

begin at a little distance from the margin of the pedal disk, become less distinct as they run upwards, and disappear towards the margin of the peristome. Besides the furrows the body is covered with numerous small papillæ, which can only be distinctly recognised with the magnifying glass, and which show a pattern like shagreen on the wall, as they are all of the same size and closely compacted. The entrance to the oral disk is surrounded by a circular swelling projecting above the surface, which belongs to the upper end of the wall; a shallow circular furrow runs near the lower end at a short distance from the margin of the pedal disk.

Nothing further could be observed in the uninjured animal, and on account of its smallness and strong contraction no further results could be expected from a dissection with scissors and knife. I therefore cut out a piece about the size of a quadrant, in which I examined the circular muscle, the oral disk, the tentacles, the œsophagus, and the septa in transverse sections, changing the plane of the section as occasion required.

The circular muscle, which lies in the mesoderm, is so powerful in *Tealidium* that the bulk of it has not room enough in the thickness of the wall. Just as a purely endodermal circular muscle causes a circular swelling on the inside, so this strong mesodermal muscle causes a similar swelling on the outside, as the surface of the wall is arched out to nearly four times the usual thickness; it can be recognised by simply looking at the animal, and has already been briefly mentioned. It probably becomes still more apparent when the *Tealidium* is extended, and then produces a girdle under the origins of the tentacles, on account of which I have named the form *Tealidium cingulatum* (Pl. VI. fig. 2). The entire mass of the muscle is club-shaped in transverse section. The smaller end, which is turned downwards, runs out into a fine point, which extends nearly to the endoderm, through the broad intermediate layer of connective substance.

The separate muscular fibres are fine, and so are the primitive bundles formed by them; from the manner in which the latter are grouped, it seems probable that they arise from division of larger bundles, of which a few still remain (Pl. VIII. fig. 8). The process of division seems to go on very rapidly in the peripheral parts, as we there find not only groups of two, three, and four fibrillæ enclosed in the fibrous connective substance, but very frequently completely isolated single fibrillæ (Pl. VIII. fig. 7).

There was nothing remarkable about the oral disk and the tentacles; their radial longitudinal muscular fibres are ectodermal, and extend in an almost smooth layer, which is only distinctly pleated at the bases of the tentacles. The number of the tentacles which are distributed in two circles amounts to twenty-four; they are of no great length, so that they are completely hidden under the contracting circular muscle.

The number of the septa in the quadrant examined amounted to seven; as they usually correspond to the longitudinal furrows already mentioned, their number in the entire animal must be reckoned at more than twenty. Their paired arrangement is shown by the course of the muscles; two directive septa were present in the quadrant, so that there is no