Tetrapyle. Between this septum and the constricted narrow transverse girdle the cortical shell grows out in the form of four vaulted cupolas; every two opposite domes are congruent, two neighbouring are symmetrically equal.

1. Zonarium quadrigatum, n. sp.

Cortical shell quadrangular, one and a half times as long as broad, with four rounded corners. Surface thorny, with numerous short radial spines. Sagittal constriction twice as long as the hexagonal medullary shell. Four cupolas kidney-shaped.

Dimensions.—Length of the cortical shell 0·16, breadth 0·11; length of the medullary shell 0·06, breadth 0·04.

Habitat.—Pacific, central area, Station 272, depth 2600 fathoms.

2. Zonarium quadrispinum, n. sp.

Cortical shell quadrangular, nearly rectangular, about twice as long as broad, with four corners, from which arise four strong, three-sided pyramidal, radial spines (crossed in two diagonals of the lateral plane). Surface thorny, only smooth in the transverse constriction. Sagittal constriction three times as long as the lentelliptical medullary shell. Four cupolas elliptical or nearly quadrangular.

Dimensions.—Length of the cortical shell 0.22, breadth 0.1; length of the medullary shell 0.07, breadth 0.05.

Habitat.—Pacific, central area, Station 274, depth 2750 fathoms.

3. Zonarium octangulum, n. sp. (Pl. 50, fig. 9).

Cortical shell octangular, one and a fourth times as long as broad, with eight strong conical spines on the eight corners; these are separated by four deep constrictions on the poles of the principal and transverse axes, and by four truncated planes on the poles of the crossed diagonal axes between the former. Sagittal constriction twice as long as the hexagonal medullary shell. Four cupolas kidney-shaped or nearly pentagonal.

Dimensions.—Length of the cortical shell 0.15, breadth 0.12; length of the medullary shell 0.07, breadth 0.04.

Habitat.—Pacific, central area, Station 271, depth 2425 fathoms.

4. Zonarium tetratholium, n. sp.

Cortical shell quadrangular, with four rounded corners. Surface thorny, with sixteen stronger radial spines; eight of these lie in the lateral plane, in the same symmetrical disposition as in the foregoing species; eight others lie on both sides of the lateral plane, opposite in pairs in two crossed diagonal planes, in the same symmetrical disposition as in *Tetrapyle octacantha*. Sagittal