

geneous layer. In the older portions of this layer these cells are very irregularly arranged (*Figs. 5^a, d*, and *5^e, b*), and appear like imbedded crystalline bodies. In a young hydroid with two tentacles (*Fig. 5*), the cells (*a¹*) of the outer wall are already very faint. The outer wall of the adult hydroid is so excessively transparent, that we have not been able to discover any thing more than a faint indication of large, broad cells; these are most satisfactorily seen in the proboscis (*Fig. 2^h, a*). The outer wall of the tentacles (*Fig. 2^f, a*) of the fertile hydroids, either male or female, is so thickly beset with lasso-cells that they appear to be the sole component of the layer in which they are imbedded. Lasso-cells, identical with these, are scattered all over the outer walls of the hydroids and the medusoids (*Figs. 3, 7, l*, and *8, l*). The intimate structure of the long, cylindrical tentacles of the sterile form, has not been carefully investigated, but enough has been seen to warrant us in saying that they very closely resemble those of *Clava*. The inner wall (*Fig. 5^b, b¹*) of the young hydroid has a close resemblance to the outer one (*a¹*), but the cells are more regular and columnar. They, too, form but a single columnar layer, the inner ends abutting on the chymiferous channel (*c*). In the anastomosing chymiferous canals (*Fig. 5^a, c*; Pl. XXVI. *Fig. 18, a*) these cells are almost as irregular, both in shape and arrangement, as in the outer wall; still, their longer diameters have a greater trend toward the centre of the canal (Pl. XVI. *Fig. 5^e, d*, wood-cut 34, *a*, p. 231. and Pl. XXVI. *Fig. 18, a*, Vol. IV.). The inner wall (Pl. XVI. *Fig. 3, b*) of the adult hydroids has a columnar structure, like that represented in the proboscis (*Fig. 2^h, b*), consisting, through the whole length of the body, of broad columnar cells, each one of which extends from the outer to the inner surface of the wall.

The Lasso-cells.—There are two kinds of lasso-cells imbedded in the outer walls of the hydroids and medusoids, one of which is much larger than the other. The larger ones (*Fig. 11, a, b*) are very small, when compared with those of the Polyps, and when seen with a magnifying power of six hundred diameters, appear to the eye to be about one seventh of an inch long. They have an oblong-oval shape, slightly narrowed at the open end (*Fig. 11, a*). Professor Clark has ascertained that the interior contains a spiral coil of filament and a central thick column, which bears the same relation to the spiral coil as obtains in the lasso-cells of *Cyanea*, *Aurelia*, *Coryne*, and the Polyps generally.¹ When the lasso is extruded (*Fig. 11, b, b¹, c*) we see that it differs from that of any other hydroid, and has the character of that of the strobiloid *Medusæ* and of Polyps. The everted central column (*Fig. 11, b¹*) is elongate fusiform, and has about the same length as the cell from which it is protruded. It is endowed with a double spiral row of cilia;

¹ See the remarks of Prof. Clark on this subject, and especially on the lasso-cells of *Coryne*, p. 209.