

Turning now to the NUMMULITINÆ,—the little Carboniferous fossil, *Archædiscus*, exemplifies the lowest type of Nummuline structure, and stands in very much the same relation to the genus *Nummulites* that *Spirillina* bears to the higher Rotalines. The shell is lenticular, and consists of a non-segmented tube of gradually increasing diameter, coiled upon itself somewhat unsymmetrically. The wall of the tube is extended laterally over the two faces of the test in the same way as the alar prolongations of the chambers of the true Nummulite. There is no secondary skeleton, but the walls are thick and laminated and finely tubulated. The genus *Amphistegina* presents a structure considerably in advance of *Archædiscus*, corresponding with that of *Pulvinulina* in the Rotaline group. The test is lenticular, the two faces being unequally convex; the segments are narrow and equitant, but their alar extensions on the inferior side are each divided into two portions by a deep constriction, so that the umbilical ends form a series of distinct lobes. The aperture resembles that of the *Rotalinæ*,—an arched fissure at the inner margin of the final segment on the inferior side. The typical aspect of the genus *Operculina* is that of a thin, complanate, planospiral shell of somewhat large dimensions, the convolutions of which are all visible externally, though the earlier ones are more or less embracing; the chambers are usually very numerous, narrow, and undivided, and the aperture a simple cleft at the inner margin of the terminal segment. *Heterostegina* displays similar general features, but the chambers are subdivided by transverse septa, and the aperture takes the form of a row of pores on the exposed septal face. The genus *Nummulites* is closely related to *Operculina*, but exhibits a further advance in structure and organisation. The true Nummulite has a discoidal test, the two faces of which are as a rule equally convex, formed of several convolutions, each of which completely invests its predecessor. The spire does not increase in diameter so rapidly or so regularly as that of *Operculina*, and in the larger varieties the final convolution becomes gradually contracted at its peripheral margin, until it closes in the shell. The septa are double, and are traversed by a system of canals, which communicates with that of the marginal portion of the supplemental skeleton.

The two genera constituting the Sub-family CYCLOCLYPEINÆ afford instances of an annular instead of a spiral mode of growth. The test both of *Cycloclypeus* and *Orbitoides* is discoidal and bilaterally symmetrical, and either lenticular in contour or complanate and thickened only at the centre. It consists primarily of a median layer composed of chamberlets arranged in concentric zones. In *Cycloclypeus* this median plane of chambers is thickened on both sides, chiefly near the middle, by layers of finely tubulated shell substance; whilst the test of *Orbitoides* presents similar lateral masses, composed of layers of minute chamberlets irregularly combined. In either case the canal system is traceable both through the central and superficial portions of the shell.

Concerning *Eozoön* and the provisionally constituted Sub-family EOZOÖNINÆ, it is needless to speak, so long as the claim of the former to be ranked as a member of the animal