

twenty to thirty (or more?) radial spines. (The position of this species, and the identity of *Chilomma* with *Astrophacomma*, remains doubtful, as the imperfect figure given by Ehrenberg of *Chilomma saturnus*, the only species of the genus, is in contradiction with his vague description, as is very often the case.)

Dimensions.—Diameter of the disk 0.12 (with girdle 0.22), of the outer medullary shell 0.05, of the inner 0.02.

Habitat.—Arctic Ocean (Greenland, depth 1000 fathoms), Ehrenberg.

Subgenus 4. *Astrophacura*, Haeckel.

Definition.—Surface of the disk covered with radial spines. Bases of the marginal spines connected by a solid equatorial girdle.

7. *Astrophacus apollinis*, n. sp. (Pl. 32, fig. 2).

Disk with spiny surface, three times as broad as the outer, eight times as broad as the inner medullary shell. Pores regular, circular; eleven to twelve on the radius of the disk. Equatorial girdle narrow, smooth, on the margin with twelve to sixteen broad, flat, triangular spines, of the same length as the numerous bristle-shaped spines of the surface, which reach half the radius of the disk. (Very similar to *Heliodiscus apollinis*, but differing in the double medullary shell.)

Dimensions.—Diameter of the disk 0.24, of the outer medullary shell 0.08, of the inner 0.03; length of the radial spines 0.06, basal breadth 0.03.

Habitat.—Western Tropical Pacific, Station 225, depth 4475 fathoms.

Family XX. COCCODISCIDA, Haeckel (Pls. 36–38).

Coccodiscida, Haeckel, 1862, Monogr. d. Radiol., p. 485.

Coccodiscida, Haeckel, 1881, Prodr. p. 458.

Lithocyclidina, Ehrenberg, 1847, Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, p. 214 (*partim*).

Definition.—Discoidea with extracapsular phacoid shell (or lenticular latticed cortical shell), connected by radial beams with an intracapsular, simple or double, concentric medullary shell, and surrounded by one or more concentric chambered equatorial girdles on the margin.

The family *Coccodiscida* was founded by me in 1862 for those *Discoidea* which agree with the *Phacodiscida* in the formation of the lenticular "phacoid shell" (including a simple or double medullary shell), but differ from them in the development of peculiar concentric chambered rings or girdles around the equatorial margin of the disk, similar to those of the *Porodiscida*.

The *Coccodiscida* represent a polymorphic family, in which we here distinguish sixteen genera with fifty-seven species; it comprises the greater part of those *Dis-*