Subgenus 1. Rhaphidococcus, Haeckel, 1862, Monogr. d. Radiol., p. 365 (sensu emandato).

Definition.—Pores of the spherical shell regular or subregular, all of nearly equal size and similar form. Radial spines arising from all the nodal-points of the network.

1. Acanthosphæra tenuissima, Haeckel.

Heliosphæra tenuissima, Haeckel, 1862, Monogr. d. Radiol., p. 351, Taf. ix. fig. 2.

Shell extremely thin walled, eight to ten times as broad as one pore. Meshes or pores regular, hexagonal, with thread-like bars; five to seven on the radius. At each nodal-point (between every three meshes) arises a bristle-shaped radial spine, as long as the diameter of one pore.

Dimensions.—Diameter of the shell 0.2 to 0.25, of the meshes or pores 0.025 to 0.03, bars below 0.0001; length of the spines 0.03.

Habitat.—Mediterranean (Messina), North Atlantic (Canary Islands).

2. Acanthosphæra tenuis, n. sp.

Shell very thin walled, about twenty times as broad as one pore. Meshes subregular, hexagonal, with thread-like bars; twelve to fourteen on the radius. At each nodal-point arises a bristle-shaped radial spine, about as long as the radius.

Dimensions.—Diameter of the shell 0.3 to 0.35, pores 0.015 to 0.018, bars below 0.001; length of the spines 0.12 to 0.16.

Habitat.—Central Pacific, Stations 266 to 274, depth 2350 to 2925 fathoms.

3. Acanthosphæra macropora, n. sp.

Shell thin walled, five to six times as broad as one mesh. Pores regular, circular, hexagonally framed, ten to twelve times as broad as the bars. Radial spines bristle-shaped, as long as the diameter of one pore, arising from all the nodal-points.

Dimensions.—Diameter of the shell 0.07 to 0.08, pores 0.012, bars 0.001; length of the spines 0.012.

Habitat.—Central Pacific, Station 271, surface.

4. Acanthosphæra micropora, n. sp.

Shell thick walled, forty to fifty times as broad as one pore. Pores regular, circular, hexagonally framed, half as broad as the bars. Radial spines bristle-shaped, as long as the radius of the shell, arising from all the nodal-points.

Dimensions.—Diameter of the shell 0.22, pores 0.003, bars 0.006; length of the spines 0.1. Habitat.—South Pacific, Station 288, surface.