several specimens. In the opposite or apical direction it extends close to the tip of the siphuncle. This internal lining layer of the siphuncle will be termed in this paper "endosipholining" [*see* p.303].

The third part of the siphuncle is that which has been filled by the endocones, but is still surrounded by the cameras of the phragmocone. The endocones have mostly become obliterated by the formation of coarse white calcite, but from the endosiphuncular canal there still proceed at intervals short lines which are parallel to the last endocone and represent the bases of former endocones [*see* pl.9, fig.2]. Occasionally also the entire walls appear still as gray lines in the calcite filling [*see* pl.6, fig.3]. The "dart" or "Spiess" extends at its apical end into a flat broad tube, which frequently passes through nearly the whole width of the siphuncle and which possesses strong, deep black walls of velvety appearance, suggesting their composition of conchiolin. This flat tube is the first part of the endosiphuncle.[1] The latter passes through the whole length of the siphuncle. Its characters are such as to invite detailed description, which will be given below.

The fourth part of the siphuncle of this species is that which projects apicad beyond the camerated portion of the shell (the phragmocone), and which, hence, was entirely free. This part is identical with the apical cone of Nanno aulema Clarke and Vaginoceras belemnitiforme Holm. It is, however, not short and strongly inflated, but long and gradually widening at approximately the same rate as the anterior parts of the siphuncle. This free portion may have easily reached a length of 70 mm as the finely preserved specimen reproduced in plate 6, figure 3 indicates.

It might be presumed that in the specimens in hand the septa continued further apicad than their present preservation would indicate, and that the free apical cone is more due to incomplete

[1]We use here provisionally, till further definitions have been given, Hyatt's term "endosiphuncle" for the central tube of the siphuncle. Hyatt's definition is [1900, p.515]: "Organic deposits in the form of endocones, and taper off at the center into a spire that is sometimes tubular and hollow, or again flattened and elliptical. This is the endosiphuncle." Before this definition the term "endosiphon" had been in use for the same organ.