TRANSACTIONS

AND

PROCEEDINGS

OF THE

NEW ZEALAND INSTITUTE

1881

VOL. XIV.

EDITED AND PUBLISHED UNDER THE AUTHORITY OF THE BOARD OF GOVERNORS OF THE INSTITUTE

BY

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ISSUED MAY, 1882

WELLINGTON
LYON & BLAIR, PRINTERS, LAMBTON QUAY
TRUBNER & CO., 60, PATERNOSTER ROW LONDON

PAGE

95. *Diloma æthiops* is not *Monodonta reticularis* of Gray; the latter ought to be replaced in catalogue, as I have both.

96. *Diloma gaimardi* is same as *D. sulcatus*, Wood.

96. *Trochocochlea mimetica*, Hutton, is *M. reticularis*, Gray.

98. *Zizyphinus granatus*, Chemnitz, is not the same as *Z. tigris*, Martyn; the *granatus* of Dunedin Museum is *tigris*.

103. *Margarita fulminata* should be a *Gibbula*.

Margarita, nov. sp.—Add to catalogue. Perhaps *Gibbula incon-spicua* of Hutton, p. 102.

106. *Emarginula candida*, A. Adams—Add.

Emarginula tenui-costata—Add.

Tugalia ossea—Add.

107. *Tectura pileopsis*—Add.

Tectura fragilis—Add.

110. *Patella stellaris*—Add. Like one named *corticata* in Dunedin Museum, but not quite.

113. *Lepidopleurus crocinus*, Reeve—Add. This is probably *L. empleurus*, Hutton.

118. *Ischnochiton antiquus*, Reeve—Add.

121. *Haminea zealandiæ* and *obesa* are the same.

136. *Anatina tasmanica* is *A. angasii*.

143. *Tellina disculus* is not the same as *sublenticularis* of Sowerby.

159. *Cardita zealandica* is the same as *compressa* of Reeve.

167. *Mytilus edulis* is neither *edulis* nor *dunkeri* of Reeve.

171. *Pecten vellicatus*, Hutton, is the same as *convexus*, Q and G, and *roseapunctatus*, Reeve.

Adamsia typica—Add.

ART. XXIV.—*Additions to the New Zealand* Crustacea.

By CHARLES CHILTON, B.A.

[*Read before the Philosophical Institute of Canterbury*, 13*th October*, 1881.]

Plate VIII.

THIS paper contains the descriptions of three new species of *Crustacea*, two belonging to the *Brachyura* and one to the *Isopoda*. I also describe the male of a species of *Amphipoda*, the female only having been hitherto known.

BRACHYURA.

Genus **Hymenicus**, Dana.

(Miers' Cat. N.Z. Crustacea, p. 50.)

Hymenicus marmoratus, sp. nov. Plate VIII., fig. 1.

Carapace smooth, naked and flat; sub-triangular with the sides arched, about as broad as long; front projecting and trilobate. Antero-lateral margin with two teeth, the posterior one sharp, long, and very distinct, the anterior one short and blunt. Abdomen of male sub-triangular, first segment broadest and more or less rectangular, penultimate segment narrower than the preceding, the last segment sub-triangular, rounded at the apex. Anterior legs rather large and swollen; tarsi of the remaining legs somewhat densely haired, the other joints being sparsely haired. Colour—variously marked with white and reddish-brown. Length ·25in.

Hab. Common amongst sea-weed in rock-pools in Lyttelton Harbour.

Though common at Lyttelton Harbour this crab does not appear to have been hitherto described. It is closely allied to *Hymenicus varius*, but differs in the shape of the carapace, in having the two teeth on the antero-lateral margin well marked, and also in colour.

Genus **Elamena**, M.-Edwards.

(Miers' Cat. N.Z. Crustacea, page 52).

Elamena (?) lacustris, sp. nov.

Carapace nearly circular, rather broader than long. Rostrum broad, strongly depressed, concave above, sides parallel, obtusely pointed at the end. Antero-lateral margin of the carapace with two nearly obsolete teeth. Last pair of legs much shorter than the preceding. Colour (in spirit)—carapace brown, legs yellowish, spotted with brown. Breadth ·15in.

Hab. Lake Pupuke *(fresh water)*, North Shore, Auckland.

