

never opposite, and are about 1 to 2 mm. distant from each other. The terminal points of the branches have a stolon-like appearance; three to four polyps, projecting divergently, are found immediately below these. The polyps stand out almost perpendicularly from the stem and branches, they are short, cone-shaped, 2 mm. high with the operculum, and 1 mm. in diameter. The spicules of the cœnenchyma consist chiefly of large-bodied spiny spindles, which are often curved, and often quite bent into an angle, they have either short spines or small toothed prominences. They often, particularly towards the base of the body, present a somewhat flattened and curved form, whereby the spicules arrange themselves in the form of a ring. At the summit of the curve of such spicules two delicately toothed prominences occur. The average dimensions of the spicules are 0.38-0.06; 0.3-0.04; 0.29-0.03; 0.43-0.08 mm.

The spicules are arranged on the calycine portion of the polyps in a longitudinal fashion and in several layers. The lower layer contains flattened forms, which are furnished on one side with sharp-pointed prominences, on the other with spiny often branched prominences; the so-called "Stachelplatten." These measure 0.46-0.2; 0.38-0.25; 0.3-0.13 mm. Over these are spiny curved spindles, often thickened at one end, of which eight longitudinal rows surround the body; each row consists of two rows of spicules converging towards one another. These have an average size of 0.5 mm. by 0.05 mm. The colleret consists of curved spiny spindles placed ring-fashion. These are so arranged that the horizontal row of spicules always comes into contact with a row of the body spicules and with those at the base of the tentacles. They thus form supports for the spicules situated at the base of the tentacles, which latter present the form of long, pointed, spiny, and feebly bent spindles, of which from four to five lie at the base of each tentacle, with their points converging inwards and upwards. These reach a length of 0.7 mm. with a diameter of 0.58 mm. The retractile portions of the tentacles contain only needle-shaped, often feebly spined spicules.

The axis is horny, elastic, flexible, of a fibrous structure and of a yellowish-brown colour. The colour of the cœnenchyma is (in spirits) of a greyish-white.

Habitat.—St Paul's Rocks, Mid Atlantic; depth, 80 fathoms.

2. *Paramuricea laxa*, n. sp. (Pl. XXVI. fig. 2).

In this species the stem is loosely branched in one plane, with long flaccid branches. The polyps, which are small and conical, arise principally from opposite sides of the stem and branches, leaving an intermediate space free, which is distinguished by a relatively smooth cœnenchyma. The principal axis, which at its base is a little flattened, is variously curved and bent. It gives off on opposite sides an irregular series of small, simple twigs and larger branches, which latter have almost the strength of the main axis, and these end in long tendril-like drooping twigs. The larger branches give off twigs in