

THE GEOLOGIST;

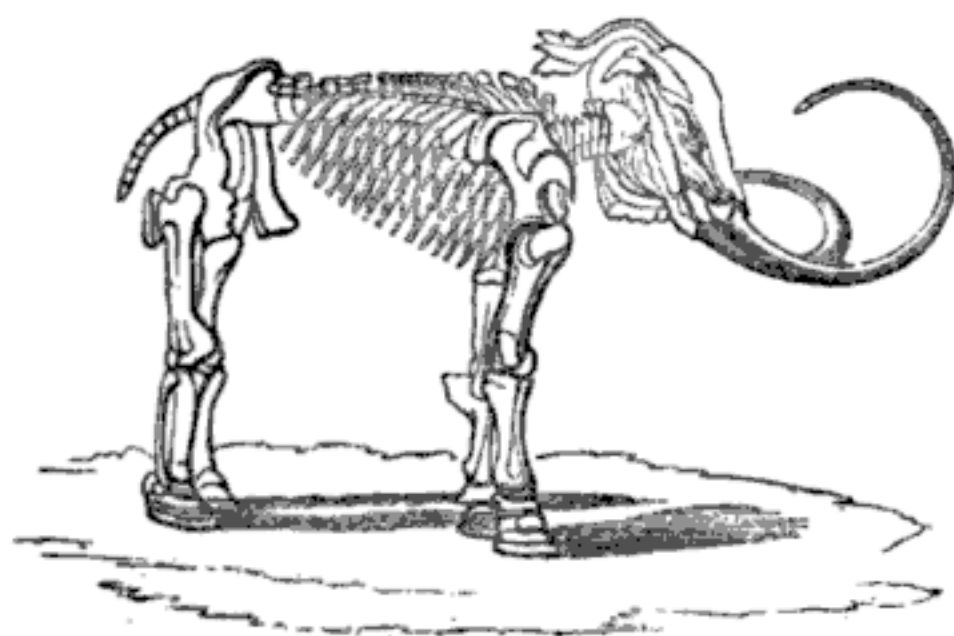
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lated. Little, however, was found in them. The club then paid a visit to Stephen Ballard, at "The Winnings," who presented Mr. Symonds with "old bones." They consisted of the humerus of *Bos primigenius*, from a fine deposit on the western flank of the Malverns, together with a portion of a molar tooth of a mammoth, and a very perfect tooth and leg-bone of a horse from the Glacial drift, which skirts the eastern flanks of the Malvern

wards the party proceeded along the line of railway, striking it just where the tunnel emerges into the open cutting. Here there occurs, just at the point of junction of the Old Red and the Silurian strata, curious mass of a material so tough and leaden in its character as to have been almost impossible to excavate, resisting alike gunpowder and the pick. Hence the party followed the line to the bridge close by Barton Court, where a heap of boulders has been curiously caught up in the midst of the Silurian.

Winds' Point was the next object in view, where Mr. Symonds called the attention of the members to some large masses of Llandovery sandstone upon the flanks of the Syenite at the back of Mr. Johnson's house, and at one thousand feet above the level of the sea.

After dinner, Dr. Grindson of Malvern, exhibited a beautiful series of fossils, many of which were obtained from the tunnel-shaft on the western side of the Malverns, and the quarries in the immediate neighbourhood of Ledbury. Amongst these and most worthy of notice was a magnificent *Pentamerus* slab from the tunnel-shaft at the Wych, a *Lingula Lewisii*, a *L. Symondsii*, a drawer containing many hundreds of trilobites—the eyes of many being particularly perfect, and several *Bellerophons* and other ancient fossils, many of them being new species, hitherto unknown and unnamed, discovered by Dr. Grindrod.

NOTES AND QUERIES.

PLISTOCENE FOSSILS.—Dear Sir,—I have lately discovered in the Pleistocene of this neighbourhood (Salisbury), some teeth and several fragments of the jaw of a small rodent, apparently belonging to the genus *Arctomys* or *Spermophilus*. I much regret that I possess no recent skulls of either of these genera with which to compare the fossils. Under the head "Fossil Muridæ" in the Encyclopædia of Natural History, there is a mere nominal allusion to a species named by Professor Kaup *Spermophilus superciliosus*, from the Eppelsheim sand. Now I am well aware of the many calls upon your valuable time, and hope you will not deem me trespassing too much both upon it and your goodness in asking you to send me any information you may possess upon the following points:—1st. The specific character of *Spermophilus superciliosus*, with measurements of skull, and of any of the long bones. 2nd. Has this species been discovered in any part of Great Britain, or in any other continental locality except Eppelsheim.

In the event of my fossils proving a new species, I will, should you deem it worthy of publication, forward for a full description, with illustrations of the perfect and characteristic bones.—Yours truly, H. P. BLACKMORE, M. D. I would refer our correspondent to the following work:—"Descriptions des fossiles de mammifères inconnus, jusqu'à présent, qui se trouvent au Muséum grand-ducal de Darmstadt, 4to avec atlas in folio. By J. J. Kaup. Darmstadt 1832—1839.

References to works on fossil mammals of this order will be found at p. 236, vol. i, of Pictet's *Traité de Paléontologie* (Paris 1853—1857), where in plate vi., are figures of the teeth of the upper jaw of the *Arctomys alpinus*, the alpine marmot; and of the *Arctomys Arvernensis* from the Pliocene beds of Auvergne.

We learn from Pictet that remains of the *Arctomys arvernensis*, Brav., are also figured by Gervais, in his *Zoologie et Paléontologie Française*, pl. 26 and pl. 48.

The deposit in which Kaup found the Eppelsheim specimen was first regarded as Miocene, and since referred to the diluvium by H. von Meyer. It was a nearly complete specimen, surpassing the marmot in size. It is the *Arctomys primigenia* of Kaup, and *Myoxus primigenius* of H. von Meyer (*Palæologica* p. 61 and p. 409).

M. Gervais, in his *Zool. et Pal. Française*, p. 20, p. 46, figs. 11 and 12, refers to this species the bones found in the diluvium of Paris, Niort, and Issiöre.

Arctomys spelæus, of Fischer von Waldheim (*Nouveaux Mémoires de l'Académie de Moscow*, 1834. t. iii, p. 381), has been found in the caverns of Prussia. It is allied in form to *A. bobac*, but its skull shows too many differences for the union of the species. M. Pomel in the *Bulletin de la Société Géologique de France 2e série*, t. i, p. 594, indicates a marmot from the Auvergne alluvium differing from the *A. primigenia*.

The marmot of the alps (*A. marmotta*, Schreber) has been found a fossil in the diluvium of Mossbach and Koestrich. (Herm. v. Meyer, *Neues Jahrb.*, 1847, p. 181).

The *Plesiartomys Gervaisii*, Brav. et Pomel (*Notice sur les Ossements Fossiles de la Débruge*: Gervais *Zool. et Pal. Fr.* p. 47) surpasses slightly in size