

minent with the edges rounded. Four or five are placed in a longitudinal row, of which there are about seven.

The study of the structure of the animal contained within the capitulum has yielded the following results.

*Mouth*.—*Labrum* bullate, with a row of small sharply-pointed teeth. *Mandibles* (Pl. X. fig. 7) with three teeth of nearly the same strength. Upper side of the third tooth serrated; inferior angle bearing about six strong teeth. *Maxillæ* (Pl. X. fig. 8) with the free edge straight, without any notch. The edge bears about twelve pairs of spines; the first two pairs are stronger and longer, the last three pairs are smaller than the remaining pairs. *Second maxillæ* have the so-called olfactory orifices on very long stalk-like excrescences. The anterior surface of the second maxilla bears very numerous spines.

*Cirri*.—The first pair has very unequal rami. The most anterior ramus is short, has only eight segments, and is rather broad. It is flat and has the shape of a table. The surface of the different segments is clothed with very numerous and slender spines, the hinder margin of each segment bears from three to six stronger spines. The segments of the posterior margin are more elongate, and as they are also more numerous than those of the other ramus (there are ten in the posterior ramus), the whole ramus is a great deal longer and more slender. The surface is also richly clothed with slender spines, but those of the hinder margin are by no means so strong, nor are they placed so regularly, as is the case on the anterior ramus. The other cirri are very slender. Those of the last pair have a two-jointed pedicel and branches of twenty-one to twenty-two segments. At the inner side each segment bears five pairs of spines: a first pair of extremely small spines, a second pair of not very stout spines, and three following pairs of long and robust spines.

The *caudal appendages* (Pl. X. fig. 9) are slender and elongate, sparingly clothed with spines. They have six, indistinctly seven segments.

The *complemental males* of this species are very small, their length being only 0·7 mm. Their structure is very simple, and much resembles that of the other true deep-sea species. They are placed, one at each side, between the scutum and the chitinous membrane; the little creature is almost totally embedded, and only a small rounded part is visible. This represents the peduncle. A rounded opening at the extremity shows the spot where the genital apparatus opens. The surface does not bear the spines, which in many other species are characteristic.

This species was dredged at Station 146, December 29, 1873; lat. 46° 46' S., long. 45° 31' E.; depth, 1375 fathoms; bottom temperature, 1°·5 C.; bottom, Globigerina ooze.

*Observations*.—This species differs from *Scalpellum novæ-zelandiæ* in the following regards:—1. In the upper latus not reaching over the scutum, and having the carinal margin longer; 2. In the roof of the carina, which is flat in *Scalpellum novæ-zelandiæ*, and convex in *Scalpellum flavum*; 3. In the length of the carina, reaching almost to the tip of the tergum in *Scalpellum flavum*, and by no means so far in *Scalpellum novæ-zelandiæ*.