

the side of the penultimate joint, which it closely fits; it terminates in a stout spine like that which bounds the inner edge of the penultimate joint, and its inner edge is furnished with serrate spines similar to those upon the penultimate joint.

The other thoracic limbs are slender and small in comparison with the first pair, but as only one of them, the third on the right side, was preserved, it is impossible to speak with certainty. That the specimen is a male is also evident from the condition of the abdominal operculum and the second pair of abdominal appendages.

The *operculum* or first pair of abdominal appendages is displayed in fig. 6 of Pl. IV. Each appendage consists of an oval plate, flattened but convex ventrally, with a straight inner and a curved outer margin; the outer margin of each is fringed with a row of simple hairs which gradually increase in length towards the apex of the limb.

Beneath the operculum are a pair of remarkable appendages, which no doubt serve the function of a penis; they are displayed in fig. 7, but as I have only had one specimen of this species at my disposal I am unable to say whether that figure represents the whole of the appendage, or whether any portion has been detached. Each of these appendages consists of a strong basal joint which is shaped somewhat like a joiner's "square;" the nearly straight outer margin is fringed with a number of short simple hairs; and near to the apex of the limb is given off what apparently corresponds to the endopodite. This consists of two elongated joints which are articulated so as to lie almost parallel with each other and with the basipodite; at the apex of the basipodite are articulated one or two small joints which may represent the exopodite.

Then follow three pairs of lamellar branchial appendages; these are covered over and protected by the exopodites of the first pair, which are stout and much calcified; these are traversed by an oblique suture; the outer round margin, and to a certain extent also the inner straight margin, are fringed with short simple hairs; the endopodite of this limb is the first branchial organ.

The fourth pair of abdominal appendages consists of endopodite and exopodite, the fifth pair of one ramus only; in every case the shape of these limbs is the same—subtriangular with a rounded outer and a straight inner margin; the apex of each is beset with a tuft of long hairs which appear to be plumose.

The terminal pair of abdominal appendages or *uropoda* are displayed in fig. 8 of Pl. IV. They are biramose, the endopodite and exopodite being subequal in size and beset with numerous longish hairs.

This species differs from those already described by Haswell and Chilton in the following points:—

From *Stenetrium fractum*, Chilton,<sup>1</sup> in the greater length of the flagellum of the first

<sup>1</sup> Mr. Chilton's description of the species *Stenetrium fractum* (*Trans. New Zealand Soc.*, vol. xvi. p. 251) is unfortunately rather brief owing to the imperfect condition of the specimen examined by him; hence the points of difference between his species and mine which I have been able to cite are necessarily rather meagre, but I think quite sufficient to discriminate between the two.