

4. Another tooth of *Dithyrocaris*, from the Lower Marine series, Campsie.
- 4 a. Upper view of same.
- 5 & 5 a. Side- and upper view of another specimen, from Orchard Quarry.
6. Fragment of the fore-part of a carapace of *Dithyrocaris*, showing the under-surface, with portions of the two 'molar' teeth (*a*, *b*) seen *in situ*. From Lickprivick Quarry, East Kilbride.
- 7, 7 a, & 7 b. Magnified views of the outer and inner sides and the grinding surface of jaws of *Apus*. Recent from Bohemia.
8. Fac-simile of General Portlock's figure of teeth of *Dithyrocaris*, in the Geol. of Londonderry, pl. xii. fig. 6.
9. *Dithyrocaris Scouleri*, M'Coy, Carb. Foss. Ireland, pl. xxiii. fig. 2.
10. *Apus cancriformis*, sp. Recent from Bohemia (nat. size).
11. Ditto. Enlarged view of under-side to show jaws in place (*a a*).
12. Gastric teeth of common Lobster, *Homarus astacus*.
13. Upper molar teeth (right side) of a young Kangaroo, from Australia.
- 13 a. Lower ditto ( " ) ditto.
- 13 b & c. Detached teeth of (*b*) upper and (*c*) lower jaw of same.

### III. REMARKS ON THE GENUS POLYPORITES.

By E. W. BINNEY, F.R.S.

LINDLEY and Hutton, in their 'Fossil Flora' (vol. i. p. 181), give a plate and description of some specimens, termed by them *Polyporites Bowmanni*, which were found by the late Mr. J. E. Bowman, F.L.S., in the Carboniferous strata, near the entrance of the Vale of Llangollen, in the county of Denbigh.

In the notes on the first specimen no doubts are expressed as to the nature of the fossil; but with respect to the second specimen, the authors say, 'It is a matter of great doubt whether this really belongs to the vegetable kingdom. Mr. Bowman remarks that his second specimen might be taken for the scale of a Fish, or of some great Saurian Reptile; and we admit it now without daring to offer any decided opinion about it, chiefly on account of its resemblance, in some respects, to some cellular plants of the present era.'

Some twenty-five years ago, Mr. Bowman showed me both the specimens, and I immediately recognized them to be scales of the genus *Holoptychius*, since changed to *Rhizodus*; and that gentleman was of the same opinion, and stated to me that he always had doubts as to the vegetable nature of the fossils. Probably I should not have taken any notice of these mistaken fossils; but in looking over M. Adolphe Brongniart's excellent work, 'Tableau des Genres de Végétaux fossiles considérés sous le point de vue de leur classification botanique et de leur distribution géologique,' I noticed that, at page 6, in speaking of the 'Famille des Champignons, he says, 'MM. Lindley et Hutton, dans leur *Fossil Flora*, ont désigné sous le nom de *Polyporites Bowmanni* un fossile qu'ils comparent, quoiqu'avec doute, à un *Polyporus*, et qui provient des mines des houilles du pays de Galles. J'ai observé une empreinte analogue dans les échantillons du terrain houiller de Sardaigne, et qui ne paraît pas

différer du *Carpolithes umbonatus* de Sternberg; quelques points de cette empreinte offraient des pores peu profonds semblables à ceux de certains des pays chauds.'

Professor Unger, in his 'Chloris protogæa—Beiträge zur Flora der Vorwelt,' at p. cviii. in his 'Index of Fossil Plants,' mentions the *Polyporites Bowmanni*, Lind. and Hutt.; and at page xxix., under Ord. VI., Fungi, refers to *Polyporites Bowmanni*, under which genus he places, with a query, *Carpolithes umbonatus* of Sternberg, and gives the locality of Messrs. Lindley and Hutton's specimen, 'In Schists lithant, ad Wrexham, Angliæ.'

The mistake having been copied into such works of high repute as those of M. Brongniart and Professor Unger, has induced me to make these few remarks. The plate in Messrs. Lindley and Hutton's work bears such clear evidence of the specimens being undoubted scales of *Rhizodus*, that there will be no need to figure them again, a reference to their plate being quite sufficient.

It is rather singular that so evident a mistake as this is, namely, of describing as belonging to the vegetable kingdom a fish-scale very commonly found in the Coal-measures, should have passed uncontradicted for so many years. The first discoverer of the specimens had great doubts as to the nature of the fossils; but these doubts appeared gradually to have grown less, and finally disappeared altogether, as other parties who knew less of the subject treated it.

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#### NOTICES OF BRITISH AND FOREIGN MEMOIRS.

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##### I. OBSERVATIONS ON 'RECHERCHES SUR LES SQUALODONS,' par P. J. VAN BENEDEN. 4to., 1865, pp. 85, Pl. I.—IV. Bruxelles.

By Prof. OWEN, F.R.S.

IN the 35th volume of the 'Memoirs of the Royal Academy of Belgium,' Prof. Van Beneden, under the above title, gives an account of most of the specimens of Zeuglodonts which have been discovered in Europe, commencing with the portion of jaw with teeth from the Miocene of Malta, figured by Scilla, in 'La Vana Speculazione disingannata del Senso,' 1670, tab. xii., fig. 1; on which Agassiz founded his genus '*Phocodon*,' in the 'Répertoire d'Anatomie et de Physiologie de Valentin,' 1835.—2. The next European Zeuglodont in point of date is the fragment of jaw and teeth from the 'grès marin' at Léognan, near Bordeaux, described, as part of a gigantic reptile, allied to the Iguanodon, and also to the Sharks, by Dr. Grateloup, under the name of *Squalodon* ('Actes de l'Académie des Sciences, Belles-lettres, et Arts de Bordeaux,' 2<sup>me</sup> année, 1840).—3. An atlas-vertebra, from the Miocene 'Faluns' at Salles, noticed by J. Müller in his account of the American Zeuglodonts acquired by the Royal Museum at Berlin, in the 'Transactions of the Royal Academy' of that city, 1847, and 'Ueber die