

highly organized eyes, in definite number, and these eyes are always placed at the marginal end of some specially organized radiating tube, alternating with other tubes of a different character; thus exhibiting a higher complication of these parts, not only in their structure, but also in the definiteness of their relations to one another, in their alternation with one another, and in their numeric limitation. Some Discophoræ have no other marginal organs besides eyes; but there are those that are provided with variously combined tentacles also: in none, however, are the eye-specks connected with tentacles, though the eyes are themselves modified tentacles.

In the naked-eyed Medusæ, the ovaries and spermaries follow the track of the radiating chymiferous tubes, and are variously circumscribed in their extent: in some, they are limited to the walls of the proboscis, in others they extend all along the chymiferous tubes proper, and in others they occupy only a part of the course of these tubes; but they are never circumscribed within distinct pouches, as in the Discophoræ proper. In these, the ovaries and spermaries bear identical homological relations to the chymiferous tubes, as far as their position is concerned; but, owing to their higher development and to their isolation, they form distinct bunches, hanging in distinct pouches on the lower side of the disk, and stand in definite relations to the parts surrounding the actinostome, through which the eggs are laid, while in the naked-eyed Medusæ the eggs simply drop from the ovary into the water without ever passing through the actinostome. Imperfect and injured specimens may leave a different impression respecting the mode of escape of the eggs from the ovaries; but I shall show hereafter that these egg pouches are really closed, and do not naturally open outward, as Ehrenberg represents them, but communicate only with the main cavity of the body, and through it with the actinostome, through which the eggs or the young finally make their escape into the water, after having remained for a longer or shorter time suspended in the peripheric folds of the actinostome.

In Discophoræ proper, the actinostome is far more complicated than in the naked-eyed Medusæ. In the latter, it is only a projecting fold of the lower wall of the spherosome, either extending simply as a circular rim beyond the main cavity, with or without fringes, or forming a more or less elongated proboscis. In Discophoræ proper, the actinostome is as it were suspended between distinct pillars hanging from the spherosome, which expand into more or less complicated leafy folds, the edges of which are either free, as in *Aurelia*, *Pelagia*, *Cyanea*, etc., or partially soldered together, as in *Rhizostoma*, *Polyclonia*, etc., thus forming either open or partially closed channels leading from their peripheric termination to the main cavity, which is itself wide and capacious, and supported laterally by the pillars of the actinostome. The cavities formed by the leafy folds of the acti-