to locate either a tangential or vertical slice. The general structure is very much coarser than in *S. galtensis* or in *S. concentrica*, but whether the curving, open canals represent astrorhizal systems or zooidal tubes I am unable to say.

Genus—STROMATOPORELLA, *Nicholson*

STROMATOPORELLA ELORA, *sp. nov.* Plate III, Fig. 3; Plate V, Figs. 1, 3, 4; Plate VI, Fig. 6

Coenosteum massive, apparently concentric and hemispherical. Latilaminar structure present but not pronounced except in weathered specimens. Latilaminae about 4 mm. thick. Both pillars and horizontal elements are distinct but are imperfectly fused in the manner described by Nicholson for the genus. Skeletal fibre minutely porous as in the genus *Stromatopora*. Fairly long zooidal tubes penetrate the coenosteum vertically. No very certain evidence of tabulae in the tubes has been observed, but it is extremely likely that they existed. Astrorhizal systems are well developed the centres being from 3 to 6 mm. apart. A very large axial canal forms the centre of the system and this canal is surrounded by a stout " astrorhizal cylinder " in which a vertical arrangement of the tissue is perceptible as well as a faintly defined central line. The astrorhizal canals are large, round and strictly superimposed, at least in some cases, as six or eight of the cut ends may be observed lying one above the other between the same pair of vertical pillars. About five horizontal laminae with the intervening interspaces occur in one mm., but in certain parts of a latilamina they are somewhat more closely crowded. The pillars are, on the whole, more distinct than the laminae but some sections were observed where the opposite was true. Four to five pillars occur in the space of one mm.

A considerable number of vertical sections were prepared which present a puzzling difference and cause great trouble