

compressed cylinder; it becomes a little broader towards the pedal disk, but very markedly so in the upper half, so that the margin of the oral disk is turned outwards even when the animal is fully contracted.

The pedal disk and oral disk are thin-walled, but the wall itself is of considerable thickness; its upper surface is smooth, for though there are oblique and longitudinal wrinkles and furrows they are plainly owing to contraction. There is no circular muscle, as may be gathered from the form of the anterior end of the body. A single row of tentacles stands on the margin between the oral disk and wall; they look like long, wide, thin, membraned sacs, and do not become smaller at the ends. A firm clasp, quite 1 cm. long, runs on the outer wall of the tentacles, as a prolongation of the body-wall; it is broadest and thickest at the base, and gradually becomes narrower and thinner towards the end. As the tentacles, in consequence of contraction, are turned over towards the oral disk, the tentacle clasps are also bent inwards like a scimitar, many of them so much so that they lie obliquely above the oral disk. I was unable to determine the exact number of the tentacles, as they were bent confusedly over one another, and the friable nature of their clasps prevented me from trying to separate them. They amounted, however, to more than forty.

Besides the longitudinal ridges, I found two œsophageal grooves on the œsophagus, one of them much more strongly developed than the other. After I had removed the pedal disk by a horizontal section, I was able to count the septa, of which there were thirty-eight, separated from one another by interspaces of equal size. They appeared to me all to bear reproductive organs, but only to extend partially to the œsophagus. They also projected more or less towards the centre of the pedal disk.

In this appendix I have still three forms of Actiniæ to consider besides the *Porponiæ*. The first was taken at Tristan da Cunha, at a depth of 1000 fathoms, and appears to be a *Phellia*. The body, 1.3 cm. long and 1.0 cm. broad, is covered with a finely granulated, brownish, leather-like cuticle, which is wanting on the short inverted part of the wall. A strong circular muscle, which contracts the wall to such an extent that the entrance to the oral disk is completely closed, lies in the inverted portion of the wall. I can say nothing as to the number of the very small tentacles, and I was also unable to examine the number and nature of the septa more minutely.

The two other forms of Actiniæ were taken along with the four specimens of *Cereus spinosus* and the single specimen of *Porponia robusta*, at a depth of 1875 fathoms, on June 17, 1875, at station 237 (lat. 34° 37' N., long. 140° 32' E.); like the Actiniæ just mentioned, they had been placed in chromic acid, and were therefore but little adapted for examination.

In the one instance I had to do with an Actinia, which so strongly resembled the *Dysactis crassicornis* described on page 44, that I was long inclined to consider it as the same species. As in *Dysactis crassicornis*, the muscles on the oral disk and