

In one example of *Pentacrinus alternicirrus*, which has a stem only 55 mm. in length, and rounded off at the twelfth node, the width diminishes gradually from above downwards, though not to any very great extent. The same is the case in another specimen with a stem 47 mm. long and rounded off at the eleventh node. In other examples of the same type, however, the width of the stem remains uniform or even increases slightly from above downwards. In a large specimen of *Pentacrinus naresianus* the width of the stem, which is 5 mm. at the eighth node, is reduced to 3.5 mm. by the thirtieth node, which is rounded off below.

In the young *Pentacrinus wyville-thomsoni* represented in Pl. XVIII. fig. 3, the stem is 65 mm. long; but it is not half as wide at the lowest (sixth) node as it is beneath the calyx. It was described by Sir Wyville Thomson¹ as follows:—"The stem is broken off in the middle of the eighth internode from the head. The lowest complete internode consists of fourteen joints, the next of eighteen, the next of twenty, and the next of twenty-six joints. There are eight joints in the cirri of the lowest whorl, ten in those of the second, twelve in those of the third, and fourteen in those of the fourth. This is the reverse of the condition in adult specimens, in all of which the numbers of joints in the internodes, and of joints in the cirri, decrease regularly from below upwards. The broken internode in the young example and the three internodes above it are all atrophied and undeveloped; and suddenly at the third node from the head the stem increases in thickness and looks as if it were fully nourished. There can be no doubt that in early life the Crinoid is attached, and that it becomes disengaged by the withering of the lower part of the stem."²

The diminution in the size of the stem is rather more gradual than is implied in the above description, for it commences at the head and extends regularly down to the third node, where there is a more sudden change, as there is again at the fourth, below which the diameter decreases but slowly.

But it is in a very young individual of *Pentacrinus decorus* (Pl. XXXV.), in fact the youngest Pentacrinite that I have seen, that this downward tapering of the stem and gradual diminution in the size of the cirri are most marked. The stem is a trifle over 60 mm. in length, and has ten distinct cirrus-whorls apart from the very small

¹ On the Crinoids of the "Porcupine" Deep-Sea Dredging Expedition, *Proc. Roy. Soc. Edin.*, vol. vii. p. 768. Also in the *Depths of the Sea*, p. 445.

² The above description requires a little correction. The stem in its present condition, as represented in Pl. XVIII. fig. 3, is broken at the top of the seventh internode, which is certainly the one referred to by Sir Wyville as the eighth. But its length is at least 5 mm. greater than as stated by him; and the number of joints in the two lowest internodes should be given as fifteen and seventeen, not fourteen and eighteen. They are drawn correctly in the figure, but the joints at the top of the third internode are not properly represented, as is also the case with some of the cirri. The figures of this and of the other plates drawn for Sir Wyville Thomson had been on stone for so long when the stalked Crinoids came into my hands after his death, that I thought it better to let any errors remain unaltered rather than to risk spoiling the plate by correcting them. The description given of the cirri is also only roughly accurate. Neither on the fourth whorl from the bottom nor anywhere else on the stem are there any cirri with fourteen joints, even where the terminal claw is included; though the regular decrease in the size of the cirri from above downwards is very striking, as pointed out by Sir Wyville.