

Matter extracted therefrom by contact with a 1-per-cent. solution of soda,	
five minutes	7.3
Matter extracted therefrom by contact with same solution, one hour	15.1
Cellulose	69.8
Balance not determined	7.8

100

WM. SKEY, Government Analyst.

MESSRS. MONAHAN and YONNIE, of Temuka, write under date of 30th July, 1890, claiming to have a process whereby the *Phormium tenax* is rendered fit for coarse canvas, parcelling and binder twines, as well as for spinning-ropes; they also claim that the tow from their process is capable of being spun into yarn for use in similar purposes as above.

MR. ALBERT POTTER, of Auckland, under date 30th July, writes calling attention to the process of Mr. E. H. Potter for preparing Phormium fibre, called "Potter's Flax Mucilage Dissociator." The principle of the machine is to take the flax immediately it leaves the strippers and pass it under a pair of wooden stampers, while water is being sprayed on it. The machine is of strong and powerful construction, made in two bays or sections, running parallel, to work separately or conjointly, thereby passing the fibre through from either one or two strippers as fast as it can be stripped. It is of a novel and simple construction, its principal object being to manufacture the fibre soft, white, and flexible. This is accomplished by a main shaft, driven in the usual manner with single belt and pulley, two cams, each acting twice every revolution upon revolving discs that lift coupled stamper-rods, to which are attached specially-constructed stampers. Upon the stamper-rods are tappits, which set in motion levers and connections that cause an endless band to bring continuously under the stampers the fibre, which receives successive blows, causing it to open longitudinally, thus setting free and disuniting the sap and other substances held in the fibre after being stripped. To prevent the deleterious matters from settling and discolouring the fibre when under operation, small jets of water constantly play in the troughs. The fibre is then rinsed in water, and hung up to dry under cover from the sun's rays, and the usual bleaching is dispensed with, there being only the pure fibre to dry—and five or six days completes the whole operation.

SIR,—

Nelson Street, Auckland, 31st July, 1890.

Having been for many years engaged in the Home flax industry, and having daily experience for the last twelve months in an Auckland flax-mill, and thoroughly understanding the dressing and preparing New Zealand flax for the Home market, may be a sufficient apology for writing you the following observations, which at present may interest you:—

The flax is at present in its wild and natural state, and from analogy it is certain that cultivation and propagation in a suitable soil would improve the quality of it, and get rid of some of the gum or bituminous matter that makes it so difficult to dress.

I have seen nearly if not all the different machines for stripping, and two of the latest inventions are complete failures. One of them proposed putting in the green flax and taking it out dressed ready for sale. Any of the strippers at present in use, if kept in order and properly adjusted, will suit the present growth of flax.

There is a patent taken out (16th January, 1890,) for washing and bleaching, by which process the "oil or fatty matter" is preserved, and the flax made of a more uniform colour, requiring less time and less expense than the present roasting system, and making it adaptable for fabrics.

I have seen here a trial of a new band-scuteher, but it is no better than the old. All these having iron bars or beaters are injurious to the flax, making too much tow by reason of fouling, the top and tail of the flax getting double the scutching of the middle, the part requiring most getting least, and *vice versa*; whereas an arm-scuteher strikes the middle of the handful first lengthwise, not fouling, making less tow, and, having hard wood beaters, improves the flax, also requiring less driving-power. After bleaching, the flax should be packed at full length, 4ft. or 5ft. deep, with some pressure on top, at least a month before scutching.

In baling, if intended for fabrics the bales should be made longer, having only the top and tail of the flax doubled, so as to make the handful of a uniform thickness. There is a very easy way of doing this.

If the Government really wish to encourage the flax industry I would suggest something more tangible than offering a reward to follow after a myth.

There is here in the Domain a plot of land occupied by Chinamen, which could be enlarged to about twenty-five or thirty acres, suitable for growing flax. There is plenty of flax of a superior quality growing close by, which could be raised and planted the same day.

There is here at the freezing-works reclamation the best site in the province for a paying flax-mill. This ground has never been occupied, and there is ample room, mill-site, and bleaching to turn out seven or eight tons per week, and more if necessary. Labour is much cheaper here than at country mills—boys and men 5s. and 10s. per week respectively. Steam-power at a nominal cost, as there are two saw-mills on the allotment. Water-communication from all parts, together with road and rail, and city water at 10d. per thousand gallons. And what could be done can be done in other places, and if the Government take the lead or give a start private enterprise is sure to follow.

The Chairman,

Flax and other Industries Committee, Wellington.

I am, &c.,

JOSEPH FLEMING.

MR. CHINNERY, of Rangiora, writes under date 2nd August, suggesting that all fibre already sold to private parties or firms should be exempt from any inspection whatever.