2. Caryomma irregulare, n. sp.

Radial proportion of the six shells = 1:2.5:8:10.5:13:15). Both inner (medullary) shells with regular, circular pores, the other four (cortical) shells with irregular, roundish pores, gradually increasing in size from the innermost to the outermost shell. Radial spines sixty to eighty, pyramidal, irregularly disposed.

Dimensions.—Diameter of the six shells—(A) 0·3, (B) 0·26, (C) 0·21, (D) 0·16, (E) 0·05, (F) 0·02. Habitat.—Central Pacific, Station 265, depth 2900 fathoms.

Genus 108. Arachnopila, n. gen.

Definition.—Astrosphærida with five to ten or more cortical, concentric, polyhedral, or spherical lattice-shells, composed of a very thin cobweb-like network; innermost shell with hexagonal (regular) or polygonal (irregular) meshes; other shells with simple triangular meshes, without diagonal threads between them.

The genus Arachnopila, together with the two following genera, forms the peculiar small group of large Arachnosphærida, separated from the true Caryommida by the totally different structure and disposition of the numerous concentric shells; the former exhibits a similar relation to the latter that the Diplosphærida bears to the Elatommida among the dispherical Haliommida. The concentric shells (five to ten or more) lie outside the central capsule, and are composed of very delicate, cobweb-like threads. From the innermost shell arise numerous, three-sided prismatic, very long spines, from which at equal regular distances arise lateral branches (three pairs from each spine, and one pair from each corner). In Arachnopila these threads pass directly from one spine to the other, and form simple, large, triangular meshes between them. The concentric shells are not connected by interwoven diagonal threads.

1. Arachnopila hexagonella, n. sp.

Innermost shell with regular, hexagonal pores; its diameter twice as long as the equal distance between every two concentric shells. Radial spines twenty to forty, each with twenty to twenty-four verticils.

Dimensions.—Diameter of the innermost shell 0.1; distance between the concentric shells 0.05. Habitat.—Central Pacific, Station 271, surface.

2. Arachnopila polygonella, n. sp.

Innermost shell with irregular, polygonal pores; its diameter fully as long as the equal distance between every two concentric shells. Radial spines sixty to eighty, each with twelve to sixteen verticils.

Dimensions.—Diameter of the innermost shell 0.04; distance between the concentric shells 0.04. Habitat.—Central Pacific, Station 266, surface.

¹ Arachnopila = Cobweb ball; ἀξάχνη, πίλος.