

stem-forms, since they retain the original spherical shape (Pls. 5-8, 11-30). In the other three suborders a vertical main axis is developed, which in *Prunoida* is longer, in *Discoidea* shorter than the other axes of the shell. Hence the shell of the *Prunoida* (p. 284, Pls. 13, *bis*, 17, 39, 40) is ellipsoidal or cylindrical, that of the *Discoidea*, on the other hand, lenticular or discoidal (p. 402, Pls. 31-38, 41-48). Finally, the shell of the fourth suborder, *Larcoidea*, is lentelliptical; it has the ground-form of a triaxial ellipsoid, and is characterised by the possession of three unequal dimensive axes, or three isopolar axes of different lengths perpendicular to each other (p. 599, Pls. 9, 10, 49, 50).

110. *The Skeleton of the Acantharia*.—The skeletons of the ACANTHARIA or ACTIPYLEA are distinguished from those of all other Radiolaria by two very important peculiarities; in the first place, they consist not of silica but of a peculiar organic substance, *Acanthin*, and secondly, their development is centrogenous, numerous radial spines or acanthin spicules being formed which are united in the middle of the central capsule. Hence the ACANTHARIA are the only Radiolaria in which the skeleton originates from the first in the middle of the central capsule. The number of radial spines is primitively indefinite, variable, and often considerable (more than a hundred), but in the great majority it is limited to twenty. In accordance with this the legion may be divided into two orders, the more archaic small group *Adelacantha*, with an indefinite number of spines, and the more recent group, *Icosacantha*, which has been developed from them and possesses twenty regularly disposed spines; of the three hundred and seventy-two species of ACANTHARIA which have been hitherto described, about five per cent. belong to the former, about ninety-five per cent. to the latter division (see note A, below). The numerous genera of *Icosacantha* may then be again divided into two suborders, of which the *Acanthonida* (p. 740, Pls. 130-132) produce no complete lattice-shell, and thus agree with the *Actinellida*, with which they may be united as *Acanthometra* in the broader sense (or ACANTHARIA without a lattice-shell). The *Acanthophracta*, on the other hand (p. 791, Pls. 133-140), produce a complete lattice-shell, usually by means of two opposite or four crossed transverse processes, which arise from each radial spine and unite with each other (see note B, below). In most *Acanthophracta* the lattice-shell remains single; only in the *Phractopeltida* does it consist of two concentric lattice-spheres (p. 847, Pl. 133, figs. 1-6). Furthermore, the whole order *Acanthophracta* may be subdivided into two suborders according to the different ground-form of the lattice-shell; this remains spherical in the *Sphærophracta* (the three families *Sphærocapsida*, *Dorataspida*, *Phractopeltida*, Pls. 133-138). On the other hand, it assumes another form in the *Prunophracta*; it becomes ellipsoidal in the *Belonaspida* (Pl. 136, figs. 6-9), discoidal or lentiform in the *Hexalaspida* (Pl. 139); and finally takes the shape of a double cone in the *Diploconida* (Pl. 140).