632 fathoms; bottom temperature, 30°·5 F. Three (or more) specimens. Also at other unrecorded localities in the "cold area."

H.M.S. Challenger, Station 48, May 8, 1873; on the Le Have Bank; lat. 43° 4′ N., long. 64° 5′ W.; 51 fathoms; rock. Several specimens.

H.M.S. "Valorous," Station 1, July 22, 1875; off Hare Island, in Davis Strait; lat. 70° 30′ N., long. 54° 41′ W.; 85 fathoms; sand and mud. One specimen.

H.M.S. "Alert," 1875; Franklin-Pierce Bay in Smith's Sound; lat. 79° 25′ N.

*Other Localities.*—Melville Bay; Jan Mayen; Spitzbergen Sea: Barents Sea; Kara Sea; Coast of Siberia to long. 92° 20′ E. (Stuxberg); Bay of Fundy ? (Stimpson).[1]

*Remarks.*—Although described by Müller in 1841, this species was never figured till 1876, when Quenstedt gave a rough, but very characteristic sketch of it in the Atlas of the Petrefactenkunde Deutschlands.[2] Five years later it was again figured and minutely described by Duncan and Sladen in their well known monograph of Arctic Echinoderms. The numerous examples of it which were dredged by the Challenger off Halifax (Station 48) are by no means so large and well developed as individuals which I have examined from higher latitudes, and notably those obtained in the Barents Sea by the Dutch Arctic Expeditions, which are the finest examples of the type that I have seen. The spread of these Atlantic specimens does not exceed about 40 cm., and there are not more than two hundred arm-joints. The cirri and the lower pinnules are also fewer-jointed and shorter in proportion, while the arm-bases are much less tubercular than in the more northern forms. In these last the junction of the first two brachials forms a somewhat prominent knob in the middle line of the arm, and there is another at the outer end of the line of articulation between the second and third. The next is at the inner end of the articulation between the third and fourth, the one joint projecting forwards and the other backwards to form a knob-like elevation. This usually disappears at the second syzygy (on the eighth brachial), but may be continued out for three or four joints further, and the result of it is that the fourth to the seventh joints are altogether different from their successors in bearing their pinnules on their shorter sides (Pl. XXIV. figs. 10, 11). Beyond the third syzygy the joints are very distinctly triangular, but they are considerably wider than long, and this disproportion increases in the middle and outer parts of the arms, so that the successive pinnules are very closely set (Pl. XXIV. fig. 13); and it is only quite at the extremities that the joints become at all quadrate (Pl. XXIV. fig. 12). This is one of the best characters for distinguishing *Antedon eschrichti* from *Antedon quadrata* (Pl. XXVI. figs. 1–3; Pl. XXVII. figs. 5–7; fig. 4 on p. 154), which is commonly found associated with it, though it is shared with *Antedon antarctica*, as seen in Pl. XXV. fig. 12.

[1] Stimpson had some hesitation in referring his single specimen to *Antedon eschrichti*, on account of its small size, and it may not improbably belong to *Antedon quadrata*.

[2] Encriniden, tab. 96, fig. 26.