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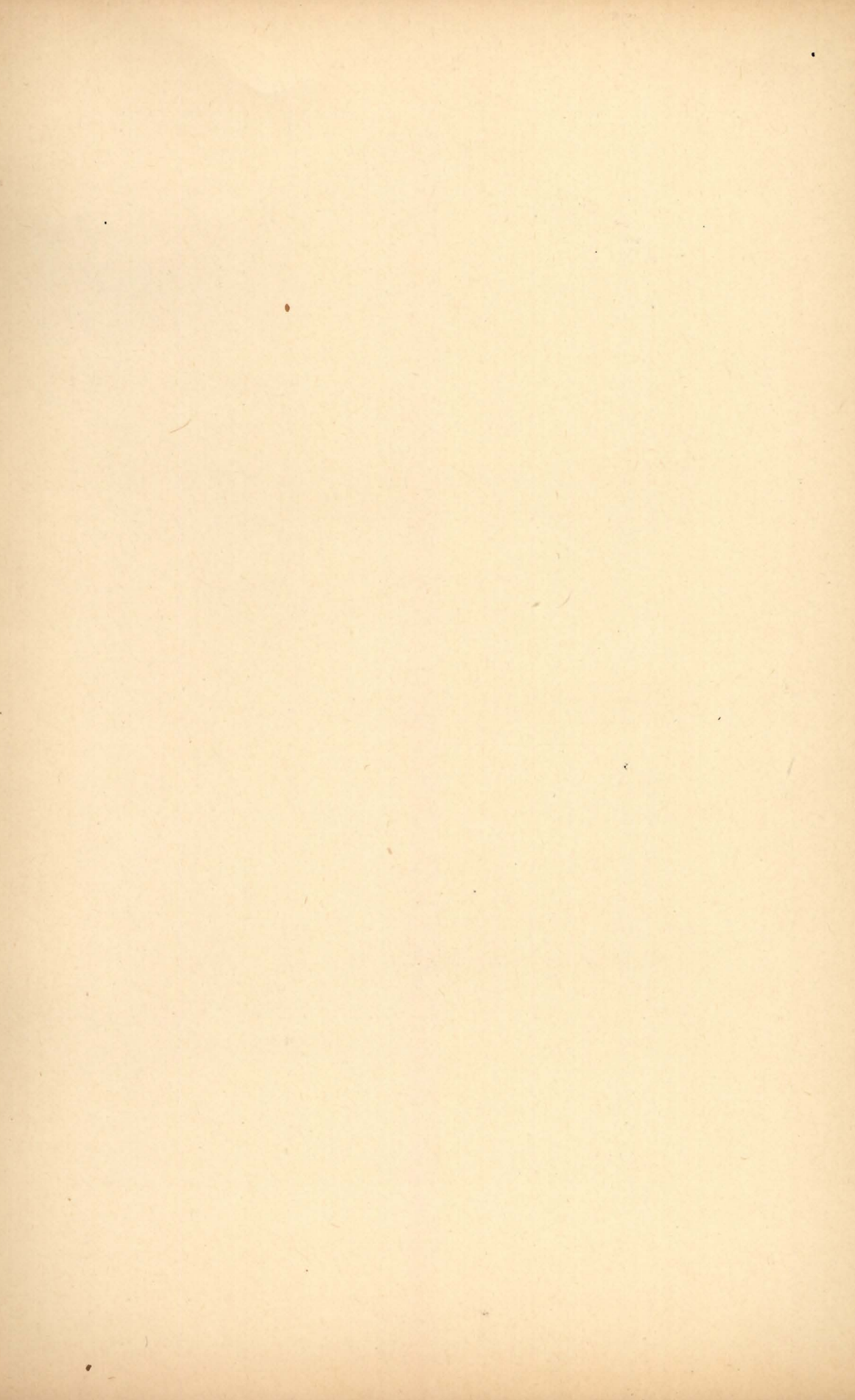
THE ST. GENEVIEVE METEORITE

