

(*Fig. 6, a'*). The bulging masses between these furrows have, therefore, a rounded surface, but the most bulging part (*Fig. 3, between b and c*) extends straight, in the direction of the crooked lines and nearer to the long junctions; towards the small lobes. The natural consequence of this is, that the more acute and deeper furrows, along the long junctions (*Fig. 7, o'*), extend more evenly towards the ocular apparatus (*o*), between the two small lobes, while the more open and shallow furrows along the short junctions terminate more abruptly, the bulging mass rounding off towards the upper surface more suddenly in the direction of the short junctions than in that of the long junctions. Another consequence of this form of the bulging portions of the disk upon the lower surface is, that the spaces which follow the large festoons, or broken lines, inside of the great emarginations, are steeply slanting (*Fig. 3, a'*), and this is the more marked, as there is a furrow along the large festoons between the bulging masses and the marginal portion of the disk which forms the large lobes. Though less prominent, there is also a similar depression between the less abrupt termination of the long furrows, and the small lobes; but this part is further distinguished by small lobes of hyaline substance (*Fig. 7, o*), of a semi-oval form, hanging vertically upon the two sides of the prolongation of the furrow, in which the ocular tubercle is secured.

SECTION III.

THE LOWER FLOOR OF CYANEA AND ITS CONNECTION WITH THE UPPER FLOOR.

The form of the crooked lines (Pls. IV. and V. *Fig. 1*) is quite peculiar; in the part nearer the inner circle they are straight, they then bend towards one another in pairs, and diverge again to converge anew, and again diverge to reach the margin, their distance from one another increasing gradually, however, at each curve. To the prominent ridges of the bulging, gelatinous masses, which determine these lines on the lower surface of the disk (Pl. V^a. *Figs. 3 and 4*), is attached the lower floor, which is otherwise free, with the exception of its connection with the upper floor along the numerous, arborescent ridges (Pl. V^a. *Figs. 23 and 24*) of the thinner portion of the margin, which indicate the lines of connection between the two floors in that part of the animal. Thus arises the large cavity between the two floors, with its radiating pouches, extending toward the periphery along the short and the long junctions and their numerous branches, ramifying to the edge of the margin. There are, therefore, eight narrow pouches (Pl. IV. *Fig. 1, o o' o'' o'''*) in the direction of the eight long junctions, and eight wider pouches (*a a' a'' a'''*) in the direction of the short junctions. Of the eight narrow pouches, four are in