There is good reason for referring this form to a new species, but considering that it presents in several respects great similarities to $Holothuria\ murrayi$, and that I have had at my disposal only a single specimen, I prefer for the present to regard it as a variety of this species. Length, 72 mm. Body fusiform, about 23 mm. broad at the middle. Pedicels numerous, cylindrical, about 2.5 mm. long, scattered over the dorsal surface and the sides of the body. The pedicels of the ventral surface are very minute and scarcely visible to the naked eye. Colour yellowish-white. Deposits—tables with a spire composed of three arms with spinous apices and a single transverse beam (Pl. IX. fig. 2, a, b, c, d). Pedicels apparently without transverse supporting rods but with well-developed terminal plates. Mouth turned downwards; anus terminal. A single Polian vesicle. The figures will give the best idea of the external appearance of the animal and of the shape of the deposits.

Holothuria murrayi (var.?) (Pl. IX. fig. 3).

Habitat.—Station V., January 28, 1873; lat. 35° 47′ N., long. 8° 23′ W.; depth, 1090 fathoms; bottom temperature, 38°.5; Globigerina ooze.

A single specimen, 80 mm. long, differing from the typical form principally in that the ambulacral appendages, which are evidently true pedicels, are more numerous on the dorsal surface and the sides of the body. Even the calcareous ring (Pl. IX. fig. 3) is somewhat different, which will be understood from the figures. Colour greyish, inclining to violet. From the scanty materials I could not undertake any more detailed examination, but, so far as I can judge, there can be but little doubt that this form is identical with, or at least very nearly related to those brought home from Station 300.

The three species above mentioned, viz., Holothuria lactea, Holothuria thomsoni, and Holothuria murrayi, form a group by themselves among the numerous representatives of the genus Holothuria, and it is very probable that they may be properly placed in a new genus, or, at least, in a subgenus. Indeed, Holothuria thomsoni differs so strikingly from all forms hitherto known that I should not hesitate to refer it to a new genus if I had not had the opportunity of examining the two other forms, which evidently form a transition to the true Holothuria. Holothuria thomsoni is distinguished by twelve tentacles, and its variety by fifteen, numbers of tentacles hitherto unknown in any species of Holothuria. That which seems to be common to the three species above mentioned and their varieties is, firstly, the conformation of the calcareous deposits, and secondly, the peculiarity that the pedicels of the two lateral ventral ambulacra either form a simple distinct row, or that, if they are more numerous and crowded, some of them are larger and more or less distinctly arranged in a row along each side of the body.