

## SECTION III.

## DESCRIPTION OF PELAGIA CYANELLA.

Returning, now, to the Pelagidæ observed along the Atlantic coast of North America, I have only to notice two species, one of which, the *Pelagia cyanella*, is represented on Pl. XII. of the third volume, while the other has not yet been figured. Our *Pelagia cyanella* has already been accurately described by Eschscholtz, but a figure with details of its structure was still wanted, and I have attempted to supply the deficiency. Like *Pelagia noctiluca*, which is its European representative, our *Pelagia cyanella* is remarkable for the striking rotundity of its umbrella, the margin of which is usually more contracted than the middle of the disk, *Fig. 1*. The whole of the surface, but especially the middle space, is dotted with little reddish-brown warts, arranged in radiating lines. The prevalent color of the whole disk, and of the arms, is bluish white, hyaline, through which shines reddish-brown pigment (*Fig. 3*) in the marginal sacs of the radiating pouches, and along the whole length of the tentacles, which are of a more brick-red color, while the ovaries shine through with a more purplish tint; upon the outer surface of the pendant arms there are reddish-brown dots, as upon the outer surface of the umbrella. The tentacles are capable of very great elongation and contraction, hanging at times far beyond the actinostome, while at other times they are shortened to a length less than the diameter of the disk. The actinostome consists of a slender peduncle, formed by eight pillars (*Fig. 2, a*), alternating with the main lobe (*b*) of the genital pouches, and uniting into a cylinder, which divides again into four long slender arms (*Fig. 1, s*) with thin lobulate margins. This specimen was observed in the Gulf of Mexico, at the Tortugas Islands, and an opportunity was offered to trace some stages of its development, embracing five days, beginning at the time when the imperfectly developed young, having the appearance of a planula or of an imperfect scyphostoma (*Fig. 4*), were seen dropping from its actinostome. The embryos corresponded in their structure to those of *Cyanea arctica* represented on Plate X. *Fig. 12*, without, however, showing the slightest inclination to attach themselves to the ground. They soon presented a wider excavation (Pl. XII. *Figs. 5, 6, and 7*), approaching to the condition of *Cyanea* represented in Pl. X. *Fig. 13*, and on the third day, Pl. XII. *Figs. 8 and 9*, the beginnings of eight tentacles (*b*) were unmistakable, and the mouth appeared like a distinct opening in the centre (*a*). In this stage the young *Pelagia* may be compared to the scyphostoma of a *Cyanea* which is already attached (Pl. X. *Fig. 14*), and yet the *Pelagia* remains free, and