of the dumb-bell. This dumb-bell-like outline is again obliterated in the next section, figure 7 (7.5 mm distant from 6). In this the endosiphotube has again decreased since the last section to about one half of its former diameter, while the endosiphocoleon has retained its width. In the next it has even again become broader. Its ends are notably rounder and thicker than the middle of the plate and a fine central line can again be traced, indicating the composition of the blade of two conjoined lamellae. The entire endosiphocoleon, which before had swung to one side, has returned again to the median line of the siphuncle.

In this condition the endosiphocoleon remains to the apical end of this (not complete) siphuncle, i. e. it extends across the siphuncle as a dark gray brown band with indistinct outline which includes the fine endosiphotube; its swollen lateral extremities touching or coalescing with the gray wall of the siphuncle. Figure 10 is taken 15 mm from the preceding section and shows no material change from the latter. It shows white cross-lines which transect the brown band of the endosiphocoleon. These are due to secondary crystallization, the endosiphocoleon being—in contrast to the irregular crystallization of the remainder of the interior of the siphuncle—composed of two layers of parallel crystals which distinctly grew from the median line of the endosiphocoleon as a base.

Text figure II shows the position and extension of the endosiphocoleon in a very early portion of the siphuncle or near the apex [see fig. 7]. It is here a light brown transverse band with a central black conchiolinous endosiphotube. This condition is reached shortly behind the endosiphocone in the earlier portions of the siphuncle, when its diameter is still small as is exemplified by the section [pl.8, fig.I].

In order to obtain a complete portrayal of the endosiphocoleon and endosiphocone of Cameroceras brainerdi we will add the description of a few other sections which show features slightly different from or explanatory of those observed in the series of sections noted above. There is, first, the longitudinal section [pl.9, fig.2] in which a well preserved endosiphocone with sheath is exhibited which at its apex contains a newly