

POLYSIPHONLÆ OR POLYGASTRIC SIPHONOPHORÆ.

In the great majority of Siphonophoræ the adult form possesses several suctorial tubes or polypites as organs for the reception and digestion of food. These arise in the Discanthæ by budding from the primary *subumbrella*, in the Siphonanthæ on the other hand by budding from the ventral middle line of the primary *siphon*, which is modified into the stem. In the former these "metasiphons" surround the primary archisiphon as a corona; while in the latter they are disposed upon the protosiphon either on the one side only or on all sides, in a spiral line. In the simplest and most primitive case, such as occurs in the polygastric Calyconectæ and in many Physonectæ, the metasiphons develop in regular metameric succession on the segmented stem, separated by wide internodes. Each individual siphon is (in the *Eudoxiæ* and the corresponding simplest *Prodoxiæ* of the Physonectæ) associated with a covering bract; both together form a medusome, the umbrella being represented by the bract, the manubrium by the siphon. In most of the Physonectæ numerous covering bracts soon develop, which are to be considered as mere multiplications of the primary bract, and therefore as entirely subordinate organs. But when from the base of such a medusome gonophores bud forth—appendages that is to say of the morphological value of a medusoid person—then such a "group of persons" acquires the value of a *cormidium*. In many Polysiphoniæ the metameric arrangement of the cormidia subsequently breaks up, and then the connection between the scattered siphons and the separated sexual medusomes is often no longer demonstrable.

PALPONS OR TASTERS.

(*Feelers, Tasters, Arms, Fluid Receptacles, Hydrocysts, Dactylozooids.*)

In the great majority of the Siphonophoræ, the siphosome bears, scattered between the siphons, or connected in groups with the latter, the tasters or feelers. These are always simple, thin-walled, very contractile sacs, in which the proximal portion communicates with the cavity of the stem, while the distal end is closed. Morphologically the tasters are to be regarded as mouthless manubria, or as the stomachic sacs of medusomes in which the umbrellas have become modified into covering bracts or are entirely degenerate. The palpons are distinguished from the cystons by the absence of a distal opening, from the siphons not in this alone, but also in the absence of the glandular villi and hepatic stripes in the stomach region. Their function appears to be mainly, if not exclusively, sensory. Their sensitive point probably acts generally as a taste organ, and sometimes also as an eye; in a (new) *Athorybia* I observed a lens in this ocellus (a sickle-shaped pigment spot on the upper surface of the sensory apex). In some Agalmidæ the distal