

The polyps begin below with a long row of undeveloped individuals the real length of which cannot be ascertained owing to the bad state of preservation of this part of the polypidom. The developed polyps measure 1·2 to 3·2 mm. in length, are rather crowded, and so placed that smaller and larger are intermingled without any rule. Colour of the polyps brown, with the exception of the tentacles which are colourless, and contain calcareous needles of 0·15 mm. in length. Polyp-cells with strong colourless needles of 0·5 mm.

Rachis quadrangular, 0·76 mm. broad, brown on all four sides, from the colour of the epithelium of the longitudinal canals. Sarcosoma in small quantity, with some needles in its dorsal side.

*Habitat.*—One single specimen from Station 192, south-east of Ceram, west of New Guinea, lat. 5° 42' S., long. 132° 25' E. Depth, 129 fathoms. Mud. September 26, 1874.

*Scleroptilum*, n. gen.

Sea-pens of the family Protoptilidæ. Polyps without cells, sessile with broad bases, disposed on each side of the rachis in a single row. Zooids dorsal, apparently in one row. Axis round. Calcareous corpuscles of large size, abundant in the polyps and their tentacles, and in the sarcosoma of the rachis; those of the stalk numerous, but smaller.

1. *Scleroptilum grandiflorum*, n. sp. (Pl. VII. fig. 29).

Calcareous corpuscles in the smaller branches of the tentacles very few in number. Polypidom of medium size, uncoloured. Rachis longer than the stalk. Stalk, with an upper swelling, and an end-bulb. Polyps usually disposed in pairs, apparently opposite, while, on a closer inspection, it becomes evident that the two polyps of a pair never lie on the same level; nevertheless, regular alternation does not take place, the more so as in many places a single polyp is interposed between two pairs. The intermediate polyps, which are smaller than the others, may be looked upon as indications of new developing pairs, as we have seen that in several genera of the *Protoptilidæ* young polyps are developed between the old ones.

The single polyps are large and hard and stiff, from the great number of strong calcareous needles in their sarcosoma. Their length is about 5 mm.,—with extended tentacles, 6 mm.; and their breadth at the base 3 mm., and higher up, just below the tentacles, 1·5 mm. Nearly all are curved in such a manner that the tentaculiferous part is bent upwards; in some instances the curve is even stronger, and then the tentacles look towards the stalk.

The zooids measure at their base 0·42 mm., and are small conical prominences, with an elevation of not more than 0·2 mm. They are all dorsal, and form one single row, which is so disposed that one portion lies on the right, and the other on the left of the