edges are the lateral halves of the frontal ring, the two other alternate ones are the remaining halves of the reduced sagittal ring (dorsal and ventral rod) (Pl. 82, fig. 12).

In many Tympanida and Coronida a loose irregular lattice or framework is developed, which partly closes the large open gates. But this never reaches the completeness of a true lattice-shell, such as we find in the S p y r o i d e a, B o t r y o d e a, and C y r t o i d e a. In by far the greater number of S t e p h o i d e a the corners, and partly also the rods, of the shell are armed with numerous irregular spines, often forked or richly branched. Among these spines the descending "basal apophyses" possess a peculiar importance, since by their regular number and disposition they correspond to the radial rods of the P l e c t o i d e a, and to the typical "feet" of the S p y r o i d e a and C y r t o i d e a. The most important of them are the three cortinar feet (one caudal and two pectoral) of *Cortina*, *Cortiniscus*, &c. (compare above, p. 891).

The Central Capsule exhibits in the S t e p h o i d e a the same characteristic structure as in all other MONOPYLEA, first exactly pointed out by Richard Hertwig in 1879 (Organismus der Radiol., p. 71, Taf. vii. figs. 4, 5). Its form is commonly ovate or ellipsoidal, sometimes also lentelliptical or nearly spherical. It exhibits constantly on the basal pole the porochora or porous area, and in the basal half the podoconus or pseudopodial cone. From the surrounding sagittal ring it is separated by a thick jelly-like calymma, which commonly exhibits numerous zooxanthellæ. The numerous pseudopodia are commonly branched, with rather rare anastomoses. The membrane of the central capsule is thick.

Synopsis of the Families of S t e p h o i d e a.

I. Skeleton composed of the simple vertical sagittal ring only, without secondary rings, ... 1. STEPHANIDA.

II. Skeleton composed of two crossed rings, a vertical sagittal and a horizontal basal ring, ... 2. SEMANTIDA.

III. Skeleton composed of two crossed vertical meridional rings (a primary sagittal and a secondary frontal ring), commonly also with a horizontal basal ring, . 3. CORONIDA.

IV. Skeleton composed of two parallel horizontal rings (upper mitral and lower basal ring), both connected by a vertical sagittal ring (and often by a vertical frontal ring), ... 4. TYMPANIDA.

Family XLVIII. S T E P H A N I D A, Haeckel (Pl. 81).

Monostephida, Haeckel, 1881, Prodromus, p. 447.

Definition.—S t e p h o i d e a with a simple sagittal ring, without any lattice-work.

The family S t e p h a n i d a is the most simple of all S t e p h o i d e a, and probably the common ancestral group of this suborder (compare above, p. 933). The skeleton