spindles, about 0.33 mm. in length and 0.03 mm. in diameter, and are thickly covered with short, sharp spines. The walls of the polyp also exhibit eight longitudinal bundles of thickly disposed spicules. At the base of the tentacles the spicules are arranged in a circle and form a sort of collar. Thence they are continued into the tentacles, in which they lie obliquely and close together. They become gradually shorter towards the tips of the tentacles.

The gastral cavity of the polyp is sunk deep into the relatively thick coenenchyma.

The colour in spirit of the basal membrane and calyx is milk-white, and that of the retractile portion yellow.

Habitat.—Station 320, lat. 37° 14' S., long. 53° 52' W.; bottom, green sand; depth, 600 fathoms.

Sympodium armatum, n. sp. (Pl. XLIII. figs. 11, 12).

From a thin membrane which covers a Gorgonoid (Dasygorgia), the polyps arise in groups, at wide intervals. One can distinguish a more or less expanded calyx portion with a broad base, and a tentacular portion which is not completely retractile. The calyx wall bears but indistinct longitudinal striæ. In each group five to seven individuals are usually distinguishable, arising close to one another but separated from the next group by a wide interval, over which the naked basal membrane extends. Both the membrane and the calyx walls appear somewhat rough owing to the spinose spicules which are embedded in them.

The calyces are not rigid, they measure 4 to 4.5 mm. in breadth at their base, they narrow rapidly towards the oral region, and are from 3 to 4 mm. high. The anterior portion of the polyp is only partially retractile, so that the tentacles which are folded together over the oral disc cannot be drawn into the calyx, and being provided with spicules form a quasi-operculum. The base of the gastral cavity is sunk into the coenenchyma of the basal membrane. In the groups each gastral cavity is separate down to the base.

Both the basal membrane and the calyces are beset with large rough spicules, which lie in the calyces in eight longitudinal bundles, but in the membrane they are irregularly disposed. They consist of straight or curved spindles, beset with sharp spines. By the thickening of one extremity they frequently become club-shaped. Their length and breadth vary respectively as follows:—0.7 to 0.04, 0.5 to 0.04, 0.41 to 0.042, 0.38 to 0.04, 0.5 to 0.04, 0.41 to 0.042, 0.38 to 0.04, 0.5 to 0.04, 0.41 to 0.042, 0.38 to 0.03, 0.3 to 0.03 mm. Even the retractile esophageal portion is covered with fine spindle-shaped spicules.

Under the tentacles, curved spicules, measuring 0.58 to 0.05 mm., form a broad annular collar, which in retracted polyps forms the margin of the calyx.