Proportion of the major axis of the ellipsoid to the minor = 5 : 4. Minor axis once and one-third as broad as that of the ellipsoidal inner shell, the pores of which are also circular, but of half the size. Two spines strong, three-sided pyramidal, acute, as broad as a large mesh, as long as the equatorial axis. The stout inner prolongations of these form the only connection between the two shells.

Dimensions.—Longer axis of the ellipsoidal cortical shell 0·12, shorter axis 0·1; pores 0·02, bars 0·002; longer axes of the ellipsoidal medullary shell 0·09, shorter axis 0·07; pores 0·01, bars 0·002; length of the polar spines 0·1, basal breadth 0·002.

Habitat.—Central area of the Pacific, Station 272, depth 2600 fathoms.

3. *Lithatractus leptostylus*, n. sp.

Outer shell thin walled, smooth, with regular, circular pores of equal size, three to four times as broad as the thin bars; ten to twelve on the half equator. Proportion of the major axis to the minor = 7 : 6. Minor axis three times as large as that of the inner spherical shell; pores of the latter half as large. Polar spines cylindrical, blunt, longer than the major axis, scarcely half as broad as one larger pore.

Dimensions.—Longer axis of the cortical shell 0·14, shorter axis 0·12; pores 0·015 to 0·02, bars 0·004; diameter of the medullary shell 0·04; length of the polar spines 0·15 to 0·2, its thickness 0·01.

Habitat.—Central area of the Pacific, Stations 270 to 272, depth 2425 to 2925 fathoms.

4. *Lithatractus pachystylus*, n. sp.

Outer shell thick walled, smooth, with regular, circular pores of equal size; twelve to fifteen on the half equator. Each pore is deep, funnel-shaped, its outer aperture double the size of the inner, its breadth about three times that of the high bars. Proportion of the major axis to the minor = 6 : 5. Major axis double as long as the diameter of the spherical medullary shell. Polar spines very thick and short, tetrahedral, one-fourth as long and broad as the major axis.

Dimensions.—Longer axis of the cortical shell 0·17, shorter axis 0·14; pores 0·01, bars 0·003; diameter of the medullary shell 0·08; length and thickness of the polar spines 0·04.

Habitat.—Central area of the Pacific, Station 271, depth 2425 fathoms.

5. *Lithatractus convallaria*, n. sp.

Outer shell thick walled, smooth, with elegant regular network; the meshes circular, six-lobed, rosette-like (of the same form as *Stauroxiphos gladius*, Pl. **15**, fig. 7), twice to three times as broad as the bars; six to eight on the half equator. Proportion of the major axis of the ellipsoid to the minor = 4 : 3. Minor axis twice as long as the diameter of the inner spherical shell, which has regular, simple, circular pores of half the size. Polar spines short and thick, conical, only one-fourth to one-sixth as long as the minor axis, and quite as thick.

Dimensions.—Longer axis of the cortical shell 0·16, shorter axis 0·12; pores 0·016, bars 0·006; diameter of the medullary shell 0·06; length of the polar spines 0·02 to 0·03, basal thickness the same.

Habitat.—Central area of the Pacific, Station 268, depth 2900 fathoms.