

In contrast to the sterile muscular septa, it is the last twenty-four pairs of septa which alone bear the reproductive organs (fig. 4, *g*), but, on the other hand, have neither muscles nor mesenteric filaments; they have, moreover, undergone retrograde formation, for they merely project as small folds in the angle between the wall and the pedal disk, and only extend up the wall as far as the circular constriction described above. We can distinguish two parts on each septum, the free margin, which is thickened by the layers of reproductive elements and much folded, and a thin veil-like membranous part which, like a mesentery, fastens the reproductive organ to the pedal disk and wall.

The septa of a reproductive pair are always unequal in size, and that one of them is always the largest which stands next the muscular septum of the higher order.

Enveloped in the same bit of cloth as the four specimens of *Ophiodiscus*, there was a peculiar, dendritically branched body, which may possibly have belonged to one of the animals as an appendage of the wall from which it had been torn away; I shall therefore give a supplementary description of it.

The pseudo-tentacle—as I shall term it in what follows, though I do not wish to settle its signification—is a very dainty, delicately-walled formation (fig. 8); a short basal stem is almost immediately divided into numerous branches, and these, undergoing repeated dichotomy, finally form a terminal bush of club-like twigs. The principal branches frequently anastomose, so that it is difficult to subdivide the brush of tentacles according to its principal ramifications, which, moreover, form here and there small vesicular swellings.

By the help of weak magnifying power we can make out accurately the nature of the ramification and the form of the twigs (fig. 9). Each new branch is separated from the preceding by a circular constriction, and begins and ends with a small swelling. One of the twigs formed by dichotomy is usually behind hand in becoming branched, and this is specially apparent at the ends. These present three points, as one of the twigs caused by the last bifurcation only is redivided, whilst the other remains simple.

Like the tentacles, the pseudo-tentacle contains a hollow space, which is without doubt an evagination of the gastrovascular system; we can also distinguish three layers, an inner layer, probably endodermal, an outer, ectodermal, and the intermediate supporting lamella. Within the latter small fusiform cells are enclosed in a perfectly homogenous fundamental substance (fig. 10). Strong, circular muscular fibres run in the ectoderm; seen from the surface these caused an annulation of the branches which becomes less distinct at the ends. Transverse and longitudinal sections are necessary in order to make out the position of these fibres. In these sections I also observed fine fibres on the endodermal side; they were arranged longitudinally, and consequently crossed the course of the others. They also seemed to be of a muscular nature.

The epithelial layers were badly preserved, the ectodermal layer all but wanting, and the endodermal merely showed a thin layer of protoplasm with scattered nuclei.

What grounds have we for assuming that the structure described above is a com-