

- SS. "Blake," 1877-78. No. 29, lat. 24° 36' N., long. 84° 5' W.; 955 fathoms; bottom temperature, 39½°. No. 35, lat. 23° 5' 46" N., long. 88° 58' W.; 804 fathoms; bottom temperature, 40½°. No. 43, lat. 24° 8' N., long. 82° 51' W.; 339 fathoms; bottom temperature, 40°. No. 44, lat. 25° 33' N., long. 84° 35' W.; 539 fathoms; bottom temperature, 39½°. No. 56, off Havana, lat. 22° 9' N., long. 82° 21' 30" W.; 175 fathoms.
- 1878-79. No. 238, off Grenadines, 127 fathoms; fine coral sand; bottom temperature, 56°. No. 248, off Grenada; 161 fathoms; fine grey ooze; temperature, 53½°. No. 259, off Grenada; 159 fathoms; bottom temperature, 53½°. No. 274, off Barbados; 209 fathoms; fine sand and ooze; bottom temperature, 53½°.
1880. No. 306, lat. 41° 32' 50" N., long. 65° 55' W.; 524 fathoms.
- U. S. Fish Commission, 1882. No. 1124, S.S.E. off Nantucket; 640 fathoms.

Remarks.—An elaborate account of this well-known species has already been given by Sars, and I have little to say about it except on one or two points. (1) The sub-radial portion of the summit is not formed by the top stem-joint as supposed by him, but it consists of anchylosed basals, as was originally described by Pourtalès.¹ (2) I have also followed Pourtalès in considering the two joints immediately above the radials as the two lowest brachials, and not as the second and third (axillary) radials, as they have been called by Sars, Ludwig, and Wyville Thomson. No matter what the number of arms of a Crinoid, the so-called second and third radials are morphologically brachials, as I have already pointed out (*ante*, pp. 47, 48); and though it is convenient for descriptive purposes to speak of the successive divisions of the rays as radials, distichals, and palmars, I see no advantage whatever in calling the two lowest arm-joints of a five-armed Crinoid the second and axillary radials. That they are homologous with the second and third radials of *Comatula* and *Pentacrinus* is undisputed, but these are fundamentally brachials; and as it is the distinctive character of an axillary joint that it should bear two arms (or arm-divisions) on its distal face, the use of the term "axillary" in the case of a five-armed Crinoid is misleading and unnecessary.

There is another point in Sars's description that I would just notice. On p. 23 he says distinctly that the covering plates of the ambulacra occur "sur le disque, aussi bien que dans toute la longueur des bras et des pinnules." But there is no sign of them in either of his figures of the disk (Tab. iv. figs. 85, 86, 89). In fact, in fig. 85 no covering plates are represented at all, though the food-groove is shown as far as the distal part of the second brachial; while in the other two figures the first covering plate is shown resting on the distal part of the second, or the lower part of the third brachial.

The form of the calyx in this species varies very considerably; for it is nearly hemispherical in some specimens and much elongated in others. These last have the best developed arms; and to some extent, therefore, the forms with a low and wide cup must be regarded as premature. But differences of development will not entirely account for the variation, as the calyx of a young specimen found by Sars¹ is distinctly higher (longer) than broad.

¹ Crinoïdes vivants, Tab. iv. fig. 95.