

over the summit of the second joint; this must be erroneous if the species are identical. *Mouth*.—The ambulacra meet at or near the centre of the disc and do not enter the calyx at the edge of the radials as stated by Wachsmuth and Springer. A central oral aperture must exist but it is not observable, being rigidly closed in by the tight fitting and interlocking ambulacral cover-plates. Carpenter's figures of the oral aspect are extremely variable and confusing; it is difficult to correlate his diagrams. *Anus*.—Despite Wachsmuth and Springer's objection, Wetherby's statement as to the existence of a valvular pyramid is correct. That this pyramid is surrounded by a series of small plates is here recorded for the first time. This feature tends to increase the resemblance of the present genus to *Hybocrinus*, for the same structure was observed by W. R. Billings in the latter genus and is figured for *Carabocrinus* by Wachsmuth and Springer.*

Locality.—Mercer County, Kentucky; Trent Valley Canal, Eldon tp., Victoria County, Ont., two miles from Kirkfield, J. Townsend, collector. No. 567 T. University of Toronto Museum.

HYBOCYSTIS ELDONENSIS, *sp. nov.*

(Plate II., Fig. 4)

This species is founded on one well preserved, specimen although two others are at hand. The latter, however, are somewhat larger and stouter, so that, in order to avoid any specific confusion, the description is confined to the single specimen. The present species is much smaller than *H. problematicus*, being only about seven millimetres in vertical extent. It shows the same asymmetric shape, the column being excentric and the vault much elevated on the anal side. The calycine plates are quite similar but the upper azygous plate is relatively smaller; its presence, indeed, is more to be inferred than observed. The ventral sac and anus are likewise similar, the circlet of small plates and the dome-like valvular pyramid being clearly shown. The ambulacral tracts on the tegmen are well closed by rigid cover-pieces which are relatively larger than in the genotype. The most pronounced difference is in the fact that the two calycine ambulacra do not extend over the basals but are confined to the radials, where they are bolstered up on relatively larger tumid pads. The cover-plates are large and distinct with the individual ossicles of the two rows alternating. There is no trace of an ambulacral

* North American Crinoidea Camerata, p. 137.