

about as long as one pore. On the half equator sixteen to twenty pores, of the same breadth as the bars. Shell thick walled; whole surface spiny. Polar spines cylindrical, at the apex conical, about as long as the axis of the sphere, three to four times as broad as one pore.

Dimensions.—Diameter of the sphere 0.1, pores and bars 0.005; length of the polar spines 0.07 to 0.11, thickness 0.015 to 0.02.

Habitat.—Western Tropical Pacific, Station 225, depth 4475 fathoms.

9. *Xiphosphæra flora*, n. sp.

Pores regular, circular, with hexagonal frames, twice as broad as the bars. Ten to twelve pores on the half equator. Shell thin walled, with spiny surface; in each corner of the hexagons is one bristle-like radial spine twice as long as one pore. Polar spines three-sided prismatic, at the apex pyramidal, nearly twice as long as the axis of the sphere, as broad at the base as two pores (similar to *Ellipsoziphus palliatus*, Pl. 14, fig. 7).

Dimensions.—Diameter of the sphere 0.15, pores 0.01, bars 0.005; length of the polar spines 0.2 to 0.25, breadth 0.02.

Habitat.—Tropical Atlantic, Station 342, depth 1445 fathoms.

10. *Xiphosphæra juno*, n. sp.

Pores regular, circular, as broad as the bars, funnel-shaped. Fifteen to twenty pores on the half equator. Shell thick walled, covered with bristle-like spines, about twice as long as one pore. Polar spines conical, thick, about as long as the axis of the sphere, twice as broad at the base as one pore.

Dimensions.—Diameter of the sphere 0.12, pores and bars 0.01; length of the polar spines 0.14, basal breadth 0.02.

Habitat.—Fossil in the Barbados rocks; living in the greatest depth of the Tropical Pacific, Station 225, depth 4475.

11. *Xiphosphæra gigantea*, n. sp.

Pores regular, circular, two to three times as broad as the bars; twenty-eight to thirty-two on the half equator. Shell thick walled, covered with short conical thorns. Polar spines three-sided pyramidal, about as long as the radius of the sphere, as broad at the base as three pores.

Dimensions.—Diameter of the sphere 0.25 to 0.3, pores 0.01, bars 0.004; polar spines 0.1 to 0.15 long, 0.03 broad.

Habitat.—Fossil in the Tertiary rocks of Barbados and Sicily (Cattani-setta).

Subgenus 3. *Xiphosphærisa*, Haeckel.

Definition.—Pores of the spherical shell irregular, of different size or form; surface smooth or a little rough, without spines or thorns (other than the polar spines).