

ABSTRACTS OF BRITISH AND FOREIGN MEMOIRS.

I.—ON THE STRUCTURE OF MONT BLANC.

By ALPHONSE FAVRE.

SUR LA STRUCTURE EN EVENTAIL DU MONT-BLANC, par ALPHONSE FAVRE. (Tiré de la *Bibliothèque universelle et Revue Suisse* de Novembre 1865.)

M. FAVRE here describes a peculiar arrangement of the stratification, called the fan-like (“en éventail”) structure, seen in most of the Alpine massives formed of Crystalline rocks; and discusses the aqueous origin of Protogine and Granite.

The structure, “en éventail,” as explained by M. Lory, is “the remains of a large vault formed by Protogine rocks under the influence of lateral pressure,” and M. Favre agrees with this view. It, however, requires that the aqueous origin of Protogine be admitted, for if the Protogine had burst forth in a molten state, it would have run out and settled down without forming any considerable elevation. When the rocks took their present position, their hardness must have been nearly complete. M. Favre, therefore, considers Protogine as having been deposited under water, not as an ordinary sedimentary deposit, afterwards altered by metamorphism, for then the stratification would have been obliterated, which is not the case; but in seas whose temperature was very high, and whose conditions and properties were quite different from those of the present time. M. Rose, he observed, had determined that quartz was formed solely by the agency of water; and it was evident that the crystals of felspar, disseminated in great abundance in the Magnesian Limestones of the Alps, must have been similarly deposited. Talcose and micaceous substances must also have owed their origin to reactions in which water was the most important agent. He stated that impressions of fossil plants from the coal of Petit-Cœur, in Tarentaise, were covered with a fine pellicle of white glittering material, which, on analysis, proved to be mica; this could not have been deposited otherwise than by water.

If, therefore, Protogine and all granitic rocks had an aqueous origin, whence were they derived? From a recent observation of Dolomieu, in Auvergne, Lava (taking the word in its broadest sense) was seen to pierce Granite, which has been supposed to form the basement of all other known rocks; he concludes that, as Lava is proved to be older than Granite, the latter, as well as other rocks, may have been derived from it, and that, consequently there is but one true igneous rock, namely, Lava.

H. B. W.

II.—NOTES ON THE PALEOZOIC BIVALVED ENTOMOSTRACA, NO. VI. SOME SILURIAN SPECIES (*Primitia*). By PROFESSOR T. RUPERT JONES, F.G.S., and Dr. H. B. HOLL, F.G.S. (With a Plate of 14 New Species).

[Annals and Mag. Nat. Hist., sec. 3, vol. xvi. December 1865.]

IN this communication, Professor T. Rupert Jones, and Dr. H. B. Holl, propose an improved classification for certain forms of Silurian Bivalved Entomostraca, hitherto placed in the genus *Beyrichia*. This genus comprises three types of carapace-valves, namely, "simplices," "corrugatæ," and "jugosæ." The first of these groups, the simple or unisulcate, seems to the authors to be deserving of generic distinction, since, among all the forms, they find a persistent occurrence of the chief features, with a passage towards *Leperditia*, by the complete loss of the furrow, rather than towards the two-furrowed, or real *Beyrichia*.

The authors explain the several difficulties presented, in attempting a critical examination of these minute crustaceans, such, for example, as their tendency to variation in form and ornament, their alteration by pressure and chemical change, and many other causes.

They have, nevertheless, been enabled to collect 11 species and 4 varieties of *Beyrichia*, 2 species of *Cythereopsis*, and 14 new forms for which they propose to establish the new genus *Primitia*.¹

III.—BRITISH ASSOCIATION.—SECTION C: GEOLOGY.

A NEW CRUSTACEAN FROM THE MOFFAT SHALES.

MR. HENRY WOODWARD described and exhibited specimens of a new Phyllopodous Crustacean from the Moffat shales (Lower Silurian), Dumfriesshire.

These anthracitic shales abound in the remains of Graptolites, but other fossils are extremely rare. Two phyllopodous crustacea have been described from them by Mr. Salter, namely, *Peltocaris aptychoides* and *P. Harknessi*.

The new form closely resembles a *Discina*, but has a sector of 1-6th of its arc removed in nearly every specimen, the segment being separated from the rest of the disc-shaped shield by a line of suture. The shield is slightly conical, and ornamented with fine concentric lines; there is no dorsal suture as in *P. aptychoides*. A specimen from the cabinet of Mr. Carruthers shows the wedge-shaped rostral portion *in situ*.

The most perfect example measures seven lines in diameter. The caudal portion is not preserved. As this form is quite distinct from any other fossil shield-bearing crustacean yet met with, the author proposed for it the generic name of *Discinocaris*, with the specific appellation of *Browniana*, after Mr. D. J. Brown, of Edinburgh, who first drew attention to it.

¹ With some additional details, the diagnosis for "*Beyrichiæ simplices*," given in the Ann. Nat. Hist., ser. 2, vol. xvi., p. 85, serves for *Primitia*.