

polyps are bright yellow. The cells are small, verruciform, and covered by small fusiform spicula, branches slender, axis light yellowish-brown, horn-like."

The colour and the condition of the spicules in our specimen agree with this diagnosis, but as more exact data are wanting the identity must remain doubtful.

The general habit of the colony quite recalls that of the preceding species. In form it is fan-shaped, ramified in one plane, divisible into a main stem and stout branches, on which the terminal twigs exhibit a pinnate arrangement. The height of the entire colony is 200 mm., and the greatest horizontal expansion is 250 mm. The main stem arises from a flat, encrusting base and ascends in an undulating manner. The bends of the stem take place in the plane of ramification and obliquely to it, and appear to be independent of the development of the branches. Numerous larger and smaller branches come off from both sides, commencing at a height of 22 mm. and following one another at intervals of 4 to 7 mm.; they stand off from the stem at angles of 45°, 55°, to 60°, the latter being the angle especially in the case of the smaller branches. The large branches have almost the same thickness as the main stem and attain the same length. They give off again, like the main stem, lateral branches and smaller twigs from both sides, and this ramification may take place in the same manner up to the formation of twigs of the fifth order. The terminal twigs are short, and flattened in the plane of ramification in the same manner as the branches and secondary branches. They are blunt or somewhat thickened at the ends. Short, unbranched twigs arise from the main stem, as well as from the branches, in addition to the larger, branched ones. All the branches and twigs remain of nearly the same thickness from the base upwards.

Length of the main stem 155 mm.; thickness of the same at the base 3 mm.; thickness in the middle 3.5 mm. Length of a large branch 150 mm.; thickness of a large branch 3 mm. Length of a terminal twig 17 mm.; thickness of the same 1.5 mm.

The polyps occur on the stem, branches, and twigs, especially on one surface of the colony, while the other surface shows only the cœnenchyma. But even on the polyp-bearing surface the polyps are more abundantly developed on the margins, so that even here it is possible to distinguish a central region, in which the polyps are less abundant. On the terminal twigs they are placed quite laterally, usually at distances of 2 mm. Each polyp has a truncated, conical calyx, whose diameter at the base is 1 mm., while its height is 0.9 to 1 mm.

The calyces usually project at right angles from the cœnenchyma, but towards the ends of the branches and twigs they are directed obliquely towards the apex. The tentacular operculum, distinguished by its bright yellow colour, forms a low cone within the calyx. At the apices of the twigs there are two divergent polyps and between them a short, rounded process.

The spicules of the cœnenchyma form a simple layer of large, longitudinally arranged spindles, which are usually curved and often S-shaped. Frequently the