

Examples.—*Antedon eschrichti* (Pl. XXIV. fig. 11), *Antedon tuberculata* (Pl. XLV. fig. 2), *Antedon multispina* (Pl. L. fig. 3); *Actinometra meridionalis* (Pl. LVI. fig. 1), *Actinometra stelligera* (Pl. LVIII. fig. 1), *Actinometra regalis* (Pl. LXVIII. fig. 2).

4. In by far the greater number of Comatulæ which have the two outer radials united bifascially, and only one further division, the third brachial is the first syzygial joint above the distichal axillary, whether this be a syzygy or not; and the two lowest brachials are also united bifascially.

Examples.—*Antedon disciformis* (Pl. XXXIX. fig. 4), *Antedon variipinna* (Pl. XLVIII. fig. 5); *Actinometra elongata* (Pl. LVII. fig. 4), *Actinometra quadrata* (Pl. LXII. fig. 1).

There are some exceptions to this rule. *Actinometra pulchella* and *Actinometra stelligera* have two articulated distichals, but the first two brachials are united by syzygy (Pl. LII. fig. 2; Pl. LVIII. fig. 1). This is also the case in both *Antedon angusticalyx* and *Antedon inæqualis* (Pl. L. fig. 1; Pl. LI. fig. 2) each of which has three distichals of the usual character; while in the group of which *Actinometra fimbriata* is the type (Pl. LXII. fig. 3) there are also three distichals followed by a syzygy in the second brachial. These exceptional syzygial unions do not occur, however, when there are no distichals present on the ray and the arms spring directly from the radial axillaries. Under these circumstances the first syzygy is always on the third brachial just as in *Antedon eschrichti* and *Actinometra meridionalis* (Pl. XXIV. fig. 11; Pl. LVI. fig. 1). This is very well shown in *Actinometra pulchella* ($2\frac{br}{2}$), *Actinometra coppingeri* ($3.2br$), and *Antedon multispina* ($3.\frac{br}{2}$), (Pl. LII. fig. 2; Pl. LX. fig. 2; Pl. LXIX. figs. 1, 2); and it may also be noticed even in species which usually have palmar series, such as *Antedon porrecta* and *Actinometra lineata* ($3.2[(p.)br]$), when both these and the distichals are absent on any part of a ray (Pl. LX. fig. 3). These multibrachiate species, therefore, are exceptions to Rule 4 in their state of fullest development. But when the primary arms remain undivided the position of their first syzygy is invariably that of the ordinary ten-armed Comatulæ, *i.e.*, on the third brachial, just as is stated in Rule 3.

5. If the two outer radials are articulated and there are two subsequent axillaries, so that palmars are present, the first arm-syzygy above the palmar axillary is in the third brachial in all cases but the following:—

a. Two palmars united by syzygy; the first two joints beyond the palmar and all subsequent axillaries are also united by syzygy.

Example.—*Antedon distincta* (Pl. LI. fig. 1).

β. Two palmars, the axillary a syzygy; the second joints beyond the palmar and all subsequent axillaries also have a syzygy.

Examples.—*Antedon porrecta*, *Actinometra sentosa* (Pl. LXVI. fig. 4).

A very singular exception to this rule is afforded by *Actinometra stelligera*, which