

The anastomosis with the large lobe is established through a tube which arises from the lower sinuosities of the inner convolutions of the long ambulacral tube. The communication with the oral tube is more direct, and may be considered as a branch from the tube of the short ambulacra: indeed, both may be considered so, the anastomosis with the large lobe, as well as that with the mouth. But, in the first case, the communication with the tube of the long ambulacra is more indirect; while the connection with the oral system is direct, through a tube which only bends at right angles upon itself.

The large lobes and the auricles are not identical in their structure, though homologous with one another. Each large lobe is formed of the actinal prolongation of two united spheromeres, while each of the small lobes or auricles is an actinal prolongation of a distinct spheromere. Moreover, the large lobes are bulky and thick, consisting of a large mass of the same kind of large cells of which the whole body is built; while the small lobes are simply membranous, or rather diverticula arising from a folding of the surface of the body at the lower extremity of the short ambulacra, in the shape of flat sacs with hollow margins. They are, indeed, a mere fold in the direct prolongation of the short ambulacra, along the margin of which the ambulacral tubes and the locomotive flappers are continued all round the lobe; when the fringes disappear and the tube alone is continued, branching into the adjoining large lobe, as well as towards the margin of the mouth. We may therefore view the small lobes simply as modifications of the lateral ambulacra, rising above the general surface of the body and bent inward in proportion as the great transverse chasm which separates the two large lobes rises higher along the sides of the mouth, thus leading to the formation of a loop in the lateral ambulacra, instead of a straight course, as on the sides. The vibrating fringes of the small lobes are in direct continuation of the locomotive combs of the ambulacra proper, which would appear as long on this side of the body, and even longer, than upon the anterior and posterior spheromeres, if they were stretched in the same manner; but, being here folded over in the shape of prominent auricles, they act more energetically as lateral oars. There is, however, one marked difference between the ambulacral rows of locomotive fringes and their continuation along the margin of the auricles. As far as the locomotive flappers follow a straight course along the vertical ambulacra, their combs are transverse to the chymiferous tubes; but as soon as the tubes diverge sideways to follow the margin of the auricles, the locomotive flappers assume a longitudinal arrange-

raux" (the ambulacral tubes of the large lobes) with the "vaisseaux périgastriques inférieurs" (the cœliac tubes). What I did not observe was a con-

nection between the ambulacral tubes of Pleurobrachia and its cœliac tubes (p. 357), which really does not exist.