REPORT

FROM

THE NEW ZEALAND COMMISSIONERS

RELATIVE TO THE MANUFACTURE OF

NEW ZEALAND FLAX.

PRESENTED TO BOTH HOUSES OF THE GENERAL ASSEMBLY, BY COMMAND OF HIS EXCELLENCY.

WELLINGTON.

1870.

REPORT FROM THE NEW ZEALAND COMMISSIONERS RELATIVE TO THE MANUFACTURE OF NEW ZEALAND FLAX.

The Hon. F. D. Bell and Hon. I. E. Featherston to the Hon. the Colonial Secretary.

(No. 34.)

Sir,— London, 14th July, 1870.

Adverting to the serious embarrassments which must have been caused in the Colony by the doubts which recent prices for New Zealand Flax seemed to have caused as to its value, we considered it would be advantageous to visit the manufacturing districts where flax is used, and obtain the best information in our power in connection with this material.

We have now the honor to enclose a report prepared by our Secretary, Mr. Knowles, which embodies fully the result of the inquiries which were made during the visit to the districts in question.

We have, &c.,

F. D. Bell,

I. E. Featherston,

The Hon. William Gisborne, &c., &c. Commissioners.

Gentlemen,— London, 14th July, 1870.

In compliance with your suggestion, Dr. Featherston and myself recently made a tour through the manufacturing districts of England and Scotland, with a view to obtain such practical information relative to New Zealand Flax as might be of service to the colonists in its preparation and export. We visited Liverpool, Manchester, Rochdale, Leeds, Glasgow, Greenock, Edinburgh, Pennicuik, Leith, Kirkcaldy, Dundee, and Arbroath, and waited on several of the principal ropemakers, manufacturers, and spinners in those towns, taking with us samples of the flax as prepared by the colonists and Natives respectively.

We found amongst all classes a more or less practical acquaintance with the flax as ordinarily dressed, and amongst the manufacturers and spinners a general impression that it was not adapted, from what appeared to them to be the nature of its fibre, for any spinning purposes whatever; an impression which it will be seen presently has been in great measure removed.

The information obtained from the largest ropemaking firms in the kingdom, proves that the high price given for New Zealand flax last year was not on account of its known intrinsic value, but in the belief that it would be serviceable as a substitute for Manilla. Owing to the destruction of a large portion of the Manilla crop by hurricanes two years ago, the supply has been and still is so limited, that any article that would work up with it or take its place was eagerly sought after, and still continues to receive a trial. Unfortunately the great bulk of the New Zealand flax in the English market is of an inferior description, dull in colour, harsh and coarse in fibre, and very imperfectly freed from the leaf; whereas the quality preferred by ropemakers is that which most approaches Manilla,—a bright pale colour, soft and fine to the touch, and entirely free from scurf. The samples answering best to the description required (so far as we have seen) appear to come from Auckland; but in the best of them there is so much of the straw, leaf, or scurf, as it is variously termed, still adhering to the fibre, as to reduce its value considerably. The machinery employed to dress the flax in the Colony is evidently defective when it comes to the tapering end of the leaf; and it would be much better to cut six or eight inches off the end than otherwise so materially depreciate the value of the whole as is now the case. On this point the testimony was unanimous. The slightest portion of straw considerably lessens the value of the entire bale.

The first parcels that were bought by some of the ropemakers were of a very inferior description, and not answering to expectation a prejudice was created against New Zealand flax, which time and the better samples that are now coming forward will alone overcome. The strength of the rope was found to be much less than Manilla; and as it rotted more quickly when exposed to the wet of the deck, it was condemned by the Atlantic steamers first using it. It has been in use, however, for running rigging by sailing ships, and up to this date the reports have been uniformly favourable. Many of the American ships sailing out of Liverpool have for some time past taken a ton or two; and as the Americans universally prefer white ropes to brown, they will probably become large consumers if they continue to find it answer. This probability will be at once evident, when it is mentioned that the annual consumption of Manilla in America is, in round numbers, 15,000 tons, against only 5,000 tons in the United Kingdom. Already some 800 bales of New Zealand flax have been reshipped to North America, but with what result we have not yet been able to learn.

It is estimated that seven-eighths of the best samples of New Zealand flax sold have been used to mix with Manilla, not altogether surreptitiously, but in many cases to order, and as producing a cheaper rope, strong and durable enough for certain purposes. This latter has given satisfaction. We saw some good New Zealand rope at Liverpool, such as is supplied to the American ships; but at Glasgow we had the opportunity of inspecting a stock of very superior description, not greatly inferior to Manilla in its bright colour and glossy appearance. The general opinion is, that New Zealand flax, properly dressed, will find a good market for making a serviceable cheap rope, saleable at a price certainly not below £37, its present quotation, Russian being now £46, and Manilla £66. Provided the supply of flax be of the quality above mentioned, the large ropemakers of the North, (who are using it as an established article of their trade, and are therefore better able to judge of its qualities than

those who speak only by report, or after a single ineffectual trial,) think that the colonists may calculate on a large sale at from £30 to £35; but it must be free from straw. The longer the flax is, the better. The hanks or "strikes" in each bale should be all of the same length, and the bale marked accordingly.

