

lobes of Aurelia, as represented in Pl. XI<sup>a</sup>. *Figs.* 19, 25, 26, and 28. *h h*, and Pl. XI<sup>b</sup>. *Figs.* 4 and 17; and the resemblance is greater, in proportion as they are younger. The eye is truly a tentacle-like prolongation of its radiating pouch (Pl. IV. *Fig.* 1, *o o*, and Pl. V<sup>a</sup>. *Fig.* 8, *o*), which is alike in the adult and the young, except that in the young the peduncle of the eye is flanked by two simple lappets, as in the young Aurelia, while in the adult the lappets have become complicated lobes, with ramified channels, branching from the main pouch, with two horns toward the margin. The lappets of the oculiferous lobe of the young, with the intervening eye upon its peduncle, have, in reality, become the complicated termination of the ambulacral pouches and of the main ovarian pouch (Pl. IV. *Fig.* 1, *o o' o'' o'''*), their medial emargination corresponding to the space intervening between the two lappets in the young, at the base of which projects the eye, with its peduncle, as seen Pl. IV. *Fig.* 3, *a b c*. The lappets themselves have become hollow lobes, as is seen to particular advantage in Pl. V<sup>a</sup>. *Fig.* 24, *o'*, and *Fig.* 23, *o o*, the main cavity of each lappet sends off dendroid ramifications to the margins of the lobes. In proportion as the Cyanea grows older, these ramifications become more and more complicated, and extend even upon the sides of the slit separating the two lappets, as seen in Pl. V<sup>a</sup>. *Fig.* 23, *o*, and *Fig.* 7, *o*, in which *c* indicates the eye, with its peduncle. The same is highly magnified in *Fig.* 8, in which *o'* marks the main cavity of the ocular chamber, and *o* the eye itself. Like a tentacle, this organ is capable of a certain extension and contraction; in *Fig.* 8, Pl. V<sup>a</sup>, it is represented in its utmost state of contraction, in *Fig.* 3, Pl. IV., it is shown in its utmost state of elongation, as seen from below.

## SECTION V.

### HISTOLOGY OF CYANEA.

Little has been done, thus far, towards an histological investigation of Cyanea, and a thorough survey of all its parts would, no doubt, lead to interesting results, judging from those which have already been examined. The curtain of the actinostome especially presents interesting points; the folds of the flowing curtains, when elongating and shortening, present, alternately, prominent longitudinal and transverse lines, which are undoubtedly the result of the change of their tissue; for when inactive they are smooth. The longitudinal lines between the folds are particularly distinct in the state of utmost relaxation, when the elongated cells, hanging in bundles, in a vertical direction, between the folds, are most clearly visible.