

metres; and deep pits, some 2 centimetres across, are observed in spots where grains of olivine have probably dropped out. The meteorite was largely made up of fine yellow transparent olivine, resembling that of the famous Pallas iron, with a specific gravity of 4.72.

Taking the specific gravity of the iron at 7.6, and that of the olivine at 3.3, we find that the Turner mound meteorite consists of about three parts of olivine to one of iron. Several of the Kiowa masses have about the same constitution. For comparison, see the analyses of the olivine and iron from the Turner mound,¹ here given, and of the Kiowa meteorite, given above.

OLIVINE.		IRON.	
	Per Cent.		Per Cent.
SiO.....	40.02	Fe.....	89.00
FeO.....	14.06	Ni.....	10.65
MnO.....	0.10	Co.....	0.45
MgO.....	45.60	Cu.....	tr
	99.78		100.10

When the Carroll County iron was described by the author in the *American Journal of Science* (vol. xxxiii., March, 1887), it was suggested that the pieces of the meteorite found by Professor Putnam in the Miami mounds had probably been taken from that

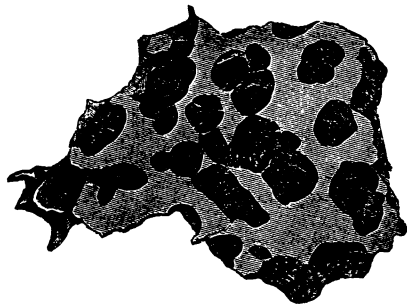


FIG. 4.—TURNER MOUND METEORITE.

mass, since no other olivine meteorite had up to that time been found in North America; while that of Carroll County contained a large percentage of olivine, even greater than the Little Miami specimen. Very little cutting had then been done on the Carroll County mass; and it proved, on being cut, not to be a pallasite, but a brahinite variety of meteorite. In the Little Miami valley meteorite are embedded circular grains or crystals of olivine; whereas that of Carroll County consists of a mass of olivine in which the iron serves as a filling between the crystals. When a section was cut from the Kiowa County material, however, there appeared no doubt as to the identity of this fall with that of the mass from which the ear-rings were made which were found in the mound. In both the Kiowa County and the mound specimens the body of the meteorite is iron, in which are embedded circular masses or crystals of olivine. The fact that in connection with the large Kiowa County masses a number of small portions, weighing from half a pound to six pounds each, were found, makes it very probable that a small mass, weighing perhaps three or four pounds, had been conveyed by the Indians to the Ohio valley. Probably the two ear-rings in the collection of Mr. Warren K. Moorehead, which were recently found by him at Fort Ancient, O., may have been made from a part of the mass weighing 767.5 grams, which is now in the Harvard University collection.

I must here express my indebtedness to Professor F. H. Snow for information, and particularly to Professor Robert Hay for aiding me in procuring many of the meteorites and assisting especially to obtain exact data by visiting the place of finds, and to secure the illustration; as also to Mr. L. G. Eakins for making, and to Professor F. W. Clarke of the United States Geological Survey for his courtesy in having made in the Survey Laboratory, the analyses of the iron and olivine of the Kiowa County meteorite.

GEORGE F. KUNZ.

¹ Kennicutt, 16th and 17th Reports of the Peabody Museum of Archæology, p. 382.

LETTERS TO THE EDITOR.

* * * Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.

The editor will be glad to publish any queries consonant with the character of the journal.

On request, twenty copies of the number containing his communication will be furnished free to any correspondent.

The International Congress of Geologists.

WILL you kindly permit me to publish my correction of an erroneous statement on p. 461 of the last (May) number of the *American Naturalist*? I fear that it will be quoted by other periodicals, to the injury of those who are quite innocent. The statement is to the effect (1) that the director of the United States Geological Survey, Major Powell, moved that the meeting of the International Congress of Geologists appointed for Philadelphia should be held in Washington; and (2) that the motion was carried in committee by the votes of members of the United States Geological Survey, who were present in such numbers as to constitute a working majority of the committee.

The statement is particularly unfortunate, and unjust to Major Powell, seeing that he was not the mover of the resolution, and that he voted against it, after speaking against it, giving his reasons why he was strenuously opposed to the congress meeting in Washington. As a member of the American committee of arrangements for the congress, I was present at the meeting in Washington at which the voting took place, and can therefore testify to Major Powell's opposition, both then, and afterwards in conversation. Furthermore, I take upon myself the responsibility of the change of the meeting-place of the congress from Philadelphia to Washington, if such a change occurs: for I made the first motion; namely, that the local Philadelphia sub-committee (of which I had been made, against my protest, chairman) be discharged; which motion was carried. After some discussion, the next motion was then made (not by Major Powell), not that the congress should meet in Washington instead of in Philadelphia, but that the secretary of the committee should be instructed to express the sentiment of the committee (that the congress should meet in Washington, and not in Philadelphia) to the secretary of the executive bureau of the congress in London, in which alone power was vested *ad interim* to discuss and decide such points. It was understood, that, if a majority of the American committee should express such a sentiment, the bureau abroad would be pretty sure to order the change of place of meeting. Major Powell opposed such an expression of sentiment, and urged that nothing should be done by the American committee to cause such an action abroad. I myself urged that there were reasons for my belief that a meeting in Philadelphia would be a failure, and gave the reasons; and I stand ready to repeat them, in *Science* or elsewhere, if called upon to do so. What I wish to say here, however, is that Major Powell, instead of advocating the motion and getting it passed by the assistant United States geologists present, opposed it, and would have defeated it if he could. In fact, it was only passed by a vote of seven to three (if I recollect aright), all the other members of the committee abstaining from voting either for or against it. By rule of the committee the secretary was then instructed to obtain by correspondence the votes *pro* or *con* of all absent members, as, until this be done, the chairman of the committee, Dr. Newberry, cannot declare the motion either carried or lost. What the bureau abroad will then do about it, no one knows. My own hope is that the bureau will revoke the order for an American meeting of the congress, and appoint some European capital instead of either Philadelphia or Washington. But, if there must be a meeting next year in America, I trust that the bureau will see the propriety of holding it as usual in the capital of the country, which is also, in our case as in Europe, the chief centre of physical science.

J. P. LESLEY.

Philadelphia, June 7.

Counting Bacteria.

I SHALL feel much obliged if observers who have had experience with the different methods of counting bacteria in water will give their views as to the most reliable method.

Chicago, June 2.

M. D. EWELL, M.D.