

it will be seen that the river, when within eight chains of the coast, turns almost at right angles and runs parallel with the coast for about 40 chains before joining the sea. On this narrow strip of land, which rises to a height of 330 feet above the sea, a most picturesque, and what must have been an almost impregnable, *pa* stands, having a perpendicular rock face towards the sea, and a very steep slope inland towards the river. From this fact, and the one that the only dry flat on the island is there, it is reasonable to suppose that it was a favourite camping-ground of the Natives, and that much feasting must at times have been indulged in. Therefore, I think we may conclude that these bones, associated as they were with those of the Seal, formed, with them, in all probability, the remains of a repast.

The most interesting question to decide is whether the bird was found on the island, or taken there, and it is one upon which I cannot venture to express an opinion; but, from the very precipitous, broken, and rocky nature of the island, coupled with the fact that it must, at the time of the Moa, have been almost entirely covered with dense forest, I am inclined to think that if it existed there at all, the Moa would have considerable difficulty in travelling, and would be compelled to come down on to the beaches for a "constitutional," where it would easily be captured by a Moa-hunter.

In conclusion, I may mention that Mr. Malcolm, who found these bones, is of opinion that they are not as large as those found by Mr. Martin's party. If this is so, it is obvious that more than one Moa was eaten there; and should remains be found at different parts of the island, there will be some foundation for the belief that the bird existed there.

ART. XXV.—*On a New Species of Alpheus.*

By T. W. KIRK.

[Read before the Wellington Philosophical Society, 18th February, 1887.]

Plate VI^d.

ALPHEUS HALESII.

Carapace smooth, long, somewhat compressed, one and a half times as long as broad, the portions over the eyes very prominently arched; rostrum small, extending back beyond the base of the eye arch; total length one-fourth that of carapace.

Internal antennæ, second joint twice the length of the first; the basal scale terminates in an acute point.

External antennæ, basal scale stout, larger than the peduncle, very thick on outer edge, curved outwards, terminating in sharp point.

Large hand, sometimes right, sometimes left; three-fourths the length of the animal (from tip of rostrum to end of telson); quadrate, superior inner angle keeled, with a line of hairs on the anterior two-thirds of the length; outer angle also keeled, but not so prominently, no hairs. A very pronounced keel runs down the centre of the back (outer face) of hand, terminating in a swelling at the insertion of the mobile finger. Inferior outer angle keeled but hairless, keel does not reach to the base of the immobile finger. Inferior inner angle not keeled, but with a row of stout hairs running the whole length, and continued on to the immobile finger, a line of minute tubercles at the base of these hairs.

Immobile finger stout, with strong and curved claw, rather swollen in the middle, with five or six bristles at equal distances along the outer margin, but inside the line of hairs mentioned as running along the inferior margin of hand. On the inner margin of this finger, and about the centre, is a deep oval pit, on the posterior margin of which is a bunch of stout hairs. A pair of stout hairs placed just at the curve of the claw.

Mobile finger stout, compressed, with a large oval tubercle corresponding with and fitting into the pit on the immobile finger; upper edge sharp, a line of hairs along the margin; closes well within the curved hook of the other finger.

Wrist short, swollen, anterior edge sharp but not toothed; a short stout spine, directed backwards, at the inner and outer posterior margins.

Arm triangular; superior angle with a stout spine directed forwards, situate one-fourth of the distance from the anterior margin, with a few stout hairs in front and behind. Internal margin terminates anteriorly in a spine, with a tubercle close above its base; four stout spines placed at equal distances along the margin behind, the spines being flanked by a line of hairs; external margin sharp and very finely serrated along the entire length.

Smaller hand, fingers long, curved, hairy, meeting at the tips, but not touching at any other part of their margins. Wrist of second pair of legs with first joint longest. Terminal joint of other legs flattened for swimming and shaped like a spear-head.

Size of largest Specimen.

	Inches.
From tip of rostrum to end of telson	... $1\frac{7}{20}$
Length of carapace	... $\frac{9}{20}$
Greatest width of carapace	... $\frac{5}{20}$
Length of largest hand (inclusive of fingers)	1·0
Width " "	... $\frac{5}{20}$
Thickness " "	... $\frac{3}{20}$
Length of immobile finger	... $\frac{4}{20}$
" mobile "	... $\frac{3}{20}$

Locality: East Coast of Wellington Province.

