dredged by the Challenger, the main difference between the two species is in the greater elongation of the middle thoracic segments of *Leptognathia australis*, and in the absence of serrations on the distal joints of the chelipedes. These differences, as well as others which will be referred to in the course of the following description, seem to me to be sufficient to distinguish the species.

Leptognathia australis as already mentioned is represented in the Challenger collection by a single specimen, an ovigerous female; it measures about 4 mm. in extreme length.

The body is extremely narrow and elongated, the proportions between the cephalothorax, thorax, and abdomen are as follows:—Cephalothorax 6, thorax 19, abdomen 8; the proportions of *Leptognathia longiremis*, measured from Sars's figure (pl. vii. fig. 18), are 5, 16, 8; it is evident, therefore, that in *Leptognathia australis* the thoracic region comprising the free thoracic segments is proportionately longer than in the other species.

The cephalothorax is longer than the first free segment of the thorax, but not as long as the first two segments taken together; as the single specimen was mounted on a slide so as to be seen from the side, I am unable to describe the shape of the cephalothorax; eyes are, however, completely absent.

The first segment of the thorax is shorter than any of the following three, which are subequal and about half again as long as the first segment; the fifth segment is shorter than the fourth, but a little longer than the first; the last segment of the thorax is shorter than any of the others, with the exception of the first, which it equals in length. The thoracic segments are separated from each other by well-marked constrictions.

The point of insertion of the ambulatory appendages appears to be characteristic in many Tanaids; in the present species the first pair are articulated close to the anterior extremity of their segment; the second, third, and fourth pairs at about the middle of their respective segments; the two last pairs are articulated a very little nearer to the posterior margin of their segments, the last a little more than the first, but still roughly in the middle of the segment, not definitely at its posterior extremity as in *Typhlotanais kerguelenensis*. The ovigerous lamellæ are developed along the thorax as in other species.

The *abdomen* is altogether about as long as the two last segments of the thorax and one-half the fourth segment; the terminal segment is rather longer than the two preceding, and ends in an obtuse rounded extremity.

The *antennules* are not so long as the cephalo-thoracic shield, they are four-jointed, the joints decreasing progressively in width as well as in length.

The *antennæ* are of about the same length as the antennules; this structure is entirely similar to that of the same appendage in *Paratanais*.

The *chelipedes* are stout and robust in structure; the first joint is the longest, with