2. The lateral nerve, which is the strongest of those springing from the cerebral ganglion, divides almost immediately into two branches—

(i.) The one nearer the middle line (*j*) innervates the suckers situated on the wall of the proboscis (whether they be disposed as in *Dexiobranchæa* or as in the other genera of the family), and ramifies in the sucker-bearing appendages.

(ii.) The lateral branch (*k*) supplies the anterior or labial tentacle.

3 and 4. Two nerves (Pl. V. fig. 1, *h* and *i*) spring from the dorsal surface of the cerebral ganglion, and proceed to the posterior or nuchal tentacle of each side.

The more anterior and median of these nerves (*h*), which is also the stronger, is the tentacular nerve properly so called, or olfactory nerve (it has been wrongly regarded as the optic nerve by van Beneden). This nerve ends in a ganglionic enlargement, the olfactory ganglion or rhinophore, from which arise many small very ramified nerves, distributed to the terminal surface of the tentacle.

As for the true optic nerve, it is the second dorsal nerve (*i*), which arises more posteriorly and to the side, near the origin of the pedal connective. At the origin of this nerve there is found, as in many Gastropods, a small ganglionic enlargement, which I have seen especially well marked in *Spongiobranchæa*. The rudiment of the eye forms, at the extremity of the optic nerve, an enlargement almost contiguous to the rhinopore.

In a large number of Gastropods the tentacular (olfactory) nerve arises by a common trunk with the optic nerve. In the present case each has its own origin, but they show an anastomosis which recalls the condition seen in some Gastropods (for example, *Truncatella*).[1]

Finally, there arises at the side of the optic nerve, still nearer to the origin of the pleural and pedal connectives, a slender nerve which passes ventrally between the two connectives just mentioned to the otocyst. I have observed this disposition very clearly in *Spongiobranchæa* (Pl. V. fig. 3, *i*),[2] and I cannot doubt that it exists also in other genera.

II. The pedal ganglia (*b*) are united by a strong posterior and by a second anterior commissure (Pl. IV. fig. 9, *l*), more difficult of observation, which I have found in all Gymnosomata, but which has not hitherto been recorded. The homologue of this second commissure is found in a large number of Opisthobranchia (*Aplysia*,[3] for example), where it arises near the nerves of the foot, or even from one of those nerves.

Each pedal ganglion is united to the corresponding cerebral ganglion by a connective (*g*) which arises from its lateral part. The pleuro-pedal connective is invisible, the pleural ganglion being in close juxtaposition to the pedal.

[1] Vayssière, Étude sur l'organisation de la Truncatella truncatula, *Journ. de Conchyl.*, 1885, pl. xiii. fig. 18, *S'*.

[2] I am indebted to Professor Spengel for the specimens of *Spongiobranchæa* which I have dissected.

[3] Compare von Jhering, Vergleichende Anatomie des Nervensystemes und Phylogenie der Mollusken, pl. iv. fig. 14, *pa. pe. co.*