border and tentacular zone; from this arise (8) the numerous mantle-vessels of the exumbrella, which form a dense network in the latter, and from these arise (9) the mantle-vessels of the vertical crest, which form a dense network of different form on its two sides; four of these crest-canals are much stronger than the others, two opposite longer, which run along the free upper edge of the crest, and two opposite shorter, which bisect the triangular sides of the crest, and arise near the centre of the frontal groove; (10) a double series of elegant pinnate sail-canals, which arise from the large superior edge-canal of the crest, and run in the soft sail border towards its free margin; they are here united by a small outermost canal running in the free edge of the sail. The special form and reticulation of these numerous canals is about the same as figured by Alexander Agassiz[1] in *Velella* (*Armenista*) *mutica*.

Gonostyles (fig. 2; fig. 4, *gs*; fig. 8, *gs*).—The small sexual siphons, or "gonoblastidial polypites," are very numerous (many hundreds in the larger specimens) and densely crowded, occupying the entire broad gonostylar zone between the base of the central siphon and the corona of tentacles. Their upper or proximal half is cylindrical, and covered with bunches of medusiform gonophores (*g*); their lower or distal half is a contractile muscular stomach, beset with sixteen longitudinal rows of cnidonodes; its proboscis opens below by a very extensile mouth, and this is sometimes distinctly lobed (fig. 8, *so*). The special form and structure of the gonostyles is the same as figured by Alexander Agassiz[2] in *Velella* (*Armenista*) *mutica*.

Tentacles (figs. 1–4, *t*).—The corona of tentacles, placed in the elliptical groove between the outer edge of the gonostylar zone and the inner edge of the broad mantle-border, is composed of two or three rows of tentacles; those of the innermost row are the largest, and in the expanded state about as long as the transverse diameter of the umbrella. The tentacles of the outer row, alternating with the former, are only half as long; and when there is a third outermost row, these are very short. The form and structure of these cylindrical tentacles are the same as in other Velellidæ; they are beset on both sides with two lateral rows of sessile cnidocysts.[3]

Armenista sigmoides, as described above from the Tropical Atlantic (Station 346), is perhaps identical with a *Velella* of which I have obtained several specimens from Cape of Good Hope, collected by Dr. W. Bleeck. The short description and the figures which Eschscholtz (1) has given of *Velella indica* (also occurring at the Cape) are not sufficient to decide the question of the identity of these species. Further accurate examinations and comparative studies are required to enable a better distinction of the different species of Disconectæ.

[1] 57, pls. iv., v. [2] 57, pl. ii. [3] Compare Kölliker, 4; Vogt, 6; Huxley, 9; Agassiz, 57.