

superior surface, those of the last convolution only on the inferior or apertural side, sometimes one face being more convex, sometimes the other. Aberrant forms evolute, outspread, acervuline, or irregular. Some of the higher modifications with double chamber-walls, supplemental skeleton, and a system of canals.

Sub-family 1. **Spirillinæ**,—test spiral, non-septate.

Test a complanate, planospiral, non-septate tube; free or attached, *Spirillina*, Ehrenberg.

Sub-family 2. **Rotalinæ**,—test spiral, Rotaliform, rarely evolute, very rarely irregular or acervuline.

Test conical, consisting of an external layer of spirally arranged or annular chambers divided into chamberlets; the interior of the cone filled either with hyaline shell-substance or by an aggregation of compressed chambers, *Patellina*, Williamson.

Test more or less trochoid or complanate. Segments of the trochoid forms spiral at the apex, subsequently arranged concentrically round a deep umbilical vestibule with which each chamber communicates by a neck. Complanate forms with rows of pores along the septal depressions of the inferior surface. Pelagic type, with large inflated chamber covering the base of the shell, *Cymbalopora*, Hagenow.

Test free or adherent, Rotaliform; planoconvex or trochoid rarely complanate; aperture an arched slit, often protected by an umbilical flap—the flaps sometimes forming a whorl of subsidiary chambers. Shell somewhat coarsely porous, *Discorbina*, Parker & Jones.

Test normally adherent; compressed or complanate segments very numerous; commencing growth on a spiral plan, but subsequently becoming more or less cyclical; the lipped apertures of the individual segments opening externally at the periphery. Aberrant varieties often wild-growing and irregular, sometimes acervuline. Shell-wall coarsely porous, *Planorbulina*, d'Orbigny.