

favourable circumstances, the segmentation of the first convolution may be distinctly traced (fig. 8). There are usually about five segments in each convolution; they are convex or inflated externally, and the sutures are strongly marked. In large specimens it frequently happens that the inner margins of the segments of the terminal whorl do not meet, but leave a deep umbilical hollow, as seen in figs. 6 and 9. The aperture is an arched slit at the inner edge of the final chamber, at or near the line of union with the previous convolution. The walls are thick, and, except near the base of the test, coarsely perforated. The length of adult specimens is sometimes  $\frac{1}{5}$ th inch (1.68 mm.), or even more.

It is obvious that, from a morphological point of view, the base of the test corresponds with the superior or spiral face of the typical Rotalian shell, the successive whorls being added vertically, that is to say, on the summit of those previously formed, instead of laterally, at the circumference.

The foregoing description is drawn from well-grown typical specimens, of which the series figured in Pl. XCVIII. furnishes good examples. But the species presents considerable range of variation, and a large proportion of the specimens from some localities have the opaque shells and comparatively obscure external characters delineated in the original drawings; and this is often accompanied by defective segmentation. Occasionally the shell is incrustated with extraneous bodies, such as sand, sponge-spicules, and the like—a not uncommon feature in some of the Planorbuline genera; and sometimes the mouth is crowded with sponge-spicules, as frequently seen in *Polytrema* and *Carpenteria*.

*Rupertia stabilis* has its home in the northern portion of the North Atlantic. A few scattered examples have been found in the southern hemisphere, but it has never been taken within the tropics, nor indeed within about 35° north or south of the equator. The figured specimens are all from a single point in the "cold area" of the Farøe Channel, depth 632 fathoms, where the species exists in extraordinary abundance. Those collected by Dr. Wallich were from "three soundings taken on opposite sides of the southern extremity of Greenland—the depth in the three localities varying from 108 fathoms on the east coast, to 1205 fathoms on the west." The species occurs at thirteen "Porcupine" Stations and one Challenger Station in the North Atlantic,—the latter, off the Azores, being the most southerly—the depth ranging from 5 fathoms on the Rockall Bank, to 1360 fathoms. Poor examples have been met with in dredgings from off the Cape of Good Hope, 150 fathoms, north of the Falkland Islands, 1035 fathoms, and in the South Pacific, near Juan Fernandez, 1375 fathoms. Schlumberger's specimens were from the Bay of Biscay.

*Pulvinulina*, Parker and Jones.

*Nautilus*, pars, Soldani [1780], Fichtel and Moll.

*Serpula*, pars, Montagu [1808].

*Cidarollus*, *Eponides*, *Canceris*, Montfort [1808].

*Pulvinulus*, pars, Lamarck [1816].