leads on to a stage which is found in the Gymnosomata. Furthermore, there are in *Notarchus* many structures in which the whole organisation of the Gymnosomata may be foreseen.

The foot is entirely separated from the visceral sac, as in the Gymnosomata. The parapodia (lateral margins of the foot) have become greatly developed, but owing to a special modification their free borders have fused dorsally, forming around the body a large "epipodial" or parapodial sac, open only in front above the neck, so that swimming is performed in *Notarchus* by the parapodia it is true, but in a manner which recalls the propulsion of the Cephalopoda, the water contained in the parapodial sac being expelled by its contraction.

On the other hand the palatine roof, armed with hooks, of *Notarchus* indicates, as we have seen, the first origin of the hook-sacs of the Gymnosomata, and the lateral gill is homologous with that of the Pneumonodermatidæ. Finally, the conformation of the nervous system is identical in *Notarchus* (and also in the *Dolabella neapolitana*) and the Gymnosomata.

If, then, we assume a form nearly related to *Notarchus*, in which the free margins of the parapodia have not fused; in which the creeping foot has become shortened by disuse; in which the small rudiments of mantle and shell seen in *Notarchus* have entirely disappeared; in which the covering of hooks found on the palatine arch has been divided into symmetrical halves located in two depressions of the wall of the digestive tract (thus becoming transformed into hook-sacs like those of *Dexiobranchæa*); in which on the ventral wall of the proboscis there have been formed prehensile organs similar to the primitive suckers of *Dexiobranchæa;* and lastly, in which the gill has been somewhat simplified in its structure,—we shall have a type very close to the most primitive Pneumonodermatidæ.

In the systematic Report on the Gymnosomata (Relations of the Gymnosomata to each other[1]) I have shown how all the living forms of Gymnosomata may be derived from this primitive type. We are therefore justified in saying that the Gymnosomata are specialised Aplysioidea, adapted to extremely natatory habits, and to an entirely pelagic mode of life.

VII. SUMMARY.

A. The Pteropoda do not constitute among the Mollusca a class of the same value as the Cephalopoda, Gastropoda, Scaphopoda, and Pelecypoda.

B. The Pteropoda are not primitive Mollusca, but are a derived and recent group.

C. They have no affinity with the Cephalopoda.

D. They are Gastropoda in which the adaptation to pelagic life has so modified their external characters as to give them an apparent symmetry.

[1] Zool. Chall. Exp., part lviii. pp. 67–69.