

between the right and the left ambulacral tube of the anterior and posterior pairs, passing in their course from the margin of the outer surface to the middle of the inner surface, first descending, then rising, then descending again in undulating lines, then rising and descending again, until they meet to form an anastomose in the lower central part of the lobe. Such a connection between any of the tubes on the oral side of the body does not exist in Pleurobrachia. Besides the meandering tubes of the long ambulacra, there may be seen, all over the inner surface of the large lobes, a curious network of angular meshes, resembling small vessels and connected with one another in a way which recalls somewhat the branchial vessels of the Naiades, though their arrangement is less regular and not so strictly rectilinear and parallel. When I first noticed these meshes I mistook them for real vessels, and have so described them in my paper on Beroid Medusæ; but I have recently ascertained that they are simply the outlines of the gigantic polygonal cells which form the inner layer of the large lobes. The ends of these cells are flattened against the inner surface of the lobes and covered by small epithelial cells, crowded in rows in the intervals or upon the outline of the large cells. A similar network exists also in *Leucothea formosa*, *Aleinoe rosea*, and *Bolina septentrionalis*, judging from the drawings of Mertens. Will has described the same thing in Chiaja;¹ but Milne-Edwards makes no allusion to it. Like Leuckart, Forbes, and Milne-Edwards, I have seen nothing in Ctenophoræ answering to the so-called blood-vessels described and figured by Will.

The ambulacra of the sides are reduced to simple chymiferous tubes as soon as they reach the base of the small lobes, whence the tubes continue in a very complicated course through these lobes, and then toward the mouth, sending also a branch to the large lobes. Each tube first follows the inner margin of its small lobe, then turns round the obtuse point of the lobe and retraces its course along the outer margin of the same lobe to its very base; here it branches in such a way as to unite simultaneously with a tube extending along the margin of the mouth, and with the marginal tube of the inner surface of the large lobes: or, it may rather be said, an anastomosis is established at the base of the small lobes, on their external margin, with a recurrent tube (*Figs. 88 and 89 w*) trending along the outer margin of the large lobes, as well as with another tube rising from the margin of the mouth. *Fig. 3* of Pl. VII. of my paper in the *Memoirs of the American Academy*, in which the inner surface of the large lobes is turned outward for the whole extent of their margin, shows these connections most distinctly.²

¹ WILL, *Horæ Tergestinae*, p. 55, Pl. I. *Fig. 14*, considers these meshes as forming part of the skin, and describes them as similar in structure to the tentacular threads.

² The letter-press mentions also distinctly these anastomoses, (p. 358). I am therefore surprised that Milne-Edwards should state that I have failed to notice the connection of the "canaux costaux laté-