

perforated by numerous fine pore-canals, which are regularly distributed in series or groups, but without a larger principal opening (osculum). (2) The *Nucleus* is always excentric and generally precocious, since it divides early by a peculiar process of budding into numerous small nuclei. (3) The *Pseudopodia* are very numerous and distributed regularly in groups (or series united into a network). (4) The *Calymma* contains no phæodium. (5) The *Skeleton* is generally present, always centrogenous, and composed of acanthin. (6) The *Ground-form* of the central capsule is originally spherical (often modified), that of the skeleton polyaxon (often modified).

8. *Monopylea* or *Nassellaria*.—Those Radiolaria which we call “MONOPYLEA” from the formation of their central capsule, or “NASSELLARIA” from the nature of their skeleton, are distinguished from the other three legions of the class by the combination of the following constant characters:—(1) The *Membrane* of the central capsule is single, and has only one large principal opening (osculum) at the basal pole of the vertical main axis; this osculum is closed by a perforated lid (porochora or operculum porosum) from which there arises within the central capsule a peculiar cone of threads or pseudopodia (podoconus). (2) The *Nucleus* is usually excentric and is always serotinous, since it only divides at a comparatively late period into spore-nuclei. (3) The *Pseudopodia* are not very numerous and arise by division of a single stem or bundle of threads of sarcode, which issues from the porochora. (4) The *Calymma* contains no phæodium. (5) The *Skeleton* (very rarely absent) is never centrogenous, but always extracapsular and siliceous. (6) The *Ground-form* of the central capsule is always monaxon (with a vertical allopolar main axis), originally ovoid, often modified; that of the skeleton is also generally monaxon, often modified (triradial or bilateral).

9. *Cannopylea* or *Phæodaria*.—Those Radiolaria which we call “CANNOPYLEA” from the constitution of their central capsule, or “PHÆODARIA” on account of their peculiar phæodium, are distinguished from the other three legions by the combination of the following characters:—(1) The *Membrane* of the central capsule is double, consisting of a strong outer and delicate inner capsule, and has only one principal opening (osculum) at the basal pole of the vertical main axis; this osculum is closed by a radiate cover (astropyle or operculum radiatum), from the centre of which arises an external tubular spout (proboscis). Occasionally a few small accessory openings (parapylæ) are present besides the principal opening. (2) The *Nucleus* lies centrally or subcentrally in the capsule (in the vertical main axis), and is serotinous, inasmuch as it only divides at a late period into spore-nuclei. (3) The *Pseudopodia* are usually very numerous and arise from a thick sarcomatrix, formed by the spreading out of a thick stem of sarcode, which issues from the astropyle. (4) The *Calymma* always contains a phæodium or peculiar voluminous excentric mass of pigment. (5) The *Skeleton* (very rarely absent) is never centrogenous, always extracapsular and formed of a silicate of carbon. (6) The *Ground-*