

The "simple" ground-plan is amplified in the "complex" edifice built-up on it by a sort of vertical piling of one storey on another, marked externally by the multiplication of the rows of marginal pores. In so far as this is effected by the vertical extension of the sarcodic sub-segments into columns, and by an addition to the number of their annular and radial stolon-processes, the increase may be regarded—like the successive addition of new zones to the periphery—as consisting in *growth* only. But when, instead of a multiplication of similar parts, we meet with a *differentiation* in the arrangement of these, if not in their character, shown in a separation of the two superficial layers of chamberlets from the intermediate structure (Pl. VI. fig. 4), by which the

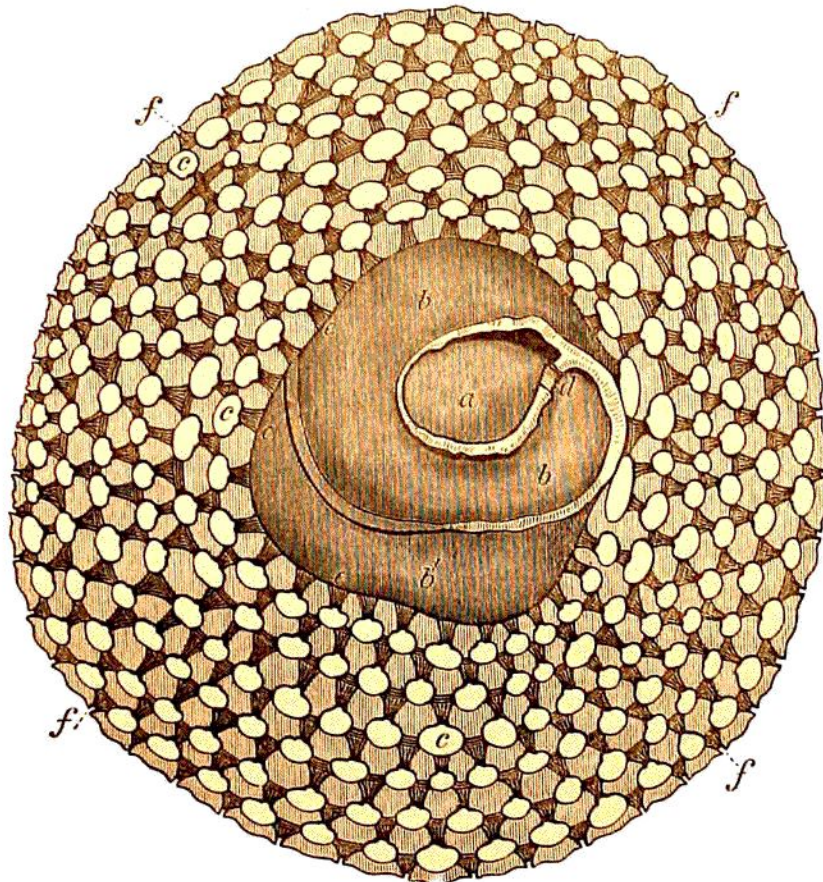


FIG. 3.—Ground-plan of shelly Disk of *Orbitolites complanata*.

- a*, Primordial chamber.
- b, b*, Circumambient chamber, a part (*b'*) of which is often partially cut off from the rest by an imperfect partition.
- c, c, c*, Chamberlets of different successive annuli.
- d*, Passage from primordial into circumambient chamber.
- e, e*, Radial passages from circumambient chamber into chamberlets of first annulus.
- f, f*, Radial passages opening at the margin of the disk as marginal pores.

"complexity" of the calcareous fabric is considerably increased, this differentiation must be regarded as an act of *development*, marking the highest stage of the evolution of the type.

I have not been able, however, to detect any evidence of local differentiation in the substance of the sarcodic body; every part of which, even in the most complex forms, seems to have the same character as every other part. A curious evidence of this absence of differentiation is afforded by the fact, that in all the specimens in which the