

asymmetry of the Mollusc, any more than this latter enables us to determine the direction of the spiral (in contradistinction to the opinion of Lacaze Duthiers¹); hence an animal with dextral asymmetry may be twisted directly or inversely, or may not be twisted at all (Patelloid Gastropoda).

Besides, the direction of the spiral must be of very slight morphological importance, since in the same genus (*Neptunea*, *Pyrula*, *Vertigo*, &c.) there are some species which are dextral, and others which are normally sinistral.

1. *Limacina*.

The Head is distinct, surrounded on each side by the fins, which reach to the dorsal aspect, where is found a pair of tentacles.

These latter are asymmetrical, the left being much less developed than the right; in *Limacina helicina* and *Limacina antarctica* it is almost completely atrophied, and is situated rather posteriorly to the right. In *Limacina inflata* and *Limacina lesueuri* it is somewhat larger. In all the *Limacinae* the right tentacle is very long when fully developed (Pl. I. fig. 1, *a*), and is surrounded at the base by a short everted sheath, such as is found in certain Nudibranchs. This sheath also occurs in the smaller forms ("*Spirialis*"), where Souleyet² did not succeed in finding it.

The Foot.—The fins form at the anterior extremity of the body a natatory surface, oblique with respect to the transverse plane of the body, the ventral margin being lower than the dorsal. On this surface the mouth opens, and at the right, near the dorsal margin outside the lip, is the orifice of the copulatory organ, to which the seminal groove leads, passing from the right side of the cervical region over the dorsal border of the fin.

On the dorsal margin of the fin, near the middle, is a little tentaculiform lobe, which differs in structure from the remainder of the fin, and contains the termination of a slender nerve; probably it is a tactile organ. This lobe or papilla does not exist in all species. I have only demonstrated its presence in *Limacina helicina*, *Limacina antarctica*, and *Limacina australis*; it is wanting on the other hand in *Limacina bulimoides*, *Limacina trochiformis*, *Limacina lesueuri*, and *Limacina inflata*.

This little lobe corresponds to an analogous organ found in the subgenus *Creseis*, of the genus *Clio*. Van Beneden³ regarded it as a tentacle, and Huxley⁴ identified it with the long cephalic appendage of *Halopsyche*. These two opinions are both erroneous.

The fins are continuous and united ventrally by the posterior lobe of the foot, which is slightly notched in the middle of its ventral border, and carries the operculum. I have

¹ Du système nerveux des Gastéropodes pulmonés aquatiques, *Arch. de Zool. Expér.*, sér. 1, t. i. p. 462.

² Voyage de la Bonite, Zoologie, t. ii. p. 209.

³ Mémoire sur la *Limacina arctica*, p. 3, *Mém. Acad. Sci. Bruxelles*, t. xiv.

⁴ On the Morphology of the Cephalous Mollusca, *Phil. Trans.*, 1853, p. 41.