

of growth (Pl. XXXIII. *Fig. 6, B*) a long time before the calycle is fully developed (Pl. XXXIV. *Fig. 10*), but are not set free until the latter is mature.

Embryology. Protes medusoidea.—The first steps in the development of the medusa are precisely the same as in *Coryne mirabilis* (p. 192); the outer (Pl. XXXIV. *Fig. 11, G, β''*) and the inner (γ') wall push out from the axis and form a hernia; the hernia continues to grow until it becomes pear-shaped (Pl. XXXIV. *Fig. 16, A*), and then the radiating tubes (*Fig. 16, B, h*) and the proboscis (ρ) begin to form; the radiating tubes, extending their extremities, finally reach the actinal end of the disk (*Fig. 13, 13^a, h*); at the same time the tubes, or rather the inner wall in which they are developed, includes, as it were in a cup, a prolongation (*Fig. 13, h¹*) of the outer wall exactly as in *Coryne*.

There are differences in the proportions of the embryos of these two genera, which, however, do not clash with the typical mode of development of the Hydro-medusæ; at a period not long before the radiating tubes unite laterally to form the circular tube, the embryo gradually changes from a globular to a broadly discoid form (*Fig. 17*), and the radiating tubes (h) are correspondingly broadened, but, in subsequent phases, become proportionately narrower. By the time the embryo is two thirds grown the tentacles (*Fig. 11, C, t*) begin to bud, appearing like broad papillæ when seen in profile; and the proboscis (ρ) projects prominently beyond the outlines of the disk. As the tentacles are developed, they curl inwardly upon themselves, so that, to the very last moment before birth, they appear externally as broad crenulations (*Fig. 11, A, B, t*). Some time before birth the mouth assumes its four-cornered, characteristic (*Fig. 10, A, m*) form. Finally, the embryo breaks loose from its attachment with convulsive, systolic contractions, and finds its way out of the calycle between the walls of the axis and the edge of the aperture. In the very act of extrusion, it expands its disk and unrolls the tentacles, so that by the time it has freed itself from the embrace of its parent, it is already fully expanded, and at once commences the diastolic movements of the act of swimming. It has, at birth, sixteen tentacles (Pl. XXXIV. *Fig. 18, t, t¹*) and four broad radiating tubes (f^1), and a circular tube (f) equally broad, which are quite conspicuous, and render the observation of its movements very easy. When in a state of rest it usually retains the diastolic state, the tentacles are thrown upwards, and their ends droop in graceful curves, in a contrary direction to the concavity of the reverted disk, while the proboscis, hanging below, adds to the resemblance of a broad vase, with herbage pendent from its edge. Suddenly it reverses its position, and then the proboscis hangs from the centre of a broad concavity, the tentacles curving in the same direction, when the medusa has altogether a drooping appearance. From one of these extremes to the other, it passes, during the act of swimming, with various degrees of rapidity; and, at times,