

Since the spiral line lies in the median plane, we will call it the spiral plane; it separates the right half from the left. The axis of the body, around which the spiral turns (without touching it), is the spiral axis. The latticed part of the cortical shell, which turns around them, is the spiral lamella. Only in one genus of our family, viz., *Tholospira*, are the spiral axis, the lateral axis, the spiral plane, and the sagittal plane quite as in *Nautilus*. In all other genera this disposition is different or is uncertain. This depends on the different part of the cortical shell, from which the spiral growth begins. In this respect we can distinguish four different modes.

In the *Larcospirida* (or the *Lithelida* with *Larnacilla*-shaped medullary shell) the spiral growth exhibits four quite different forms. It begins here with *Larcospira*, in which already the first cortical girdle of the *Diplozonaria* determines the spiral growth; one wing of this girdle, the transverse girdle of *Amphipyle*, grows more swiftly than the other, overgrows it, and thus turns around the principal axis. In *Pylospira* the first or transverse girdle is already perfectly formed (as in *Amphipyle*), and the spiral growth is introduced by the second or lateral girdle of *Tetrapyle*; one wing of it (the right or the left) grows more swiftly than the other, overgrows it, and thus turns around the sagittal axis. In *Tholospira* also the second girdle is complete, and the spiral growth begins from the third or sagittal girdle. One of its wings grows more swiftly than the other, overgrows it, and thus turns around the transverse axis. Consequently we see that each of the three dimensive planes of the lentelliptical *Larcoid*-body may be the spiral plane: in *Larcospira* the transverse plane, in *Pylospira* the lateral plane, in *Tholospira* the sagittal plane. Correspondingly the spiral axis in the first genus is the principal, in the second the sagittal, in the third the transverse axis of the central *Larnacilla*-shell. Therefore in these three genera the spiral plane is the plane of the latticed girdle, which determines the spiral growth, one of both its wings overgrowing the other.

In each of the three above mentioned genera the spiral may be simple or double; it remains simple if only one of both wings of the turning girdle overgrow the other, and this latter remain a simple half-girdle (or tube-like wing). Whereas the spiral becomes double if the second wing of the girdle afterwards follow the example of the first wing and now turn around it in the same direction. As this happens in all three genera, we can subdivide them into six subgenera.

A quite peculiar form of spiral growth is produced in *Spironium*, in which the direction of growth in both lateral wings of the transverse girdle is inverse from the beginning. The left wing grows against the posterior, the right wing against the anterior pole of the principal axis, turning around it in crossed, eight-like spirals. The whole shell afterwards assumes a lentelliptical form.

Commonly between the embracing spiral turnings or convolutions a great number of radial beams is developed, irregularly disposed and often branching; they support the