



THE AUTHOR.

Our Industries.

PHORMIUM TENAX (New Zealand Hemp).

WRITTEN FOR "PROGRESS" BY JOHN HOLMES.

SWIFT once said: "Whoever could make two ears of corn or two blades of grass grow upon the spot where only one grew before, would deserve better of mankind, and do more essential service to his country than the whole race of politicians put together."

Few questions are of greater importance to the well-being of any country than the development of its natural resources. In New Zealand we have a plant indigenous to the soil growing in the valleys, swamps, and on the hill-tops throughout the length and breadth of this fair land, in great luxuriance, without the slightest attempt at cultivation. Our mineral wealth in gold and coal, our forests of kauri, birch and totara, rimu, white pine and other timbers, all assist to make our national greatness; but in our New Zealand hemp we have an ever-increasing source of wealth, which, properly conserved and cultivated, would represent our richest inheritance. Our forests are giving way to the woodman's axe; our kauri gum is slowly but surely diminishing, and can never be replaced; whereas our native plant known to commerce as New Zealand hemp is always growing, and can by cultivation and planting be largely increased in production.

Sir James Hector in his very excellent and instructive work on *Phormium Tenax* (which should be in the possession of every miller) gives no less than fifty-five different names as applied by the Maoris to the plant; but he adds that it is doubtful if more than twenty marked varieties can be distinguished. It grows in bunches or groups of plants or shoots, each shoot has about five leaves. On the average, ten of these shoots make a bunch, or in all fifty leaves, which vary according to the soil and proximity to running or stagnant water, from 5ft. to 10ft. in length, and each consists of a double-bladed leaf, which when closed is from 2in. to 4in. wide, tapering off from ¼in. thick at the butt, to the substance of strong paper at the top of the leaf. The Maoris prepared and exported this fibre as far back as 1809, and it is on record that between the years 1828 and 1832, although New Zealand was only then visited by whalers and a few traders, upwards of £50,000 worth was sold in Sydney market. At that time native hand-dressed fibre fetched

a very high price in the English market. It is instructive to note at this point that the Maoris were always careful in the selection of leaves, taking only those in which the fibre was properly ripened, instead of cutting over the whole plant indiscriminately and at all seasons as is the present general



ARRIVAL OF GREEN LEAF.

practice of Europeans supplying the mills. In recent years, however, several land owners have refused permission to cut the green blade during the colder months, so as to ensure a more uniform and regular growth, which had hitherto been affected by the frosts when the cutting continued throughout the winter. It is gratifying to know that the Agricultural Department has been, and is at present, experimenting with considerable success with a

view of being able to advise land owners as to the best varieties of *Phormium Tenax* to plant on their estates.

It was not, however, till 1861 that machine-dressed fibre was demanded, owing to the failure of Manila, which afterwards led to an increase in value for our *Phormium* fibre from £21 to £56 per ton, with a further rise to £76 per ton during the Civil War in America. These prices stimulated many pioneers to embark on the preparation of the fibre for export to England. Many settlers who were tempted to invest their capital in the establishment of hemp mills throughout the colony found the competition of Manila, Sisal and other fibres often left them with heavy financial losses, and, as a consequence, the permanent establishment of the industry was greatly retarded. From time to time, extending over a period of twenty-five years, Select Committees of the House of Representatives were set up by every succeeding Government to collect evidence and report upon the best plan to be adopted for the profitable development of the industry.

In 1890 a Select Committee was appointed by the Atkinson Government, which invited merchants, engineers and millers to give evidence. The writer attended, and pressed upon the Committee the great necessity of adopting a compulsory grading system, and the importance of offering £10,000 bonus for

the best system, mechanical or chemical, that would improve the quality of our fibre, reduce the cost of production and utilise the tow, then looked upon as a useless and waste product. On the 26th August, 1890, the Committee brought down their report, embodying, inter alia, the recommendations which I submitted for their consideration, but no definite business measures were adopted. The market prices continued to fall with a corresponding heavy reduction in the volume of export which the following figures testify:—

Year.	Quantity Tons.	Value.
1890 ..	21,158	£381,789
1891 ..	15,809	281,514
1892 ..	12,793	214,542
1893 ..	12,578	219,375
1894 ..	4,677	66,256
1895 ..	1,806	21,040

It will thus be seen that our exports had fallen from 21,158 tons in 1890, valued at £381,789, to 1,806 tons in 1895, valued at £21,040.

Soon after this, a small loyal band of the few remaining millers and traders at Foxton commenced an agitation for further investigation, and after repeated petitions to Parliament the present Government consented to appoint a qualified commercial Commissioner, providing the Chambers of Commerce and Industrial Associations would support the movement. The millers did me the honour of inviting me to undertake the responsible duty of organisation. Having put my hand to the plough I was determined not to look back, and I at once consented to address various meetings throughout New Zealand to advocate the cause of the millers. The task was by no means an easy one, for there were plenty to throw cold water on the movement, and for a time it seemed as though I was leading a forlorn hope, with little chance of victory. The battle began in Foxton, and the phenomenal success of that public meeting encouraged me to continue the campaign, which eventually secured supporters



WASHING FIBRE AFTER IT LEAVES THE STRIPPER.