

ART. XXXIX.—*A new Meteoric Iron from Wayne County, Ohio.*
—*Some remarks on the recently described Meteorite from Atacama, Chili;* by J. LAWRENCE SMITH, Prof. Chem. Med. Dep. University of Louisville.

Meteoric Iron of Wayne Co., Ohio.

THE existence of a mass of meteoric iron from Wayne county, Ohio, has been known to me for some years; but I have delayed noticing its existence, hoping to obtain the mass and thus give a more complete description of it than I am able to do.

My attention was first called to it by Prof. James C. Booth, of the U. S. Mint at Philadelphia, it having been brought to him by Peter Williams, of Wooster, Wayne county, Ohio, who supposed it to be a mass of silver or some other precious metal. Prof. Booth saw at once that it was meteoric iron, and tried to procure it from Mr. Williams; but from some notion of its possessing considerable intrinsic value, he retained it, and since that time both the iron and Mr. Williams have been lost sight of.

Prof. Booth detached a small portion of it, part of which specimen he placed at my disposal, with the following memorandum: "Meteoric Iron, given me in 1858 by Peter Williams, of Wooster, Wayne county, Ohio. It was a rounded mass, weighing about 50 lbs., and found by him in a woods near the above place, while gathering boulders to pave a town. It exhibits the usual figures, on application of acid to a smooth surface."

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As it is a well authenticated meteorite, it is proper to make a record of it. Its specific gravity is 7.901, and it is composed of—

Iron, -	-	-	-	-	-	-	93.61
Nickel, -	-	-	-	-	-	-	6.01
Cobalt, -	-	-	-	-	-	-	.73
Copper, -	-	-	-	-	-	-	very minute, not estimated.
Phosphorus, -	-	-	-	-	-	-	.13
							<hr/> 100.48

There was a very small quantity of manganese, that has been estimated along with the nickel.

The new Atacama Meteorite.

A fragment of the meteorite lately described by Prof. Joy, (this *Journal*, March, 1864, p. 243,) has been sent to me by Prof. C. F. Chandler, and I have thus been afforded an opportunity of carefully examining it. I had at first supposed that it might be in some way related to the well known Atacama iron; but it is very clear, by the most casual inspection, that it has no connection with that iron; at the same time it resembles so closely another meteoric mass from that region, in fact, is so identical with it in all particulars, that if it had not hailed from another locality, it would be pronounced a portion of the meteorite from *Sierra de Chaco, Atacama*, described in 1863 by Prof. Rose (see p. 131, Buchner, *Geschichte der Meteoriten*).

Prof. Joy omitted to mention in his paper that the meteorite was said to have been found in the *Janacera* pass.

The meteorite from *Sierra de Chaco* was, at the time it was described, unique in its physical characteristics; the close resemblance to it, therefore, of the one under notice, and its coming from Atacama has induced me to investigate as far as possible the relative position of *Sierra de Chaco* and *Janacera* pass.

The best authority on the geography of Chili in this country, is doubtless Capt. Gilliss, of the U. S. Observatory at Washington; in answer to my enquiries on the subject, he gives the following information:

"I do not know any pass in Chili named Janacera; there is a river Jarquera, which has its origin near one of the passes in Atacama, and very probably there may be a pass of the same name. The river Jarquera is to the northward and eastward of Chaco, the former being within the chain of the Andes, and Chaco most probably is in the western or coast range. They are from 120 to 150 miles apart."

As it is important to locate this meteorite correctly, I have written to Prof. Domeyko on the subject. The village of Chaco is situated near latitude 25° 20' S., and longitude 69° 20' W. from Greenwich; and its height above the sea is 8,778 feet.

The meteorite in question is so intimate a mixture of metallic and stony matter, that it is difficult to say whether to rank it among the stony or metallic meteorites. Treated with a mixture of nitric and chlorhydric acids, and slightly warmed, the metallic portion is rapidly dissolved, without the form of the mass being altered. Its mineral constituents are readily separated by the combined aid of chemical and mechanical means; and, besides the iron, I have been able to separate small but distinct particles of chromic iron, small spherical masses of olivine as beautiful in color and as transparent as that from the Pallas meteoric iron, and also a pyroxenic mineral; and perhaps with a larger amount of material to work upon, other minerals might have been recognized.

I have nothing to add to the careful chemical examination by Prof. Joy, having detached mechanically most of the minerals that he deduced from analysis.