

The inner wall is made up of large cells, of various shapes, according to their position in the animal. Low down in the stem (Pl. XX. *Fig. 2*) the brown cells of the digestive cavity cover this wall so thickly, that the cells cannot be discovered very distinctly; but at the neck, which is, comparatively, quite transparent, they may be made out with considerable clearness. Here they are curiously curved, prismatic, wedge-shaped cells (Pl. XI^c. *Fig. 14, d e*; Pl. XXIII^a. *Fig. 12, d e*; Pl. XIX. *Fig. 4, a*), with their narrower ends inward, and each one occupying the whole thickness of the wall. Their outer, broader ends, do not conform to the inner surface of the outer wall (Pl. XI^c. *Fig. 14, b*; Pl. XIX. *Fig. 4, b*); but each one is more or less rounded, so as to leave interspaces between them and the aforesaid wall. In the head these cells are much larger (Pl. XIX. *Fig. 2, a a'*), and have straight parallel sides above and below; but, like all cells which converge around a central axis, they are wedge-shaped laterally. Their outer ends (*Fig. 2, a'*) have an irregularly polygonal shape, and overlap each other with lateral expansion. Like those in the neck, they have very transparent, homogeneous contents, and do not appear to be mesoblasted. The red, granular lining of the digestive cavity and the stem, consists of very irregular cells (Pl. XI^c. *Fig. 14*; Pl. XXIII^a. *Fig. 12, d d*), which project their tail-like prolongations between the rounded ends of the cells of the inner wall; they contain a large, irregular, dark mesoblast, which seems to be the cause of the color in this lining.

The cells of the inner, or axial wall of the tentacles, meet in the centre, and form a double row (Pl. XIX. *Figs. 2, a²*, and *3, a d*). When seen under a low magnifying power, they appear like transverse partitions, in the axis of the tentacles (Pl. XVII. *Figs. 11, t*, and *11^a*); but a closer examination with highly magnifying powers shows them to be arranged in two rows, one above (*Figs. 2, a³ a⁴*, and *3, b*) and one below (*Figs. 2* and *3, a*). At the base of the tentacles there is, oftentimes, an irregularity in their arrangement, sometimes one cell and sometimes three occupying the axis; but this is owing to the fact that the inner walls of the head and tentacles pass gradually into each other, so that there is no dividing line between the two. The thick, irregular column (*Fig. 2* and *3, g*) running along the middle of the tentacles, as seen laterally, is the double wall, formed by the meeting of the cells of the upper and lower sides. The mesoblasts of these cells appear like coarse, irregular granules, imbedded in the double walls at their line of junction. In the perpendicular plane of the axis the walls of the cells meet each other in such a manner as to form uniform lines, from the upper to the lower side of the tentacles (*Fig. 2*); but, at the surface (*Fig. 3*), they often meet with opposite curves, or at broad angles.

The horny sheath (Pl. XVII. *Figs. 2, s, 9, c, 11, c*, and *15, c*; Pl. XIX. *Figs. 2, c*, and *4, c*; Pl. XX. *Figs. 1, a, 2, c, 3, c*, and *6, c c'*) is composed of irregular con-