

A RECENTLY FOUND IRON METEORITE FROM OAKLEY,
IDAHO¹

BY GEORGE P. MERRILL

Head Curator of Geology, United States National Museum

My attention was first called to the finding of this iron by a clipping from the Salt Lake Tribune of May 13, 1926, forwarded by Mr. Victor C. Heikes of the Bureau of Mines. It read as follows:

Oakley, Idaho, May 12. At the Idaho Power Co.'s offices here a small meteorite discovered in the hills a few miles east of Oakley, is on exhibition.

It is about the size of a cowboy hat and weighs 260 pounds.

In color it is of a light brown and in general appearance it resembles a piece of conglomerate rock. However, in substance it is a very peculiar character formation of iron and steel, hard as flint, bidding defiance to file or chisel and has the ring of very fine metal.

A letter to the power company asking that the iron be sent on to Washington for examination brought the following reply, which constitutes all that can be learned regarding the finding of it.

AUGUST 14, 1926.

Inclosed please find B. L. covering meteor which has been sent as per your request.

In regard to the finding and location and so forth, the meteorite was found about 10 miles northeast of Oakley, Cassia County, Idaho, on the west side of Mount Harrison. The actual finding was made by Lawrence Elliott, age 14, and Burton Mackey, age 16. These two boys were cutting cedar posts and one of them hit the meteor with his axe, which gave off a ringing sound, and they then made further investigation which proved to be a meteor.

As to its possibility of having been seen when falling, two parties state that they saw something of this kind fall about 15 years ago and in the middle of the winter, but as to this having any bearing on the meteor would be a question.

Yours very truly,

CHARLES ELLIOTT.

The form of the iron (see pls. 1 and 2) was such as to excite interest, and steps, which proved successful, were at once taken to secure it for the national collections, where it now rests.

¹ Catalogue No. 780.

36
78
78
The dimensions of the mass are 50 cm. in width (C-D) and 50.3 cm. in height (A-B) as figured in plate 1. The maximum thickness (F-E, pl. 2) is 21.5 cm.; weight ~~6549~~ kilograms. With it was a fragment which had been broken from the edge weighing 420 grams, which brings the total weight received to ~~6591~~ kilograms. An estimate that at least a kilogram had been broken away and not received, places the original weight at approximately ~~645~~ kilograms.

As noted, the form of the iron is such as to excite interest (see pls. 1 and 2). From a maximum thickness at the point (E) it bevels out gradually in directions toward the left and top—in the figure—to knife edges; to the right and toward the bottom the sloping is abrupt. The shape is such as to suggest a rough quarter section of an original discoidal mass, convex above and concave beneath and thickest in the center, which has been broken out so as to include a considerable part of the original central portion. That the point (E) represents the nose, or *brustseite*, is self-evident as is the fact shown by the sculpturings that it has traveled some little distance in this position. The finer sculpturings, if such they were, have become obliterated through oxidation, as have also any signs of the flowing back over the edges of molten material. The sculpturings on the lower surface (fig. 2, pl. 1) are large and of sufficient depth to cause a considerable concavity.

An etched surface on the edge of the fragment from point (C) shows the iron to be a coarse octahedrite of no unusual features. The composition, as shown by Earl V. Shannon's analysis below, is also devoid of any unusual features unless absence of chromium, platinum, and manganese be so considered.

A portion of 10.5746 grams, free from scale, was used by Mr. Shannon for the analysis. The method, with minor variations, was the same as that used for the Odessa iron and described in detail in that report.² The composition of the Oakley is as follows:

Insoluble.....	0.004
Iron (Fe).....	92.374
Nickel (Ni).....	7.038
Cobalt (CO).....	.273
Manganese (Mn).....	None.
Platinum (Pt).....	None.
Phosphorus (P).....	.280
Copper (Cu).....	.006
Chromium (Cr).....	None.
Sulphur (S).....	.016
Total.....	99.991

The almost unweighable amount of insoluble material was examined microscopically. It seemed to consist of a few grains

² Amer. Jour. Sci., vol. 3, May, 1922, p. 336.

of quartz sand, possibly derived from the grinding wheel. No graphite, chromite, or diamonds were present.

The form of the iron, it will be noted, is strikingly like that of Cabin Creek³ and leads one to speculate on the possibility of its being but a portion of a scale-like fragment torn from a larger mass after entering our atmosphere.

