

The wall is small in height, and divided by a deep circular constriction into an upper and a lower half (fig. 9); it appears, on the whole, smooth and only furrowed irregularly on the surface in consequence of the contraction of the animal. The circular layer of fibres on the inside is very weak, both because the separate fibrillæ are very fine, and because the layer, formed by them, is only slightly pleated. The circular muscle at the margin of the peristome is also insignificant; it lies immediately outside the tentacles, and produces about four or five narrow circular swellings on the inside of the wall (fig. 1). It belongs completely to the mesoderm, in which it is embedded as a very narrow streak, close under the endoderm. The fibrillæ, like those of the wall, are very fine, and united in small bundles which lie close to one another, and are only separated by a small amount of intervening substance. In transverse section, and under weak magnifying power, the muscular layer therefore presents the appearance of a finely granulated mass.

The most important parts for the definition of the species are the oral disk and its tentacles. The surface of the oral disk is marked by sixty-four radial furrows, which run from the swollen margin of the mouth towards the bases of the tentacles, and are caused by the attachments of the septa. They are, moreover, correlated with the arrangement of the radial muscles, the layer of which always either becomes thinner or is completely interrupted along a line below every furrow. The muscles are further mesodermal, and so deeply embedded in the supporting lamella that they lie at equal distances from the endodermal and the ectodermal surfaces. The separate fibrillæ (fig. 6) are very powerful, and the way in which they are grouped gives rise in transverse section to a figure recalling the conditions known in the vertebrata. A few fibrillæ are closely compacted into a primitive bundle, several such bundles unite to form a secondary bundle (fig. 8), and these again are united into larger groups. Each portion of the muscular layer lying between two radial furrows contains several groups of such bundles.

There are sixty-four tentacles in all, distributed in two alternating circles. They present a very unusual appearance, and are short knob-like elevations with a broad oval base, and are pierced by a wide opening at the point. This gives them the appearance of sucking cups, and on this account I have named the animal *Sicyonis*. The surface is repeatedly pleated, and the interior also shows distinct circular folds (fig. 9). The walls are very thick as far as a thin margin surrounding the terminal opening (fig. 3). The radial muscular fibres of the oral disk make their way as longitudinal cords into the tentacles, and have the same arrangement in the middle of the broad layer of connective tissue as we have already discussed in the description of the oral disk. Examined in transverse section (fig. 5), they are deposited in a ring, which, however, is interrupted on the side turned towards the margin of the peristome. There the layer of connective tissue is very thick, but only contains a few isolated bundles of muscular fibrillæ. We see, moreover, in longitudinal section (fig. 3), that the cords of muscular fibres do not make