

Thouarella hilgendorfi seems to connect this species with the true forms of *Thouarella*, of which *Thouarella antarctica* may be regarded as a type. So far the species of the genus have only been found in deep water in the southern hemisphere.

1. *Thouarella moseleyi*, n. sp. (Pl. XIV. figs. 1, 1 α ; Pl. XXI. fig. 2).

The stem is upright, and from it twigs come off only in two directions. The twigs are thin, flexible, and generally simple, seldom bearing lateral twigs. The stem is clothed with a thin cœnenchyma, which contains two layers of calcareous spicules, the outer of large flat scales and the inner of triangular or polygonal spicules. The polyps are placed partly on the main stem between the points of origin of the lateral twigs in an irregular row, and partly on the twigs. They are large as compared with the thickness of the twig. On the base of the twigs they are arranged in short spirals of up to three, further on oppositely. The polyps are covered with five transverse rows and four longitudinal rows of large scales; the scales of the ventral side are slightly different from the others. The operculum is in the form of a low cone.

The whole habit of the colony reminds one very much of *Stenella*; the colony does not yet show the typical growth of the other species of *Thouarella*. It is a form which effects a transition between the former genus and the typical forms of *Thouarella*. The little upright colony is 90 mm. high; the axis is thin, slightly calcareous, and flexible, somewhat flattened. At the base 1 mm. in diameter. The colour is yellow and the surface shining. The bark contains two layers of calcareous scales, an outer one of irregular, four- or five-sided calcareous scales, which overlap each other at their edges, and a lower layer of small, triangular or irregularly polygonal spicules. The twigs arise from the stem at different heights, alternating in two rows. This condition appears at first sight very different from that of the typical *Thouarella*, but on more careful examination the arrangement of the twigs here also falls under the law given in the description of the genus. Between two twigs, which are given off on two sides at different heights, one polyp is placed on the stem in such a way that the two twigs are arranged in a short spiral with the polyp; at a few points a short twig is developed in place of the polyp. The twigs are generally simple, 0.5 to 0.6 mm. thick, and 15 to 20 mm. long. In one place the twig has developed into a branch 35 mm. long, which bears lateral twigs and polyps in the same way as does the main stem.

The polyps are club-shaped, their length reaches 1.5 mm. They are placed on the stem in the first mentioned order, as well as on the twigs. Here they show at the base the typical arrangement in short spirals of three, further up two calyces always draw near together, so that at the end they are placed opposite. On quite young twigs from the apex of the colony one sees the young buds arising at the base of the first developed polyp in the spiral.