

*Dimensions.*—Pedal disk, 2·5 and 1·5 cm. ; height, 1·2 and 0·5 cm.

The two Actiniæ, which I shall now briefly describe, belong to that class of specimens in which the shape of the body has been so decidedly modified by the high grade of contraction, and the colour is so completely gone from the action of the alcohol, that we must observe very great caution in referring them to any species hitherto figured and described. We must also bear in mind that in the case before us, even the larger specimen under examination is not yet mature, and we must therefore consider that the structure may undergo considerable changes in the course of growth.

The pedal disk and wall are tough-walled ; they seem to have been perfectly smooth in a fresh condition, and only to have become irregularly wrinkled and pleated in consequence of being preserved. The wall is thickened two or three-fold for a short space at the upper end by the circular muscle. The latter is separated from the endoderm by a narrow layer of connective substance, and greatly resembles in form the circular muscle of *Tealidium cingulatum* figured in Plate VI. fig. 2. Seen in transverse section, it widens towards the upper end like a club, though not so strikingly ; towards the lower end it runs out into a fine point, by which it nearly reaches the endoderm. The bundles of fibrillæ are formed of a few very strong fibrillæ, which are apposed one to the other in form of a ring in transverse section ; they are separated by a sparse layer of interstitial substance, and are only indistinctly arranged in larger and smaller groups. The smallest bundles are found towards the lower pointed end, where they often merely consist of from three to four fibrillæ.

The tentacles, whose number may be roughly estimated at about a hundred, are placed in three circles, the innermost are the longest and decidedly the strongest ; they measure more than 0·6 cm., even in the contracted animal, whilst the outermost present very thin filaments only 0·3 cm. in length. I could not perceive any terminal openings. The muscular system on the surface is a repeatedly folded layer of ectodermal fibres, which also pass uniformly on to the oral disk. By this difference, and also by the varying character of the circular muscle, *Dysactis rhodora* can be at once distinguished from *Dysactis crassicornis*, in which the muscles of the oral disk and the tentacles have passed into the mesoderm, whilst the circular muscle lies close under the endoderm.

Any description of the œsophagus would be of little interest. I shall therefore pass this over, and proceed at once to discuss briefly the septa, the regularity of whose arrangement is remarkably clear in section. There are in all four orders ; the six pairs of principal septa and the six pairs of secondary septa are perfect, and only distinguishable from one another by the former being more muscular than the latter. The septa of the third order are imperfect and essentially smaller, whilst the last septa are narrow, thin lamellæ. In the quadrant, used for investigation, the septa of a cycle