

In the structure of its test, the large fusiform *Miliola* of the coral-reefs differs equally from the normal forms with homogeneous shell-wall and smooth exterior, and the coarsely arenaceous types. Its minute texture, as shown in the longitudinal section (fig. 18), is that of a thin imperforate porcellanous layer with embedded sand-grains; the siliceous grains being generally rather more numerous than appear in the figure, as some are unavoidably lost in process of making a section. The young shell somewhat resembles *Miliolina saxorum* in general contour, but the segments are more discrete and rounded, and even in the very early stage, whilst the surface is but slightly arenaceous, the species is easily identified. The cribrate aperture is a character of the genus *Hauerina*, rather than of the true *Miliolæ*; there are, nevertheless, important exceptions, such as *Miliolina saxorum*, Lamarek, and *Miliolina (Quinqueloculina) fabularioides*, Karrer, in which the porous condition of the orifice is a distinctive feature. In the present species the orifice is often so obscured by sand-grains as to be scarcely discernible.

*Miliolina alveoliniformis* is essentially a coral-reef species. So far as has been noticed hitherto, it is not very abundant in any single locality, but is of moderately frequent occurrence in littoral and shallow-water sands—that is to say, at depths of less than 50 fathoms—amongst the islands of the Pacific, in the Red Sea, and in the West Indies. That its bathymetrical range is not strictly limited to the shallower zones is indicated by the occurrence of a few specimens in a sounding from a depth of 420 fathoms, off Tahiti.

### Sub-family 3. *Hauerininæ*.

#### *Articulina*, d'Orbigny.

*Nautilus*, pars, Gmelin [1788], Batsch.

*Articulina*, d'Orbigny [1826], Bronn, Reuss.

*Vertebralina*, pars, Parker, Jones, and Brady [1865], Karrer.

The genus *Articulina* comprises a group of dimorphous *Miliolæ*, in which the typical Triloculine or Quinqueloculine arrangement of the chambers prevails during early life, but subsequently gives place to a rectilinear mode of growth. The relative development of the two portions of the shell varies much more in *Articulina* than in *Vertebralina*. In certain species the linear chambers are never conspicuously developed, and the affinity can only be determined by the contour of the Milioline segments and the form of the aperture; in some, the linear portion consists of only one or two segments; whilst in others the test is a long *Nodosaria*-like line of chambers, in which the Milioline characters are confined to a small bulbous or knot-like swelling at the primordial end of the shell. The aperture of *Articulina* is usually situated in a deep bordered depression