

part appears to act as an otocyst, since it is constricted off by a strong sphincter from the wide palpon cavity, and forms a spherical terminal bladder in which a crystalline otolith is kept in rotatory movement by a ciliated epithelium. Palpons are found generally distributed in the Physonectæ and Physalidæ; they are absent in the Auronectæ, Calyconectæ, and Disconectæ. Not unfrequently palpons are confused with tentacles, as for instance repeatedly by Claus, even in *Physophora*.

### CYSTONS OR ANAL VESICLES.

Under this title I distinguish from the other polypoid organs of the Siphonophoræ certain vesicular sacs, which have hitherto been generally confused with the palpons. They are indeed very like the latter, but are very essentially distinguished from them by a terminal aperture. By means of this aperture, which the animals can open or close at will, fluid and excretions are emptied from the canal-system, and water may also be taken in. It is therefore to be regarded as an anus. The distal portion of the cystons is frequently pigmented and furnished with special glandular cells, they also sometimes contain definite crystalline excreta. These anal vesicles obviously stand in closer morphological and physiological relations with the siphons than with the palpons; they are, however, distinguished from the former by the simple structure of the wall. I find these excretory structures widely distributed among the Physonectæ, but they appear to be altogether absent in the other orders.

### TENTACLES OR CAPTURING FILAMENTS.

(*Senkfäden, Stinging Filaments, Tentacular Filaments, Nematoooids.*)

Tentacles are present in all Siphonophoræ, and are both as capturing organs and as offensive and defensive weapons quite indispensable. Recent reports of their absence in some species are certainly to be explained by the ease with which the delicate threads are during capture detached from their base. The poly-person theory regards the tentacles as independent polypoid persons. I agree, on the other hand, with the poly-organ theory, which explains them as organs of the siphons. In my opinion the tentacles of the two legions of the class are in their nature entirely different. In the Disconanths (or Porpitaridæ) the primary circle of tentacles on the umbrellar margin of the medusoid larva. (*Disconula = Archimeda*) persists; there are at least eight present; their number usually becomes much increased; they have no individual relations to the separate siphons which bud forth in large numbers from the subumbrella. It is