

mouth and Lost Creek flows through the cave. This cave is about $2\frac{1}{2}$ miles long and averages 40 feet in width and 30 feet in height. The interior of the cave is very rough and for nearly its whole length there are great heaps of broken rocks piled up on one side or the other of the cave. In many places there are banks of earth and broken rock 20 to 25 feet high. Lost Creek, which flows through this cave, averages 10 feet in width inside the cave and there are many waterfalls and rapids along it. There are no stalagmites or other formations in the main part of the cave, although in some of the small side branches near the mouth there are a few. In one of these branches there is a very beautiful series of rock-rimmed pools. Far back in the cave there is a bat roost. It is said that niter has been mined in this cave and signs of digging can be seen near the second mouth. Besides the mouth where the stream enters there are two other mouths to the cave which enter it almost vertically.

No. 99. SALTPETER CAVE.

Location.—Two hundred yards south of Lost Cove Cave and 150 feet above it. It probably is connected with No. 98 by small passages. It consists mainly of one room 20 feet in width, 100 feet in length and 8 feet in height, which contains a good many stalagmites and stalactites. The mouth is low and slit-like. The walls and stalactites are coated in many places with a crust of white, powdery gypsum or niter. The earth in the cave does not average over 6 inches in depth.

GRUNDY COUNTY.

No. 90. WONDER CAVE.

Location.—At the foot of the mountain 3 miles north of Monteagle on the land of Mrs. R. M. Payne at the Monteagle pumping station.

There is a good road up the mountain to Monteagle and the Nashville, Chattanooga & St. Louis Railway is about 3 miles distant. Many people visit this cave. It is in Mississippian limestone, 800 feet below the Lee sandstone.

The mouth used by visitors is artificial. The entire width of the natural mouth is occupied by a stream 3 to 5 feet deep, whose surface is within 3 feet of the roof. The cave was discovered by accident by somebody wading in the creek. The artificial mouth was blasted out to allow easy entrance for visitors. This cave is probably the greatest show cave in the State. It is lighted with acetylene gas. The cave is very large and is said to extend for 3 or 4 miles along the stream. It

has been explored for 2 miles, though it is necessary to wade in some places in order to enter farther than three-fourths of a mile. The main stalactite and stalagmite room is about a half mile from the mouth and is separated from the main cave in all but two places by an irregular partition of limestone. The cave averages about 40 feet in width and 12 feet in height. The stream that flows through it is a good-sized creek. In many places there are large banks of yellow, clayey earth along the stream. These are 12 feet or more in height and a rod or more in width.

The main stalactite room is about 400 yards long, 100 yards wide and 8 feet high. The floor is very smooth and white and is composed of solid calcite deposited by water. In this room are thousands of stalagmites, stalactites and natural pillars of all shapes and sizes. The natural columns are unusually abundant and some are 4 feet or more in diameter, while there are a few which are 8 feet high but only an inch in diameter. Others are very grotesque and weird in shape, with fancied resemblance to various objects. The stalagmites are especially wonderful and grotesque in shape, those near the walls being unusually beautiful and varied in form. The stalactites are characteristically long and slender and give the effect of white drapery. The whole roof of this room is studded with them. There are a few very large and massive stalactites. Some of them fail to touch the stalagmites below by only a few inches while in a great many other cases the floor below them is smooth and level. Many of these formations are so white that they resemble porcelain ware, while some are made up of many tiny calcite and aragonite crystals brilliantly iridescent and sparkling. Near the center of the room there are also several rock-rimmed pools of clear water. Some of the most picturesque formations in the cave are the many little round grotto-like places separated from the main room by a drapery of long slender white stalagmites. Some of these stalactites and stalagmites give a musical note when struck. In the number of stalactites this cave far surpasses any other cave visited, although Keith Cave, No. 88, would nearly equal it if these formations had not there been largely broken off.

No. 91. CRYSTAL CAVE.

Location.—Three and a half miles north-northwest of Monteagle on the land of Mrs. R. M. Payne, 300 yards west of the mouth of Wonder Cave, in St. Louis limestone.

The mouth is situated 20 feet north of the road in a small hole or depression about 15 feet deep. Stone steps lead into the cave. The mouth is 5 feet wide and 6 feet high and is barred by a wooden gate. The cave is about a quarter of a mile long, 15 feet wide and $5\frac{1}{2}$ feet high. There is a small spring just inside the mouth and a little stream flows to the back of the cave. The banks of earth on both sides of the cave average 4 feet in depth. Rocks are mixed with the earth.

There are some beautiful formations in this cave many of which are coated with a white powder, possibly niter. Two human skeletons were dug out of the earth at the mouth. There is an ash heap here about 6 feet deep.

No. 92. SALTPETER CAVE.

Location.—Five miles northwest of Monteagle on the farm of Shak Rollins near the head of the cove on the opposite side of the ridge from Wonder Cave, a quarter of a mile south of Rollins' house. It is 500 yards from the public road and 5 miles from the railroad. It is in St. Louis limestone, 600 feet below the Lee sandstone and about 100 feet from the foot of the mountain.

