ART. XXXII.—*Account of the fall of a Meteoric Stone in Stewart County, Georgia*; by Professor JOSEPH E. WILLET.

IN October, 1869, I learned that a meteoric explosion had occurred in Stewart county, Georgia. I immediately requested Hon. John T. Clarke, a resident of the county adjoining Stewart, to enquire whether any stone or stones had fallen, and to endeavor to procure them for Mercer University. Judge Clarke, after considerable labor, was entirely successful in his search; and, through him, Mr. Barlow, in whose yard the meteorite descended, generously presented it to our Museum. To Judge Clarke and to Mr. Latimer, I am indebted for the following history of the phenomena attending the descent of the meteorite.

Mr. J. B. Latimer of Bladen's creek, Stewart county, has kindly furnished the following particulars of the *flight* of the body through the air, and of the several *explosions*, which occurred nearly vertically above him.

"The morning of the 6th October last (1869) was quite clear,

scarcely any cloud being visible, quite calm; about 10 A. M. the atmosphere grew somewhat hazy, no clouds; at about 15 or 20 minutes before 12 M. a roaring, rushing sound was heard in a northwesterly direction, about 80 degrees above the horizon. In a moment or two, it was almost directly over head, at which point a loud explosion occurred, followed in rapid succession by six other reports, but less in volume than the first—making seven in all. The explosions appeared about as loud as a 12-pound cannon, at a distance of 10 or 12 miles. These explosions did not occur all at the same point in the heavens, but seemed to emanate from some body moving rapidly to the south-east. After the explosions, a peculiar whirring sound was heard, apparently produced by some large irregular body, moving very rapidly. This also went in a southeasterly direction. This sound was heard several seconds; many have compared it, and aptly too, to an imperfect steam-whistle. I have no precise idea of the time consumed in all this demonstration; some persons say several minutes—but I think 10 or 15 seconds would about cover the time.

“As the larger body was going out of our hearing, (some moments after the explosions) a smaller one passed to the southwest, with just such a noise as is always produced by a flying fragment of a shell after its explosion, or of any angular body cast violently through the air. This piece descended to the earth, distinctly traced in its passage by many persons, and struck in the yard of Capt. E. Barlow—which point of contact is, on an air-line, about $2\frac{1}{2}$ miles from a perpendicular beneath where the explosions occurred. This is the only one known to have fallen in this section.

“The explosions, together with the rushing sound afterward, were heard over a region about 30 miles N.E. and S.W. and 50 or 60 miles N.W. and S.E. No shock was felt—at least no tremor of the earth.

“Two men say, that they were looking in the exact direction of the explosions at the time they occurred, and saw a quantity of vapor, much like the volume of steam escaping from the pipe of an engine, at each successive stroke; which vapor or mist was violently agitated, and increased in bulk, with each successive report, but disappeared soon after the cessation of the reports. This corroborates the testimony of some of my own laborers, who say, that immediately after the explosions something like a thin cloud cast its shadow over the field they were in.”

Hon. John T. Clarke, of Cuthbert, Ga., who has interested himself in collecting the history of the meteorite, and through whose influence it has come into the possession of Mercer University, writes me the following particulars of its *fall*.

"It fell about 11½ A. M. on the 6th of October last, (1869), in Stewart county, Ga., on the premises of Elbridge Barlow, Esq., about 12 miles south of west from Lumpkin. Capt. Barlow picked it up a few moments after it fell. His account of it is this. While standing in the open yard, the sky being bright and clear, he heard first a succession of about three explosions, resembling sudden bursts of thunder, or discharges of artillery, followed by a deep roaring for several seconds, and then by a rushing or whizzing sound of something rushing with great speed through the air near by. The sound ceased suddenly. The noise, from first to last, was some half a minute. Two negroes were washing near the well, in the same yard, about sixty yards from where Barlow stood. They heard the noise, and supposed it to be the falling in of the plank well-curbing, banging from side to side in its descent, and so spoke of it to one another before it fell. While they were speaking thus, it struck the ground about twenty steps from them, in full sight, knocking up the dirt. They called Capt. B. and showed him the spot. It was upon very hard trodden ground in the clean open yard. The earth was freshly loosened up very fine in a circle of about one and a half feet in diameter; and, upon scraping the loose dirt away with the hands, the stone was found about ten inches below the surface. From the direction in which the ground was crushed in, it must have come from the northwest, and at an angle of about 30 degrees with the horizon. The stone when picked up was covered all over with the black shell which it bears now, except a triangular spot on one corner, about one inch each way, where the corner appeared freshly knocked off, and about four other spots near a quarter of an inch in diameter, where the shell was slightly knocked off. The other bruises, which you will find upon it, have been made since by persons who have handled it. To enable you to distinguish the original breaks upon it, I have marked each of them with a red cross. The stone still has a strong odor, which I will not undertake to describe. Capt. B. says it smelled stronger when he first picked it up. He does not remember that it had any noticeable heat. It was not cold, as a stone found so deep in the ground should be.

"The stone weighs now 12¼ ounces, about ½ ounce has been pecked off from it. Its color within is strikingly like very light granite; and, with the exceptions above noted, it is entirely covered with a smooth, almost black shell, a trifle thicker than common letter paper, so that externally it looks very much like a lump of iron ore. It is an irregular, seven-sided figure, its longest side being about 2¾ inches long. If put into a spherical form, it would make a ball about 1¾ inches in

diameter. So far as I have been able to ascertain, no other parts have been found.

"The noise attending this phenomenon is variously described by different persons, and from different places. Two intelligent ladies residing four miles south of Lumpkin, nearly east of where the stone fell, and about ten or twelve miles off, describe it thus. While sitting in the house they heard, as it were, the sound of a great fire suddenly bursting forth from some confinement into the open air. They rushed out of doors, and heard the roaring sound continue for several seconds. They located the source of the noise in the direction of Barlow's.

"In Cuthbert, about 18 miles from Barlow's, nearly southeast, a gentleman, engaged in a workshop, heard a lumbering noise, which he took to be several heavy pieces of machinery in an adjoining room, falling down one after another. On going in, he found no one, and that he had mistaken the cause of the noise. Many persons here heard sounds like repeated thunder followed by roaring. Some say that they first heard several rapid, cracking explosions, like that of volleys of small arms, followed immediately by the louder burst of artillery. Most persons here thought the noise came from the southeast, passed over the place in a northwesterly direction, and died away in the distant northwest.

"The foregoing statements have been selected from many in circulation, showing how differently the senses were affected at different points. The facts are purposely presented in their nakedness. If you can find them available in aid of a scientific investigation of the origin of this phenomenon, I shall have accomplished more than I expect."

The above accounts agree as to the main facts. They were furnished by Mr. Latimer and Judge Clarke, without being compared by them. It is possible that a comparison of notes by them might have thrown some light on the point of greatest discrepancy, viz: the direction of flight. It is probable that the meteorite came from some point in the *north* quarter; the statement of Mr. Latimer over whom it exploded, and that of Mr. Barlow as to the direction in which the earth was penetrated, concur in this regard. Persons in Cuthbert, who represent it as coming from the south, may have been misled by an echo, mistaking this for the original sound.

Prof. J. Lawrence Smith, who is giving special attention to the subject of meteorites, has requested the privilege of analyzing the stone above described.

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