

The best recent specimens of *Bolivina reticulata* are from the following localities in the South Pacific:—off New Hebrides, 130 fathoms; off Raine Island, 155 fathoms; off Kandavu, 255 fathoms; and off Tahiti, 420 fathoms. It occurs also in the South Atlantic, mid-ocean, 1425 fathoms. Specimens with intermediate characters, somewhat resembling *Bolivina decussata*, have been met with at Station 144, between the Cape of Good Hope and Kerguelen Island, 1570 fathoms.

Von Hantken states that the species is not uncommon in both the upper and lower *Clavulina-szabói* formations of Hungary.

Bolivina subangularis, H. B. Brady (Pl. LIII. figs. 32, 33).

Bolivina subangularis, Brady, 1881, Quart. Journ. Micr. Sci., vol. xxi., N. S., p. 59

Test oblong, tapering, stoutly built, more or less angular, somewhat concave or excavated on both sides; aboral extremity obtusely pointed. The angular contour of the transverse section is determined by the prominence of superficial costæ, the principal of which, six in number, are placed, one down each lateral margin and two down each face of the test. Aperture comma-shaped. Length, $\frac{1}{50}$ th inch (0.5 mm.) or less.

A rare variety, nearly allied to *Bolivina costata*. It occurs at Station 209, Philippine Islands, 95 fathoms, and at Station 185, off Raine Island, 155 fathoms.

Sub-family 3. Cassidulininæ.

Cassidulina, d'Orbigny.

Cassidulina, d'Orbigny [1826], Bronn, Reuss, Egger, Parker and Jones, Williamson, Carpenter
Brady, M. Sars, Alcock, Winther, Schulze, Hantken, &c
Burseolina, Seguenza [1880].

The arrangement of the test in *Cassidulina* is in some respects more complex than that of any other type of Foraminifera, inasmuch as it combines two distinct modes of growth, the biserial and the convoluted. This may be best understood by its analogy, in the typical condition, to a broad Textularian or Bolivine shell, doubled or folded longitudinally on the median line, and then rolled in the crease so formed from the narrow to the broad end. The flaps of each convolution extend nearly or quite to the umbilicus, and completely enclose the previous whorls. The aperture is an oblique loop-like opening, resembling that of *Bulimina*.

If the normal plan of growth be borne in mind, it is easy to understand its modifications, as represented in the commoner species, by reference to those of one of the simple planospiral types, such as *Cristellaria*. Thus, both in *Cassidulina* and *Cristellaria* there are lenticular varieties which have a sharp peripheral edge, oval and compressed