Dicymba diphyopsis, n. sp. (Pl. XVIII. figs. 1-7).

Habitat.-Indian Ocean, between Aden and Bombay, November 1881 (Haeckel).

Nectosome (fig. 1).—The swimming apparatus is composed of a small pneumatophore placed at the top of the stem, and of two large opposite nectophores beyond it. These are slightly different in size, and rather similar to the nectocalyces of *Praya* (Pl. XXXI.) in form, structure, and arrangement, so fitting one into another, that the two longitudinal ventral wings of the larger embrace the opposite wings of the smaller swimming-bell. The subcylindrical hydroccial canal, formed by the two longitudinal ventral grooves, is traversed by the apical part of the trunk, and embraces a great part of the retracted siphosome. This attains in the fully expanded state a length of about half a metre.

**Pneumatophore.**—The float is a pyriform vesicle of 10 mm. in length and 6 mm. in breadth. Its apical part is covered with red pigment (fig. 1, p). The pneumatosac is a simple invagination of the exoderm of the stem-top, and not connected with the surrounding pneumatocodon by radial septa (compare above, p. 206).

Nectophores.—The two opposite nectophores are of equal form, but a little different in size, 40 mm. to 50 mm. long, 25 mm. to 30 mm. broad. Their form is ovate, with rounded apex and truncate base. The dorsal or abaxial side is evenly convex, without edges, but with a number of flat roundish tubercles, which bear white patches composed of enidocysts. The ventral or axial side is concave, with a broad longitudinal groove bounded by two prominent lateral wings. In the upper third of the groove, midway between the two wings, arises a short, obliquely triangular lamella, the pedicle of the nectophore. The apex of this triangular pedicle is inserted near the apex of the trunk, somewhat below the base of the pneumatophore. The larger nectophore embraces by its ventral groove the opposite groove of the smaller in the same way as is described above in the case of *Praya galea* (Pl. XXXI. figs. 1-7.

Nectosac.—The umbrellar cavity occupies about two-thirds of the nectophore, and is subspherical in the larger proximal half, subcylindrical in the smaller distal half. The opening of the latter is surrounded by a broad velum (fig. 1, v). The muscle-plate of the subumbrella is strong. The nectocalycine duct arising near the top of the stem, passes downwards through the pedicle of the nectophore and ends in the upper third of the dorsal median line of the subumbrella. It divides here into four radial canals of very different lengths; the ventral is about half as long as the dorsal, and both are shorter than the two paired lateral canals (right and left); these are four times curved in different directions and form the four loops figured in fig. 1, n. All four canals inosculate in the circular canal of the umbrella margin at equal distances.

Siphosome.—The long and thin tubular trunk of the siphosome had in the single specimen observed, in the fully expanded state, a length of 40 to 60 cm. It bore (besides