

as shown in *Fig. 4*, while the surface, again, is covered with cells varying in size and arrangement, and assuming different appearances in the various states of contraction of the tentacles themselves. Where the lasso-cells are scattered uniformly over the whole surface, as in *Fig. 9*, the tentacles appear more even, but where they are grouped in clusters, as in *Figs. 7, 8, and 10*, their surface is already more uneven, and in a state of contraction these clusters are more or less raised, like tubercles, as in *Fig. 8*, and at times many project like warts attached to an otherwise smooth surface (*Fig. 5*). This appearance, however, is presented only in a state of utmost contraction of the tentacles, when the more elongated epithelial cells, which define the areas occupied by clusters of lasso-cells, as seen in *Fig. 6*, are contracted in the form of prominent ridges, as in *Fig. 5*.

It has already been stated, when describing the young *Cyanea versicolor*, that the surface of its disk is covered with hollow papillæ; but what becomes of these in course of time, has not been ascertained. The outer surface of the lobes of the actinostome is also covered with similar, but very minute papillæ, in the young; but nothing of the kind has been noticed in the adult.

SECTION VI.

CYANEIDÆ AS A FAMILY.

The form of the Cyaneidæ is so characteristic, that there is no difficulty in distinguishing it from that of other Discophoræ. The sudden reduction of the thickness of the gelatinous disk towards its margin, in connection with the width of the radiating pouches, which extend from the main cavity to the margin of that disk, and the manner in which the narrow pouches terminate in small lobes, while the broad pouches, alternating with them, terminate in broad lobes, combined with the ramifications of these pouches into branching sacs, extending to the very margin of the lobe, give these Medusæ an appearance quite peculiar. The position of the eyes at a considerable distance from the margin, and the circumstance that the tentacles hang from the lower side of the disk, at a still greater distance from the disk, contributes further to distinguish this family from all other Medusæ. If to these characters we add the prominent concentric and radiating folds of the lower floor, the large, pendant genital pouches, and the extraordinary development of the actinostome, we have a combination of characters not found in any other Discophoræ, and which justly entitle these Acalephs to be considered as a distinct family. They differ from the Aurelidæ, not only by the presence of their