BY

HENRY A. WARD

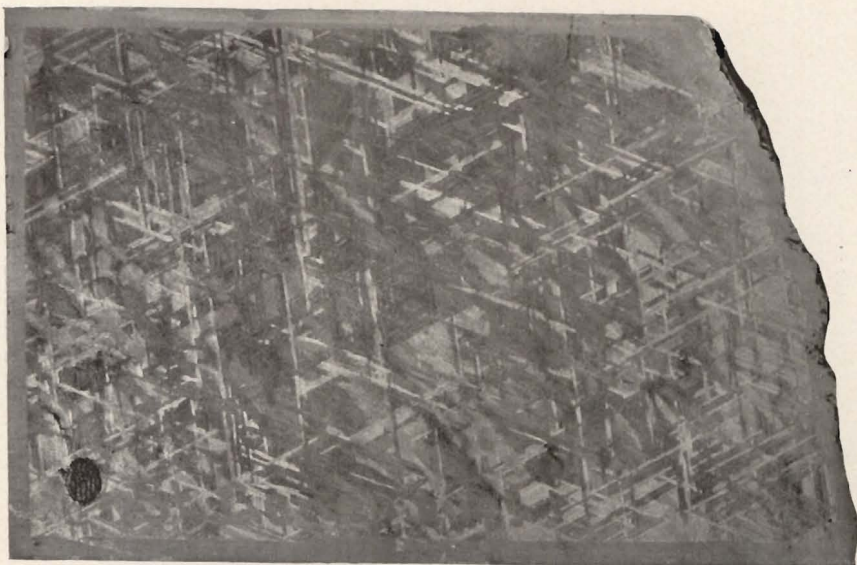


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PHOTOGRAPH OF THE MASS. (About $\frac{1}{2}$ actual size.)



ETCHED SECTION. (Actual size.)

ST. GENEVIEVE METEORITE.

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THE ST. GENEVIEVE METEORITE.

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The State of Missouri has furnished to science eight meteorites, of which two are aerolites, one is a siderolite, and five are siderites. They have been found in eight different counties and all of them are from the southern half of the state.

The first to appear was Little Piney, called after the stream of that name in Pulaski county. It fell in 1839. Cape Girardeau fell in 1846. Both these were aerolites. The irons were all found, not seen to fall. One of them followed in each decade until 1888. This latest iron, the subject of the present paper, was discovered in the autumn of 1888 in the extreme western portion of St. Genevieve county, at a point about one mile west of Punjaub, a little hamlet no longer existing. We have decided, in the lack of closer possible location, to give it the name of its county, whose county-seat of the same name lies some 15 miles to the eastward. It was found by Mr. Zeb. Murphy, a surveyor, who retained it in his possession for several years, showing it at county fairs, etc. It was subsequently bought from Mr. Murphy by Mr. F. P. Graves, the Secretary and Assistant Superintendent of the Doe Run Lead Co., whose headquarters are in the town of Doe Run, Mo. Mr. Graves has been a life-long collector of the minerals in this part of Missouri, and this St. Genevieve meteorite has been for some years past a crowning piece in his fine cabinet. From him it was obtained by the present writer in January of last year.

The shape of the St. Genevieve siderite is an elongated spheroid, considerably flattened upon one side, with a rudely crescent-shaped, shallow depression in its middle part. (See plate 1.) Its greatest length is 20 inches; its two other dimensions are each $15\frac{1}{2}$ inches. Its weight, when I first obtained it, before any part had been cut from it, was 539 pounds.

The exterior of the mass shows no sharp, distinct pittings, although having several shallow depressions that appear to have been prior to the oxidation which has largely covered the surface and which has quite destroyed any trace of outer crust or skin, if such ever existed.

The present color of the mass is a dull, reddish brown, with patches of brighter iron showing here and there. By slicing the mass into a number of sections, the surfaces of which are about one foot by one foot four inches in diameter, there were revealed troilite nodules, few in number and of small size (from 4 to 9 mm. in diameter), but which lacked the border of schreibersite that so prominently surrounds these nodules in the majority of irons.

The Widmannstätten figures are brought out, by etching, sharp and clear, and are of very even character and size throughout the entire mass. They are typically octohedral. On the numerous plessite patches the alternating taenite and kamacite blades (Laphamite markings) are well developed, the taenite standing out prominently in relief.

The chemical composition of this meteorite has been determined by J. Edward Whitfield. His analysis is as follows:

Metallic Iron	-	-	-	-	-	-	-	-	91.580
“ Nickel	-	-	-	-	-	-	-	-	7.980
“ Cobalt	-	-	-	-	-	-	-	-	0.290
Silicon	-	-	-	-	-	-	-	-	.023
Phosphorus	-	-	-	-	-	-	-	-	0.200
Sulphur	-	-	-	-	-	-	-	-	trace
Carbon	-	-	-	-	-	-	-	-	none

100.073

Specific gravity 7.756.

The main part of this great mass, weighing 106.56 kilos, has taken its final position in the Ward-Coonley Meteorite Collection, now on deposit in the American Museum of Natural History, New York City.

