

the quantity of Manilla imported was 15,273 tons, out of a total of 19,853 tons of roping hemp, being 73 per cent. of the whole.

United States the
best market. The use of such a large proportion of raw material for the manufacture of "white rope" points to America as the market to which New Zealand exporters should especially direct their attention.

Native dressed. A series of 81 samples of fibre, dressed by the Natives, exhibits the quality produced from the better varieties of the plant, as well as from leaves taken at different stages of their growth, illustrating the separate Report on Cultivation and Growth, given in the Appendix, No. IX., page 66. The relative strength of most of these varieties has been ascertained, and it is shown that the various fibres prepared in the same manner differ greatly, ranging from 70 in the *Tarariki* to 122 in *Rataroa*; Manilla being 100. On the other hand, the relative quantities and strength of fibre from the full-grown and immature leaves, taken from the same plant, do not exhibit that difference which might have been expected, for they appear to be nearly equal in these respects, and may therefore be used indiscriminately in manufacturing purposes.

The great superiority of the fibre dressed by the Maoris over all that is prepared by machinery, which even led to doubts being expressed in England as to their having been produced from the same plant (App. p. 19), rendered it desirable that a considerable quantity of the finest and whitest quality should be sent home, for the purpose of ascertaining whether a sufficient price could be obtained to encourage its manufacture. The Commissioners have, however, found it impossible to procure any quantity of this superior quality, though every effort has been made to obtain a few tons.

The Government endeavoured to stimulate the manufacture by offering rewards (App. p. 24) for the best prepared samples, and Natives in all parts of the North Island have been applied to, but with little effect. They have, in some instances, agreed to set to work and get a quantity ready, but have invariably failed to carry out their promises. All that could be obtained was six or seven cwt. from Waikanae, where the Natives had contracted to have half a ton ready for delivery by the 31st January, for which they were to receive a payment of £20, with such further amount as it might be valued at in England. They got tired of the work before it was half finished, then sold some of it to a third party at 1s. per lb., and demanded from the Commissioners 1s. 6d. for the remaining 7 cwt., which, however, was eventually obtained for 1s. per lb. The Commissioners have thought it desirable to append the correspondence on this subject in order to show how little any supply of fibre from the Natives can be depended on. (App. p. 28).

Varieties of the
Phormium plant. Seventeen of the best marked varieties of the *Phormium tenax* are exhibited with their respective names attached; and show that the difference of character which the species is capable of assuming, is to be found chiefly in the colour, especially of the edges and midrib. The seedlings of the same varieties, raised in December last, prove that the rate of growth of the plant in its earlier stages is exceedingly slow, and, as far as can yet be observed, it appears that they do not inherit the peculiar characters of the varieties from which the seed was obtained. This indicates that the only method of perpetuating varieties must be by subdivision of the root. The structure and mode of growth of this root, or rhizome are explained by the sectional specimens and diagrams, which show that each fan forms a true underground stem with fibrous rootlets, which stem, after a growth of several years, with a succession of leaves, bears a flower stalk, and then decays; but also during the period of its growth gives off lateral buds, from which new fans proceed, acquire their own roots, and finally become independent plants, clustering together and forming large bushes such as are unusually seen. In the propagation of the plant, therefore, these lateral fans, as soon as rootlets have been formed, may be removed and transplanted in the same way as tubers, and will be vigorous in proportion to the amount of nutritious matter which has been accumulated in them. Further observation is yet required to determine how far the development of the flower stalk, the increase of the root, and the formation of new fans is affected by the repeated cutting of the leaves for manufacture.

Structure of the
root.

Mode of propa-
gation.