

2. Lips with lateral angles, and united ventrally.
3. Tentacles symmetrical, of the same size and without sheath.
4. Posterior or opercular lobe of the foot broad at the base, instead of being slightly constricted as in *Limacina*, and less developed in proportion to the fins, which are large, long, truncated at their distal extremity, and without the small tentacle-like lobe.
5. Visceral ganglia forming three distinct masses, as in the Cymbuliidæ.

*Observations.*—I. Boas has made a mistake in figuring the operculum as twisted in a right-handed spiral.<sup>1</sup> The coil is left-handed, as d'Orbigny has represented it.<sup>2</sup> This arrangement is quite unique, for in all the operculate Mollusca the twisting of the operculum is in the opposite direction to that of the shell. *Atlanta* is the only right-handed Mollusc in which the operculum is coiled to the right. In all the left-handed operculate Molluscs the operculum is coiled to the right—*Limacina*,<sup>3</sup> *Triforis*,<sup>4</sup> *Læocochlis*.<sup>5</sup> *Peracelis* thus forms a remarkable exception.

II. The initial portion of the spire does not project, so that the apex is always obtuse.

III. Boas<sup>6</sup> notes in "*Limacina*" *reticulata* (= *Peracelis*) a small tentacle-like lobe on the fin as in *Limacina helicina*; this observation was made on an insufficiently preserved specimen, and has not been figured. I have examined not only the preserved specimen of the Challenger Expedition, but living specimens from the Mediterranean, and am able to state that the fin does not bear any lobe. Costa's figures<sup>7</sup> are perfectly correct in this respect. Boas must have mistaken a fold of the fin margin for the lobe.

D'Orbigny, the discoverer of the only species as yet known, considered it, as well as all the small forms of *Limacina* (the *Spirialis* of Souleyet), as Heteropods of the genus *Atlanta*. Forbes, who gave a second specific title to the form in question, and created for it the generic title *Peracle*, also regarded it as a Heteropod. Gray also regarded it as such, under the title *Campylonaus*.<sup>8</sup>

Souleyet was the first to place this form, with a third specific title, among the Pteropods, but was unable to investigate the animal. Subsequently Costa figured the paired fins of the animal, to which he gave a fourth specific title, and made its position as a Pteropod indisputable.

The structure of the genus has, however, remained quite unknown till now. I have been able to investigate it to some extent, and to show that it is of the highest interest

<sup>1</sup> *Spolia atlantica*, pl. iii. fig. 39.

<sup>2</sup> *Voyage dans l'Amérique méridionale*, t. v. pl. xii. fig. 39.

<sup>3</sup> Souleyet, *Voyage de la Bonite*, Zoologie, Mollusques, pl. xiii.; Sars, *Mollusca regionis arcticæ Norvegiæ*, pl. 29.

<sup>4</sup> Sars, *Ibid.*, pl. xviii. fig. 31.

<sup>5</sup> Sars, *Ibid.*, pl. xviii. fig. 29.

<sup>6</sup> *Spolia atlantica*, p. 50, note 2.

<sup>7</sup> *Annuario del Museo Zoologico della R. Univ. Napoli*, t. iv. pl. iv. fig. 12.

<sup>8</sup> *Proc. Zool. Soc. Lond.*, p. 149, 1847.