carrying a cilium in a little emargination at the top; its rounded lower margin overlapping the next joint; the third joint much dilated, with spines at three points of the furry front margin, the convex hind margin so decurrent as to overlap not only the next joint but part also of the fifth; the fourth joint very short, a pair of spines at the apex in front; the fifth joint shorter than in the preceding pair, similarly formed, the pair of spines at the finger-hinge sharp instead of blunt; the finger as in the preceding pair.

Fourth Perwopods.—The side-plates with front and hind margins straight, lower margin roundly produced behind; first joint rounded, broader than deep, broader than the side-plate, an emargination with a cilium in the middle of the hind margin; third joint less decurrent than in the preceding pair, the limb in general similar.

Fifth Perwopods.—Side-plates small; first joint of the limb larger than in the preceding pair, a little wider than deep, front margin very convex, with several setæ on the lower part, the hind margin nearly straight, with a little cilium-bearing incision at the lower end, the convex lower margin very broad behind the second joint, which it overlaps; the third joint less expanded than in the two preceding pairs, the fifth joint shorter, with no spines on the front margin except the apical pair; the finger also shorter.

Pleopods.—A single cleft spine on the first joint of the inner ramus, which has four joints, while the outer has five. In the larger specimen mentioned below it was perceived that the peduncles of the pleopods carried two small spines, each with three retroverted teeth, the rami had six joints to the inner, eight to the outer, the first joint of the inner carrying two small cleft spines low down.

Uropods.—Peduncles of the first pair equal in length to the rami, the rami subequal, the inner with a small nail not reaching quite so far back as the outer; peduncles of the second shorter than those of the first, also about equal in length to the rami, of which the inner is a little shorter than the outer; peduncles of the third pair very short, the rami represented by a solitary tubercle, with a cilium at the apex.

Telson short and small; in the lateral view it is convex below and concave above, with strong spines and cilia about the apex.

Length.—The specimen in the position figured measured scarcely one-tenth of an inch; another specimen measured nearly three-twentieths.

Locality.—Station 149B, Royal Sound, Kerguelen, January 20, 1874; depth, 28 fathoms; bottom, volcanic mud. Three specimens.

Remarks.—The specific name is derived from Pepin, surnamed le Bref, the celebrated King of the Franks.

This species is distinguished from the following species, Acontiostoma kergueleni, by its much firmer integument, its much greater hairiness, its much smaller eyes, the much smaller first joint to theflagellum of the upper antennæ, the more developed spines of the first maxillæ, the bulge in the front margin of the first side-plate, the