

In the strongly contracted condition, shown by the specimen, the body appears to be as high as broad, and also of equal breadth in the region of the pedal and of the oral disks. On dissecting the animal, however, it becomes evident that if the height of the animal is to be determined by the distance of the oral margin, from the pedal disk, it will fall far short of the breadth, and, moreover, that the diameter of the contracted oral disk is considerably greater than that of the pedal disk, which it must have exceeded twice at least. When fully extended, our *Actinia* must have been shaped like a dish, the wall diverging from the narrow base towards the broad oral disk.

The wall rises from the margin of the moderately firm pedal disk, which measures about 2.5 cm. in diameter, and is irregularly wrinkled and furrowed, to a height of about 3.0 cm. ; it is covered with fifty-four longitudinal furrows, which are separated from one another by equal intervals, and reach from the lower to the upper margin of the wall. These longitudinal furrows are crossed in the lower part of the wall, by irregular transverse furrows, which become more indistinct towards the upper part. The wrinkled and knobby appearance of the lower part of the wall thus produced I consider to be the consequence of the high grade of contraction of the animal.

The wall is firm like leather, but of no great thickness ; only that portion of it contiguous to the oral disk is distended about 0.5 cm. by the contained mesodermal circular muscle. The bundles of the latter are small, and composed merely of a few fibrillæ ; they run irregularly, either singly or united in groups in the fibrous connective substance. They are separated from the ectoderm by a broad interspace, but extend nearly to the circular muscular layer of the endoderm, and are even connected with it in some parts, so that steady growth of the circular muscle undeniably takes place by the transformation of endodermal elements into mesodermal. The principal mass of the circular muscle still extends downwards a little way, in a layer of mesodermal bundles of fibres, lying close under the endoderm.

The oral disk bears fifty marginal tentacles, and is covered with an equal number of radial furrows, which begin at the oral margin and end between each two tentacles. The radial swellings lying between the furrows are flattest near the mouth, and become more distinct in proportion as we approach the tentacles. This proceeds from the distribution of the muscles, which are very weak near the oral margin, and become stronger towards the periphery till they swell out into the powerful muscular masses of the tentacles. The muscular fibrillæ are remarkably strong, partly perhaps in consequence of having swollen from the unsatisfactory state of preservation. Their principal mass lies united in thick bundles in the mesoderm ; where the muscular system is weak the bundles are scanty, and the separating tracts of connective tissue broad, whilst towards the corona of tentacles the bundles lie close to one another, and the fundamental substance becomes a slender framework. As muscular fibres still remain in the ectoderm the oral disk, if well preserved, would furnish an admirable subject for studying