

joint-faces (Pl. XXXII. fig. 3 ; Pl. XXXVII. fig. 22) is, however, very much the same in the two species.

The minor characters of *Pentacrinus decorus*, *i.e.*, those which are of least importance for systematic purposes, present a very remarkable amount of variation. The number of internodal joints may vary almost as much as in *Pentacrinus asterius*, some of the individuals having the internodes as short as those of *Pentacrinus blakei* (seven joints), while in others they may consist of sixteen joints as in *Pentacrinus asterius*; and this character sometimes runs through the whole stem, so that at first sight two individuals will look as if they belonged to entirely distinct species, especially if the development of the basals and arm-divisions be also different in the two cases.

The internodal joints are generally quite smooth externally; but they occasionally bear groups of interradiating tubercles at more or less regular intervals, and these tubercles sometimes appear on the nodal joints, thus increasing the prominence of their angles between the cirrus-sockets (Pl. XXXV. fig. 1 ; Pl. XXXVI. figs. 1, 2). Two individuals are remarkable for the absence of some of the cirri on the stem. Thus in a specimen represented in Pl. XXXVI. fig. 1, one of the cirri is missing at the fourth node, no socket having been developed at all; while in another shown in Pl. XXXVII. fig. 2, there are no cirrus-sockets along one face of the stem to as far down as the twelfth node; and at the eleventh node another socket is absent, so that there are only three cirri at this node, the empty faces of the stem intervening between the cirrus-bearing ones exactly as they do in those nodal joints of *Pentacrinus alternicirrus* which bear three cirri (Pl. XXV.; Pl. XXVI. figs. 13, 14 ; Pl. XXVII. fig. 2).

The stem of *Pentacrinus decorus*, though more slender than that of *Pentacrinus asterius*, seems like it to grow to a considerable length (compare Pls. XI. and XXXIV.). The longest which I have seen, consisting of fifty internodes, measures 80 cm. Sir Wyville Thomson mentioned one which was about two feet in length;¹ and this seems to have been the original of a drawing which was made for him by Mr. Wild. He spoke of the final joint, which is the epizygial at about the forty-second node, as being worn and rounded; and having subsequently found several other examples in the same condition, he expressed his belief that disengagement at a syzygy is habitual. This is doubtless often the case as in *Pentacrinus wyville-thomsoni* and other species (*ante*, pp. 18–20), though I have not myself met with any specimens in this condition. Moreover, it appears certain that this species may be sometimes permanently fixed. Captain Cole's observation that they may be attached to telegraph cables by the basal extremity of the stem spreading slightly has been noticed already; and the individual mentioned above as having a stem 80 cm. long (which is now in the British Museum) was found by him attached in a slightly different way. The stem is detached from its basal portion at the

¹ Sea Lilies, *The Intellectual Observer*, August 1864, p. 7.