which may explain their rare appearance near the surface. The youngest specimen of Cyanea arctica, observed by my son, was in the habit of remaining attached to the bottom of the jar in which he kept it alive for about ten days, hardly ever moving unless disturbed. We are so accustomed to consider Medusæ as animals floating in the water and basking near its surface, that the explanation here given of the rare occurrence of young Cyaneæ may appear questionable, and I would hardly have ventured to suggest it, had I not become acquainted with a kind of Medusa, in Florida, of which I shall give an account in another chapter, which is hardly ever seen at the surface of the water, at any time, even when adult, but found by thousands, groping in the mud and hardly moving, crowded upon one another, like barnacles upon rocks.

Though it does not exhibit such marked changes as those noticed among the tentacles, it is interesting to see how the actinostome is gradually modified during its growth. In the young, the four corners of the mouth are prolonged as four independent, distinct, arm-like appendages, similar to those of Pelagia or Chrysaora, the middle part of which is evidently much thicker than the margins; but with advancing age, the sides of each arm widen, and assume the curtain-like appearance characteristic of the adult. The degree of enlargement of these pendant curtains varies in different species, as well as with age. They are most expanded, and exhibit the largest number of folds in Cyanea arctica, and least so in Cyanea versicolor, while C. fulva stands intermediate between the two, in that respect. These changes of the actinostome not only show the close homology between the so-called arms of the Aurelia and the pendant curtains of the Cyanea, but also the relative standing of the different genera of Discophoræ which are most nearly allied to Cyanea. For it is plain that Pelagia and Chrysaora, in which the actinostome retains, through life, the structure it has in the young Cyanea, must be inferior to Cyanea itself, and the changes which the horizontal part of the lower floor undergoes, confirm this inference. In the youngest Cyanea observed thus far, the pouches, radiating from the central cavity towards the periphery, were defined merely by the attachment of the lower floor to the upper floor, along the long and short junctions; but no traces of concentric or radiating folds were observed. When, however, these folds make their appearance, they are comparatively few, occupying narrow bands, which go on widening and enlarging with age, and with their development the number of tentacles increases regularly. In these features, again, we find an agreement between the young Cyanea and the genera Pelagia and Chrysaora, and also a coincidence with the genera of the family of Cyaneidæ proper, which rank below Cyanea, such as Stenoptycha.

In a morphological point of view, the changes of the ocular lobes are also highly instructive. In the young Cyanea, they resemble very much the oculiferous