The tube from Station 157 consisted of a tough hyaline lining invested by a soft greyish mud, which was mainly composed of Radiolarians and Diatoms, the minute and long spicules formerly alluded to, a few fragments of Ostracoda, and other debris. The Radiolarians are much more prominent in this than in the mud from the bottom of the sea, or the intestine of the Annelid, probably because the animal selected the largest masses for the manufacture of its tube. The tube from Station 152 is long and fragile, measuring 190 mm. in length, and having a diameter of 9 mm. In the preparation it is somewhat flattened, and has a similar composition to the previous one, only it feels more gritty from sand-grains, and coarse spicules of sponges. A large number of Diatoms enter into its composition, and it is studded all over with a Globigerina-like form roughened with pointed lozenges arranged very closely. Here also the selective power of the animal is shown in the divergence between the contents of the alimentary canal and the material composing the tube. The composition of the tube from Station 146 is quite different, being almost entirely composed of Globigerina and other Foraminifera. One or two Radiolarians occur amongst the former.

The cuticle forms a thin layer, but the hypoderm is comparatively thick, especially in the ventral median line. The nerve-area is small, and has a large neural canal superiorly. The circular muscular coat is well marked. Both dorsal and ventral longitudinal muscles taper in section from the bulbous exterior border inward, and are nearly equal in size. The dorsal muscles approach each other in the median line, but the ventral are widely separated, the oblique muscles being attached beyond the outer border of the nerve-area. The alimentary canal anteriorly forms a small firm tube, with plaited inner lining, at the superior central region, the rest of the body-cavity being occupied by coarsely granular and large cells, probably pertaining to the perivisceral fluid.

It is difficult in not a few cases to follow Kinberg's descriptions ' of this group, but it is possible that his genus *Chrysothemis* is somewhat allied to *Maldanella*, though the absence of the funnel is a striking difference.

Maldanella valparaisiensis, n. sp. (Pl. XLVI. fig. 12; Pl. XLVII. fig. 3; Pl. XXVA. fig. 12).

Habitat.—Trawled at Station 298 (a little south of Valparaiso), November 17, 1875; lat. 34° 7' S., long. 73° 56' W.; depth, 2225 fathoms; bottom temperature 35°.6, surface temperature 59°.0; sea-bottom, blue mud.

The length of the specimen is 64 mm., and its greatest diameter (a little behind the front) 5 mm.

The cephalic lobe is broadly truncate, the marginal lamella being perhaps less ¹ Öfversigt k. Vetensk.-Akad. Förhandl., 1866, p. 340.