

The polyp-bearing portion thus appears as a spherical head placed on a long stalk. The entire colony is 180 mm. high; of this 150 mm. belongs to the barren stalk, whose attachment is wanting. The maximum diameter of the head portion is 43 mm.; that of the stalk, in the lower third, where it is thickest, 10 mm. The same relations of stalk to head are also exhibited in a younger specimen, 90 mm. long; the length of the stalk in this case reaches 80 mm. In the first case the relation of stalk to head is as 5 to 1, but a portion of the stalk is wanting; in the second case it is as 8 to 1. From the commencement of the branches the stem increases considerably in diameter. First of all eight stout branches are given off at the same level around the stem, which stands out almost straight. Above these comes a second whorl of branches, directed more upwards. These are united at their bases and surround the apex of the stem like a funnel. The branches quickly ramify into divergent secondary branches, and these into twigs, which bear the bundles of polyp heads on their lateral portions. Since the twigs are all of equal length the polyps form umbels which touch one another, but those belonging to a secondary branch always form a distinctly defined group. The terminal twigs bear bundles of from five to ten polyps; only the heads of the polyps, which are slightly overtopped by a bundle of spicules, are separated from one another.

The outer covering of the stalk is of a somewhat soft and fleshy consistency, its mesoderm contains only a few spicules scattered at wide distances. These spicules are twin structures, stars with four or more rays and projecting spines. In a space of 4 square mm. there are at most four or five, 0.12 mm. in size; but there are, in addition, fine calcareous granules without any definite shape. Even the branches and secondary branches still have the soft, fleshy character of the stalk; but in the twigs and secondary twigs we begin to find spicules, generally longitudinally placed, and forming in the polyp bundles a rigid armature. They are somewhat sinuous spindles, slender, somewhat blunted at both ends and thickly covered with fine spines. In the peduncles of the polyp heads they form groups of stout spindles, which converge together upwards, and form projecting points above the polyp heads. In the twigs the spindles are white, in the peduncles of the polyps they are purple.

The white spicules measure 1.5 by 0.06 mm.; 1.5 by 0.05 mm.; the red ones 0.8 by 0.08 mm.; 1 by 0.05 mm.; 1 by 0.016 mm.; 1 by 0.08 mm.

In the polyp heads we find fine spicules arranged in eight groups; in which each two rows of spindles converge towards the base of the tentacles, ending finally in eight tooth-like projections above the origin of the tentacles, so that the head forms a calyx with eight marginal teeth. The spicules of the head are red. They reach in size 0.5 by 0.03 mm. 0.4 by 0.03 mm.; 0.2 by 0.03 mm.

The tentacles, which can be bent inwards, are covered with fine yellowish spicules, arranged *en chevron*; size of spicules 0.09 by 0.01 mm.; 0.12 by 0.02 mm.