The figures suggest that the arm-facet occupies the whole upper surface of the radial, but it is merely described as more than half the width. It might be possible to distinguish facets for tube-plates on the summit of *x*, though the phrase "its top suture on a line with the top of the radials" suggests that it only supported one plate. Though very different in shape from all other dorsal cups of *Botryocrinus*, there seems no reason to doubt Prof. Rowley's ascription of his species. After all, the characters are only an intensification of those noted in *B. crassus* from the same formation.

It should, however, be recalled that there exist other Palæozoic genera with the dorsal cup constructed as in *Botryocrinus*. The Devonian representative of such genera is *Cosmocrinus* (Jaekel, 1898, *Zeitschr. deutsch. geol. ges*, L, Protok. p. 28). *C. Holzapfeli* Jaekel, *Poteriocrinus dilatatus* Schultze, and *Cyathocrinus ornatissimus* Hall were referred to this genus by Dr. Jaekel, and of these the first should be made genolectotype. A good figure of the cup has been given only for *C. dilatatus*, and this, though marked with exceptionally strong axial folds, appears to have the characteristic *Botryocrinus* structure. Redescription of *C. ornatissimus* is much needed. At present it can only be said that, in the absence of direct evidence from the arms, there is no reason for referring any other American species to Cosmocrinus.

Cosmocrinus is a distinct side-branch of Devonian age, but perhaps the American Devonian fossils here referred to *Botryocrinus* represent a transition from that typically Silurian genus to the very similar Carboniferous *Barycrinus*. Protuberant basals, like those of *Botryocrinus americanus*, are seen in *Barycrinus stellatus*, *B. bullatus*, *B. subtumidus*, *B. mammatus*, and others. Perhaps indeed *Botryocrinus americanus* is really a *Barycrinus*. And perhaps *Botryocrinus* itself should be merged in that genus. Fifteen years have passed since I expressed my inability to distinguish between *Botryocrinus*, *Barycrinus*, and *Vasocrinus*, and since I "thought it better simply to describe the long-known genus *Botryocrinus* as fully as possible, with the aid of new material, and to leave to the American palæontologists the task of comparing it afresh with these other more particularly American genera." All that American palæontologists have done in the matter since then has been to accept without discussion my reference of certain American species to *Botryocrinus*. May we not hope for an independent study of this question from one of the many careful workers who are now turning their attention to the fossil crinoids of North America?