

polyps are cylindrical, relatively large, and stand upright, or at an obtuse angle upon the axial polyps.

The stolons, which are closely packed together, and sometimes united to form plates, spread themselves over foreign bodies, such as masses of sand, Gorgonid axes, &c. From them there arise axial polyps of the first order, and smaller single polyps, of which some may bear buds.

The main polyps rise, in a somewhat twisted and bent manner, to a height of 160 mm. From their base to the summit, where the retractile portion of the polyp is met with, they decrease slightly in thickness. At the base the diameter is about 3 mm., near the summit 1.5 mm. The main polyps bear, in part, tube-like lateral polyps disposed in ascending spirals, in part, long axial polyps of the second order, the latter forming long branches which sometimes overtop the main polyps. These, like the main polyps, bear lateral polyps, but seldom short axial polyps of the third order.

The lateral polyps are cylindrical, have cylindrical calyces, are 5 mm. in length and 1 to 1.2 mm. in diameter. The outer walls of all the polyps exhibit eight longitudinal ridges and furrows, those of the axial polyps running their course quite independently of those of the lateral polyps. The axial polyps form long tubes, the inner cylinder of which remains the same from the calyx to the base of the polyp, while the polyp wall becomes gradually thicker downwards. This inner cylinder is the extended digestive cavity of the axial polyps; on its walls the eight mesenteric folds are continued down to the base of the polyps. These folds form, however, in the deeper portion, but slightly projecting elevations.

In the wall of the polyp tube one can distinguish the ectoderm as a thin covering, the thick mesoderm, and the endoderm lining the cavity. From the mesoderm a thin structureless layer surrounds the endoderm, and is only thickened at the insertion of each mesenteric fold; then a dense layer of spicules, disposed in several strata, occurs. The dentations of these spicules are so much interlocked that they can with difficulty be separated, while the spicules are further fastened together by a horny envelope, which is not so sharply defined towards the exterior. The outermost stratum of the mesoderm exhibits loosely packed spicules, with a soft gelatinous connecting substance. On this a network of fine endodermal canals is spread, which sometimes unite to form larger longitudinal canals; from these fine endodermal canals pass through the horny layer into the digestive cavity of the polyp.

From this canalicular network the lateral polyps and the axial polyps of the second order arise, and their digestive cavities have therefore no direct communication with those of the axial polyps. In the lateral polyps the body-wall is thin, and contains no horny substance. The retractile portion of the polyp contains spicules in longitudinal bundles, which are to be found even in the tentacles. The spicules are fine, bent rods, with scattered, irregularly distributed, prominent sharp spines. Their length and