

The trunk, from which these ramifications proceed, being divided into two main branches, two systems of supporting lamellæ are present, radiating respectively one from each of these; the two systems are contiguous in the median plane of the muscle, thus giving rise to repeated fusion of their respective supporting plates. The muscular layers become consequently detached into bundles of muscles, and the endodermal muscles partially transformed into mesodermal. The pleatings of the same system rarely become connected with one another by lateral lamellæ, though this is more frequent at the point where the circular muscle passes transversely through a septum; indeed here they are often connected to such an extent that a great part of the muscular fibrillæ runs for some time entirely in the mesoderm.

In the upper half of the wall we find small endodermal evaginations, which grow like glands into the underlying connective substance (Pl. VIII. fig. 4), and show a streak of blackish colouring in transverse section. Their cæcal end nearly reaches the ectodermal epithelium, but is always separated from it by a thin partition of connective substance, so that we never find small openings comparable to cinclides. The colouring is caused by the accumulation of black pigment granules in the endodermal epithelium. The endodermal muscular layer is not so thickly pleated throughout the region of evagination as in other parts of the wall. The evaginations seemed to me to be present only in the intraseptal spaces, but they were so frequent there that many intraseptal spaces showed three of them in radial section.

The oral disk and tentacles did not admit of detailed examination; enough that both parts possess an ectodermal, richly-pleated muscular lamella. The septa, on the contrary, are of special interest, firstly, from the constitution of the muscular system, and, secondly, from their arrangement (Pl. VIII. figs. 3 and 5).

The longitudinal muscles of the septa are developed to an extent which I have never met with in any other Actinia; they form thick swellings, showing an extremely delicate figure in transverse section. The pleatings of the supporting substance, which are covered with muscular fibres, are thickly branched, lie closely together, and pass one between the other in such a way as to form in transverse section what one might almost call a "meandrous complication," although the supporting layers never absolutely become fused. The mass of the muscle actually projects above the surface of the septum, and presents a mushroom-shaped appearance, caused by the constriction at its base.

The muscular swellings lie on the septa till within a short distance from the wall and from the oesophagus; there the muscular fibrillæ extend in a smooth layer, and only become again more closely pleated when still nearer the wall. A slight parietobasilar muscle on the side of the transverse muscular layer corresponds to this second longitudinal cord.

All the septa are grouped in pairs in such a way that, with the exception of the two