

joints, while the second row appears to be attached along the inner margin itself; the penultimate joint is swollen and pear-shaped, broader at the base than above; along the inner margin are some fifteen pairs of long cylindrical spines, which are of a rather unusual form; the distal third bears two rows of short cylindrical branches; the centre of the spine appears to be hollow at the base, and the bounding membrane is continued above into a solid axial rod, which projects for a short way beyond the anterior extremity of the spine. This appendage and the peculiar spines upon the penultimate joint are figured by Grube (*loc. cit.*, pl. v. figs. 3, 3, a), Grube also states that the spines upon this pair of appendages are alike in both males and females:—"Der Innenrand des 2<sup>ten</sup> Paares Greiffüsse trägt lange an der Vorderseite gesägte Stacheln, sowohl beim Männchen als beim Weibchen." They are in reality quite different in the female; the fourth joint bears a row of spines arranged in pairs; on the distal half of the joint these spines are strong and serrated along both margins, resembling entirely the serrated spines found upon the other thoracic limbs; posteriorly the serrations become less marked, and the proximal end of the joint has only smooth sword-like spines, the third and fourth joints have none of the soft plumose hairs that are found in the males; their place is occupied by tufts of strong spines, some of which are serrated. In this as in all other species in which the males have the peculiarity here described, the females are invariably different, the third pair of thoracic appendages being in this respect closely similar to the succeeding appendages.

The remaining thoracic appendages are not in any way remarkable. The second joint, which is rather smaller than the first joint, is furnished with a tuft of long hairs upon the inner surface at the distal extremity, among which are a few serrated spines; the succeeding joints, which are approximately of this arm length, the fourth being rather the longest, have a tuft of hairs in the same position, among which are a greater number of serrated spines; in the penultimate joint the long delicate hairs are almost entirely absent, their place being taken by stout spines, many of which are serrated. Along the outer margin of the joints, with the exception of the first, are tufts of short spines, very few of which are serrated.

The three anterior *abdominal appendages*, like those of *Serolis schythei*, have no plumose hairs upon the basal joint.

The suture of the *operculum* is oblique.

The exopodite of the fifth pair of abdominal appendages is bifurcate.

Station 316, February 3, 1876; lat. 51° 32' S., long. 58° 6' W.; 4 fathoms; bottom, mud.