

The examination of a large number of specimens of this type, which show every gradation between the regular smooth discoidal form (fig. 3) and the strongly "lacinate" forms represented in figs. 6 and 7, has satisfied me that the latter type has no claim to be distinguished *specifically*. Both in kind and degree the peripheral "lacination" is subject to the widest extremes of individual variation; and there is neither constancy nor regularity of disposition in the outgrowths from the inner portion of the disks, those of the two sides of the same disks being generally quite dissimilar. It may be questioned whether they have even a greater claim to be distinguished as constituting a well-marked variety than have, for example, the deeply plicated specimens of *Waldheimia australis*, which are found adherent to the same blocks of stone as the smooth, with a series of intermediate forms establishing a gradational transition from the one to the other.¹

Reparations.—There seems no more limit in this species to the reparative power than in those "simple" types in which its operation has been previously described; an entirely new disk, perfect in every part except its centre, being producible from a small fragment broken away from the margin of an older one, as shown in Pl. VIII. fig. 10,—which is the exact counterpart to Pl. I. fig. 7, though representing a much larger and older disk of this "complex" type, under a comparatively low magnifying power. So, in Pl. VIII. fig. 2, we have the exact counterpart to Pl. I. fig. 6; the former, which represents a repaired disk of *Orbitolites complanata* nearly half an inch in breadth, showing that a fracture across its diameter when about half its present size did not in the least interfere with its subsequent growth, and that, from the very first, new annuli were formed all along its fractured edge, as around its normal margin; so that, except in the modification of shape produced by the loss of half the earlier portion of the disk, no departure from the normal type is discernible. In fig. 8 the proportion of the disk lost by transverse fracture is smaller, so that the growth of peripheral annuli all round has more nearly restored the circular form. In fig. 6 this restoration has been yet more complete, though the early loss of a considerable proportion of the disk has given the nucleus an excentric position. In fig. 4 there seems to have been a marginal breaking away of several portions of the disk, leaving a very irregular outline; the broken portions have been filled-in, and the circular form has been almost exactly restored. In the specimen represented in fig. 9 a sort of notch has been cut out from the margin of an advanced disk, and this has been filled-in by an extension of the later-formed peripheral annuli. It is obvious that if the growth of this disk had proceeded much further the notch would have no longer shown itself at the margin. In the disk represented in fig. 5 the more considerable loss has been less completely repaired, the new growths from the two sides not having as yet met: but it is obvious that the addition of a few more peripheral

¹ See pl. i. of the Monograph of the genus *Terebratula*, in Lovell Reeve's "Conchologia Iconica." The original of this plate—a block brought by Prof. J. Beete Jukes from Port Jackson—is in the British Museum.