

But I should prefer doing this to using a name, as de Loriol has done, which is so very similar to that universally employed to designate some of the calyx plates, although there is no sort of homology between the two structures. This latter point is recognised by de Loriol, who makes it clear that he regards the "article basal" as a stem-joint.

Whatever may be the case in *Apiocrinus*, this plate is single in *Rhizocrinus rawsoni* (Pl. X. fig. 9), and I cannot help suspecting that Zittel has been misled by the appearance of sutures into regarding it as probably consisting of five coalesced under-basals. I have noted a somewhat similar condition in *Millericrinus pratti*.¹

Owing to the larger number of discoidal joints in the stem of *Rhizocrinus rawsoni* than in that of *Rhizocrinus lofotensis*, the gradual development of their articular faces is more easily made out in the former species. As the joints become longer than wide, shallow fossæ appear to the right and left of the opening of the central canal, which thus seems to be the deep middle portion of an oval depression occupying the shorter axis of the elliptical face (Pl. X. fig. 12). These fossæ gradually increase in relative size, and encroach more and more upon the original plane surface of the joint face, still, however, remaining in connection with one another around the central canal (Pl. X. figs. 11, 13, 14). They reach nearly to the margin of the joint face, so as to leave a small articular rim outside them; but they do not reach so far in the direction of the long axis, at the ends of which the original surface of the joint remains to form the so-called "articular ridge." This is, however, by no means continuous across the opening of the central canal, as is implied by its name; for it is merely represented by two triangular surfaces which encroach upon the original oval depression so that it assumes the form of a rather short-handled dumb-bell (Pl. X. figs. 11, 13, 14). The two ends slope rapidly downwards towards the centre, where the opening of the axial canal is situated. It thus establishes a connection between the two fossæ and interrupts the continuity of the articular ridge.

This type of joint-face also occurs in the lowest part of the stem of *Bathycrinus* (Pl. VIIa. figs. 10, 11), but it is the result of a different mode of growth altogether. There are several thin discoidal joints at the top of the stem (Pl. VII. figs. 1-3, 11; Pl. VIIIa. fig. 1), and the uppermost one, on which the basals rest, has its surface marked by a ten-rayed depression which extends outwards from the five-lobed opening of the central canal (Pl. VIIa. fig. 3). The corresponding face of the basal ring is marked in the same manner (figs. 13, 14); and the fossæ lodge the five horse-shoe shaped ligamentous bundles which unite the basals to the stem-joints below them. On the upper face of the second joint, however, the opening of the central canal is surrounded by a raised articular rim, still showing traces of fossæ like those on the top joint, and this rim is more marked on the next few joints (figs. 4, 5). As the joints below become thicker and their terminal faces more oval, the articular rim also

¹ On some new or little known Jurassic Crinoids, *Quart. Journ. Geol. Soc.*, vol. xxxviii. p. 34.