

spindles, which line the walls of the nutrient canals. The spicules measure:—the spindles 0.12–0.02 mm., these are mostly around the nutrient canals; the double clubs 0.1–0.04; 0.08–0.04 mm., these are on the surface of the cœnenchyma; the double clubs with few spines from the bodies of the polyps measure 0.06–0.02; 0.04–0.02 mm.; the stellate forms, the large ones 0.02–0.02 mm.; the small, 0.06–0.06 mm.

This species seems very nearly related to *Raynerella aurantiaca*, Gray, from Bass Strait.

*Habitat.*—Station 232, *Hyalonema*-ground, off Japan; depth, 345 fathoms; bottom, green mud.

## Section II. SCLERAXONIA.

### Family I. BRIAREIDÆ.

Scleraxonia in which the axis consists of spicules. There is a more or less well-marked cœnenchyma, in which the polyps are lodged.

The colony may be either spreading over the surface of foreign substances, or may form upright simple or branching masses, the stems of which are sometimes cylindrical, sometimes broadly channelled.

The axis may or may not be penetrated by the nutrient canals, and this difference serves to divide the family into the two subfamilies of Briareinæ and Spongioderminæ.

### Subfamily 1. BRIAREINÆ.

#### Genus *Suberia*, Studer.

*Suberia*, Studer, Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, p. 666, October 1878.

Colony simple or branched, erect. Axis consisting of spindle-shaped spicules, not agglutinated together, and some horny material; traversed by the nutrient canals. Cœnenchyma thick, containing spiny spindle-shaped spicules. Polyps retractile within well-marked verrucæ; standing at right angles to the stem and branches. The polyp spicules are long and bent spindles.

This genus was established by Studer for *Suberia kollikeri*, from the north of New Zealand, in 90 fathoms, and for *Suberia clavaria*, from the east coast of South America. In some respects this genus resembles the genus *Solenocaulon*, which was established by Dr. Gray for *Solenocaulon tortuosum*, from North-west Australia. Genth's species, *Solenocaulon tubulosum*, came from the Philippines, while a third species, *Suberia grayi*, is described (*loc. cit.*, p. 668) by Studer, also from North-west Australia (Mermaid Straits).

Dr. Studer emended Dr. Gray's diagnosis of *Solenocaulon* so as to include his new species. Kölliker would apparently confine the genus to species with flattened,