

Appendix IV.

16, Mark Lane, London, E.C.,
26th April, 1872.

MY DEAR SIR,—

Yours of this date relative to New Zealand *Phormium* I have duly received.

I am satisfied that the fibre can be adapted to textile fabrics, notwithstanding that the various analytical reports on the formation of the fibre are calculated to suggest a contrary result. The first difficulty is to *prepare the fibre*, and render it fit for spinning, and the next difficulty is to find an enterprising manufacturer willing to operate upon it. Both these I have overcome; for, after preparing the fibre in England from the dry leaf as imported, I succeeded in obtaining the assistance of Messrs. E. Parker and Co., of Dundee, and Mr. Alexander K. Forbes, of Arbroath; and by their valuable aid, the fibre prepared by me was spun into yarn and manufactured into cloth, samples of which, as you are aware, have been duly forwarded to New Zealand.

Since then Mr. Forbes has spun up for me a further quantity of fibre into various sized yarns, from which sacking, coarse sheeting, and canvas have been manufactured. These articles are usually made from Italian hemp, Russian flax, and similar fibres. Still there are many *prejudices* to be overcome before the advantages of using *Phormium* fibre will be believed in. With perseverance on the part of importers, and a regular supply of fine, soft fibre, the desired result may be obtained, and the *Phormium* fibre will eventually be as freely taken as those fibres now in general use. It will necessarily be a work of time, for many manufacturers are unwilling to believe that the fibre can be adapted to their uses, and are too bigoted to give it a trial. Even practical proofs fail to convince them, for when articles *manufactured from this fibre* are shown to them they express their doubts as to the correctness of the statement, and offer their own opinion that the fabric is composed of Italian hemp, and *not* of New Zealand flax. Fortunately there are happy exceptions to these "disbelievers in any thing they do not understand," as may be seen from the success which attended the exertions of the friends before named.

I have now some fibre in the hands of an eminent firm of spinners, at Belfast, but until success has crowned their efforts, I do not think it right to mention their names. My fibre, having been entirely prepared from the *dry* imported leaf, it is not so soft or freed so effectually from the gum, as if it had been taken direct from the growing plant, and my friends write me that it is too coarse to make a fine yarn, but they do *not* express any doubt as to their being able to spin it, or to its adaptability for textile fabrics. From their report I am led to hope they will be able to give me their attention shortly, and that I shall receive the cloth within a month or so. Before this mail leaves I expect Dr. Featherson will be in possession of the sheeting which Mr. Forbes has had made for him from the Native-dressed flax. If Dr. Featherson had been in possession of a further quantity of from 3cwt. to 4cwt. of Native-dressed flax, I think I could have persuaded my Belfast friends to give it a trial.

My *practical* spinning and weaving friends express themselves as fully satisfied from the uses to which they have been able to apply the fibre worked up for me, that the New Zealand *Phormium*, if better, or equally as well prepared, would prove very useful to them for mixing with other fibres, and would give strength to the fabrics, my experiments having been on a sufficiently large scale to enable them to form a decided opinion. I am especially indebted to Mr. Forbes for the very great interest and trouble he has taken in giving the fibre a practical and careful trial. I write to him by to-night's post to ask him if he has time to write his views on the fibre. Should he do so I will send them to you.

Yours very truly,

C. THORNE.

W. Buller, Esq.,
7, Westminster Chambers.

Appendix V.

6, Mincing Lane, London, E.C.,
30th April, 1872.

DEAR SIR,—

We send you to-day, as requested, sample of flax in a condition which it ought *not* to be shipped. It is worth £28 per ton, as there is rather a scarcity of unclean hemp at present, and the price sells it; but we could not guarantee even to find a market in normal times for such hemp.

We are, &c.,

WHITE, BINNIE, & Co.

W. L. Buller, Esq.,
7, Westminster Chambers.

(No. 707).—MR. W. L. BULLER to DR. HECTOR.—30th May, 1872.

I do myself the honor to forward by sample post to-day to your address—1. A sample of sacking, manufactured from the tow of the New Zealand *Phormium*. 2. A sample of Scotch sheeting made from pure New Zealand hemp, machine-dressed.

By next P. and O. mail steamer from Southampton (on the 6th June) I purpose sending you two bolts of sacking or rough canvas (both single and double warp), for the purpose of showing to what practical purposes the coarse fibre and refuse tow might be applied in the Colony.

The proposal to establish a manufactory for this sort of material in New Zealand has already been mooted among capitalists here interested in the Colony. It is believed that this kind of sacking would be found very suitable for woolpacks, and for other colonial purposes.

I have also to inform you that I have arranged to have a portion of the bale of Cape Egmont Company's flax (ex 'Halcione') made up into cordage of various kinds for the International Exhibition. Samples of the sheeting and other textile fabrics manufactured from pure New Zealand *Phormium* will also be exhibited.