21, *b c*), but this want of symmetry soon disappears. At this time a certain portion, at the exterior, becomes differentiated, and forms quite a thick layer (*Figs.* 21, *c*, and 21ª, *c*). Traces of this change may be seen earlier than this, while the separated mass is in a spheroid condition (*Figs.* 11, *c*, and 24, *c*); the parietal portion is then, to a considerable depth, more transparent than the central one; but a marked separation of an exterior thick layer does not occur till the angles appear at the edge of the disk. At the angles, and just below the thick layer, the granule-like cells (*Fig.* 21ª, a^1) are much more transparent than those along the sides, and more inwardly (*a*). Soon the sides become more equal, among each other, in length (*Fig.* 22), and quite concave, and the angles (*b*), consequently, more prominent, the exterior layer more transparent (*Figs.* 22, *c*, and 22ª, *c*), and the clear prominence (*Fig.* 22ª, a^1) of the interior still clearer. We have, thus far, sufficient evidence to show that this polygonal, free body, is a young hydroid, and on this account must consider the granular mass, of which it was once a portion, as the *germ-basis*. The exterior thick, transparent layer, is its exterior wall (*Fig.* 22, *c*), already evincing traces of large, broad, columnar cells (*Fig.* 22ª, *c*); the prominent angles, lying as one plane around the edge of the disk, are the tentacles (*b*) at the base of the head. The clear space (a^1) beneath the outer wall of the tentacles corresponds to the axial layer of these organs; and the interior mass (*a*) is the inner wall not yet hollowed out for the chymiferous cavity.

By the time the tentacles have grown to an elongate triangular shape (*Fig.* 23, *b*), and equal in length to one third the breadth of the discoid body (*a*), their axial layer (*Fig.* 23ª, a^1) has its characteristic double row of large cells (a^1 a^2); and they have considerable flexibility, not only up and down, but laterally (*Fig.* 23). After the tentacles have grown a little longer, and assumed an oblong shape (*Fig.* 13, c^3), the centre of the internal wall of the body becomes hollowed, and a large circular cavity (c^2) appears. The breadth of this cavity is about one half that of the body, but, in consequence of the flattened shape of the latter, the depth is much less. The young hydroid is concave on the side next the proboscis, and on the opposite side convex, and the tentacles (c^3) are curved slightly downward. For a considerable length of time after this, there is nothing new added to the organism, but the various parts of the body assume other proportions; the convexity of the body increases more and more (*Fig.* 12, c^1 c^2), the tentacles (c^3) become longer, more slender, and, as a general thing, curled under, toward the concave side of the body. By the time the tentacles (*Fig.* 14, *c*) have become globular at the tips (*g*), and three times as long as the diameter of the convex part of the body (c^1), and the latter has grown deeper than broad, its concave side has developed a large, broadly oval hernia (*c*), which projects in a straight line from the centre. Its walls (*c*) arise directly from the bases of the tentacles,