

the polyp, the pre-opercular measure 2 mm. by 2 mm., and those of the operculum 1.5 mm. by 1 mm.

Habitat.—Station 174, August 3, 1874; lat. 19° 10' S., long. 178° 10' E.; depth, 210 to 610 fathoms.

This species is described from a single specimen, in which, however, several of the whorls of polyps are quite perfect. The polyps are the largest of any of the hitherto described species of this genus.

3. *Stenella dæderleini*, n. sp. (Pl. XX. fig. 7).

Axis in the several fragments found irregularly branched, hard, brittle, of a dark-brown colour, iridescent; the outer horny fibres give it a striated appearance. Some of the fragments are from 100 to 150 mm. in height, and in their widest diameter about 2 mm.

The cœnenchyma is very thin, with a layer of semitransparent scale-like spicules, many of which have a projecting central knob, giving a thorny appearance to the layer.

The polyps are in whorls of three or four each, at irregular distances on the stem and branches. The polyps are long, narrow, about 3.5 mm. in height by 1 mm. in width.

The scale-like spicules surround the body of the polyp in about four series, while the pre-opercular calyx is formed of eight scales with spathulate prominences. The opercular scales, eight in number, project far from the pre-opercular ring, and each spicule is folded back on itself with a broadly laminated free edge.

The spicules of the cœnenchyma measure 1-0.50; 0.50-0.25; 0.25-0.12 mm.; those of the polyps 1-0.50; the pre-opercular scales 1.50-0.50; 1.50-0.45 mm., and those of the operculum 1-0.50 mm.

The remarkable projecting knobs from the elongated scale-like spicules will distinguish the species from all others as yet described.

Habitat.—Station 237, south of Japan; depth, 1875 fathoms; bottom, blue mud.

4. *Stenella spinosa*, n. sp. (Pl. XIII. figs. 1, 2; Pl. XX. fig. 9).

Axis branched, 130 to 150 mm. in height, branches arising irregularly and somewhat densely from the main axis, so as to give the shape of a small bush to the colony, dark-brown in colour, deeply striated, cœnenchyma thin, on the older portion with a dense compact layer of small, overlapping, scale-like spicules, through which the dark axis is plainly visible; on the younger portion the scales are larger and imbricated. The polyps on the main stems and larger branches arise single and in an irregular fashion, but on the younger twigs in whorls of twos and fours.

The polyps measure 3 mm. in height by 2 to 2.5 mm. in width across the pre-opercular scales. The body of the polyp is surrounded by four rows of scales below the