

series consists of "a single row of plates, longitudinally arranged, the outer side rounded and forming a prominent ridge, which gives the appearance of an arm."¹

The physiological condition of this type appears to me to be very similar to that of *Reteocrinus nealli*, i.e., the anal interradius is supported by a special row of plates, the lowest of which are more or less incorporated into the calyx, while the upper ones are closely surrounded by perisomic plates.

In *Poteriocrinus* and *Eupachyocrinus* this anal appendage is practically reduced to one plate, the so-called third anal plate, or the first plate of the ventral tube; but it rests on the first anal or azygous plate, which is itself supported by a basal. This azygous plate is absent in *Cerriocrinus*, and the first plate of the tube (anal appendage) comes down to rest directly upon a basal.

Another curious modification is presented by *Iocrinus*. The posterior side of the calyx is occupied by a large plate that rests between two basals and is in line with the radials. It has been variously described as a radial and as an azygous piece.² On its upper surface is a triangular plate which "supports on its right sloping side the usual number of brachials, and on the left a row of quadrangular plates, vertically arranged, extending to the tips of the arms, and forming the posterior wall of a large ventral tube. In external appearance these plates resemble the brachials and arm plates, only they are somewhat higher and not quite as wide; they are gibbous and form an elevated ridge, which causes this appendage to resemble an arm or a branch of the ray." This median ridge extends to the full length of the ventral sac, and it is bordered, just as is the case in *Reteocrinus nealli*, by a number of more delicate perisomic plates. I have little doubt that it served the same purpose in both cases, supporting the anal interradius, though in no way specially grooved for the reception of the hind gut. It is well figured by Meek in the *Palæontology of Ohio*, vol. i. pl. i. fig. 9b.

¹ Revision, part i. p. 69.

² For further information upon this subject, see Wachsmuth and Springer, Revision, part i. pp. 65, 71; and *Amer. Journ. Sci. and Arts*, vol. xxvi. 1883, pp. 370, 376; also P. H. Carpenter, *Quart. Journ. Geol. Soc.*, vol. xxxviii., 1882, pp. 306, 307.