

ring of radial dome plates outside them. These proximal dome plates thus correspond exactly to the orals of *Symbathocrinus* and *Haplocrinus*, covering in the peristome and resting against the calyx plates, which in the *Platycrinus* are the interradials, and not the upper edges of the radials, as in the simpler forms.

The disk underneath was therefore larger, owing to the greater width of the cup, and an additional ring of plates, the radial dome plates, was necessary to protect it. Wachsmuth admits the homology of these with the calyx radials, which are separated from the dorsocentral by the basals; and I cannot therefore see what other view can be taken of the proximal dome plates which immediately surround the orocentral, than to regard them as orals, *i.e.*, as the actinal representatives of the basals, like the corresponding plates in *Symbathocrinus*. If this be admitted, it follows that the proximal dome plates of all Platycrinidæ, Actinocrinidæ, and Rhodocrinidæ are also homologous with the orals of Neocrinoids.

In most Platycrinidæ the primary radial dome plates are succeeded by others of a different character, which do not precisely correspond to the various orders of calyx radials, as will be mentioned later; but in the Actinocrinidæ the correspondence between the actinal and abactinal sides is very complete. Thus in *Stelidiocrinus capitulum*¹ the orocentral and six proximals (orals, *mihi*) take up almost three quarters of the summit, the remainder of which is occupied by a single anal, and three radials to each ray, the two outer ones being very small. All gradations can be traced from this condition into the complex vault of a *Strotocrinus*, which is described as follows by Messrs. Wachsmuth and Springer:—

“The disk is paved by many hundreds of small minute pieces which decrease in size towards the arms, and which at the outer points of the rays become almost microscopic. The apical plates are larger, and are separated from each other, but not otherwise distinguished from the other plates, and hence are not easily identified.”² In young individuals, however, there are comparatively fewer summit plates than in the adult. “The apical and principal radial pieces are larger than the intervening interradial plates which, exceptionally in this genus, attain by age the same size as the apical and radial pieces.”³ The same kind of complexity and irregularity as in *Strotocrinus*, though not quite so well marked, is characteristic of the summit of *Mariacrinus*, *Periechocrinus*, and *Physetocrinus*, and also of *Marsupiocrinus*, which is placed next to *Platycrinus* by Wachsmuth and Springer. In *Mariacrinus* “the vault is composed of very minute irregular pieces without definite arrangement, even the apical dome plates are obscure.”⁴ In *Physetocrinus* only the proximal dome plates are distinguishable;

condition having been found by him in the Burlington limestone. He was kind enough to send me one of these for examination; and it was only after seeing it that I was struck by Müller's figures, to which I had previously not paid very much attention. I have since examined several similar specimens from the Bolland limestone.

¹ Revision, part ii. p. 99.

² *Ibid.*, part ii. p. 159.

³ *Amer. Journ. Sci. and Arts*, vol. xiv. p. 188.

⁴ Revision, part ii. p. 116.