

is produced by pullulation from the circumference of the first-formed *nucleus*,¹ which occupies the centre of the disk; and this "nucleus" consists of a "primordial segment" *a*, from one end of which is given off a larger "circumambient segment" *b*, which passes completely round it, and is itself surrounded by the first annulus. The shelly disk (fig. 2) which encloses this sarcodic body, and is (so to speak) modelled upon it, is marked on each surface by a series of distinct concentric circles, the spaces between which are channeled-out in the interior into concentric series of chamberlets, connected together by annular galleries; and the cavitory space of each zone is connected with that of the next by short radial passages, of which one usually

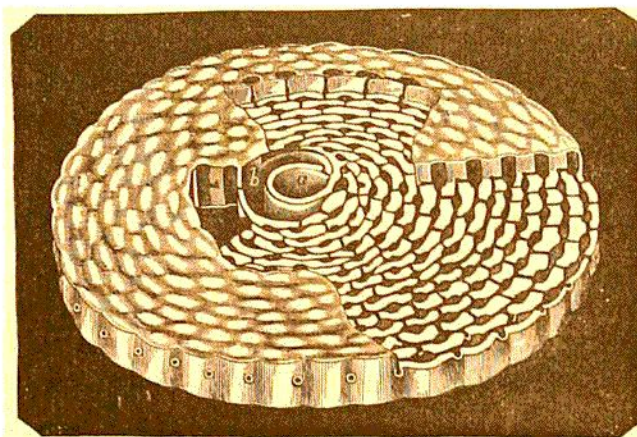


FIG. 2.—Typical plan of structure of shelly Disk of *Orbitolites*.

a, Primordial chamber.

b, Circumambient chamber; together forming a "nucleus," which is surrounded by concentric rings of chamberlets connected with each other by annular galleries and radial passages, the latter appearing as pores along the margin.

passes-off from one of the short galleries that connect the chamberlets of each zone, into a chamberlet of the zone that surrounds it. These passages, in the outermost zone, open as "pores" on the margin of the disk; these orifices constituting the only means of communication between the cavitory system of the disk and the outer world. Each concentric zone, when itself the outermost, thus communicated *directly* with the exterior; but each, when surrounded by another zone, can only do so through its intermediation, what were in the first place its *marginal* pores, being closed-in by a new annulus of shell, and opening into its chamberlets. The "nucleus" of the shell, round which its first annulus is formed, contains a "primordial chamber" (fig. 2, *a*), surrounded by a "circumambient chamber" *b*; and, in the highest or most specialised representatives of the Orbitoline type, radial passages (*e, e, e*, fig. 3) are given-off from the whole circumference of this "circumambient" chamber, which carry stolon-processes (Pl. V. fig. 18) that swell into the sarcodic sub-segments which occupy the successive annular series of chamberlets *c, c, c*.

¹ This use of a term which has an altogether different and well-understood signification in Biology, is doubtless open to objection; and I can only plead in excuse that having employed it in my original Memoir, published when that signification was far more limited, I have not been now able to think of any other which should be equally applicable. The term *centrum* might have been substituted, if it were not that (as I shall hereafter show) the "nucleus" is often *excentric*.