2 Former observations on endosiphonal structures and the terminology of the latter

The endosiphuncular structures of Cameroceras brainerd in which concern us most here are the flattened tube extending backward from the "Spiess," the fine, often capillary tube extending the greater length of the siphuncle and certain thin longitudinal layers of dark organic limestone radiating from these tubes to the walls of the siphuncle.

The attention of paleontologists was directed to similar structures only a comparatively short time ago, though the fine threadlike endosiphuncle had already been noticed by Barrande in a Newfoundland species (Orthoceras insulare)

[see 1867, v.II, t.430, fig.5, 8-11; t.431, fig.8-10] and also been described by Dewitz [1879, p.172, 173, fide Holm] and Schröder [1881, p.76, t.2, fig.8d]. Dewitz also mentions [1880, p.377] that "in some species membranes seem to have proceeded from the posterior end of the fleshy siphuncle, which often, at least for some distance, extended to the internal wall of the siphuncular tube, and which also secreted



Fig. 2 "Endoceras commune." Section of siphuncle. s, siphuncular side; a s, antisiphuncular side. (Copy from Dewitz)

covering sheaths, in which organic carbonate of lime was deposited," and adds, "These membranes probably served to attach the posterior end of the fleshy siphuncle to the interior wall of the siphuncular tube." He also figures a transverse section of Endoceras commune [pl.17, fig.7] which shows three longitudinal membranes radiating from the endosiphuncle, but which do not reach the siphuncular wall [see text fig.2].

The flattened tube extending from the "Spiess" appears to have been first noticed by Dawson in a species of Piloceras [1883, p.4]. Sir William states [p.3] that "the lower part of the shell is divided by a vertical partition crossing its longer diameter," and again [p.4] that the internal cone "is flatter than the siphuncle, ending at the apex in an edge which is attached to a central shelly plate crossing the lower part of the