

grey in colour, growing on a small bivalve mollusc-shell; R.N. II, from the stomach of an *Erignathus barbatus* 73 inches long, consists of eight small specimens, yellow in colour (orange when first obtained), irregularly rounded and flattened in shape, the largest measuring 33 by 20 by 6 mm.; R.N. VIII consists of a number of greyish, semi-digested fragments from the stomach of an *Erignathus barbatus*; these were of a dark-green or orange-brown colour when first obtained.

The surface of all the specimens is smooth and even; neither inhalant pores nor oscula are visible. Texture firm, elastic and compact.

The skeleton consists of tylostyles, densely packed and arranged in great confusion; there is a very opaque outer layer in which the centrotylote microxea form an almost solid mass.

Spicules.—(1) Tylostyles. Usually slightly curved, varying little in size, and measuring up to 0.57 by 0.009 mm. In most cases the head is not very marked, and some of them tend to become stylote.

(2) Centrotylote microxea. Sometimes minutely spined or roughened; the typical ones measure up to 0.07 by 0.003 mm., but there are many smaller and more irregular forms.

Register Numbers, Localities, etc.—II: Station 370, Dolphin and Union strait at Bernard harbour, North West Territories, October 3, 1914.—IV: Station 41, Bernard harbour (outer harbour), 3-5 fathoms, sandy mud, July 20, 1915.—VIII: Station 37a, Bernard harbour, August 24, 1914.—XII: Station 43b, off Stapyton bay, Dolphin and Union strait, Northwest Territories, 25-30 fathoms, mud with pebbles, September 14, 1915. (All Canadian Arctic Expedition, F. Johansen coll.).—X: Whaler point, North Somerset island, Northwest Territories, August 17, 1904, (*Neptune* expedition, A. Halkett coll.).

***Polymastia mammillaris* (O. F. Mueller) Bwbk.**

(For discussion and synonymy *vide* Topsent (1900)).

There are two much flattened, disc-shaped specimens in the collection; *Trichostemma*-like, with marginal fringe of long spicules. The larger, (R.N.I. a), which has a small pebble attached to the middle of the under surface, and numerous teat-like projections on the upper surface, measures 63 mm. in diameter and 5 mm. in thickness. The smaller (R.N.I. b) is attached to a shell and measures only 25 mm. in diameter and 3 mm. in thickness.

The colour in spirit is dark yellowish grey; in life it was "grey-yellow, with the spine-brushes more strongly yellow-brown" (Johansen). The skeleton arrangement and spiculation agree closely with those of specimens described by Vosmaer and Topsent.

Register Numbers, Locality, etc.—I, a, b: Station 43a, off Cockburn point, Dolphin and Union strait, Northwest Territories, about 100 metres, mud with pebbles, September 13, 1915. (Canadian Arctic Expedition, F. Johansen coll.).