As to the argument based on the relative height of the spire, the average proportion of height to maximum diameter is $\frac{40}{27}$ in *Limacina balea*, and $\frac{32}{27}$ in *Heterofusus retroversus*. But in *Spirialis gouldii*, Stimpson, identified by Sars with *Limacina balea*, and with very well marked transverse striation, the apparently very exact figure given by Stimpson[1] exhibits the above ratio as $\frac{31}{27}$, less, that is to say, than that of *Heterofusus retroversus*, while in *Scæa stenogyra*, with smooth surface, the ratio according to Philippi's figure is $\frac{37}{27}$.

It is thus seen that the relative height of the spire varies as well as the striation of the surface, and that the variations of these two features are independent. We are, therefore, led to conclude that *Limacina balea* and *Heterofusus retroversus* are not two specifically distinct forms, but belong to a single species which exhibits a certain number of varieties.

*9. *Limacina trochiformis* (d'Orbigny).

1836. *Atlanta trochiformis*, d'Orbigny, Voyage dans l'Amérique méridionale, t. v. p. 177, pl. xii. figs. 29–31.
1840. *Spirialis trochiformis*, Eydoux et Souleyet, Description sommaire de quelques Ptéropodes nouveaux ou imparfaitement connus, Revue Zoologique, t. iii. p. 237.
1850. *Limacina trochiformis*, Gray, Catalogue of the Mollusca in the Collection of the British Museum, pt. ii., Pteropoda, p. 33.
1852. *Limacina naticoides*, Rang, Histoire naturelle des Mollusques Ptéropodes, pl. x. figs. 1, 2.

For description and figures see Souleyet.[2]

The umbilicus of the shell is very small in this species. The dorsal (anterior) margin of the fin does not exhibit any tentacle-like lobe.

Habitat.—Atlantic Ocean, from 41° N. to 28° S.; Mediterranean, Naples (where I have often observed it alive), Malta (David Bruce); the shell has been dredged at a great number of localities in the Mediterranean—Crete (Jeffreys), &c.; Indian Ocean, south-east of Arabia (Blanford); Pacific Ocean, China Sea (Gray), Malay Archipelago (Copenhagen Museum); Equatorial Pacific to 152° W.; South-east Pacific to 30° S. (d'Orbigny).

Challenger Specimens.—I. Living specimens.

Between Stations 162 and 163, April 3, 1874; Melbourne to Sydney; lat. 38° 7′ S., long. 149° 18′ E.

Station 216A, February 16, 1875; north of New Guinea; lat. 2° 56′ N., long. 134° 11′ E.

[1] Shells of New England, pl. i. fig. 4.

[2] Voyage de la Bonite, Zoologie, t. ii. p. 223, pl. xiii. figs. 27–34.