

JANUARY 10

MR. ARTHUR ERWIN BROWN in the Chair.

Thirty-two persons present.

A paper entitled "New and Interesting Species in the Isaac Lea Collection of Eocene Mollusca," by Charles W. Johnson, was presented for publication.

The deaths of Francis M. Brooke and Mrs. Bloomfield H. Moore, members, were announced.

The Calaveras Skull.—MR. WILLIAM H. DALL called attention to the fact that the authenticity of the celebrated Calaveras skull, about which so much controversy had arisen in 1866, has recently again been called in question. It seemed to him, as the small number of persons who were cognizant of the facts when they occurred is already greatly reduced, that it would be desirable to put on record his own testimony as an eyewitness to some of them, which in his opinion are incompatible with the theory that a hoax had been perpetrated, or a skull from some recent burial place subject to the lime deposit from springs, fraudulently foisted upon Prof. J. D. Whitney and his associates in the State Geological Survey.¹

Mr. Dall described briefly the nature of the formations which make up the table mountains of the region alluded to, consisting of beds of basaltic lava more or less alternated with gravel, which fill the prehistoric stream beds in which gold was sought by means of tunnels from the side, or shafts from above, and which are now practically abandoned since the returns do not pay for the labor.

He was in California at the time of the discovery and in June, 1866, examined the skull, then in the office of the State Geologist, in the presence of Prof. Whitney, William M. Gabb, W.

¹ The main facts as thoroughly investigated at the time are given by Prof. Whitney in his work on the auriferous gravels of California, *Memoirs of the Museum of Comparative Zoölogy* at Cambridge, Vol. vi, Part 1, pp. 267-273, 1879. The evidence has generally been regarded among scientific men as convincing and sufficient, the skull being shown by analysis to be in a fossilized condition, and to have been taken, according to his own statement, by a mine owner of respectability, from a bed of gravel 132 feet below the surface of the uppermost lava bed of Bald Hill, one of the "table mountains" of Calaveras County, Cal., and to have been so covered with cemented gravel that it was not recognized as a skull until the party to whom the original finder had given it in his presence, removed some of the covering, and that it passed without fee or reward into the hands of the State Geologist, who with his colleagues immediately investigated all the circumstances.

Ashburner, Dr. James Blake and others, of whom the speaker is the only present survivor.

The skull was then in the condition in which it was first obtained, except that a portion of the gravel which had originally covered the whole of it had been removed by Messrs. Mattison and Scribner (the finder and first receiver) from the anterior dome and right side of the cranium. The rest of it was still filled or covered by a hard mass of small gravel stones cemented together by iron oxide and calcareous cement, so that a tool was necessary to separate or remove the pebbles and other particles of which the conglomerate was made up. These pebbles were obviously water-worn, and mixed with them were particles of other human bones,² a perforated shell ornament or bead of small size and the fossilized remains of a thin and fragile snail shell, recognizable as the still existing *Helix (Epiphragmophora) mormonum*.

It was the speaker's opinion that by no artificial agency could such a conglomerate have been assembled about a recent skull, and the sight of it was sufficient proof of the fact to any reasonable person. Unfortunately, however, no photographs were taken of the specimen in this condition, or at least none are recorded; and when it was placed in the hands of the celebrated anatomist, Dr. Jeffries Wyman, the encrusting material was removed in order that the characters of the skull should be determined. The specimen is now in the Museum of Comparative Zoölogy, and it is probable that part of the matrix is also preserved there. At all events the recollection of the speaker was clear that the mass of the hard incrusting conglomerate was composed of small pebbles, with some ferruginous matter, entirely unlike the calcareous deposits from calciferous water in caves. The mass of the material was not limy, but gravel; in all essentials resembling the material taken from the gravel beds under the lava, of which specimens were at hand for comparison. Subsequent examination showed that the skull had been violently fractured and that portions of bones of the extremities and sternum had been crowded into its interstices with the gravel. It was found among a lot of wood also included in the gravel, as if the prehistoric stream in flood had washed away part of an ancient graveyard and crushed the bones and timber into a miscellaneous heap of *débris*, left behind, as the waters fell.

If, as has been intimated, the skull had been taken from some cave where the present Indians interred their dead, and where remains had been gradually covered with a stalagmitic crust, how is the peculiar agglomeration to be explained?

In the speaker's opinion, the attempts on the part of unscientific

² Part of which from their size must have belonged to another individual.

persons of the vicinity to discredit the authenticity of the skull after it had attracted general attention were due to that spirit, unfortunately too common among ignorant persons, which leads them to disparage that in which they have no share. As the persons chiefly concerned made no attempt to utilize the discovery as a source of profit, and the coming of the specimen into scientific hands was due to circumstances which could not have been foreseen, the speaker believed that so far, no sufficient reason had been adduced for doubting the genuine character of the skull and its original situs below the lava; though the question of the coëxistence of man and the extinct mammals whose remains have been found in the same gravels is entirely distinct and may reasonably be left open.

JANUARY 17.

J. CHESTON MORRIS, M.D., in the Chair

Twenty-three persons present.

JANUARY 24.

The President, SAMUEL G. DIXON, M.D., in the Chair.

Eighteen persons present.

A paper entitled "Contributions to the Life History of Plants, No. XIII," by Thomas Meehan, was presented for publication.

A paper entitled "The North American Species of *Argia* (Order Odonata)," by Philip P. Calvert, presented for publication August 17, 1897, was withdrawn by the author.

JANUARY 31.

MR. CHARLES MORRIS in the Chair.

Fifteen persons present.

A paper entitled "A List of Fishes collected at Port Antonio, Jamaica," by Henry W. Fowler, was presented for publication.

Rev. A. B. Kendig was elected a member.

The following were ordered to be printed: