

intromittent organ has ever been specialized, but its function assumed by the specialization of the second pair of appendages (the palpi) in the former case, in the Opiliones there is a well-developed intromittent male organ or "penis" corresponding with an homologous organ in the female, called the ovipositor. These organs lie beneath the first two opisthosomatic segments, which have migrated forwards towards the region of the mouth (very far forward in the Plagiostethi, less so in Mecostethi), crowding the coxal segments of the legs together and reducing the sternal sclerites to quite attenuate proportions.

The dorsal segments of the prosoma, constituting the so-called "carapace," are entirely fused and bear a pair of eyes, usually placed on a larger or smaller median tubercle. The first five dorsal segments of the opisthosoma are also completely fused, but the grooves marking the original divisions are distinctly traceable in very many Opiliones; while the last four segments are quite separate or free, united along their margins by connective tissue.

In the ventral aspect the "prosoma" is represented by the chelæ, palpi, and four ambulatory appendages, with the maxillæ and more or less obliterate sternal elements; the "opisthosoma" by the two genital segments, the segment bearing the spiracles, and the six free segments, the two terminals being, however, fused together.

The first pair of appendages are chelate for purposes of seizing and crushing prey, and in the males of many forms they are enormously developed. The second pair constitute the so-called "palpi," and usually terminate in a strong single claw. They are variously armed with formidable spines, and in such cases are used for the compression of the prey against the mandibles and maxillæ in the operation of mastication. The third pair of appendages are ambulatory in their function, constituting the first pair of legs. The fourth pair, usually considerably lengthened and slender, are in many cases further specialized, and the terminal segments are broken up into numerous small sections. They have ceased to be purely ambulatory, but have become used for tactile purposes, their function being analogous to that of the third pair of appendages in the Pedipalpi, most noticeable amongst the Phrynidæ. The fifth and sixth pairs are used for ambulatory purposes, while amongst the Cosmetidæ and Gonyleptidæ, for instance, the sixth pair is often in the male sex highly developed and armed with specialized spines, chiefly on the femoral segment.

It is as yet by no means clear what the exact use of these specialized posterior legs in the male sex may be, though possibly they serve as claspers in the act of copulation.

The tarsal claws vary in number in the different families, and have been utilized as a basis of the highest importance for the division of the Opiliones into three suborders by Loman.

For the present, however, the view adopted here is that recently put forward by Mr. R. I. Pocock, that the character of the sternal sclerites, with others of considerable