No. 2.

REMARKS by Dr. HECTOR.

THE climate of many parts of New Zealand is very favourable to the growth of the mulberry tree, but except in a few localities the rearing of the silkworms would require to be conducted under cover, as in France and Switzerland.

The chief difficulty experienced in those countries in sericulture, and the only cause of it being impracticable in England, arises from the influence of short uncertain seasons and east winds, which blight the mulberry plants and destroy the leaves just at the time they are required for the caterpillars. In New Zealand this drawback would not exist, and if due attention be paid to planting the mulberry groves in situations sheltered from the summer gales, it is possible, from the evergreen character of the vegetation, that the period during which leaves might be gathered would be greatly prolonged, and admit of a larger supply of silk being reared each season from the same extent of groves than can be done in other countries. On the other hand, too succulent a growth of the leaves is considered to have the effect of enabling the worms to produce a larger quantity but inferior quality of silk.

Mr. Batchelor does not over-estimate the importance to the country of sericulture if once established; and the history of the introduction of this productive industry into Europe shows that it was only after many attempts, and with the aid of the State, that it became permanent. Mulberry trees could be obtained from Sydney of the proper age for planting out, and in about two years would begin to afford a supply of leaves. Planting out groves of these trees is certainly the first thing to be done, and I think the attention of the various Acclimatization Societies should be directed to this subject as offering a field for their utility.

If Government desired to undertake the rearing or distribution of mulberry trees, I have no doubt that a part of the Wellington Botanic Garden Reserve might be planted out as a nursery ground for the purpose; or means might be placed at Mr. Batchelor's disposal to enable him to employ his mulberry grove as a centre from which plants might be distributed.

The trees must be planted in quantity wherever the experiment is to be tried, as otherwise no important results will be obtained. The culture of the mulberry tree is in some countries a separate branch of industry from the rearing of the worms, and affords a very remunerative crop per acre, as it employs simple rural labour at a season when not required for other farm operations.

In France a young mulberry tree is valued at 6d. to 10d., and is planted out when four years old, and yields leaves from its fifth to twentieth year, at the rate of 1 cwt. to 30 cwt., worth 2s. 6d. per cwt.

With regard to the profit of rearing the silkworms, which forms the other branch of the industry, one ounce of eggs of the worms, which cost 2s., requires 15 cwt. of leaves for development, and will produce about £4 to £6 worth of cocoons of raw silk, which represents therefore the gross return from a mulberry tree of average yield, thus:-

It thus appears probable that no other crop yields so large and speedy a return to unskilled labour, and the experience necessary can readily be acquired.

The third stage of silk-producing is the "reeling off" the silk from the cocoons; but so many delicate and expensive improvements have lately been contrived to effect this, and the process requires so much skilled labour, that it will only now pay to carry it on as a business on a large scale, and it is therefore better in the meantime to export the cocoons to the countries where mills are already established.

With regard to the variety of silkworm that should be introduced, this subject will require some consideration, as there is a great difference in the value of ascertained varieties. As Mr. Batchelor has given some attention to the subject, he might be invited to furnish any information he posseses, and also to suggest some practical plan on which Government assistance could be rendered towards establishing sericulture in the Colony.

1st February, 1870.

JAMES HECTOR.

No. 3.

The Hon. W. GISBORNE to Mr. T. C. BATCHELOR.

Colonial Secretary's Office.

SIR,-

Wellington, 8th February, 1870.

In reply to your letter of the 8th ultimo, requesting the assistance of Government towards carrying out your experiments for the introduction of the culture of silk to this Colony, I have the honor to state that Government are anxious to encourage this important branch of industry, but they have no power to expend funds on this subject without the sanction of law.

In order that I may be placed in possession of the fullest information, I shall feel obliged by your forwarding me copies of any papers that have been published in the Colony on the subject, previously to those which you enclose in your letter, and especially if they give an account of the experiments you have already made; and as you have given much attention to the subject, I shall be glad if you will suggest some practical plan on which Government assistance could be rendered towards establishing sericulture in the Colony.

I have, &c.,

W. GISBORNE.