

The cœnenchyma is relatively thick and not transparent. It is filled with large, thick, warty spindles, which, placed close together, form a continuous covering. The spindles are usually simply curved or slightly S-shaped, frequently blunted and thickened at one end so as to become somewhat club-shaped. They are thickly covered with rough warts, whose surface is prickly and often even covered with little branching spines. In the centre of the spicules the warts come off at right angles, at the ends they are directed towards the apex. The spindles are placed in the long axis of the stem and branches, around the base of the calyx they form a ring. The size and thickness, as well as the shape, are very variable. Size:—1.25 by 0.25; 1.5 by 0.2; 1.2 by 0.2; 0.94 by 0.13 mm. These spicules form only a single layer in the cœnenchyma.

The spicules of the calyx are shaped like those of the cœnenchyma, generally more rounded off towards the base, and pointed towards the margin. They stand vertically upon the spicules of the cœnenchyma and are arranged in eight groups. Each group consists of two rows of spicules converging towards the margin of the calyx; at the base they diverge from one another and at the margin they form eight projecting teeth. They measure 0.63 by 0.1; 0.58 by 0.13; 0.41 by 0.12 mm. Their surfaces are usually less thickly tubercled. In the spirit specimen the calycular operculum forms on many of the calyces a conical process; the bases of the tentacles, constituting the operculum, are formed of several spindle-shaped spicules arranged "*en chevron*," whose size gradually decreases from the base of the tentacle upwards. The colleret is feebly developed, being only a ring of slightly curved spicules. The spicules of the operculum are straight or slightly curved spindles, covered with simple, vertical wartlets; they measure 0.41 by 0.05; 0.38 by 0.042; 0.37 by 0.033; 0.16 by 0.05; 0.28 by 0.09 mm.

The axis is thin, flexible and horny; in the thicker branches black and in the twigs yellowish. The cœnenchyma is, however, so packed with spicules, as to give to the colony a rigid character. The colour of the cœnenchyma is pale rose, the majority of the spicules in its axial portion being of a rosy red colour while the outer calcareous layers are colourless. The calyces are yellowish.

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

4. *Muricella perramosa*, Ridley.

Muricella perramosa, Ridley, Ann. and Mag. Nat. Hist., ser. 5, vol. x. p. 128, August 1882.

Ridley gives this name to a Gorgonid from Mauritius, the description and figures of which agree so closely with two pieces in the Challenger collection, that we can without hesitation place the latter in the same species, notwithstanding the wide range in their geographical distribution. The species forms a richly ramified, fan-shaped colony, the larger specimen being 35 mm. high and 25 mm. broad.