

four to five turnings. The sixth chamber twice as broad as the trizonal medullary shell. Pores irregular, roundish. Surface of the shell thorny.

*Dimensions.*—Breadth of the spiral cortical shell 0·27, height 0·25; breadth of the medullary shell 0·05, height 0·06.

*Habitat.*—Pacific, central area, Station 265, depth 2900 fathoms.

### Family XXXI. PHORTICIDA, Haeckel (Pl. 49, figs. 10, 11).

*Phorticida*, Haeckel, 1881, Prodrömus, p. 464.

*Definition.*—*Larcoidea* with quite irregular monothalamous shell, representing irregular modifications of an original lentelliptical latticed shell; the irregular cortical shell encloses a regular or subregular, lentelliptical or trizonal medullary shell.

The family *Phorticida* comprises a small number of *Larcoidea* in which a subregular, trizonal, lentelliptical medullary shell is enclosed by an irregular simple or spongy cortical shell. The lattice-work of the latter is sometimes simple and complete, at other times incomplete, with open gates (as in the *Pylonida*), sometimes also spongy. Its form is always more or less irregular, roundish, often dimply or tuberos; different from most other *Larcoidea*.

The medullary shell is constantly a regular or subregular *Larnacilla*-shell, composed of three elliptical latticed girdles of different sizes, perpendicular one to another. This leaves no doubt that the *Phorticida* are true *Larcoidea*. The connection of it with the cortical shell is rarely effected by radial beams, commonly by two opposite latticed wings, which are identical with the lateral halves of the transverse girdle in the *Pylonida diplozonaria* (*Amphipyle*, *Tetrapyle*). Often also between this transverse and a second (lateral) girdle there remain large open gates, so that the affinity between these *Phorticida* and the *Pylonida* cannot be doubted. In other cases these gates become closed, so that they more nearly approach the *Larnacida*. From both families they differ by the irregularity of the papillate or tuberos cortical shell. The network is more or less irregular, its surface often thorny, but never covered with symmetrically disposed radial spines.

The central capsule is lentelliptical, encloses the medullary shell, and is enveloped by the cortical shell, as in the nearly allied *Pylonida* and *Larnacida*, of which the *Phorticida* may be regarded as irregular aberrant forms.

#### *Synopsis of the Genera of Phorticida.*

- |   |                             |
|---|-----------------------------|
| Cortical shell simply latticed, . . . . . | 313. <i>Phorticium</i> .    |
| Cortical shell spongy, . . . . .          | 314. <i>Spongophortis</i> . |