This species is remarkable from the fact that it is an inhabitant of fresh water.

I am somewhat doubtful about referring it to *Elamena*, as I have only seen a single specimen, a female.

Professor Hutton kindly handed over this and the preceding species to me for description.

Types of both have been lodged in the Canterbury Museum.

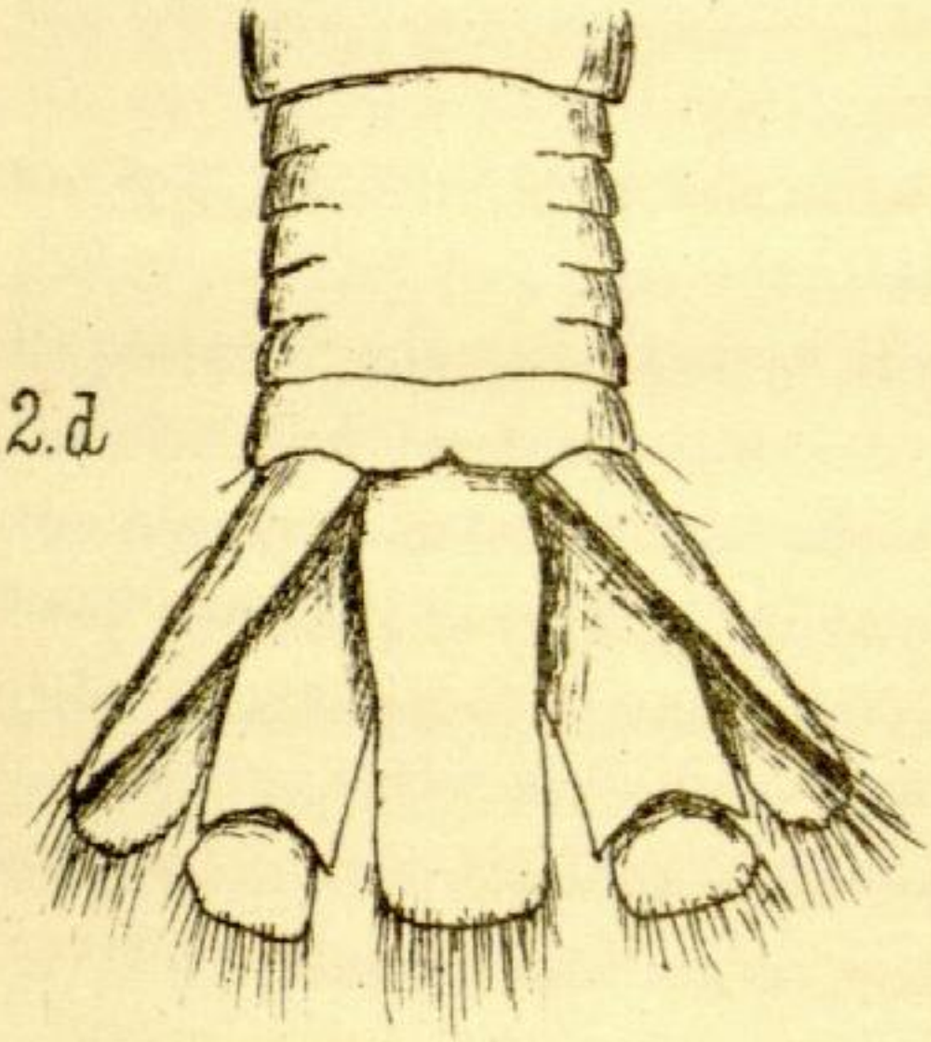
ISOPODA.

Genus **Anthura**, Leach.

(Bate's and Westwood's Brit. Sessile-eyed Crust., vol. ii., p. 157.)

Anthura (?) flagellata, sp. nov. Plate VIII., fig. 2.

