IV.—NOTES ON SOME SILURIAN ENTOMOSTRACA FROM PEEBLESSHIRE.¹

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SOME specimens of dark olive-grey mudstone from Peeblesshire, collected and shown to me by Mr. D. J. Brown, contain several internal and external casts of small bivalved Entomostraca.

FIG. 1. *Bairdia?* *Browniana*, right valve.
 „ 2a. *Beyrichia impendens*; left valve.
 „ 2b. *B. impendens*, var. *tuberosa*; right valve.
 „ 3. *Primitia protenta*; right? valve.
 „ 4a. *Entomis aciculata*; right valve.
 „ 4b. *E. aciculata*; right valve, crushed.
 (All magnified about six diameters.)

1. *Bairdia?* *Browniana*, Jones, 1871, MS. [Fig. 1.]—Two internal casts; fusiform, with one margin [dorsal?] more convex and more sinuate than the other, and with one end much more acute than the other, which is narrow and neatly rounded. Length of valve, $\frac{1}{14}$ th inch; breadth or height, $\frac{1}{40}$ th inch.

This small and somewhat obscure form most nearly conforms in shape with some of the elongate subtriangular fossil “*Bairdia*,” such as *B. siliqua*, Jones, and some of the recent *Macrocypridæ*, etc. In its size, however, and (as far as can be seen in the casts) in its shape and proportions, it differs from all the other forms; it may, therefore, be catalogued as *Bairdia?* *Browniana*, taking its name from its discoverer. The very minute, elongate, Silurian *Cythere Grindrodiana* (Annals Nat. Hist. ser. 4, vol. iii. p. 212, fig. 1) is readily distinguished from this *Bairdia*-like species.

2. *Beyrichia impendens*, Jones, 1869, “On the Palæozoic Bivalved Entomostraca,” Proceed. Geol. Assoc. 1869, p. 11, figs. 4a, 4b. [Figs. 2a, 2b.]

This variable little *Beyrichia* is represented among Mr. Brown’s specimens from Peeblesshire by casts of several individuals, in which the dorsal furrow is variously developed (and altered by crush), as well as its associated tubercle. In some specimens one side (hinder) of the furrow is so much elevated as to form an additional though small tubercle, making an unequal pair with the other or usual tubercle in the bosom or anterior curve of the furrow; thus ap-

¹ Reprinted, with woodcut added, and correction, by permission, from the “Transactions of the Geol. Soc. Edinburgh,” vol. iii. part 2, 1874.

proaching *Primitia mundula* in its bituberculate furrow. We will name this variety *tuberosa*.

All these specimens of *B. impendens* are rather more oblong than those met with in the Pentland Hills; and the three lobes of the valve are not so distinct. Length of valve, $\frac{1}{12}$ th; breadth, $\frac{1}{30}$ th inch.

3. *Primitia*¹ *protenta*, sp. nov. [Fig. 3.]—One cast is decidedly referable to an elongate-oblong, convex valve, with a centro-dorsal furrow and a pair of small distinct symmetrical tubercles, one on each side of it, along the middle line of the valve.

This is longer than *B. impendens* and its variety above mentioned, and more symmetrical; for it must have been almost cylindrical in the perfect state of united valves; and its two tubercles are lower down, further apart, sharper, and more equal than in *B. impendens*, var. *tuberosa*. Length of valve, $\frac{1}{12}$ th; breadth, $\frac{1}{30}$ th inch.

4. *Entomis aciculata*, Jones, 1871, MS. Annals Nat. Hist. 1873, ser. 4, vol. xi. p. 416; Monthly Microscop. Journ.² 1873, vol. x. p. 76. [Figs. 4a. 4b.]

Several casts indicate a small *Entomis* related to *E. impendens*, Haswell ("On the Silurian Formation in the Pentland Hills," 1865, p. 38, pl. 3, fig. 11), but narrower and more pointed in front, and bearing a subcentral pointed tubercle, or spine (well-marked on some external moulds of the valve), low down, and in front of the long transverse furrow, which is characteristic of the genus. Length of the valve, $\frac{1}{18}$ th; breadth, $\frac{1}{30}$ th inch.

NOTICES OF MEMOIRS.

I.—ON THE SILURIAN LEPERDITIÆ OF RUSSIA, ETC. By MAGISTER FR. SCHMIDT. [Miscellanea Silurica. I. Ueber die russischen silurischen Leperditien, mit Hinzuziehung einiger Arten aus dem Nachbarländern. Von Mag. Fr. Schmidt, Mem. l'Acad. Imp. des Sciences de St. Pétersbourg, vii. série, vol. xxi. no. 2. 1873.]

IN this monograph of the *Leperditiaë* of Russia and the neighbouring countries, M. Fr. Schmidt has revised the known *Leperditiaë* and *Isochilinaë*, and has added several new species. He figures and describes three *Isochilinaë*:—*I. Biensis* (Grunewald), *I. punctata* (d'Eichwald), and *I. Maakii*, nov. sp.; and ten *Leperditiaë*:—*L. grandis* (Schrenck), *L. Barbotana*, sp. n., *L. Tyraïca*, sp. n., *L. Angelini*, sp. n., *L. Balthica* (Hisinger), *L. Hisingeri*, sp. n., *L. Eichwaldi*, sp. n., *L. Wiluensis*, sp. n., *L. parallela*, sp. n., *L. marginata* (Keyserling), *L. Keyserlingi*, sp. n.

Isochilina punctata and some *Primitiaë*, but no true *Leperditiaë*, have been yielded by the Lower Silurians of Russia. In the lower zones of the Upper Silurian, characterized by the smooth forms of *Pentamerus* (zones 4, 5, and 6 of the Esthonian series), *Leperditiaë* abound; *L. Hisingeri* occurring in all. In Gothland

¹ "*Beyrichia*," by inadvertence, in the former description.

² In the memoirs here referred to, "the Pentland Hills" are given by mistake, instead of *Peblesshire*, as the locality.