once when he was drilling wells for the Palmer coal mine on an almost vertical incline near the base of the mountain, he had to roll the machinery down into the valley and there was nothing to keep it from crashing to the bottom. Gregory cut down a giant tree and chained it behind to drag as anchor to the back of the truck where his tons of machinery were mounted. Perspiration pops out on his brown nose at the thought of the stunt, and he was fearful enough at the time that he never told his wife of the breath-taking descent when only a chain held him from certain death.

If the chain had broken that day there would have been a steam engine to explode in the crash, because that was in the days before gasoline motors. By the time he was 17 years old, Gregory had saved enough money to go into business himself, and he bought his first steam-powered machine. That was 47 years ago. Even 37 years ago, when he bought his second “outfit,” the machinery he still keeps in constant use, Gregory was dependent on steam power for raising and lowering his drill into the well. But hauling coal and water for the steam engine into the dense woods and steep slopes where he drilled a good number of his wells was a formidable task, and he long ago dismantled the old engine to replace it with a gasoline engine.

Gregory’s machine is like a giant 2000-pound needle dropped, point-down, on the surface of the rock until a hole had been punctured through to the water below. The point of the needle is a five-foot-long, 275-pound steel bit; which can be unscrewed from the supporting iron stem above it when it needs sharpening. The top of the needle is a 30-foot long 1800 pound rod of iron that well-diggers call a “drill stem,” and it dangles from a rope or a steel cable that runs over a pulley. With a cable Gregory can drop the 2000-pound needle 1000 feet into the ground, but with a manila rope he can lower the heavy drill stem and bit only 500 feet below the earth’s surface.

Only once has he ever had the rope break and drop all his drilling tools to the bottom of the well. He was working on a well not a mile from his home when the accident occurred, and day after day he devised a new kind of tackle to rig up over the well and fish out the stem and bit. But getting a grip on the 2000 pounds of steel at the bottom of a six inch-wide well is a disheartening task, and Gregory had about decided to give up ever seeing the machinery again. Then one Sunday morning he told his wife, a good-natured Irish woman who likes to tell stories of her husband’s well-digging feats, that he was going to try getting those tools out of the well one more time. At a time when she thought everybody belonged in church he strolled off toward the well, and

almost before she had missed him, he was back with the good news. On the first try that morning he had fished the tools out.

He has rebuilt his machinery a number of times, installing new motors and erecting new wooden scaffolding to support the pulley. The whole contraption is mounted on a truck that he maneuvers precariously over rugged mountain territory. He digs the wells wherever he is told to dig them—“Where they want it, that’s where she is”—and he has never failed to strike water. He doesn’t say how deep he has to dig or what kind of water he will find when he does strike, but he always comes up with something wet. “But I don’t move water,” he says. “I wouldn’t insure anything. I wouldn’t insure getting home at night. All I say is that I never have failed to get water yet.”

After the Adventist church told him _____ that they wanted a well close to the new white frame building, they were a little disturbed to see him back his truck-mounted machinery alongside the structure and begin drilling within two feet of the basement wall. But the old-timers around town knew that he would drop his bit straight through the rock to the water. He was “give up to the _____ straightest well digger on the mountain.” He had been drilling on the church for five days when we talked with him, and he had gone 97 feet down, mostly through limestone. The rock beds on this table-like plateau of Monteagle are like stone layers of a vast cake topped with a 30-inch icing of soil, and part of Gregory’s job is to know how to adjust the machinery to react properly as it strikes each layer.

Just under the approximately 30 inches of dirt—depending on which part of the mountain he is drilling on—he drills into about 50 feet of sandstone, which has a consistency that sets Gregory’s imagination off into the dim prehistoric ____ that formed the earth’s layers. Was it an upheaval of the ocean’s floor that ___ covered much of the area, he speculates, or was it simply a cracking up or shifting around of older layers of rock?” He picked up a hunk of cement-like piece with tiny white pebbles trapped in it like peanuts in brittle, and he pondered the age of the pebbles formed so long before they were frozen in the liquid that has hardened to stone. Geologists call it “sandstone conglomerate,” and they call the pebble mixture “Sewanee conglomerate” because it was first encountered there, and Gregory saves his nicest samples for parlor exhibition purposes.

