

and more or less inflated, small at the commencement and rapidly increasing in size. The aperture is a loop-like or comma-shaped slit, on the face of the terminal chamber, generally inserted near the distal end, and directed obliquely or vertically downwards.

These characters are liable to modification in many different ways, and even within the limits they embody there is room for considerable diversity of aspect from variation in minor particulars. For example, the spire may have many segments in each convolution, or it may be only triserial; or, as often happens, the chambers may be so irregularly disposed that the spiral arrangement is altogether lost; the convolutions may be so drawn out that the test has the contour of a narrow cylinder, or they may be so nearly on the same plane that it resembles a depressed Rotalian; the chambers are sometimes inflated and globular, as in *Bulimina elegans*, and sometimes long and compactly fitted side by side, as in *Bulimina elegantissima*; and lastly the aperture, though the most characteristic feature of the genus, in certain cases exchanges its normal shape for that of a nearly circular opening with a border of radiating lines.

The shell-wall in recent specimens is invariably calcareous, generally very thin and transparent, and distinctly though finely perforated. The shells of a number of species are ornamented externally, either with raised longitudinal costæ, or with marginal teeth or spines, still preserving their hyaline texture. But amongst the larger fossil forms, especially those of Cretaceous age, the test is liable to become encrusted with calcareous or siliceous sand or other foreign matter, and is consequently often thick and opaque, and somewhat rough externally. Undue importance has been attached to this character by Reuss and others,<sup>5</sup> who have assigned the subarenaceous species to a distinct genus, *Ataxophragmium*,—a course for which there appears no adequate reason, and to which there are many objections.

In one form or other the genus *Bulimina* is distributed over the whole world, and though it attains its best development on sea-bottoms of moderate depth, that is to say at less than 1000 fathoms, it has been met with as low down as 2400 fathoms.

Its geological range commences with the Upper Trias (Parker and Jones); it occurs in the Oolitic, and is abundant in the Cretaceous formation; and is found more or less plentifully at every stage of the Tertiary epoch.

*Bulimina elegans*, d'Orbigny (Pl. L. figs. 1-4).

*Bulimina elegans*, d'Orbigny, 1826, Ann. Sci. Nat., vol. vii. p. 270, No. 10;—Modèle, No. 9.

„ „ Parker, Jones, and Brady, 1865, Ann. and Mag. Nat. Hist., ser. 3, vol. xvi.  
p. 20, pl. ii. fig. 64.

D'Orbigny's model, No. 9, represents a regularly triserial tapering shell, the segments of which are numerous and rather small, distinct and more or less inflated or sometimes almost globular. It serves as a central type of a somewhat numerous group of recent *Buliminæ*.