

joints, all of which are perfectly smooth and without any traces of the dorsal projections which are so characteristic of the joints composing the shorter and more centrally placed cirri. These long marginal cirri eventually develop spines and only differ in their greater length from those nearer the dorsal pole.

Besides seven individuals of *Antedon australis* found at Station 150, which are all pretty equally developed, the Challenger also obtained a mutilated calyx of much smaller size, from which all the arms had broken away at the syzygies in the third brachials (Pl. XXVI. fig. 5). It may belong to this same species, but if so, it is remarkable in not showing more of the first radials externally than is visible in the more mature forms, though, on the other hand, the axillaries are relatively longer, as would be expected in a young individual. This may also account for the elongated shape of the joints of the first pinnule, and for the present it will be safest to regard this form, which has numerous cirrus-sockets on the centro-dorsal, though barely 4 mm. in diameter, as a young example of *Antedon australis*.

4. *Antedon rhomboidea*, n. sp. (Pl. XII. figs. 1, 2; Pl. XXIV. figs. 1-3).

*Specific formula*— $A. \frac{c}{b}$ .

*Description of an Individual*.—Centro-dorsal hemispherical, with a flattened and cirrus-free dorsal pole. Sixty or more cirri, of thirty to thirty-five segments, several of which are longer than wide. The middle joints project beyond their successors on the dorsal side, and in the shorter terminal joints this projection develops into a blunt keel.

First radials just visible; the second trapezoidal, rather deeply incised and rising to tubercles at the junction with the rhombic axillaries, which are much wider than the distal ends of the second radials.

Ten arms, with a median knob at the junction of the first two brachials, and others alternating on the outer and inner sides till the ninth or tenth joint. The first brachials deeply incised, with very short inner ends, which barely meet above the sharp angles of the axillaries. Middle arm-joints triangular, soon becoming quadrate, as long as or longer than wide, and slightly overlapping. Syzygies in the third, eighth, and fourteenth brachials, and then at intervals of two or three joints. The first two pinnules on each side about 22 mm. long, flagellate, and composed of fifty short joints, the basal ones broad, flattened, and slightly carinate, and the later joints serrate. The third pinnule of about the same size but with fewer joints, the basal ones being stouter and the middle ones longer than wide. The following pinnules are more massive, with square joints, which soon become elongated, the two basal ones but little modified.

Mouth subcentral, with rather large calcareous concretions round the peristome and at the sides of the ambulacra on the disk and arm-bases. Sacculi very abundant.

Colour in spirit,—light brownish-white.