

Nematophores in the Statoplea.

a. *Hydrocladial nematophores*.—These are arranged in two sets on every internode of the hydrocladium, and consist of an azygous or mesial nematophore and a pair of lateral nematophores. The mesial nematophore is in the form of a tubular process springing from a point of the hydrotheca-bearing internode immediately below the hydrotheca, to the front wall of which it becomes in almost every instance adnate for a greater or less extent of its length. In a very few cases the mesial nematophore of the Statoplean Plumularidæ, while fixed immovably by its base, remains free for the rest of its course, having no adhesion to the hydrotheca (Pl. XVI. figs 1–3). In a single instance (*Aglaophenia bispinosa* of the Gulf Stream Report¹) a second mesial nematophore is developed in a longitudinal line behind the first.

The mesial nematophore communicates through its base with the cavity of the internode, just below the hydrotheca. In that portion of it which is adnate to the front of the hydrotheca it communicates by means of a longitudinal slit-like aperture with the cavity of the latter. It is always open at its distal extremity, where an aperture, usually very oblique, allows of the projection of its protoplasmic contents in the form of free pseudopodia. Besides the terminal and the longitudinal slit-like aperture there is also in many cases an aperture on its inner or hydrothecal side (Pl. XV.), just beyond the point where its distal portion becomes free from the walls of the hydrotheca. Occasionally an imperfect transverse septum exists in some part of its course (Pl. XX. figs. 4, 5).

The mesial nematophore is in a few cases adnate to the walls of the hydrotheca for its entire length. In most cases, however, its distal extremity is continued for some distance as a free process. This free distal portion of the mesial nematophore varies much in length. In *Aglaophenia* proper it is generally quite short, but in some other genera it attains a great length, being developed in the form of a long curved horn (Pl. XVIII.).

The lateral nematophores in the Statoplea are tubular, cup-shaped, or crescentic bodies, always two in number, situated symmetrically one on either side of the hydrotheca, nearly on a level with its orifice or thecostome. They spring from the hydrothecal internode with the cavity of which they communicate by their base. They terminate distally by

been described by G. O. Sars (*loc. cit.*, p. 112, pl. iv. fig. 10) as developed below the hydrothecæ in his *Halecium gorgonoide*.

Mr. Busk, in a letter which I have recently had from him, describes from a specimen in his collection but from an unknown locality a Hydroid whose affinities are with the Sertularidæ rather than with the Plumularidæ, and which yet carries on the front of every hydrotheca a small sessile nematophore-like body. Whether this is to be regarded as a true nematophore or not, can scarcely be asserted with confidence from the examination of a dried specimen. Its peculiar position, lying as it does on the front wall of the hydrotheca, without any apparently direct communication with the hydrocaulus, is certainly against placing it in the same category with the true nematophores. The Hydroid is also very exceptional in other respects, and Mr. Busk regards it as the type of a new genus, for which he proposes the name of *Greeneia*.

¹ Hydroids of the Gulf Stream, p. 46, pls. xxvii. xxviii.