

second, type, *Dimmockia incongrua* (*Eulophus incongruus*, Ashm.).

T. D. A. COCKERELL.

VARIE AUCTORITATIS.

TO THE EDITOR OF SCIENCE: The early authorities alluded to by Mr. Eastman are always of interest and more so than modern men seem disposed to admit, hence it is of genuine value to run down his reference to 'Origines.'

In the first place, it should be obvious that the form 'Origines' could not come from *Origen*, as Mr. Eastman suggests.

It seems likely that Mr. Emmons, or *his* author, intended to quote the 'Origines' of M. Porcius Cato (Cato Major), who died B. C. 149; and of which work in two books fragments remain.

I have not the work by me, but believe there is something of the kind quoted from it in a medieval Latin writer, Lullius, if my memory serves me right, or it may have been Albertus Magnus, a work of whose is bound up with an early edition of a treatise by Lully.

The study of the early writers, difficult as it is from lack of knowledge of the meanings of their technical terms, is most unwarrantably neglected; and for the same reason their attainments are ignorantly sneered at. The old idea that Galen thought the arteries carried air, repeated from text-book to text-book, is a case in point, easily disproved by any one with a knowledge of ancient phraseology, from Galen's writings.

Much ancient tradition thus passes out of our ken, to be dug out by the solitary explorer here and there, but to vanish for ages or longer from the sum of practical human knowledge.

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SPECIAL ARTICLES.

INTRUSIVE BURIALS IN ANCIENT MOUNDS.

THE custom, which was formerly practised by various tribes throughout the Mississippi valley, namely, that of utilizing the ancient mounds as places of burial for their dead, is even now followed by some Ojibways in Minnesota. The Ojibway village of Sa-ga-wah-

mick, which is located on the south shore of Mille Lac in the state of Minnesota, is situated in the midst of a group of some sixty mounds—many of these being seven or eight feet in height. According to the Ojibway tradition, which is also verified by historical facts, the country adjacent to Mille Lac was formerly occupied by the M'de Wakan Sioux who were driven out by the Ojibways about the year 1750, or, according to the Ojibway's story, 'five generations ago.'

The Indians at Sa-ga-wah-mick recognize the mounds as being artificial, and claim they were erected by the Sioux over the remains of their dead. Several facts tend to justify the belief that such may be the true explanation of their origin. Fragments of pottery which I found near the original surface in a mound about four feet in height were similar in structure and design to pieces which were discovered upon the surface of a village site, near by, and which is known to have been the site of a Sioux settlement before the country was occupied by the Ojibways. The peculiar form of burial discovered in the mounds was certainly entirely different from any known to have been practised by the Ojibways and would conform with the Sioux habit of removing the flesh from the bones before the latter were interred. In one mound which I opened were four burials. The arm and leg bones of each skeleton had been bunched separately, upon each was placed a skull, all rested upon the original surface and the mound of earth had been formed over them. In addition to these only one small bone was found in the mound.

The Ojibway believing these mounds to have been erected by the Sioux, now utilize them as burial places for their own dead.

On the sides and top of one of the largest mounds at Sa-ga-wah-mick were counted thirteen comparatively recent graves, all having the box-like cover of hewn logs—so typical of Ojibway burials—upon one end of which was cut the totem of the deceased. Around the summits of several mounds a picket fence had been erected to surround and thereby protect the graves.

Thus we find in a remote Ojibway village

the survival of a custom which was once practised throughout the Valley of the Mississippi—that of utilizing the ancient mounds as places of burial.

In many mounds which have been examined in the central and southern section of the valley, interments have been discovered only two or three feet below the present surface of the mounds. A notable instance of this sort occurred at the time of the destruction of the large mound which formerly stood in the city of St. Louis. In 1869 when the mound was removed, human remains were found about three feet below the surface near the north end.* Stone graves were also found upon the summit of the same mound, a group of five having been examined by members of the Long Expedition as early as 1819.†

According to a statement made by Conant, the large mound must have been used by the Indians as a place of burial, as late as 1819 or the same year it was seen and described by the Long party.

"This mound, as is well known, was used by the Indians as a burial place, and only about sixty years since, it was visited by a small band, who disinterred and carried away the bones of their chief, who had been buried there."‡

At a meeting of the Ethnological Society in January, 1861, E. G. Squier described a burial which had recently been discovered near the summit of a small mound near Cahokia, opposite St. Louis, and stated "that the position of the skeleton in the mound would lead him to infer that it was of comparatively recent deposit. His experience was that the true remains of the mound builders were generally to be found at the bottom of the mound, immediately under its apex."

Such a conclusion would apply to the mounds at Mille Lac; the 'true remains of the mound builders' are found at the bottom of the mound on the original surface, while

* Conant, 'Footprints of Vanished Races,' 1879, p. 41.

† 'Expedition from Pittsburg to the Rocky Mountains,' Phila., 1823, Vol. I., p. 64.

‡ Conant, p. 41.

§ *Bulletin of the Ethnological Society*, Vol. I., p. 25, January, 1861.

the secondary or intrusive burials are made by the Ojibways. D. I. BUSHNELL, JR.

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CURRENT NOTES ON METEOROLOGY.

A WORLD-WIDE BAROMETRIC SEE-SAW.

To *Nature* for June 23, Dr. W. J. S. Lockyer contributes an article under the above title, in which the results of recent studies by Sir Norman Lockyer and himself are embodied. Two pressure variation types were selected, that over India and that at Cordoba, and the pressure curves of other places were compared with these two type curves. When any pressure curve extending over several years showed an excess pressure at those epochs when the Indian pressure curve was in excess, it was classified as similar to the Indian type, and represented by a +. If more like the Indian curve than the Cordoba curve, but not quite the exact counterpart of India, it was marked + ?. Similarly, pressure curves like Cordoba were classified as —, and those more like Cordoba than India, as — ?. Other cases, difficult to classify satisfactorily, were marked \pm ? or ?. The signs of the different types of pressure variation were then entered on a map of the world, and the two main regions were separated by neutral lines. It is interesting to note that the two neutral lines are fairly symmetrical to one another. Both lines apparently cross the equator at antipodal points, and both appear to have a similar trend in north and south latitudes. The indication is that a general law exists with regard to pressure changes which occur simultaneously in these two extensive regions of the globe, the neutral lines forming a fulcrum about which see-saws of pressure from one region to another take place. Professor Bigelow, of the U. S. Weather Bureau, has reached conclusions along the same line of investigation which are in the main similar to those here discussed. The importance of these studies is in connection with the possible long-range forecasting of the future, for it is probable that regions which are the reverse of one another as regards secular pressure variations should have opposite kinds of abnormal weather.