of the endosiphocone. It is hence identical in origin with the endosiphocoleon of Proterocameroceras brainerdi.

From its lateral ends proceed the endosiphofunicles described above, apparently mostly in longitudinal series. Corresponding to the vertical contraction of the siphuncle the section of the endosiphuncular canal is broader than high and its lateral ends coalesce into a conchiolinous blade. As the central portion retains its full lumen, the section becomes in this specimen at first very broadly triangular [fig.4] and finally (through fig.5, 6) a low triangle. The apical termination of this endosiphuncular canal is not shown in the specimen here sectioned because the ventral portion of the siphuncle has been worn away. There is, however, not more than 11mm wanting of the total length of the siphuncle, and it is therefore evident that no endosiphotube with distinctly circular conchiolinous wall passes, as in Proterocameroceras brainerdi, through a large apical portion of the siphuncle. The coloring of the calcite within section 4 suggests perhaps [see enl. pl.12, fig.3] that also here only a lumen with circular section may have remained open within the endosiphocoleon, but the next section (5) fails entirely to show any inclosed tube.

We have hence no evidence of the formation of an endosiphotube in Piloceras explanator, but do not doubt that where the siphuncle becomes longer and more tubular instead of remaining short and broad as in this species, an endosiphotube may be formed, as indeed it has been found in other species of Piloceras.

The wings of the endosiphocoleon in Proterocameroceras brainerdi, which originate from a deposit of conchiolinous matter on the outside of the endosiphosheath and which there form such a striking feature, have been observed in but one instance, where the apical portion of the siphuncle is extremely broad and flat and the lateral margins of the endosiphosheath form hence acute angles. They seem for this reason to have been strengthened by conchiolinous deposits.

Among the eight species of Piloceras which have thus far been described, one, P. newton-winchelli Clarke [1897, p.767],