

(*c e*). Its cells are very thin walled, irregularly polyhedral (*f*), and have perfectly homogeneous, hyaline contents; they are capable of great elongation (a^3) or of contraction (a^2), and are largest in the region of the lasso-cells (a^2), which are imbedded among them, in large numbers, and in all stages of development. The tip of the tentacle especially (*e*) is crowded with lasso-cells; in fact they seem to be the only constituents of the outer wall, so closely are they packed. As they are arranged at pretty regular intervals, in groups, all around the tentacle, they give it a knotted appearance, which in the adult becomes a very marked feature (Pl. VII. *Figs. 2, 3, and 4*). The inner wall (*b b' b''*) has a more uniform thickness, which is dependent alone on the amount of expansion or contraction of the tentacle. Like those of the outer wall, the cells of this are capable of great elongation (b^3) or of extreme contraction, and have perfectly homogeneous contents. The surface of the disk is studded with collections of lasso-cells (*Figs. 9 σ and 7 a b*), which as yet only number about a dozen in each group. The epithelial cells (*Fig. 7 c*) have very thick walls in a horizontal direction, and numerous young cells are developing between them.

In this condition, the young Aurelia resembles the adult so closely in its general appearance, that it is hardly worth while to trace further, step by step, the successive enlargement of the whole body up to its mature condition, as this would lead to frequent unnecessary repetitions, inasmuch as from this time forwards, some parts undergo hardly any changes, while others only increase in number, and only a few new features are introduced. It may, therefore, suffice now to describe the adult and to allude incidentally to the final transformation of all its parts.

SECTION III.

STRUCTURE OF THE ADULT AURELIA FLAVIDULA.

The body of all Acalephs consisting of a repetition of identical parts, symmetrically arranged around a vertical axis, and yet variously combined with one another, it is indispensable to consider this arrangement first, in order to form a correct idea of their structure. In Aurelia, in their adult state, the most conspicuous parts are the gelatinous body or disk, the indentations along its margin, the crescent-shaped organs around the centre, and the prominent appendages on the under side; and, though the number of these parts varies occasionally, there are usually eight indentations along the margin, four crescent-shaped bodies near the centre, and four large appendages below. The variations in number arise from the interpolation of similar