

structure, projects beyond the remainder in each of these bundles. The entire colony is rigid, neither branches nor stem being flexible. The height of the colony reaches 21 mm.; its diameter 30 mm.

The short, thick stem, which is attached to a *Balanus* by means of a broad base, gives off immediately above its origin a whorl of eight branches coming off at right angles. With a diameter of 9 mm. it thence rises to a height of 6 mm., at which point it divides into four terminal branches directed obliquely outwards. The length of one of the lower branches is 8 mm., that of one of the upper ones on an average 6 to 7 mm. The ramification of the branches takes place in the following manner:—Each branch at a short distance from its origin, divides into two secondary branches, which come off at various angles, sometimes at right angles and sometimes at rather an acute angle. In the case of the lowermost branches the secondary branches, which are moreover somewhat flattened, are directed towards the base of the colony, and thus cover up the root, their twigs reaching the ground all round.

Each secondary branch gives off three, five, or more short, divergent twigs, which bear bundles of small polyps at the ends. The number of polyps in a bundle reaches as many as twelve. One larger polyp, 2 to 2.5 mm. in length, rises up from amongst them, while the little sessile polyps at its base measure 0.6 to 0.7 mm. in height. The central polyp is cylindrical, and is surmounted by from one to three thick spicules.

The polyp bundles of one secondary branch, and often even of only one twig, form isolated groups, separated by intervals from the neighbouring groups, so that the network of branches may be recognised between the polyps.

The stem and larger branches are filled with large, transversely placed, spindle-shaped spicules, which are usually *f*-shaped. In the secondary branches and twigs the large spicules, which here assume a longitudinal direction, are more sparsely developed, and hence the mesoderm becomes filled with very numerous, small, calcareous spindles, crossing one another in divers manners. In the terminal twigs one finds in the peduncles of the polyp heads larger parallel spindles, one of which projects slightly beyond the head. In the head only small spicules arranged *en chevron* are developed; these spicules form eight longitudinal bands, and are continued up the tentacles, which latter can be simply folded together and are not retractile.

In the case of the large polyps there occur large calcareous spindles, forming together quite a cylindrical tube. This tube has a lateral opening above, from which the little head, constructed like those of the small polyps, breaks out. Its base is surmounted by from one to three large spicules.

The spicules of the long polyps are thick, straight spindles, covered with fine spines; 1 to 2 to 2.5 mm. long, and 0.1 to 0.2 mm. in diameter. The smaller spindles, which are frequently *f*-shaped, measure 0.8 by 0.05; 0.5 by 0.07; 0.25 by 0.04 mm.

The colour of the stem and branches is whitish, of the twigs and polyp peduncles