abundant in the tentacles of both hydranth and Medusa. In such tentacles as possess a terminal enlargement or capitulum (*Coryne*, *Syncoryne*, &c.) they are especially accumulated in this enlargement. In the marginal tentacles of many Hydromedusæ, they form condensed verticillate groups regularly distributed from distance to distance along the length of the tentacle, to which they give a moniliform character. In such cases the tentacle usually terminates in a spherical enlargement which is loaded with thread-cells.

In certain other Medusæ, which are also derived from hydroid trophosomes, we meet with special arrangements of the thread-cells. Thus in the Medusa of *Gemmaria implexa*[1] we find four superficial pyriform chambers extending from the umbrella margin in the outer ectodermal wall of the umbrella, and filled with thread-cells which doubtless originate in the walls of these ectodermal chambers, and thence apparently fall into their cavities. The marginal tentacles of this Medusa give rise along their entire length to filaments endowed with great powers of extension and retraction, each carrying on its summit an oval ciliated sac filled with thread-cells. In the Medusa of *Podocoryne carnea* each of the four lobes into which the mouth of the manubrium is here divided carries a pencil of non-contractile filaments, each of which bears on its extremity a solitary capsule resembling a cnidocyst, with its cnidocil and contained thread-cell. We can scarcely avoid a comparison of these naked pedunculated cnidocyst-like bodies with the cnidocysts as they elsewhere occur embedded in the ectoderm with their basal filiform prolongations.

In *Sertularia exserta* (Pl. XXVII. fig. 1*a*), one of the new forms obtained by the Challenger, small thread-cells are accumulated in a little cushion-like prominence at the base of every tentacle (figs. 1*b*, 1*c*). In this species the hydranth presents the very exceptional character of remaining in a state of habitual extension beyond the protective covering of the hydrotheca, and the batteries of thread-cells thus disposed would seem to have as their object a compensation for the loss of the protection which in most other Calyptoblastic Hydroids is afforded by the hydrotheca.

In certain Hydromedusæ (Trachomedusæ and Narcomedusæ, see below, p. xxix) thread-cells are accumulated on the umbrella margin which they surround in the form of an urticating ring, while in most of these Medusæ accumulations of thread-cells forming narrow urticating patches stretch from the umbrella margin in a meridional direction to the roots of the tentacles, which here spring from the dorsal surface of the umbrella at some distance from the margin.

Ganglion Cells.—Quite recently Jickeli has called attention to certain ectodermal cells which he has found widely distributed in the trophosome of many Hydroids, where they lie scattered between the deeper ends of the other ectodermal cells.[2] He describes

[1] Gymnoblastic Hydroids, p. 291, pl. vii.
[2] Carl F. Jickeli, *Morphol. Jahrb.*, Bd. viii.