The mouth is a round hole 3 feet in diameter, in thick woods near the base of a limestone bluff 25 yards from a dim road. The cave extends in a southwest direction for 300 yards. It is small, averaging 5 feet in height and 6 feet in width. It contains a loosely cemented breccia which is mixed with much earth and averages 4 feet in depth. In places holes have been dug in this material and the earth removed for making niter. There are no stalactites.

No. 100. COAL MINE ROCK SHELTER.

Location.—Three and a half miles northeast of Monteagle, near Clouse Hill Junction, a half mile north of Dr. Lillian Johnson's house. This shelter is formed by the rapid weathering of a bed of shale between the top of the Mississippian limestone and the base of the massive Lee sandstone.

This shelter is the site of a former coal mine. The shelter is 300 yards long, 6 feet high, and 7 feet wide on the average. The earth on the floor is about 4 feet deep. In several places this earth is coated with pure alum a half inch thick and there seems to be some niter present also.

No. 102. PETER ROCK CAVE.

Location.—Three and a half miles southeast of Beersheba Springs on the land of D. H. Savage on the east side of Pound Gulf and near

its mouth, 50 yards above the foot of Peak Mountain. It is situated in St. Louis limestone, about 800 feet below the Lee sandstone.

The entrance is at the base of a limestone bluff 25 feet high at the head of a small hollow in the woods near an old field, a short distance south of the junction of Pound and Savage Gulfs. There are two small mouths which are only 6 feet apart and extend in different directions at first but finally converge. The main mouth is only 3 feet in diameter. There is no stream in this cave but the floor is damp and in some places muddy. For about 50 yards inside the mouth the cave is only 3½ feet high and 4 feet wide, but after climbing down a low precipice, a good-sized cave is reached. From this point on, the cave extends about 200 yards farther and averages 15 feet in width and 12 feet in height. Several small passages lead in various directions from the main cave. The earth on the floor averages 5 feet or more in depth. There are many beautiful stalagmites and stalactites and a few large natural columns. Several little side rooms are almost completely shut off from the main cave by natural columns and stalactites. Some of these formations are very attractive.

No. 103. BIG BEAR CAVE.

Location—Seven miles southeast of Beersheba Springs, on the land of Joe Dickens, on the east bluff of Savage Creek, about 4 miles north of the head of Savage Gulf near Jumping Water Branch. It is in St. Louis limestone about 500 feet below the Lee sandstone.

The mouth is on the steep bluff of Savage Creek 100 feet above the creek in the thick, wild woods. 300 yards south of Jumping Water Branch. It is situated at the base of a limestone bluff 15 feet high and is only 3 feet high and 5 feet wide. There are three other small entrances near this one. The cave contains no niter but is quite dry. It is exceedingly intricate and full of intercommunicating passages which form a labyrinth in which it is easy to get lost. There are several small holes in the floor that are 50 feet or more in depth. The earth is fully 10 or 12 feet deep. In some places holes have been dug and the earth removed. The main cave is over a mile long and several lateral passages are as much as a fourth of a mile long. The average height is 8 or 10 feet and the width about 8 feet. There are some very beautiful stalactites, stalagmites, limestone terraces, and natural columns in this cave, some of which ring like bells when struck. This cave is very hard to find. D. H. Savage and Elliott Adams who live near Beersheba Springs are practically the only people that know where it is. It is

rather inaccessible and any material mined would have to be hauled to the top of the mountain by a cable, probably. The nearest railroad is about 13 miles away, at Coalmont.

JACKSON COUNTY.

No. 9. SALTPETER CAVE.

Location.—In the bluff on the north side of the Cumberland River on the farm of J. T. Draper, a fourth of a mile west of Draper's house $1\frac{1}{2}$ miles south of Gladdico. The cave is in Ordovician limestone, a third of the way up the bluff. It is a fourth of a mile from the public road and a half mile from the Cumberland River.

The mouth of the cave is 5 feet by 5 feet and overlooks a broad bottom which is cultivated. The bluff is thinly wooded below the mouth but there is a perpendicular limestone ledge above it. The cave is small, extending only about 50 yards, and is quite dry inside. It averages 30 feet in height. The loose earth on the floor is 5 or 6 feet deep and contains bones, possibly of Indians.

There are practically no stalactites or stalagmites in it. The end of the cave seems to be filled up with loose earth.

No. 10. BURIAL CAVE.

Location.—A fourth of a mile north of Flynns Lick on the farm of Joshua Haile, Sr., in the low west bluff of Flynns Creek. The mouth is only 200 yards west of the Gainsboro road and about 2 miles from the Cumberland River. It occurs in Ordovician limestone, 300 feet below the Chattanooga black shale.

The mouth is in the west bluff of the Creek about 15 feet above water level at the top of a low limestone ledge. There are several other small caves near by with their mouths along the same ledge. This cave is damp inside but there is little standing or running water in it. It was once used by the Indians as a dwelling place as well as a burial ground, and about a half mile from the mouth is a wide, flat rock that was used by the Indians for a table. Bats frequent this cave and in some places piles of guano have collected.

There are two main forks and each extends for nearly half a mile. There the loose earth is abundant. In some places it is as much as 6 feet thick but averages about 3 feet. The northwest fork averages 8 feet in width and 7 feet in height while the southeast one is somewhat wider and lower. In some places the cave is very narrow and sinuous