

lying next the outer wall (*Figs. 15, g, and 16, g*). When viewed in front, so that they seem standing side by side, they appear like a coarse net-work (*Fig. 15, h'*), with thick meshes and irregularly polygonal interstices. At the end of the proboscis (*Fig. 15, k*) they are much smaller, and so, likewise, above, in the stomach (*h'*), where they gradually diminish and grow fainter as this wall thins out and passes into the disk. The continuation of this wall into the tentacle, where it is the inner wall (Pl. XIX. *Figs. 17, b³, and 18, h*), is a single layer of broad cylindrical, prismatic, transparent cells, resembling those of the proboscis. At the base of the tentacle they are very easily recognized, but toward the outer end (Pl. XX. *Fig. 9*) they are not to be seen.

The cells of the innermost wall of the disk and transverse septum are still more transparent, and more sharply polygonal than those of the outer wall, and have a much smaller, obscure mesoblast (Pl. XIX. *Fig. 24, a*). Alcohol brings them out clearly, but renders them circular in outline (*Fig. 23*). The continuation of this wall, as the outer wall of the proboscis (Pl. XIX. *Fig. 15, g*), is striated or furrowed lengthwise, but does not afford any trace of cellular structure, excepting the dense collection of lasso-cells at the end (*k*) of this organ, and occasionally one higher up, imbedded in the thickness of the wall.

The lasso-cells of the hydroid (Pl. XIX. *Figs. 5 and 5^a*) and of the medusoid (*Figs. 6 and 6^a*) are, to all appearances, identical in every respect. When in an extended state, with the lasso out (*Fig. 5^a*), they are most easily understood. In this state they are much smaller than when the lasso is still within its cell (*Figs. 5 and 6*). The wall of the oval cell is of even thickness throughout, and has perfectly clear contents *Fig. 5^a, c*). The base (*b*) of the lasso, forming a sort of bottle neck to the broader part (*a*), and about two thirds as long, is also hollow, but has thinner walls. The end of the neck is surrounded by three recurved barbels (*c c'*), which are placed at equal distances from each other; and, without doubt, are hollow protrusions, communicating with the cavity of the neck. Just beyond these, the neck suddenly contracts, and tapers for a short distance (*b'*), and then again contracts (*d'*); from this point the lasso gradually thins out into a long and extremely slender thread (*d*). The hollow extension from the neck can only be traced to about one half the length of the lasso; the rest of the thread is so slender that it appears as a mere dark line. When only the neck and barbels are extruded (*Fig. 6^a*), the rest of the thread looks like a spiral mass (*d*) in the centre of the cell, connected with the edge of the mouth (Pl. XIX. *Fig. 6^a, f'*) by a reverted hollow tube (*a*). In this state the lasso-cells give the tip of the tentacle (Pl. XIX. *Fig. 3, f*) of the hydroid, and the bunches (Pl. XX. *Fig. 9, b*) on the tentacles of the medusoid, a bristling appearance. In a closed state, the cell contents are very difficult to resolve. The axis is occupied by a