6. The *Valida*-group.

Two articulated distichals; the first arm-syzygy in the third brachial.

Remarks.—Two somewhat different types of structure are comprised in this group, viz., forms with two palmars like the distichals, and forms with three palmars of which the axillary is a syzygy. In addition to these there are also the species, like *Actinometra elongata* and *Actinometra simplex*, which have normally no palmar series at all (Pl. LVII. fig. 2; Pl. LIX. fig. 1). With one exception, which is in the National Collection, these are the only species of the genus which have such a simple ray-structure; and I do not know of any other form which has its subsequent arm-divisions of the same character as the distichals. This is in remarkable contrast to the number of *Antedon*-species which have the same general formula and belong to the *Spinifera*- and *Palmata*-groups.

On the other hand a few *Actinometra*-species like *Actinometra rotalaria* and *Actinometra valida* have one or more arm-divisions beyond the distichal axillary, each consisting of three joints with the axillary a syzygy, an arrangement which does not occur in *Antedon*. Some of the individuals which have been distributed by the Godeffroy Museum, under Lütken's MS. names *Actinometra intricata* and *Actinometra trachygaster*, are of this character; but other specimens bearing the same names are tridistichate, and therefore resemble *Actinometra parvicirra* (Pl. LXI. figs. 1, 5). The two types are so intimately connected, however, that it is impossible to consider them as representing separate groups. Thus, for example, I have described examples of *Actinometra parvicirra* in which half the distichal series consisted of two, and the other half of three joints; and a specimen in the Vienna Museum presents a similar variation. Then again, two (or more) three-jointed distichal series occur in the unique specimens of *Actinometra elongata* and *Actinometra valida*, and in the figured one of *Actinometra rotalaria* (Pl. LVII. fig. 2; Pl. LIX. figs. 2, 3); while in the two last two-jointed palmar series may also present themselves as a variation on the normal three-jointed type.

Under these circumstances it is clear that these variations in structure are not morphologically equivalent to the changes in the position of the arm-syzygies which characterise the *Stelligera*- and *Fimbriata*-groups (Pl. LVIII. fig. 1; Pl. LXII. fig. 3), the former having a syzygy *between* the first two brachials, while the latter has a syzygy *in* the second brachial; and until the discovery of hitherto unknown species renders the number of forms comprised in the *Valida*-group much more considerable than it is at present, we shall do best to include in it all those bidistichate species which have the first arm-syzygy in the third brachial, whether the palmar series consists of two or of three joints.

All the members of the group, as at present constituted, are confined exclusively to the Eastern Archipelago, including the Fiji and the Friendly Islands.