

THE EPHYRA¹ OF AURELIA FLAVIDULA. By the time the young medusa has completed its strobila stage of existence, the different regions of the body are sufficiently developed to be easily identified with similar parts of the adult; and we will therefore now give them their proper names, before proceeding to describe the ephyra in a free state. The eight lobes (Pl. XI. *Fig.* 29 *j*) are the oculiferous lobes (see Pl. VI. *Figs.* 1 and 4), and the lobule (Pl. XI. *Fig.* 24 *h*) is the ocular peduncle (Pl. VI. *Fig.* 4 *o*). The intervals (Pl. XI. *Figs.* 6 and 17 *i*²) between the lobes become the tentaculiferous edge (Pl. VI. *Fig.* 2 *b*; Pl. VII. *Fig.* 3 *b*), and the broad papilla (Pl. XI. *Fig.* 24 *i*) in each of these intervals the marginal veil (Pl. VII. *Fig.* 2 *c*; Pl. VIII. *Fig.* 5 *c*). The digitate bodies (Pl. XI. *Fig.* 24 *g*, *Fig.* 26 *c*) are the genital appendages (Pl. VIII. *Figs.* 7 and 8 *c*; Pl. IX. *Figs.* 1 and 2 *c*).

When the young Aurelia has parted from its attachment, it assumes a position reverse to that which it held in the strobila state, and swims with its proboscis hanging downward (Pl. XI. *Figs.* 21, 23, 24, 27, and 28). It is true that the strobila is capable of living in any position, either attached to stones, logs, etc., and standing up so that the mouths of the ephyrae are upward; or the base of the strobila may be uppermost, when it is attached to the under-side of floating bodies, such as sea-weeds, floating timbers, and the like, and in this condition the ephyrae hang with the proboscis downward, just as they do when swimming individually. That there is an essential reversal of position when the ephyrae become free is, therefore, only seeming; for, although it is true that the medusæ do not naturally rest with the mouth upward, yet they swim in this position very often. The proper time to ascertain the shape of the young ephyra is when it is in a state of rest, and then we see that it resembles an umbrella, or, perhaps, more closely, that kind of parasol which has a lining to cover the wires on the under-side, or even a common mushroom, inasmuch as that has a thick pedestal: in reality, the geometrical expression for it would be, double convex. When swimming it assumes a variety of shapes, all of which, however, are the result of the upward and downward motion of the periphery of the disk: at one time we may see the umbrella reversed (*Figs.* 21, 24, 27, and 28), so that it resembles a common fruit dish on a pedestal; or, when this position is changed by the vigorous downward stroke of the periphery and the animal shoots forward, the extreme of the opposite shape is assumed, and the body resembles a mushroom with its periphery curved downward and inward, just before its edge breaks loose from the stalk at the moment of expansion (*Fig.* 23). Oftentimes the little medusa may be seen floating with its body slightly depressed above, and its oculiferous lobes stretched outward to the utmost (*Figs.* 24 and 28), as if to offer the greatest amount of surface to the

¹ See Vol. III. p. 80 for the meaning of the word Ephyra as used here.