

polyps are surmounted by spicules; the heads, placed at wide distances from one another, are distinguished from the white network of branches by means of their orange colour.

Height of the colony in the larger specimen 130 mm., in the smaller 74 mm.; length of the barren stem in the larger specimen 30 mm., in the smaller specimen 12 mm.

The barren portion of the stem is cylindrical and provided at the base with numerous stolons, which, partly ramified, anchor the colony in the sandy mud. The outer covering is fairly tough and somewhat granular towards the outside, less flabby than in the preceding species. After a slight constriction the stalk is continued into the tall, upright stem, which gives off from all sides larger and smaller branches, and bifurcates at the end into two branches diverging from one another at an obtuse angle. The remaining branches come off from around the stem in an indistinct spiral, but the more strongly developed branches, of which there are four or five, come off chiefly from two opposite sides. These behave like the main stem and give origin to spirally arranged, smaller, secondary branches.

The large branches attain a length of 30 to 45 mm., the smaller ones and the secondary branches 6 to 10 mm. They stand at right angles to the stem. The secondary branches, which are frequently somewhat flattened, soon divide into three or four twigs, each of which bears three or four polyps. The polyps have long peduncles and are placed at acute angles to one another. Usually one polyp has a longer stalk than its neighbours, above which it projects. Flattening takes place also in the twigs, and on many branches it is carried to such an extent that the twigs fuse together and form a fan-like, indented-leaf, bearing the pedunculate polyps on its margin. The polyps may be 1 to 4 mm. in length, while the diameter of the polyp heads is 1 mm. In the older and larger colony, where also the tendency of the twigs to form fans is more strongly marked, the stem is almost completely concealed by the luxuriant branching, a condition which is less obvious in the smaller specimen. The straight twigs, and especially the peduncles of the polyp heads, are stiff and very rigid, so that they easily break off, while the stem and the large branches have a more flabby consistence.

The spicules which occur in the barren portion of the stem agree very closely in shape with the corresponding spicules of the same portion of the preceding species. They are spiny clubs, placed on a cross-shaped basal portion. This portion has four rays, placed sometimes at right angles and sometimes more obliquely to one another. The rays are provided at the end with spiny processes, and sometimes also one ray is more especially developed. The distance between the apices of two rays reaches, on an average, 0.12 mm. A spiny club projects at right angles from the point where they cross one another; it is usually flattened in one direction, and its height reaches 0.1 mm. The cruciform basal pieces are placed close together and form quite a thick network of calcareous substance, from which the spiny needles project above the surface in the form of rough warts.