Working with state geologist, who _____ enlighten him on the dramatic structure of the 2000-foot high mountain _____ Gregory saves sample off his rock “cuttings” every five feet down for the benefit of the department. Like other well diggers over the state, he dumps a handful or two of the cuttings into small bags provided by the state and he tags them properly and mails them in to Nashville to be analyzed and classified for a better understanding of the states’s underground structure. He had already cut through the 40 feet of shale beneath it when we reached the church. Out of the shale cuttings, he said, he sometimes draws up “rainbows” of oil that excite would-be well

drillers. But most of the tiny deposits of oil amount to no more than a few gallons—enough to seep down into the well shaft and muddy up the water below.



He had passed through the shale and into the limestone again, and the rock cuttings he drew up out of the well were gray and wet—pouring out of the bailer like soupy cement. He could tell by the tremor of the rope when he had touched the new stratum of rock, and he knew from experience in the region that he might go as far as 100 feet through the second layer of limestone before he would hit sandstone for another 50 to 150 feet.

To Gregory the insides of the mountains are a maze of rivulets and springs and ponds that gush between the rocks or lie quiet as an inky mirror in a rockbound pocket. Much more numerous underground than on the surface, the streams of water are clear to him as a man with X-ray eyes after he has dug a few wells in the neighborhood, and he plots the course of a dark mineral stream that runs 49 feet below the surface, a clear stream 95 feet down, a sparkling stream of “freestone water” 150 feet below.

When he strikes water that gushes up into the well shaft, he knows that he has a steam that will support a well indefinitely. When he hits a steam that stays at the same level even after he has pumped water from it, he knows that the underground “branch” will be adequate. When he notices the level of the water dropping after he has drawn a sizeable amount out, he knows that he has struck a still “pond,” and he drills on through for a lasting supply below. Once he sank a well 1960 feet deep at Cowan, near the foot of the mountain, he struck a salt steam so thick that his bit and stem came up out of the well caked with white brine and it clogged up his tools and rusted them. Gregory theorizes that the salt steams flow in under the mountains from the ocean but geologists think it more likely that they are salt pockets trapped in the rock formations from the days when most of the region was undersea, and that such salt pockets may still be forming from the slow trickle of surface water through the salt-impregnated rocks.

Salt is only one of the dozens of minerals trapped in the rocks, and the seeping water that drains the minerals off into underground streams sometimes becomes so

mineral-heavy that it is beyond human consumption. When Gregory strikes the mineral streams, he shuts them off with casings and keeps drilling lower for the clear water that he finds eventually, whether it's 30 feet, 100 feet, 300 feet, 500 feet down. Scratching away at the rock inch by inch, pounding it to a sand-like powder, his machine strikes a heavy rhythm in lowering and raising the 2000-pound weight. Dropping 30 inches every stroke, the bit is raised and dropped, raised and dropped 60 times every minute, and sometimes the rock that it strikes is so hard that the blade is dulled before it comes up the first time.

Once at Cowan he ran into 300 feet of flint, and at every stroke the bit would break off on the rough well lining before it could touch bottom. But on any well he has to draw the bit up at least once every 60 minutes to put a new edge on, and he keeps his forges hot for the hammering. To unscrew the bit from the stem, he swings the 225-pound wrench around it and twists the wrench with a jack that travels a notched circular track with an eight-foot diameter. Gregory works the jack with a hand lever, and he throws his full weight against it until he hears the sharp pop of iron against steel—of the 275-pound bit's loosening from the stem so that he can swing it over to the forge.

Every time that he draws a bit up for a new edge, Gregory sinks the hollow tube-like bailer down into the well to suck the rock cuttings and water out. But when the pulverized rock chips pour out of the long bucket in a thick slush, Gregory is never surprised to see that it is gray or green or red or brown. His drill has already told him that he is in limestone or sandstone or shale.

