

in color is very striking, and the distended ovaries and the marginal folds of the arms filled with eggs, impart to the females a characteristic, yellowish appearance, whence the name *Aurelia flavidula*; though, at a later time, when the young begin to develop, the yellowish tint passes into a more brownish-orange tint. The males, on the contrary, have their spermaries more deeply purple before fecundation takes place; afterwards their genital organs assume a paler, more rose-colored tint, and finally fade into dull white, the marginal fringes of their oral appendages never swelling, as they do in the females, in consequence of the enlargement of the young. When the genital pouches begin to grow large, the inner peripheric margin of their lower floor gradually swells and projects into the genital sac, until a garland of folds (Pl. VIII. *Fig. 7*), waving along the whole edge, is formed, in the plications of which the ovarian and spermatie cells are developed, as seen in Pl. VIII. *Fig. 8*, and Pl. IX. *Figs. 1 and 2*. Near the folds which contain the eggs and the sperm-cells, hang the many rows of digitate appendages already described, which by the time of the maturity of these organs are extremely numerous, and occupy a band of about the same dimensions as the sexual organs themselves. The function of these digitate organs is probably to determine currents in the immediate vicinity of the eggs, and thus to secure a constant supply of fresh, aerated water in their immediate vicinity.

There are marked differences in the parts along the margin of the disk between the young and the adult. Not only are the tentacles growing more and more numerous and proportionally longer, but the lobules which separate them are greatly enlarged, so much so, that they appear like flat, broad lobes (Pl. VII. *Fig. 4*), between which the tentacles seem to arise as from sockets, *Fig. 3*, when seen from above; while the thickness of the lobules themselves is greater on their lower side, as shown in *Fig. 2*, and from their inner and lower margin hangs the veil, as seen in Pl. VIII. *Fig. 5 c d*. The character of the tentacles in the intervals between two eyes is very uniform. As in earlier age, however, they are thicker at the base, with a wider cavity tapering to a blunt end (Pls. VII. and VIII. *Fig. 6*), the cavity extending nearly to the tip, but gradually narrowing, while the outer surface appears as if covered with beads, owing to the crowded clusters of lasso-cells with which they are set; near the eyes they are gradually smaller, so that the margins of the indentations in which the peduncles of the eyes, with their visual lappets, are situated, appear like free spaces, destitute of tentacles; and, indeed, there are here no ordinary tentacles, but the margin of the disk assumes a peculiar appearance, as in Pl. IX. *Fig. 4*. The sockets for the tentacles are wider, and the lobules between them flat and broad; while the ocular apparatus itself may be considered as a modified tentacular margin, the eye, with its peduncle, being a tentacle with a specialized termination, and the lappets of the eye, so prominent, and comparatively