Hence it appears that the Thecosomata resemble the Bulloidea more than the Gymnosomata.

We must now inquire what are the special affinities of these latter, that is to say, what are the Tectibranchia to which they are most nearly related?

B. Gymnosomata.

As in the case of the Thecosomata we have based our inquiry on the most primitive of the group, that is, mainly on the Pneumonodermatidæ, and especially on *Dexiobranchæa*. We have already shown in the Report on the Gymnosomata[1] that the Pneumonodermatidæ are the most primitive of the naked Pteropoda, and that *Dexiobranchæa* is the least specialised among them. Wagner[2] is quite wrong in regarding *Clione* as more primitive than *Pneumonoderma*, and the latter as derived from the former.

a. In most Tectibranchs there is a proboscis of the acrembolic type, that is, produced by the evagination of the anterior part of the œsophagus, like the rather short one of *Dexiobranchæa* and *Clione* (Pl. V. fig. 4, *a*), the somewhat longer one of *Pneumonoderma*[3] and *Spongiobranchæa*,[4] and the very long one of *Clionopsis*.[5] Among the Anaspidea (Aplysioidea) we find a similar rather short proboscis in *Aplysia*, *Notarchus*,[6] &c.

b. Like the Gymnosomata the Aplysioidea have two pairs of cephalic tentacles (*Aplysia*, *Notarchus* (Fig. 4, on p. 83), *Dolabella*, &c.); the anterior pair correspond to the labial pair of the Gymnosomata, and the second pair to the nuchal tentacles of these latter, for the olfactory nerve terminates in their interior and the optic nerve at their base. In the Bulloidea, on the other hand, we know that the cephalic tentacles fuse to form the shield which is of so much importance in connection with the burrowing habits of these animals.

c. The fins of the Gymnosomata are comparable to those of the Aplysioidea.

Von Jhering[7] refuses to admit the homology of the parapodia of *Gastropteron* and the other Tectibranchia with the "pteropodia" of the Pteropoda. If these organs are absolutely homologous with the epipodia of the Prosobranchs which the French school of the Sorbonne (Lacaze Duthiers and his pupils) regard as *pallial* in nature, that is a point which I should not like to affirm; nevertheless, I regard these latter as also pedal in origin.[8] I maintain, however, that the parapodia of the Tectibranchs and the fins of the Pteropods are strictly homologous.

[1] Zool. Chall. Exp., part lviii. p. 67.
[2] Die Wirbellosen des weissen Meeres, Bd. i. p. 119.
[3] Zool. Chall. Exp., part lviii. p. 6, fig. 1, *4*.
[4] *Ibid.*, p. 19, fig. 2, *1*.
[5] *Ibid.*, pl. iii. fig. 1.
[6] Vayssière, Recherches zoologiques et anatomiques sur les Mollusques Opistobranches du Golfe de Marseille, i. Tectibranches, *loc. cit.*, p. 83.
[7] Vergleichende Anatomie des Nervensystemes und Phylogenie der Mollusken, p. 249.
[8] Paul Pelseneer, Sur la valeur morphologique de l'épipodium des Gastropodes rhipidoglosses, *Comptes rendus*, t. cv. p. 578.