

3.5 mm. to one of 2 mm. The polyps are arranged in spirals around the stem, leaving a very narrow median groove.

A second example from Banda, is 225 mm. in length, being evidently a portion of a terminal branch; it is furnished with one short branch. In this specimen the median groove is better marked. The cœnenchyma is thick. The polyps are only partially retractile. The spicules measure:—the spindles, which are of a salmon colour, 0.12–0.04; 0.08–0.02; the double clubs, sherry coloured, 0.1–0.06; 0.06–0.04; the needles 0.06–0.2.

*Habitat.*—Torres Strait and Banda Island.

### Genus *Gorgonella* (*pars*), Valenciennes.

*Gorgonella*, Valenciennes, Comptes rendus, t. xli. p. 14.

„ Milne-Edwards, Hist. Nat. des Coralliaires, t. i. p. 183, 1857.

„ Val. (*ex parte*), Kölliker, Icones Histologicæ, Abth. ii. p. 39.

### *Gorgonella orientalis*, n. sp. (Pl. XXXIV. fig. 10).

A large branch, with many detached fragments occurs in the collection from Japan. The whole series of pieces evidently formed portions of an extensive colony. It may be described as follows:—

Colony much branched; the largest branch (in the collection) is about 275 mm. in length; from it as a main branch both large and small branchlets arise, they are given off from either side of the main branch, and in the one plane. The basal diameter of this branch is 5.5 mm., it then gradually tapers to a twig of not quite 1 mm. in diameter. One of the branches arising from it has a basal diameter at its origin of 4 mm.; it extends to a length of 150 mm. The entire colony in all probability assumed a fan-shape. There is an occasional anastomosis between the branches of the third series (regarding the branch described as a main stem).

The axis of this branch is horny, with a central calcareous core; but the smaller twigs and branches are extremely brittle. The polyps are numerous, occurring quite irregularly over the surface of the larger branches; but on the smallest twigs they seem to be arranged in three rows. Two opposite polyps end the twigs, giving a knob-like appearance to the terminations. The polyps are prominent, with retractile tentacles, and are themselves nearly retractile, within almost flat verrucæ; this seems to be more the case on the older portions of the stem; on the younger portions the verrucæ are more elevated. The verrucæ have a broad diameter of 1 mm., and when closed a maximum height of the same. When quite withdrawn the eight rays on the summit of the verrucæ alone mark out their existence; but this appearance seems often wanting.

The cœnenchyma is moderately thick, granular, with the double club-shaped spicules of a brownish-yellow hue; beneath these there is a layer of smaller spicules, chiefly spiny