The central capsule of the ACANTHARIA has hitherto been for the most part confounded with that of the SPUMELLARIA, and no clear distinction has been drawn in this respect between the two legions of the Porulosa. Hertwig, who in 1879 first discovered the remarkably different structure of the Osculosa (NASSELLARIA and PHÆODARIA), recognised no distinction between the structure of the capsules in the PERIPYLEA and ACTIPYLEA (his Acanthometrea), and supposed that in both these legions "very fine pores were evenly distributed in large numbers over the capsule-membrane" (*loc. cit.*, p. 106). I have, however, during the last few years convinced myself, by the careful comparative investigation of numerous ACANTHARIA, that in this respect they are quite distinct from the SPUMELLARIA (with perhaps the exception of the Astrolophida, which are nearly related to the primitive *Actissa*). The number of pores in the ACTIPYLEA is usually very much smaller than in the PERIPYLEA, and they are regularly arranged in groups.

59. *The Capsule-Openings of the Monopylea (or Nassellaria.)*—The capsule-membrane of the MONOPYLEA always possesses a single large main-opening, an osculum, which lies at the basal pole of the main axis, and is closed by a circular perforated lid (operculum porosum). When seen from the surface this lid appears as a clearly defined porous area (porochora or area porosa), and forms the horizontal base of a peculiar cone, which stands vertically in the interior of the capsule and may be designated the "thread-cone" (podoconus). The NASSELLARIA may hence be termed "Merotrypasta" or "Osculosa," like the CANNOPYLEA; the structure and significance of the circular lid (operculum), which closes the main-opening (osculum) is, however, quite different in the two legions. Whilst the lid of the CANNOPYLEA (astropyle) is solid, traversed by radial ribs, and only perforated in its centre by a short tube (proboscis), in the MONOPYLEA the operculum (porochora) is always perforated by numerous vertical fine pores, and is in connection with the peculiar internal "pseudopodial cone" (podoconus, Pl. **51**, figs. 5, 13; Pl. **81**, fig. 16; Pl. **91**, fig. 5; Pl. **98**, fig. 13). The pores are separated by small vertical, highly refractive rods (opercular rhabdillæ); these become intensely stained by carmine, and are either evenly distributed over the surface of the porochora or arranged in definite groups. The outer or distal end of each rod is rounded, sometimes thickened like a club or split into lobes; the inner or proximal end is usually pointed, and stands in connection with a myophane thread of the podoconus (see § 79). The primary circular form of the porochora, in which the opercular rhabdillæ are evenly distributed in a horizontal plane, undergoes various secondary modifications in many NASSELLARIA. The triradial structure of the skeleton, which characterises the majority of the legion, causes a splitting of the base of the central capsule into three or four lobes; this division also affects the porochora, which lies in the centre of the base, so that the rhabdillæ become arranged in three or four equal circles. If, however, the lobes of the central capsule become larger and protrude through the three or four collar pores of the cortinar septum, the central porochora may separate entirely into three or four elongated tracts, which lie on the axial side of the magnified lobes; the rhabdillæ are then arranged over the whole surface of