Attention to such matters greatly facilitates the sale, especially as regards an article against which a prejudice has been created by large shipments of an inferior sort.

The cost of New Zealand flax places it entirely beyond the reach of paper makers, who to a large extent depend on the refuse of other trades. Esparto grass from Spain, which, although scarce, can be bought here at £8 a ton, is now most extensively used in the manufacture of newspaper and book papers; and although New Zealand flax would be useful for giving it strength as a better class paper, and for producing good papers by itself, yet the price would be such as could never pay the colonists to export. There is a wood pulp imported from Germany, and New Zealand flax or tow might probably pay if reduced to pulp and shipped in blocks at a low freight. Blocks of any size would suit, but they must be pressed free from water, and unbleached. It is difficult to get makers to commit themselves to anticipatory prices, but £18 to £20 is a probable figure. Doubts are however suggested as to the pulp keeping during so long a voyage, and we were advised to recommend that, before shipping to the Home market, parcels should be first sent for experiment to the paper mills at Melbourne.

At Manchester we were glad to learn from a very large house that New Zealand flax was being used by several spinners, but on visiting them we found that they one and all declared its inapplicability in its present state for manufacturing purposes. Here, as at Leeds, Dundee, and other places, every manufacturer we called on knew something of the article, and many had tried it and found it unsuitable for their purpose. They treated the term "flax" as a misnomer, and declared that, so long as it retained its harsh nature and inability to split, it was not adapted for spinning purposes. At Kirkcaldy, Messrs. Lockhart very kindly put a strike through their machinery to convince us of its want of adaptation for spinning, even as a substitute for low-priced jute bagging; and everywhere else we were told, that all the while the fibre broke short off like a stick, as it does as at present prepared, it would prove unfit for their use. We invariably narrated the advice which had been given to the colonists, to ship their flax in a rough state, trusting to British competition and science for bringing it into consumption; and were as invariably assured that the fibre must be softened and cleansed from scurf during its colonial stage, numerous experiments having shown it to be too late to do so after it had reached England.

We should have been considerably disappointed with the immediate future of New Zealand flax if we had only taken with us samples of that prepared by the colonists. We should have had to report that its use was likely to be for some time confined only to rope. But we had fortunately a small sample of flax dressed by the Natives. It was by no means a superior sample, very scurfy and far less silky than much we have seen in the Colony. Every manufacturer seemed struck with it. It completely answered all the objections they had raised to the ordinary samples we had previously shown them. There was but little harshness in it; it was almost as soft as they could wish; and the fibre broke feathery instead of square. They doubted its being the same material, and on our explaining the cause of the difference—that the European dressed the whole leaf, while the Native only dressed one side of it—they expressed their conviction that a market was open for any quantity, at a comparatively high rate. In Lancashire and Yorkshire they did not hesitate to say £60. In Dundee the largest canvas manufacturers named £50, and none, however cautiously inclined, fixed a lower value than £40 a ton. In one word, while the ordinary New Zealand flax was considered useful only for rope, the Native dressed was declared a very acceptable addition by cotton, woollen, jute, and canvas manufacturers, without a single exception. These all however insisted, as the ropemakers did with respect to the ordinary kind, that freedom from scurf was an absolute necessity.

The discrepancy between the uses formerly ascribed to New Zealand flax and that to which the supply now in the market is put is thus explained, the reports of former years being founded on the export, which then wholly consisted of Native-dressed. Upon the latter kind, several of the manufacturers have promised to experiment, if we can supply them with a few cwts.; but at present, although I have searched the London sale-rooms, I cannot find any.

Our attention was frequently drawn to the probable improvement which cultivation would produce, and to the necessity for careful and varied experiments being undertaken in the Colony as to the age at which the leaf matures. The present practice of cutting leaves of all ages indiscriminately, passing them through the mill together, and packing them in the same bale, is a great mistake, the fibres varying in strength at different ages, as is evident to any one who will take the trouble to test them individually in a hank so prepared. Manilla takes three years to come to perfection; and we are told that some hemp lately imported, and made from one year old leaves, was found to be almost useless.

From the foregoing, you will no doubt draw the conclusion that there is no reason for the colonists to be discouraged with New Zealand flax as a profitable article of export. It has at present to contend against a prejudice arising from inferior shipments in the first place, and kept up by the large quantity of the same character still arriving; but if care is taken to prepare only a bright well-cleaned article, it will work into a large and steady consumption, at remunerative rates. Still further, if the colonists will prepare it equal to that dressed by the Natives, there is scarcely any limit to the trade they can establish.

I have, &c.,
JOHN KNOWLES,
Secretary.

The Hon. the Home Commissioners for New Zealand.