

## UNIVERSITY CAVE.

GREENCASTLE, PUTNAM COUNTY.

But recently, October, 1884, attention has been called to the existence of a cave in the St. Louis limestone, a member of the Lower Carboniferous period. This limestone is noted in the United States for the readiness with which it weathers into subterranean caves. This peculiar feature has given to this formation the familiar name of "cavernous" or "sink-hole" limestone. It is in this rock that the famous Mammoth Cave of Kentucky, and the still more beautiful and extensive Wyandotte Cave of Crawford county, Indiana, are found. The extent of these subterranean caverns, the magnitude of their halls, and the many fantastic forms into which the rocks have been wrought by the decomposing action of water, and the beauty of their calcic formations, have given them a world-wide reputation. The Mammoth Cave was the earliest explored and advertised, and pæans in its praise were sung long before its great rival, the Wyandotte, had been brought to public notice. From this cause, alone, has it held an unmerited supremacy as the grandest grotto known to the world. Since the time when saltpeter was made in this cave, to supply the want of the foreign article in the manufacture of gunpowder, to be used in defense of the country in the war of 1812, it has been the one great object of home and foreign travelers, and it has been long held that the two grandest natural curiosities of America are the Niagara Falls and the Mammoth Cave. The great naturalist, C. A. Leseure, used to add a third, the "Rattle Snake," for the rattle snake is only known in America.

The Wyandotte is estimated by recent explorers to contain 53 miles of travel, going and returning. The magnitude of its rooms, with their "step-like" domes, have no counterparts in the rooms of other caves. The gorgeous calcic decorations of its halls and galleries for brilliancy and effective imagery are unequaled by the grottoes of the fabled Genie. Had America been inhabited by a race of Troglodytes they could have found homes in the cavernous limestone of Indiana, and become a populous race, but like the *Amblyopsis* and other denizens of the caves, become non-seeing.



Innumerable small caves are found in Harrison, Lawrence and Monroe counties, Indiana. In Orange county a large tributary of White River has worn its way through the St. Louis limestone, and from a living stream passes beneath the surface for many miles before rising and again flowing over the surface. This feature has given to it the name of "Lost River."

"University Cave," at Greencastle, is quite small, and so far as known is not characterized by extensive calcic ornaments, but, nevertheless, is of geological and general interest and is worthy of further exploration.

The following letter was received from John P. Reasoner, who, at my request, made a partial examination of this cave November, 1884.

It is to be hoped that the students of DePauw University will make a thorough search in the earth-covered floor of this cave for the remains of extinct and recent vertebrated animals, and relics of man. The following is Mr. Reasoner's letter:

GREENCASTLE, IND., November 22, 1884.

*Hon. John Collett, State Geologist, Indianapolis, Ind.:*

DEAR SIR—In accordance with your request that I make an exploration of the cave in the vicinity of Greencastle, I started this morning in company with Prof. De Motte, at 7:20 o'clock A. M. Another gentleman, a Sophomore, also accompanied me. The articles which we took with us were a compass, a bull's eye lantern, candles, matches and an old suit of clothes.

The entrance to the cave, through which we went is situated about 60 feet from the L., N. A. & C. R. R., about 1 mile from the I. & St. L. and L., N. A. & C. depots, and about  $\frac{1}{2}$  mile from the stand which Blaine spoke from.

Going down into the entrance, which is about 10 feet from the surface, we went in through an aperture about 2 feet in diameter, and about 5 feet long. After getting through this we were in a place about large enough for one to stand, and putting our hats on a kind of shelf of rock, we went through another hole about  $2\frac{1}{2}$  feet high, situated at the bottom of the cavern in which we were standing. After getting through this we were in a room about 20 feet square, and 8 or 10 feet high, from which all the side passages branched, the number branching from this room being four.

We first took one going northeast. It was quite winding, had a good level dirt floor, rock ceiling, and was about 4 feet wide and  $3\frac{1}{2}$  feet high. We went out for perhaps 150 yards, till we came to a seemingly impassable place, which being about 3 feet from the level of the floor of the cave, wound nearly around and let me into a large cavern 20 or 22 feet long, 9 or 10 feet high, and 5 or 6 feet wide. The winding entrance to which



I gained access to this was nearly round, about  $1\frac{3}{4}$  feet in diameter, and in getting through this I sprained my shoulder. The large cavern into which I came, wound around and finally came to an end, except at the bottom, on a level with the floor, a small aperture 2 feet high, through which I was unable to get, but, with the aid of my "bull's eye" lantern I saw that there was a still larger cavern, which, were the entrance blasted out, would probably lead up town.

Retracing our steps we came back to the first room, from which, as I said before, the passages branched off. My associate would go no farther on account of the winding path of the cave, and the number of side passages branching off, thus making it easy to get lost in such a labyrinth.

I tied the ball of twine to the post at the entrance and let it out. This passage was larger than the first, and on account of the dripping of the water from the stalactites, was much more muddy, for a few hundred feet, but after a little time it became dry. The average height of this passage is  $4\frac{1}{2}$  feet; width, 3 feet; that is, the first part, but the last is much larger. I came to the end of the ball of twine near what seemed to be the end of the passage, and upon the wall some one's name, very indistinct, bearing the date of 1830, or some date like it. It is very indistinct. There are many other names of former students of the University. Peering around I found a small entrance about one and a half feet high, and very narrow, through which I went, and continued on until my second ball of twine was exhausted, and still on after that to the extent of what I judged to be the length of another ball. The train passed over me and I could hear the rocks jar overhead. It is truly wonderful how far one can hear in it, as I went around several right-angles and still could hear a "hallo" from nearly the entrance.

I had gone about as far as I cared about without anything to guide me, so I turned back. I got a piece of detached rock and some dirt from the farthest place I was in. I almost forgot to mention that at the end of the first passage we found debris of stems of trees and mud all over the walls, as if it had at one time been a subterranean stream. I send you samples of all of these, together with a few small stalactites, which I was able to knock off with the means at hand.

Coming back I saw a small entrance, and I went in and found it to be 20 or 30 feet across and 9 feet high, with a mound similar to an Indian mound in the centre of it, covered with stones and rocks. Pursuing my way toward the entrance I procured several stalactites and made my exit. Were the cave to be thoroughly explored, I have no doubt many interesting things would come to light.

The average temperature I should judge to be 15 or 20 degrees above the outside air.

JOHN P. REASONER.