Body long, slender, sub-cylindrical, thoracic segments sub-equal. Antennæ near equal, the inner one with a distinct flagellum. First three pairs of thoracic legs sub-chelate, the first pair being considerably larger than the



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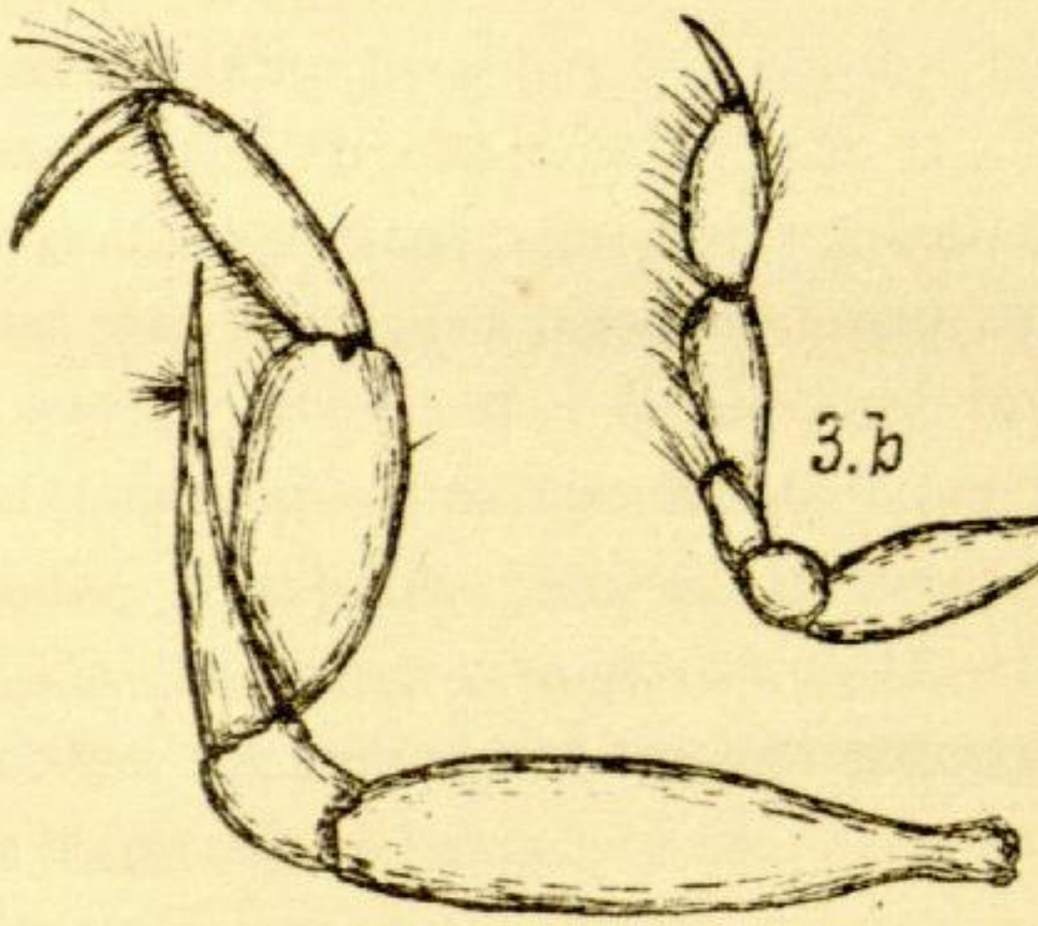

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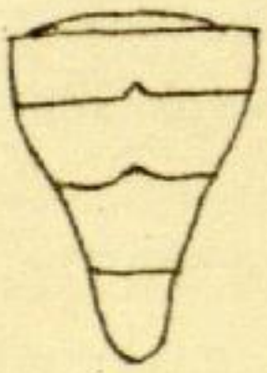

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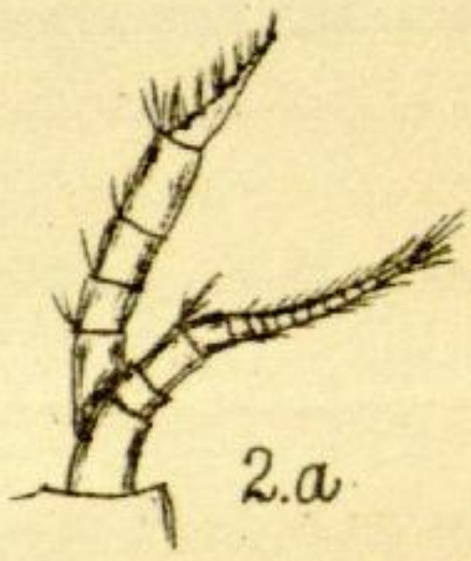

