quite different in all the other Siphonophoræ—the Siphonanthæ. Even their primary medusoid larva (Siphonula = *Protomeda*) always possesses only a single tentacle, and this is excentrically attached to the base of the primary siphon. The phylogenetic cause of this peculiar position is to be sought in the bilateral modification, which the older four-rayed medusoid ancestors of this legion (Codonidæ) have undergone through the degeneration of three marginal tentacles (Euphysidæ). Only a single tentacle remained persistent, and was all the more strongly developed; it shifted in consequence of the ventral splitting of the umbrella to the inferior surface of the latter beside the base of the siphon. A similar *centripetal migration* of tentacles occurs also in Medusæ, sometimes on the superior, sometimes on the inferior surface of the umbrella. The fact that each individual siphon of the polygastric Siphonanths bears at its base only a single tentacle is simply to be regarded as the (hereditary) result of a metameric repetition of the primary condition.

Only in a few Siphonophoræ do the tentacles remain simple cylindrical filaments, as in the Velellidæ, in *Apolemia*, *Stephalia*, *Linophysa*, *Salacia*, and allied genera. In the great majority a row of lateral branches (side-filaments, accessory tentacles, secondary filaments, or Tentilla) is formed, as in the Cladonemidæ (*Pteronema*, *Gemmaria*). The terminal equipment of the latter by manifold cnidonodes or "stinging knobs" is often very characteristic of the several genera and species. The Porpitidæ are distinguished by the possession of three longitudinal rows of secondary branches. Some supporters of the poly-person theory regard each of these accessory organs as an autonomous person, and Claus even states that the mantle-like covering (involucrum) which in many Physonectæ surrounds each stinging knob, apparently corresponds morphologically to the disc of the Medusa (1878). In my opinion all these appendages, however complex their structure, are merely subordinate organs of the second order.

PALPACLES OR TASTING FILAMENTS.

Under this designation I include only the long, extremely contractile, hollow, simple filaments, which occur in the majority of Physonectæ at the base of the palpons. They have the same morphological and genetic relation to the latter as the *tentacles* to the *siphons*. While the tentacles are especially of importance as capturing organs and as weapons, the palpacles act as fine, far reaching, tasting organs auxiliary to the sensory function of the palpons. Each palpon bears always only a single palpacle, and this is always simple, never stalked. While the supporters of the poly-person theory regard each palpacle as an independent "individual," that is as a distinct person, I must on the other hand agree with the poly-organ theory, which explains them simply as subordinate organs of the palpons.