

series present, so that the number of arms is reduced to thirteen,¹ and Bell has himself examined individuals with less than twenty.² According to his rule, therefore, the formula should be—A'.(3).(3). but in the formula which he actually gives the brackets are altogether omitted. I should write it myself as—a.3.(3), to indicate that while some distichal series are always present in every individual, palmar series may occasionally be entirely absent. This appears to me to be the only possible way in which brackets can be profitably employed. Bell, however, thinks otherwise, as is shown by the following passage:³—

“ From the table of *Antedon* formulæ some facts become at once apparent :—

“(a) There are six examples among the more than ten-rayed forms in which the arms are not a regular multiple of ten—that is, not 20, 40, or 80 ; this is clear from the sign for the palmar or post-palmar being in these cases placed within brackets.”

The first line of this passage contains a repetition of an error in terminology which was made by Bell in 1882,⁴ and was afterwards corrected by myself.⁵ He seems, however, to consider the point an unimportant one and continues to use the expression to which I took exception. There are no *ten-rayed* forms of *Antedon*, though there are plenty which are *ten-armed*. The arms were clearly distinguished from the rays by Müller, who laid the foundation of the descriptive terminology now in use for the Crinoids. But Bell persists in using the word *rays* when he only means *arms*. This is unfortunate, as it leads to confusion between the five-rayed but ten-armed *Antedon* and the truly ten-rayed *Promachocrinus*, a point to which I have before alluded.

Bell has evidently made the generalisation quoted above on the basis of his formulæ, without special reference to the individuals he examined. He describes his single specimen of *Antedon gyges* as having forty-one arms, and I find this to be due to the presence of one post-palmar series, of which Bell's formula gives no hint. He is thus able to include this type among those forms in which the arms are a regular multiple of ten, *i.e.*, forty. Then again he gives the formula of *Antedon articulata* as A.2.2. But the exact number of forty arms which this expression denotes does not occur in his specimen, which also has one post-palmar series ; while I have seen individuals with less than forty arms. According to Bell's own system the formula of this type and perhaps also that of *Antedon gyges* should be A.2.(2).(2). We find then that not only on the six, but in all the eight multibrachiate forms of *Antedon* for which he gives formulæ the arms are not a regular multiple of ten. But this is in no way a specially remarkable fact. The singularity would be if the number of arms always were a regular multiple of ten, as is generally though not always the case in *Actinometra paucicirra* (Pl. LIV. figs. 1, 2). But this is a most exceptional species. No one can examine any large collection of multibrachiate Comatulæ without becoming immediately aware of the extreme irregularity in

¹ *Trans. Linn. Soc. Lond.* (Zool.), 1879, ser. 2, vol. ii. pp. 51, 52, pl. ii. fig. 9.

² *Ibid.*, p. 155.

⁴ *Proc. Zool. Soc. Lond.*, 1882, p. 532, note.

⁵ “ Alert ” Report, p. 168.

⁶ *Ibid.*, p. 732, note.