

1. *Metacrinus angulatus*, n. sp. (Pls. XXXVIII., XXXIX.).*Dimensions.*

Greatest length of stem, terminating at the thirty-fifth node,	. . . . .	38.50 cm.
Diameter of stem,	. . . . .	5.75 mm.
Longest cirrus (fifty-seven joints),	. . . . .	53.00 „
Diameter of calyx,	. . . . .	8.25 „
Diameter of disk,	. . . . .	20.00 „
Length of arm (one hundred and ten joints),	. . . . .	90.00 „
Length of large distichal pinnule (twenty joints),	. . . . .	25.00 „
Length of first pinnule after tertiary axillary (twelve joints),	. . . . .	10.00 „

Stem robust, with a sharply pentagonal outline. Eight to twelve internodal joints with but slightly crenulated edges. Their faces are distinctly stellate, while the angles are sharpened and slightly produced outwards; and their sides bear strong horizontal ridges, the edges of which are coarsely denticulate. Nodal joints more distinctly stellate in outline and without horizontal ridges. The cirrus-facets reach closer to their upper than to their lower edges, while the supra-nodal joints are slightly incised to receive the bases of the large cirri, which are mostly directed upwards, and are longest at the twelfth node. They usually consist of forty-five to fifty-five stout joints, which are very uniform in appearance except at the two ends. The lower joints are quite short, and the distal edges are longer than the proximal ones, so that the joints seem to have slight dorsal projections at their distal ends. The interarticular pores terminate between the tenth and twelfth nodes.

Basals widely hexagonal, united into a complete ring, and rather prominent on the exterior of the calyx. They are much higher in the middle line than at the lateral edges, and the lower angle is often produced considerably downwards over the upper stem-joints. Four radials, the first comparatively short and the second a syzygy with a pinnule on the epizygal, the third also bearing a pinnule and the last axillary. Rarely more than three divisions of the rays, which are in close apposition, being only separated by the bases of the large lower pinnules. Forty to fifty arms, generally consisting of about one hundred slightly overlapping joints beyond the last axillary. Primary arms of six to ten distichals (usually eight or nine), of which the second or third is a syzygy. Secondary arms of ten to fourteen palmars, sometimes as many as twenty, the third of which is usually a syzygy. Tertiary arms rare; consisting when present of fourteen to thirty joints, the third of which is a syzygy. There is generally a syzygy in the third brachial of the free arm. Another somewhere between the tenth and thirtieth brachials, and others at intervals of six to twelve joints.

A pinnule on the epizygal of the second radial, and on the first joint after each axillary. The first pinnules, as far as the beginning of the secondary arms, are much larger than their successors, consisting of about twenty joints, the lowest of which are