

chiefly in the direction of the tentacles, up which they are finally continued. They measure 0.45 by 0.04; 0.27 by 0.03; 0.3 by 0.05 mm.

The colour of the colony in alcohol is a uniformly greyish-yellow. The spicules are white.

Habitat.—Admiralty Islands; depth, 25 fathoms.

B. *Glomerata*.

a. Lobata.—The polyps distributed over the branches separately and in bundles.

Spongodes carnea, n. sp. (Pl. XXXVI E. figs. 1a, 1b).

Consisting of a barren stem divided into two thick main branches, which again give off somewhat flattened stumps, at times lobose branchlets. These latter may again divide into short lobose twigs. The little polyp heads are seldom arranged singly, being generally united in groups and lobules on the upper end of the stem and on the branches, branchlets, and twigs. On the terminal twigs the groups are crowded more closely together, so that these are covered with polyp heads; but not in such a manner as to appear like spikes, as in the group *Spicata*, for here the individual lobules are still always distinguishable. Each group consists of three to ten polyp heads, each of which has a short peduncle and is surmounted by a long spicule. The peduncles unite together at the base, from which they either diverge like a crown or stand up in a row, so that the lobe appears to be compressed.

The colony reaches 155 mm. in height; the barren stem 45 mm., with a diameter of 35 mm. The main branch is 40 mm. long, with a tolerably uniform thickness of 18 mm. The lateral branches reach 34 mm. in length, the rounded terminal twigs 13 mm., with a thickness of 6 to 9 mm. at the end. The little polyp heads, so far as they are isolated, have a height of 2 mm., the spicules project for as much as 3 mm.

The stem and branches have thick, firm walls, which are leathery and thickly packed with fine spicules. The latter are not recognisable by the unassisted eye, and lie scattered confusedly in several layers. The canal-system in the interior consists of wide tubes, separated from one another by thin, soft, partition walls. The spicules in the outer covering of the stem have a very peculiar shape. They are broad, curved spindles, covered with strong erect warts, 1.0 mm. long and 0.1 mm. broad. There are also very numerous stellate forms, spheres covered with stout warts, and irregular biradiate spicules, all provided with often branching outgrowths, 0.08 mm. long and 0.025 mm. in diameter, 0.25 mm. to 0.18 mm., 0.36 mm. to 0.038 mm., &c. All these forms are intimately bound together, and they completely fill the thick connective tissue of the ectoderm.

In the lobules, from which the polyp heads arise, are found spiny spindles, which are