

brachial they become boat-shaped at the base owing to the width of the third and the next few joints.

Disk rather incised and much plated, as are also the lower parts of the arms. The pinnule-ambulacra have fairly well-developed side plates, but the sacculi are small and rare.

Colour in spirit,—brownish-white.

Disk 6 mm.; spread about 12 cm.

*Locality*.—Station 214, February 10, 1875; off the Meangis Islands; lat. 4° 33' N., long. 127° 6' E.; 500 fathoms; blue mud; bottom temperature, 41°·8 F. Five specimens.

*Remarks*.—The only example of this species which came into my hands with the rest of the collection was the much mutilated individual represented on Pl. XII. figs. 3, 4. But after this plate had been drawn I received three other specimens in a much better state of preservation, together with the young form shown on Pl. XV. fig. 1. Portions of the arms and pinnules are represented on figs. 2–4 of the same plate.

*Antedon gracilis* occupies a curiously intermediate position between *Antedon valida* and *Antedon incerta* on the one hand, and *Antedon lusitanica* and *Antedon breviradia* on the other. The cirri are slender as in these latter species, while the two outer radials are carinate, as in some forms of *Antedon breviradia* (Pl. XI. fig. 5; Pl. XII. fig. 4). This feature, however, also shows itself in the larger forms, *Antedon valida* and *Antedon incerta*; while *Antedon gracilis* further resembles these types and differs from *Antedon breviradia* and its allied species in the fact that the third brachial bears a pinnule of the same kind as that on the second, smaller in size, but with similarly carinate lower joints which are flattened on the outer side. This is not the case in *Antedon lusitanica*, *Antedon breviradia*, &c., in which the pinnule of the third brachial resembles its successor more than it does the large pinnule on the preceding joint. The fringe of small spines on the radials and lower brachials rather obscures their straight edged and wall-sided character; but it is very distinct in the smoother individuals, and the lateral flattening of the basal joints in the first pinnules indicates the position of the type very clearly.

The pinnules above the twentieth brachial till near the end of the arm are remarkable for the characters of the third and following joints (Pl. XV. figs. 2, 4). These are widely V-shaped in section, so that the lower part of the pinnule has a boat-shaped appearance when seen from the dorsal side (Pl. XV. fig. 4). This expanded part of the pinnule encloses the genital gland and recalls on a smaller scale a similar arrangement in the pinnules of *Hyocrinus* (see Part I., pl. v. fig. 10; pl. vi. fig. 1).

The enlargement of the lower joints gradually disappears towards the ends of the arms (Pl. XV. fig. 2), and there is no indication of it in the pinnules of the youngest