Ptychogena pinnulata, Hæckel (Pl. II.).

Ptychogena pinnulata, Hæckel, 1879, System der Medusen, p. 148, No. 150.

Umbrella depressed, three to four times as broad as high. Stomach quadrangular, very flat and wide, one-third of the diameter of the umbrella, with slightly-raised oral margin, which is prolonged at the corners into four short lobes. Genitalia, four broad, almost circular, pinnated leaves, which occupy the proximal half of the radial canals, at whose conically-enlarged origin they pass into the wall of the stomach, each leaf with twenty to thirty pairs of alternating pinnated branches, which are not divided, and which bear leaf-shaped, deeply-notched reproductive lobes at the lower free margin. Two to three hundred long tentacles with numerous marginal clubs between. Horizontal diameter of the umbrella, 50-60 mm.; vertical diameter, 20-30 mm.

Habitat.—North Atlantic Ocean. I was able to investigate several well-preserved specimens in spirit of this North Atlantic species from the Copenhagen Zoological Museum, which had been found by Captain Moberg between Ireland and Iceland (lat. 59° 7′ N., long. 13° 32′ W. from Greenwich). A fragment of a Cannotid, which I discovered in a jar of the Challenger collection, from Station 50 (May 21, 1873), in the same jar as Pectyllis arctica (dredged near Halifax from a depth of 1250 fathoms, lat. 42° 8′ N., long. 63° 39′ W.), appears identical with these specimens. Although this decomposed fragment hardly included the quadrant of a disc, it was still sufficient to identify it completely with these Copenhagen specimens from which the following description and drawing are taken.

Ptychogena pinnulata shows, on the whole, the same formation of the umbrella as the closely-related Ptychogena lactea (loc. cit.). The umbrella is depressed, projecting somewhat more strongly in the centre. The horizontal breadth at the opening of the umbrella cavity is from two to three times as great as the vertical height. The gelatinous substance of the umbrella is tolerably firm, but thin, and diminishes in thickness rather rapidly from the centre towards the margin; in the centre its thickness amounts to 5 or 6 mm. The exumbrella is smooth, without special distinct characters.

The umbrella margin is thickly beset with two rows of appendages, an outer row of long tentacles, and an inner row of short marginal clubs (figs. 3, 4). The number of tentacles or marginal filaments amounts to from 200 to 300; in one specimen I counted 320. There are usually from 70 to 80 upon each quadrant. They lie thickly pressed together. The swollen basis or tentacle bulb is 1.8 mm. long, 0.6 mm. broad, and has the form of a half-oval leaf lying in the meridian plane. The abaxial margin is strongly arched, rising gradually from the basis, and then falling off rapidly. The axial margin is straight or sinuated a little concavely. The marginal filament itself is very thin, and in the spirit specimens before me nearly as long as the diameter of the umbrella; in the living animal probably three or four times as long. The marginal clubs, or tactile clubs