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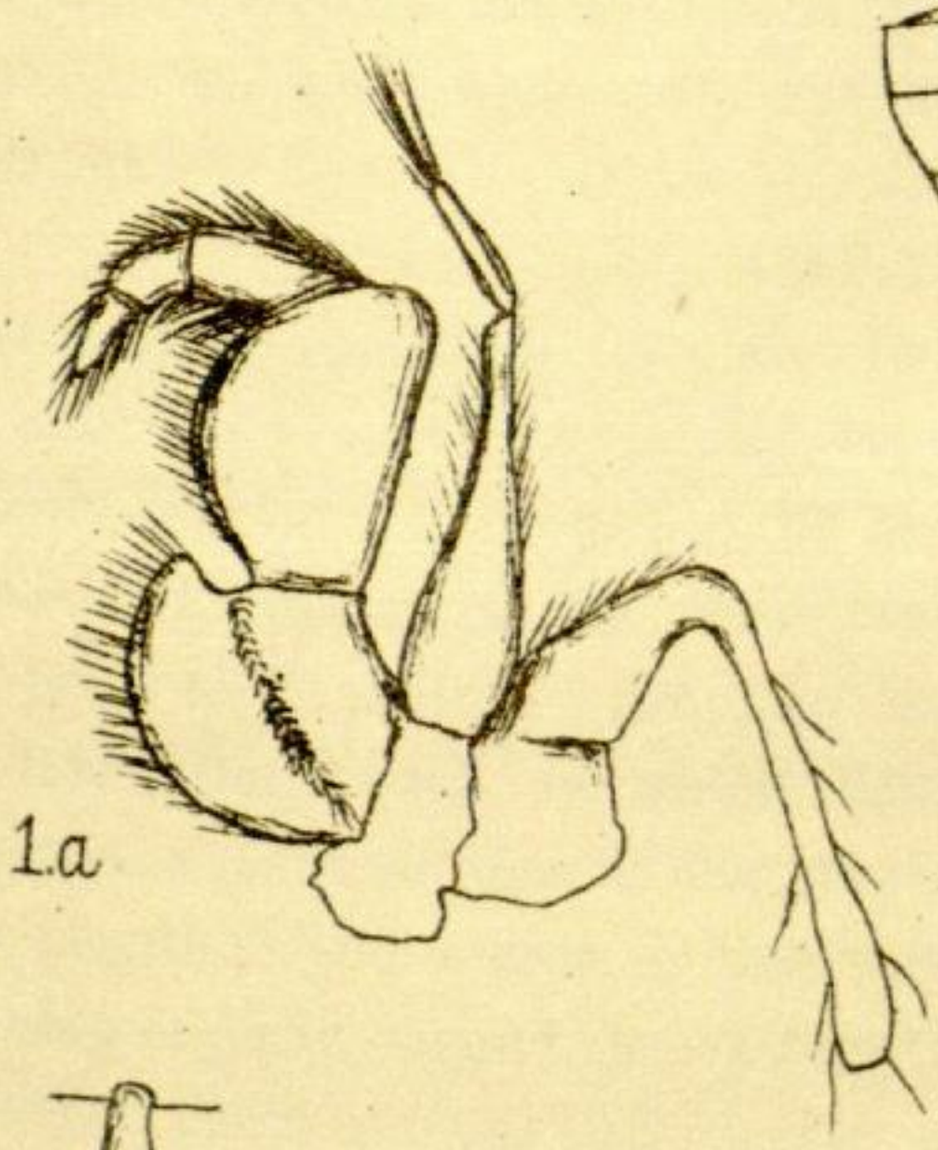

