pletely covered with parts of the thin-membraned lamellæ of the septa, hanging in tatters, and with the reproductive organs and mesenteric filaments. The latter protruded partly from the œsophagus, partly from rents and fissures in the oral disk and wall, and partly from the openings, which replace the tentacles and represent them morphologically.

After the tattered fragments had been partially removed, it was found that one side of the Actinia was formed by the œsophagus and oral disk, the other by the wall and the pedal disk (fig. 3). The pedal disk is only slightly distinguished from the wall as a shallow depression 1·5 cm. in diameter, the bottom of which forms a convex projection into the interior of the gastric space of the Actinia. The wall, which is about 2·7 cm. long, shows distinct longitudinal furrows, which run from the margin of the pedal disk to the margin of the oral disk, and indicate externally the origins of the septa. As they amount to more than seventy in number, they correspond to thirty-six pairs of septa, which were also visible on dissection. Small knobs, which may perhaps be compared to the "bourses marginales" of other Actiniæ, lie one in each of the interspaces between these longitudinal lines, at a little distance from the margin of the oral disk. The surface of the wall is otherwise quite smooth.

The endodermal circular layer of fibres is pleated as far as the wall extends, and rises in muscular folds, which usually remain simple or are only slightly branched (fig. 10). The folds are more extensively branched only in the uppermost section of the body, where they form a sphincter which lies between the marginal spherules and the corona of stomidia, somewhat below the latter, and causes the wall to project outwardly (fig. 8). A longitudinal section through the wall, therefore, shows us two evaginations lying at the upper end, the one above the other, in which the supporting lamella becomes very much thinner. The lower one is caused by the marginal spherule, the upper by the circular muscle; the former contains a hollow space and is lined by a weak muscular layer, the interior of the latter is almost completely filled by the deep muscular folds, whose arrangement is more minutely given in fig. 9. The ramification of the separate folds decreases both above and below, so that the circular muscle is gradually transformed into the usual muscular layer.

The entire absence of the tentacles is a striking feature of the oral disk; they are replaced by openings like buttonholes (fig. 6), which I shall term "stomidia," and on account of which I have named the genus *Polystomidium*. Their exact number could not be directly determined, as the oral disk was greatly injured in many places, but, bearing in mind their relation to the septa, it may be estimated at about seventy-two. In dissecting the septa we find that one stomidium opens into each radial chamber. The stomidia belonging to the intraseptal spaces are usually smaller, and form an inner circle by themselves; the stomidia of the interseptal spaces alternate with them, and are placed in an outer circle; their longitudinal diameter runs in a radial direction, and amounts to about 0·5 cm.