

the elements of the so-called dorsocentral plate, were described by the Messrs. Austin as "solid pointed pieces, whose points pass outward, and rest on the salient angle of the pentagonal column," precisely, in fact, like the rays of the stellate dorsocentral plate or pelvis of *Pentacrinus asterius*, with which Miller had rightly regarded them as homologous. The Messrs. Austin, however, supposed Miller to have been in error upon this point, as they believed the so-called dorsocentral plate of *Extracrinus* to be homologous with that of *Pentacrinus*, not paying any attention whatever to its position with regard to the radial symmetry of the animal. Neither did they notice that in *Pentacrinus* the five elements composing the dorsocentral plate are perforated by bifurcating canals, which occur in *Extracrinus*, not in the component pieces of the dorsocentral plate, but in those of the next series, the pelvis of Miller; and they were consequently led to regard these last, the basals of Müller, as representing the first series of perisomic plates (or the first radials, Müller) of *Pentacrinus*; while the first radials of *Extracrinus*, alternating in position with the basals, were described by them as a second series of lateral or perisomic pieces which are unrepresented in *Pentacrinus*. The fact is, however, that it is the dorsocentral plate of the former genus which is not represented in *Pentacrinus*, the pelvis of which represents the so-called first series of perisomic plates in *Extracrinus*, as was rightly supposed by Miller. The two sets of plates are precisely similar in their position relatively to the radial symmetry of the animal and in being perforated in the same way by bifurcating canals. These two important points, which were entirely left out of consideration by the Messrs. Austin, demonstrate the homology of the first series of perisomic plates in *Extracrinus*, not only with the pelvis or dorsocentral plate of *Pentacrinus*, but also with the outer circlet of basals in *Encrinus*; while the five small, nearly concealed pieces forming the so-called dorsocentral plate of *Extracrinus*, which alternate with the true or outer basals, obviously represent the inner circlet of basals of *Encrinus*. The Messrs. Austin were fortunate enough to obtain a specimen of *Extracrinus briareus* showing the interior of the calyx, the centre of the floor of which is occupied by the five small, radially placed elements of the so-called dorsocentral plate; and the resemblance in every respect between these and the inner circlet of basals in *Encrinus* is so close as to leave little doubt that they are homologous with one another.

It is therefore somewhat striking to find that the extensive downward prolongation of the first radials over the upper stem-joints, which is the chief characteristic of *Extracrinus*, as defined by the Messrs. Austin, is also found, though to a smaller extent, in *Encrinus*, as pointed out by Beyrich. *Encrinus*, like *Extracrinus*, has a dicyclic base; but the same tendency to downward prolongation of the radials is seen in *Pentacrinus naresianus* (Pl. XXX. fig. 1) and more distinctly in *Metacrinus* (Pl. XXXIX. fig. 1; Pl. XLIX. fig. 2).

The Austins' genus *Extracrinus* has not met with the attention which it deserved,