

examined some of it with the spectroscope, and found the usual bands of pentacrinin. A few specimens which have not been kept in the dark, but have been more or less exposed to light, have bleached completely white.

5. *Pentacrinus alternicirrus*, n. sp. (Pls. XXV., XXVI.; Pl. XXVII. figs. 1-10).

*Dimensions.*

Total length, . . . . .	195 mm.
Longest stem, rounded off at sixteenth node, . . . . .	113 "
Shortest stem, rounded off at eleventh node, . . . . .	47 "
Diameter of stem, . . . . .	5 "
Longest cirrus (thirty joints), . . . . .	52 "
Diameter of calyx, . . . . .	9 "
Diameter of disk, . . . . .	14 "
Length of arm (eighty joints), . . . . .	100 "
Length of pinnule on first free brachial (eleven joints), . . . . .	10 "
Length of pinnule from middle of arm (twenty-one joints), . . . . .	21 "

Stem smooth, short, and pentagonal, with rounded angles. Four to nine (usually five or six) internodal joints with crenulated edges. The nodal joints bear two and three cirri alternately, those at one node corresponding to the positions of the absent cirri at the nodes next above and below. Cirrus-sockets nearly circular, occupying the whole height of the nodal joint, and extending upwards on to the supra-nodals. Infra-nodals scarcely modified at all. The sockets are deeply hollowed and have prominent lateral rims, owing to the angles of the joint between them being produced outwards and rounded. Cirri composed of about thirty stout joints, the lowest of which, after the first four, are somewhat longer than their successors. The terminal claw is moderately large, and has no opposing spine, but the ventral surface of the later joints is a little uneven. The lowest limit of the interarticular pores is between the fifth and eighth nodes.

Basals rhomboidal, extended slightly downwards, and produced laterally so as to meet their fellows in the re-entering angles of the calyx. The rays and their subdivisions in close lateral contact; the joints as far as the sixth or eighth brachial having flattened sides. The two outer radials united by syzygy. About thirty (twenty-five to thirty-two) arms, usually six to each ray, the axillaries being limited to the outer divisions. Primary, secondary, and tertiary arms (the latter very rare) each of two joints united by syzygy. The two lowest brachials united in the same way, the epizygal bearing the first pinnule. Arms of about eighty smooth, oblong joints with syzygies at intervals of three to eight (usually five or six) joints. The first one between the ninth and twenty-sixth brachials. First pinnules quite short, consisting only of ten or eleven joints, the lowest of which are broad and flat, and the later ones long and slender. This inequality gradually disappears as the pinnules increase in length towards the middle of the arm, where they are tapering