

intimate connection with the vessels of the pseudhæmal system. The above diagnosis and description refers to the individual obtained at Station 169.

The fragmentary specimens obtained at Station 78 are doubtless identical with the preceding form; their deposits have exactly the same appearance.

*Holothuria thomsoni*, n. sp. (Pl. X. figs. 8, 11).

Body oval. Mouth turned downwards. Anus almost terminal. Tentacles twelve in number, in general shape like those in *Aspidochirota*. A simple slightly alternating row of pedicels along each side of the ventral surface, and some small papillæ scattered on the ventral surface in the neighbourhood of these rows. No other ambulacral appendages are visible on the exterior. Perisome unusually rough, from an abundance of crowded tables consisting of large, irregularly perforated disks with the central hole usually smaller than the peripheral ones; the spire is composed of three rods and one transverse beam, and terminates in three very long, slender, and spinous teeth. Colour in alcohol, greyish. Length about 125 mm.

*Habitat*.—Station 237, June 17, 1875; lat. 34° 37' N., long. 140° 32' E.; depth, 1875 fathoms; bottom temperature, 35°·3; blue mud; a single incomplete specimen. Station 244, June 28, 1875; lat. 35° 22' N., long. 169° 53' E.; depth, 2900 fathoms; bottom temperature, 35°·3; red clay; three specimens.

The body seems to be more flattened on the ventral than on the dorsal surface. Each of the two rows of pedicels contains forty to fifty. The length of these pedicels and their breadth at the base are about 5 mm. Excepting the small papillæ or pedicels in the neighbourhood of the rows above mentioned, no other ambulacral appendages are visible protruding beyond the surface of the skin; but, on examining the inner surface of the perisome, one finds a great number of small pores along the odd ambulacrum and a very few scattered on the back, which possibly may indicate the presence of minute pedicels. The tables (Pl. X. fig. 11, *a, b*) bear a certain resemblance to those in the preceding species, but the disks are more irregular and are provided with a greater number of holes; their spire is characterised by the spinous teeth. The disks measure about 0·26 mm. in diameter, and the spire is of about the same length. The pedicels possess, besides a rudimentary terminal plate, smaller, more regularly perforated tables (Pl. X. fig. 11, *d, e*) and slightly curved and spinous rods (Pl. X. fig. 11, *c*). The calcareous ring is narrow, fragile, and of the usual shape, without posterior prolongations. The longitudinal muscles are simple and devoid of retractors. A bundle of three small Polian vesicles is present.

The specimens brought home from Station 244 deviate in some degree from the above diagnosis, and in some respects they are more nearly allied to the preceding species. In fact, the deposits closely resemble those in *Holothuria lactea*; thus the