

Cartridge Machinery.—Empty cartridges, of best make, to be imported at 30s. to 65s. per thousand.

Gunpowder Materials.—The cost of materials used in the manufacture of gunpowder is as follows:—Refined saltpetre, about £26 per ton; sulphur, about £13 per ton, at the Thames; charcoal—this would be so cheap in New Zealand that we do not name a price.

With regard to the factories where our machinery is employed, we may mention the Royal Gunpowder Factories at Waltham Abbey, at Ishapore, Madras, and Kirkee, at each of which we are at present erecting a new set of mills. Amongst the private makers in England who employ us are Messrs. Hall, of Faversham; Messrs. Curtis and Harvey, of Hounslow; Messrs. Pigou and Co., of Dartford; Messrs. Sharp, of Guildford; Messrs. Hay, Merricks, and Co., of Edinburgh; and others. We have erected two entire factories in China, for the Government there; and have supplied machinery to several works on the Continent, to all or any of whom we should be pleased to refer you.

In conclusion, we trust that the information we have had the pleasure to furnish to you, though not very voluminous, may be sufficiently so as to enable you to form an opinion on the subject, and, always at your service.

Sir Julius Vogel, Agent-General for New Zealand.

We have, &c.,

JOHN and EDWARD HALL.

Enclosure 2 in No. 3.

The AGENT-GENERAL to Captain CAMPBELL-WALKER.

SIR,—

7, Westminster Chambers, London, S.W., 5th September, 1877.

I have the honor to inform you that I have been instructed by my Government to make inquiries with regard to the establishment of a factory for the manufacture of gunpowder in New Zealand. With this view, I am anxious to know whether any, and, if so, which, of the woods now grown in the colony would be suitable for making charcoal. Colonel Childers, Superintendent of the Madras Powder Factory, with whom I have been in communication on the subject, informs me that you know the wood which is used for gunpowder charcoal in India, and will be able to tell me if suitable wood is to be found in New Zealand in sufficient quantity. I am under the impression that the willow, which is commonly used in this country, is not plentiful enough in the colony. I shall also be glad to learn if there is any wood suitable for making powder-barrels to be found in sufficient quantity in New Zealand. I shall be obliged to you for any information on the whole subject you are able to give me.

Captain Campbell-Walker,
Raleigh Club, Regent Street, S.W.

I have, &c.,

JULIUS VOGEL,
Agent-General for New Zealand.

Enclosure 3 in No. 3.

Captain CAMPBELL-WALKER to the AGENT-GENERAL.

SIR,—

22, King Street, St. James's, London, S.W., 20th September, 1877.

I have the honor to acknowledge receipt of your letter dated the 5th instant, and to inform you that the wood of several species of New Zealand trees would doubtless be found suitable for the manufacture of gunpowder charcoal.

2. In Madras those found best are the *Vitex negundo*, *Capairus indicus*, *Calotropis gigantea*, and *Parkinsonia aculeata*, akin or nearly allied to the New Zealand *Vitex littoralis* (puriri), *Nesodaphne* (tawa and taraire), *Olea apetala*, *lanceolata*, and *cunninghamii* (maire), &c.; besides which I would specify the *Knightia excelsa* (rewarewa), which will, however, I believe, prove eventually too valuable for veneration to be used for charcoal.

3. Experiment alone can determine which are the most suitable descriptions; but I have no doubt that they exist, and in sufficient quantity.

4. I may mention that great improvement and economy in the manufacture of wood charcoal has recently been effected in Madras by the introduction of portable iron kilns, a French patent, I believe, with regard to which I can readily obtain information if required.

5. As to staves for the powder-barrels, I am not certain if any of the New Zealand timbers would prove suitable, and do not like to hazard an opinion without more information than I can at present command. Oak is the description preferred by coopers in this country, but I have little doubt that descriptions equally suitable can be found, if not in New Zealand itself, in one of the neighbouring colonies.

Sir Julius Vogel, K.C.M.G.,
Agent-General for New Zealand.

I have, &c.,

J. CAMPBELL-WALKER,
Captain Staff Corps.

No. 4.

The AGENT-GENERAL to the Hon. the COLONIAL SECRETARY.

SIR,—

7, Westminster Chambers, London, S.W., 11th September, 1878.

I have the honor to inform you that I have forwarded to you a complete set of tracings of a gunpowder factory, which Messrs. J. and E. Hall have had the goodness to furnish me. They may be of assistance to you in considering the former correspondence in reference to the establishment of a powder factory in the colony.