

very numerous, repeatedly dichotomous or irregularly branched, curved by-spines, longer than the diameter of the outer shell. Radial main spines with three dentated edges. All parts of the skeleton, the net bars as well as the radial beams and spines, are very elegantly denticulated (fig. 1*b*). The central capsule (fig. 1*a*) completely distends the inner shell and forces out protuberances through all its pores; in its centre lies a nucleus one-third its size.

Dimensions.—Diameter of the outer shell 0·25, inner 0·16.

Habitat.—Central Pacific, Station 271, surface.

Genus 100. *Astrosphæra*,¹ n. gen.

Definition.—*Astrosphærida* with two extracapsular cortical shells, connected by long, prismatic, radial spines; inner and outer shell with thin radial by-spines.

The genus *Astrosphæra* differs from its ancestral form, *Leptosphæra*, in the development of radial by-spines on the surface of both shells.

Subgenus 1. *Astrosphærella*, Haeckel.

Definition.—Radial main spines simple without lateral branches.

1. *Astrosphæra hexagonalis*, n. sp. (Pl. 19, fig. 4).

Inner shell with regular, hexagonal meshes and very thin bars, having a bristle-shaped, short radial by-spine in each hexagon-corner; outer shell twice as broad, with simple triangular meshes and thicker bars, bearing one row of simple bristle-shaped, curved, radial by-spines. Radial main spines with three smooth edges.

Dimensions.—Diameter of the outer shell 0·32, inner 0·16.

Habitat.—South Pacific (West Patagonia), Station 302, surface.

2. *Astrosphæra splendens*, n. sp.

Inner shell with regular, hexagonal meshes, four times as broad as the bars, and covered with numerous curved, long, bristle-shaped by-spines; outer shell three times as broad, with simple triangular meshes and thin bars, bearing a row of very long, curved, bristle-shaped by-spines. Radial main spines with three dentated edges. All parts of the skeleton elegantly denticulated, as in *Drymosphæra dendrophora* (Pl. 20, fig. 1).

Dimensions.—Diameter of outer shell 0·7, inner 0·24.

Habitat.—Tropical Atlantic, Station 347, surface.

¹ *Astrosphæra* = Star-sphere; ἀστρον, σφαίρα.