

It has just been said that the caudal prolongations of the clavate tissue may be traced into the fibrillated layer, but I have not succeeded in satisfying myself that the fibrillæ are directly continuous with these prolongations, as Kleinenberg has shown to be the case with the ectodermal fibrillæ of *Hydra*, in their relations to the caudate ectodermal cells of this genus, which, notwithstanding their superficial position, admit of an obvious comparison with the clavate tissue of *Myriothela*.

The general structure of the ectoderm of *Myriothela* is that now described. In the globular capitula, however, which terminate the tentacles, we have a most singular modification of those structures which lie external to the hyaline mesosarc. Here the place of the caudate cells is taken by a remarkable tissue, composed of closely appressed transparent prisms, or, to speak more exactly, of greatly elongated pyramids, which are attached by their apical ends to the mesosarc of the capitulum, and thence radiating outwards, terminate at some distance within the outer boundary of the capitulum in a convex surface, which slightly exceeds that of a hemisphere in extent. The whole body thus formed by this columnar tissue caps the hyaline mesosarc and subjacent endoderm of the summit of the tentacle.

Radiating from its convex surface, a multitude of cnidopods may be seen. These make their way among the cells of the ectoderm, and terminate distally at a short distance within the surface of the capitulum, where each carries on its summit a peculiarly modified large thread-cell with its enclosing cnidocyst. The cnidocyst carries close to its distal end a well-developed cnidocil, and is completely filled by the firm refringent capsule, within which may be seen a transparent cylindrical chord wound in two or three coils. The capsule is easily liberated from its enveloping sac, and under slight pressure the contained chord may sometimes be ejected through its distal end. The whole assemblage of sacs, with their included capsules, forms a zone parallel to the surface of the capitulum and a little within it.

Notwithstanding the indubitable relationship of the bodies just described to ordinary thread-cells, they differ from these in some important points which would lead us to believe that some function has been assigned to them, which is not that of the defensive or offensive office of the thread-cell.

The difference between them and the thread-cells, as usually seen in the Hydroida, is sufficiently obvious. The included chord does not, like the filament of an ordinary thread-cell, consist of a wider portion continuous with a narrower one, which during ejection becomes evaginated through the wider, but on the contrary possesses a uniform diameter considerably greater than that of the filaments of the typical thread-cell, and instead of presenting, as in the latter, a vast multitude of coils rolled together into a regular spiral or into a complicated mass it has only two or three such coils. Further, when ejected from the capsule—while it still holds on by one end to the point of exit—it does not, like the filament of an ordinary thread-cell, straighten itself, and shoot across the field of the microscope, but immediately on becoming free coils itself again into a