

An indirect communication is thus established, not only among all the sub-segments of the same annulus, but among those of all the annuli of each superficial layer.

The *intermediate stratum*, which, as already stated, constitutes the principal part of the thickness of the disk, is the distinguishing feature of this type of structure. When laid open by a section taken parallel to either surface, the appearances it presents differ according to the plane traversed by the section. For if this plane be that of the concentric annular galleries that lie immediately beneath the superficial layer, the section (Pl. VI. fig. 4, *g*, *g'*) lays open these galleries; in the floor of every one of which is a series of large rounded openings *h*, which are the summits of annular rows of nearly cylindrical chamberlets that lie beneath the galleries. In sections taken beneath these galleries, however, so as to pass either in or near the median plane of the disk, the concentric arrangement seems to have altogether given place to the excentric or "engine-turned" (*i*, *i*), the directions of the excentrics being opposite (as shown at *k*, *k*) in successive planes. There is no change, however, in the concentric arrangement of the rows of chamberlets; what is different being merely the mode of communication between them. These communications are in reality just what have been shown in fig. 3 (p. 13) to be characteristic of the Orbitoline type; each chamberlet communicating both with its own adjacent chamberlet, and also with the two chamberlets which alternate with it in the annulus external to its own, by a pair of passages. Now the columnar chamberlets forming the successive annuli of this intermediate stratum have vertical successions of pairs of such communications; but the two passages that form each pair, instead of lying in the same plane, alternate with each other vertically, so that no horizontal section can pass through both sets at once,—although it not unfrequently happens, in consequence of a flexure in the disk, that different parts of the same sectional plane show passages of opposite obliquities. And thus it comes to pass that each horizontal section lays open a series of oblique galleries, formed by the one-sided communications between the chamberlets of successive annuli; and that in a section taken in a plane either a little above or a little beneath, the direction of the obliquity is reversed. This arrangement, again, is better understood by reference to the sarcodic body of the animal, as seen in vertical section (Pl. V. fig. 14); for each of the cylindrical sub-segments of the nearer zone (*d*, *d*) is seen to communicate with two sub-segments of the zone *e* behind it, by two rows of stolon-processes; those which pass from each of the two contiguous columns in zone *d* towards the single column that alternates in position with them in zone *e* behind, inclining towards each other, so as to enter that column nearly in the same vertical line, though in different horizontal planes. By this arrangement each of the several pores (Pl. VI. fig. 4, *d*, *d'*, *d''*) that form the vertical rows at the margin of the disk, instead of opening, like the single pore of the simple type (fig. 2, p. 12), into both the chamberlets of the last-formed annulus between which it lies, opens into only one of them,—the pores of the same vertical series opening alternately into the chamberlets on either side.