guttered, or channelled stems, but in some instances at least the forms of the axes are very protean, sometimes creeping over fallen Gorgonid stems, and at others growing with flattened upright branches from such stoloniferous masses, and even assuming the form of short cylindrical stems. No doubt a thorough revision of the species of both these genera is required, but the material is not at present available for such a task.

Under these circumstances it seems advisable not at present to form a new genus for a new species from Australia, in which the upright axes are very cylindrical in outline, and we venture to place it in Suberia,

Suberia genthi, n. sp. (Pl. XL. fig. 1).

The colony forms at first an incrusting suface growing over the long, denuded stems of a Gorgonia. These were apparently grown over when lying horizontally on the ground. On reaching the termination of the foreign axis, and on several occasions at intervals along its length, little upright stems arise, sometimes simple, but sometimes branched; these are perfectly cylindrical in form and never show the slightest tendency to anastomose. One of these upright branches rises from the incrusting basal portion to a height of 80 mm., with a diameter of 2.5 mm. At 10 mm. from the base a second small branch arises, extending to a length of 30 mm., when it bifurcates into two branches of 15 mm. each in length, shortly after the origin of this a second branch is given off, but not in the same plane, and reaches a length of 25 mm.; the main axis of this colony itself terminates in two small branches.

The polyps are numerous both on the incrusting and stem-like portions, they are not confined to any limited area, they are retractile within verrucæ, which latter can also apparently become so contracted as not to project much beyond the surface of the coenenchyma; when so contracted they show an eight-rayed outline. The polyps are not terminal.

There is a well-developed coronet of long and bent spindle-shaped spicules below the tentacles, which are themselves armed with spicules.

The nutrient canals in the cylindrical portion of the axis run in the circumference of the axis, but others can be detected in the central portion. There is no well-marked central axis.

The straight warty spicules measure 0.34-0.1; 0.34-0.06; 0.3-0.06; 0.28-0.06; 0.24-0.06; 0.14-0.1; 0.09-0.08 mm. The bent warty spindles measure 0.3-0.1; 0.24-0.12 mm. The irregular branched spicules are 0.24-0.06 mm. in widest diameter. The four-rayed forms 0.32-0.06; 0.2-0.12 mm. The long spiny bent and curved spindle 0.4-0.04; 0.24-0.4 mm. Some double crosses measure 0.1-0.025; 0.08-0.01 mm.

Habitat.—Shallow water, off Port Jackson.