Cystons (figs. 1, 2, *y*).—Each cormidium possesses a single cyston or anal vesicle, attached to the trunk near the base of the siphon. It is smaller than the siphon, but larger than the palpons, and at once distinguished from both by its deep red colour. The cyston is a slender spindle-shaped tube with two slight constrictions and a middle dilatation. This corresponds to the stomach of the siphon, and is densely covered internally with red glandular villi. The granular pigment secreted by these is accumulated in a head-like terminal expansion of the distal proboscis, and thrown out by a small terminal opening, the anus. The slender basal pedicle of the cyston bears a simple palpacle, of the same shape as that of the palpon.

Palpons (figs. 1, 2,).—The tasters occur in each cormidium nearly in the same number as the bracts, ten to twenty or more, besides numerous small buds of young ones. They are slender cylindrical or spindle-shaped tubules, very extensile and contractile, and as in *Apolemia* have a restless dashing motion. The closed distal end of each palpon is pointed and richly armed with cnidocysts and palpocils. The thinner and pediculate basal end opens into the axial canal of the trunk, and bears a long and thin palpacle (*r*), similar to that of the cyston.

Gonodendra.—Each cormidium is hermaphrodite (monoclinic) and bears two clustered gonodendra, a male and a female; they arise separately from the trunk, both near the base of the cyston. The female gonodendron (fig. 3) is composed of twenty to thirty gynophores, besides numerous small buds. The male gonodendron (fig. 5) is smaller and bears only fifteen to twenty androphores. The umbrella of the gonophores is in both sexes well developed, with four radial canals, and a circular ring-canal on the margin; the latter bears, at the distal end of the four radial canals, four small tubercles with a red pigment-spot, which are rudiments of reduced tentacles, with a basal ocellus. The gynophores (fig. 4) have a campanulate umbrella and a colourless subspherical manubrium, which contains a single large ovulum, surrounded by spadicine canals. The androphores (fig. 6) have a more oblong umbrella and a club-shaped manubrium of a bright red colour; its central spadix is surrounded by a thick layer of sperm.

Genus 40*a*. *Apolemia*,[1] Eschscholtz, 1829.

Apolemia, Esch., System der Acalephen, p. 143.

Definition.—Apolemidæ with a biserial nectosome, composed of two opposite series of nectophores. Internodes of the siphosome naked. Cormidia polygastric and diclinic, each with several siphons and cystons, and with a single gonodendron, either male or female. Corms dicœcious.

The genus *Apolemia* was established by Eschscholtz for that North Atlantic form which Lesueur had figured in 1813 under the name *Stephanomia uviformis* (not

[1] *Apolemia* = Pacific, ἀπόλεμος.