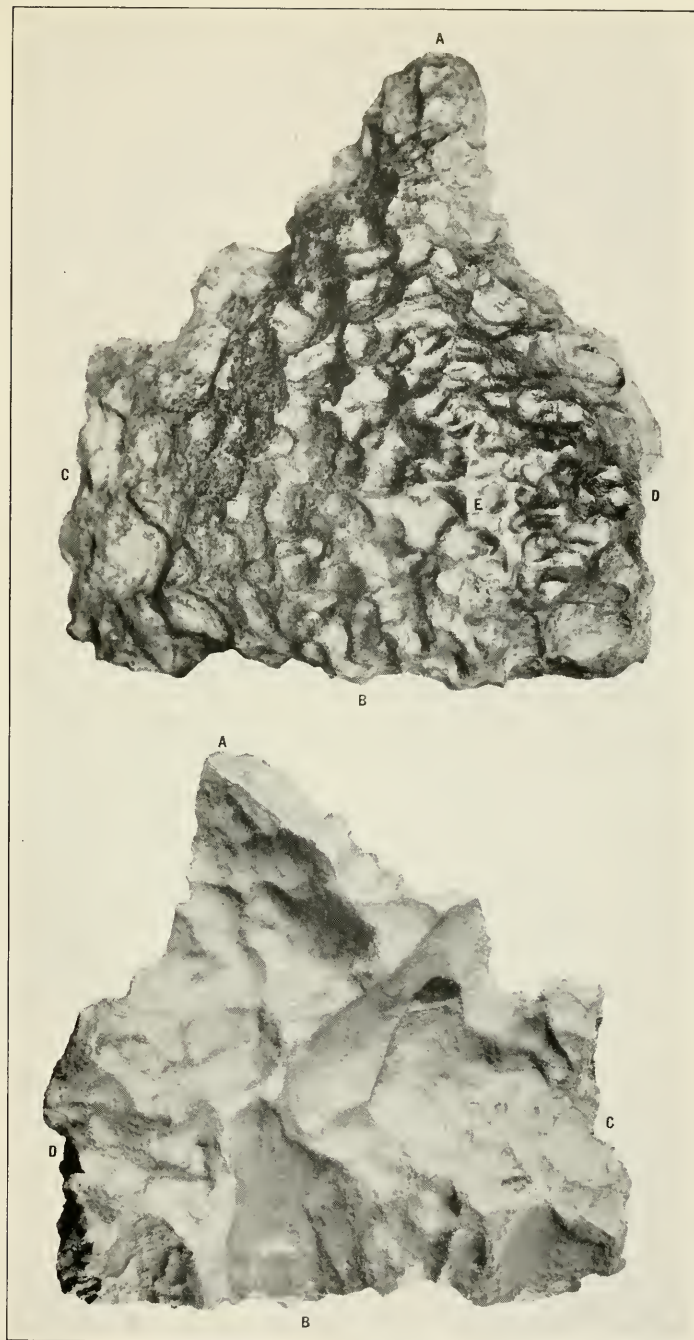
EXPLANATION OF PLATES

PLATE 1. Front and rear views. Nose or *brustseite* at E in upper figure. Dimensions A-B, 56 cm., C-D, 50.3 cm. Broken edge at C

PLATE 2.—Side view. Lettering A, B, and E as in Plate 1. Maximum thickness F-E, 21.5 cm.

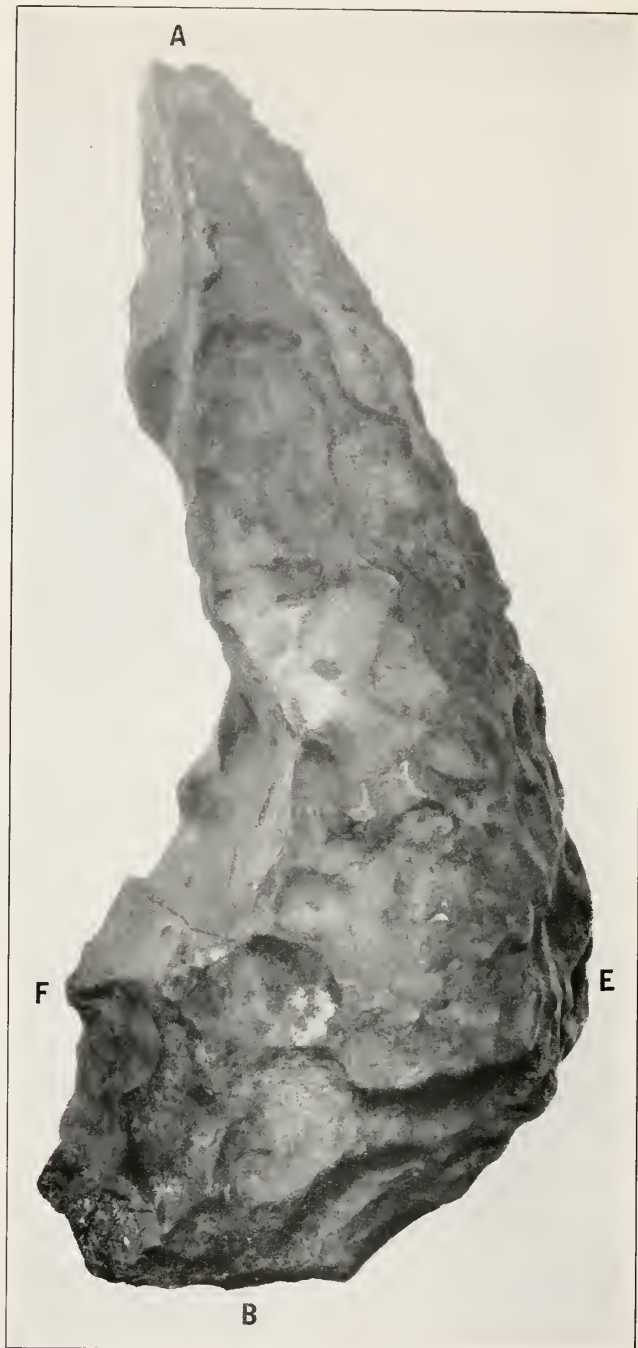
³ Amer. Journ. Sci., vol. 33, June, 1887, pp. 494-499, pl. 13.





OAKLEY (IDAHO) METEORIC IRON

FOR EXPLANATION OF PLATE SEE PAGE 3



METEORIC IRON FROM OAKLEY, IDAHO

FOR EXPLANATION OF PLATE SEE PAGE 3