short, divergent, apical spines which are forked at the distal end. (Very similar to *Sagoscena castra* and *Sagoscena tentorium*, Pl. 108, figs. 1, 6, probably derived from them, but differing in the spongy structure of the thickened shell-wall, which is half as thick as the radius of its cavity.)

Dimensions.—Diameter of the sphere 2·0 to 2·5, length of the bars 0·15 to 0·2, breadth 0·002.

Habitat.—North Pacific, Stations 231 to 239, surface.

2. *Sagoplegma scenophora* (Pl. 108, fig. 13).

Pyramids on the surface of the spongy sphere irregular, with three to six sides, unequal in size and different in form. The edges of each pyramid are prolonged over its top into three to six divergent apical spines, which bear three to six cruciate verticils, each composed of four small, crossed, lateral branches, armed with a spinulate knob at the distal end.

Dimensions.—Diameter of the sphere 3·0 to 3·5, length of the bars 0·25 to 0·35, breadth 0·003.

Habitat.—North Pacific, Stations 252, 253, surface.

Family LXXVI. AULOSPHÆRIDA, Haeckel (Pls. 109–111).

Aulosphærida, Haeckel, 1862, Monogr. d. Radiol., p. 357.

Definition.—PHÆODARIA with a large spherical or subspherical (rarely spindle-shaped) articulated shell, which is composed of hollow tangential tubes. Nodal points of the loose network stellate, with a nodal cavity and astral septa. Meshes either triangular or polygonal. Hollow radial spines arise usually at the nodal points of the surface. No peculiar mouth in the shell. Central capsule tripylean, placed in the centre of the shell.

The family Aulosphærida comprises a great number of splendid and widely distributed PHÆODARIA, which have a special interest on account of the peculiarly complicated structure of their large lattice-shell, of the extraordinary beauty of their form and of their remarkable relations to the other PHÆODARIA. They differ from all the other Radiolaria in the peculiar articulate composition of the spherical skeleton of hollow tangential tubes, which are connected (and at the same time separated) by sutural or astral septa and filled up by jelly. The same peculiar structure recurs only in the closely allied Cannosphærida, which, however, differ in the possession of a second internal concentric shell, connected with the outer by radial beams. The similar Sagosphærida, which exhibit corresponding forms in various genera, differ from the Aulosphærida in the simpler structure of the delicate lattice-sphere, which is composed of very thin solid threads of silica, without astral septa. The Orosphærida, finally, also nearly related to the preceding families, differ from them in the coarse structure of the lattice-sphere, which is composed of very thick tangential, concentrically stratified rods, with an internal axial canal, but without astral septa at the nodal points.