ART. XXXV.—*A New Meteoric Iron from North Carolina;* by W. E. HIDDEN.

ON the 19th of July, 1879, Mr. Gray W. Harris, while out prospecting for gold, on his land near Lick Creek, Davidson County, N. C., found an unusually heavy stone of the size of a large pear, which he at first mistook for a specimen of iron ore. On attempting to break it he found that the stone would not break but was covered with a uniformly thick skin or crust which scaled off under repeated blows of the hammer.

After carefully removing all he could of this crust, there remained a pear-shaped mass of what appeared to him to be a pure metal. The color of the metal, developed by hammering, was *white*, and this led him to conclude that it was silver. This "nugget of silver," as he called it, soon had a wide notoriety among all the mining camps in the region.

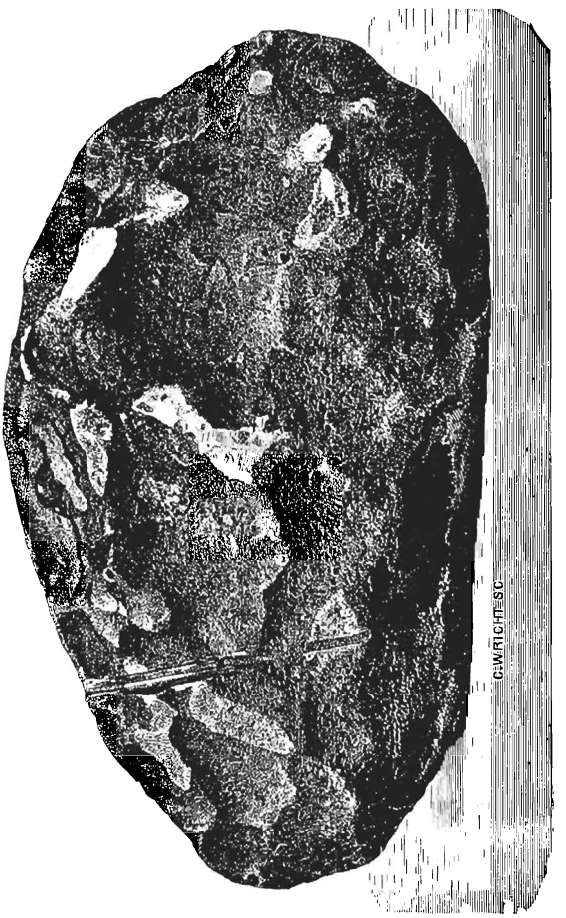
This story, substantially as above related, reached me at Concord, N. C., in the autumn of 1879; my informants were the Messrs. Richard Eames, Jr. and Sr. They had seen the "nugget" and believed it to be iron, perhaps native iron; they had noticed that the "nugget" had what Mr. Eames, Jr., aptly termed "night sweats." Little beads of a yellowish fluid*

* These watery exudations I have myself noticed and found to consist of chloride of iron. W. E. H.

would gather upon its surface over night, which, if wiped away, would form again in the next twenty-four hours.

This last addition to the story of the "silver nugget" convinced me that the mass was really meteoric iron. After no little trouble and expense it was finally sent to Menlo Park, N. J., where it was at once recognized as *meteoric* iron. But for the active interest taken in this meteorite by the Messrs. Eames, it would have been in all probability lost to science; and I take this opportunity to express my indebtedness to them.

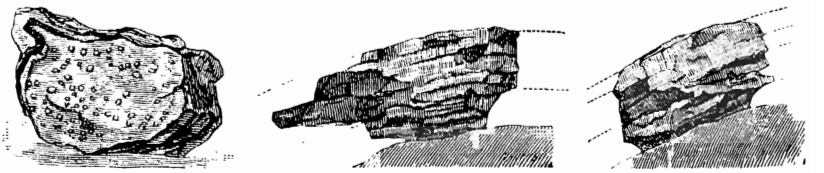
For the exact size and appearance of this meteorite see cut.*



Meteorite from Davidson County, North Carolina. (Exact size.)

* I am indebted to the "Illustrated Scientific News," of New York, for the use of this fine engraving. W. E. H.

It weighed when received here 1·24 kg., (= 2¾ lbs.). Its outward color is *dark* brown, not rusty, and some little of the original crust yet adheres to it. The crust of this meteorite is of unusual importance and quite unique, as illustrated in the



Crust on Davidson County, N. C., Meteorite. (Exact size.)

accompanying figures. It averages 1^{cm} in thickness and resembles a hard, dark slate, shows a lamellar structure and readily breaks into flakes. Some cavities in this crust are lined with mammillary forms and it has many seams with a vitreous-like luster.

Last month I visited the spot where the meteorite was found and collected about six ounces of the crust. It lay there exactly as Mr. Harris had broken it off. I had no fears of mistake in identifying this crust as all the local gravel was composed of white quartz pebbles.

This iron has been analyzed by Dr. J. Lawrence Smith and J. B. Mackintosh, E.M. I here give the average of four closely agreeing analyses.

Iron, 93·00 per cent; nickel, 5·74 per cent; cobalt, 0·52 per cent; phosphorus, 0·36 per cent; traces of sulphur, chlorine and copper; carbon not determined. Total = 99·62 per cent. This iron does *not* show the customary Widmannstätten figures. I have etched all the exposed surfaces and obtained no well defined markings on a large scale, but I have found that the etched surfaces show crystalline faces which reflect the light at certain angles, giving a sort of sheen much like moonstone or labradorite. These reflecting surfaces are in parallel sets.

This is the second of the three *new* meteoric irons discovered in the Southern States, in the autumn of 1879, by the writer, who now holds in his possession the two already described in their original condition.

June 23, 1880.