are to be seen in some Phæosphæria (*Oroplegma*, Pl. 107, fig. 1; *Sagoplegma*, Pl. 108, fig. 2; *Auloplegma*, Pl. 111, fig. 8). No Spongoid skeletons are known among the ACANTHARIA.

127. *The Cannoid Skeleton.*—Cannoid or tubular skeletons are those which are composed of hollow tubes; they occur exclusively in the PHÆODARIA or CANNOPYLEA. Tubular processes, nevertheless, occur in some other Radiolaria, as, for example, among the SPUMELLARIA in a portion of the Collosphærida (*Siphonosphæra*, *Caminosphæra*, Pls. 6, 7), and of the Prunoidea (*Pipetta*, *Cannartus*, &c., Pl. 39, figs. 6–10, &c.), also among the NASSELLARIA in *Theosyringium* (Pl. 68, figs. 4–6), *Cannobotrys* (Pl. 96, figs. 3, 4, 8–11, 20–22), &c. In all these cases, however, the tubes are direct processes of the cavity of the shell, the trabeculæ of the lattice-work being solid. Only in the CANNOPYLEA are the lattice-bars themselves, the radial spines and appendicular organs, generally tubular (hence the designation "Pansolenia"). The lumen of the thin-walled siliceous tubes is filled with jelly, and hence the specific gravity of the relatively large skeleton is considerably diminished. This peculiarity is not found in all CANNOPYLEA; it is wanting in all Sagosphærida and Concharida, as well as in a part of the Orosphærida and Castanellida; in the latter there are found intermediate stages between hollow and solid skeletal rods. Very often a fine siliceous thread runs in the axis of the tubes, which is connected with its wall by lateral branches (Pl. 110, figs. 4, 6; Pl. 115, figs. 6, 7). More seldom the tubes are divided by horizontal septa into a series of chambers (Medusettida, Pls. 118–120). The two families Aulosphærida (Pls. 109–111) and Cannosphærida (Pl. 112) are distinguished from all other PHÆODARIA by the fact that their tubes are separated by astral septa in the nodal points of the lattice-shell (§§ 112, 134).

128. *The Conchoid Skeleton.*—By the name "Conchoid skeletons" are distinguished the bivalved lattice-shells which occur exclusively in the legion PHÆODARIA; they are quite characteristic of the Phæoconchia or *Phæodaria bivalvia*, which embrace three families:—Concharida (Pls. 123–125), Cœlodendrida (Pls. 121, 122), and Cœlographida (Pls. 126–128). The two valves of the lattice-shell of the Concharida are simple, hemispherical, or boat-shaped, whilst in the Cœlodendrida and Cœlographida tubes grow out from them, which branch and usually give rise by anastomosis to a second external bivalved shell. In all Phæoconchia the two valves are so disposed about the central capsule that an open slit remains between them, into which open the apertures of the central capsule; and since all these *Phæodaria conchoidea* are TRIPYLEA, with three typical openings in the central capsule, and since the two lateral accessory openings lie at either side of the aboral pole, and the unpaired main-opening at the oral pole of the main axis, it follows that the two valves are to be regarded as dorsal and ventral as in the Brachiopoda (not right and left as in the Lamellibranchiata). The dorsal and ventral