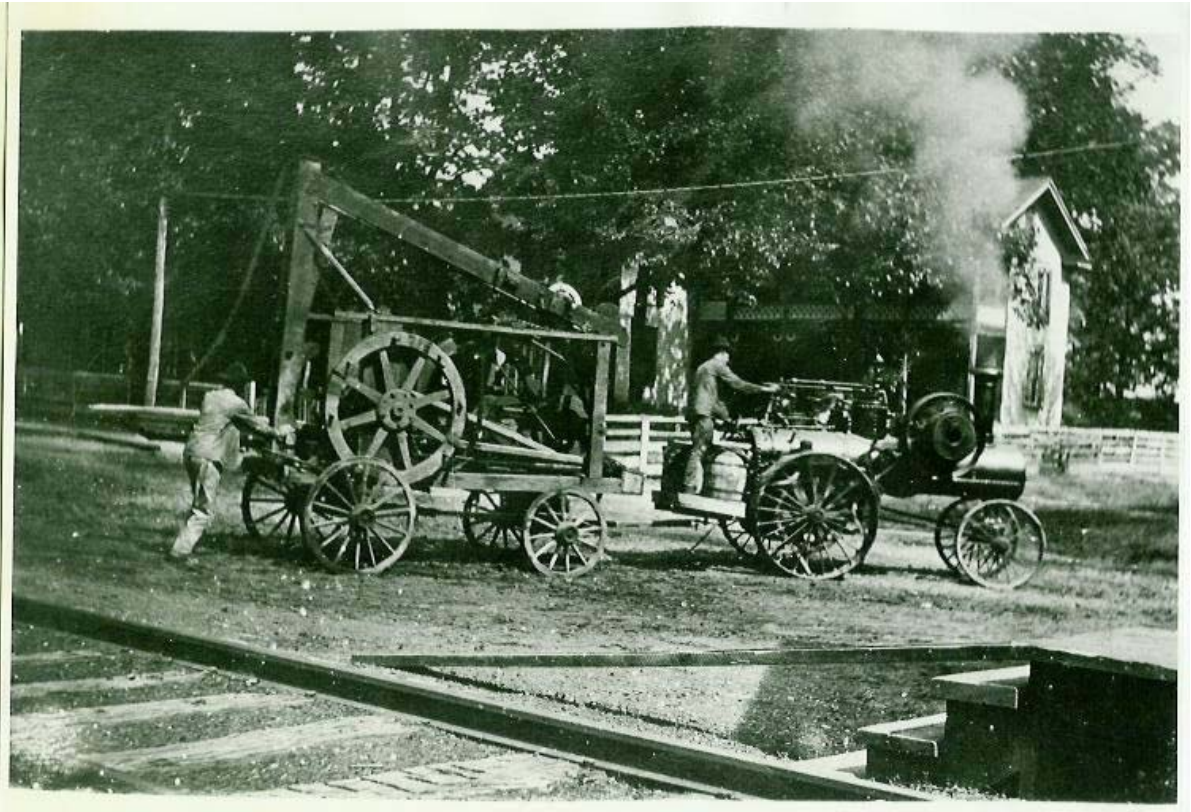
Seldom has he struck a cave, though there are frequent air pockets that leave the bit dangling in mid-air for a few feet. It takes a particularly skilled digger to keep the course true, no matter what the density or the angle of the rock that the bit strikes. Gregory says that he has known well diggers whose well shaft shunted off at such an angle through the rock that it is impossible to sink pipes in them to pump the water out.

He makes no estimate of the number of wells he has honeycombed the mountain with in the 47 years since he went into business for himself except to say that it runs up into the "thousands, many thousands." In Monteagle alone he has dug more than a thousand wells, including the three that supply the more than 500 cottages in the Assembly grounds. One of the village wells, which he calls Number 8, is big around as a barrel and is 300 feet deep, furnishing nearly enough water for the whole resort. It puts out 80 gallons of water a minute, Gregory says. He never runs out of wells to dig, and sometimes he can dig one in a day—once even dug two in a day. Once, right after World War I, a cousin had come home from overseas with his pockets full of money and Gregory reminded him that he had been talking for years about having a well drilled on his place. "Well come on over and dig me a well today," the cousin invited him airily, and sure enough the well was dug, the water running before the sun had set. That was 30 years ago and the water is still running strong, Gregory said.