This species approaches *A. rubrum*, from Europe. It is named in honour of Mr. Hales, on the coast of whose sheep-run it was obtained.

DESCRIPTION OF PLATE VI.

Fig. 1. Animal, showing inside of large hand.

Fig. 2. Back of large hand, showing keel, etc.

ART. XXVI.—Notes on some Foraminifera, from the Hauraki Gulf.

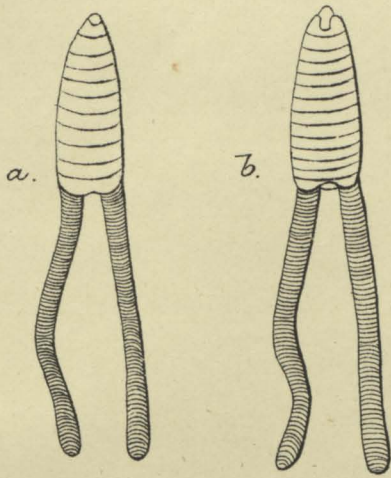
By DR. RUDOLPH HÆUSLER.

[Read before the Auckland Institute, 21st February, 1887.]

DURING my first visit to Auckland, I took the opportunity of collecting and examining large quantities of sand and mud along the shores of the Hauraki Gulf, which proved to be very rich in *Foraminifera* and other minute organisms. The material was taken at low water in creeks and pools, and on the sandy beaches, and washed in the ordinary simple way, by which a fairly pure residuum of *Foraminifera*, *Diatoms*, *Crustaceans*, *Polyzoa*, etc., was obtained.

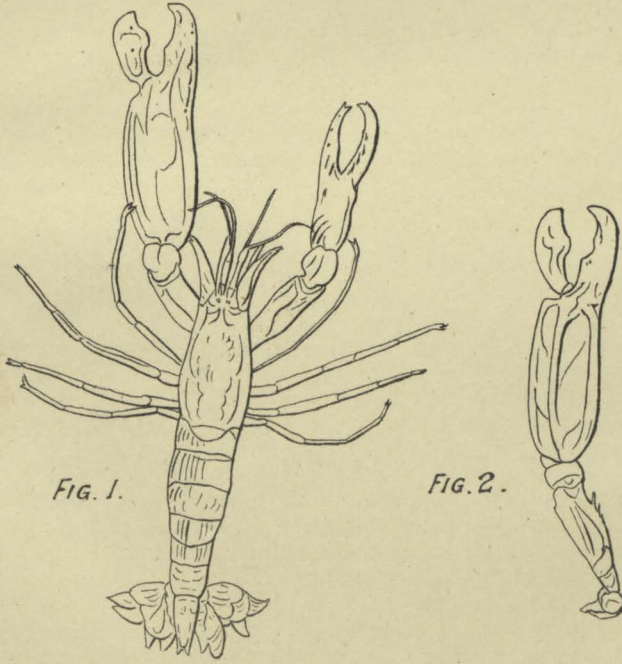
After my return from the King Country, I hope to be able to devote some time to the study of the *Rhizopoda*, and to give a detailed description of the numerous varieties, with illustrations of the principal types, a list of synonyms, and tables of geological and geographical distribution. In this short paper, I merely intend to give a general idea of the rhizopodal fauna from the littoral zone, and a list of species or types. The slides containing the enumerated forms will be left at the Auckland Museum.

The general appearance of these washings remains very uniform. The characteristic features are the extraordinary abundance of the porcellaneous and some of the higher vitreous types, the scarcity of arenaceous and the lower vitreous forms. The *Miliolida* form over 90 per cent. of the whole fauna, as in various other shore-gatherings from the northern seas. The only new varieties belong, as far as I can judge, to this extensive group, but it is not unlikely that other forms new to science will be found after further researches, especially in the shallow creeks facing the open sea. With the exception of these varieties, all the species found near Auckland occur in the same bathymetrical zone of almost every latitude,



I.W.K. del.

—PLATE VI^p A DOUBLE WORM.—



—PLATE VI^p ALPHEUS HALESII.—
From a Photograph.
To illustrate Papers by I.W.Kirk.