

Omenakfiord, North Greenland, lat. $71^{\circ} 71' N.$, long. $23^{\circ} 58' W.$, depth 122 fathoms) and *U. magniflora* have been found militates *a priori* against their identity.

The *Crinillum siedenburgii* of Van der Hoeven is, as I have shown, the basal part of a Pennatulid, and no doubt of an *Umbellula*, as the axis has the same form as that of most *Umbellulæ*.

Habitat.—Banda Sea, lat. $6^{\circ} 40' S.$, long. $126^{\circ} 47' E.$ Depth, 2700 fathoms.

4. *Umbellula leptocaulis*, n. sp. (Pl. IX. fig. 35).

Decidedly bilateral. Calcareous needles pretty numerous in every part of the cutis, none very large. Polyps disposed alternately, of a light brown colour, large, with thin sarcosoma. Zooids scanty, on the rachis only, ventral, lateral, and dorsal. Stalk quadrangular, thin, with thin sarcosoma. Axis quadrangular, with concave surfaces and blunt edges.

Of this species I had at my disposal one smaller, perfect specimen (B), 150 mm. in length, with three polyps; and the upper part of a larger one (A), with five polyps, consisting of four fragments, and altogether 350 mm. in length.

The stalk is remarkable for its thinness. In A it measured 0.85 mm. in diameter below, and 0.34 to 0.37 mm. in its upper part. In B there was an end-bulb of 0.42 mm., and the average breadth of the rest of the stalk was 0.42 to 0.28 mm.

In the polypiferous part the ventral side shows a small, keel-like rachis, which bears the polyps on both sides, so that there is no larger free ventral space as in *Umbellula durissima* and *Umbellula güntheri*. The ventral zooids are, therefore, very few, and form only a small series on both sides of the keel. The lateral zooids are represented by a few individuals only, and the dorsal are also few in number, and disposed on a small dorsal free space between the polyps.

The polyps, 27 to 30 mm. in length in A, are thin in their sarcosoma, and show the same arrangement of the calcareous needles as in *Umbellula güntheri*, with this exception, that the needles of the tentacles are all disposed parallel to the longitudinal axis of the stems of the tentacles. The needles of the polyps in A measure 0.43 to 0.54 mm. in length, and 0.027 mm. in breadth, and those of the tentacles 0.16 to 0.21 mm. Those of the stalk measure in A 0.11 to 0.18 mm. in length, and 0.027 to 0.054 mm. in breadth; in B, 0.064 to 0.10 mm. in length, and 0.027 to 0.064 mm. in breadth. The needles in the lower part of the stem are of the common type, the shorter granulated and warty, and broader the shorter they are.

Habitat.—Station 181, South Pacific Ocean, south-east of New Guinea, lat. $13^{\circ} 50' S.$, long. $151^{\circ} 49' E.$ Depth, 2440 fathoms. Red clay. August 25, 1874.

5. *Umbellula simplex*, n. sp. (Pl. IX. fig. 36).

Decidedly bilateral. Calcareous needles numerous in every part of the cutis, none very large. Polyps disposed alternately, colourless, small, rather hard. Zooids none.