## How the Casas Grandes, Chihuahua, Mexico, Meteorite got to Washington, D. C.

By Oscar E. Monnig, 312 W. Leuda St., Fort Worth, Texas

Abstract.—A quotation from the life story of August Santleben tells of his obtaining and transporting by wagon the Casas Grandes, Chihuahua, Mexico, iron meteorite of nearly 1¾ tons' weight. He took it from Chihuahua, via Ft. Davis, Ft. Stockton, and San Antonio, to Luling, Texas, whence it was shipped, apparently by rail and water (through Galveston), to the Centennial Exposition at Philadelphia, Pennsylvania. The account fills a gap in the history of the meteorite, throws some light on the conflicting stories of its early owners and possessors, and mentions the unique doctrine that all meteorites are the inherent property of the government and not subject to individual ownership.

The Casas Grandes, Chihuahua, Mexico, meteorite is noted by Farrington¹ as having conflicting stories about its discoverer and also the person into whose possession the mass came. (1) According to the early literature, Müller, of Chihuahua, Director of the Mint, found the meteorite in a labyrinthine room while excavating the temple ruins of Casas Grandes, in Chihuahua, and had possession of the mass in 1870. (2) Another account, apparently based mostly on letters from William M. Pierson, the United States Vice-Consul at El Paso, Texas, indicates that it was the Mexican inhabitants of the neighboring small town who searched the ancient temple ruins for treasure, and that one of their number, Teodoro Alverado, found the meteorite, wrapped like a mummy, in the middle of a large room. It was taken to the little town of Casas Grandes and placed in the street before the house of the finder, from whom Farrington says it was purchased years later, by Pierson and others.

The letter from Pierson (1873 or shortly before), quoted in Tassin's paper<sup>2</sup> on this meteorite, states that "Angerstein, Leroy, and myself have made up the necessary funds to purchase this rare and novel specimen, making it a mutual adventure... We shall have it safely lodged in the consulate within 15 days from this date." While the story which we are quoting hereafter does not conflict with the more likely version ascribing the original discovery to Alverado, it does seem that Pierson and his associates must not have realized their plans, for Müller was evidently the primary claimant when the main mass left Mexico; and it was still near Chihuahua, and not at El Paso, as late as 1875. Incidentally, it may be noted that Müller was not a government official, and did coinage work for the Mexican government on private contract.

It is well known that there have been all sorts of intrigues in connection with the ultimate disposition of many meteorites, and this fact is true especially of some of these earlier, large masses. The ownerships, claims, and transfers necessarily, or at least naturally, often became involved and disputed. No doubt a large part of the details of the chain of title of the Casas Grandes iron lies buried in state papers or correspondence; it is doubtful whether it would serve any useful purpose to unearth and publish the exact relations between the claims of Pierson and his associates and those of Müller, and how they were settled, even if such a thing could be done. But there is an interesting question as to just how the meteorite got to Washington, D. C. Farrington states that a piece of it came into the possession of the Smithsonian Institution in 1873, together with Pierson's report, and that "nothing further was heard from the mass till 1876, when the Smithsonian Institution came into the possession, by gift, of an uncut mass of meteor[it]ic iron,

which had been exhibited among the Mexican minerals at the Centennial Exposition" at Philadelphia. The hiatus in this respect is supplied largely in a book brought to our attention by Mr. F. M. Getzendaner of Uvalde, Texas, who kindly lent us his copy of A Texas Pioneer, by August Santleben (The Neal Publishing Co., New York and Washington, 1910). This volume is concerned with the author's life and adventures in the early days of the region between San Antonio and the border; Santleben transported considerable freight and money along a route between Mexico and Texas. Mr. Getzendaner has a most extensive knowledge and acquaintance of the country and the people in the Uvalde region, and states that he has found the book reliable as a whole. He knew the author's brother and from him and others who were acquainted with Santleben, is inclined to give full faith and credit to the general narrative. In Chapter XX, Santleben unfolds an interesting story; we quote from it in full in so far as it concerns this meteorite, and have italicized some incorrect statements on which we shall comment later:

"I was in Chihuahua again in the spring of 1875, and while there was told that several years before a large aërolite had fallen on the ranch of Mr. Henry Mueller, near San Lorenzo, about ten miles from the city, which was said to be one of the most massive known to the scientific world. I became very much interested in the subject and decided that if it was possible to secure the stone I would haul it to Texas and place it on exhibition at the World's Fair in Philadelphia.

