The regular or subregular triangular meshes of the lattice-sphere are separated in *Sagosphæra* by solid, very thin threads, in the similar *Aulosphæra*, however, by thicker hollow tubes. The genus *Sagosphæra* may be divided into two subgenera :— *Sagosphærella* with a single radial spine at each nodal point of the network, and *Sagosphæroma* with a bunch of two to four or more divergent radial spines.

1. *Sagosphæra trigonilla*, n. sp.

Radial spines simple, straight, smooth, about as long as the smooth bars of the network, a single one at each nodal point. Meshes very regular, of equal size, equilateral triangular. (Similar to the common *Aulosphæra trigonopa*.)

Dimensions.—Diameter of the sphere 1·2 to 1·8, length of the bars 0·1 to 0·2, breadth 0·002 to 0·006.

Habitat.—Cosmopolitan ; Mediterranean, Atlantic, Pacific, surface.

2. *Sagosphæra penicilla*, n. sp. (Pl. **108**, fig. 10).

Radial spines straight, stout, a single one at each nodal point, twice as thick, but of the same length as the smooth bars of the network, armed at the distal end with a brush of numerous thin radial bristles. (Very similar to *Sagenoscena pencillata*, but .without pyramidal elevations on the surface of the sphere.)

Dimensions.—Diameter of the sphere 1·0 to 1·5, length of the bars 0·1 to 0·15, breadth 0·002 to 0·004.

Habitat.—Antarctic Ocean, Station 154, surface.

3. *Sagosphæra verticilla*, n. sp.

Radial spines slender, slightly curved, a single one at each nodal point, armed with three to five cruciate verticils, each of which is composed of four crossed lateral branches with spinulate terminal knobs (similar to *Sagmidium crucicorne*, Pl. **108,** fig. 9), but with a spherical shell, having a simply latticed, and not a spongy wall.

Dimensions.—Diameter of the sphere 2·0 to 2·5, length of the bars 0·1 to 0·2, breadth 0·002.

Habitat.—North Pacific, Station 256, surface.

4. *Sagosphæra furcilla*, n. sp. (Pl. **108**, figs. 11, 11*a*).

Radial spines short, spinulate, with a spiny terminal knob (fig. 11*a*), two or three arising from each nodal point of the network in divergent directions, only one-third or one-fourth as long as its smooth bars. Meshes more or less irregular, triangular.

Dimensions.—Diameter of the sphere 2·2, length of the bars 0·2 to 0·3, breadth 0·004.

Habitat.—South Pacific, Station 293, depth 2025 fathoms.