

final course, circulate the chymiferous fluid with which they are filled into all parts of the spherosome; and there is this remarkable peculiarity in the general current of this chyme circulation, that the fluid contained in one half of the body, reversing regularly its course, is alternately poured into the opposite half and back again. Thus the chief peculiarity of the chymiferous system of the Ctenophoræ does not only consist in its bilateral symmetry, but also in the antagonism of the currents of its two lateral halves.

Next, we have to notice the vertical prolongation of the chymiferous system in the shape of a funnel, extending to the abactinal pole of the body, in the prolongation of the main axis, and there, dividing into two forks, running to some distance in opposite directions, between the anterior and posterior pairs of locomotive flappers. The fork of this funnel forms a sort of cloaca, in which the refuse of the chymiferous fluid accumulates, to be at intervals discharged through two distinct openings, placed obliquely on opposite sides of the circumscribed area of the abactinal pole. The physiological significance of the circumscribed area has not yet been ascertained. It is an elongated field, circumscribed by a more or less prominent wall of vibratile fringes, interrupted in the middle by a prominent organ, considered to be an organ of hearing by some anatomists, and described by others as an eye-speck, towards which converge the abactinal prolongations of the rows of locomotive flappers.

One of the most apparent peculiarities of the Ctenophoræ, and to which this order of Acalephs owes its name, consists of eight rows of locomotive flappers, extending along the eight vertical and peripheric chymiferous tubes, with which they are closely connected. As far as I can ascertain, all Ctenophoræ have eight such rows, though some of them are represented with only four and others with twelve. But their close connection with the ambulacral tubes, and the constancy of the number of these tubes in all the Ctenophoræ which I ever had an opportunity of examining, lead me to take it for granted that the typical number of the vertical rows of locomotive flappers must be eight. I am inclined to ascribe the conflicting statements upon this point to the marked inequality observed among these rows in different families. The fact is that while they are, all eight, of equal length and equal prominence in certain representatives of this order, in others there are four larger, longer, and more prominent ones, and four shorter and smaller ones, differing more or less in their course. I hold, therefore, that the smaller rows may have been overlooked in those genera which are described as having only four rows of locomotive flappers; and that, in those which are represented as having twelve rows, the vibratile cilia of the epithelial cells lining the digestive cavity may have been mistaken for additional rows of locomotive flappers. Gegenbaur gives the same explanation of the singular figure of the *Alcinoe*