2. *Pylozonium octacanthum*, n. sp. (Pl. **9,** fig. 16).

Outer cortical shell lentelliptical, one and a third times as long as broad, with thorny surface and eight long and thin radial spines arising from the corners of the four elliptical gates, and lying opposite in pairs in two crossed diagonal planes. Inner cortical shell of the same shape but one-fourth smaller, about twice as large as the lentelliptical medullary shell.

Dimensions.—Length of the medullary shell 0·065, breadth 0·045; length of the inner cortical shell 0·18, breadth 0·12; length of the outer cortical shell 0·24, breadth 0·18.

Habitat.—North Pacific, Station 244, depth 2900 fathoms.

Family XXVII. T H O L O N I D A, n. fam. (Pl. **10**).

Definition.—L a r c o i d e a with regular, completely latticed cortical shell, which is composed of two to six or more hemispherical or cap-shaped domes (vaulted chambers or cupolas). The domes lie opposite in pairs on the poles of the three dimensive axes, are separated by annular constrictions, and surround a simple or *Larnacilla*-shaped central chamber.

The family T h o l o n i d a represents a peculiar and very remarkable group of the L a r c o i d e a, distinguished from the other groups of this suborder by the characteristic form of the shell, composed of a variable number of hemispherical domes or cupolas. The middle and original part of the shell is constantly formed of an elliptical or subspherical central chamber, which often, but not constantly, contains a small medullary shell. An even number (two, four, six, or more) of domes is attached to the poles of the three dimensive axes of the central chamber; according as only one, or two, or all three axes develop cupolas, we distinguish in this subfamily three different subfamilies (the Amphitholida, Staurotholida, and Cubotholida). The Amphitholida (or Tholonida monaxonia) form cupolas only on the two poles of one single axis, and this axis corresponds to the minor (or transverse) axis of the central chamber, we find here therefore constantly at least two lateral cupolas (Pl. **10,** figs. 1–7). The Staurotholida (or Tholonida diaxonia) form cupolas on the poles of two axes perpendicular one to another; these two axes are the major (principal) and the minor (transverse) axis of the central chamber, we find here therefore constantly at least four cupolas crossed in pairs (Pl. **10,** figs. 8–11). The Cubotholida (or Tholonida triaxonia) form cupolas on the poles of all three dimensive axes (perpendicular one to another); corresponding to the principal, transverse, and sagittal axes of the lentelliptical central chamber; therefore we find here constantly at least six cupolas, attached in pairs on the six sides of the central chamber (Pl. **10,** figs. 12–17).

The number of genera and species in the family T h o l o n i d a is rather large, but the number of individuals is much smaller than in most of the other SPUMELLARIA, and