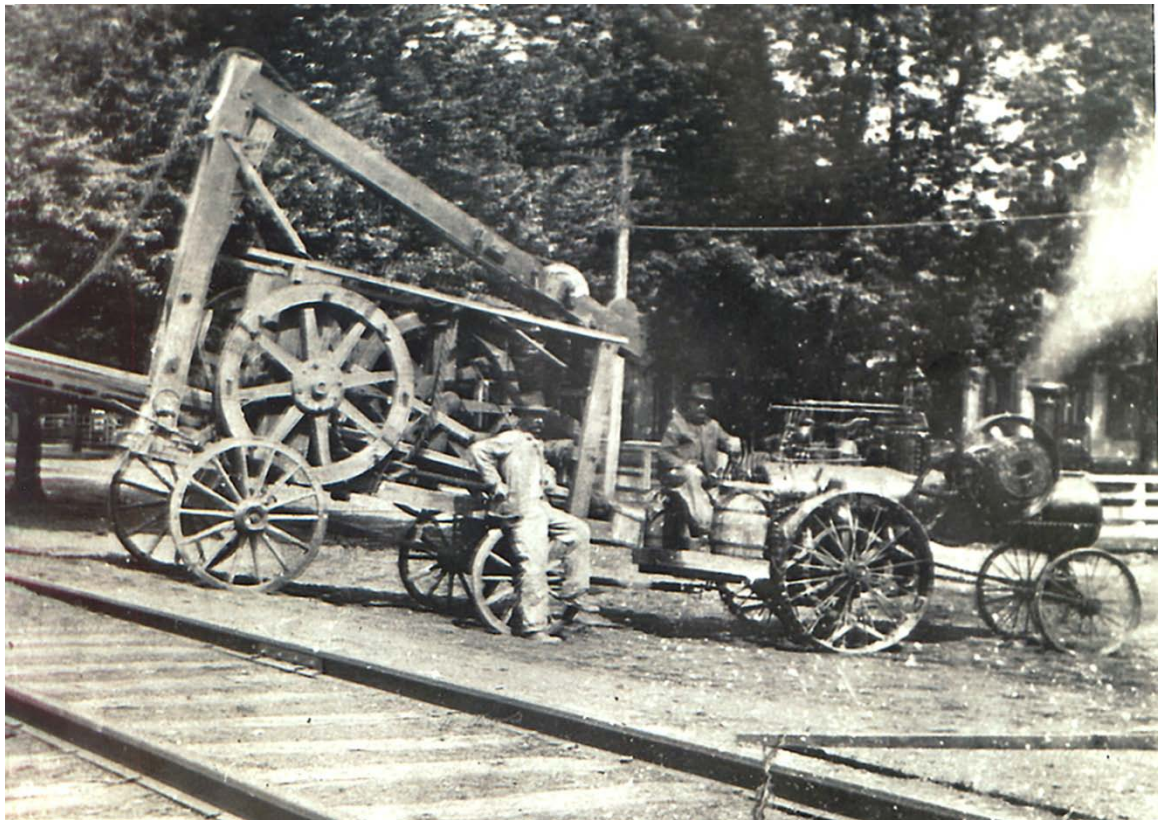
All of the water piped into homes and business houses at Monteagle is pumped up from Gregory's wells, and he does not know of any he ever dug that went dry. He has drilled for oil at Gruetli and for coal near Tracy city, often finding the black seams 150 feet underground. He has dug hundreds of wells for the railroad running through the mountain, and he has watched the rope spin in wells with flint so sharp that it snagged the bit on the way down and broke the blade. If there is anything he has learned, he says, it is that there is plenty more to learn. "When a fellow says he has learned all he's going to learn, he ain't going no farther," Gregory observed. Half a century of well-digging has taught him more about the art than anybody else on the mountain knows, but he still comes home with a handful of crystal-like splinters in his hand and a look of wonder at the formations drawn up from 100, 500, 1000 feet underground. When he comes home from a hard day's well digging, there is often another task too—driving over to one of the town's many excellent wells and filling his own wooden water jugs to haul home. For the well digger's home place that he has owned for 26 years has no well of its own. "Everybody teases me about being married to a well digger and having no well," his wife teased him, but Gregory had a logical answer. He could have a well on his property, even thought of drilling one once. But he had dug one on a lot nearby once, and the water wasn't fit to drink. It had too much iron in it, either for drinking or for washing, and Gregory knew that the same stream ran under his lot. His wife catches rain water in a barrel for washing and other household tasks, and Gregory thinks it is pretty nice to have the run of the town's wells in selecting his own drink from day to day. He knows which well runs deepest, which has the sweetest water, and he draws off the best of it for his own refreshments. The mountain is honey-combed with his work, and he likes to taste the rewards, to see if the wells are running true to their promise.

When we had followed him past the pink peonies and spruce trees in his narrow front yard, he left us chatting with his wife while he went on through the house for refreshments. And when he entered the room again he had a tall, frosted glass for everybody. "Freestone," his wife commented knowingly before we had even sipped the water. Gregory smiled the connoisseur's smile of complete approval and took another long cold drink. "Best water there is," he said. "Freestone. Well Number Eight."

(This article is precious to Mr. Gregory's family. His daughter Roberta Alexander was gracious enough to share this bit of Monteagle history. Because of folds in the newspaper article, some words were illegible. The two photos included were with the story, but I would like to add two other photos here. Jackie Layne Partin)



This photo was submitted by a relative of the Gregorlys. I assume it is Mr. Gregory and probably one of his brothers at the old Monteaale Depot where his new digging machine was unloaded.



For more of Jackie's writings click on the book icon.
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