

and position, that of *Tritaxia* terminal and rounded, and that of *Chrysalidina* porous. *Valvulina*, in like manner, may be recognised by its aperture, which is an arched fissure partially closed by a valvular tongue; but it also differs from the allied forms in the disposition of its segments as well as in other particulars. The genera *Bigenerina*, *Spiroplecta*, *Gaudryina*, and *Clavulina* represent dimorphous types, closely related in one way or other to those already enumerated. *Pavonina*, though irregularly dimorphous in its mode of growth, stands somewhat apart, there being no corresponding monomorphous type to which it can be referred. The minute structure of the test in the TEXTULARINÆ displays greater variety than in almost any other group of Foraminifera of similar extent. In some species the shell-wall is thin, calcareous, transparent, and perforate, whilst in others it is coarsely arenaceous, and rough externally; and, between these extremes, almost every variety of texture may be met with. Superficial ornament of any sort is of comparatively rare occurrence.

In the Sub-family BULIMININÆ the typical plan of structure is that of a more or less elongated spire, with three or more segments in each convolution; but this becomes simplified in the weaker modifications. The genus *Bulimina* has spiral test of the typical description, but in *Virgulina* the whorls are irregular and few-chambered, and in *Bolivina* the segments take a definitely biserial arrangement. These forms have their dimorphous representative in the genus *Bifarina*. *Pleurostomella* differs from *Bolivina* chiefly in the character of the orifice. The normal aperture of the BULIMININÆ is a comma-shaped slit or loop, set obliquely on the inner face of the terminal segment; and the various forms which it assumes may generally be recognised as modifications of that typical condition. In all the recent BULIMININÆ the shell-wall is hyaline and perforate, and in certain species it is ornamented externally with longitudinal striæ or costæ, or with sharp spines. The texture of many of the larger fossil forms is subarenaceous, though the test retains its perforate character, and is seldom coarsely rugose externally.

The Sub-family CASSIDULININÆ constitutes an essentially biserial group. The primary arrangement of the segments is that of *Textularia*, or rather, having reference to the nature of the aperture, of *Bolivina*; but in the typical condition the structure is complicated by the helicoid mode of growth,—the biserial line of segments being partially folded lengthwise, and then coiled upon itself from the primordial end. In the genus *Cassidulina* the test is either convoluted and involute throughout, or the later portion is projected in a straight or curved line. In *Ehrenbergina* the shell is unfolded and unrolled almost from the beginning, and so furnishes the connecting link between *Cassidulina* and the biserial BULIMININÆ. In *Orthoplecta* the segments are combined in an irregularly alternating or spiral series, and form a cylindrical test without helicoid commencement. The aperture in the CASSIDULININÆ resembles in all respects that of the BULIMININÆ. The minute structure of the investment, whether in recent or