

judging went, it certainly was a fair specimen. On showing it, however, to Mr. Larkworthy, Manager of the Bank of New Zealand, he expressed a decided opinion that this sample was far under the average quality of the hemp that fetched the highest price. At my request he then submitted this sample to two reliable fibre brokers in the city for valuation, and I have just now received a letter from him to the effect that they report it worth not less than £36 a ton in the present state of this market.

I mention this because it is important that you should know the exact value of the fibre in this condition of preparation.

(No. 217.)—Dr. HECTOR to Mr. W. L. BULLER, London.—8th June, 1872.

I have the honor to acknowledge your letters of 28th March, reporting on the bale of *Phormium* prepared by the Cape Egmont Flax Company.

The opinions expressed by the brokers are very satisfactory and encouraging, and will, no doubt, stimulate manufacturers to produce a superior article.

Your letters of 7th March, respecting a new method of preparation of the fibre by Messrs. T. and C. Nichols, and of 28th March, enclosing sample of the *Phormium* that fetched the highest price in the London market, are also to hand. The latter is put on exhibition in the Colonial Museum, that exporters and manufacturers may have an opportunity of seeing the quality of fibre required. With regard to the former letter (7th March), I shall be glad to receive any further information on the subject of the invention of Messrs. Nichols. The samples forwarded appear very fair, but a little harsh. It is not possible however, to judge of the probable success of the process while I have so little information respecting it.

Messrs. Bennett, of 8, St. Mary-at-Hill, City, have requested samples of raw *Phormium*, which I will be obliged by your forwarding to them on application.

(No. 190.)—Mr. MORRISON to Dr. HECTOR.—1st September, 1871.

Adverting to my letters (No. 230, 29th June, 1871, and 267, 27th July, 1871) having reference to the preparation of *Phormium tenax* by Mr. C. Thorne, of 16, Mark Lane, I have the honor, in continuation thereof, to transmit herewith a specimen of cloth which has been manufactured from a mixture of *Phormium tenax*, prepared by Mr. Thorne, and the best Riga flax, in the proportion of 25lbs. of the former to 75lbs. of the latter.

(No. 228.)—The AGENT-GENERAL to Dr. HECTOR.—14th December, 1871.

I have the honor to transmit herewith copies of letters, dated as per margin,* which have been received from Mr. C. Thorne, of Mark Lane, respecting the *Phormium tenax*, and I beg to inform you that the samples of yarn, cloth, &c., therein referred to are forwarded per sample post by this mail to your address.†

16, Mark Lane, E.C.,
London, 30th September, 1871.

DEAR SIR,—

Agreeably to my promise, I now send you a few samples, which will probably prove interesting to your friends in New Zealand. On the 7th June last I handed you a sample of the fibre extracted from dry leaves of the *Phormium tenax* imported from New Zealand, and I then explained to you that, owing to the gum in the fibre being dry and very hard, I could not thoroughly redissolve it, yet I had succeeded in rendering the fibre sufficiently soft and fine to adapt it for spinning purposes. The samples herewith form part of the same batch of fibre from which the samples referred to were taken, so you will be enabled by this means to follow my progress.

No. 1 is a skein of bleached yarn made from pure New Zealand flax. You will observe the gummy matter remaining on the fibre has retained portions of the straw, hence the appearance of the yellow marks.

No. 2 is a skein of unbleached mixed yarn, made from 75 per cent. of Riga flax and 25 per cent. of New Zealand flax. This has been subjected, since spinning, to the process known as "twice boiled," to render it better adapted for weaving. This is thought especially well of by the manufacturer, as the New Zealand flax has increased the strength of the cloth without in any way altering its general appearance.

No. 3 is a skein of mixed yarn as above, only subjected to a "full bleach" instead of being "twice boiled."

No. 4 is a piece of cloth made from unbleached yarn of pure New Zealand flax. This was the first attempt made by my friends in using New Zealand flax. They told me I ought not to show this specimen, as, in making it, they were really only feeling their way, and finding out the treatment this fibre required. Nearly all fibres have some peculiarity, which makes it necessary to adapt machinery for their special treatment. This cloth was woven in a "jute" loom.

No. 5 is a piece of cloth made from bleached yarn of pure New Zealand flax. See sample No. 1. Although an improvement on No. 4, it is far from perfect.

No. 6 is a piece of cloth made from unbleached mixed yarn. See sample No. 2.

No. 7 is a piece of cloth made from bleached mixed yarn. See sample No. 3.

No. 8 is a sample of fibre extracted from leaves of the *Phormium tenax* grown in the gardens of the Earl of Shannon, at Castle Martyr, Ireland. These leaves were kindly forwarded to me in the

* 30th September, 1871; 17th October, 1871; 27th November, 1871; 11th December, 1871.

† The samples mentioned have been placed in the Colonial Museum.