"Legally, the meteorite belonged to the owner of the land on which it fell, and as Mr. Mueller attached no value to it, personally, he agreed to let me have it. But in the meantime the Mexican authorities had asserted a claim, based on the assumption that as it came from space it was not subject to individual ownership; consequently the Republic had a right to dispose of it in any way it pleased. These pretentions were not disputed by the owners, although it is obvious that they could not have been sustained; but it was useless for me to oppose them, and I determined to secure it from the government on the most favorable terms.

"The decision made it necessary for me to negotiate with the proper officials, and after I explained my intentions they graciously condescended to allow me to carry out my wishes under the following conditions, to which I subscribed: They permitted me to transport the meteor[it]ic stone out of the country free of export duty and to the Centennial Exposition buildings, at Philadelphia, at my own expense; but they required Mr. Mueller and myself to give a bond for a considerable amount, which stipulated that the stone should be safely returned to Chihuahua within a certain time without cost to the government.

"The meteorite was composed of solid iron and weighed 5400 pounds. It was shaped like a turtle, round on top and flat below. It measured about two feet through its thickest part and curved to the edges, where it measured three feet wide and four feet long across the bottom. Evidently when the mass of metal struck the earth it was soft enough to be flattened by the impact and retained the imprint of the solid rock where it fell among loose stones on the surface, which were imbedded in the lower part.

"This visitant from another world was not very attractive in appearance, but I was fascinated by it and thought that others would be equally impressed when the curiosity was placed on exhibition. I was aware that it would be a difficult and costly undertaking, but I expected to consign it to one of the show places where sightseers would reimburse me for my trouble and outlay.

"I hauled the mass of iron on a wagon assigned for that purpose and it alone made a heavy load, which strained the team more than bulky freight would have done, because it was dead weight in the bed and the wagon had no swing. The other wagons were loaded with heavy freight in the bodies, including \$200,000 in silver coin, and a bulky top weight of hides, which caused them to oscillate with a motion that relieved the teams. At Forts Davis, Stockton, and Concho the aërolite attracted great attention among the soldiers, and when it arrived in San Antonio the wagon was unhitched and placed in the rear of the Veramendi House, which was then occupied by Mr. Weber, a brother of Jacob Weber, who resides on North Flores Street, where it was viewed by hundreds during the two weeks it was there.

". . . I got through with my train all right, but the meteor[it]ic stone caused a certain amount of trouble, and the expense was considerable, because the wagon carried nothing else . . .

"Luling [his destination] was then a new town that had sprung up in a few weeks at the terminus of the Galveston, Harrisburg, and San Antonio Railroad...

"I left the *stone* in Luling with instructions to send it to Philadelphia, but as my business called me back to Chihuahua immediately, I was unable to give it further attention. It was publicly exposed with the Mexican exhibit without my authority, and my claim was ignored, as if the contract was not in existence. When the Centennial Exposition closed the meteorite was donated by Mexico to the *British Museum*. The opportunity had passed when I might have made it profitable, and I was glad to be relieved of the expense and trouble that would otherwise have devolved on me had I been required to comply with the exactions of my agreement.

"The meteorite was my property under the contract until I was released from my bond, and I have never understood why it was taken from my possession and transferred to others without adequate compensation. Justice entitled me to a reimbursement of my actual outlay at least, and such generosity at my expense was inexcusable. As the matter now stands, individual acts, backed by the Mexican government, made me an involuntary contributor to science contrary to my expectations; and I will always believe that I have a claim resting against that *stone*, amounting to about five hundred and fifty dollars; but if proper credit was awarded for my services I might be willing to discharge the debt."

The meteorite is technically a siderite (iron) rather than an aërolite (stone), and the story that it had fallen several years before on Müller's ranch was false, as it is undoubtedly prehistoric. The weight was later ascertained to be only 3,407 pounds. The idea that the mass was in a molten state when it struck the ground is an old and common misconception; if there was any rock imbedded in the lower part of the iron, it was probably a water deposit of travertine which had become affixed to the meteorite before it was ever moved from its original place of fall. However, Dr. W. F. Foshag of the United States National Museum, who kindly furnished us with a reprint of Tassin's original paper, writes that "The Casas Grandes iron meteorite does not now show any coating of travertine and if such was ever present it has been cleaned off." "British Museum" in the foregoing account is obviously an accidental error for "Smithsonian Institution."

## REFERENCES

<sup>&</sup>lt;sup>1</sup> Catalogue of the Meteorites of North America, O. C. Farrington, Mem. Nat. Acad. Sci., 13, 111-12, 1915.

<sup>&</sup>lt;sup>2</sup> "The Casas Grandes Meteorite," Wirt Tassin, Proc. U. S. Nat. Mus., 25, 69-74, 1902.