

## Suborder VI. LARCOIDEA, Haeckel, 1883 (Pls. 9, 10, 49, 50).

*Definition.*—SPUMELLARIA with lentelliptical central capsule (rarely somewhat modified or allomorphic), with a lentelliptical fenestrated siliceous shell (often modified or allomorphic, and sometimes quite irregular). Growth different in the three unequal dimensive axes, perpendicular one to another. The typical Lentellipsis is characterised by three elliptical dimensive planes of different sizes, perpendicular one to another.

The section *Larcoidea*, the fourth and last of the *Sphaerellaria*, comprises all those forms of this group in which the fenestrated shell originally is lentelliptical, characterised by different growth in three different axes, perpendicular one to another, all three equal on both poles. The geometrical fundamental form of the shell is therefore a lentellipsis or a triaxial ellipsoid; and this typical form is preserved completely in the majority of *Larcoidea* in the pure geometrical form of the central capsule.

The three dimensive axes, which determine the typical form of *Larcoidea*, are commonly differentiated in such a way, that the first, the longitudinal or principal axis, is the longest; both its poles, oral and aboral (or anterior and posterior) are equal. The second, the lateral or transverse axis, is commonly less than the first, greater than the third axis; both its poles are the equal lateral poles (right and left not differentiated). The third dimensive axis, the equatorial or sagittal axis, is commonly the shortest; both its equal poles are the sagittal poles (dorsal and ventral poles not different). The relative size of the three dimensive axes in the human body exhibits similar relations.

The three dimensive planes of the *Larcoidea*, the sagittal, lateral, and transverse planes, are elliptical, all three of different sizes. The first plane, the median or sagittal plane, is commonly as regards size between the two others; its major axis is the principal, its minor the sagittal axis; it separates the right half of the body from the left. The second plane or lateral plane, is commonly larger than the two others; its major axis the principal, its minor the transverse axis; it separates the dorsal half of the body from the ventral. The third plane, the equatorial or zonal plane, is commonly less than the two others; its major axis the lateral, its minor the sagittal axis; it separates the two principal halves of the body, the oral and aboral halves.

In my Monograph (1862) only very few forms of *Larcoidea* are described, *Tetrapyle* and *Lithelius* (the latter representing a peculiar family, Lithelida). In my Prodrômus (1881, pp. 463, 464) I disposed all observed forms of *Larcoidea* in two different families, the Pylonida and Lithelida. The rich materials of the Challenger collection have since offered an astonishing number of new and interesting forms of this section, so that I can enumerate here fifty-one genera and two hundred and sixty-five species. I dispose them here in four subsections and nine families. Three of these have regular lentelliptical shells, which are not articulate, and