

Ctenophoræ has a vertical main axis, which is usually the greatest diameter of the spherosome, and two distinct transverse diameters, one of which is to be considered as the antero-posterior or longitudinal, and the other as the transverse, diameter proper, it will appear that the eight spheromeres are arranged in pairs upon the sides of the longitudinal diameter, in such a manner that there are two pairs upon the sides, one pair in front, and one pair behind,—one spheromere of each pair being on one side, and the other on the other side, of the longitudinal diameter. Now, in all Ctenophoræ, the spheromeres, which as pairs correspond to one another, are always equally developed and of exactly the same structure, the same size, and the same form, balancing one another completely upon the two sides of the body, so that the spherosome exhibits no trace of one-sidedness or unequal bulging, as exists in some of the Acephala. But while this is so, so long as we compare the spheromeres of one and the same pair with one another, the symmetry of the spherosome assumes a very different aspect when we extend the comparison from one pair to another pair; for while the anterior and the posterior pairs are again identical in structure, size, and form, they balance one another in opposite directions, and differ still more widely from the two lateral pairs, which also balance one another in opposite directions. These differences may be carried so far that the anterior and the posterior pair balancing one another symmetrically may be much more developed than the lateral pairs, and have a greatly modified though homological structure. The natural consequence of this peculiar symmetry is, that the anterior and posterior surfaces of the spherosome are exactly alike; and that therefore, notwithstanding the existence of a distinct antero-posterior diameter, it is impossible to determine which is its anterior and which its posterior end. For the same reason it is impossible to determine which is the right and which is the left side, even though it cannot be doubted that there are two symmetrical pairs of lateral spheromeres. We are, on that account, unable to distinguish the regions of the body of the Ctenophoræ with all the desirable precision, and shall be obliged to designate four of the spheromeres as the lateral spheromeres, and the four others as the anterior or posterior spheromeres; remembering, however, that one pair of the latter stands opposed to the other, while two single spheromeres belonging to different pairs are opposed to one another upon the sides.

The intermediate or interambulacral chymiferous tubes are always placed between two lateral spheromeres. This is a truly remarkable feature of the Ctenophoræ, unique among Acalephs, since all the other types of the class have all their spheromeres evenly balanced. We shall see presently, that this peculiarity stands in direct relation to the general mode of branching of the chymiferous tubes. I may, however, at once call attention to the bearing which this fact has upon the whole symmetry of the Acalephs. In giving prominence to the sides, it renders the