

ART. XXVII.--*On two new Meteorites*; by E. E. HOWELL.
With Plate IV.

1. *The Cherokee Meteorite.*

THIS meteorite was found in March, 1894, by Mr. S. B. May a few hundred yards from the Clarkson gold mine, two and one-half miles east of Cherokee Mills, and about five miles S.W. of Canton, Cherokee Co., Ga.

Mr. May was plowing new ground when he discovered the meteorite, only partially covered with soil. It was of a rough lense shape with one side flattened and weighed $15\frac{1}{2}$ pounds. With the aid of an old axe the mass was finally separated, and the smaller part was carried away, mislaid, and apparently lost beyond recovery by a party who did not appreciate its value.

The larger portion, weighing $8\frac{1}{2}$ pounds, was secured by Mr. S. W. McCallie, Assistant State Geologist of Georgia, and obtained by me in an exchange with the State Museum. This mass has evidently been materially reduced in size and weight by oxidation, leaving, however, a solid mass after the oxidized portions were removed.

The Widmanstätten figures are strongly marked and distinctive, the special feature being the large masses of plessite which are shown in Plate IV printed direct from an etched section.

The following is an analysis for which I am indebted to Mr. H. N. Stokes by the courtesy of Prof. Clarke, Chief Chemist of the U. S. Geological Survey; it shows nothing unusual in composition.

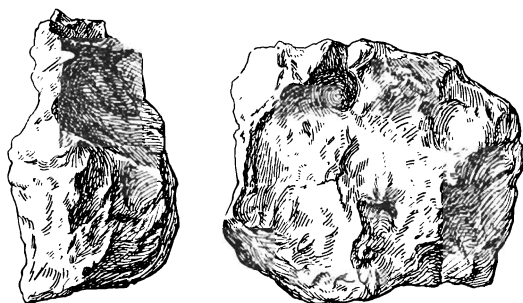
Fe.....	91.96
Ni.....	6.70
Co.....	0.50
Cu.....	0.03
Si	<i>tr.</i>
P.....	0.11
S.....	0.01
C.....	<i>tr.?</i>
	99.31

The only other meteorite to my knowledge found in that portion of the state is the "Losttown" found in 1868 and described by Shepard. This, however, was very different in appearance and composition, containing only 3.66 per cent of nickel, which alone would be sufficient to distinguish them.

2. *The El Capitan Meteorite.*

This handsome meteorite was found by a Mexican sheep herder, Julian Jesu, in July, 1893, on the northern slope of the El Capitan range of mountains in New Mexico. Three small pieces were broken from the thin edge, which show beautifully the octahedral structure of the iron. The smallest of these, weighing a few ounces, was sent to the National Museum, and the two larger, weighing respectively 1 lb. 12½ ozs. and 3 lbs. 14 ozs., together with the main mass, 55 lbs., came into my possession at different dates in 1894.

The weight of the iron when whole was about 61 lbs.; the general shape is shown in the accompanying cuts. It measured 10×9×5 inches thinning at one edge and had the usual irregular pitted surface.

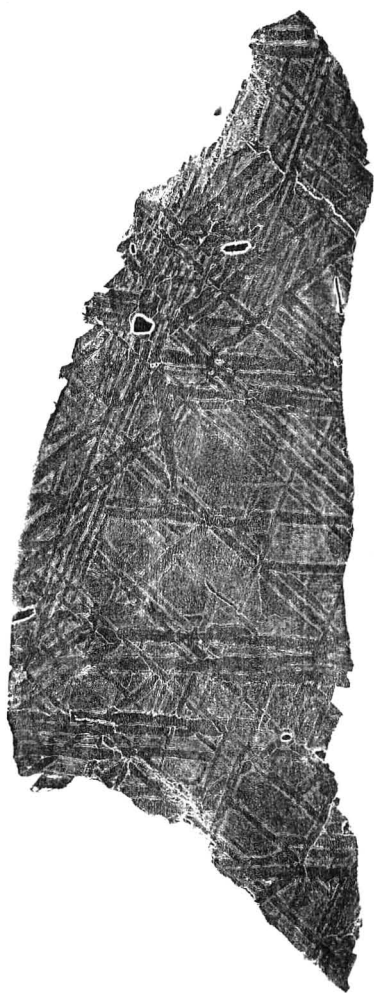


My information in regard to the history of the meteorite, as well as the meteorite itself, was obtained from Mr. C. R. Biederman of Bonito, N. M. Mr. Biederman says that he, in company with many miners, was standing in front of a store in Bonito sometime in July, 1882, when "they saw a meteorite which looked like a fiery ball moving rapidly toward the north at an angle of 45° and vanish behind the Capitan range." Mr. Biederman thinks the meteorite found by the Mexican is the one they saw fall, and there is nothing in its appearance to disprove his claim. It is entirely free from oxidation and evidently fell at a comparatively recent date.

The Widmanstätten figures are developed very easily and clearly, as is usual with irons containing the percentage of nickel which this has, showing it to belong to the usual type of octahedral irons, with rather broad bands of kamacite somewhat like those in the Cooperstown meteorite.

I am indebted also to the courtesy of Prof. Clarke for the following analysis of this iron by Mr. H. N. Stokes of the U. S. Geological Survey :

Fe	90.51
Ni	8.40
Co	0.60
Cu	0.05
Si	<i>tr.</i>
P	0.24
S	<i>tr.</i>
	99.80



THE CHEROKEE METEORITE.