in *Ascorhynchus minutus*, one packet only on each ovigerous leg. I believe, however, that cases are by no means rare in which two or even three packets are formed on one ovigerous leg. The packet is placed round the leg, and in some species (*Nymphon brachyrhynchus*, Hoek, *e.g.*, Pl. XIX. fig. 1), it may be easily brushed off. In other species, however, *Nymphon robustum*, Bell, for example, this is by no means so easy, the surface of the joints of the ovigerous legs being furnished with numerous hook-like spines.

Every egg in the packet has its own membrane, a very thin and structureless tunic. The size of the packets is very different. It varies greatly with the size of the animal, but is different also in different specimens of the same species. The size of the egg seems to be constant for every species; consequently the size of the packet will depend on the number of eggs in each packet; and the age and the condition of the female will, of course, influence this.

The egg of *Nymphon brevicaudatum*, Miers, measures 0·5 or 0·7 mm.; when in the first stages of development it is nearly globular (0·6 × 0·6 mm.), afterwards oval (0·5 × 0·7 mm.). The number of eggs in each packet varies between fifty and sixty. The egg of *Nymphon fuscum* is a great deal smaller (0·15 or 0·12 mm. The eggs of *Nymphon brachyrhynchus* are about 0·55 mm. and even in a much advanced stage of development nearly globular. Large packets of the latter species do not contain more than fifty eggs, and the dimensions of these packets vary between 3·14 × 1·85 mm. and 2·3 × 1·6 mm. The egg of *Nymphon brevicollum* has a diameter of 0·26 mm.; the number of eggs in a packet is in this species about ninety. Fig. 2 on Plate XIX. gives a section of a packet of eggs of this species. The colours are those which are seen when the object is coloured with picrocarmine, and the figure is half in outline; every egg is seen to be placed in a cavity formed by the cement which solders the eggs together (*c*), and coloured distinctly red by the picrocarmine. The large opening (*o*) in the centre is that occupied by the ovigerous leg; the small holes (*s*, *s*) are those which are left between the eggs when soldered together. On the outside mud and sand particles adhere to the packet (*m*).

So far as I know, Dohrn is the only author who has published observations on the cleavage of the Pycnogonid egg;[1] but as the method of making sections of such very small eggs was not yet in use when he published his paper, and could not, therefore, be applied by him, I might reasonably have expected to see much more than he did, by availing myself of this method of recent embryology. Yet my researches in this respect were not very successful, owing at least partly, I believe, to the condition of the material I studied. Every one will acknowledge how necessary it is, especially in embryological researches, to study fresh and also very rich material; now the Challenger Pycnogonids had been six or seven years in alcohol before I studied their eggs, and, moreover, the

[1] A. Dohrn, Ueber Entwicklung und Bau der Pycnogoniden, Jenaische Zeitschrift, Bd. v., 1869.