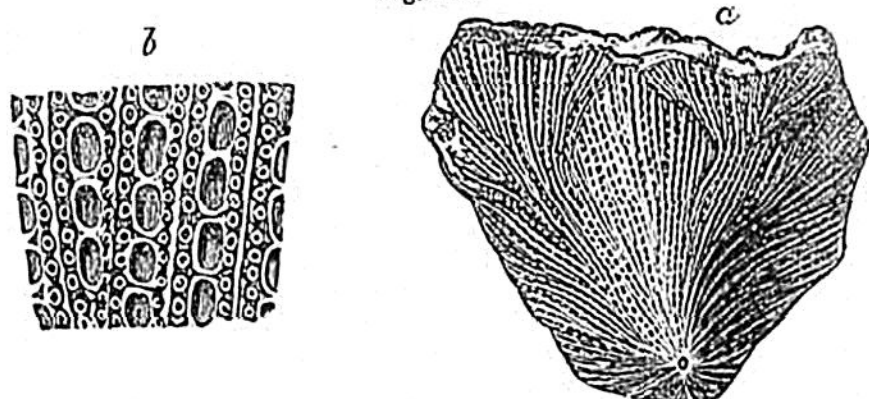


studying the phenomenon in the Marston Rocks, on the coast of Durham, I found it impossible to form any positive opinion on the subject. The well-known brecciated limestones of the Pyrenees appeared to me to present the nearest analogy, but on a much smaller scale.

The *fossiliferous limestone* (No. 3) is regarded by Mr. King as a deep-water formation, from the numerous delicate bryozoa which it includes. One of these, *Fenestella retiformis* (fig. 447), is a very variable species, and

Fig. 447.



a. *Fenestella retiformis*, Schlot. sp.
Syn. *Gorgia infundibuliformis*, Goldf.: *Relepora flustracea*, Phillips.
b. Part of the same highly magnified.
Magnesian limestone, Humbleton Hill, near Sunderland.*

has received many different names. It sometimes attains a large size, measuring 8 inches in width. The same zoophyte, or rather mollusk, with several other British species, is also found abundantly in the Permian of Germany.

Shells of the genera *Productus* (fig. 448) and *Strophalosia* (the latter an allied form with teeth in the hinge), which do not occur in strata newer than the Permian, are abundant in this division of the series in the ordinary

Fig. 448.



Productus horridus, Sowerby
(including *P. calvus*, Sow.)
Sunderland and Durham, in Magnesian
Limestone; Zechstein and Kupfer-
schleifer, Germany.

Fig. 449.



Spirifer undulatus, Sow. Min. Con.
Syn. *Trigonotreta undulata*, King's
Monogr.
Magnesian Limestone.

yellow magnesian limestone. They are accompanied by certain species of *Spirifer* (fig. 449), and other brachiopoda of the true primary or paleozoic type. Some of this same tribe of shells, such as *Athyris Roissyi*, allied to *Terebratula*, are specifically the same as fossils of the carboniferous rocks. *Avicula*, *Arca*, and *Schizodus* (see above, figs. 444, 445, 446), and other lamellibranchiate bivalves, are abundant, but spiral univalves are very rare.

The *compact limestone* (No. 4) also contains organic remains, especially bryozoa, and is intimately connected with the preceding. Beneath it lies the *marl-slate* (No. 5), which consists of hard, calcareous shales, marl-slate, and thin-bedded limestones. At East Thirkley, in Durham, where it is thirty feet thick, this slate has yielded many fine specimens

* King's Monograph, pl. 2.