

orifice projected the strong glans penis; through the posterior orifice opens the duct of the mucous gland, and the aperture was partly filled by the bifid fold of the duct. The foot (figs. 14, 15, *b*) is strong and broad, projecting about 10 mm. from the sides of the body; the anterior end of the foot is truncate, rounded in outline; it has a fine marginal furrow; the tail is short, about 1.5 cm. long.

The *central nervous system* is situated on the anterior part of the upper side of the bulbus pharyngeus; it is depressed and small; the length of the cerebro-pleural ganglia is about 7 mm. The *cerebral ganglia* (Pl. XIV. fig. 4, *a,a*) are broader anteriorly, and give off four nerves from the anterior border, one nerve running backwards from the external margin and two nerves from the upper surface, one of which is fine and delicate and the other stout and swollen into a ganglion at its base (ganglion opticum?); no nerves appeared to take origin from the under surface. The *pleural ganglia* (fig. 4, *b,b*) are about equal in size to the cerebral; each is divided by a deep fissure into a smaller inner and larger outer portion; the latter alone gives rise to nerves—a thin delicate strand from the upper surface, and from the posterior margin four nerves, two of which are considerably stouter than the others; from the under surface spring three delicate nerves (fig. 4). The *pedal ganglia* (fig. 4, *c*) are hardly smaller than the cerebro-pleural, and oval in shape; the cerebro-pedal and pleuro-pedal connectives are separated by a distinct cleft (fig. 4); from the internal margin of the ganglion two nerves proceed, of which one was considerably stouter than the other; from the external margin four nerves arise, the anterior one being the stoutest; the *commissure* uniting the two pedal ganglia (fig. 4, *h*) springs from the postero-external margin of each, and shows an indistinct division into two or three bundles. The cerebro-buccal connective (fig. 4, *e,e*) is rather long; the *buccal ganglia* (Pl. XIII. fig. 2; Pl. XIV. fig. 4, *f,f*), situated upon the sides of the œsophagus, are large and oval, measuring about 4.25 mm. in length; each gives off four nerves, three posteriorly and one anteriorly; the commissure uniting the two (fig. 4, *g*) was unusually long (about 2.2 cm.), no trace of a gastro-œsophageal ganglion was detected. The nerve cells of the cerebral ganglia measured as much as .28 mm.

I found no trace of eyes or otocysts.<sup>1</sup> The axial channel of the *rhizophoria* was wide and showing numerous variously sized apertures on the walls; the nervus olfactorius strong and somewhat swollen at the base of the club, forming a rudimentary olfactory ganglion(?); there were no spicules in the leaves of the club; the two retractor muscles of the rhizophorion were very strongly developed. The *skin* proper of the back is easily separable from the next layer, and shows a number of perforations, which correspond to the disks mentioned above, which are certainly merely

<sup>1</sup> Although after a careful examination I have not been able to detect eyes or otocysts, it is possible that both will be eventually found. On the "abyssal theory of light" there is no reason to doubt their presence. Eyes have been detected in a species of *Pleurotoma* dredged from a depth of 2090 fathoms, and in a *Fusus* from 1207 fathoms (Wyville Thomson, *The Depths of the Sea*, 1873, p. 465. K. Semper, *Die natürl. Existenzb. d. Thiere*. Bd. i., 1880, pp. 103, 262; *Animal Life*, Internat. Sci. Series, p. 420, 1881).