

GLORIETA.

Glorieta Mountain, near Canoncito, Santa Fe County, New Mexico.

Here also Albuquerque and Canoncito, but not Canyon City or Trinity County.

Latitude $35^{\circ} 34' N.$, longitude $105^{\circ} 45' W.$

Iron. Medium octahedrite (Om) of Brezina; Caillite (type 18) of Meunier.

Found and noticed 1884; described 1885.

Weight about 146 kgs. (320 lbs.). Sixteen individuals, of which the three largest weighed 67.52 kgs.

This meteorite was first described by Kunz¹ as follows:

This mass was found by Mr. Charles Sponsler, a prospector, on some unclaimed land on Glorieta Mountain about half a mile from a house in the woods 1 mile northeast of Canoncito, Santa Fe County, New Mexico, in May (?), 1884. The mass was lying on a rock, upon which it had fallen, in three fragments, and judging from the few marks of weathering had not been long exposed. The exact date of discovery not determined.

The weight of the entire mass is 317 pounds (143.76 kg.). Perhaps 1 kg. had been chipped off, so that the original weight may have been about 145 kg. The dimensions of the original mass were approximately 25 by 10 by 15 inches (65 by 25 by 37 cm.). It is quite unusual to find so large and compact a mass of iron so completely broken asunder, and in this respect the fall is unique. The fractures are very clean considering the size of the fragments, although the edges are somewhat irregular. No. 1 is filled with elongated hollows, proving that it evidently was disturbed, and the twistings in No. 2 at the point of impact would lead to the conclusion that the falling body was partly semiplastic; but Professor Thurston compares the fracture to the effect of a sudden heavy blow on cold iron as may be seen in an iron target used for heavy gun practice.

No. 1 weighs 148.5 pounds. About one-third of the whole surface shows the disjuncture very plainly, as also the exact point where this began. This mass measures 39 by 30 by 22 cm. One part has a peculiar bubbled pasty appearance as if the mass had been cooled in water at this point. Some of the pittings are 5 cm. across and quite deep and well marked. An etched surface of this fragment shows the Widmannstätten figures.

No. 2 weighs 115 pounds (52.38 kg.) and measures 41 by 24 by 16 cm. About one-third of the surface of this piece shows the remarkable rupture, the remainder being covered with the pittings. On one corner there is a portion 10 by 6 inches which is evidently the spot where the mass struck the rock. Here the pittings are flattened and the whole mass distorted and curled over, giving it a radiated or fanlike appearance.

No. 3 weighs 53.5 pounds (24.263 kg.), and measures 30 by 21.25 by 15 cm. Over five-sixths of the entire surface is pitted, some of the depressions being 5 cm. across and nearly 2 cm. deep. The place of rupture is plain and the iron here is coarsely fibrous, possibly because it was farther from the point of impact. There is also a fissure 10 cm. deep and nearly 1 cm. wide opposite the broken face. In this fissure are fragments of two chisels which were broken in the attempt to pry off this piece and which may have enlarged the opening.

This iron is one of the *Holosiderites* of Daubrée, and comes under the general group of Caillite of Meunier; it is related to the irons of Augusta County, Virginia, Whitfield County, Georgia, and White Lake, Michigan.