

3-6, *to*), where each tentacle does not arise from the base of a siphon (as is usually the case in the Siphonanthæ) but from the base of a large palpon, which is connected by a common pedicle only with the base of the siphon. Huxley, therefore, calls these palpons not hydrocysts, but basal sacs of the tentacles (similar to the ampullæ of the ambulacral feet in Echinoderms). It may be that these basal ampullæ are only secondary diverticula of the base of the tentacle, and have the morphological value of a subordinate organ. On the other hand, it is possible that each cormidium of the Physalidæ originally bore two polypites each with a tentacle; one of these (the siphon) has preserved the mouth and the hepatic villi, but lost the tentacle; the other, conversely, has lost the former organs and preserved the latter (the palpon).

*Tentacles.*—The capturing filaments are arranged in the majority of Cystonectæ in the same manner as in all other Siphonanthæ, a single tentacle arising from the basal pedicle of each siphon. A single exception is formed by the Physalidæ, in which the tentacles arise from the base of peculiar palpons, as has just been mentioned (Pl. XXVI. figs. 2-6). The tentacles are generally long and vigorous, very muscular tubules, sometimes simple, at other times branched. They are simple, not branched filaments in the genera *Linophysa* (Rhizophysidæ) and *Salacia* (Salacidæ), and in all Physalidæ. In all the other genera the tentacles are branched, and bear, usually, a single series of equidistant tentilla or lateral filaments. These latter are simple thin tubules, beset with scattered cnidoblasts in the genera *Cystalia*, *Epibulia* (Pl. XXII.), *Aurophysa*, and *Nectophysa* (Pl. XXIII.). The distal end of the tentillum is trifold (with a terminal ampulla and a pair of lateral horns) in the genera *Cannophysa* (Pl. XXIV.) and *Pneumophysa*. The genus *Rhizophysa* is distinguished by the possession of two or three different kinds of tentilla; between the trifold forms being intermingled peculiar large hand-shaped or palmate tentacles which bear an ocellus.

The cnidocysts of the tentacles are spherical in most Cystalidæ (Pl. XXIII. fig. 7), and do not exhibit that variation in form seen in the Physonectæ. Their arrangement is variable in the various groups. Usually each tentillum bears a multiple series of cnidocysts on its dorsal side whilst the opposite ventral side is covered with palpoblasts (Pl. XXIII. fig. 6, *tw*). The simple tentacles of the Physalidæ (Pl. XXVI. fig. 6, *t*) and of the Salacidæ (Pl. XXV. fig. 5, *t*) bear a long series of large reniform cnidonodes on their dorsal side (compare Huxley, 9, pl. x. figs. 11, 12, &c.). Each cnidonode embraces the tentacle with the concave ventral side, and bears on the convex dorsal side a cushion of cnidocysts. They develop in the same manner as the tentilla of branched tentacles and contain a cavity, as a diverticulum of the tentacular canal. Each kidney-shaped cnidonode, therefore, may be regarded as a very short and broad tentillum.

*Gonophores.*—All Cystonectæ possess monœcious corms, monoclinic cormidia, and monostylic gonodendra, male and female gonophores arising from the same branched gonostyle. The peculiar form and composition of the clustered gonodendra seems to be