together they do not quite equal the first in length. The outer and upper flagellum is swollen at the base for a short distance, and then gradually narrows to a diameter which corresponds with that of the lower flagellum, and the under surface of the enlarged portion is flat or hollowed, and carries a mat of membranous cilia.

The second pair of antennæ carries a scaphocerite that is long, narrow, and has the two margins correspondingly curved to meet at the extremity, where the outer is produced to a small tooth; the outer margin is smooth and rigid, and the inner thickened by a fringe of strong hairs; the ultimate joint of the peduncle is half the length of the scaphocerite, and much stouter than the flagellum, which is about half the length of the animal.

Behind these latter appendages in the median line the epistoma projects in the form of a laterally compressed, anteriorly directed, lobe-like beak, between which and the metastoma the mandibles are enclosed.

The mandibles (Pl. CXLI. fig. 1d) are short, broad, and shell-shaped, and consist of the psalistoma only, the molar process and synaphipod being absent.

The first pair of siagnopoda (fig. 1e) is small and three-branched; the outer branch is subcylindrical, unarmed, except for two hairs, one short and simple and the other extremely long and minutely serrate ; the middle branch is broad and armed with long, strong, curved spines, and the inner branch is short, and armed with short, straight spines.

The second pair of siagnopoda (fig. $1 f$ ) consists of a broad, foliaceous plate of considerable tenuity, surrounded with hairs that radiate as from a common centre, all bending towards the anterior apex ; on the inner end, attached to the plate as part of the same structure, is a short, subcylindrical branch, tipped with three or four minutely serrate hairs.

The third pair of siagnopoda (fig. 1 g ) consists of a long, foliaceous plate of considerable tenuity; the basal part has the outer portion separated by a broad, imperfect articulalation, from which the structure gradually narrows towards the extremity, forming a long acute triangle, the distal portion of which forms the apex, and is divided from the rest by an obscure articulation, at the base of which on the inner side is a tooth-like prominence; the margin is distally fringed with long hairs that increase in length towards the extremity.

The first pair of gnathopoda (fig. $1 h$ ) is six-jointed, subpediform, short, narrow, and cylindrical; the coza is short and stout, the basis is longer, and the ischium is long and narrow, and slightly flattened; the meros resembles the ischium, and the carpos is short, triangular, and articulates with the meros at a right angle. The propodos is long, cylindrical, and reflexed; the dactylos is broad, distally attached to the propodos, and directed posteriorly, and is fringed with short, stout spinules on the outer margin, and apically with one long and straight. This appendage is so closely associated with the preceding, that to all appearance the two are connected as represented in the Plate. Even when

