

regular, and a further distinction from the SPUMELLARIA consists in the fact that the primary skeletal elements, from which the lattice is secondarily developed, exercise a predominant influence upon their form. These primary elements in the majority of the NASSELLARIA are to be seen in two morphologically most important structures:—first, the *primary sagittal ring*, which embraces the central capsule in the median plane (§ 124); and secondly, the *basal tripod* (§ 125), whose three diverging rays proceed from the base of the central capsule, whilst commonly a fourth vertical ray supports the dorsal side of latter (compare Pls. 81–91, p. 892). In the majority of the NASSELLARIA these two primary elements appear in combination, whilst in others only one of them is recognisable. In addition there occur numerous monaxon lattice-shells in which neither of these elements can be recognised, but a simple ovoid lattice-shell (cephalis) alone forms the whole skeleton or its primary part (Pl. 51, fig. 13; Pl. 98, fig. 13). The great difficulty in the morphological interpretation and phylogenetic derivation of the NASSELLARIAN skeleton lies in the fact that each of these three elements—the primary sagittal ring, the basal tripod, and the latticed cephalis—may form the whole skeleton by itself or be combined with one or both of the others (p. 893). Even nearly related or at all events very similar forms may differ very greatly in this respect. With regard to the manifold forms of their dictyosis it follows that it is partly dependent upon one of the two first elements, partly independent. In the Plectellaria (or those NASSELLARIA which do not possess a complete lattice-shell) the lattice-work is usually irregular and arises by union of the ramifications, which proceed either from the primary sagittal ring (Pls. 81, 82, 92–94) or from the basal tripod (Pl. 91). In the Cyrtellaria (or NASSELLARIA with a complete lattice-shell, Pls. 51–80), on the other hand, the lattice-work is sometimes regular, sometimes irregular, being often very different in the different joints of a segmented shell (Pl. 72); a great part of it arises independently of the two chief morphological elements, and develops according to laws similar to those which regulate the dictyosis of the SPUMELLARIA.

134. *Dictyosis of the Phæodaria.*—The lattice-structures of the PHÆODARIA, which consist of a silicate of carbon (§ 102), are on the whole not developed in such variety as those of the other Radiolaria, but exhibit several essentially different types of structure, not reducible to a common primitive type of lattice-work. In one portion of this legion there occurs an ordinary simple lattice-work (as in SPUMELLARIA and NASSELLARIA), with solid trabeculæ; of these the Castanellida (Pl. 113) and Concharida (Pls. 123–125) have usually regular or subregular, circular meshes, sometimes hexagonally framed; the Orosphærida (Pls. 106, 107) large irregular polygonal meshes with thick trabeculæ, the Sagosphærida (Pl. 108) large triangular meshes with thin filiform trabeculæ. The Challengerida (Pl. 99) are characterised by a very delicate regular lattice-work, with minute hexagonal pores, like a Diatomaceous frustule. The Medusettida (Pls. 118–120)