

Bell's method of indicating the varying characters of the cirri is as follows :—

" If there are from 1-12 cirri, we may say there are few ; if from 12-30 a moderate number ; and if more than 30 a large number ; if there are not more than 20 joints to the cirri we may look upon them as being few, if from 20-40 moderate, and if more than 40 numerous. I propose to use the letters *a*, *b*, and *c* to represent few, moderate, and numerous respectively ; while the letter for the number of cirri will form the numerator and that for the number of joints the denominator of a fraction ; and where there is a difficulty of decision one might write *ab*, or *bc*. *Antedon* and *Actinometra* may be usefully, though not of necessity, distinguished by making *A* or *A'* part of the formula."¹ Bell prefers to use *A'* for *Actinometra* rather than " *a* " as I have suggested, because the *a* is used in the formula for the cirri. I do not see the force of this objection, as the two letters occur at opposite ends of the species formula and only the later one is italicised ; while *A'* is much too like *A* to be readily distinguished at a glance, apart from the possibility of printer's errors. Bell's suggestion that " *br.*" should be used instead of " *b* " for the brachials to avoid confusion with the *b* of the cirrus-formula is a good one, however, and I have adopted it accordingly. In my former method of formulation I denoted the presence of ten arms only by inserting a 10 into the formula of the type, thinking it more convenient to indicate this character, which is generally a sharply defined one, in a positive, rather than in a negative manner. Bell thinks, however, that " *A. 10* " compared with " *A. 3* " is very apt to mislead and to give rise to the impression that the *Antedon* in question has ten distichal joints. In deference to his scruples therefore I shall omit the 10 in future and write, as he does, the specific formula of ordinary ten-armed Comatulæ like *Antedon eschrichti*, with no other characters than the generic letter and the cirrus-fraction. Thus *Antedon phalangium* is represented by *A. $\frac{bc}{c}$* .

It often happens that some individuals of a species are more fully developed than others, *i.e.*, they have additional axillaries in the arm-divisions. Thus for example, one or two bidistichate series are occasionally present in *Antedon lusitanica* which usually only has ten arms (Pl. XXXIX. figs. 1, 3) ; while palmars are sometimes found in some forms of *Antedon quinquecostata* and of *Antedon variipinna*, but not in others (Pl. XXXVIII. fig. 1 ; Pl. XLIX. fig. 1). Under these circumstances I write the figure or letter which denotes the character that is variable between brackets, *e.g.*, *A.(2), lusitanica* ; *A.2.(2), quinquecostata* ; *A.[3.(2)], variipinna*.

In Bell's system, however, " when a character frequently though not always obtains, the corresponding letter is put within brackets." ² If this were only meant to imply that certain characters present themselves in some individuals of a species, but not in others, Bell's method would be the same as mine. But though he goes much further than I

¹ *Loc. cit.*, p. 531.

² *Loc. cit.*, p. 532.