The earliest *Polystomellæ*, geologically speaking, of which we have any knowledge, are specimens of the present form obtained by Dr. Uhlig from the Middle Jura "Ornatenthon" of Russia. It has also been found as a fossil in the Eocene of Paris (Terquem); the Miocene of Vienna (d'Orbigny), of Lower Bavaria (Egger), and of Calabria (Seguenza); the Salt-clay of Wieliczka (Reuss); the Subapennine Tertiaries of Italy (Reuss, Seguenza); the Pliocene of Kar Nicobar (Schwager), and of the Island of Rhodes (Terquem); the Crag of Suffolk (Jones, Parker, and Brady); and the Post-pliocene of Calabria (Seguenza).

Polystomella verriculata, H. B. Brady (Pl. CX. fig. 12, *a.b.*).

Polystomella verriculata, Brady, 1881, Quart. Journ. Micr. Sci., vol. xxi., N. S., p. 66.

Test much compressed, lateral faces flattened, peripheral edge angular or slightly rounded. Septal ridges and retral bars forming a coarse, more or less regular, raised network, covering the surface of the shell. Aperture simple or only slightly notched. Diameter, $\frac{1}{50}$th inch (0·5 mm.).

A variety characterised by the equal limbation of the septal lines and the transverse bars, producing an even but somewhat irregular reticulation of the surface.

Such specimens have been collected at two points on the west coast of Australia, namely, off East Moncœur Island, 38 fathoms; and in Curtis Strait, Queensland.

Polystomella imperatrix, H. B. Brady (Pl. CX. figs. 13–15).

Polystomella imperatrix, Brady, 1881, Quart. Journ. Micr. Sci., vol. xxi., N. S., p. 66.

Test complanate equilateral; peripheral edge subangular, generally subcarinate, furnished with several (three to six) stout radiating spines. Septal lines slightly limbate, marked with pitted depressions; retral bars very numerous, delicate, irregular, sometimes branched. Aperture simple, or only faintly notched. Diameter, $\frac{1}{15}$th inch (1·7 mm.).

This is one of the largest and handsomest of the *Polystomellæ*. It differs from the spinous Miocene variety (*Polystomella regina*, d'Orb., For. Foss. Vien., p. 129, pl. vi. figs. 23, 24) in its complanate contour and larger dimensions—fully-grown specimens having a diameter more than three times that of the fossil form—as well as in the external aspect of septal lines and cross bars. The peripheral spines appear to be developed from the carinal portion of the supplemental skeleton, and are not, like those of some varieties of *Polystomella crispa*, mere radial extensions of the septa.

One or two small examples of *Polystomella imperatrix* were found amongst sand dredged in Port Jackson, 2 to 10 fathoms, the only Challenger Station at which it was collected. But in a small package of similar material from Storm Bay, Tasmania, sent to me many