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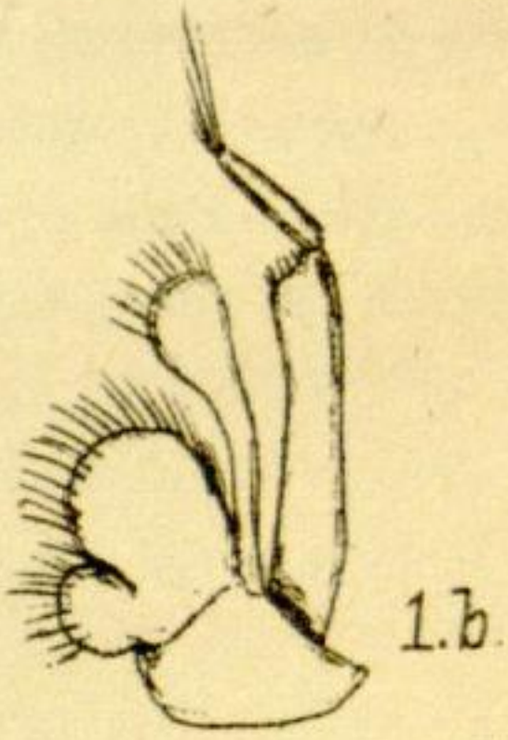

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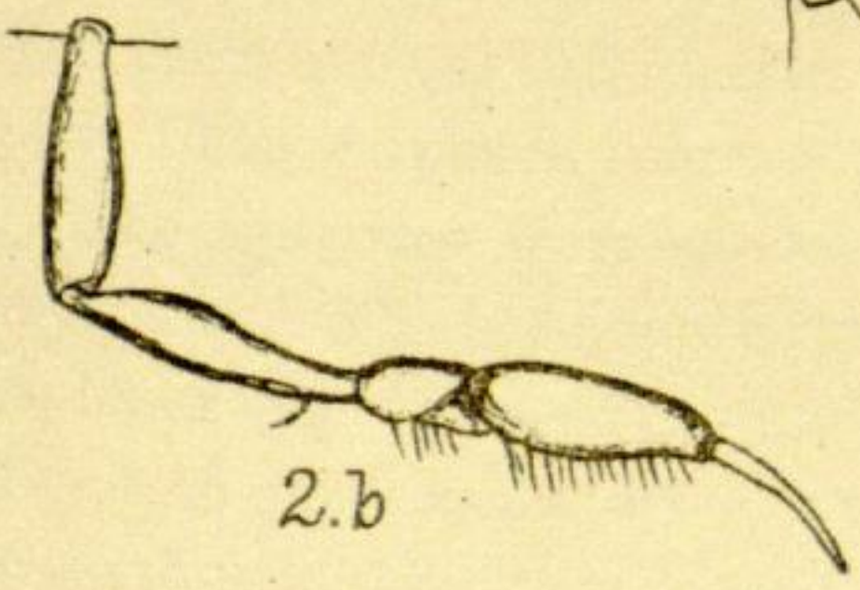

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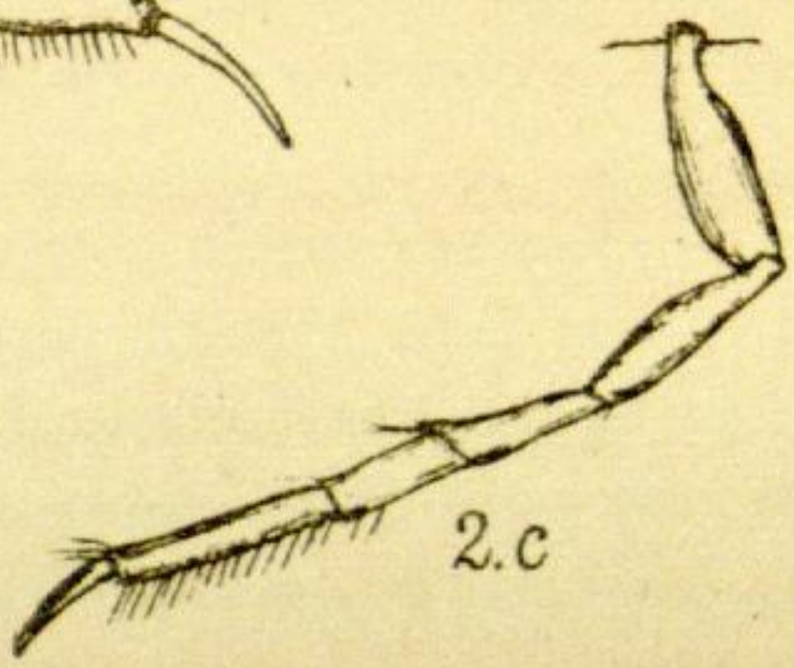

2.c

C.C. del.

