

Central Siphon (fig. 1, *sm*, fig. 4).—The large sterile central polypite is inversely conical, in the contracted state about as long as the diameter of its broad base, which is a quarter or a fifth of the diameter of the umbrella. Its thick muscular wall exhibits sixteen longitudinal folds, and between these run sixteen deep grooves, which open at the bottom of the stomach into the sixteen radial main canals. The distal mouth of the central siphon is octolobate. Its opposite proximal roof is separated by a strong fulcrum or supporting lamella, the gastrobasal plate (fig. 1, *st*), from the superjacent kidney.

The sixteen radial main canals, which arise from the periphery of the base of the stomach, run along the subumbrella towards the peripheral edge of the limb, where they are united in a circular marginal canal. They give off innumerable branches; of these the ascending ones enter into the centradenia, the descending partly into the gonostyles, partly into the tentacles. Numerous superficial mantle-vessels arise from the marginal canal and enter centripetally into the exumbrella, where they form an irregular dense network above the pneumatocyst.

Sexual Siphons (figs. 1, 8, *sx*).—The gonostyles cover the greatest part of the subumbrella, and are densely crowded in the broad zone which lies between the central siphon and the tentacular zone. Their number amounts to several hundreds. They are covered with bunches of gonophores in the cylindrical proximal half, with patches of cnidocysts in the spindle-shaped distal half. Their distal mouth is often divided into four or eight small lobes.

Tentacles (fig. 1, *t*).—The tentacular zone of the subumbrella, inside the free prominent limb, is about as broad as the base of the central siphon. It presents an elegant reticulum, with rhomboidal meshes, when the tentacles are removed; each mesh being the base of a detached tentacle. These are arranged in six to eight concentric rows. In the largest specimens their number exceeds one thousand. Their length may exceed the diameter of the umbrella; the majority, however, are much shorter. The structure of the club-shaped tentacles is the usual one, with three rows of stalked cnidospheres (compare p. 39).

Family III. VELELLIDÆ, Eschscholtz, 1829.

Velellidæ, Eschscholtz, System der Acalephen, p. 165 (*sensu restricto*).

Definition.—Disconectæ with an elliptical or amphitect, often nearly quadrangular umbrella, including a polythalamous pneumatocyst of the same form, which is composed of numerous concentric rings, and usually bears in its diagonal a vertical crest. Always a membranous vertical sail upon the umbrella. Marginal tentacles simple, without cnidospheres. Central siphon surrounded by numerous peripheral fertile siphons, which bear the gonophores.

The family Velellidæ, founded by Eschscholtz in 1829, comprised originally all Dis-