The cylindrical chamberlets of the intermediate stratum, as seen in vertical section (Pl. VI. fig. 9, *c*, *c*), generally pass in a nearly straight, parallel and separate course through its whole thickness; but this is by no means constantly the case. For not only are there occasional communications between the adjacent chamberlets of the same row, but sometimes a chamberlet, after extending through only a part of the thickness of the disk, will merge, as it were, in the two chamberlets on either side of it, which, when no longer kept apart, incline towards one another, as shown externally in the direction of the rows of marginal pores (fig. 4, *d*″). The same departure from strict regularity is shown in the columnar sub-segments of the sarcodic body (Pl. V. fig. 14, *d*, *e*); adjacent columns of the same annulus inosculating not unfrequently with one another. But all the columns of any one annulus terminate above and below in the two annular stolons (*b*, *b*)′ of their own annulus, which thus unite them into one continuous system.

By these varied methods every part of the labyrinthic cavitary system of this most complex type of Orbitoline structure is brought into free communication with every other part; so that a circulation of the protoplasmic body-substance may be constantly maintained, which shall diffuse through the whole of it whatever nutrient material is drawn in through the marginal pores, and also get rid, through those pores, of any effete matter which is unfit to be kept in the organism. Notwithstanding the extent to which *structural* specialisation is here carried in the shelly disk—as manifested in the separation of the superficial layers from the intermediate stratum—I have not been able to trace any indication whatever of a corresponding *functional* specialisation. There is not, so far as I have been able to make out, any differentiation of parts throughout the entire sarcodic body, every portion of it presenting the same aspect, and possessing the same attributes, as the rest. This homogeneousness is further manifested in two ways:—first, by the production, from any part of the disk, of outgrowths which present, under strangely irregular forms, its characteristic peculiarities of internal structure; and second, by the completeness with which injuries of any part of the disk are repaired, its cyclical plan of growth being renewed, and its discoidal form more or less perfectly restored.

Irregularities.—The tendency to form irregular outgrowths shows itself especially in the large and massive specimens, which, as already stated, were found living in the rock-pools on the summit of the Fiji reef; and may be taken to indicate an exuberance of formative power, that probably depends upon the higher temperature and greater abundance of food which the animals there enjoy. In Pl. VII. is given a series of portraits of such disks, all drawn to the same scale of four diameters; a full-sized disk of regular form being represented for comparison in fig. 3. The disk portrayed in fig. 1 exhibits an incipient "crumpling" of the marginal annuli, which shows their peripheral extension to have been more rapid than their radial, so that these annuli are thrown into irregular folds; whilst a small vertical outgrowth, having the character of a perfect half-disk, but very thick in proportion to its diameter, arises from the central portion, probably