

Subgenus 2. *Amphitholura*, Haeckel.

*Definition.*—Surface of the shell with radial spines or thorns.

3. *Amphitholus octacanthus*, n. sp.

Central chamber about twice as high and broad as both cupolas. From the surface arise, symmetrically distributed, eight stout conical radial spines, lying in two diagonal planes, as prolongations of the eight wing-beams, which connect the *Tetrapyle*-shaped medullary shell with the two ring-like constrictions of the cortical shell. Pores of the latter regular, circular, twice as broad as the bars; ten to twelve in the basal semicircle of one cupola.

*Dimensions.*—Major axis of the shell 0.15, minor 0.12; pores 0.01, bars 0.005.

*Habitat.*—South Atlantic, Station 332, depth 2200 fathoms.

4. *Amphitholus dodecanthus*, n. sp.

Central chamber a little larger than both cupolas. From the surface arise twelve strong conical radial spines, four on the poles of the major and the minor axis of the shell, lying in the lateral plane; eight others lying in two diagonal planes, as prolongations of the eight wing-beams, which connect the *Tetrapyle*-shaped medullary shell with the two ring-like constrictions of the cortical shell. Pores of the latter irregular, roundish, twice to four times as broad as the bars; sixteen to eighteen in the basal semicircle of one cupola.

*Dimensions.*—Major axis of the shell 0.15, minor 0.11; pores 0.004 to 0.008, bars 0.002.

*Habitat.*—North Pacific, Station 256, surface.

5. *Amphitholus acanthometra*, n. sp. (Pl. 10, figs. 5, 6).

Central chamber about twice as broad and as high as both cupolas. On the surface quite symmetrically distributed twenty long and strong cylindrical radial spines; eight in the sagittal plane or in the meridian plane of the central chamber (four opposite in pairs in the principal and the sagittal axes, four others in the middle between the principal and the sagittal spines); four in the horizontal transverse plane, on both sides of the poles of the major or lateral axis; and eight in diagonal planes (corresponding to the eight wing-spines of *Tetrapyle octacantha*). In the centre of the central chamber is a distinct trizonal medullary shell like that of *Tetrapyle*, with two vertical columella beams. Pores of the cortical shell subregular, circular, with elevated hexagonal frames, about four times as broad as the bars; five to seven in the semicircle of one cupola. (This remarkable species differs from *Tholartus vicenus* in the possession of a medullary shell, from *Amphitholonium acanthometra* by the simple cortical shell. Compare these species).

*Dimensions.*—Major axis of the shell 0.14 to 0.16, minor axis 0.10 to 0.12; pores 0.015, bars 0.004; major axis of the medullary shell 0.04 to 0.05, minor (horizontal) axis 0.02 to 0.03; length of the twenty radial spines 0.18 to 0.24, basal breadth 0.01.

*Habitat.*—South Pacific, Station 300, depth 1375 fathoms.