

wide radiating pouches, while in Aurelidæ we have branching chymiferous tubes, but also in the sudden thinning of the margin of the disk, which diminishes very gradually in thickness in Aurelidæ. The consequence of this is, that while in Aurelidæ the disk always expands and contracts uniformly in every direction, in Cyaneidæ there is much greater independence in the movements of different segments of the body; some lobes of the umbrella may even be moved separately from the others, no doubt owing to the independent action of the different bundles of the radiating folds of the lower floor. Another result of this peculiar structure is, that the centre of the disk of the Cyaneidæ may sink, while the margin is raised, and the whole body assume the form of a broad funnel.

The Sthenonidæ resemble the Cyaneidæ already more than the Aurelidæ, owing to the great development of their tentacles, and to the fact that their genital pouches hang below the surface of the lower floor. But in this family we have, as in Aurelidæ, branching chymiferous tubes, instead of radiating pouches, and the indentations of the margin retain the lobulate character of the young; while the actinostome varies as in Cyaneidæ, the arms being more distinct in some genera, and assuming the appearance of flowing curtains in others.

Of all the Discophoræ, it is to the family of Pelagidæ that the Cyaneidæ bear the greatest resemblance; but I do not believe that I have exaggerated the importance of their difference in considering them as distinct. It is true, in Pelagidæ the main cavity extends to the periphery in the shape of radiating pouches, as in Cyaneidæ; but in the Pelagidæ these pouches are more uniform, their terminal lobes less diversified, and the tentacles arise between the lobes of the margin and not from the lower floor. Again, owing to the greater equality among the pouches, the gelatinous disk thins more uniformly towards the margin, and on that account the disk assumes a more hemispheric shape in its contraction and expansion. The genital pouches, also, do not protrude like pendant sacs from the lower side, and the actinostome, forming a kind of tube before dividing, projects downward, and then splits into four distinct, long, waving arms, with thin margins.

SECTION VII.

THE GENUS CYANEA COMPARED WITH OTHER GENERA.

Notwithstanding the fulness of the description of *Cyanea arctica* which has been presented in preceding sections, I deem it important to call attention once more to those peculiarities of structure of that *Acaleph*, which, in my estimation,