

a similar manner as the chief stem, and these may again have simple lateral projections with unilateral polyps. Branches and twigs form between them angles of  $45^{\circ}$  to  $60^{\circ}$ . The height of the whole colony is about 120 mm., that of the principal stem is the same, of the larger branches 90 mm. The simple terminal twigs have a length of 40 mm. The diameter of the main axis at its base is 2.5 mm., of the chief branches 1 to 1.5 mm. The polyps are scattered on the stem and branches at intervals of 1 to 1.5 mm. They come off principally from opposite sides and leave the middle of the stem free; on the smaller branches they arise alternately from both sides. Towards the end of the branches they are placed closer, so that these appear thicker. At the ends of the branches there are usually three or four polyps from the one spot, diverging towards different sides. The form of the calyx, as compared with those of the previous species, is more cylindrical; the length with the operculum is 1.3 mm., the diameter 1 mm.

The arrangement of the spicules is the same as in the previous species; but their form differs materially. The spicules of the cœnenchyma are spindles, curved, often with unilateral prominences or spines, there are sometimes also branched or forked as well as simply acerate forms of spicules. These measure 0.33 and 0.3 mm. The eight rows of "Stachelplatten" consist of spicules measuring as follows:—0.3–0.25; 0.23–0.16; 0.26–0.16 mm. The collar is formed of strongly curved spiny spicules, measuring 0.38–0.33 mm. At the base of each tentacle, in the middle, is a straight spiny spicule, on which two curved spindles from either side converge, these have a length of 0.35; 0.3 and 0.25 mm. The axis is brown, fibrous and flexible. In the branches it is soft, so that these have quite pendulous terminations. The colour of the stem in spirit specimens is yellow; when dried it is white.

*Habitat.*—Station 310, Sarmiento Channel, Patagonia; depth, 400 fathoms; bottom, blue mud.

### 3. *Paramuricea ramosa*, n. sp. (Pl. XXVI. fig. 1).

In this species the colony is upright, expanded in one plane; fan-shaped. The principal stem gives off, quite close to the base, a large diverging branch at an angle of  $48^{\circ}$ , which has the same thickness as the principal stem. Each of the two then gives off, at intervals of 15 to 20 mm., large branched twigs and smaller simple lateral branches, which arise at angles of about  $45^{\circ}$ , giving the impression of a dichotomy. Towards the apex of the colony single branches anastomose with one another, in one instance the termination of a branch with the end of the main axis.

The thickness of the principal stem measures at the base 9 mm., that of the principal twigs 5 mm. The length of the simple branches varies from 15 to 20 mm. The cœnenchyma is thin and forms, particularly towards the base, but a translucent covering. The polyps are short, conical, 1 to 1.5 mm. high, and 1 mm. in diameter at their base;