

For this purpose, accepting Dr. Stokes's determination of the density of marcasite at 4.88, the formula given in my paper (page 178) would assume the form

$$x = \frac{17496}{a} - 3485,$$

in which  $x$  represents the percentage proportion of marcasite in the specimen under trial, and  $a$  the specific gravity of the specimen.

So far as these specimens go, there appears a fair approximation between the results of the chemical method and those founded on density, except in three cases (Nos. 9, 11 and 23), all from lead-mines in Wisconsin, in which Dr. Stokes detected the common enclosure of galenite, etc. Obviously the above series is not well chosen to afford a certain decision either way; only a series of crystallized specimens, with densities lying *between* the datum-points, 5.02 and 4.88, could be of service for satisfactory comparison. Therefore it appears to me that this second inference of Dr. Stokes also remains unproved.

The main object of my own paper in 1887, however, was the establishment of a principle of practical bearing and importance, in reference to roofing slate, coal and building-stone. This was the connection of the stability of the pyrites, whether marcasite or pyrite, in resistance to atmospheric agencies of decomposition, with the higher densities of these minerals, *i. e.*, in their ordinary forms of distribution in nature, apart from association with other sulphide-ores. It was there stated (page 222) that 'the highest stability can be expected only from samples of crystallized marcasite or pyrite whose specific gravity exceeds 4.99 \* \* \* though little danger from decomposition may be expected down to a specific gravity 4.97.' This subject has not been considered in the paper of Dr. Stokes, has no necessary dependence on either of the purely hypothetical views already discussed, and the above conclusion, I believe, so far remains unquestioned.

ALEXIS A. JULIEN.

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#### COILED BASKETRY.

TO THE EDITOR OF SCIENCE: May I say that no coiled basketry of any kind was made by the Indians of North America east of the Rocky Mountains? In the books there does not seem to be one illustration of coiled work taken from the surface of ancient pottery in this area. I am aware that in the Appalachians, and especially among the Cherokees, there is a kind of bread tray made of straw and sewed with wooden splints, after the old-fashioned beehive, but I am not positive that these are of pre-Columbian origin; second, that a little coiled work was done by the Comanches, but they are Shoshonean, and belong west of the Rockies; third, that the Mackenzie River hunting bags of babiche are coiled, but the makers are Athabaskan; fourth, that the Central Eskimo make poor trinket baskets in coiled work which look dreadfully modern. With these facts in mind I am not prepared to say, without the permission of my colleagues, that the ancient tribes east of the Rocky mountains knew anything in the world about coiled basketry.

O. T. MASON.

#### THE MUD SHOWER.

NOTICING in SCIENCE of May 2, p. 718, an account of a 'mud shower' at Easton, Pa., on April 12, by J. W. Moore, I wish to record the fact that a similar shower was observed at New Haven, Conn., on the same day, but between 4 and 5 P.M., instead of noon. White clothes hanging on lines in the yards were spotted in a very annoying way, every drop of rain leaving a mud-colored spot. The same kind of spots appeared on the window glass of houses. Ladies who attended the ball game that afternoon had their clothes badly spotted, showing that the shower here covered a considerable area, for the game was played on grounds in the suburbs. The shower was a slight one, of short duration, but every separate drop seemed to be charged with dirt. There had been showers of clean rain on the previous day. Is it not possible that the dirt was cosmic dust or of meteoric origin?

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