phoræ, we find resemblances to different families. The pneumatophore resembles by its simple structure that of the Athoridæ and Apolemidæ, and that of the young Physalidæ (Alophota, Pl. XXVI. figs. 1, 2); the pericystic cavity is simple and has not the radial pouches of most Physonects, nor the hypocystic villi of the Rhizophysidæ and Epibulidæ. The corona of palpons between float and siphon is similar to that of Epibulia (Pl. XXII. fig. 6), and also to that of the Discolabidæ and Anthophysidæ. The single tentacle, with its series of simple filiform tentilla, resembles that of Epibulia and Nectophysa (Pl. XXII. figs. 5, 6). The structure of the single siphon, with its hepatic villi, and of the monoclinic gonodendron, is the same as in the Rhizophysidæ and Physalidæ.

Genus 65. Cystalia, Haeckel, 1888.

Cystalia, Hkl., System der Siphonophoren, p. 44.

Definition.—Cystalidæ with a tentacle, which bears a series of simple filiform tentilla. A single large monostylic gonodendron is attached to the base of the single siphon.

The genus Cystalia, as the only known form of monogastric Cystalidæ, exhibits the peculiar structure described above of this family. Supposing that other genera, belonging to it, may sometimes be observed, we assume as a generic character of Cystalia the structure of the single tentacle, which is similar to that of Aurophysa, Nectophysa, and Epibulia. It bears a series of simple lateral branches, which remain cylindrical filaments, without terminal appendages. On the medusiform larvæ (Cystonula, Pl. XXII. figs. 1-4), which may perhaps belong to this genus, compare p. 315.

Cystalia monogastrica, n. sp. (Pl. XXII. figs. 1-5).

Cystalia larvalis et Cystalia challengeri, Hkl., 95, p. 44.

Habitat.—South Pacific; Station 288, October 21, 1875; lat. 40° 3′ S., long. 132° 58′ W.; surface.

Indian Ocean, Ceylon, Belligemma, December 1881 (Haeckel).

Corm (fig. 5).—The monogastric corm, represented in fig. 5 in the expanded state, has a length of 10 to 12 mm. It is to be regarded as a single cormidium, composed of a sterile axial medusome and two groups of peripheral medusomes, sterile palpons and fertile gonophores. The large axial medusome consists of a pyriform pneumatophore and a large spindle-shaped siphon, with a single tentacle; the siphon corresponds to the manubrium, and the float to the modified umbrella of the original Medusa. The short pedicle of the siphon, which connects it with the base of the float, may be regarded as the axial trunk of the corm, from which the corona of palpons as well as the large ventral