New Zealand CRUSTACEA.

two following, and having the hand stout and ovate, and the finger long and curved; the second and third pairs similar in shape and equal in size; the four posterior pairs are all nearly equal to one another, and are non-chelate. First five abdominal segments confluent; the last segment has its posterior edge notched at the centre. Its appendages are broad, operculiform, and biramous, the inner branch formed of a single joint, broad and concave, enclosing the other branch, which has two broad joints, the basal one being much longer than the terminal joint. The terminal segment (telson) squamiform, rectangular, with the posterior angles rounded. The posterior edges of the telson and of the appendages of the last abdominal segment are fringed with numerous long setæ. Length, ·3 in.

Hab. Among seaweed in rock-pools, Lyttelton Harbour.

This species differs from *Anthura* in that the first five (instead of four) abdominal segments are confluent and that the inner antenna has a distinct flagellum, but as I have only a single specimen I have not made a new genus for it.

AMPHIPODA.

Microdentopus maculatus, G. M. Thomson (Ann. & Mag. N.H., ser. v., vol. iv., p. 331).

This species was described by Mr. Thomson, from a single specimen, a female. It appears to be moderately common amongst seaweed in the rock-pools at Lyttelton. Amongst some specimens answering very well to his description I took one which also agreed with that description in every particular except as regards the gnathopoda. These (plate VIII., fig. 3) are very peculiar, the meros is produced inferiorly into a long acute spine reaching slightly beyond the extremity of the succeeding joint, the carpus; this spine bears a small tuft of setæ about one-third of its length from its extremity. The carpus is large, and is rather more than twice as long as broad. The propodos is much smaller; its inner edge is fringed with numerous setæ. The last joint forms a strong finger slightly curved at the end, its inner edge is smooth; numerous long setæ arise at its base. The second pair of gnathopoda are of more normal shape, the meros not being produced into a spine.

The first pair of gnathopoda closely resemble those of *Aora gracilis* and *Aora typica*,* though slightly different from both of them. Mr. Thomson has taken *Aora typica* in Dunedin Harbour, and he speaks† of its resemblance to *Microdentopus maculatus*, and hints that they may possibly be male and female of the same species. The animal I have, though distinct

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* "Brit. Mus. Cat. Amphip. Crust.," pp. 160–2, pl. xxix., figs. 7 and 8.

† "Trans. N.Z. Inst.," vol. xiii., p. 218.

from *Aora typica*, is, however, so very like *Microdentopus maculatus* in every part except the gnathopoda that I have little doubt that it, and not *Aora typica*, is really the male. This is also confirmed by the fact that the two were found together.

DESCRIPTION OF PLATE VIII.

Fig. 1. *Hymenicus marmoratus.*
- a. Third (external) maxillipede × 22.
- b. Second maxillipede × 22.
- c. Abdomen of male × 5.

Fig. 2. *Anthura (?) flagellata.*
- a. Antennæ × 22.
- b. Third thoracic leg × 22.
- c. Sixth thoracic leg × 22.
- d. Abdomen and telson × 22.

Fig. 3. *Microdentopus maculatus.*
- a. First gnathopod of male × 22.
- b. Second gnathopod of male × 22.

Art. XXV.—*On some Subterranean* Crustacea. By Charles Chilton, B.A.

[*Read before the Philosophical Institute of Canterbury, 3rd November*, 1881.]

Plates IX. and X.

The existence of blind Amphipodous Crustacea in wells and caves of England and Europe, has been long known; in this paper I record the existence of similar animals in New Zealand. The Crustacea which form the subject of this paper were obtained from a well at Eyreton, about six miles from Kaiapoi, North Canterbury. The well was made about seventeen years ago, it is not more than twenty-five feet deep, and it is fitted with a common suction pump, through the medium of which these interesting animals were obtained.

From this well I got three species of Amphipoda and one of Isopoda. In none of these have I seen any trace of eyes, though I have examined living as well as preserved specimens. The most interesting species is the Isopod; the only other blind Isopod inhabiting wells or caves that I know of is the genus *Cæcidotea*, a species of which is found in the Mammoth Cave of Kentucky, and another in the Wyandotte Cave.*

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* See "Nature," 1872, pp. 11, 445, and 484.